

City of Lawrence  
**Sustainability Advisory Board (SAB)**  
July 13, 2011 (5:30 PM) Meeting Minutes

MEMBERS PRESENT:	Sarah Hill-Nelson, Matt Lehrman, Chad Luce, Megan Poindexter, Daniel Poull, Andrea Repinsky, Ian Spomer
YOUTH IN GOVERNMENT PRESENT:	Nick Benson
MEMBERS ABSENT:	Beth Johnson, Simran Sethi
STAFF PRESENT:	Tammy Bennett, Eileen Horn, Kathy Richardson
GUESTS PRESENT:	
PUBLIC PRESENT:	

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**Call Meeting to Order (Matt Lehrman, Chairperson)**  
**Take Roll Call to Determine Quorum of Members**

**APPROVAL OF MEETING MINUTES**

**Motion** and second to approve the May 11, 2011 minutes (Poull/Poindexter).  
Vote: Motion was passed unanimously.

**Update on Progress of the Climate Protection Plan**

Eileen Horn provided an update on the [Lawrence Climate Protection Plan](#), submitted to the City Commission in 2008. The attached spreadsheet covers seven strategies outlined in the plan as well as timelines, progress indicators, and narrative. The data was gathered from various city departments.

The seven strategies are:

1. Provide dedicated staffing and adequate funding to support climate protection and sustainability initiatives.
2. Strengthen energy conservation policies and building standards.
3. Incorporate the goal of reducing greenhouse gas emissions into land use planning.
4. Develop transportation policies and programs to consume less energy and reduce emissions.
5. Establish outreach and education programs on emission reduction issues.
6. Expand source reduction and waste reduction programs and initiatives.
7. Exercise leadership by prioritizing efforts to reduce greenhouse gas emissions in municipal operations.

SAB commented that this spreadsheet was helpful and made it easy to see which areas have had great success and which ones need work. The board agreed to present this update on the Climate Protection Plan and a list of recommendations to the City Commission within the next few months. One of the most important recommendations identified by SAB is to fund the Sustainability Coordinator position in 2013.

**Motion** and second to create a subcommittee to review the Climate Protection Plan update information presented tonight and create a presentation for the City Commission (Poindexter/Spomer).  
Vote: Motion was passed unanimously.

Daniel Poull, Sarah Hill-Nelson, and Chad Luce volunteered to serve on the subcommittee. Eileen Horn will attend the subcommittee meeting as well. The meeting date, time, and location will be posted on the city's website and Google calendar. At the next SAB meeting in August, the subcommittee will discuss their presentation (i.e. PowerPoint slides) and request feedback from the board.

### **Waste Reduction & Recycling Report**

Staff handed out a copy of the City of Lawrence 2011 Citizen Survey Summary to each board member.

Kathy Richardson emailed the WRR report to SAB (see attached). Both the Earth Day Celebration and the Electronic Recycling Event this spring were a success! Thanks to all the SAB volunteers and a special thanks to Daniel Poull and Nick Benson who volunteered at the Electronic Recycling Event in May.

The 2011 Lawrence Energy Conservation Fair and Sustainable Homes Tour will take place on Saturday, September 10<sup>th</sup> at the city's Community Building, 115 W 11<sup>th</sup> Street. The Lawrence Transit will provide free rides that day. Event information is posted on the city's [website](#). The SAB volunteer sign-up sheet for this event will be passed around at the August SAB meeting. Staff will be requesting help with set up and break down. Thanks to Daniel Poull who has agreed to be the tour guide for the Sustainable Homes Tour.

### **Sustainability Coordinator Report**

Eileen Horn informed SAB of the following:

- Take Charge Challenge: Lawrence is slightly ahead of Manhattan. Please continue to participate and support this effort.
- Fire Station Energy "Smackdown": Last month the stations reduced their energy use by an average of 13% saving \$1,051. Staff is working on a news release.
- Building Audits: The city completed an audit of the Police ITC building. All major recommendations were free to implement and staff is moving forward with these. The county completed an audit of the United Way building. They are waiting on the final audit report.
- A city's communications intern is creating a sustainability video for Channel 25.

### **Miscellaneous Announcements and/or Public Comments**

Daniel Poull shared the Local Food Policy Council's discussion on recommending lower property taxes on land used for food production. This may be of interest to SAB. He will keep SAB informed on progress of this discussion topic and hopes that SAB may wish to communicate their support to the City Commission.

Job opportunities: Nick Benson announced KU's Environmental Stewardship Administrative Manager position opening. Applications are due July 30<sup>th</sup>. Kathy Richardson announced the City's Waste Reduction and Recycling Specialist position opening. Applications are due July 19<sup>th</sup>.

Matt Lehrman informed SAB of the opening ceremony for KU's Center for Design Research facility, designed and built by students in Studio 804. The open house is Saturday, July 16<sup>th</sup> 10 a.m. to noon.

### **Meeting adjourned 7:30 p.m.**

Next meeting: August 10<sup>th</sup>, 2011 at 5:30 p.m.

### **Attachments:**

- Update on Climate Protection Plan Spreadsheet
- Waste Reduction and Recycling Division Report

**Strategy:****STRATEGY #7: EXERCISE  
LEADERSHIP BY PRIORITIZING  
EFFORTS TO REDUCE GREENHOUSE  
GAS EMISSIONS IN MUNICIPAL  
OPERATIONS****Description:**

As leaders in the community, CPTF recommends that **municipal operations and major institution take steps to both mitigate and adapt to the impacts of climate change**. CPTF recognizes comprehensive emissions reductions require active participation by all community members, including residential, commercial, industrial, and institutional entities.

Recognizing there are significant lags in replacing existing infrastructure owned and operated by the City, **this prioritized list of policies emphasizes upgrades and increased efficiency first, and replacement only after sufficient capital depreciation has occurred**.

**Recommendations:**

Set a goal for reducing energy use in City buildings. Contract with a consulting firm to perform energy audits on City buildings, starting with the highest energy users first. (Audits should be performed every five years.)

1 Upgrades of all lighting, heating/ventilation/air conditioning systems, and building envelopes/insulation should be considered to maximize investment in efficiency. If it is beneficial, consider contracting with an Energy Service Company to provide energy savings guarantees, rather than subcontracting work on a per-job basis.

As articulated in the City Commission Goals section of the 2009 Operating and Capital Improvements Budget, identify new building standards that require a significant increase in energy efficiency, relative to a comparable building. The United States Green Building Council's Leadership in Energy and Environmental Design (LEED), the American Society of Heating, Refrigerating and Air-Conditioning Engineer's Advanced Energy Design Guides, the Department of Energy's High Performance Buildings, and the City of Tucson's Sustainability Energy Standard all provide representative, high-efficiency standards. New building standards should include, but are not limited to: site orientation that maximizes passive solar heat gain; use of high R-value insulation, high efficiency windows; inclusion of alternative energy sources such as geothermal, photovoltaic and wind; use of reflective roofing materials or rooftop plantings; and high efficiency lighting and HVAC systems.

2

4 In choosing the location for city services, include building energy efficiency and density into the evaluation procedure.

5 Remedy the concern expressed in the Greenhouse Gas Inventory that government reporting of electricity consumption is insufficient. Consider providing real time monitoring of energy use at City facilities.

