



January 31, 2001

Ms. Bekki Titchner  
Solid Waste/Recycling Coordinator  
Elk County  
300 Center Street  
Ridgway, PA 15853

**Subject:** Studying the Feasibility of Establishing a Curbside Recycling Program in Johnsonburg Borough

Dear Bekki:

This letter is to provide Elk County/Johnsonburg Borough with the results of R.W. Beck's study to evaluate the feasibility of establishing a curbside recycling program for the Borough.

The Borough is not mandated to recycle because its 3,350 population is significantly below the 5,000 threshold in the Municipal Waste Planning, Recycling and Waste Reduction Act (Act 101). However, the characteristics of the Borough, which are good for a curbside program, as well as the County's desire to increase the County's recycling rate, are reasons for considering a program for Johnsonburg Borough.

The Borough/County has requested assistance to look at the feasibility of establishing a curbside recycling program.

## **ESTABLISHING A CURBSIDE RECYCLING PROGRAM IN JOHNSONBURG BOROUGH**

This report is broken down as follows:

- Demographics and materials estimates
- Curbside recycling
- Other recycling options
- Public education
- Enforcement
- Grant funding
- Conclusions and Recommendations

The following issues are considered:

- Approaches to curbside recycling that will maximize the material collected and minimize the efforts of and cost to the municipality.
- Other recycling options

- Public education efforts that will build enthusiasm among residents for recycling and encourage them to recycle.
- Enforcement mechanisms
- Use of Act 101 Section 902 Recycling Program Grants to fund the Borough's recycling efforts.

## DEMOGRAPHICS AND MATERIALS ESTIMATES

Johnsonburg Borough (Borough) is a compact, high density, municipality in central Elk County. The remainder of the County, with the exceptions of Ridgway Borough and St. Mary's Borough, are rural. The U.S. Census population of Johnsonburg Borough was 3,350 in 1990, and the Borough's land area is three square miles, so the population density is approximately 1,113 per square mile. However, much of the Borough is occupied by a plant operated by Willamette Industries, so the population density for residential areas is actually higher. Johnsonburg Borough is exempted from recycling because it is below the population threshold established in Act 101, which requires all municipalities of greater than 10,000, and municipalities greater than 5,000 with population densities of 300 or more per square mile to recycle.

There are, however, features that would make the establishment of a curbside recycling program an attractive option for the Borough. The Borough is compact and has a dense population. It already has an established drop-off recycling program. It also has contracted municipal waste collection, which makes the addition of curbside recycling easier than for a municipality with individual subscription service. The Borough Council is open to the idea of implementing curbside recycling if it can be done reasonably.

Table 1 provides an estimate for residential municipal waste generation in Johnsonburg Borough. It is based on the experience of Ridgway Borough. As noted in the Table, Ridgway's population is close to 4,800, and it generated approximately 3,350 tons of municipal waste in 1998, which includes commercial waste and recyclables. This works out to a generation rate of approximately 0.7 tons per person per year. In Table 1, it is assumed that Johnsonburg's generation would be similar because these two municipalities are in close proximity to each other in Elk County. Based on Ridgway's experience, it is estimated that Johnsonburg generates approximately 2,340 tons of residential waste each year.

Table 2 illustrates the tonnages of recyclable materials that may be available in the Borough, based on the estimated municipal waste generation of 2,340 tons annually. Table 3 provides estimates for diversion of the materials that are most likely to be included in a curbside recycling program at low, medium and high diversion levels. The low figure is based on Ridgway Borough's 1998 recycling rate of approximately 4.4 percent. It is assumed that Johnsonburg Borough should be able to divert a higher rate if it supports the program and implements a comprehensive and sustained public education effort.

