

Emporia Curbside Recycling Project Final Report



Natural Resources Advisory Board
Recycling Committee
March 28, 2012



Project Overview

- What is the project about?
 - The NRAB has been asked to complete a fact finding report on curbside recycling programs.
- The goal of this project:
 - To review different curbside programs and make recommendations to the Emporia City Manager as well as Emporia City Commissioners.





Why Should Emporia Move Forward with a Curbside Recycling Program?



- To offset 35-40% of our trash
 - Current trash diversion is 7% (All inclusive)
 - Residential trash diversion is 2%



- Trash costs are increasing
- Landfill availability is decreasing nationally
- To be viewed as a progressive community
- To make Emporia more appealing



- For convenience & benefit to the customer
- It is the right thing to do for the environment
- Recycling is something we will have to do in the future. Why not take advantage of an opportunity now?



A Few Cities in KS with Citywide Curbside Recycling

- Lebo
- Winfield
- Burlington
- Hutchinson
- Ark City
- Newton
- Topeka
- Manhattan
- Lawrence
- Olathe



Facts and Figures

- Current residential trash rate \$14.84/month.
- Hamm Industries currently haul and landfill all regional trash
 - Average Haul and Transfer Fees for 2011 were \$31.93/ton
 - Contracted to pay for a minimum of 22,000 tons of trash/year
 - Currently Emporia hauls on average 25,000 tons of trash/year
 - Contracted until 2015
- In 2011 Emporia transferred 1738 tons/year in recycling
 - Residential = 500 tons
 - Commercial = 1238 tons
- MRF is a Materials Recovery Facility or a sorting facility (automated or by hand)

Steps Taken to Develop the Recommendations

- We visited with other communities.
- We visited w/ the Solid Waste Manager about Emporia's operational capabilities.
- We talked w/ other 3rd party companies and best practices.



NRAB Recycling Program Recommendations

- Single Stream Collection
 - Recyclables are co-mingled in same bin & sorted at a MRF
- Recycling of:
 - Cardboard/Paperboard
 - Magazines/Newspaper/Office paper/Junk mail/Shredded paper
 - Tin/Aluminum/Steel
 - **Glass**
 - **Plastics 1-7 (currently 1 & 2)**
- Automated Truck Pick Up
- Bi-Weekly Pick Up
- Polycart Containers (95 Gallon)
- Ship to an automated MRF out of Emporia
- Mandatory Pay integrated into existing trash fees
- Voluntary Participation
- Marketing Plan
- Educational Plan





Projections based on the following:



- Residential collections
- 7600 households
- 65% Participation *



- 12-15 pounds of recycling/week/household *
 - 12 pounds per household = 32% of residential waste stream **

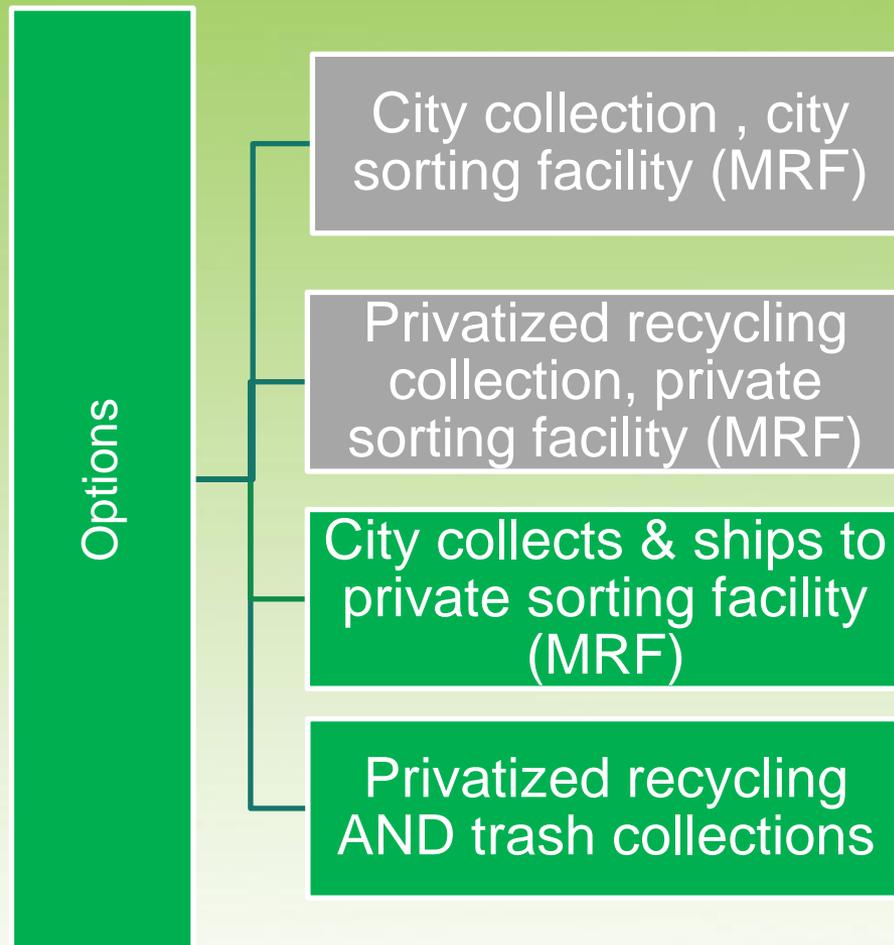


*We found these figures to be industry standard.

