

City of Lawrence

Sustainability Advisory Board (SAB)

October 14, 2009 (5:30 PM) Meeting Minutes

MEMBERS PRESENT:	Chris Cobb, Dickie Heckler, Sarah Hill-Nelson, Beth Johnson, Matt Lehrman, Daniel Poull, Simran Sethi, Cindy Strecker
MEMBERS ABSENT:	Laura Routh, Brian Sifton
STAFF PRESENT:	Tammy Bennett, Kathy Richardson
GUESTS PRESENT:	
PUBLIC PRESENT:	Barbara Clark, Eileen Horn, Jeff Joseph, Bo Killough, Chris Scafe, Jim Tuchscherer

Call Meeting to Order (Daniel Poull, Chairperson)

Take Roll Call to Determine Quorum of Members

ANY PRESSING ITEMS

None.

APPROVAL OF MEETING MINUTES

Motion and second to approve the September 9, 2009 minutes (Heckler/Hill-Nelson).
The motion carried 8-0.

Approve Final Draft of SAB's Recommendations on Waste Reduction and Recycling to the City Commission

Motion and second to approve SAB's memo on waste reduction and recycling recommendations to the City Commission (Heckler/Sethi). There was no discussion (see memo attached).
The motion carried 8-0.

(There was discussion later in the meeting regarding the memo recommendation # 5.
The board agreed to revisit the recommendation of licensure at their next meeting.)

Discussion of Pilot Program for City Curbside Recycling

A copy of the updated staff memo regarding options for curbside recycling programs in Lawrence was emailed to SAB prior to the meeting (see attached). Tammy Bennett highlighted that there is a new section in the matrix describing SAB's idea from the last Board meeting regarding a public/private partnership.

Curbside recycling haulers present at the meeting questioned the Board's recommendation to implement a licensure requirement for curbside recycling companies and recycling centers.

There was disagreement without any resolution between the Board members regarding the licensing recommendation. The Board agreed to revisit this topic at their next Board meeting.

Action: The Board requested that staff provide information on what licensure means to the City. Staff will email the Board this information.

Action: The Board is interested in soliciting feedback on licensure from the local curbside recycling haulers and the recycling drop-off centers. Staff will email this request to them and invite the curbside recycling haulers and recycling facilities operators to the next Board meeting.

Approve Final Draft of Memo on Class #1 and #2 Soils Protection to City Commission

The Board discussed a few edits for the memo (see attached). Barbara Clark brought some new data to share with the Board.

Motion and second to approve SAB's memo on Class #1 and #2 soils protection to the City Commission (Heckler/Hill-Nelson).

The motion carried 7-1.

Action: Simran Sethi will email the final draft of the memo to staff. Staff will submit this memo to the City Manager and City Commission.

Discuss Newly Formed County Local Food Policy Council

Daniel Poull reported that he attended the initial meeting of the Douglas County Local Food Policy Council on Monday, October 5th. Council members have not been appointed yet. Council will work with the new Sustainability Coordinator. Daniel would like to be on the Local Food Policy Council.

Submit 3 Names to City Commission as Suggestions for Filling the Three Upcoming Vacant Seats on the SAB

Board members discussed possible candidate suggestions to fill the three seats on SAB which will become vacant on January 2010. The candidates who received the most votes were Andrea Repinsky, Eileen Horn, Chad Luce and Ian Spomer.

Action: Staff will submit this list of suggestions to the City Manager and City Commission.

Discuss SAB Brochure/Bookmark

Sarah Hill-Nelson commented that she is working on the SAB brochure/bookmark.

Waste Reduction & Recycling Report

Kathy Richardson thanked SAB for volunteering at the Energy Fair and Sustainable Homes Tour. Staff emailed the WRR September report to SAB prior to the meeting (see attached).

Guest comments and miscellaneous

None.

Meeting adjourned 7:50 p.m.

Next meeting: November 11th, 2009 at 5:30 pm.

Attachments:

- SAB Memo: Waste Reduction and Recycling Recommendations
- Revised Staff Memo and Matrix on Pilot Curbside Recycling Program
- SAB Memo: Class #1 and #2 Soil Protection
- Waste Reduction and Recycling Division Report

Date: October 5, 2009

To: City of Lawrence City Commissioners

From: Daniel Poull, Sustainability Advisory Board (SAB)

RE: SAB Waste Reduction and Recycling Recommendations

This memo seeks to inform the City's pending audit of the Solid Waste Division and the Commission's pending review of the Solid Waste Division's most recent report, *Evaluation of Waste Diversion Strategies for Lawrence 2009 Update*.¹ A draft of staff's most recent report was reviewed by SAB in July and August of this year.

As part of ongoing and pending policy analysis and discussions related to waste management in Lawrence, the SAB wishes to reiterate and highlight the following recommendations:

1. **We support the establishment of a quantitative waste reduction and recycling goal accompanied by an appropriate benchmark.**² For instance, the City would establish an annual goal for reducing the tons of garbage disposed. We believe that the goal should be established for a specified time period (i.e. 5 years) and that objectives be developed to meet the goal.
2. **We support implementation of unit-based pricing (pay as you throw, or PAYT3) for solid waste collection, for all residential users in Lawrence, including multi-family housing with 4 units or less.** Implementing PAYT has successfully created a direct economic incentive to generate less waste and increase recycling in numerous municipalities, including University towns like ours. A volume-based rate structure creates a clear connection between the level of services provided and the cost for those services.⁴ This type of rate structure would incentivize recycling and help create equity, ensuring that all residents to pay an appropriate share of the City's overall collection and disposal costs.
3. **We support the creation of a Citywide residential curbside recycling program which will provide uniform access to curbside recycling program for all residents**⁵.

¹

<http://www.ci.lawrence.ks.us/recycling/pdf/EVALUATION%20OF%20WASTE%20DIVERSION%20STRATEGIES%20FOR%20LAWRENCE%20-%202009.pdf>

² Such as a measurement of the pounds generated per person/day.

³ <http://www.epa.gov/waste/conserve/tools/payt/index.htm>

⁴ Under the City's current rate structure and policy of unlimited refuse collection, there is little relation between how much a resident pays for solid waste collection service and how much service a resident receives. In a report provided to the City of Tulsa, R. W. Beck asserts that when residents are allowed to place unlimited quantities of material at the curb for collection, with no financial implications, residents rarely attempt to limit their disposal needs. In order to provide residents with a financial incentive to minimize the overall quantity of material set-out, many cities have implemented a volume based fee structure.
<http://www.tulsaworld.com/webextra/content/items/trashstudy.pdf>

⁵ In regard to the recently proposed subscription 'pilot' curbside program, it should be noted that R. W. Beck has found that subscription type curbside programs are substantially less effective than recycling services that are incorporated into the standard residential solid waste collection services thus such an effort may not provide accurate or representative data.

4. **We encourage consideration of public-private partnerships for the provision of curbside recycling services within the City.** As reported by the Institute for Local Self Reliance, on a per-ton basis, sorting and processing recyclables alone sustains 10 times more jobs than landfilling or incineration.⁶ We see strong synergies between recycling and local economic development, and we encourage the City to collaborate with other communities, and small and local businesses.
5. So long as the City continues to rely exclusively on the private sector for provision of residential curbside recycling services, **we recommend the licensure of both private curbside recycling haulers and privately owned recycling facilities operating within the City limits.** In addition, to further increase the visibility and credibility of current private curbside services, we suggest that the City consider providing private haulers with uniform collection containers for recyclables collected at the curb.
6. Yard waste represents the vast majority of our City's 35% recycling rate. **We applaud the City's yard waste recycling efforts, and strongly support its continuation.**
7. **We recommend that the City pursue targeted waste reduction activities** in collaboration with those entities/sources known to generate large volumes of waste within our community (i.e. industrial and institutional waste generators, including colleges and universities; wastes from apartment move-outs, and wastes generated during construction and demolition activities).⁷
8. **We encourage the City Auditor to examine current commercial solid waste collection rates and to review commercial services provided by the City.** Collection efficiencies and possible sources of additional revenue may exist within certain cost-centers (e.g.: roll off and commercial recycling services).
9. In light of the recent sale of the Hamm's landfill,⁸ and other solid waste planning developments in the Kansas City Metropolitan area that may significantly impact regional landfill capacity,⁹ **we strongly suggest that the City of Lawrence engage in more proactive and comprehensive solid waste planning.** Such planning should include regional and long range capacity projections and some effort toward full cost accounting.¹⁰ Further, we recommend that a resident of Lawrence be appointed by the Mayor and the City Commission, from a list of not less than three people chosen by the Sustainability Advisory Board (SAB), to participate in the City/County solid waste planning committee.

The Commission's consideration of SAB's recommendations is greatly appreciated. We look forward to working with the Commission and City staff to improve services, reduce waste disposal and increase waste diversion.