The low tonnage projected for a curbside program is already nearly double the drop-off recycling tonnage of 54.89 reported for the Borough for 1999. It should also be noted that

**TABLE 1**  
**WASTE AND RECYCLING DATA FOR RIDGWAY AND JOHNSONBURG BOROUGH**

<b>Municipality</b>	<b>Population (1)</b>	<b>Waste Generation (2)</b>
Ridgway Borough	4,793	3,348
Johnsonburg Borough	3,350	2,340

(1) 1990 Census

(2) Ridgway is based on experience; Johnsonburg estimate based on Ridgway experience.

**TABLE 2**  
**ESTIMATED RECYCLABLE MATERIALS AVAILABLE IN JOHNSONBURG BOROUGH**

<b>Material</b>	<b>Percent of MSW<sup>1</sup></b>	<b>Tons in MSW<sup>2</sup></b>
Corrugated Paper	10%	234
Newsprint	10%	234
Glass(Clear and Colored)	9%	211
Yard Waste	9%	211
Office Paper	6%	140
Appliances	4%	94
Wood	4%	94
Plastic (PET, HDPE only)	3%	70
Steel and Bimetallic Cans	2%	47
Tires	2%	47
Aluminum Cans	1%	23
<b>TOTALS</b>	<b>60%</b>	<b>1,404</b>

**TABLE 3**  
**ESTIMATED TONNAGE BY MATERIAL**

<b>Material</b>	<b>Percent of Recyclable Materials</b>	<b>Tonnage Available</b>	<b>Estimated Tonnage</b>		
			<b>Low (1)</b>	<b>Medium (2)</b>	<b>High (3)</b>
Newsprint	40.0%	234	41.2	84.2	126.4
Glass (Clear and Colored)	36.0%	211	37.1	75.8	113.7
Plastic (PET, HDPE only)	12.0%	70	12.4	25.3	37.9
Steel and Bimetallic Cans	8.0%	47	8.2	16.8	25.3
Aluminum Cans	4.0%	23	4.1	8.4	12.6
<b>TOTALS</b>	<b>100.0%</b>	<b>585</b>	<b>103.0</b>	<b>210.6</b>	<b>315.9</b>

(1) Based on Ridgway's current rate of approximately 4.4% recycling

(2) Based on 9% recycling (approximately double current rate)

(3) Based on 13.5% recycling (approximately three times current rate)

these tables indicate what is potentially *available*—i.e. total recyclables believed to be available in the waste stream—and what could be collected if the Borough strongly supports the

<sup>1</sup> Based on a combination of sources including NSWMA and EPA

<sup>2</sup> Based on projected total MSW figure of 4,000 tons

program, so the potential *diversion* is significantly greater. However, many non-mandated municipalities choose not to make recycling mandatory for residents, and recycling rates in municipalities that operate voluntary curbside recycling programs are often lower than in municipalities with mandatory curbside programs.

## CURBSIDE RECYCLING

Implementing a curbside recycling program will be easier in Johnsonburg Borough than it would be for a municipality that does not already have a contracted municipal waste collection program in place. In many municipalities that rely on individual subscription programs, residents have strong ties to specific waste haulers that have served them in the past. Some choose to have residents add recycling to their individual subscription service, while others opt to contract for recycling services and maintain the individual subscription service for waste collection. Absent specific data on diversion rates for municipalities for each of these options, it would be difficult to determine whether there are appreciable differences in the rates. However, it can probably be assumed that a program that **ensures** that service is provided to every household, versus one that is based on compliance by individual households, will probably result in a higher diversion rate.

An informal survey conducted nearly two years ago in southwestern Pennsylvania indicates that the total cost for waste collection and recycling is reasonable for most municipalities. Table 4 presents a summary of the results, along with the current experience in Ridgway Borough. For southwestern Pennsylvania municipalities, the cost for both waste collection and recycling services was less than \$10 per month, and this cost has not changed substantially since the survey was conducted. Ridgway's costs are higher, though this is often the case in more rural counties. The southwestern Pennsylvania municipalities are in areas that are less rural than Elk County. Haulers generally cite efficiency—the ability to collect from many people concentrated in an area, as the reason for lower cost.