**12 pounds of recycling/week/household is a very conservative number.



Curbside Options Researched



Option 1: City collection , city sorting facility (MRF)	Cost/House/Month Minimum	Cost/House/Month Maximum
Monthly fee	\$2.37	\$2.71
Start-up costs	\$1,292,207	\$1,316,707

- Pros
 - Maintain control of your complete program
 - Higher return on commodities
 - Creates jobs
- Cons
 - Building expansion
 - Equipment purchases
 - Economy of scale not enough to justify
 - Increased work compensation claims
 - High start-up costs
 - More sensitive to market changes vs shipping to a MRF

Option 2: Privatized recycling collection, private sorting facility	Start-Up Costs Minimum	Start-Up Costs Maximum
Monthly Fee	No information provided	
Start-up costs	No information provided	

The companies we spoke with did not provide us numbers for this option because this option would not be financial feasible unless they also obtained trash collections.

One company did indicate an interest in recycling collections only, however, they would not provide information without a Request For Proposal (RFP).



Most Realistic Recycling Program Options

	Cost/House/Month Minimum	Cost/House/Month Maximum
Option 3: City collects & ships recycling to private sorting facility (MRF)	\$1.02	\$1.16
Option 4: Privatized curbside recycling AND trash collections	Several vendors have indicated they can maintain Emporia's current fee structure in addition to providing curbside recycling	





Option 3: City Collects & Ships Recyclables to Private Sorting Facility (MRF)



	Cost/House/Month Minimum	Cost/House/Month Maximum
Monthly fee	\$1.02	\$1.16
Start-up Costs	\$643,132	\$643,132



- Pros
 - No sorting of materials
 - No purchase of trailer or tractor required
 - Funds to cover the start-up costs are available in reserves
 - Minimal cost to the resident
- Cons
 - Low margin on commodity revenue
 - Requires purchase of truck & polycarts



Option 4: Privatized Curbside Recycling AND Trash Collections

	Start-Up Costs Minimum	Start-Up Costs Maximum
Monthly Fee	This will have to be negotiated by the City	
Start-Up Costs	This will have to be negotiated by the City	

- We have met with the following companies:
 - Deffenbaugh (KC)
 - Waste Management (Topeka/Lawrence)
 - Hamm Industries (Lawrence)
 - Republic/Allied Waste & Midwest Shred (KC)
 - Waste Connections (Wichita)
- Options they all addressed:
 - Purchasing our trucks & equipment
 - Providing all polycarts
 - Willingness to work with existing Hamm contract
 - Providing an educational outreach plan
 - Handling of employees



Negotiations

- Things to consider as all MRFs & plans are not created equal
 - Rebates/Revenue Sharing
 - Transfer costs
 - Equipment
 - Handling of shredded paper and glass
 - Glass will affect weight
 - Additional services
 - Composting
 - Yard waste
 - City-wide clean-ups
 - Bulky item pick-ups

Monthly Costs to Residents - Summary



Options	Cost/House/Month Minimum	Cost/House/Month Maximum
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Option 3: City collects & ships to private sorting facility (MRF)	\$1.02	\$1.16
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Start-Up Costs - Summary

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Positive Impacts to Resident



- Ability to recycle a great deal more plastic than currently accepted
- Recycling would be picked up every other week on same day as trash
- All would receive an additional 95 gallon polycart
 - Trash
 - Recycling (unsorted)
- The recycling fee would be included in trash fee (one bill)
- They can choose to participate if they wish
- Will enjoy convenience of no longer having to transport recycling to the recycle center or having to sort



Positive Impacts to City

- No additional training required:
 - Automatic trucks
 - Same size polycarts as trash
 - Weekly route (half the city each week) that will correspond with the residents trash day
- Less handling:
 - All recyclables will be loaded into a trailer and shipped
 - No additional sorting, no bailing
- Mandatory pay-one fee schedule
- Fewer accidents due to decreased public use of the recycling center



Why Mandatory Pay?

- Decreased usage = higher cost (Economy of scale)
- Fewer costs to administer
 - Billing
 - Fluctuating route
- Same overhead costs with fewer revenues
- Subscription recycling service is already available to the residents

Other Implementation Options Considered



Incentives & disincentives to the customer

- Rebates
- Recycle bank
- Polycart size
- Violations/Fines



Marketing Strategy for Implementation of a Program

- ✓ Research best practices of comparable communities
 - Identify concerns and educational gaps of residents
 - Utilize ESU marketing department to produce an informal survey
 - Develop a unified message & highlight benefits
 - Develop media to deliver this message



Marketing & Educational Recommendations-Con'd



- Best practices we have identified
 - **Link to City website**
 - **Public Service Announcements and radio ads**
 - **Print ads (bilingual)**
 - Door hangers
 - Mailers with utility bill
 - **Imprint in the lid of the polycart**
 - Town hall meetings
 - **Presentations to organizations, schools, and the business community**
 - **Create a collections schedule calendar**
 - Posters
 - Billboards and marquees

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- Because it is the right thing to do for the environment