⁶ <http://www.ilsr.org/recycling/recyclingmeansbusiness.html>

⁷ <http://www.epa.gov/epawaste/partnerships/wastewise/wrr/prevent.htm>

⁸ <http://www2.ljworld.com/news/2009/aug/28/hamm-inc-sells-investors-eyes-growth/>

⁹ http://jced.jocogov.org/solid_waste/SWPlanImplementationUpdateCoWv.pdf

¹⁰ <http://www.epa.gov/osw/conserve/tools/fca/epadocs.htm#fcahandbook>

City of Lawrence
Public Works Department
MEMORANDUM

TO: David L. Corliss, City Manager
Chuck Soules, Public Works Director
FROM: Tammy Bennett, Assistant Public Works Director
Bob Yoos, Solid Waste Manager
Kathy Richardson, WRR Operations Supervisor
CC: Sustainability Advisory Board
Cynthia Wagner, Assistant City Manager
DATE: September 1, 2009
Revised October 7, 2009 to incorporate SAB option

Attached is a matrix of options for curbside recycling programs. The matrix includes a 12 month pilot program for a subscriber based curbside recycling option, per the direction of the City Manager and the City Commission. The matrix also includes an option developed and preferred by the Sustainability Advisory Board, which would license companies and provide a comprehensive education and outreach campaign about existing services available in Lawrence.

Background information:

In July 2009, the Lawrence City Commission established the following goal statement:

Facilitate public discussion and review of possible city sponsored curbside recycling program, including explore feasibility of a pilot program and in-depth review of possible program costs and benefits.

The Sustainability Advisory Board has also expressed long-standing interest in establishing a more robust curbside recycling program either operated by or contracted through the City.

The matrix attached outlines a variety of options to expand convenient recycling opportunities for Lawrence residents. The expansion of recycling options can be designed to meet a number of goals, and the matrix addresses options for different goal statements, presenting some of the advantages and disadvantages of each.

Recommendation:

There are multiple options included in the attached matrix for consideration. The matrix is intended to provide a focal point for a broader discussion of curbside recycling in the community. The matrix includes a program preferred by the Sustainability Advisory Board and a subscription based, city-operated pilot program, among other options.

Action Request:

Public Works staff presented the pilot project and attached matrix with the Sustainability Advisory Board at their meeting in September. Curbside providers also received information and many attended the September meeting.

The revised matrix includes a draft of the SAB discussion from September, on their preferred recommendation. The revised matrix will be discussed at the October meeting. Staff will provide the revised matrix to the curbside companies so they are aware of the continuing discussion.

Recycling discussion matrix

PILOT PROGRAM for public / private partnership to increase curbside recycling Outreach program and campaign: <i>Lawrence DOES have curbside</i> Submitted by SAB to supplement original report		
	How it might look	Public / private partnership to support curbside recycling companies, increased outreach campaign on Lawrence DOES have curbside
	How to accomplish	<p>SAB recommends recycling collection providers and recycling centers be licensed by the City of Lawrence. Licensure would require companies to provide City with information about collection, processing, and/or end-markets for materials, costs of services, service packages offered, and number of customers.</p> <p>The City would undertake a major education and outreach campaign – Lawrence DOES have curbside. The campaign would promote the curbside recycling options that are licensed through the City. The outreach campaign would include newspaper, radio, web resources (budget to be determined). Another option would be to provide a consistent recycling bin with both city logo and company info for the private companies to give to their customers, as part of a branding or outreach effort. Data will be collected from licensed haulers at the beginning of the outreach campaign and throughout process, to estimate effect on number of households participating in addition to any changes measured on the overall community recycling rate.</p>
	Advantages	<ul style="list-style-type: none"> ▪ Support local businesses who have been engaged in the efforts of curbside recycling for many years ▪ Deliver a consistent, positive message about the availability of local curbside recycling ▪ Licensure of recycling companies will ensure the city receives accurate, timely data on customer counts, materials collected, and end markets ▪ If budget is available to provide uniform bins for materials, increases neighborhood visibility of curbside recycling programs ▪ Lawrence residents retain choice of curbside recycling with provider of their choice or drop-off opportunities
	Disadvantages	<ul style="list-style-type: none"> ▪ Does not address concerns expressed by some that community is vulnerable to losing recycling outlets (many curbside companies use existing drop-offs for disposal of some of the materials) ▪ Subscription only service may not meet goals to increase curbside collection for “maybe” recyclers (those who might put out recycling if they were already paying for it and it was collected at the curb) ▪ Differential in services, materials collected and pricing ▪ No revenue component identified to offset costs of program for city ▪ Need to define what collection providers and recycling centers are covered by licensing. For instance, is it just the curbside collectors plus the drop-off centers we think of (e.g., WalMart and 12th Street Bargain Center) or does it also include places that take oil, batteries, or electronics for recycling?

PILOT PROGRAM for curbside collection**Submitted by staff per CMO direction and CC goal statement****City subscription service, bi-weekly, 12 month pilot (collection and material processing)**

	How it might look	Bi-weekly residential curbside collection for a fee, by subscription, provided by the City of Lawrence. Pilot program would be limited to the number of households that could be handled by one truck (initial estimate is 2500 maximum)
	How to accomplish	<ul style="list-style-type: none">▪ Keep rear load refuse truck that would have been traded in 2010 and dedicate to the recycling pilot▪ Hire 3 staff persons (2 would be temporary full time, with a regular full-time operator for the truck)▪ Recycling truck will operate 4 days per week with two person crew▪ Materials would be taken to closest possible material recovery facility by agreement (likely Deffenbaugh in Edwardsville)▪ Administrative staff would be required for establishing and coordinating new services (customer service, billing, inquiries). 50% time would be required for curbside account set ups, coordination. Other 50% time would administrative tasks for WRR (HHW appointments, compost access for landscapers, special events organization) [note, the division has a request pending to fill existing part-time temp for these tasks]▪ Subscription service would be billed through utility bills, similar to the way roll-out trash carts are currently managed▪ Monthly fee would be set initially to minimize advantage or disadvantage over the private companies currently providing services (e.g., at market rate roughly) -- \$10 per month (tbd)
	Advantages	<ul style="list-style-type: none">▪ Provide 12 months of real data on all costs and advantages▪ Pilot program could be implemented relatively quickly but does not commit community one way or another▪ Does not require all rate-payers to pay for curbside but gives the option to those who want it▪ Will have least impact considered to the value or business of private companies providing services (curbside collection or drop-off / processing)▪ Good opportunity to "ramp up" to some of these services▪ In years 2 and beyond, costs will be adjusted to capture program costs more accurately, once minimum customer base is established
	Disadvantages	<ul style="list-style-type: none">▪ Still a subscription based service▪ Competes directly with existing businesses (curbside & drop-off)▪ Does not realize the efficiencies of collecting from every house▪ Using older vehicle, and no back up equipment▪ Setting rates by market in first year, not cost of services▪ Distance to the closest facility is 35 miles one-way.
	IF it works well	<ul style="list-style-type: none">▪ Can chose to expand the services on an incremental basis as business demands. For instance, in 2011, would move temporary employees to regular payroll, add one additional truck and one crew (driver / loader)
	IF it doesn't work	<ul style="list-style-type: none">▪ Phase out subscription services. End temporary employees or reassign to vacant positions. Sell rear-load truck, as had originally been planned

ALTERNATIVES		
Goal assumption: The City Commission plans to establish curbside recycling for single family residential customers city-wide.		
Long term recommendation: The City will ensure access to the most reliable services if the city operates its own material recovery facility. Control of materials collected, marketing, operations. (3 to 5 years)		
City curbside program (collection and material processing)		
	How it might look	City would have collection equipment and a local material recovery facility for processing materials collected. Some very rough cost estimates are included in the report attached. Cost estimates provided in attached report , depending on how program is structured.
	Advantages	<ul style="list-style-type: none"> Will provide most secure program for long-term recycling by building and managing our own material recovery facility Maintain control of program—Items collected Customer service will be high – single point of contact (city) for recycling and solid waste
	Disadvantages	<ul style="list-style-type: none"> Cost of capitalization and start up (facility, equipment, staffing) Amount of time for implementation (locating facility, constructing, installation of equipment, etc.)
City curbside program (collection only, delivering materials to established material recovery facility)		
	How it might look	City would have collection equipment and staffing for curbside collection of materials. Loads would be hauled to contracted material recovery facility, such as the Deffenbaugh facility in Edwardsville. Cost estimates provided in attached report , depending on how program is structured.
	Advantages	<ul style="list-style-type: none"> Less expensive start up. Will require capitalization of equipment and some staffing, but not facility Customer service will be high – single point of contact for recycling collection and solid waste
	Disadvantages	<ul style="list-style-type: none"> Distance to the closest facility is 35 miles one-way. Estimated time per load to deliver is 1 hour 40 minutes (round trip including dump time) Cost of capitalization and start up (equipment only) Will not control material streams since we don't manage final outlet
Private curbside program (collection and material processing) by RFP		
	How it might look	City would contract for turnkey curbside collection services with a private company.
	Advantages	<ul style="list-style-type: none"> Fastest implementation Least expensive for start up, utilizing equipment and facilities of contracted company External validation of costs and expenses
	Disadvantages	<ul style="list-style-type: none"> Customer service not integrated Do not control program (materials collected or customer service) Distance to the closest facility is 35 miles one-way
Private curbside program + + (collection and material processing) by RFP plus \$2-3 fee per month for long-term funding of local material recovery facility		
	How it might look	City would contract for turnkey curbside collection services with a private company. Additional fee would be added to monthly billing to build funds to finance construction of local material recovery facility. Local facility would benefit community whether collection services are