6 Increase efforts to change over to light emitting diode (LED) traffic lights, LED or other high efficiency streetlights, and as articulated in the City Commission Goals section of the 2009 Operating and Capital Improvement Budget, implementation of traffic light coordination. (The city has tested two test LED street lights on 9th Street and Vermont to determine a standard for city street lights.)

7 Develop policies related to turning off electrical devices when not in use, thereby reducing parasitic power usage.

8 As articulated in the City Commission Goals section of the 2009 Operating and Capital Improvement Budget and in the interest of long-term infrastructure planning, take into consideration changes in the intensity of design storms when confronting future storm sewer and roadway infrastructure decisions.

9 Enhance the City's current energy conservation codes to reduce energy consumption in new construction and remodeling work.

10 Modify current International Energy Conservation Code to require that all new residential single family and multi-family domestic hot water heating and comfort heating is done with high efficiency natural gas fired equipment. Natural gas produces 121-150 pounds of CO2 per million BTUs and electrical power produces 424-433 pounds of CO2 per million BTUs. This code enhancement should be monitored as more electrical power is produced by renewable systems that have little if any green house gas emissions.

**Progress Narrative:**

We have not yet set a City-wide goal for reducing energy use in our facilities. However, we have conducted two energy audits in 2011 - the solid waste facility and the police ITC building. The Energy Management Team meets every 2-3 months to review EnergyCAP data and prioritize energy efficiency projects. City staff received a presentation on the state's FCIP program (for ESCOs), but has not moved forward on a performance contract.

The library renovation is the only significant building project underway in the City. That building is striving for LEED Gold certification. We do not yet have a policy that mandates LEED.

The library renovation is a good example of how we're working with existing structures to encourage density.

In 2010, we purchased EnergyCAP to monitor energy use (natural gas, water, electricity, fleet fuels) across all city meters and departments. The addition of the Westar Smartmeter will add additional monitoring capabilities.

o LED lights in traffic signals are currently saving the city approximately \$50,000/yr. It is estimated that completing the LED conversion at remaining intersections would reduce cost an additional \$17,000/yr.

No report.

No report.

Ordinance 8583 - adopted the International Energy Conservation Code, 2009 edition (the most recent to-date)

The environmental procurement policy has not been updated since 1999.

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No report.

No report. See Chapter 16 of Horizon 2020 for water planning recommendations

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**Facilities and Infrastructure****Procurement**

Establish a comprehensive environmental procurement policy.

Revise Chapter 10.2.4 of the Purchasing Procedures of the City, further defining "environmentally preferable products"; articulate and codify expectations for all items previously identified and add guidelines for procuring energy efficient appliances (such as those labeled "Energy Star"), vehicles (hybrid, electric, or alternative fuel), and heavy equipment (electric or alternative fuel). Include a cost/benefit analysis using the expected useful life of the item, the energy efficiency it provides, and the expected price of energy.

Improve performance and maintenance of materials used by the city to extend the useful life of the materials (so that they are not replaced as often). For example, improve the performance of concrete mix for curbing and asphalt for paving to improve durability.

**Water**

When the new wastewater treatment plant issue is revisited, articulate to Black and Veatch the city's desire to include expected energy costs over the useful life of the plant in the decision-making matrix. If applicable and feasible, invest in a highly efficient wastewater treatment plant.

In the interest of long-term water resource planning, take into consideration the expected sedimentation and decreased capacity of Clinton Lake in the next 3 to 4 decades. Concomitantly, higher atmospheric temperatures will lead to increased evaporation from the lake surface and, therefore, some decrease in retention.

In the interest of long-term water resource planning, consider the effect that increased variability of surface water and river systems will have on the functioning of wastewater treatment plants, storm water sewers, levees, and flood plain development.

**Waste**

Develop waste reduction strategies specific to municipal operations (management practices and the possible development of a localized green team).

The Fire Department has a "green team" and we are looking to replicate in city departments.

#### Fleet

Adopt and implement operational policies that minimize fuel consumption in the vehicle fleet by route optimization, idling reduction, maintenance practices and/or other means and document emissions reductions from those policy changes.

See strategy #4

Reduce the overall impact of the Lawrence Police Department by investing in technology that will minimize the need for idling.

No report.

Consider the use of auxiliary power sources and/or power units to operate vehicle accessories and climate controls while the engine is turned off.

No report.

Examine the establishment of police precincts to reduce use of idling patrol cars used as "offices" with computers.

No report.

Equip patrol vehicles with bike racks and increase bike patrols.

No report.

Developing a patrol car take home policy which reduces fuel use

No report.

Reduce the overall impact associated with the collection of waste and recyclables:

See strategy #4 and #6

Develop waste management strategies to reduce carbon footprint of collection.

See strategy #4 and #6

Increase bio-content of diesel fuel used.

See strategy #4 and #6

Upsize containers for decreased frequency of collection (evaluation required per site) (on-going, but important to note).

The choice of sanitation truck technology will be able to advance after the SWTF recommendations help determine the future operations of the sanitation fleet.

Optimize collection routes (on-going, but important to note).

See strategy #4 re: GPS system

Move the public transit and other vehicles away from diesel fuel and toward the cleanest burning fuel, which may include, but not be limited to biodiesel, compressed natural gas (CNG) and electricity. Install necessary infrastructure for converted fleet.[3]

In July 2011, the 3 new hybrid 40 foot transit buses will begin serving the downtown/KU routes.

Purchase hydraulic hybrid front load sanitation trucks to replace retired trucks. This vehicle generates pressure during braking, which is converted into energy (hydraulic), which is used to resume lost momentum (start up). Costly brake repairs are reduced.[4]

The choice of sanitation truck technology will be able to advance after the SWTF recommendations help determine the future operations of the sanitation fleet.

Utilize EPA grants for diesel oxidation catalysts.[5]

Applied in 2009 for DERA (Diesel Emissions Reduction Act) grants. Received multiple grants to retrofit all diesel vehicles in fleet.

Right size the fleet and eliminate unnecessary take home vehicles.

No report.

#### Other

Follow closely the evolution of federal and state energy policy; due to the lack of agreement on climate change policy at the federal and state levels, municipalities are at the leading edge of climate protection policy. It would therefore behoove the federal and state governments to take advantage of the efforts made at the municipal level. Energy and environment-related block grants will likely be policy options.

Ongoing

Continue providing support for the farmers market and local agricultural markets, as articulated in the City Commission Goals section of the 2009 Operating and Capital Improvement Budget. Seek out new ways to promote the expansion of local agricultural markets.

The Douglas County Food Policy Council is working to expand local agricultural markets. The library renovation is likely to design space for an expanded downtown farmers market.

Nurture a "culture of conservation" among City employees by disseminating goals, information, and policy changes, and actively encourage changes in personal behavior as they relate to energy use.

Ongoing

Take the opportunity to expand meetings with the Douglas County, USD #497, Haskell Indian Nations University and the University of Kansas, as articulated in the City Commission Goals section of the 2009 Operating and Capital Improvement Budget. Partner with these stakeholders to develop institutional goals and share information. Coordinate on public statements expressing commitment to climate protection policies.

No report

In the interest of maintaining local food supplies, consider prohibiting the conversion of prime agricultural soils to alternate uses.