It should be noted, however, that Ridgway's cost with recycling compares favorably to Johnsonburg Borough's cost without recycling. Johnsonburg residents currently pay \$33.00 per quarter for waste collection only, with senior citizens paying a lower rate of only \$26 per quarter. In Ridgway Borough, families are paying \$34.50 per quarter for waste collection and recycling, while single residents are paying \$25.50. The additional cost to families in Ridgway is only \$6.00 annually, while single persons are actually paying \$.50 less quarterly than are senior citizens in Johnsonburg. Armed with this information, it seems that Johnsonburg Borough should be able to negotiate a very favorable rate for its residents to add recycling.

The actual cost to add curbside recycling to the Borough's municipal waste collection program will be dependent on a variety of factors, including:

- Frequency of collection—In general, less frequent collection—biweekly or monthly—will be less expensive than weekly collection, but the cost break will almost certainly not be linear. What this means is that if the cost quoted for weekly collection is \$1.50 per household per month in addition to waste collection costs, the cost would not be

**TABLE 4**  
**RECYCLING/WASTE MANAGEMENT PROGRAM COSTS**  
**(SOUTHWESTERN PENNSYLVANIA MUNICIPALITIES AND RIDGWAY BOROUGH)**

<b>Municipality</b>	<b>County</b>	<b>Materials Collected</b>	<b>Collection Frequency</b>	<b>Commingled/ Separate</b>	<b>Municipal/ Contracted/ Individual</b>	<b>Revenue Sharing</b>	<b>Who Pays</b>	<b>Cost/HH Total</b>	<b>Cost/HH Recycling</b>
Freedom Boro	Beaver	Al G1 G2 P1 P2 S	Biweekly	Commingled	Contracted	Set % to municipality	Residents	\$99.96/yr.	Not known
North Sewickley Twp.	Beaver	Al G1 G2 Mag N P1 P2 S	Variable	Commingled	Individual	N/A	Residents	Variable	\$16.00/yr. (1)
Pine Twp. (2)	Allegheny	Al G1 G2 Mag N P1 P2 S	Weekly	Commingled	Contracted	N/A	Residents	\$92.40/yr.	Not known
Reserve Twp.	Allegheny	Al G1 G2 P1 P2 S	Biweekly	Commingled	Contracted	5% to municipality	Residents	Approx. \$96.00/yr.	\$1.45/mo.
Sewickley Boro	Allegheny	Al G1 G2 N P1 P2 S	Biweekly	Commingled	Contracted	N/A	Residents	\$94.56/yr.	Not known
Ridgway Boro	Elk	Al G1 G2 N P1 P2 S	Weekly	Separate	Contracted	N/A	Residents	\$102/\$138/yr.	\$1.80/mo.

- (1) Rate one hauler charges for annual recycling sticker  
(2) Pine is part of a multi-municipal contract with Marshall, McCandless and Hampton  
(3) \$8.50/mo. for single residents; \$11.50/mo. for families



reduced to \$.75 per household per month for biweekly service, or \$.38 per household per month for monthly service. There are fixed costs that will apply regardless of the frequency of collection.

- How materials are collected (commingled vs. source separated)—Most municipalities opt for commingled collection of materials rather than separate collection, since most haulers charge less for commingled collection. This is simplest for residents as well, because they can place all materials into a single bin. Multiple bins take up more space in residences, and it is inconvenient for residents to carry out multiple containers.

Usually, all containers—glass, metal, and plastic—are mixed together, and newspaper is bundled separately or placed in a kraft paper bag and set out on top of or next to a recycling bin. Some municipalities have opted to alternate collection of containers and newspaper, particularly in biweekly programs. This may be best for the hauler, who doesn't need to be concerned with keeping the paper and containers separate, but it takes more effort to educate residents.

It should be noted that source separation, if necessary, can be accomplished by having the hauler separate materials by hand out of a single bin at the curb. This is how collection is managed in Ridgway Borough, and the cost of recycling to Ridgway, as noted in Table 4, is reasonable.

