

# Memorandum City of Lawrence City Auditor

TO: Members of the City Commission

FROM: Michael Eglinski, City Auditor

CC: David L. Corliss, City Manager  
Diane Stoddard, Assistant City Manager  
Casey Toomay, Assistant City Manager

Date: April 30, 2015

RE: Audit Recommendation Follow-Up April 2015

Following-up on performance audit recommendations provides the City Commission with information on management’s efforts to implement recommendations. This report covers recommendations from 10 performance audits: Street Lights, Solid Waste, Pavement Data Use, Financial Indicators 2011, Rental Housing, Cash Handling, Taste of Water, City-County Cooperation, Financial Indicators 2013, and RCP Infrastructure. City Code requires follow-up reporting.

**Figure 1 Implementation summary**

Status	Number of Recommendations
Implemented	8
Not-Implemented	0
In Progress	15

Figure 2 summarizes the status of all of the recommendations. See Appendix A for the City Manager’s written update on recommendation status and attachments.

## **Action item**

The City Commission can direct the City Auditor to “close” the audit recommendations categorized as implemented. Closed recommendations won’t be included in future follow-up.

**Figure 2 Status of recommendations**

Performance audit	Recommendation	Implemented	Not Implemented	In Progress	Undetermined
Street Lights	The City Manager should evaluate the feasibility of acquiring the street lights from the utility company.	<input checked="" type="checkbox"/>			
	The City Manager should request Westar Energy to adopt estimated kWh rates for street lights that are consistent with those of other utilities.			<input checked="" type="checkbox"/>	
Solid Waste	Include additional performance measures and benchmarking information in annual rate memos.			<input checked="" type="checkbox"/>	
Pavement Data Use	Develop a maintenance policy for city streets paved in brick and with pavement over brick.			<input checked="" type="checkbox"/>	
Financial Indicators 2011	Prepare and present to the City Commission a 5-year Capital Improvement Plans for the city as a whole.			<input checked="" type="checkbox"/>	
	Prepare and present to the City Commission multi-year financial projections of major revenues and expenditures.			<input checked="" type="checkbox"/>	
Rental Housing	Write policies and procedures for the rental inspection program. The written documentation should address program practices and cover the elements of good practice identified in this performance audit.	<input checked="" type="checkbox"/>			
	Establish performance measures and reporting for the rental program.	<input checked="" type="checkbox"/>			
	Propose an ordinance to raise the fee level to better recover program costs.	<input checked="" type="checkbox"/>			
	Seek direction from the City Commission about whether the city should continue to exempt rental properties in the PUD areas that were formerly RS zoned.	<input checked="" type="checkbox"/>			
Cash Handling	Develop training for employees and managers responsible for handling cash.			<input checked="" type="checkbox"/>	

Taste of Water	If the city does resident surveys in the future include questions about the taste and odor of water and efforts to communicate about taste and odor issues.			<input checked="" type="checkbox"/>	
	Develop and report measures related to taste on a regular basis, such as annually. Sources of data for reporting could include resident surveys, complaints, laboratory testing results and results of sensory tests such as smelling samples of water.			<input checked="" type="checkbox"/>	
City County Cooperation	Create guidelines for when cooperation should be formalized.			<input checked="" type="checkbox"/>	
	Create guidelines for a consistent method to entering into cooperative agreements.			<input checked="" type="checkbox"/>	
Financial Indicators 2013	Once the city has received an updated study of obligations related to retired employee health care, the City Manager should provide the City Commission updated information about those costs and risks associated with those costs.	<input checked="" type="checkbox"/>			
RCP infrastructure	Collect the application fee payment required for the industrial revenue bond application for Rock Chalk Park.	<input checked="" type="checkbox"/>			
	Provide a report at the end of construction that identifies issues identified in the monthly reports and how those issues were addressed.	<input checked="" type="checkbox"/>			
	Ensure that Rock Chalk Park infrastructure is included in existing inventory and condition assessment systems.			<input checked="" type="checkbox"/>	
	Develop infrastructure inventory and condition assessment systems for city parking infrastructure.			<input checked="" type="checkbox"/>	
	Develop performance measures related to Rock Chalk Park infrastructure to track and report in the annual staff report on economic development incentives.			<input checked="" type="checkbox"/>	
	Use the city's miscellaneous billing process for economic development incentive application and related fees.			<input checked="" type="checkbox"/>	
	Provide training to city employees who handle cash.			<input checked="" type="checkbox"/>	
		Implemented	Not Implemented	In Progress	Undetermined

## Recently implemented recommendation

Management implemented eight recommendations since the April 2014 recommendation follow-up.