		completed with city crews or contracted.
	Advantages	<ul style="list-style-type: none"> ▪ Fast implementation ▪ Less expensive (like contracting) but builds solid funding structure for long-term sustainability of programs ▪ External validation of costs and expenses
	Disadvantages	<ul style="list-style-type: none"> ▪ Same disadvantages as private curbside program, but with an eye toward increasing sustainability of programming long-term
Private curbside program – multiple companies (collection and material processing)		
	How it might look	Several options on structure such as dividing community into designated areas and assigning collectors to areas
	Advantages	<ul style="list-style-type: none"> ▪ Supports local, existing businesses with established customer bases ▪ Citizens have options for vendors, IF contractors are not assigned designated areas
	Disadvantages	<ul style="list-style-type: none"> ▪ Lose economy of scale ▪ Must verify contractors have established, reliable outlets for materials ▪ May be chaotic from customer service perspective (who manages calls, who manages complaints) ▪ Varying levels of service ▪ Difficult to manage / monitor outlets and processing ▪ Dependent on multiple small companies, most of whom depend on other companies for materials outlets ▪ Challenge to handle monthly billing processes
Goal assumption: The City Commission wants to increase the convenience and access to recycling opportunities, without implementing full curbside program.		
Partner with local curbside companies to promote services		
	How it might look	City would provide promotional services for curbside companies. Information on curbside collection companies would be distributed regularly with utility billing so residents who wish to contract for services have the information readily available. Information also provided through the media (LJW and UDK) to cover residents who do not receive utility bills.
	Advantages	<ul style="list-style-type: none"> ▪ Minimal cost to city but provide residents with information they want on curbside collection companies ▪ Supports local, existing businesses with established customer bases
	Disadvantages	<ul style="list-style-type: none"> ▪ Dependent on multiple small companies, most of whom depend on other companies for materials outlets ▪ Subscription only service may not meet goals to increase curbside collection for “maybe” recyclers (those who might put out recycling if they were already paying for it and it was collected at the curb) ▪ Differential in services, materials collected and pricing
Expanded drop off locations for recyclables		
	How it might look	<p>Variety of possibilities such as:</p> <ul style="list-style-type: none"> ▪ duplication of Wal-Mart style drop-off facility in one or more additional locations ▪ contract placement of multiple-material collections containers (example at Wal-Mart parking lot off Wanamaker in Topeka)
	Advantages	<ul style="list-style-type: none"> ▪ Increased convenience over current system (more drop off locations) ▪ Public would not feel “dependent” on Wal-Mart or 12th St Bargain

		Center for recycling
	Disadvantages	<ul style="list-style-type: none"> ▪ Cost if constructing Wal-Mart style collection facilities (facility, equipment, staffing) ▪ No centralization of materials that would maximize possible revenues ▪ Drop-off sites (unstaffed) become dumping grounds for other materials ▪ Code compliance (site planning, aesthetics) for multiple sites ▪ Shipping materials from multiple drop-off sites with no central material recovery facility

ATTACH:

[Matrix from rate study](#)

[Olathe program description](#)

[Evaluation of Solid Waste Diversion Strategies report](#)

attachment info from rate study

Comparison of Residential Solid Waste Rates and Services for 2010

Information current as of May 2009

City	Once a Week Trash Collection proposed 2009 Increase	Yard Waste	Tire Collection	Bulk Item Collection	Appliance Disposal	Curbside recycling	Public / private	Curbside fee
Lawrence	\$13.10 (2009 Rate) \$13.76 (5% increase proposed for 2010)	Free	Free	Free	Free	yes	private	varies \$12 to \$15 / month
Columbia	\$14.42 (2009 Rate) (No increase proposed for 2010)	Free	No	Free	\$10.00/item	yes	public	included (landfill fees subsidize)
Emporia	\$12.79 (2009 Rate) \$14.07 (10% increase proposed for 2010)	No	\$2.51-5.40/tire	No	\$22.80/item	yes	private	\$15 / month
Leavenworth	\$15.09 (2009 Rate) \$16.30 (8% increase proposed for 2010) (Also property tax subsidy)	No	Free	Free	Free	No	na	na
Manhattan (Private Haulers)	\$18.00 (2009 Rate) (possible increase for 2010)	No	\$10.00 to 25.00/tire	\$10.00 to 50.00/item	\$40.00/item	No	na	na
Newton	\$18.75 (2009 Rate)	No	\$6.00/tire	\$15.00 per item	\$20.00 per item	yes	public	included & mandatory
Olathe	\$16.00 (2009 Rate) \$18.50 (15.7% increase proposed for 2010)	Free	\$5.00/tire	\$16.00/15 min.	\$30.00/item	yes	public	\$3.29 (2009) free (2010)
Overland Park (Private Haulers)	\$13.75 - 18.00 (2009 Rate)	\$40.00 per year	Up to \$35.00 per tire	\$35.00 and up / item	\$60.00- 75.00/item	varies by vendor	private	\$2.95 / mn
Salina	\$12.60 - 14.91 (2009 Rate)	Free	Up to \$22.00 per tire	\$20.10 and up	No	yes	public	\$10 initial + \$4.90 / mn
Shawnee County	\$11.44 - 16.50 (2009 Rate) (5% increase possible for 2010)	No	No	Free (1 item/week)	\$45.00 minimum charge	yes	private	varies \$15 / month
Wichita (Private Haulers)	\$17.00 - \$19.80 (2009 Rate)	No	No	\$20.00 to 100.00/item	No	yes	private	\$4.50 / mn and up

CITY OF OLATHE PROGRAM

City of Olathe operated a subscription based curbside recycling program for 12 years. The subscription service provided curbside recycling to approximately 1/3 of households, and was subsidized by the regular single family residential trash rate.

Solid waste is collected in Olathe and transported to Hamm's Landfill through a public / private partnership transfer station. The city currently pays approximately \$30 per ton for solid waste at the transfer point. The transfer station is reaching capacity. The community must rebuild or expand the transfer station or decrease waste managed through it. The City of Olathe commissioned a study of alternatives and recommendations from RW Beck. Based on that analysis, in 2010, Olathe will move to a citywide program. The citywide program will delay the reconstruction or expansion of the transfer station.

RW Beck Study: Scope of services and results can be attached. The RW Beck Study was \$53,500 for the initial 6 phases, with the final 3 phases being charged on a per hour basis.

How the city-wide program will be implemented:

- The city is transitioning 5 vehicles currently assigned to weekly curbside recycling collection *by subscription* to bi-weekly citywide curbside collection.
- The city is adding one truck and operating by re-assigning out of service side-load trucks to the recycling function rather than trading it in.
- There will be a total of six trucks assigned – 4 side-loaders and 2 curb-sorters.
- The side-load trucks will transport collected materials directly to Deffenbaugh, roughly 10 miles.
- The curb-sorters are less efficient at the single stream collection. Material from the curb-sorters will be transferred to 40-yard roll-off containers to be transported to Deffenbaugh.
- Total trip time per load transported: 1 hour
- Estimated revenue from materials dumped at the material recovery facility: \$25 / ton
- Containers: using 65-gallon containers provided by the city of Olathe
- Long-term goal is to build a material recovery facility for municipal recycling. The City of Olathe will complete an RFP in 2010 for a MRF and transfer station operations. They might be interested in partnering with other communities along the K-10 corridor, if other communities were willing to make the commitment to the MRF.

Description of solid waste program for 2010:

- Single family residential rates in 2010 will be \$18.50 per month. The residential rate will include:
 - Once a week collection of trash from a 90-gallon cart
 - Once a week collection of yard waste
 - Bi-weekly collection of single-stream recycling using 65-gallon cart (no glass)
- Fees for additional services. Any item that cannot fit inside a 90 gallon cart is considered a bulk item. Bulk items are charged as follows:
 - \$17.50 minimum per stop, up to 15 minutes of collection time
 - \$30 per item containing Freon (air conditioner, refrigerators)
- Solid Waste Connection fees. The city requires a one-time solid waste connection fee of \$170 per water meter. The fee covers the initial capital outlay for the carts provided for trash and recycling services, plus 1/2000 of a truck. The solid waste connection fees were implement in 2007, in conjunction with a new rate model developed by RW Beck.