The best choice is dependent on the processing and marketing options that exist in the region. If the only materials recovery facility (MRF) only accepts source separated materials, then collection should be source separated. If a MRF that has sorting capability is available, then commingling may be the best option unless the MRF offers a reduced cost or a rebate for materials received as source separated that outweighs any additional cost associated with sorting.

**Other Costs.** The Borough would probably incur some other costs to implement a curbside program, though it should be noted that most of any costs that might occur are eligible for reimbursement under Act 101 Section 902 Recycling Program Grants. These are grants that will cover up to 90 percent of all eligible costs. They are available for costs related to the planning and implementation of a recycling program, but not its operation.

The main costs to the Borough for implementing curbside recycling would be:

- Adding recycling to the current waste collection contract—Some expenses related to planning for the addition of recycling to the Borough's waste collection contract would be eligible for reimbursement.
- Purchase of recycling bins—All costs related to the purchase of collection bins for use by residents, including personnel costs, are eligible for reimbursement.
- Preparation, printing and distribution of public education materials and public education efforts—Most of the cost of preparing and distributing materials, as well as personnel time spent on public education, is eligible for reimbursement.

In some cases, certain expenses cannot be reimbursed, but may be used as part of the Borough's 10 percent match. The grant program is addressed in more detail later in this report.

### **Pay-As-You-Throw**

Also known as unit-based or variable rate pricing, customers in a Pay-As-You-Throw (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. Well over 125 municipalities in Pennsylvania have implemented some form of a PAYT program. There is more information about PAYT available on the DEP website at [www.dep.state.pa.us](http://www.dep.state.pa.us).

**Potential Benefits of PAYT.** Municipalities that have implemented PAYT programs have reported a number of benefits, including: (1) waste reduction; (2) reduced waste disposal costs; (3) increased waste prevention; (4) increased participation in recycling and composting programs; (5) a more equitable waste management fee structure; and (6) 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 costs 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 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.

**Potential Barriers/Issues Associated with PAYT.** 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: (1) illegal dumping; (2) ensuring full recovery of expenses; (3) controlling/covering administrative costs; (4) perception of increased cost to residents; and (5) 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.

## OTHER RECYCLING OPTIONS

### **Yard Waste**

Composting or land application of leaf and yard waste has the potential to divert large volumes of waste. Borough crews already collect leaves from residences. While the County recycled over 500 tons of leaf and yard waste in 1999, no separate figure is available for Johnsonburg Borough. It is assumed that there is room for improvement in this area, either by greater promotion or addition of other materials such as grass and brush.

If the Borough has not already done so, it should consider promoting home composting by residents. The Borough could work with the County Recycling Coordinator and/or County Cooperative Extension office or garden clubs to provide an educational program, and purchase of home compost bins is eligible for funding under Section 902 Recycling Program grants.

### **Other Materials**

Other materials that can be recycled include, but are not limited to, used oil, tires, automotive batteries, textiles, and appliances. The County has already established programs to promote the collection of used oil, tires, and appliances, and Johnsonburg is the host to one of the County's used oil collection sites. The Borough already collects and recycles appliances and tires during its annual cleanups. There is the potential, however, for the Borough to divert more of these materials from the waste stream during the time between the annual cleanups, using the markets already established by the County. The Borough should also work with the County Recycling Coordinator to promote recycling of other items to the extent possible by providing information on additional recycling options to residents.

### **Commercial Recycling**

Given the industrial base that exists in the Borough, the Borough may also want consider promoting commercial recycling. While much of the material generated at Willamette that could be recycled may be classified as residual waste that cannot be counted toward the Borough's recycling rate, there are certainly materials generated in offices and packaging that can be counted, chiefly office paper and corrugated cardboard. Also, items generated in lunch areas, break rooms, etc., including any cans and bottles, can be recycled. Certainly, the fact that something is designated as residual waste should not preclude the Borough or the company's efforts to recycle any materials that are recyclable, but the Borough must be aware that it cannot include recycled materials that come from the residual waste stream on its annual recycling reports to the County. Much of the material that is generated by other businesses in the Borough would fall into the municipal waste category, however, and could be counted toward the Borough's recycling rate.

