

# OFFICE OF THE CITY AUDITOR

## PERFORMANCE AUDIT

April 2022

# Better Data, Analysis, Goals, and Community Engagement Needed to Combat Illegal Dumping



CITY OF  
KANSAS CITY,  
MISSOURI

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April 25, 2022

Honorable Mayor and Members of the City Council:

Illegal dumping is a citywide issue that can have health and environmental impacts and affects the overall cleanliness of the city. Addressing illegal dumping is important to city residents and they suggested we audit the city's efforts in this area.

Our audit focuses on determining how long it takes the Public Works Department to respond to illegal dumping service requests and efforts to engage the community to reduce illegal dumping.

We determined it takes Public Works an average of 24 days to respond to and resolve illegal dumping service requests made through the city's 311 system. Because of data issues, we could not calculate response times for complaints and service requests the department received from other intake sources. Receiving illegal dumping service requests from multiple sources resulted in incomplete data and could also result in duplicated or missed requests, and inequities in the delivery of city services.

Public Works did not analyze response times to resolve illegal dumping service requests. Measuring and reporting timeliness of addressing illegal dumping requests provides accountability to the public, focuses efforts on residents' needs, and can be used to inform management decisions about use of resources. The department also has not formally established response time goals for resolving illegal dumping service requests. Having formal goals that reflect responsiveness from residents' perspective can communicate priorities, motivate employees, and establish resident expectations.

Community engagement strategies in the Citywide Business Plan to reduce illegal dumping have not been implemented. Although not part of a more comprehensive plan for community engagement, the city has several programs to get residents involved in helping to clean up their neighborhoods. Community engagement efforts can be viewed as phases on a continuum moving from informing residents to empowering residents. The city's current community engagement efforts for addressing illegal dumping are generally focused on early phases of this continuum. Efforts to engage with community members and move to these later phases can help mobilize resources and influence residents' actions to address illegal dumping beyond what the city can do on its own.

We make recommendations to consolidate illegal dumping service request intake and data, analyze response times and establish response time goals, and develop an anti-illegal dumping campaign using a community engagement framework.

The draft report was sent to the director of public works on March 24, 2022, for review and comment. His response is appended. We would like to thank the Illegal Dumping Program staff, Public Works management, and 311 Action Center staff and management for their assistance and cooperation during this audit. The audit team for this project was Terry Bray and Joan Pu.



Douglas Jones, CGAP, CIA, CRMA  
City Auditor

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# Better Data, Analysis, Goals, and Community Engagement Needed to Combat Illegal Dumping

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## Introduction

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### Audit Objectives

*How long does it take the city to respond to illegal dumping complaints and clean-up illegal dump sites?*

*How can the city improve community engagement efforts to reduce illegal dumping?*

To answer the audit objectives, we calculated response times to illegal dumping cases in the 311 system, reviewed professional literature to identify recommended practices related to the audit objectives, interviewed illegal dumping experts and city staff, and observed illegal dumping field investigations.

We conducted this audit in accordance with Government Auditing Standards.

See Appendix A for more information about the audit objective, scope, methodology, and compliance with standards.

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### Background

#### **Illegal Dumping Complaints and Clean-up Requests**

Illegal dumping is garbage, rubbish, yard waste, or large debris dumped in public places or on private properties without the owner's consent. The Public Works Department's Illegal Dumping Program is responsible for investigating and collecting illegal dumping in public places, such as public buildings, sidewalks, streets, public right-of-way<sup>1</sup>, and Land Bank properties.<sup>2</sup> The program has a budget of \$2.1 million and 22 positions in Fiscal Year 2022. The program has investigators and clean-up staff, and also contracts for some illegal dumping clean ups.

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<sup>1</sup> Public right-of-way, the area on, below or above a public roadway, highway, street, or alleyway in which the political subdivision has an ownership interest.

<sup>2</sup> The Parks and Recreation Department handles illegal dumping on parks property.

## Types of Illegal Dumping Reported



Most illegal dumping the city responds to are service requests submitted by residents to the city’s 311 Action Center. Residents can call 311 or use the city’s civic engagement app, myKCMO, to report an issue. The program also receives service requests from other sources.