EVALUATION OF WASTE DIVERSION STRATEGIES FOR LAWRENCE 2009 UPDATE

Introduction

The city's Sustainability Advisory Board asked the Solid Waste Division in 2008 to commission a survey on recycling. Those results were reviewed by the City Commission. The City Commission and City Manager's Office requested an update of the waste diversion strategies and costs presented in 2004.

The Solid Waste Division looked at waste diversion strategies for Lawrence in 2004 and concluded in that report that the current recycling strategy should be continued and expanded on. Recycling opportunities, both public and private, had achieved a 34 percent recycling rate in 2003 which was believed to be the highest in the state and higher than typically achieved utilizing curbside collection of recyclables. Specific recommendations in the 2004 report were:

1. Support for a statewide beverage container deposit law ("bottle bill") which would remove glass, plastic and aluminum beverage containers from the waste stream;
2. Expand newspaper, cardboard and office paper recycling programs to additional entities (such as schools) and provide additional drop-off sites;
3. Increase recycling of wood waste at the city's compost facility; and
4. Increase public education on waste reduction.

Recycling Program Expansions Since 2003

Paper recycling through city programs has increased from 1,461 tons in 2003 to 2,111 tons in 2008. Two mixed paper drop-off sites were added to the city drop-off program in 2007 and five additional mixed paper sites were added in 2008. The total number of city-operated drop-off sites for paper increased to eleven in 2008.

Brushy waste and tree trimmings were added to yard waste collections in 2008 and are converted to compost or mulch.

Two electronics drop-off events were provided in 2008. More than 56 tons of electronics were diverted from the landfill by 1,189 participants.

Waste reduction has been a focus for educational events by city staff. The staff is a sponsor for the annual Earth Day event and has sponsored the Lawrence Energy Conservation Fair as well as attended numerous other events or organizational meetings.

A survey of Lawrence residents was commissioned in 2008 to gather input to help better understand the recycling needs of the community. Seventy-three percent (73%) of those surveyed indicate they currently recycle utilizing the mix of public and private recycling opportunities.

Evaluation of City-Operated Curbside Collection of Recyclables

Currently five privately operated businesses offer curbside collection of recyclables in Lawrence. Three of these have been in operation since 2003 or longer. A sixth has recently applied for registration to collect recyclables from the curbside in Lawrence. Residents can choose whether to

subscribe to these services for a monthly fee. Several levels of services offered at varying price points (generally \$7-16 per month) are available from these businesses.

Recently the Sustainability Advisory Board requested an update on curbside collection of recyclables. The Board specifically wanted to see an evaluation of city-wide curbside collection provided by the Solid Waste Division or city-wide curbside collection provided by private providers.

Cost estimates were developed for providing curbside collection of recyclables utilizing city resources. Curbside collection could be provided primarily to 20,000-22,000 one to four-unit houses (out of approximately 37,800 total housing units). Larger complexes are typically served by containers (dumpsters) and not suitable for curbside collection. Some neighborhoods would not be able to receive curbside collection of recyclables because they too are served by containers (e.g. Oread Neighborhood) due to the high density of housing and parking needs.

Materials collected for recycling would likely be fibers (newspaper, mixed paper, etc.), steel and aluminum cans, and plastic (PETE, HDPE) containers. Staff does not recommend the curbside collection of glass due to negative markets and high cost of handling.

Cost

Two cost estimates were developed (see attachments) for curbside collection: one for a city-operated collection and operation of a Material Recovery Facility (MRF) for processing (sorting, baling, contaminant removal, loading onto transport trailers, etc.) and one for city-operated collection and direct daily transportation to the Deffenbaugh Industries Material Recovery Facility in Edwardsville, Kansas. That is the only MRF in the area. Estimates for both scenarios were developed for weekly or biweekly collection of recyclables (see table below).

COST COMPARISONS FOR CITY-OPERATED CURBSIDE COLLECTION OF RECYCLABLES

Collection frequency:	<u>City-operated MRF</u>		<u>Transport to Edwardsville MRF</u>	
	<u>Weekly</u>	<u>Biweekly</u>	<u>Weekly</u>	<u>Biweekly</u>
Cost/year (over 7 years)	\$3,704,005	\$2,830,604	\$3,516,952	\$2,406,389
Cost/household/year (1)	\$168	\$129	\$181	\$121
Cost/household/month	\$14.00	\$10.75	\$15.11	\$10.10

(1) City-Operated MRF: **AVERAGE COST PER YEAR (attachment i) plus AVERAGE COST PER YEAR (attachment ii) divided by 22,000**

Transport to Edwardsville: **AVERAGE COST PER YEAR (attachment i) plus AVERAGE COST PER YEAR (attachment iii) divided by 22,000**

Note: Typically fewer recyclables are collected with biweekly collection than with weekly collection

While the lowest cost estimate is for collecting recyclables biweekly and transporting the recyclables to Edwardsville, that alternative carries more uncertainty. Volatile fuel prices could increase that cost significantly as the miles driven per vehicle are more than doubled. Vehicles will have to be replaced more frequently due to higher mileage and increased wear and tear. More personnel and

vehicles may be needed because a significant portion of the work day will be dedicated to driving to and from the MRF rather than collecting recyclables. Perhaps the greatest risk is that we would be dependent on a privately owned facility that may not always want our recyclables or may ask for payment for taking those recyclables. Since we would be delivering loose, unprocessed recyclables with a high possibility of contaminants in relatively small loads, the operators of the MRF may not find our material desirable, especially in a down market such as we are in now. The result would be that we have no market for our recyclables and would instead find ourselves with an accumulation of recyclables and likely discontinuing their collection. We would also receive much lower revenues due to delivering unprocessed, loose recyclables.

Benefit

The single greatest benefit would be that of convenience to the household but they would pay the monthly rate to receive that benefit. Currently, we estimate that 2,000-3,000 households choose to pay one of the five privately-operated collection businesses for the convenience of having their recyclables collected at the curbside.

It is important to remember, but often misunderstood, that a great deal of the material that would be collected with a curbside collection program is already being collected through existing programs in Lawrence. A curbside collection program would greatly reduce the amount of material being collected at the Wal-Mart Community Recycling Center, the 12th and Haskell Recycling Center, by private curbside recycling businesses (they would be out of business), and through the city-operated drop-off facilities.

The actual increase in material recycled with a city-operated curbside collection program is likely to be less than 2,000 tons in addition to the 20,414 tons recycled in 2007. The additional tonnage would largely be paper that is not currently being recycled.

Contracted Curbside Collection of Recyclables to a Private Provider

The city could choose to put out a Request for Proposals (RFP) for a private provider for curbside collection services. A private company should provide turnkey services taking responsibility for collection, processing, marketing and also customer service responsibilities. There are several large companies within the region that have the capability of providing such services.

There are currently five privately owned small businesses that provide curbside collection of recyclables to customers that choose to subscribe to their services in Lawrence. These businesses utilize existing drop-off sites (Wal-Mart, 12th and Haskell Recycling Center, Lonnie's recycling, and city-operated drop-off sites) to deposit the recyclables they collect. It is staff's opinion that none of these small proprietors would have the resources to provide turnkey service to 22,000 households.

Staff also believes that if a program for curbside collection were to be pursued, the option of using a qualified private provider would be the preferred option. The provider would assume all costs and risks and the city would have a known cost depending on what was agreed on in a contract. It is likely that the costs would be lower than if the city operated the program because large recycling providers already have personnel, equipment, infrastructure, implementation experience and more leverage in recycled materials markets.

Issues and Concerns

Recycling Markets

Markets for recyclables, similar to the stock market, can be highly volatile. Currently recycling markets are at historic lows. For this reason, it is not good policy to develop programs expecting revenues for sales of recyclable materials to pay for the programs. In fact, some markets, glass for example, are negative meaning that one must pay to get rid of the material. Many communities have discontinued collection of glass. Mixed paper is also a dead market currently. Paper mills are not purchasing mixed paper at this time due to low demand for products.

Customer Satisfaction

It is difficult to predict what the level of customer satisfaction would be with different recycling scenarios. The 2008 Recycling Survey revealed that 72 percent of Lawrence citizens currently recycle which is a very high number. It also indicated that 59.6 percent of citizens would pay \$6.00 per month for curbside collection of recyclables. However, as the price went above \$6.00, willingness to pay went down. Only 45.2 percent were willing to pay \$9.00, 21.8 percent were willing to pay \$12.00 and 15.5 percent were willing to pay \$15.00.

