

Curbside Recycling Pilot Program

Final Report

June 26, 2012

BACKGROUND:

Botetourt County currently provides recycling services to residents as a service funded by the general fund, via nine community recycling drop-off points sited throughout the County. As authorized by the Board at its June 2011 meeting, staff has been working with Kelley Garbage Collection Service and Community Sanitation to administer a pilot program to determine the costs and benefits of providing curbside recycling services as a supplement to the current system. These two, of the five County-franchised haulers, have generously donated both time and significant resources in support of this study.

During the study period, the two haulers, in addition to collecting and transporting standard residential trash, collected recyclables from voluntarily participating customers, and delivered them to Recycling & Disposal Solutions, Inc. (RDS) in the Hollins area. Labor, administration, and other, non-direct costs were borne by the haulers. As an offset, any revenues received from the deposit of the recyclables were retained by the haulers. Tipping fees for the recyclables collected during the study were paid by the County. The data collection period was October 3, 2011 to March 30, 2012. During the study period, standard trash pickup was uninterrupted and trash was transported to the City of Salem Transfer Station.

OBJECTIVES OF THE STUDY:

- Observe the impact of curbside recycling on the overall volumes of residential trash being transported to the City of Salem Transfer Station
- Observe any subsequent impact of curbside recycling on total volume of recyclables being collected at the County's community recycling centers.
- Determine the overall costs for provision of curbside recycling services in addition to standard costs for picking up residential trash (for potential future cost pass-through to either the customer or the County – if so determined by the Board)
- Determine potential for cost offset by replacing some of the County's community recycling centers with curbside recycling service.

METHODS:

The types of recyclables collected were the same as those currently collected at the County's nine residential collection sites, to which residents from all five franchise areas voluntarily transport and deposit sorted recyclable materials. Types of materials accepted at both the

residential collection sites and in the pilot curbside study include plastics #1 and #2, glass, aluminum, tin, and mixed paper.

Customers of the two trash hauler companies were invited to participate in the program. In order to participate in the pilot study, residents were required to be a customer of either Kelley’s Garbage Service or Community Sanitation Service, and to contact their respective hauler to sign up for service. Recyclables were collected on alternating weeks, with mixed paper being collected one week and comingled items (plastics #1 and #2, glass bottles and jars and tin cans) collected the following week. To help address potential contamination concerns, customers who took part in the pilot were required to place their recyclables in clear plastic bags so that haulers could verify that the correct materials had been placed out for recycling. Recyclables placed out on the incorrect week or contaminated with trash were left at the curb and tagged to explain the reason it was left. The tags were used as a way to educate customers of the proper procedure for recycling.

INPUTS:

Throughout the course of the study, information was gathered from the two participating haulers, RDS and the Salem Transfer Station, then consolidated and subsequently analyzed by staff to ascertain impacts in support of the project objectives. Table 1 provides an overview of salient data:

Table 1: Curbside recycling pilot monthly averages from October 2011 – March 2012

Monthly Average	Kelley	Community	Average
Total Number of Customers	2,090	2,237	2,163
Curbside Recycling Project Participants	615	620	617
Participation Rate	29.42%	27.71%	28.57%
Recycling Volume (tons)	6.78	8.34	7.56
Trash Volume (tons)	171.54	215.70	193.62
Total Volume (tons)	178.32	224.04	201.18
Recycling Rate (Recycled material/total)	3.80%	3.72%	3.76%
Previous Year* Trash Volume (tons)	176.44	221.11	194.28
Decrease in Trash Volume from Previous Year (tons)	-4.9	-5.41	-5.15
Decrease in Trash Volume from Previous Year (%)	-2.77%	-2.45%	-2.61%
Increase in Recycling Volume Collected Curbside During the Study Period (tons)	0.20	0.31	0.26
Increase in Recycling Volume Collected Curbside During the Study Period (%)	9.08%	6.22%	7.65%

*“Previous year” volume data was recorded from the same months (October – March) of the previous year, in an effort to maintain an accurate comparison.

FINDINGS: Data collected during the pilot project indicates the following trends:

VOLUMES

- The pilot program does not appear to have had a significant impact on volumes of recyclables voluntarily delivered by residents to the County's nine residential recycling centers. Residential recycling via the residential recycling centers has remained consistent during the data collection period at an average of 132 tons per month.
- There was a 2.6% overall *decrease* in the amount of trash collected by participating haulers when compared to the same time period in the previous year.
- There was a subsequent 1.7% overall *increase* in the amount of trash collected by non-participating haulers when compared to the same time period in the previous year.
- Assuming that the volume increase of the non-participating haulers would have translated to the haulers which participated in the study, curbside recycling appears to have reduced the overall volume of trash delivered by the participating haulers to the Salem Transfer Station by 4.3%.

COSTS

- An in-depth analysis of the costs expended by the haulers collecting recyclables curbside was performed by County. While specific, hauler-supplied, financial data is confidential and could not be included in this report, it indicates that the cost to collect recyclables was approximately 5% of the cost to collect and dispose of trash.
- The County could significantly reduce general fund outlay for recycling services by:
 - 1) Transferring recycling costs to consumers as a user fee via curbside recycling, *and*
 - 2) Reducing the number of existing community recycling sites

However, since the pilot project does not appear to have had a significant impact on the overall volumes of recyclables delivered to the community recycling sites, at least two results are possible, should the number of community recycling sites be reduced:

- 1) Residents may choose not to recycle at all, thus avoiding the fee (if optional).
- 2) Residents may abruptly or gradually choose to reduce reliance on community recycling sites and embrace the curbside program.

It should be noted that residents who do not currently opt to have their trash picked up by a franchise hauler would have reduced recycling options, should any community recycling points be closed.

CLOSING

It is possible to collect recyclables curbside in Botetourt County. However, the costs to collect the materials must be taken into account should the Board wish to require all franchise haulers offer curbside collection of recyclable materials. Anecdotal information indicated that those who took part in the recycling pilot as customers enjoyed the convenience the program provided them. They also commented that they were recycling more, since it was convenient.

The participation rate during the recycling pilot program was 28.57%, as compared to a recycling participation rate for the City of Roanoke at 38%. However, one should note that 71.43% did not take part in the *free* program. Staff feels that the program did not cause citizens to begin to recycle, but was used by those citizens in the pilot study area that were probably recycling prior to the pilot study.

Finally, staff would like to thank Kelley's Garbage Collection Service and Community Sanitation for their effort and support of the curbside recycling pilot program. In cooperation with the County, these two businesses have continued the curbside collection service past the conclusion of the initial, 6-month study period. While staff would like this process to continue until the Board makes its final decision, the haulers are under no obligation to do so beyond June 30.