See Chapter 16 of Horizon 2020

In the interest of human health services planning, consider the effects that higher temperatures will have on the population—especially the very young and very old—when developing public policy.

No report

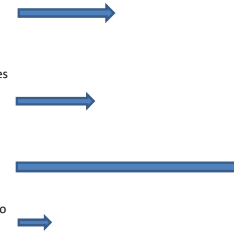
**Strategy:****STRATEGY #2: STRENGTHEN  
ENERGY CONSERVATION  
POLICIES AND BUILDING  
STANDARDS****Description:**

Within Lawrence, electricity accounts for 64% of GHG emissions, the result of the energy used to heat, cool, ventilate, light, and operate buildings throughout the City. The City of Lawrence 2009 Budget in Brief report attributes a large part of the projected 3.9% increase in expenditures over 2008 to "rising commodities costs, mainly fuel, electricity, and natural gas." A reduction in the amount of energy required to perform these tasks is not only the least expensive and most efficient way to begin to reduce GHG emissions, but may reduce some of the projected municipal costs for 2009.

*Establishing policies and incentives to encourage conservation will, over the long-term, extend savings to every sector of the community.*

**Recommendations:**

- 1 Collaborate with local utilities to make citizens aware of existing efficiency programs, incentives, and assistance.
- 2 Develop new incentive-based programs specifically for Lawrence residents and businesses as part of the comprehensive education and outreach program (see Strategy #5). Such programs should include incentives for energy efficient buildings and the practice of effective energy conservation.
- 3 Enhance current building codes to increase energy efficiency in new construction and remodeling work. Codes should require the use of high-efficiency systems and longer lasting construction materials (to reduce lifecycle energy costs).
- 4 Implement tax abatements and other incentives, as well as strengthened enforcement, to drive these changes.

**Relative Progress:****Progress Narrative:**

We have collaborated closely with Westar as part of the Take Charge challenge, promoting Westar's EfficiencyWorks programs. We have also collaborated on educational outreach to SmartStar pilot communities, and the Fire/Med Challenge. Take Charge Challenge (January 1-October 1) provides a competition to drive Lawrence residents to take advantage of the incentives offered by Westar and Efficiency Kansas. City received \$25,000 to support energy efficiency education to residents.

Ordinance 8583 - adopted the International Energy Conservation Code, 2009 edition (the most recent to-date)  
We have the strengthened enforcement through the adoption IECC, but have not developed tax incentives/abatements.

Summer 2010- Westar announces SmartStar smartmeter project, works with City staff to plan implementation.

November 2010- City Commission authorizes purchase of EnergyCAP software to track city energy use and GHG emissions.

October 2010 - City Commission adopts 2009 International Energy Conservation Code.

December 2010 - City adopts resolution to participate in the Take Charge Challenge

**Appendix for Strategy # 2: ENERGY AND BUILDINGS**

\* EH note: highlighted initiatives below are being most actively pursued.

**1. Community Actions**

- 1-a. Provide rebate fees for high performance building.
- 1-b Tie tax abatement policy to energy conservation standards.
- 1-c. Support concentrated (higher density building) and mixed use land development.
- 1-d. Waive additional property taxes associated with energy conservation measures.

**1-e. Develop porch light program.** (Replacement of porch lights with CFLs or other energy efficient light fixtures). <http://www.projectporchlight.com/>

- 1-f. Perform infrared scans of homes in older neighborhoods, detecting poorly insulated homes and inefficient windows, to provide education and incentives to home owners to improve the energy efficiency of their homes.
- 1-g. Provide community education on parasitic power usage from computers, monitors, media players, and TVs.

**2. Regulatory/Statutory Action**

**2-a. Enhance the City's current energy conservation codes to reduce energy consumption in new construction and remodeling work.**

<http://www.neep.org/newsletter/1Q2008/codes.html>

- 2-b. Modify current International Energy Conservation Code to require that all new residential single family and multi-family domestic hot water heating and comfort heating is done with high efficiency natural gas fired equipment. Natural gas produces 121-150 pounds of CO2 per million BTUs and electrical power produces 424-433 pounds of CO2 per million BTUs.
- 2-c. Modify building codes to require or encourage longer lasting and lower maintenance construction materials.

**3. Enhance City Facilities**

**3-a. Perform comprehensive energy analysis of all city facilities for potential energy conservation measures to reduce energy use and reduce emissions of green house gases, to be up dated every 5 years.**

3-b. Improve performance of materials used by the city so that they are not replaced as often. Example: Improve the performance of concrete mix for curbing and maintenance to improve durability.

3-c. Develop policies that only EPA rated Energy Star products are purchased.

3-d. All new City Facilities shall be LEED certified or meet other similar type guidelines.

**3-e. Provide real time monitoring of energy use at City facilities.** This would allow the city to note high energy consumption prior to waiting for the monthly bill to arrive.

3-f. Develop policies or measures related to turning off electronics (computers/chargers) when not in use (parasitic power usage).

3-g. Locate new city facilities based on energy efficiency, higher density building.

**Strategy:****STRATEGY #3: INCORPORATE  
THE GOAL OF REDUCING  
GREENHOUSE GAS  
EMISSIONS INTO LAND USE  
PLANNING****Description:**

CPTF recommends that the City utilize the planning process to assist the community in energy conservation and GHG emission reductions. This includes development of land use and planning policies, regulations, and incentives that support more energy efficient means of transportation and reduce reliance on personal automobiles. CPTF also asks that the City consider the effects of development activities, transportation system decisions, and long-range planning on climate change, when drafting Chapter 16, a new environmental chapter, for Horizon 2020. Updates to the City's long-range transportation plan, Transportation 2030, should include these considerations, as well.

**Recommendations:**

- 1 Zone land as transit-oriented development (TOD) near highly used transit stops and incentivize this type of development.  
Review transportation and development projects and long-range plans to assess their contributions to GHG emissions in the city to ensure that we are working towards the target reduction. And set a target for transportation-related emissions.
- 2
- 3 Focus on redevelopment and infill where infrastructure currently exists.  
  
Incorporate Complete Streets principles in new and existing developments. Complete Streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and bus riders are able to safely move along and across a complete street
- 4
- 5 Improve urban design of development projects and roadways to accommodate a multi-modal transportation system. Adoption of a Complete Streets policy could assist in implementation of this recommendation  
  
Adopt bicycle/pedestrian level of service standards and guidelines for new developments, repair crumbling sidewalks and invest in new sidewalk segments to ensure continuity. Develop street design standards that include bicycle/pedestrian friendly accommodations and repair or retrofit areas of the city where bicycle facilities are now needed. Complete the implementation of a comprehensive network of bicycle facilities identified in the bikeway system map. Continue to mandate and enforce bicycle parking for new development and retrofit other areas, including transit stops, to provide adequate bicycle parking.
- 6
- 7 Consider The PLACE3S approach to urban planning. PLACE3S uses energy as a yardstick to evaluate the efficiency with which we use our land, design our neighborhoods to provide housing and jobs, manage our transportation systems, operate our buildings and public infrastructures, site energy facilities, and use other resources.
- 8 Encourage the use of LEED-ND (LEED for Neighborhood Development).