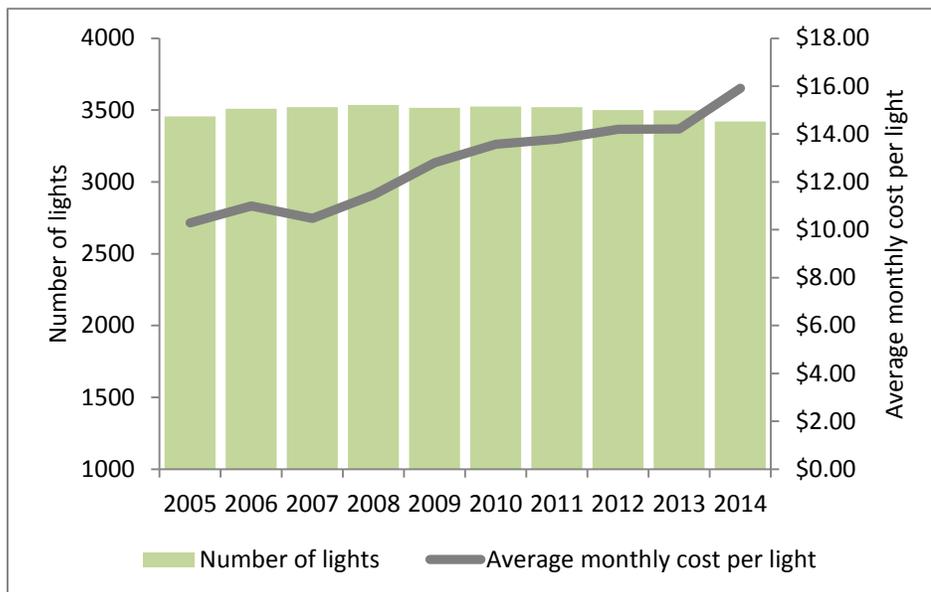
The City Manager determined that purchasing the street lights from the utility company would not be beneficial, but intends to provide testimony to the Kansas Corporation Commission about high rates paid by municipalities for streetlights.

### Background Information on Street Lighting

The 2009 *Performance Audit: Street Lighting* found that Lawrence might be able to reduce costs for street lighting if the city owned and operated the system. Cities that purchased street lights from utility companies reported significant annual savings and better control over street lighting. Cities can reduce costs because they typically have lower financing costs, may have lower installation and maintenance costs, and do not earn a financial return like a utility company. Acquiring the street light system would require careful analysis of the costs and benefits and negotiation with the utility that owns and operates the street lights in Lawrence.

The 2013 *Performance Audit: Updated Information on Street Lighting* found that a number of Kansas municipalities had purchased street light systems, but those municipalities were KCP&L rather than Westar customers. Staff in the cities purchasing lights from KCP&L identified savings totaling about 40 percent of the costs before they bought the lights.

Updated information for this follow-up shows that City costs to provide street lighting have increased. Since 2008, the average charge per light has increased substantially more than inflation. Had the average charge tracked inflation, the city's annual costs for the current leased lights would have been about \$135,000 lower than the actual charges of about \$653,000.



Planning and Development Services staff wrote policies and procedures to guide rental inspections, established regular performance reporting, adopted a new fee structure and incorporated rental properties in PUD areas that had been excluded. Implementing the recommendations should strengthen the programs practices, provide information on the program to the City Commission and public, and reduce the program's reliance on general taxes.

The City's actuary presented the study of the City's obligations related to retiree health care at the June 17, 2014, City Commission meeting. The report provided additional information on the extent the City's liability and made that information broadly available to the public. The Finance Director highlighted risks associated with the liability, specifically that it could result in budget constraints as the costs of retiree health care increase and that bond ratings could be negatively affected.<sup>1</sup>

The City collected the \$1000 required for the Rock Chalk Park industrial revenue bond application. The City received the industrial revenue bond application in February 2013 and received the payment in July 2014.

The Public Works Department prepared a final report on the Rock Chalk Park infrastructure. Together with the monthly reports presented at City Commission meetings, the reporting allowed the City Commission and public to understand issues identified during construction and how those issues were resolved.

### **Scope, method and objectives**

Following-up on the status of audit recommendations provides the City Commission with information about management's efforts to implement audit recommendations. The City Code requires the City Auditor to follow-up on audit recommendations no later than 6-months after issuing an audit, to determine that corrective action was taken and is achieving the desired results. City Code requires that the auditor inform the City Manager and the City Commission of the results of the follow-up.