The Illegal Dumping Program handles the following types of illegal dumping service requests:

- Dumping in the right of way: illegal dumping or bulky items left within the city’s right-of-way.
- Illegal dumping camera request: request for the city to place a camera to monitor locations where illegal dumping frequently occurs.
- Early trash bag or bulky item set out: residents set out trash bags or bulky items too early before the trash collection or bulky-item appointment time.
- Landlord set out: landlords set out possessions of evicted tenants within city’s right-of-way.

## City Process to Address Illegal Dumping Complaints and Service Requests

The city’s illegal dumping investigators investigate illegal dumping service requests. If an inspector obtains enough evidence to prove the identity of the person responsible for the illegal dumping, the city’s Housing Court prosecutor issues a summon to that person.

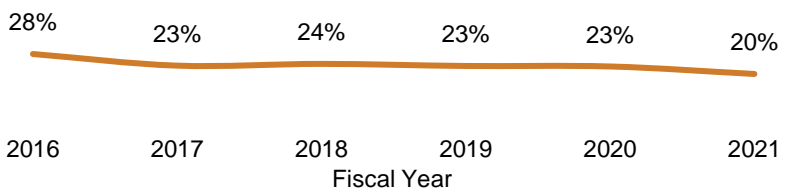
After the city completes an investigation, dump sites are cleaned up by those responsible for the illegal dumping, city crews, or the city’s contractors. The city contracts with private companies that have crews and special equipment sometimes needed to clean up illegal dump sites. The city also contracts with the Full Employment Council for crews to pick up litter or clean up illegal dump sites.



### Resident Satisfaction with City’s Effort to Clean-up Illegal Dumping Sites is Low

Kansas City residents are not satisfied with the city's efforts to clean up illegal dump sites. Resident satisfaction is at its lowest level in six years. In the most recent resident survey, only 20 percent of residents were satisfied or very satisfied with the city's efforts to clean up illegal dumping sites. (See Exhibit 1.)

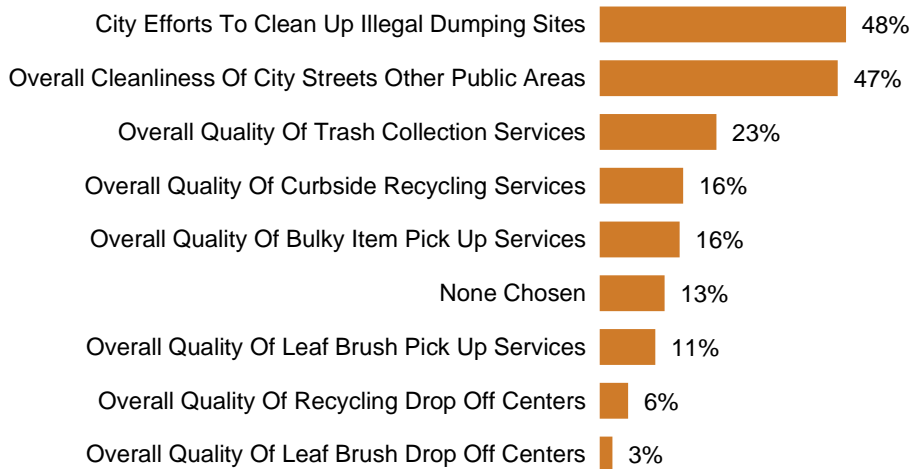
Exhibit 1: Resident Satisfaction with City Efforts to Clean Up Illegal Dumping Sites (% Satisfied/Very Satisfied)



Source: Kansas City, Missouri, Resident Surveys.

In fiscal year 2021, residents selected illegal dumping clean-up as their first or second choice for the Solid Waste Service that should receive the most emphasis from the city in the next two years. (See Exhibit 2.)

Exhibit 2: Which Two Solid Waste Services Should Receive the Most Emphasis from the City Over the Next Two Years? (First and Second Choice)



Source: Kansas City, Missouri, Resident Survey Fiscal Year 2021.

*Better Data, Analysis, Goals, and Community Engagement Needed to Combat Illegal Dumping*

Exhibit 3: Examples of Illegal Dumping and Investigations in Kansas City, Missouri



Source: City Auditor's Office observations.