**Relative Progress:****Progress Narrative:**

Mixed Use zoning, which includes many TOD elements, approved in April 2011 for property at 14<sup>th</sup> St. and Ohio Street

An update to T2030, the Metropolitan Transportation Plan, will be undertaken in 2011/2012 and will review these types of issues.

Since the recession, very little new infrastructure has been constructed in the city of Lawrence, while several infill projects have been approved and/or constructed, such as the 7-story multi-use building at 9<sup>th</sup> and New Hampshire

A complete streets policy is planned to be considered by the Lawrence and County governing bodies in 2011.

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Complete Streets design standards incorporate bicycle and pedestrian accommodations. The bikeway system map has been recently updated by the transportation dept. of the MPO (Spring 2011), and thousands of copies have been distributed in the community. Sidewalk gaps are completed as funding is available. Over 1/2 mile of new sidewalk will be built in 2011 as part of the sidewalk gap program.

No report.

While LEED-ND has not been codified, the Mixed Use district does encourage the use of LEED structures through an incentive program.

**Strategy:****STRATEGY #4: DEVELOP  
TRANSPORTATION POLICIES  
AND PROGRAMS TO  
CONSUME LESS ENERGY AND  
REDUCE EMISSIONS****Description:**

The climate protection plans of many cities focus on reducing the number of miles that the community's vehicles travel. Yet, greenhouse gases are emitted when vehicles idle as well as travel. With that in mind, CPTF transportation recommendations are designed to reduce the amount of fuel the vehicles burn in Lawrence both in City operations and community use.

**Recommendations:**

- 1 Continue efforts to consolidate the T and KU on Wheels and increase efforts to optimize routes and connectivity with other transportation systems such as Amtrak and the K-10 Connector
- 2 Provide transit prioritization traffic flow, a system providing signal prioritization for buses
- 3 Coordinate with USD 497 to develop a program for families with school age children to use public transit or coordinate walking school buses.
- 4 In cooperation with Topeka, Mid-America Regional Council (MARC), and Kansas City, develop a regional transit system (a commuter bus or light rail system along the Kaw River corridor).
- 5 Promote public transit with an employer/commuter financial incentive program. Commuter choice programs offer federal tax incentives or employee-paid pretax benefits for public transportation.
- 6
- Implement fuel reductions policies and programs for the municipal fleet
- 7 Avail of the following programs:
  - a. Green Commute Challenge. [4]
  - b. MARC's Carpool Connection.[5]
  - c. Parking Management.[6]
  - d. State van-pools.[7]
- 8 Develop park-and-ride lots
- 9 Create City-wide, enforceable anti-idling program and policy
- 10 Promote workplace policies that encourage employees to bicycle and walk.
- Establish a goal to become a Bicycle Friendly Community designated at the platinum level from the League of American Bicyclists.
- 11
- 12 Provide monitored bike parking at special events.
- 13 Review and modify laws and policies affecting bicyclists and ensure effective procedures are in place for handling violators and for training law enforcement officers.
- 14 Implement a Smart Bike or bicycle-sharing program.
- 15 Review parking requirements in line with some best practices, which includes shared parking for some uses and maximum (not minimum) parking requirements in some instances. (Fewer parking spaces result in less driving.)
- 16 Charge a higher fee for parking.

**Relative Progress:****Progress Narrative:**

Continued coordination between the T and KU on Wheels, both systems are entering into the third year of shared map production and the second year at their new joint maintenance facility.

No report.

Three applications from Douglas County were submitted to KDOT for funding for Safe Routes to School programs. Two from Lawrence and one from Eudora. The award announcement from KDOT will happen in September.

The concept of commuter transit has been discussed during the past two years of the KDOT 5-County Transportation Study. Contact Thomas Dow (tdow@ksdot.org) or Joel Skelly (joelsk@ksdot.org) at KDOT for more information.

Unknown. Currently only KU offers free transit rides to students/faculty.

The Public Works anti-idling policy was modified to a City wide policy in 2008 and has been in place ever since. The City demonstrated several GPS systems in November of 2010. We determined the system that provided the most information at the most reasonable price and began installation of these units in January of 2011. Currently Solid Waste, Street, Building Maintenance, Engineering, Traffic and Utilities Departments have at least part of their fleets completed.

In 2010, the MPO was told by FHWA that the Community Planning Grant funds would no longer be able to pay for membership in this program. The MPO was forced to terminate future agreements with MARC for membership in the Carpool

Connection because monies to participate were not available  
MPO staff are attempting to secure funding to conduct a countywide Park-and-ride location study.

We do not have a community-wide policy, but the city has had this place and we can monitor most of the heavy equipment and limit the idle time by adjusting the computers. Idle reports from all units with GPS come automatically to the supervisor desk top or smart phone and the garage every time there is a violation. Speeding alerts likewise come in automatically.

The Bicycle Advisory Committee supported letters and posters sent to select local businesses to encourage Biking to Work during May.  
The Bicycle Advisory Committee continues the efforts to encourage improvements to bicycle infrastructure and culture in Douglas County to achieve further success in the Bicycle Friendly Community program.

The Lawrence Complete Streets group hosted bicycle parking at Earth Day 2011; this was a huge success for the event!  
The City Commission changed local ordinances that effected riding on sidewalks and two abreast within the city limits.  
No report.

No report.

Parking fee hours were extended until 6 PM and recently rates were increased.

## Strategy:

### STRATEGY #5: ESTABLISH OUTREACH AND EDUCATION PROGRAMS ON EMISSION REDUCTION ISSUES

## Description:

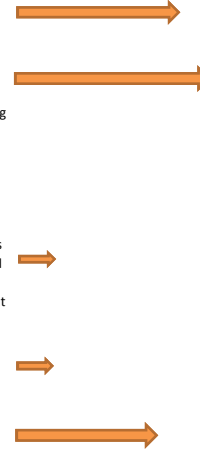
CPTF recommends the development of a comprehensive education and outreach program that not only raises awareness about the local impacts of climate change and possible solutions, but also connects the community with the resources necessary to implement changes within their homes, businesses, and institutions. The general tone of the program should be to reward those that make significant progress and set the example for the community.

## Recommendations:

- 1 Energy Efficiency and Conservation Education and Outreach: Promote programs, incentives, and assistance available through state and federal government, and local utilities. Collaborate with local utilities to establish an incentives-based program in Lawrence. As an example, Westar Energy could pattern programs based on those developed by Midwest Energy for Salina, Kansas.
- 2 Develop community incentives (rebates) for building energy efficient buildings and practicing effective energy conservation. Examples include building to LEED standards, weatherization of existing buildings, the purchase of energy efficient appliances and other energy-saving measures
- 3 Develop porch light program that replaces incandescent porch lights with CFLs or other energy efficient light fixtures. ([www.projectporchlight.com](http://www.projectporchlight.com))
- 4
- 5 Develop a partnership with University of Kansas and Haskell University student organizations and local utilities to provide energy conservation resources to off-campus students, modeled after the Colorado University-Boulder Green Teams Neighborhood Sweep.[1]
- 6 Perform drive by street view infrared scans (detecting poorly insulated homes and inefficient windows) of homes to provide education and incentives to homeowners to improve the energy efficiency of their homes.
- 7 Provide community education on parasitic power usage from computers, monitors, media players, and televisions.
- 8
- 8 Develop an online interface for information and resources to include conservation tips; information on incentive-based programs, local contractors and vendors; examples of conservation efforts in the community; and feedback on progress. The Boulder, CO Climate Smart website is a good model (<http://www.bclimatesmart.com/>).
- 9
- 9 Encourage neighborhood groups to assist each other with basic weatherization projects.
- 10 Source Reduction Education and Outreach  
Suggested focus areas for the next five years should be:
  - 1) Paper
  - 2) Packaging and containers
  - 3) Organics (food waste and yard waste).
- 11 K-12 Curriculum