The City Auditor provided the City Manager with a list of audit recommendations on January 26, 2015, and asked management to provide updates. The request covered open recommendations for reports released more than 120 days ago.

The auditor compiled the information but did not verify the information provided by management. The auditor did not verify that policy and procedure recommendations are being followed. For each recommendation, the auditor made a judgment about the status of the recommendation.

---

<sup>1</sup> *Other Post Employment Benefits*, memorandum from Ed Mullins, Finance Director, to Dave Corliss, City Manager, April 25, 2014.

**Figure 3 Implementation Status Definitions**

<b>Status</b>	<b>Indicator</b>
Implemented	Management describes steps taken to implement the recommendation.
Not implemented	Management asserts that the recommendation will not be implemented or has not taken steps to implement the recommendations.
In progress	Management describes progress toward implementing the recommendation.
Undetermined/pending	Status cannot be determined, for example, because the recommendation requires future actions or because management describes steps that will be taken in the future.

The City Auditor, with the City Commissions' direction, will "close" a recommendation and exclude it from future follow-up reports. Open recommendations will be included in future follow-up reports unless "closed" by the City Commission.

The follow-up information on the status of implementing recommendations was not conducted as a performance audit under *Government Auditing Standards*.

The City Auditor shared a draft of this report with the City Manager.

**Appendix A: City Manager's update on audit recommendation status**

# Memorandum

## City of Lawrence

### City Manager's Office

TO: Michael Eglinski, City Auditor  
FROM: David Corliss, City Manager  
CC: Casey Toomay, Assistant City Manager  
Diane Stoddard, Assistant City Manager  
DATE: March 9, 2015  
RE: Response to Audit Recommendation Follow-Up Report March 2015

The following is provided in response to questions posed on the status of outstanding audit recommendation items.

#### **Street Lights**

- **The City Manager should evaluate the feasibility of acquiring the street lights from the utility company.**

Initial [analysis](#) indicated that acquiring the street light system would not be beneficial given the long pay-back period, unknown maintenance costs, and staffing costs. In 2013, the analysis was [updated](#) to address pending rate increases from Westar, however, the conclusion remained the same.

Staff would recommend providing testimony as to the high rates paid by municipalities for streetlights for the next proposed rate hearing before the KCC.

- **The City Manager should request Westar Energy to adopt estimated kWh rates for street lights that are consistent with those of other utilities.**

As part of previous review of the feasibility of purchasing the system, staff recommended an interim step of working with Westar to determine the cost and potential timing to meter unique streetlight types and charge the same rate for similar lights throughout the system. Westar had previously installed one meter that staff monitored, however, staff was only able to obtain 4 reads before that meter was removed. Without this data, it is difficult for the City to make an informed estimate. As previously noted, staff would recommend providing testimony on rates for the next proposed rate hearing before the KCC.

#### **Solid Waste**

- **Include additional performance measures and benchmarking information in annual rate memos.**

Performance measures and benchmarking information will be included in materials for 2016 rates presented as part of the 2016 budget process. See the attached [memo](#) for more information on performance measures in the solid waste division.

#### **Pavement Data Use**

- **Develop a maintenance policy for city streets paved in brick and with pavement over brick.**

A procedure has been developed and was reviewed by the City Commission on January 21, 2014. Further review by neighborhood associations, the Lawrence Preservation Alliance and the HRC along with final review by the City Commission is anticipated.

### **Financial Indicators 2011**

- **Prepare and present to the City Commission a 5-year Capital Improvement Plan for the city as a whole.**

The 2015 Capital Improvement Plan was adopted by the City Commission on August 5, 2014 as part of the 2015 Budget process.

[http://www.lawrenceks.org/assets/agendas/cc/2014/08-05-14/cmo\\_cip\\_covermemo.html](http://www.lawrenceks.org/assets/agendas/cc/2014/08-05-14/cmo_cip_covermemo.html)

- **Prepare and present to the City Commission Multi-Year Financial Projections of major revenues and expenditures.**

Staff uses a multi-year financial projection of revenues and expenditures for the general fund internally as part of the annual budget process. Work continues on development of projections for the other budgeted funds.

### **Rental Housing**

- **Write policies and procedures for the rental inspection program. The written documentation should address program practices and cover the elements of good practice identified in this performance audit.**

All items have been implemented and addressed with adoption and implementation of the new program effective July 1, 2014.