## PUBLIC EDUCATION

There is no specific "recipe" for public education that is guaranteed to work for every municipality. The variety of programs and vehicles is just about as numerous as the number of recycling programs in the state. Factors to consider include, but are not limited to, size, demographics, geographic location, whether the area is urban, suburban or rural, type of program, mix of housing (single/multi-family, permanent vs. transient) proportion of residences to businesses/institutions. What works for a given area is a function of matching

the type and size of effort to the target audiences in that area. Johnsonburg Borough has a small population, is small in area and has a stable residential population.

When recycling programs were new in the early 1990s, there was a sense of excitement and energy about entering into a new program that could have a positive benefit for the community and the environment. There was a heavy focus on education in the implementation phase of most programs in order to promote participation and train program participants about how to recycle. As programs matured, some level of educational efforts has continued, but most have not maintained the energy and freshness that was evident during implementation. The typical citizen will do his or her duty, but usually needs regular reminders about the hows and whys of a program.

Any new program needs to build excitement and invigorate residents to encourage them to recycle, and, if possible, to do more. Residents must be engaged directly in a positive way so that they want to participate or have incentives to do so.

### **Outlets for Education**

The Borough has numerous outlets that can potentially be tapped either to distribute public education materials or where residents can be reached directly. In many municipalities, businesses have gotten involved in helping to promote recycling. For a major employer like Willamette, it may be possible to enlist their help in posting materials in prominent locations, or even distributing information with employee paychecks. Other businesses may be willing to distribute or post information.

Places like the community center or the senior center offer excellent opportunities to reach residents not only by making materials available, but also through programs designed to engage residents directly. Schools, another good outlet for education, are mentioned below.

The Borough should also work closely with the local newspaper to get as much free publicity as possible. Implementing a new curbside recycling program would be considered an important news item. Some of the other activities described below could provide fodder for ongoing print material. Small local papers will often be more generous with print than many large urban papers, and it is important for the person responsible for recycling to cultivate a good relationship with the local paper in an effort to get information included on a regular basis.

### **Brochures**

A recycling brochure that explains how the program works, including when materials will be collected, materials to be collected, preparation of materials, and why the program is important, can be key to the success of a program. Such a brochure should be distributed to all residents of the Borough, and the distribution is probably best accomplished by mail or by hand delivery to residences. It may also be possible to work with a local advertising publication to distribute the materials as an insert or to print the information prominently in the publications. However, mailing the brochures or distributing them door-to-door would ensure that they are received, though there is still no guarantee that they will be kept.

Organizing a door-to-door distribution might actually be a preferred option for the Borough. Given the small size, it may be possible to enlist the help of volunteers who not only drop off materials, but who also are prepared to answer questions that residents might have. The face-to-face contact may engage residents more directly and cause them to respond more positively.

## **Reminders**

Unless the Borough opts for weekly recycling collection, residents must remember which days are recycling days and be prepared to place their materials at the curb on those days. Missing the scheduled recycling days means having to store recyclables until the next scheduled collection day. Some residents may not be willing to do this and may dispose of additional recyclables when storage space is tight or if they prefer not to have these materials sitting around until the next collection day.