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## Findings and Recommendations

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### Illegal Dumping Service Request Intake and Data Should Be Consolidated

Public Works receives illegal dumping service requests through 311 and that system maintains the data on those requests. The department also receives requests through an illegal dumping hotline and directly to department management from residents, neighborhood groups, other city agencies, and councilmembers. Data related to these requests are incomplete.

#### Illegal Dumping 311 Service Requests Resolved in About Three Weeks

Overall, Public Works takes an average of 24 days to respond to and resolve illegal dumping 311 service requests. We analyzed response times for 2,700 illegal dumping service requests submitted to the 311 Action Center between February and August 2021 and their status as of October 4, 2021.<sup>3</sup> We calculated response time as the number of days between the date a 311 service request was opened and the date the service request was closed in the system.

Depending on the type of illegal dumping service request the average days to close a request ranged from 15 to 25 days. (See Exhibit 4.) The majority of the requests were related to dumping in the right-of-way.

Exhibit 4: 311 Service Request Types and Average Days to Close

Request Type	Opened Requests	Closed Requests	Average Days to Close
Dumping in the Right-of-Way	2,328	2,291	25
Early Trash or Bulky Set Out	155	155	15
Dumping Camera Request	141	140	17
Landlord Set Out	76	76	16
All Cases	2,700	2,662	24

Sources: 311 system and City Auditor's Office analysis.

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<sup>3</sup> In February 2021, the city replaced the PeopleSoft Customer Relationship Management system with a new citizen engagement application, myKCMO. We decided to use the more recent data collected in the new system.

### **Response Times for Illegal Dumping Service Requests from Other Sources Are Unknown**

The Illegal Dumping Program's service request response time cannot be calculated for some requests. To obtain a clear picture of factors (including workload) affecting response time, all requests must be included in the analysis. We were not able to calculate response times for illegal dumping complaints and service requests Public Works received from sources other than the 311 Action Center. The data on these complaints and requests and their resolution were either not available or not recorded in a way that is suitable for analysis. The department does not have a consistent process to track and record response times for requests from these sources.

- **Illegal Dumping Hotline:** Hotline data are not currently recorded or tracked. The city has an illegal dumping hotline for residents to report illegal dumping. Public Works staff told us that they used to record the information in an Excel file, but could not locate the file and they had stopped tracking the data.
- **Complaints made directly to Public Works management:** Complaints from individuals or groups who directly contacted department management, through emails or phone calls, were not systematically recorded and tracked. Staff acted on these complaints forwarded from department management and reported to the department management when a complaint was resolved. Some of these complaints could be duplicates of those in the 311 system, but some were not.
- **Requests from Land Bank:** Land Bank sent illegal dumping clean-up requests through emails and Public Works staff keep the emails as documentation. Emails do not record data in a way that is suitable for analysis.

Receiving illegal dumping service requests from multiple intake sources has resulted in Public Works having incomplete data on requests and resolution of those requests. The current processes for taking illegal dumping service requests could also result in duplicated or missed requests, and inequities in the delivery of city services.

#### **Recommendation**

To ensure the city and department has complete data on illegal dumping service requests and data needed to calculate response times, the director of public works should consolidate all illegal dumping service requests in the 311 system.

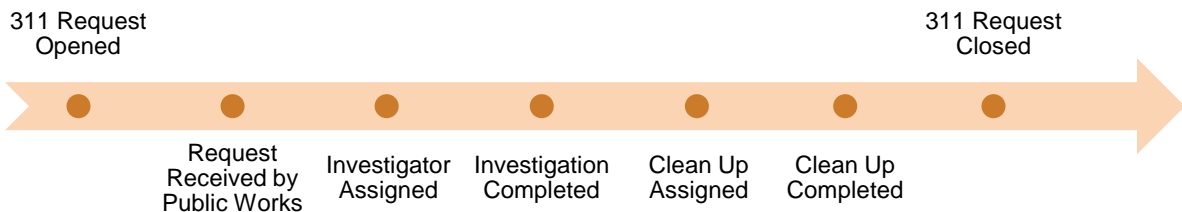
## Illegal Dumping Service Request Response Time Analysis and Goals Needed

### Response Times Should Be Analyzed to Provide Information to Residents and Management

Public Works did not track or analyze response times to resolve illegal dumping service requests. As a result, the department did not know how long it took to respond to the different types of illegal dumping service requests. Measuring and reporting the department’s timeliness to respond to illegal dumping complaints and service requests would provide accountability to the public and help the department focus on residents’ needs and satisfaction. Response time data will also inform management decisions about use of resources.