- **Establish performance measures and reporting for the program.**

All items have been completed and addressed with adoption and implementation of the new program effective July 1, 2014.

- **Propose an ordinance to raise the fee level to better recover program costs.**

All items have been implemented and addressed with adoption and implementation of the new program effective July 1, 2014.

- **Seek direction from the City Commission about whether the city should continue to exempt rental properties in the PUD areas that were formerly RS zoned.**

All items have been implemented and addressed with adoption and implementation of the new program effective July 1, 2014.

### **Cash Handling**

- **Develop training for employees and managers responsible for handling cash.**

The Finance department worked with departments to review and update their cash handling policies in late 2013. Cash handling has also been incorporated into the annual Accounts Payable/Purchasing Seminars held to review the City's policies related to purchasing and accounts payable.

### **Taste of Water**

- **Develop and report measures related to taste on a regular basis, such as annually. Sources of data for reporting should include resident surveys,**

**complaints, laboratory testing results and results of sensory tests such as selling samples of water.**

The results of the Taste and Odor Study were presented to the City Commission in May in conjunction with a recommendation for Scenario 1 for water and wastewater rates, which included Phase I of Taste and Odor Improvements. Phase I Taste and Odor Improvements include replacement of the lime slaker at the Kaw Water Treatment Plant and process optimization improvements at the Clinton Water Treatment Plant, including retrofitting the existing pre-sedimentation and primary basins with tube settlers to increase sedimentation efficiency, addition of carbon dioxide, liquid lime, and ferric chemical feed systems, and rapid mix chambers to enhance the coagulation process. A resident survey is planned and the results made available to the public. The survey will contain questions specific to the taste and odor of the water as well as other customer satisfaction questions. Since the last report of these findings, the department has not received significant resident complaints due to geosmin or MIB.

- **If the city does resident surveys in the future, include questions about the taste and odor of water and efforts to communicate about taste and odor issues.**

The department will include questions on the periodic citizen survey, which is authorized for 2015. This survey data along with laboratory and sensory testing results will be included in public communications as needed. The City Manager is kept informed of taste and odor changes that are observed. Talking points are provided to assist in fielding customer calls. The department continues to analyze and track taste and odor compounds and review the correlation between the levels and customer complaints. This data will be used to refine the current communications and guide operational decision-making.

### **City County Cooperation**

- **Create guidelines for when cooperation should be formalized.**  
Draft guidelines have been prepared and are under review.
- **Create guidelines for a consistent method to entering into cooperative agreements.**

### **Financial Indicators 2013**

- **Once the city has received an updated study of obligations related to retired employee health care, the City Manager should provide the City Commission updated information about those costs and risks associated with those costs.**

The results of the city's actuary study of Other Post-Employment Benefits (OPEB) were included in an agenda for the budget study on May 20, 2014.

[http://www.lawrenceks.org/assets/agendas/ss/2014/05-20-14/ss\\_052014\\_GASB%2045%20Report%20-%202013%20Valuation.pdf](http://www.lawrenceks.org/assets/agendas/ss/2014/05-20-14/ss_052014_GASB%2045%20Report%20-%202013%20Valuation.pdf)

The actuary made a presentation at the City Commission meeting on June 17, 2014. In addition, staff presented recommended strategies to address the OPEB liability which were referred to the City's Health Care Committee.

[http://www.lawrenceks.org/assets/agendas/cc/2014/06-17-14/opeb\\_retiree\\_premiums\\_staff\\_memo.html](http://www.lawrenceks.org/assets/agendas/cc/2014/06-17-14/opeb_retiree_premiums_staff_memo.html).

The Health Care Committee forwarded recommendations to the City Manager in October 2014 to phase in premium increases to 100% for all retirees that retire on or after

January 1, 2016 and to require 10 years minimum employment to be eligible for the retiree healthcare plan. These recommendations will be discussed as part of the 2016 budget process.

### **RCP Infrastructure**

- **Collect the application fee payment required for the industrial revenue bond application for Rock Chalk Park.**

A [letter](#) was mailed on May 2, 2014 requesting the payment. The payment was received on July 18, 2014.

- **Provide a report at the end of construction that identifies issues identified in the monthly reports and how those issues were addressed.**

The attached [memo](#) contains a link to the [final RCP infrastructure completion report](#), which identifies issues identified in the monthly reports and discusses how they were addressed.