With monthly collection in particular, it is important that residents be reminded to put their materials at the curb on recycling day. There are several options that might be considered, some passive and some active. A passive option would be to distribute a recycling calendar that is small enough to be posted on the refrigerator or some other prominent location, but distinctive enough to stand out among all the other materials that tend to be posted as well. A more active option would be to place banners at entrances to the Borough starting two to three days before recycling day, reminding residents to put their materials at the curb. These could be creative and eye-catching, and could possibly be sponsored by a local business. Another option is to have volunteers distribute door hangers that remind residents of recycling day and strongly reinforce recycling requirements, though it may be difficult to sustain monthly distribution of door hangers and this would entail ongoing expense. A banner that is reusable each month would require a one time cost and use of Borough personnel once each month to put them out before recycling day and remove them once collection has been completed. It may help to use door hangers perhaps two or three times each year as well, particularly when the Borough could also include reminders of clean up days, Christmas tree collection, or similar activities. These could be distributed by volunteers—perhaps students who could be given a certificate for products or services from a local merchant in exchange for their assistance.

The Borough could also consider making available promotional items made from recycled materials—preferably something that would be used by residents so it remains in view as a reminder—to serve as constant reminders about the Borough's recycling program. Volunteers could distribute these types of items door-to-door at the same time they are distributing brochures. Promotional items could include a range of products, from inexpensive pens, pencils, rulers, and refrigerator magnets to note pads or even tote bags. Any items purchased are eligible for funding through the Section 902 Recycling Program grants.

## **Spotlights on the Program**

The Borough could also engage in other activities that are fun, inexpensive, and bring attention to the recycling program. Some potential activities for consideration might include:

- Creating a recognizable slogan, logo or mascot associated with the recycling program. Having one or more of these things that identify the program would help to increase program visibility. Some municipalities have conducted local contests to ask residents to submit a slogan, a logo, and/or a mascot to be considered, with the winning entry incorporated into future materials used by the municipality. The winner or winners are usually recognized by the municipality in some way, and given some type of reward for their effort. Prizes could be donated by local businesses or could potentially be funded through Section 902 Recycling Program Grant.

- Offering rewards to randomly selected households that have placed their bins at the curb for collection. These rewards could be items or services donated by local merchants, and the only potential expense to the Borough would be time spent in soliciting the prizes—expense that could be avoided if volunteers take on this responsibility.

This activity would require volunteer assistance to determine who is eligible by walking the streets and recording which residences have set out their bins, or cooperation from the recycling hauler to record the addresses. This could be done for the entire Borough or selected sections, which are rotated each month. The advantage in using the entire Borough is that all residents would know they have an opportunity to win something in any given month, versus knowing that only residents of a specified area are eligible. All eligible residents would have their address included in a drawing for the prizes the Borough has received. It could be done monthly, bimonthly, quarterly, or at any interval that the Borough chooses. If these drawings are not to be held on a monthly basis, the Borough may choose not to let residents know exactly when the drawings will take place—thus encouraging them to place their bins at the curb every month to be eligible for the drawings when they do occur.

Another variation on this is to place all residential addresses into a monthly drawing. Several addresses could be drawn, and the first that is found to have set its recyclables at the curb for collection would win a prize.

- The Borough could institute a “Recycling Household of the Month” program, with selected households featured in a local paper or similar publication, perhaps a Borough newsletter. Specific criteria would need to be developed to determine who might be selected for this recognition, and households could be nominated from within the community (self or by neighbors) or selected through a procedure established by the Borough. Criteria should include measures that indicate that a given household is doing more than just placing recyclables at the curb on a monthly basis, and could potentially include: home composting; buying recycled; recycling or reuse of materials other than those collected at the curb; use of less hazardous products; and creative uses of materials or activity in the community. Like the random selection program described above, awards could be solicited through local businesses.
- The Borough could establish a “block leader program” to enlist community support to promote recycling throughout the Borough and to engage in friendly competition designed to boost recycling. In this program, individuals could be identified either by block or within established zones. These individuals could be responsible for setting an example for the rest of their area, visiting neighbors to personally encourage recycling and other waste reduction activities, and to distribute materials on behalf of the Borough. If competition is to become a part of this program, the block leader could assist in counting set-outs and determining the set-out rate (percentage of containers placed at the curb to total households) for the area, or each block leader could be assigned to count bins in another area to ensure impartiality. Like the “Recycling Household of the Month,” the area with the highest setout rate could be recognized in some way and perhaps rewarded with certificates and/or discounts from local businesses.
- The Borough could bring attention to recycling goals by developing a visual method of showing progress. Preparing a sign that could be placed in a highly visible location (similar to United Way) showing progress toward the goal (a thermometer, a recycling truck

traveling to a materials recovery facility, etc.) will help residents to see where they are in relation to the goal and encourage them to recycle more to meet the goal.