A K-12 curriculum should be developed to be incorporated into the Lawrence School District and be made available online for use by the Lawrence Virtual School and area home schools. Such a curriculum should provide unbiased environmental education on climate and energy that addresses the areas targeted in this report. A partnership between the City of Lawrence, USD #497, the Kansas Association for Conservation and Environmental Education (KACEE) and their Green Schools program, and other stakeholders would ensure that materials developed for the curricula would also help schools meet state science (and other applicable subject) standards and standards for excellence in environmental education.

## Relative Progress:



## Progress Narrative:

The Take Charge Challenge is built upon this very premise: Linking residents with existing programs and incentives provided by Westar, the Kansas Energy Office, and Efficiency Kansas.

Westar has adopted the Efficiency Kansas program (modeled after Midwest Energy) - called Simple Savings.

To-date, the City has not explored rebates offered to community members for building practices. However, our Development Services Dept. utilizes the CDBG funding specifically for energy upgrades to homes of low-moderate income Lawrence residents.

We have not focused specifically on porch lights, but Take Charge utilizes this same model of peer-to-peer outreach: [www.takechargeks.org](http://www.takechargeks.org)

In the Spring of 2009, the City and KU collaborated on a grant application to EPA to fund this type of program. We did not receive the grant. However, during the month of April, the dorms at KU and K-State competed in an energy-reduction contest.

This is an integral component of the Fire/Med Smackdown, and several recent Sunflower Horizons articles. [lawrenceks.org/sustainability](http://lawrenceks.org/sustainability), [douglas-county.com](http://douglas-county.com) (Sustainability Dept.), and the Flame Newsletter (both print and online) have been utilized for tips. We have also collaborated with the Chamber to publish energy efficiency and Take Charge updates to the business community. This past Spring, we collaborated with KU/Chamber/LJWorld to promote the Sustainability Trailblazers awards in 6 categories - highlighting businesses, nonprofits, and organizations striving towards sustainability goals.

\*this will likely be an outcome of the SWTF process, currently underway.

I'm not sure what role the City can/should play in curriculum development. Ideas?

December 2010 - City adopts resolution to participate in the Take Charge Challenge

Earth Day, 2011 - Sustainability Trailblazers awards presented in South Park

January 15, 2011 - Westar rolls out Simple Savings (onbill financing for Efficiency Kansas)



## Strategy:

### STRATEGY #6: EXPAND SOURCE REDUCTION AND WASTE REDUCTION PROGRAMS AND INITIATIVES

Established by [Resolution No. 6918](#), the Solid Waste Task Force (SWTF) should develop recommendations to the Lawrence City Commission regarding the long-term solid waste options for the citizens of Lawrence.

#### The Solid Waste Task Force will:

- Articulate / document the services currently provided through solid waste user fees.
- Articulate issues driving recommendations for service changes.
- Consider solid waste services that may be included in the long-range plan for the Lawrence community (such as, variable rate pricing, curbside recycling, yard trimmings collection, bulky item collection, and so on).
- Seek community-wide input in the options for desired solid waste services.
- Develop recommendations for the Lawrence City Commission regarding implementation of services or changes to existing services.
- Propose timelines and educational outreach to achieve recommended service levels.

## Description:

In order to achieve meaningful reduction of GHG emissions generated from and by waste, the community must practice source reduction and diversion. Source reduction refers to any change in the design, manufacture, purchase, or use of materials or products (including packaging) to reduce their amount or toxicity before they become municipal solid waste. Source reduction also refers to the reuse of products or materials.

## Recommendations:

To support GHG reductions and benchmark progress, the CPTF recommends the following target goals for maximum waste generation: 2013 (5 year goal): 3.0 lbs per person per day 2018 (10 year goal): 2.75 lbs per person per day 2023 (15 year goal): 2.25 lbs per person per day (or 50% of EPA national average, generated municipal solid waste)

**Waste diversion refers to how waste is managed once it is produced, other than disposal in a landfill. Diversion is not carbon neutral. Suggested streams to target for diversion from landfill or alternative management include:**

Bottles and containers

Electronic waste

Food waste management

Plastic bags

Move-in / move-out materials

Co-location of industries and/or by-product synergy

## Progress Narrative:

A plan on how to meet these target goals has not been developed yet. The Solid Waste Task Force established in February 2011 will develop solid waste and recycling recommendations for the City Commission by March 2012.

The Solid Waste Task Force will consider waste streams to target for diversion that may be included in the long-range plan for Lawrence. In the meantime, the City's Waste Reduction and Recycling Division (WRRD) continues to provide information and some services for the targeted waste streams listed below.

Information on where to recycle is available via the City's WRRD info phone line, website, brochures, and other outreach material.

The City's WRRD continues to host two electronic recycling events per year and inform residents and businesses about electronics recycling opportunities in Lawrence (i.e. Best Buy, Office Depot, UNI Computers).

Residents are the current target audience. The City's WRRD continues to sell backyard composting bins as a way for households to manage their food waste at home.

Information on where to recycle is available on the City's WRRD info phone line, website, brochures, and other outreach material.

An article with moving tips is included in the City's Flame newsletter in the summer. Information is also included in a news release, WRRD website and Facebook, etc.

No report.

Ongoing - SWTF meets bi-monthly to study solid waste options

Feb. 15th 2011, City adopts resolution authorizing the Solid Waste Task Force - outlining its goals and membership structure.

**Strategy:****STRATEGY #7: EXERCISE  
LEADERSHIP BY PRIORITIZING  
EFFORTS TO REDUCE GREENHOUSE  
GAS EMISSIONS IN MUNICIPAL  
OPERATIONS****Description:**

As leaders in the community, CPTF recommends that **municipal operations and major institution take steps to both mitigate and adapt to the impacts of climate change**. CPTF recognizes comprehensive emissions reductions require active participation by all community members, including residential, commercial, industrial, and institutional entities.

Recognizing there are significant lags in replacing existing infrastructure owned and operated by the City, **this prioritized list of policies emphasizes upgrades and increased efficiency first, and replacement only after sufficient capital depreciation has occurred**.