The 2007 Citizen Survey indicated 86 percent of residents were satisfied with residential trash service which was termed a very high rating.

Variable Rate Pricing for Residential Trash

Variable rate pricing, commonly referred to as “pay-as you-throw” (PAYT) is used in many communities. Under PAYT, residents are usually charged by the number of cans or bags they set out for collection. PAYT is most common in communities faced with long hauls to the nearest disposal site or those with relatively little space left in the local landfill, both of which can create very high disposal costs.

Commercial collection rates in Lawrence are already under a variable rate system since the monthly fee is based on the size of dumpster and the frequency of collection for each customer. Those rates are set to include the cost of providing current recycling services to commercial entities.

Residential rates are the same for each ratepayer but they cover much more than the cost of trash disposal. They also pay for bulky item collection, tire collections, white goods collection and Freon recovery, residential recycling drop-off sites, the household hazardous waste facility, yard waste collection and composting, a portion of the electronics collection events, and waste reduction and public education and outreach efforts.

There is almost no direct correlation with the amount of material disposed of in the landfill and the monthly residential trash rate. In 2008, actual disposal fees were ten percent (10%) of the residential fee. The other 90 percent supported the personnel and equipment necessary to provide scheduled collection to each home, the above mentioned recycling programs, and overhead and administration costs.

Reliability of Analysis

The Solid Waste staff has confidence that the analysis options and estimates of costs contained in this report are reasonably reliable. However, detailed estimates for construction and real estate costs were not conducted. In addition fuel costs are predicted to be potentially highly volatile in the future. If curbside collection of recyclables or variable rate pricing options were to be considered further, we would recommend a third party analysis be provided by a professional solid waste consultant that would focus on the feasibility of curbside recycling and PAYT including, but not limited to:

- cost;
- benefits;
- and implementation.

Plans for Increased Waste Diversion

Source Reduction

The Solid Waste Division supports and encourages product stewardship to reduce materials in the waste stream such as a state-wide beverage container deposit law (bottle bill) which would create take-back programs that would remove beverage containers from the waste stream reducing collection, disposal and recycling costs, and reduce litter. Stores that will take back used electronics or other goods are other examples of product stewardship.

Public education and outreach programs have been put into place although funding was reduced in 2008 due to fiscal restraints. We hope to expand on these when possible.

Recycling

The Division is continuing the increase in paper recycling through city drop-off sites and commercial collection programs. Current market constraints have slowed the expansion.

Additional electronics collection events are planned for 2009.

Public education is seen as a key to increased recycling as more people become aware of existing recycling opportunities and the positive environmental benefits from recycling.

attachment i

ESTIMATED COSTS FOR CURBSIDE COLLECTION OF RECYCLABLES

(Present year 2009 dollars; cost of debt or bonds not included)

Note: Does not include costs of a Materials Recovery Facility or transportation to a nearby Material Recovery Facility (MRF)

COLLECTION COSTS

Weekly Collection

Biweekly Collection

Start-Up Costs

Collection vehicles	\$4,000,000 \$200,000 ea. plus 3 standby	\$2,200,000 \$200,000 ea. plus 2 standby
Field Supervisor vehicles	66,000 3 vehicles @ \$22,000 ea.	44,000 2 vehicles @ \$22,000 ea.
Recycling containers	900,000 45,000 @ \$20 ea.	1,360,000 68,000 @ \$20 ea.
Miscellaneous	50,000 Computers, radios, etc.	45,000 Computers, radios, etc.
Operations facility/land	750,000 Office, parking, crew area	750,000 Office, parking, crew area
SUBTOTAL	\$5,766,000	\$4,399,000

Annual Operational Costs

Operator I	\$1,064,000 19 @ \$56,000 incl/benefits	\$616,000 11 @ \$56,000 incl/benefits
Field Supervisor	180,000 3 @ \$60,000 incl/benefits	120,000 2 @ \$60,000 incl/benefits
Laborer	90,000 2 @ \$45,000 incl/benefits	90,000 2 @ \$45,000 incl/benefits
Administrative Support position	45,000 \$45,000 incl/benefits	45,000 \$45,000 incl/benefits
Collection vehicle fuel	210,834 \$14,040 fuel/collection vehicle	111,618 \$14,040 fuel/collection vehicle
Collection vehicle maintenance	174,600 \$9,700 maint. ea.	106,700 \$9,700 maint. ea.
Supervisor vehicle fuel/maintenance	9,000 \$2,000 fuel; \$1,000 maint. ea.	6,000 \$2,000 fuel; \$1,000 maint. ea.
Recycling container replacement	160,000 8,000 @ \$20 ea.	160,000 8,000 @ \$20 ea.
Education/promotion	30,000 Newspapers, radio, fliers, etc.	30,000 Newspapers, radio, fliers, etc.
Utilities, overhead	12,000 Gas, electrical, custodial, etc.	12,000 Gas, electrical, custodial, etc.
Miscellaneous	25,000 Uniforms, office supplies, etc.	25,000 Uniforms, office supplies, etc.
Contingency	75,000 Unexpected expenses	75,000 Unexpected expenses
SUBTOTAL	\$2,075,434	\$1,397,318

TOTAL COSTS OVER 7 YEARS

AVERAGE COST PER YEAR

\$20,294,038	\$14,180,226
\$2,899,148	\$2,025,747

Assumptions

Households participating (excludes multi-family complexes of 3 or more units): 22,000

One person collection vehicle with curbside sorting

Cost of fuel/gallon (in dollars) 3.18 (Source: Department of Energy/EIA, December, 2008)

Actual collection time/day (hours) 7

Stops/route/day - weekly: 320

Collection vehicles/day - weekly: 17 (hybrid vehicles)

Stops/route/day - biweekly: 300

Collection vehicles/day - biweekly: 9 (hybrid vehicles)

Four routes/week/collection vehicle

225 miles/week/collection vehicle = 11,700 mi./yr.

Collection vehicle gets 3.0 mpg on route

Costs amortized over 7 years

attachment ii

ESTIMATED COSTS FOR MATERIAL RECOVERY FACILITY

(Present year 2009 dollars; cost of debt or bonds not included)

CAPITAL COSTS

Processing Building	\$1,040,000	In addition to office/crew area
Supervisor vehicle	22,000	1 vehicle @ \$22,000
Processing Equipment	900,000	Balers, forklifts, conveyors, etc.
Miscellaneous	25,000	Computer, safety equipment, etc.
SUBTOTAL	<u>\$1,987,000</u>	

Annual Operational Costs

Laborers	\$270,000	6 @ \$45,000 incl/benefits
Supervisor	60,000	1 @ \$60,000 incl/benefits
Administrative Support position	45,000	\$45,000 incl/benefits
Processing equipment maintenance	20,000	Fuel, lubricants, moving parts, etc.
Supervisor vehicle fuel/maintenance	3,000	\$2,000 fuel; \$1,000 maint.
Utilities, overhead	48,000	Gas, electric, custodial, etc.
Contingency	75,000	unexpected expenses
SUBTOTAL	<u>\$521,000</u>	

TOTAL COSTS OVER 7 YEARS

\$5,634,000

AVERAGE COST PER YEAR

\$804,857

Assumptions

Cost of fuel/gallon (in dollars)	3.18
Costs amortized over 7 years	

attachment iii

ESTIMATED COSTS FOR TRANSPORTATION OF RECYCLABLES TO A NEARBY MATERIALS RECOVERY FACILITY (MRF)

Closest MRF is the Deffenbaugh facility in Edwardsville, KS
(Present year 2009 dollars; cost of debt or bonds not included)

<u>ADDITIONAL COSTS</u>	<u>Weekly Collection</u>		<u>Biweekly Collection</u>	
<u>Start-Up Costs</u>				
Collection vehicles	\$600,000	\$200,000 ea.	\$400,000	\$200,000 ea.
Collection vehicle replacement	\$3,300,000	20 @ \$220,000 ea. (0.75 cost*)	\$1,815,000	11 @ \$220,000 ea. (0.75 cost*)
SUBTOTAL	\$3,900,000		\$2,215,000	
<u>Annual Operational Costs</u>				
Operator I	\$168,000	3 @ \$56,000 incl/benefits	\$112,000	2 @ \$56,000 incl/benefits
Collection vehicle fuel	205,810	\$9,707 fuel/collection vehicle	113,195	\$9,707 fuel/collection vehicle
Collection vehicle maintenance	100,000	\$5,000 maint. ea.	55,000	\$5,000 maint. ea.
Turnpike tolls	33,280	One trip/day	18,304	One trip/day
Contingency	25,000	Unexpected expenses	25,000	Unexpected expenses
SUBTOTAL	\$532,090		\$323,499	
TOTAL COSTS OVER 7 YEARS	\$7,624,627		\$4,479,495	
AVERAGE COST PER YEAR	\$1,089,232		\$639,928	

Assumptions with transportation of recyclables to a nearby MRF

Households participating (excludes multi-family complexes of 3 or more units): 22,000

One person collection vehicle with curbside sorting

Cost of fuel/gallon (in dollars) 3.18 (Source: Department of Energy/EIA, December, 2008)

Actual collection time/day (hours) 6

Stops/route/day - weekly: 275

Additional coll. vehicles - weekly: 3 (hybrid vehicles)

Stops/route/day - biweekly: 250

Additional coll. vehicles - biweekly: 2 (hybrid vehicles)

Four routes/week/collection vehicle

Additional 280 miles/week/collection vehicle = 14,560

mi./yr.