- Some type of recycling display could be developed that can be used during community events, and rotated among schools, churches, and businesses. This display could be used as part of any presentations made by Borough officials or the recycling committee.

### **Ongoing Education**

Sometimes residents forget or do not completely understand which materials are acceptable and which are not, or exactly how to set out materials. Some may not be recycling at all. In either case, friendly reminders may help to set these residents on the right track.

For those that are including contaminants in their recycling bins or who are not preparing materials properly, checkoff cards could be printed that alert residents to the problem. In the case of contaminants, the contaminant materials could be left in the bins as an educational tool. For those where it is discovered that most or all of their recyclables are going into their garbage, a note could be left that alerts them concerning the Borough's recycling program.

### **Education in the Schools**

Educating students in grades K-12 may be a very effective way of reaching Borough residents both now and for the future. Students often become the strongest advocates of recycling, and will ensure that recycling is happening in their homes. The DEP has recycling curriculum materials available, and the County Recycling Coordinator usually has resources available to assist with education in the schools as well.

### **ENFORCEMENT**

Enforcement is only an issue if the Borough decides to implement a mandatory curbside recycling program. In this case, the Borough would need to adopt a comprehensive recycling ordinance to guarantee that it has the authority to enforce any requirements it might have and the ability to take action against offenders. The Borough should be able to obtain a suitable model ordinance from the County Recycling Coordinator.

## GRANT FUNDING

A number of recycling options and educational programs and materials have been described throughout this report. Most of the equipment and materials described, plus staff time and expenses (with the exception of postage, which can be used at match) in planning/preparing/purchasing the equipment, materials and programs, is eligible for funding by a Section 902 Recycling Program grant. These grants will pay for up to 90 percent of eligible costs. Fundable materials, containers and activities described throughout this report include:

- Recycling planning and implementation efforts, including public education
- Purchase of curbside recycling bins and home composting bins
- All public education printed materials for a recycling program, including: brochures; recycling calendar (perhaps a magnet or stickers for existing calendars); banners; promotional items; visual display of progress toward recycling goal (similar to United Way); recycling display in public place
- Promotion and implementation of a slogan, logo and/or mascot contest
- Incentive programs to encourage household participation, such as rewards for “Recycling Household of the Month”
- Planning for and implementing educational programs in the schools
- Purchasing equipment to implement or expand recycling in the schools

Application forms for Section 902 grants are available from the DEP Northwest Regional Office in Meadville. DEP requests that applicants schedule pre-application meetings to discuss proposals prior to submitting applications to ensure that applicants are submitting applications that include only fundable activities and equipment and to avoid duplication of efforts.

The Borough is also eligible for funding through the Section 904 Performance Grant program, which rewards municipalities based on tonnage recycled and waste diversion rate. Under this program, municipalities can receive \$5.00/ton for every ton of residential waste recycled and for every ton of commercial waste up to the amount of residential waste recycled, plus \$1.00 additional for every percentage point of diversion. In addition, municipalities receive \$10.00 for every ton of commercial recyclables above the 1:1 ratio with residential materials. The state uses a standard generation rate of 0.8 tons/person/year to determine the recycling rate.