**Recommendations:**

- 1 Set a goal for reducing energy use in City buildings. Contract with a consulting firm to perform energy audits on City buildings, starting with the highest energy users first. (Audits should be performed every five years.)
- 2 Upgrades of all lighting, heating/ventilation/air conditioning systems, and building envelopes/insulation should be considered to maximize investment in efficiency. If it is beneficial, consider contracting with an Energy Service Company to provide energy savings guarantees, rather than subcontracting work on a per-job basis.
- 3 As articulated in the City Commission Goals section of the 2009 Operating and Capital Improvements Budget, identify new building standards that require a significant increase in energy efficiency, relative to a comparable building. The United States Green Building Council's Leadership in Energy and Environmental Design (LEED), the American Society of Heating, Refrigerating and Air-Conditioning Engineer's Advanced Energy Design Guides, the Department of Energy's High Performance Buildings, and the City of Tucson's Sustainability Energy Standard all provide representative, high-efficiency standards. New building standards should include, but are not limited to: site orientation that maximizes passive solar heat gain; use of high R-value insulation, high efficiency windows; inclusion of alternative energy sources such as geothermal, photovoltaic and wind; use of reflective roofing materials or rooftop plantings; and high efficiency lighting and HVAC systems.
- 4 In choosing the location for city services, include building energy efficiency and density into the evaluation procedure.
- 5 Remedy the concern expressed in the Greenhouse Gas Inventory that government reporting of electricity consumption is insufficient. Consider providing real time monitoring of energy use at City facilities.
- 6 Increase efforts to change over to light emitting diode (LED) traffic lights, LED or other high efficiency streetlights, and as articulated in the City Commission Goals section of the 2009 Operating and Capital Improvement Budget, implementation of traffic light coordination. (The city has tested two test LED street lights on 9th Street and Vermont to determine a standard for city street lights.)
- 7 Develop policies related to turning off electrical devices when not in use, thereby reducing parasitic power usage.
- 8 As articulated in the City Commission Goals section of the 2009 Operating and Capital Improvement Budget and in the interest of long-term infrastructure planning, take into consideration changes in the intensity of design storms when confronting future storm sewer and roadway infrastructure decisions.
- 9 Enhance the City's current energy conservation codes to reduce energy consumption in new construction and remodeling work.
- 10 Modify current International Energy Conservation Code to require that all new residential single family and multi-family domestic hot water heating and comfort heating is done with high efficiency natural gas fired equipment. Natural gas produces 121-150 pounds of CO2 per million BTUs and electrical power produces 424-433 pounds of CO2 per million BTUs. This code enhancement should be monitored as more electrical power is produced by renewable systems that have little if any green house gas emissions.

**Progress Narrative:**

We have not yet set a City-wide goal for reducing energy use in our facilities. However, we have conducted two energy audits in 2011 - the solid waste facility and the police ITC building. The Energy Management Team meets every 2-3 months to review EnergyCAP data and prioritize energy efficiency projects. City staff received a presentation on the state's FCIP program (for ESCOs), but has not moved forward on a performance contract.

The library renovation is the only significant building project underway in the City. That building is striving for LEED Gold certification. We do not yet have a policy that mandates LEED.

The library renovation is a good example of how we're working with existing structures to encourage density.

In 2010, we purchased EnergyCAP to monitor energy use (natural gas, water, electricity, fleet fuels) across all city meters and departments. The addition of the Westar Smartmeter will add additional monitoring capabilities.

o LED lights in traffic signals are currently saving the city approximately \$50,000/yr. It is estimated that completing the LED conversion at remaining intersections would reduce cost an additional \$17,000/yr.

No report.

No report.

Ordinance 8583 - adopted the International Energy Conservation Code, 2009 edition (the most recent to-date)

The environmental procurement policy has not been updated since 1999.

The environmental procurement policy has not been updated since 1999.

No report.

No report. See Chapter 16 of Horizon 2020 for water planning recommendations

No report. See Chapter 16 of Horizon 2020 for water planning recommendations

No report. See Chapter 16 of Horizon 2020 for water planning recommendations

**Facilities and Infrastructure****Procurement****Water****Waste**

Develop waste reduction strategies specific to municipal operations (management practices and the possible development of a localized green team).

The Fire Department has a "green team" and we are looking to replicate in city departments.

#### Fleet

Adopt and implement operational policies that minimize fuel consumption in the vehicle fleet by route optimization, idling reduction, maintenance practices and/or other means and document emissions reductions from those policy changes.

See strategy #4

Reduce the overall impact of the Lawrence Police Department by investing in technology that will minimize the need for idling.

No report.

Consider the use of auxiliary power sources and/or power units to operate vehicle accessories and climate controls while the engine is turned off.

No report.

Examine the establishment of police precincts to reduce use of idling patrol cars used as "offices" with computers.

No report.

Equip patrol vehicles with bike racks and increase bike patrols.

No report.

Developing a patrol car take home policy which reduces fuel use

No report.

Reduce the overall impact associated with the collection of waste and recyclables:

See strategy #4 and #6

Develop waste management strategies to reduce carbon footprint of collection.

See strategy #4 and #6

Increase bio-content of diesel fuel used.

See strategy #4 and #6

Upsize containers for decreased frequency of collection (evaluation required per site) (on-going, but important to note).

The choice of sanitation truck technology will be able to advance after the SWTF recommendations help determine the future operations of the sanitation fleet.

Optimize collection routes (on-going, but important to note).

See strategy #4 re: GPS system

Move the public transit and other vehicles away from diesel fuel and toward the cleanest burning fuel, which may include, but not be limited to biodiesel, compressed natural gas (CNG) and electricity. Install necessary infrastructure for converted fleet.[3]

In July 2011, the 3 new hybrid 40 foot transit buses will begin serving the downtown/KU routes.

Purchase hydraulic hybrid front load sanitation trucks to replace retired trucks. This vehicle generates pressure during braking, which is converted into energy (hydraulic), which is used to resume lost momentum (start up). Costly brake repairs are reduced.[4]

The choice of sanitation truck technology will be able to advance after the SWTF recommendations help determine the future operations of the sanitation fleet.

Utilize EPA grants for diesel oxidation catalysts.[5]

Applied in 2009 for DERA (Diesel Emissions Reduction Act) grants. Received multiple grants to retrofit all diesel vehicles in fleet.

Right size the fleet and eliminate unnecessary take home vehicles.

No report.

#### Other

Follow closely the evolution of federal and state energy policy; due to the lack of agreement on climate change policy at the federal and state levels, municipalities are at the leading edge of climate protection policy. It would therefore behoove the federal and state governments to take advantage of the efforts made at the municipal level. Energy and environment-related block grants will likely be policy options.

Ongoing

Continue providing support for the farmers market and local agricultural markets, as articulated in the City Commission Goals section of the 2009 Operating and Capital Improvement Budget. Seek out new ways to promote the expansion of local agricultural markets.

The Douglas County Food Policy Council is working to expand local agricultural markets. The library renovation is likely to design space for an expanded downtown farmers market.

Nurture a "culture of conservation" among City employees by disseminating goals, information, and policy changes, and actively encourage changes in personal behavior as they relate to energy use.

Ongoing

Take the opportunity to expand meetings with the Douglas County, USD #497, Haskell Indian Nations University and the University of Kansas, as articulated in the City Commission Goals section of the 2009 Operating and Capital Improvement Budget. Partner with these stakeholders to develop institutional goals and share information. Coordinate on public statements expressing commitment to climate protection policies.

No report

In the interest of maintaining local food supplies, consider prohibiting the conversion of prime agricultural soils to alternate uses.

See Chapter 16 of Horizon 2020

In the interest of human health services planning, consider the effects that higher temperatures will have on the population—especially the very young and very old—when developing public policy.