- **Ensure that Rock Chalk Park infrastructure is included in existing inventory and condition assessment systems.**

Public Works has added the City streets to their pavement management system. Parks and Recreation maintains a list of major and minor capital projects including maintenance of existing inventory. Projects are added as conditions warrant. At this time, no improvement needs at Rock Chalk Park (tennis courts, landscaping, etc.) have been identified or added to this list.

- **Develop infrastructure inventory and condition assessment systems for city parking infrastructure.**

Parks and Recreation maintains a list of major and minor capital projects including maintenance of existing inventory. Projects are added as conditions warrant. At this time, no improvements to the parking infrastructure at Rock Chalk Park have been identified or added to the list.

- **Develop performance measures related to Rock Chalk Park infrastructure to track and report in the annual staff report on economic development incentives.**

Staff will be adding statistics on usage of Sports Pavilion Lawrence as well as usage of the KU facilities. Convention and Visitor's Bureau data on visitors and tournaments will also be included.

- **Use the city's miscellaneous billing process for economic development incentive application and related fees.**

Miscellaneous billing is now used for recurring economic development items while the Economic Development Coordinator receives incentive application fees upon submittal of an application.

- **Provide training to city employees who handle cash.**

New employees receive departmental training on cash handling, point-of-sale, and customer service. Staff will also be required to attend the annual Accounts Payable/Purchasing Seminars held to review the City's policies related to purchasing and accounts payable.

# Memorandum

## City of Lawrence

### Finance Department

**TO: Mr. David Corliss, City Manager**

**FROM: Brian Watson, Assistant Finance Director**

**Date: 03/30/2012**

**RE: Update on Purchasing Leased Streetlights from Westar Energy**

#### **Background:**

In response to a City audit on Performance Lighting: Street Lighting May 2009 by the City Auditor Michael Eglinski, a committee lead by David Corliss was formed to address the rising costs of providing street lighting services to the citizens of Lawrence. The main focus of this committee was to seek out alternative solutions to the leasing of Lawrence's streetlights on a more long-term cost-savings basis. This committee consists of Cynthia Wager, Ed Mullins, Chuck Soules, Mark Thiel, Michael Eglinski and Brian Watson. Subsequently, two meetings by the committee have been held. The first occurring on February 29, 2011 with Westar Energy Representatives to discuss Lawrence's evaluation of purchasing leased streetlights and the second on March 21<sup>st</sup>, 2011 to discuss from a logistical viewpoint, how the City of Lawrence would run such a City owned street lighting system.

#### **Process:**

The primary question posed to this committee is to determine how the City of Lawrence would independently run and successfully operate a City owned street lighting system. In response to this question:

- Michael Eglinski and Brian Watson contacted other city municipalities such as Lenexa, Olathe and Overland Park that have either successfully bought back their leased streetlights or are in the process of doing so. It was determined from discussions with other municipalities that have either Westar Energy or Kansas City Power and Light leased streetlights that the main obstacle to overcome was not financial in nature, but one that is more logistical. Basically, Westar Energy posed the question, "How would you run it?" With the fore knowledge that logistics would be the main challenge to overcome, this committee has decided to pursue that objection first and focus on financial aspects later.

- The committee had a discussion on what information the City will need from Westar Energy in order to proceed. Chad Luce of Westar Energy did not know if there was a master specifications list for every streetlight that would show the age and/or condition of the streetlights and electrical specifications like type of bulb used. Chad also mentioned the need to do away with their relay controllers and replace them with better sensors.
- The overall timeline of the project was discussed by the committee. Would it be more advantageous to piece meal the project and select a specific test area versus trying to purchase the whole system at once? Chad Luce and Mike Soliday from Westar Energy have compiled a list of several possible locations for Public Works to review that can be possible test sites for piece meal purpose where the streetlights have a more straight forward and easily traceable metering system.
- There was a discussion on the logistics of how the City will maintain a streetlight system. Should the maintenance be contracted out or does the City have the resources to maintain the system in house? Brian Watson will contact Black & McDonald and/or a similar maintenance contracting firm to determine a rough estimate to service a leased streetlight system for the City. The development of a master plan to replace lights and poles would need to be developed.
- With the information learned from Westar Energy and surrounding sister cities, the committee was able to determine that there are three main approaches to take to the purchase of leased streetlights:
  - The first approach is to determine an overall cost of the system as a whole single unit and make an offer to Westar Energy as was done by the City of Lenexa. Though this method seeks to resolve the problem in one step, this method can lead to problems of its own. For example, in doing so Lenexa discovered that they would have to purchase Westar Energy's equipment infrastructure problems. By making a purchase with a buy the whole lot method, Lenexa was forced to purchase newer as well as outdated obsolete poles that were in dire need of replacement. This action in turn forced Lenexa to use a considerable portion of their cost savings to bond and fund an infrastructure replacement plan over the next decade or more.
  - The second approach to purchasing back leased streetlights is to take a piece meal approach. The committee asked Westar Energy to provide Chuck Soules and Mark Thiel several possible test site locations where the streetlights have a more straight forward and easily traceable metering system. The possible test sites would allow a study to be done by Public Works so that they could determine the actual energy use of each streetlight pole and calculate a breakdown and potential savings between the actual cost of energy and the cost of the infrastructure. The possible test sites submitted by Westar Energy are: 9th & New Hampshire, Iowa Street and 9<sup>th</sup>-25<sup>th</sup> Street, Louisiana & Utah, W 6<sup>th</sup> & Rockledge, 23<sup>rd</sup> & Alabama and 32<sup>rd</sup> & Naismith. Public Works is still reviewing the possible test sites to choose one for testing purposes.