For example, if the Borough recycled 50 tons of residential material and 100 tons of commercial materials, it could combine 50 tons of the commercial materials with the residential, and use the 100 tons to determine a recycling rate. If the Borough generates 2,000 of waste based on the 0.8 tons/person/year generation rate, the calculated recycling rate would be 5 percent. The Borough would receive \$10.00 per ton for the 100 tons--\$5.00 per ton flat rate, plus \$1.00 for each percentage point of diversion, which is \$5.00 for 5 percent diversion. For the 50 tons of commercial material that could not be counted toward the recycling rate, the Borough would receive a flat \$10.00 per ton. Based on these numbers, Johnsonburg Borough would receive a Performance Grant of \$1,500--\$1,000 for the first 100 tons of residential and commercial materials, and \$500 for the additional commercial materials.

Table 5 provides estimates for what the Borough could expect to receive from this grant program based only on residential materials recovered through a curbside recycling program

at the high, medium and low diversion levels. The Borough could recover significantly more if it is able to document commercial recycling totals as well.

**TABLE 5**  
**ESTIMATED PERFORMANCE GRANT AWARDS**

<b>Level of Diversion</b>	<b>Tonnage (1)</b>	<b>Diversion Rate (2)</b>	<b>Estimated Award (3)</b>
Low Diversion Rate (1)	103.0	3.8%	\$910.86
Medium Diversion Rate (2)	210.6	7.9%	\$2,707.94
High Diversion Rate (3)	315.9	11.8%	\$5,303.11

(1) Based on estimates provided in Table 3 for residential recycling only

(2) Diversion rates based on average overall generation of 0.8 tons/person/year

(3) Based on \$5 per ton plus \$1.00 for every percent diversion

## CONCLUSIONS

- The Borough has expressed interest in implementing a curbside recycling program. While recycling is not mandatory, the conditions in Johnsonburg Borough are positive for a curbside program.
- Implementing a curbside recycling program may provide a good opportunity to implement a Pay-As-You-Throw program as a means of encouraging more recycling.
- Implementation of a curbside program should involve a comprehensive and sustained public education program.
- Legal enforcement of the recycling program is only necessary if the Borough chooses to make the program mandatory for residents.
- Grant funding is available to pay for the cost of recycling planning and implementation undertaken by the Borough. Performance grant funding is available based on the tonnage and diversion rate of material that is recycled.

## RECOMMENDATIONS

- The Borough should implement a curbside recycling program for its residents if it can negotiate a reasonable rate to add recycling to its existing waste collection contract. The experience of Ridgway Borough and many other municipalities throughout Pennsylvania indicates that this should be possible for Johnsonburg Borough. It should be reasonable to expect that adding curbside recycling would increase the cost no more than \$2.00 per month, though it should be significantly less, as indicated in Table 4 of this report.
- The Borough should implement an aggressive, comprehensive and sustained public education program designed to ensure the success of its curbside program.
- If the Borough chooses to make recycling mandatory for residents, it should develop a recycling ordinance to provide enforcement authority.
- The Borough should apply for Section 902 Recycling Program Grant funding to cover the costs associated with implementing a curbside program, including ongoing public education efforts.
- The Borough should consider a Pay-As-You-Throw program as a means to encourage more recycling. Ideally, the Borough should investigate the possibility of negotiating a price per

bag for disposal that would cover any costs related to recycling, with no actual cost attached to recycling collection. Residents would be urged to recycle all they can to reduce their disposal costs.

- The Borough should consider promoting home composting as a means of diverting yard waste from disposal, and should work with the County Recycling Coordinator to implement training programs and purchase home composting bins for distribution.
- Whether the Borough does or does not implement curbside recycling, it should consult with the County Recycling Coordinator to provide information to residents about any additional recycling opportunities in the County or region.

Many municipalities in the state have chosen to implement some type of recycling program, even though they are not mandated to do so. There are more favorable conditions in Johnsonburg Borough than exist in other non-mandated municipalities that suggest curbside recycling would be viable and cost-effective. If the Borough chooses not to implement curbside recycling, it can certainly do more to educate its residents about recycling opportunities throughout Elk County and the region, and the Borough should contact and work closely with the County Recycling Coordinator to make this happen.

Sincerely,  
R.W. BECK, INC.

Sandra L. Strauss  
Environmental Analyst

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