No report



## Waste Reduction and Recycling Division Report for the Sustainability Advisory Board (07/13/11)

### RECYCLING PROGRAM REPORT

#### OLD CORRUGATED CONTAINERS (OCC)

Cardboard	Tons	Revenue
Current YTD	<b>687.93</b>	<b>\$101,121.80 estimated (waiting on 1 shipment's weight)</b>
Prior YTD	693.81	\$95,292.85
Avg. Price/ton thru June 2011: <b>\$146.99</b> Avg. price/ton thru June 2010: \$137.35		

#### OLD NEWSPAPERS (ONP)

Newspaper	Tons	Revenue
Current YTD	<b>175.49</b>	<b>\$24,442.20</b>
Prior YTD	217.81	\$21,245.95
Avg. Price/ton thru June 2011: <b>\$139.28</b> Avg. Price/ton thru June 2010: \$97.54		

#### OFFICE WASTE PAPER (SOP) AND SORTED WHITE LEDGER (SWL)

Sorted Office Paper	Tons	Revenue
Current YTD	<b>14.80</b>	<b>\$4,054.52</b>
Prior YTD	19.29	\$3,905.40
Avg. Price/ton thru June 2011: <b>\$235.00(SOP)</b> Avg. Price/ton thru June 2010: \$202.46		
<b>\$300.00(SWL)</b>		

#### MIXED WASTE PAPER (MIX)

Mixed Paper	Tons	Revenue
Current YTD	<b>117.12</b>	<b>\$10,310.45</b>
Prior YTD	152.83	\$10,122.38
Avg. Price/ton thru June 2011: <b>\$86.32</b> Avg. Price/ton thru June 2010: \$68.47		

### TOTAL YTD TONS REVENUE

	<b>995.34</b>	<b>\$139,928.97 estimated (waiting on 1 shipment's weight)</b>
Prior YTD	1,083.74	\$130,566.58

# HOUSEHOLD HAZARDOUS WASTE (HHW) AND SMALL QUANTITY GENERATOR (SQG) 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	94	14	4	0	0	1	0	5	5	7
February	62	3	6	0	0	3	0	11	10	6
March	203	6	15	0	0	2	0	12	11	28
April	232	0	12	0	19	2	0	14	14	70
May	272	0	18	0	11	4	0	9	8	65
June	363	1	22	0	31	4	0	9	8	84
July										
August										
September										
October										
November										
December										
<b>TOTAL</b>	<b>1226</b>	<b>24</b>	<b>77</b>	<b>0</b>	<b>61</b>	<b>16</b>	<b>0</b>	<b>60</b>	<b>56</b>	<b>260</b>

# YARD TRIMMINGS COLLECTION AND COMPOST PROGRAM REPORT

<u>Yard Trimmings Collection: Year To Date</u>		Residential Tons Collected Curbside	Commercial Tons Received	Other Tons Received (Christmas Trees)	Total Tons This Month	Average Preferred Container Compliance
2011	January	NA	57.2	21.65	78.85	NA
	February	NA	57.1	NA	57.1	NA
	March	337.65	282.1	NA	619.75	99.4%
	April	646.38	370.3	NA	1,016.68	99.3%
	May	448.44	312.5	NA	760.94	99.7%
	June	376.20	317.1	NA	693.3	99.7%
	July					
	August					
	September					
	October					
	November					
	December					
	<b>2011 TOTAL</b>	<b>1,808.67</b>	<b>1,396.3</b>	<b>21.65</b>	<b>3,226.62</b>	<b>99.5%</b>



## **City of Lawrence Electronic Recycling Event** **Saturday, May 14, 2011**

The City of Lawrence Waste Reduction and Recycling Division hosted an Electronic Recycling Event on Saturday, May 14th. The event was held from 9:00 a.m. to 1:00 p.m. at the Free State High School parking lot located at 4700 Overland Drive, Lawrence.

During the four hour event, a total of six hundred thirty eight (638) vehicles dropped off 45,551 pounds (22.78 tons) of electronic equipment including computers, monitors, printers, copiers, scanners, fax machines, televisions, video and audio equipment, household batteries, microwaves and other small appliances, cell phones and other hand held devices.

Electronic recycling was provided by The Surplus Exchange. The Surplus Exchange diverts consumer electronics from the waste stream insuring that the material is properly recycled in accordance with Basel Action Network guidelines.

[www.surplusexchange.org](http://www.surplusexchange.org)

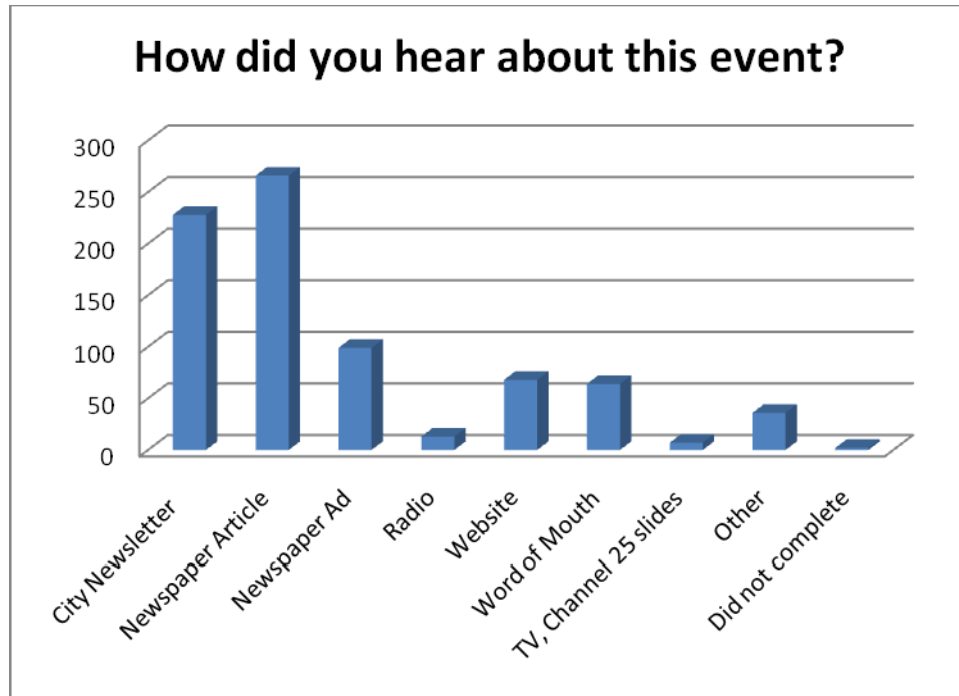




## **Event Summary and Survey Results:**

- A total of 45,551 pounds or 22.78 tons of electronic equipment including computers, monitors, printers, copiers, scanners, fax machines, televisions, video and audio equipment, household batteries, microwaves and other small appliances, cell phones and other hand held devices were collected for recycling.
- Two hundred thirty (230) computer monitors and one hundred sixty nine (169) televisions were collected for recycling in addition to other electronics.
- Six hundred thirty eight (638) vehicles participated representing six hundred ten (610) households and sixty five (65) businesses.
- Ninety four percent (94%) of participants were Lawrence households and businesses. Other participants were from Baldwin City, Eudora, Lecompton, Linwood, McLouth, Overbrook, Topeka, and Perry.
- Seventy four percent (74%) of participants brought five or fewer electronic items. Sixteen percent (16%) of participants brought six to ten items. Ten percent (10%) brought more than ten items.
- Forty seven percent (47%) of those surveyed had not participated in a Lawrence Electronic Recycling Event before. Fifty three percent (53%) of participants had participated previously.