Collection vehicle gets 5.4 mpg on highway

Turnpike toll per round trip \$8.00

* Collection vehicles replaced every 4 years (allocate 0.75 of cost to 7-year analysis)

Costs amortized over 7 years

draft

October 14, 2009

To: City Commission

CC: City Planning Staff

From: Sustainability Advisory Board

Re: Northeast Sector Plan and Consideration for Capability Class 1 and 2 Soils in Future Land Use Planning

Mayor Chestnut, Vice-Amyx, and Commissioners Dever, Johnson and Cromwell,

The Sustainability Advisory Board is charged with advising the City Commission on sustainable endeavors and opportunities within the City of Lawrence, including natural resource conservation.¹ To this end, the Sustainability Advisory Board supports the preservation of our most fertile agricultural land. We strongly encourage the City Commission to consider the value of Capability Class 1 and Class 2 soils in Douglas County when planning future land use for any area under consideration in the developing Northeast Sector Plan which is the largest, contiguous placement of these soils. We are concerned that a proposed tenant of the land has a history of inadequate environmental management and was fined by the Environmental Protection Agency for its actions.²

Soils of such quality are rare and, once lost, cannot be restored in our lifetimes. These resources offer a great opportunity for our local and regional food security and economy for future generations to come.

In its Policy Guide on Agricultural Land Preservation, the American Planning Association asserts, "agricultural productivity must be allowed to be a viable economic activity."³ The SAB encourages the City Commission to recognize the value in preserving these soils to profitably produce local food, increase food security and demonstrate our City's articulated commitment to sustainability.

Sincerely,

Daniel Poull

Chair, Sustainability Advisory Board

¹ <http://www.ci.lawrence.ks.us/wrr/envadvisoryboard>

² http://www.kansasriver.org/files/File/wamego_sand.pdf

³ American Planning Association Policy Guide on Agricultural Land Preservation, 4/25/99.



Waste Reduction and Recycling Division Report for the Sustainability Advisory Board (10/14/09)

FIBERS REPORT

OLD CORRUGATED CONTAINERS (OCC)

Cardboard	Tons	Revenue
Current YTD	997.33	\$54,403.50
Prior YTD	950.45	\$117,600.39
Avg. Price/ton thru Sept 2009:	\$54.55	Avg. price/ton thru Sept 2008: \$123.74

OLD NEWSPAPERS (ONP)

Newspaper	Tons	Revenue
Current YTD	418.70	\$13,301.06
Prior YTD	474.40	\$64,708.35
Avg. Price/ton thru Sept 2009:	\$31.77	Avg. Price/ton thru Sept 2008: \$136.40

OFFICE WASTE PAPER (SOP)

Sorted Office Paper	Tons	Revenue
Current YTD	42.86	\$4,590.65
Prior YTD	39.32	\$8,135.30
Avg. Price/ton thru Sept 2009:	\$107.11	Avg. Price/ton thru Sept 2008: \$206.90

MIXED WASTE PAPER (MIX)

Mixed Paper	Tons	Revenue
Current YTD	193.55	\$3,123.10
Prior YTD	150.30	\$13,489.24
Avg. Price/ton thru Sept 2009:	\$16.14	Avg. Price/ton thru Sept 2008: \$89.75

<u>TOTAL</u>	<u>YTD</u>	<u>TONS</u>	<u>REVENUE</u>
		1,652.43	\$75,418.32
Prior YTD		1,614.47	\$203,933.29

HOUSEHOLD HAZARDOUS WASTE (HHW) PROGRAM REPORT

Month	HHW Drop-Offs	Battery Bags in Mail	Appt No Show	Home-bound	Saturday Collection	Abandoned Waste	Orphan Waste	SQG Inventory	SQG Drop-off	Product Reuse Appt
January	153	6	18	0	0	4	0	17	15	13
February	106	1	6	0	0	3	0	13	14	15
March	183	2	14	0	0	5	0	5	4	25
April	180	3	10	0	11	3	0	10	10	49
May	214	4	27	0	31	1	0	14	13	68
June	285	3	20	0	44	3	0	9	9	74
July	319	0	24	0	31	3	0	13	12	75
August	263	1	34	0	21	5	0	6	5	75
September	271	1	17	0	18	3	0	9	7	61
October										
November										
December										
TOTAL	1974	21	170	0	156	30	0	96	89	455

COMPOST PROGRAM

This year 70 landscapers have signed up and been issued access fobs.

The City's Fall Compost Sale was held on Thursday and Friday, September 24th and 25th from 8 am to 3 pm and on Saturday, September 26th from 8 am to 4 pm. A total of 1,110 vehicles entered our facility over the 3-day period. The Compost Sale started with approximately 1,746.6 cubic yards of compost from March-June yard trimmings that was screened, tested, and ready for distribution. At the close of the event, there was approximately 85 cubic yards of compost left. A total of 1,661.6 cubic yards of compost (1,080 tons) was distributed and a total of \$8,880 was generated during the 3-day compost sale.

There was no curbside yard waste collection on Monday, September 7th due to the Labor Day Holiday. The following September numbers reflect only three collection days:

YARD TRIMMINGS COLLECTION: YEAR TO DATE

	January 2009	February 2009	March 2009	April 2009	May 2009	June 2009	July 2009	August 2009	September 2009
Total Tons collected curbside	NA	NA	1,210.53	1,013.77	1,138.74	1,081.67	673.63	828.59	594.36
Commercial YW received	1.9	17.1	180.2	181.8	233.8	198	233.5	171	205
Other YW received (Christmas Trees)	28.06 (2,245 trees)	NA	NA	NA	NA	NA	NA	NA	NA
Total tons this month	29.96	17.1	1,390.73	1,195.57	1,372.54	1,279.67	907.13	999.59	799.36
Average Preferred Container Compliance	NA	NA	98.9%	99.3%	99.5%	99.7%	99.8%	99.8%	99.6%

LAWRENCE ENERGY CONSERVATION FAIR 2009



On Saturday, September 12th, 2009 the City's Waste Reduction and Recycling Division hosted the **9th Annual Lawrence Energy Conservation Fair**. The Fair took place at the Community Building downtown, from 10 am to 4 pm. The goal of the Energy Fair is to help residents and businesses find sensible ways to reduce energy costs by choosing products and services that will increase the energy efficiency of our homes, businesses and personal transportation.

The Energy Fair hosted fifty-three exhibitors with professional environmental expertise: including local builders, architects, engineers, insulation contractors and home energy efficiency specialists. Businesses offering residential wind and solar energy systems were also present. A variety of alternative fueled vehicles were on display, as well as a geothermal drilling rig. Premier sponsors of the event included Black Hills Energy, Cottin's Hardware & Rental, Cromwell Environmental, and GreenTech Efficiency Solutions. Other sponsors included Absorbent Ink, Ground Source, Hughes Consulting Engineering, Lawrence Chamber of Commerce and Scott Temperature.

Fair attendees had the opportunity to hear Steve Stewart, with the City's Central Maintenance Garage, speak on the new solar panels in emergency vehicles and electric innovations in the auto industry. In addition to these exhibitors, Stan Slaughter, the Eco-Troubadour, performed inside the main exhibitor area and Mark Freeman with GreenTech Efficiency Solutions spoke on how to improve a home's energy efficiency.



Cromwell Environmental displayed solar panels and discussed the benefits of solar power with Fair attendees.

Concurrent with the Fair, the **Lawrence Sustainable Homes and Business Tour** offered two separate bus tours that included seven different building sites during the day. Tour guests learned from builders, engineers, installers and homeowners on site about their buildings, which included such features as ground source heat pumps, solar panels, structural insulated panels, passive solar design and use of efficient methods and sustainable materials. The Tour sponsors were the American Solar Energy Society and the Heartland Renewable Energy Society.



One of the many new exhibitors to the Energy Fair, LilyPad EV, attended to promote electric charging stations for the fast approaching wave of all electric automobiles.

Representatives of Sunlite Science & Technology discuss the benefits and new improvements to LED lighting, which are taking the place of fluorescents.