- The third approach to purchasing back leased streetlights is similar to the piece meal process, but looks at replacing the streetlights on a per pole basis over time. For instance, the City of Overland Park stopped leasing streetlights from KCP&L decades ago. Any new streetlights needed were installed and maintained by the City at an average cost of \$2000 per steel pole installed. Overland Park found that their average per month lease price to be \$240 for those previously leased poles resulting in a return on investment after 10 years for any new streetlight poles installed by the City versus leasing them. Overland Park over the last couple of decades has also slowly been purchasing back their leased streetlights poles from KCPL. However, they have chosen to only purchase steel poles and not the older outdated wooden poles, in essence cherry picking the best poles they knew would require the least amount of maintenance work over time. This allowed them to build new infrastructure where needed and to minimize their maintenance costs by only purchasing newer steel poles while allowing them to realize a cost savings that funded this project.

### **Future Steps**

Going forward, the committee will continue to elevate the three potential approaches to purchasing back leased streetlights in terms of overall cost savings and feasibility in light of current resources. In addition, the committee will also:

- Review the sample test sites to make a selection that will allow us to determine an actual cost breakdown between the energy and the infrastructure costs.
- Brian Watson will contact maintenance firms like Black & McDonnell to determine a rough estimated cost to service the high voltage requirements of the leased streetlight system for the City.
- Michael Eglinski will speak with the Kansas Corporation Commission to determine if an unmetered municipality owned streetlight system is possible with the current tariff or if a new tariff will need to be created. A tariff could take as long as 240 days to get approval.
- Brian Watson will contact Lenexa to gain insight in how they were able to accomplish their leased streetlight buyback from Kansas City Power & Light. Brian will also continue to talk with Olathe to gain further insight into how they have approached and are progressing in their leased streetlight buybacks from Westar Energy.
  - What were the pole costs?
  - Is everything metered?
  - Logistics before Pricing?
- Brian Watson will continue to work with Chad Luce at Westar Energy to see if Westar Energy has a streetlight asset list that shows how many poles the City has, the type of pole, the condition or age of the poles, the type of lighting bulb used and possible energy consumption rates then compile this information into a database for further analysis.

In October 2013, staff recalculated the 2012 analysis using updated figures for 2013 based on the auditors most recent report and the fact that base charges would be increasing 10%. Holding all variables constant except for the cost savings created by the City taking over the maintenance of the system as a portion of the total base charge, the first year additional cost dropped from \$242,562 in 2012 to \$196,086 in 2013 or an additional potential savings of \$46,476 this year as compared to last year. We would still need to spend an additional \$196,086 per year to operate the system if purchased versus keeping the status quo. A large part of these costs is the infrastructure we would need to pay for each year versus having Westar front the costs and spread those costs to us over the next 28 years.