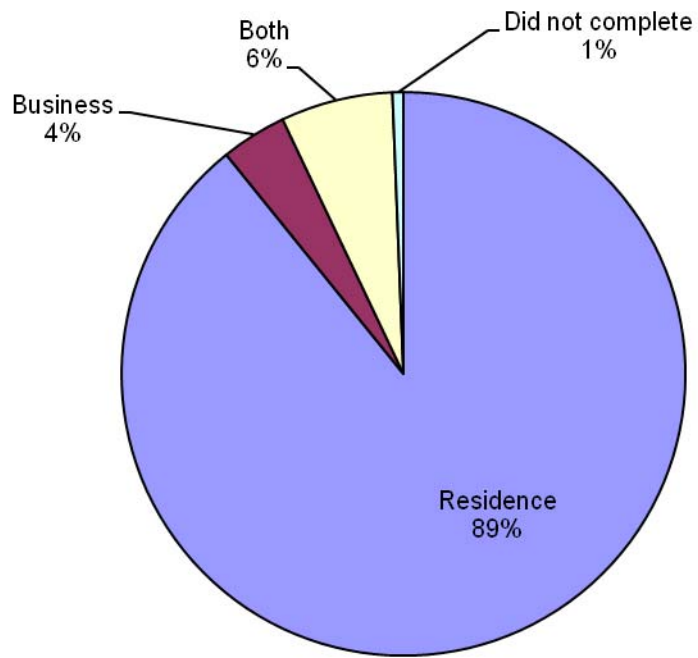
### How did you hear about this event?

City Newsletter	228	29%
Newspaper Article	266	34%
Newspaper Ad	99	13%
Radio	13	2%
Website	68	9%
Word of Mouth	64	8%
Other: TV, Channel 25 Slides	7	1%
Other: Email	10	1%
Other: Called City	1	0%
Other: Event Signs	3	0%
Other: Facebook	3	0%
Other: Internet	1	0%
Other: Work for the City/City staff member	5	1%
Other: Handout/Guide at City Event	5	1%
Other: (did not specify)	8	1%
Did not complete	2	0%
<b>Total</b>	<b>783</b>	<b>100%</b>

*Note: many participants marked more than one answer for this question.*



### Where are your electronics from?

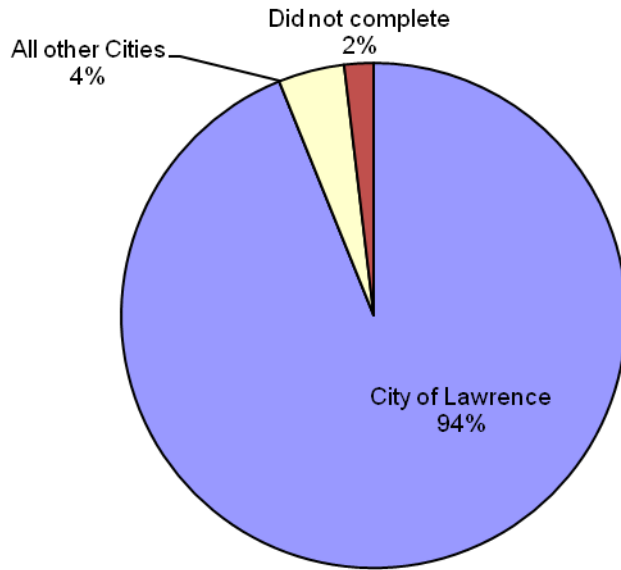


### Where are your electronics from?

Residence	569	89%
Business	24	4%
Both	41	6%
Did not complete	4	1%

<b>Total</b>	<b>638</b>	<b>100%</b>
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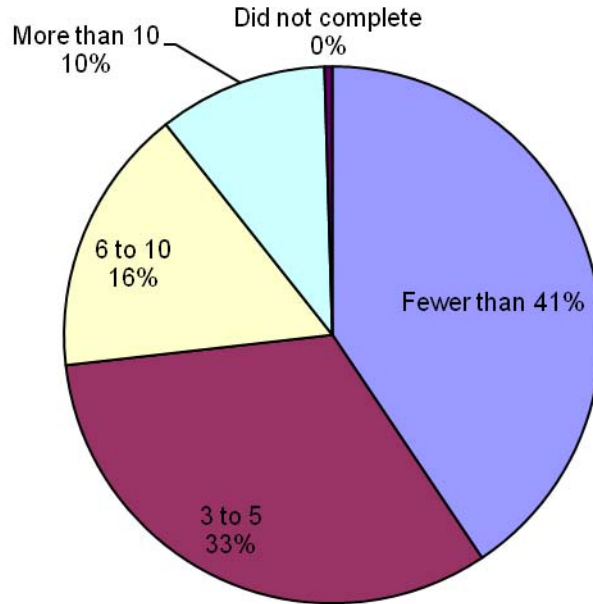
### Participation by City



### What is your zip code?

Zip	City	Number	Percent
66006	Baldwin City, KS	8	1%
66042	Lane, KS	1	0%
66025	Eudora, KS	3	0%
66044	Lawrence, KS	101	16%
66045	Lawrence, KS	2	0%
66046	Lawrence, KS	74	12%
66047	Lawrence, KS	143	22%
66049	Lawrence, KS	279	44%
66050	Lecompton, KS	4	1%
66052	Linwood, KS	2	0%
66054	McLouth, KS	2	0%
66524	Overbrook, KS	3	0%
66215	Lenexa, KS	1	0%
66066	Oskaloosa, KS	1	0%
67156	Winfield, KS	1	0%
66073	Perry, KS	1	0%
Did not complete	Did not complete	12	2%
<b>Total</b>		<b>638</b>	<b>100%</b>

### How many electronics are you bringing?

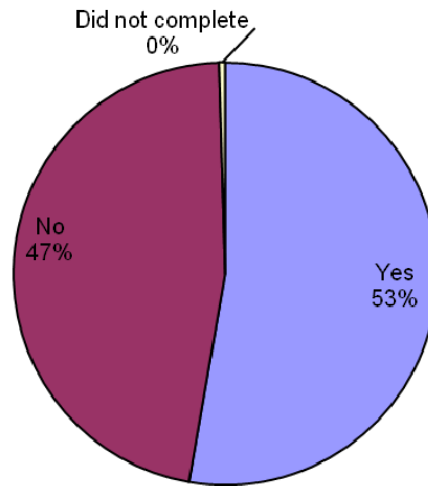


### How many electronics are you bringing?

Fewer than 3	259	41%
3 to 5	208	33%
6 to 10	103	16%
More than 10	65	10%
Did not complete	3	0%

<b>Total</b>	<b>638</b>	<b>100%</b>
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### Have you participated in a Lawrence Electronic Recycling Event before?



### Have you participated in a Lawrence Electronic Recycling Event before?

Yes	337	53%
No	298	47%
Did not complete	3	0%

<b>Total</b>	<b>638</b>	<b>100%</b>
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