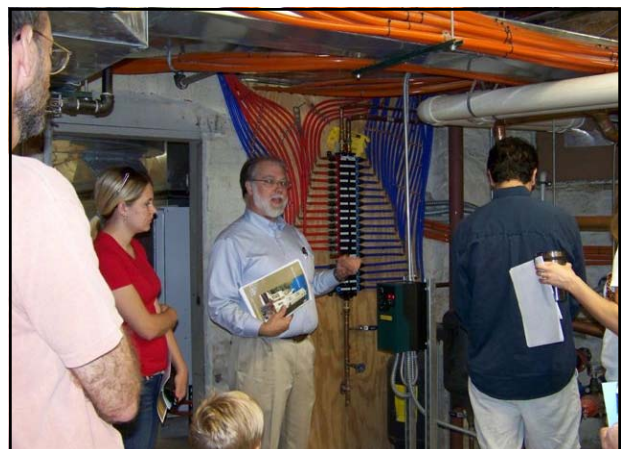
KU's Center for Sustainability discussed ways the university is increasing its environmental awareness.

Examples of alternative fuel vehicles exhibited at the Energy Fair included the GEM (Global Electric Motorcar) displayed by the Central Maintenance Garage and a 2004 Teener owned and displayed by Bob and Cordelia Brown.



Approximately 65 persons participated in one of two bus tours offered on Saturday. The Tour, which is part of the American Solar Energy Society's National Solar Tour, was sponsored locally by the Heartland Renewable Energy Society.

Steve Hughes, designer for the Castle Tea Room's HVAC and energy systems, explains the building's ground-source heat pumps and radiant floor heating to tourists.



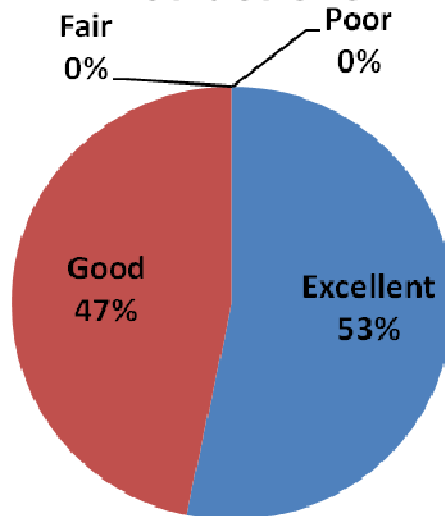
Number of Fair Attendees



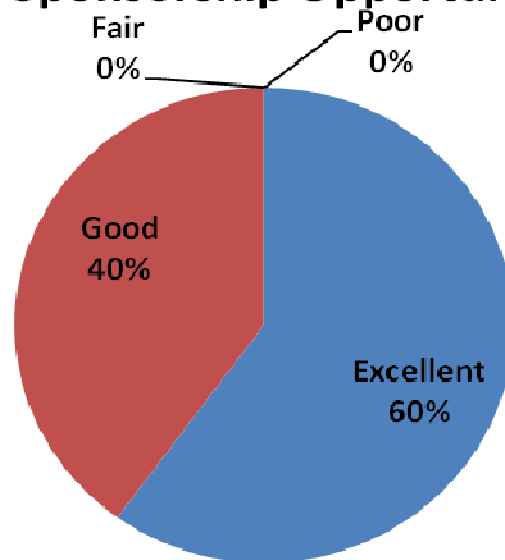
Community Building as Fair Venue



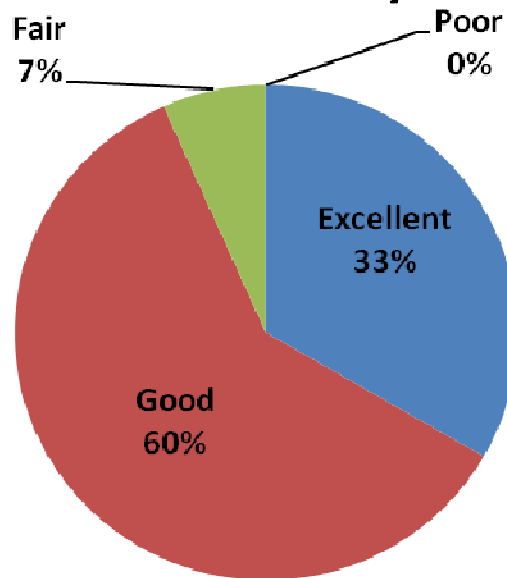
Exhibitor Schedule & Pre-event Instructions



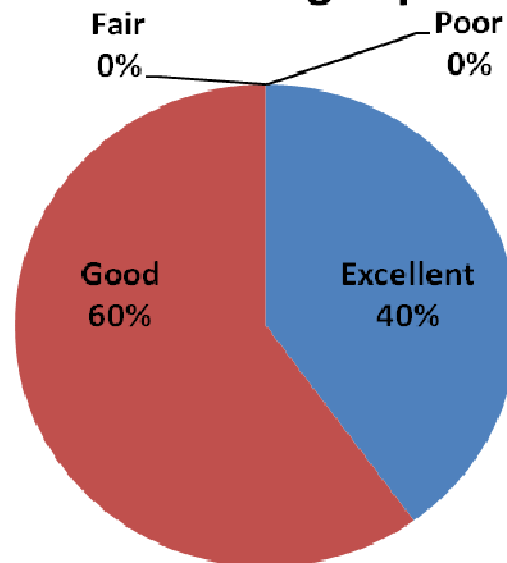
Fair Sponsorship Opportunities



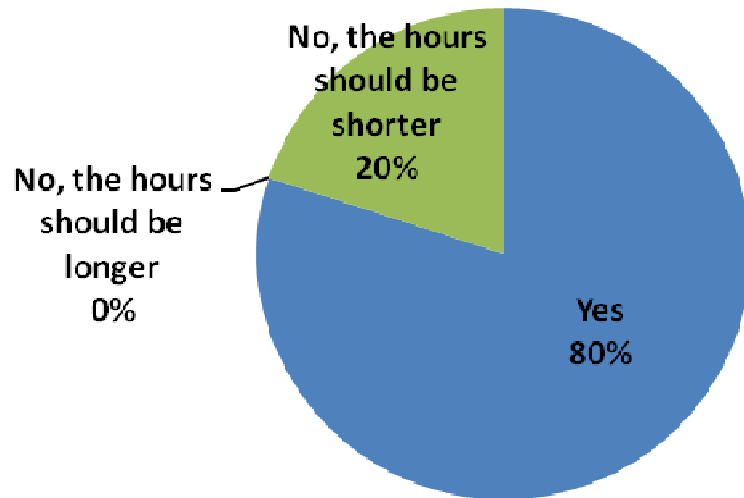
Fair Publicity



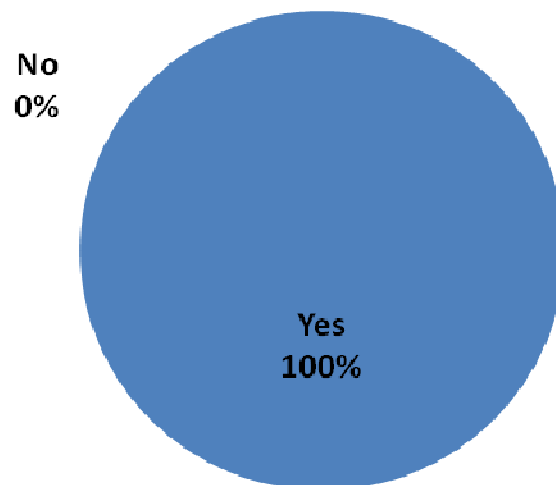
Overall Exhibiting Experience



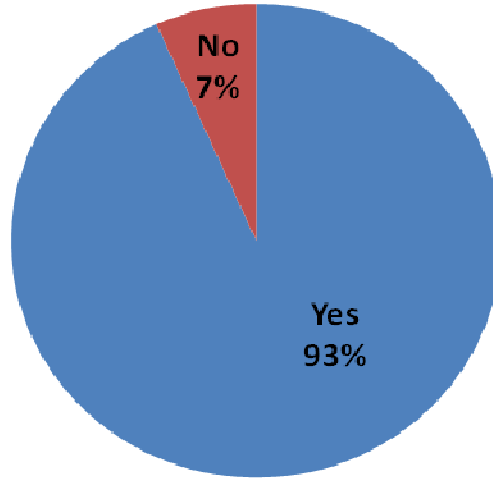
Were the exhibiting hours of 10 am - 4 pm sufficient?



Were your booth needs and other special requirements met?