**Cost Benefit Analysis - Dynamic System Matrix Pricing (2013)**

**\$ 2,856,728.00 Cost to Purchase System (\$806 per pole - Net Book Value)**

A	\$ 177,250.00	Yearly Cost to Sub-Contract Maintenance (\$50 average per light pole)
B	\$ (351,372.00)	Yearly Savings on Westar Materials & Maintenance (\$29,281 Monthly)
C	\$ 182,303.00	Average Yearly New Infrastructure Costs since 2002
D	\$ 101,033.00	Yearly Metering Fee
E	\$ 55,000.00	Yearly Administrative Cost
F	\$ 31,872.00	Yearly Average Bond Interest Cost
	<u><b>\$ 3,052,814.00</b></u>	First Year Cost

**\$ 196,086.00 First Year Additional Cost (A+B+C+D+E+F)**

**Cost Benefit Analysis - Dynamic System Matrix Pricing (2012)**

**\$ 2,856,728.00 Cost to Purchase System (\$806 per pole - Net Book Value)**

A	\$ 177,250.00	Yearly Cost to Sub-Contract Maintenance (\$50 average per light pole)
B	\$ (304,896.00)	Yearly Savings on Westar Materials & Maintenance (\$25,408 Monthly)
C	\$ 182,303.00	Average Yearly New Infrastructure Costs since 2001
D	\$ 101,033.00	Yearly Metering Fee
E	\$ 55,000.00	Yearly Administrative Cost
F	\$ 31,872.00	Yearly Average Bond Interest Cost
	<u><b>\$ 3,099,290.00</b></u>	First Year Cost

**\$ 242,562.00 First Year Additional Cost (A+B+C+D+E+F)**

Staff also reran the analysis and updated all the variables with the 2013 figures supplied by the auditor. Where the above analysis showed the result of a 10% increase by itself, the below analysis shows how things have changed from 2012 to 2013 overall for all variables. The current revised yearly cost to the City to run the street lighting system after purchase would now be \$270,905. The increased costs of a higher bond interest rate is more than enough to offset the savings we would realize by purchasing the system and not incurring the additional

10% base fee as it applies to maintenance costs. The net result is it would still cost the City at least \$270,905 per year on average to own and operate a streetlight system.

<b>Cost Benefit Analysis - Dynamic System Matrix Pricing (2013)</b>		
	<b>\$ 2,847,061.63</b>	<b>Cost to Purchase System (\$812.75 per pole - Net Book Value)</b>
A	\$ 175,150.00	Yearly Cost to Sub-Contract Maintenance (\$50 average per light pole)
B	\$ (351,372.00)	Yearly Savings on Westar Materials & Maintenance (\$29,281 Monthly)
C	\$ 206,589.00	Average Yearly New Infrastructure Costs since 2002
D	\$ 99,836.00	Yearly Metering Fee
E	\$ 55,000.00	Yearly Administrative Cost
F	\$ 85,702.00	Yearly Average Bond Interest Cost
	<b>\$ 3,117,966.63</b>	<b>First Year Cost</b>
	<b>\$ 270,905.00</b>	<b>First Year Additional Cost (A+B+C+D+E+F)</b>
<b>Cost Benefit Analysis - Dynamic System Matrix Pricing (2012)</b>		
	<b>\$ 2,856,728.00</b>	<b>Cost to Purchase System (\$806 per pole - Net Book Value)</b>
A	\$ 177,250.00	Yearly Cost to Sub-Contract Maintenance (\$50 average per light pole)
B	\$ (304,896.00)	Yearly Savings on Westar Materials & Maintenance (\$25,408 Monthly)
C	\$ 182,303.00	Average Yearly New Infrastructure Costs since 2001
D	\$ 101,033.00	Yearly Metering Fee
E	\$ 55,000.00	Yearly Administrative Cost
F	\$ 31,872.00	Yearly Average Bond Interest Cost
	<b>\$ 3,099,290.00</b>	<b>First Year Cost</b>
	<b>\$ 242,562.00</b>	<b>First Year Additional Cost (A+B+C+D+E+F)</b>

# Memorandum

## City of Lawrence

### Public Works Department

**TO:** Casey Toomay, Assistant City Manager  
**FROM:** Tammy Bennett, Assistant Public Works Director  
**CC:** Kathy Richardson, Kevyn Gero  
**Date:** March 5, 2015  
**RE:** Performance measures in Solid Waste Division

---

The Solid Waste Division strives to provide good information on operations to assist in decision making and maximize transparency. Historically, the division has been best at providing data that are workload measures. We strive to transition to providing better performance measure information. The purpose of this memo is to outline the data and performance measures that are collected by the division, or are in the process of being developed.

The Solid Waste Division had a performance audit completed in 2010. Since that time, the solid waste program has undergone substantial, sustained change. The Solid Waste Task Force was convened and concluded. The City implemented rolling carts for trash to improve worker safety. Curbside residential recycling collection was awarded to the City of Lawrence through a competitive process, and Hamm Inc was contracted for material recovery processing and marketing services. We continue to expand our single-stream recycling services, and will present options to the City Commission for expansion for businesses in 2015.