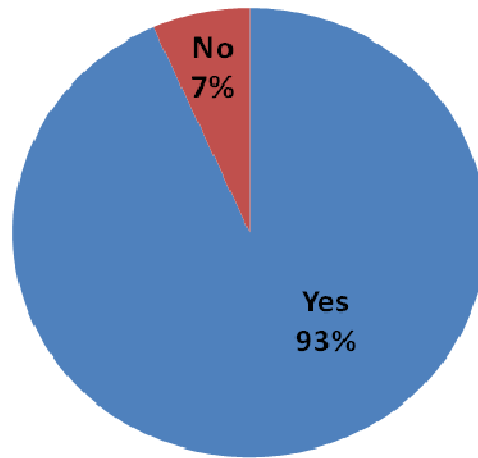
Did you meet your exhibiting objectives for this year?



What were your primary reasons for exhibiting at the Fair this year?

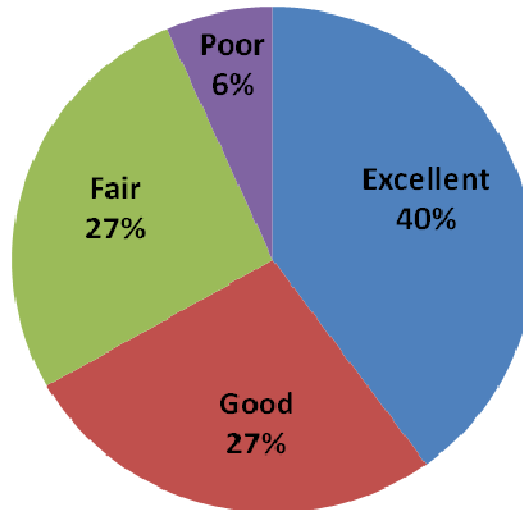
- We were asked to
- To meet other people in our field (other businesses that would be exhibiting), and to get the word out about ground source heating.
- Continued support for the effort to raise public awareness* about local opportunities for sustainable living. And other such lofty-sounding reasons. *Which is really kind of dependent upon advance publicity to get "new folks" to attend. Publicity this year was better. Probably could still use some more varied methods. And more earlier-in-the-year efforts to gain sponsors (\$) so as to allow for more publicity.
- Public education and outreach.
- We want folks to know the Lawrence Chamber of Commerce is supporting local efforts in creating a more energy efficient community. We want to help spread the word about new business ventures that are getting established in this area.
- Inform and convert the public to electric transportation.
- Make area residents aware of the services and information available from LJEC
- Testing the home building market interest in green homes--I had not exhibited in a couple of years and decided to test the water again. Of the folks I talked with--I did not see an interest in new homes--more folks interested in how they could improve their current home.
- To make contacts and to educate the public on energy conservation.
- To add visibility to our services

**Do you plan to be an exhibitor or
sponsor of the Energy Fair next year?**

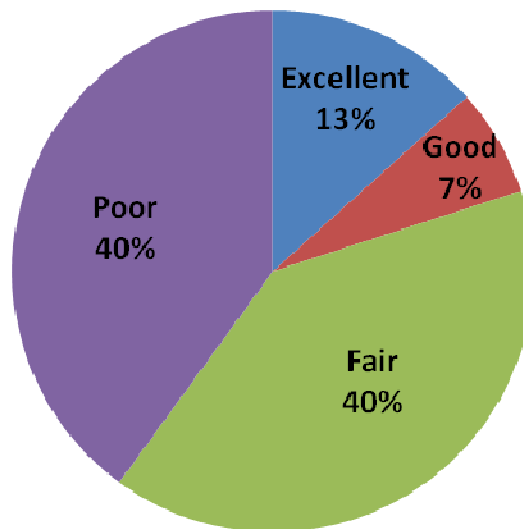


Suggestions

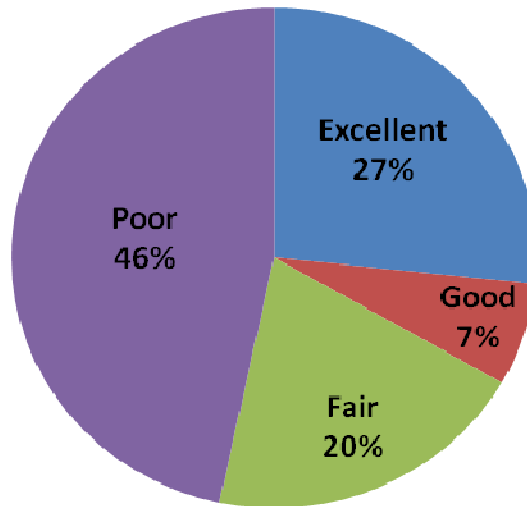
Partnering with another Fair/Event in the Area



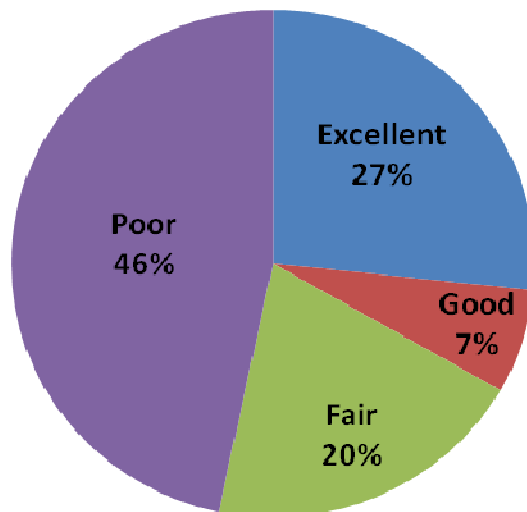
Expanding the Fair to 2 days (Saturday & Sunday)



Changing the Venue



Changing the hours



Do you have any additional suggestions for improvements to the Fair?

- My biggest disappointment was that LJW covered the fair and only reported on the singer. I know there were a lot of vendors and a wide range of topics, but any decent journalist could have found a way to mention something of the main event instead of the fluff entertainment. If that is what LJW is going to focus on, maybe don't have music next year (it inhibited conversations).
- "THANKS for all the hard work- this year was much better than last so please take the following constructively.... I think attendance was only ""Fair"" and not as good as years ago at the Fair Grounds, Signage was inadequate at community building and out front-- the bus blocked the sign that was there... DO NOT HAVE THE BUS IN FRONT LARGE signs on Mass., LARGE banner- more posters downtown, many small signs on Mass maybe other streets too. Also very few people know what/where the community building is "Community Building at 11th and Vermont" would get people there; I have some ideas for City involvement next year and will work to help make it happen (Aron Cromwell)
- "Partnering with others only useful if their event has a complementary "theme". I don't really have a strong opinion on the venue or hours ("don't care", wasn't an option above). Extending the event to two days might (as opposed to ""would"") help attract additional exhibitors who have in the past complained that it ""isn't worth their time"" to set up a whole display for a one day event. Factory Direct Appliances, Pella Windows, possibly others. Such folks could be surveyed to see if that would make a difference."
- Since we are partners with the city, we just want to help where we can. I think the changes made this year were very helpful.
- If the location had 220 power to charge electric cars and trucks we could have had many more EVs.
- The afternoon tour group was short on time to visit after returning so maybe the second tour could start an hour sooner. Joe Heinen LJEC 888-796-6111
- Partnering seems that it might be a good way to increase attendance.
- I thought this was the best site yet. I had several people ask where the talks were being held, so maybe better signage for that activity. Great fair and great work by the city staff.

Community Compost Sale: Fall 2009 RESULTS

The City's Fall Compost Sale was held on Thursday and Friday, September 24th and 25th from 8:00 am to 3:00 pm and on Saturday, September 26th from 8:00 am to 4:00 pm. The weather during all three days of the event was sunny, with a temperature around 70 degrees. The compost sold was a mix of 2009's March/April and May/June composted yard trimmings. The compost was sold for \$10 per scoop, which is approximately 3 cubic yards, or it was free for self-loaders.

A total of 1,110 vehicles entered our facility over the three-day period (Table 1). The Compost Sale started with approximately 1,746.6 cubic yards of compost from March-June yard trimmings that was screened, tested, and ready for distribution. At the close of the event on Saturday, there was approximately 85 cubic yards of compost left. A total of 1,661.6 cubic yards of compost (1,080 tons) was distributed over the course of the 3 day event. As per the norm, the participation in the Fall event was slightly lower than the Spring event. A total of \$8,880 was generated during the 3-day compost sale.

Table 1: Number of new and repeat customers each day and the total over the three-day period.

	Thursday, Sept. 24th	Friday, Sept. 25 th	Saturday, Sept. 26 th	Total (all three days)
New Customers	331	256	152	739
Repeat Customers	220	105	46	371
Total (each day)	551	361	198	1,110

Well organized traffic queuing ensured safe access, egress, and loading for a variety of vehicle types. There were no accidents at this sale.

Due to the estimated increase in self-loaders, a larger than normal pile of compost on the west side of the pad was created to accommodate self-loaders.



The majority of vehicles through our facility were trucks, which were loaded with either of two front end loaders.