There is an audit recommendation that remains open -- to "include additional performance measures and benchmarking information in the annual rate memo." Public Works staff understands the intent of the recommendation was to ensure that meaningful data is captured and reported in a regular and predictable manner. Below is a summary of information currently being collected and reported in a regular way.

#### Performance Measures for the Solid Waste Division:

- Recycling rate or percent of municipal solid waste recycled
- Pounds of trash per person per day
- Pounds of material generated per person per day
- Operational costs per ton collected
- Tons of material per FTE in Solid Waste
- Average rebate per ton single-stream recycling during year
- Total cost HHW/BHW per participant
- Disposal cost HHW/BHW per participant
- Pounds of HHW/BHW collected per participant
- Percent of HHW re-distributed (product reuse)
- Percent of HHW participants from outside city limits
- Average tons OCC collected per container per year
- Average revenue per ton OCC collected
- Average number of businesses served with OCC
- Percent of yard waste in preferred containers
- Percent of customers satisfied with solid waste services
- Percent of customers satisfied with yard waste services

- Percent of customers satisfied with drop off recycling
- Percent of customers satisfied with recycling outreach & info
- Percent of customers satisfied with HHW disposal services

In addition, the following workload measures are captured:

- Operational expenditures (excluding capital outlay, disposal)
- Total tons collected (trash, recycling, yard waste, HHW/BHW)
- Tons solid waste collected for disposal
- Tons single-stream recycling
- Total MRF rebate for single-stream
- Roll-off service calls
- Permanent accounts for roll-off accounts
- Revenue from roll-off service
- Tons of solid waste from roll-offs
- Grass, leaves, and brush collected (tons)
- Avoided disposal costs for yard waste collection
- Product reuse customers
- Old Corrugated Cardboard OCC (tons)
- Total revenue for OCC
- Average price per ton generated on OCC
- Old Newspapers ONP (tons)
- Mixed Paper MIX (tons)
- Sorted Office Paper SOP (tons)
- Fiber programs recovery (tons)
- Fiber program revenue
- Metal scrap & Freon containing items (tons)
- Glass (tons)
- HHW / BHW annual operational costs
- HHW / BHW pounds collected
- HHW / BHW number of participants
- HHW / BHW disposal costs
- HHW materials through Product Reuse
- Number of locations with OCC dumpsters
- Number of businesses served by OCC dumpsters

Staff will continue to report data monthly/quarterly, and include in annual rate memos when appropriate. In addition, staff will continue to refine performance measures and develop data collection mechanism to provide meaningful data to analyze operations. With the changes in operations over the last five years, these indicators will be monitored and analyzed regularly. Changes in certain indicators would be expected based on implementation of curbside recycling, such as changes in operational costs per ton (increase due to added stream) and overall recycling rate (increase due to improved convenience). The Sustainability Advisory Board and the Solid Waste Task Force both advocated a goal recycling rate of 50%. Data on community recycling rate will be reported in April each year.

**DRAFT** data on performance measures currently being refined

<b>Performance measures</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Recycling rate or percent of municipal solid waste recycled	38%	38%	tbd
Pounds of trash per person per day	3.7	3.7	3.7
Pounds of material generated per person per day	4.4	4.5	4.6
Operational costs per ton collected	111.7	102.2	117.0
Tons of material per FTE in Solid Waste	789.3	838.3	833.5
Average rebate per ton during year			\$ 0.56
Total cost HHW/BHW per participant	44.89	46.33	47.76
Disposal cost HHW/BHW per participant	15.69	14.41	15.05
Pounds of HHW/BHW collected per participant	50.6	52.5	55.5
Percent of HHW re-distributed (product reuse)	27.0%	27.3%	26.4%
Percent of HHW participants from outside city limits	16.1%	15.8%	16.1%
Average tons OCC collected per container per year			4.45
Average revenue per ton OCC collected	\$ 98.47	\$ 107.85	\$ 91.79
Average number of businesses served with OCC			522
Percent of yardwaste in preferred containers	99.7%	99.7%	99.9%
<b>Citizen survey data</b>			
Percent of customers satisfied with solid waste services	93.2%	93.2%	93.2%
Percent of customers satisfied with yard waste services	88.3%	88.3%	88.3%
Percent of customers satisfied with drop off recycling	57.0%	57.0%	57.0%
Percent of customers satisfied with recycling outreach & info	57.0%	57.0%	57.0%
Percent of customers satisfied with HHW disposal services	56.0%	56.0%	56.0%