Using data from the 311 system the department can analyze overall response times by service request type. The department may be able to use its work order system to track the individual elements of the illegal dumping response process. (See Exhibit 5.) This would allow the department to identify parts of the process that are creating bottlenecks or not performing as desired.

Exhibit 5: Process for Responding to 311 Illegal Dumping Service Requests



**Recommendation** To provide information to residents and department management, the director of public works should analyze and report response times for resolving illegal dumping service requests.

### Response Time Goals for Resolving Illegal Dumping Service Requests are Not Formally Established and Communicated

Public Works does not have written response time goals for addressing illegal dumping complaints and service requests. Response time goals for illegal dumping service requests are important because they communicate priorities and motivate employees, measure and drive progress toward desired outcomes, and establish resident expectations.

Management does not have a written response time goal or a goal that is consistently understood by staff. Department management,

supervisors, and staff had different understandings of the department's unwritten response time goal. During interviews, descriptions of the illegal dumping response time goal included "there is no goal," 24-48 hours after investigation, 48-72 hours after investigation, or "as soon possible."

*Goal Example*

*\_\_% service requests for illegal dumping in the right-of-way closed in \_\_ days*

The department needs to establish written response time goals, by request type, which reflect responsiveness from residents' perspective and can be easily communicated when a resident submits a 311-service request. The written goals should also be communicated to staff so that everyone is aware of and working toward the same goal.

Recommendation

To establish resident expectations as well as department expectations for staff, the director of public works should develop a written set of response time goals for each type of illegal dumping service request, and communicate the goals to residents and department staff.

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## Community Engagement Efforts to Reduce Illegal Dumping Need Improvement

Community engagement is defined as "the process of working collaboratively with and through groups of people affiliated by geographic proximity, special interest, or similar situations to address issues affecting the well-being of those people."<sup>4</sup>

### Community Engagement Strategies Not Implemented as Planned

Public Works has not implemented community engagement strategies to reduce illegal dumping outlined in the Citywide Business Plan since 2017. These strategies which align with the Housing and Healthy Communities goal, include:

- Develop an anti-illegal dumping campaign tied to health and environmental impact, and
- Develop communication and other strategies to increase compliance with solid waste ordinances, with particular attention to enforcement.

These community engagement strategies or efforts would focus on providing education and information to city residents. Department staff told us these strategies have not been developed or they

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<sup>4</sup> Centers for Disease Control and Prevention [CDC], Principles of community engagement (1<sup>st</sup> ed.) Atlanta, GA, CDC/ATSDR Committee on Community Engagement; 1997, p.9.

were not aware of them. Management stated that there was no funding to develop a formal anti-illegal dumping campaign. Not implementing the community engagement strategies outlined in the Citywide Business Plan means the city will continue to face an uphill battle to reduce blight created by illegal dumping and improve community health.

### **City's Community Engagement Efforts Focus on Facilitating Cleanups and Providing Information**

The city offers several individual programs to engage residents in mitigating illegal dumping. While not part of a more comprehensive plan for community engagement, the city has the following programs for neighborhood and civic groups to get involved in their community to remove blight and perform litter control.



**Blue Bag Program:** the city provides blue bags through Community Action Network (CAN) centers at no cost, to neighborhood groups, civic organizations, and residents desiring to perform litter control in the public right-of-way.



**Dumpster Program:** the city provides low-cost dumpsters to registered neighborhood groups from May through October, for neighborhood clean-up events only. Both leaf & brush and trash dumpsters are available.



**Neighborhood Clean-up Events:** the city organizes annual clean up events twice a year between April and November. These events cover multiple neighborhoods.

In addition to the above programs, the city's Landlord University has an illegal dumping component. This training is as a court ordered education tool for landlords to maintain compliance with city property, nuisance, and illegal dumping ordinances and is offered several times throughout the year.

### Community Collaboration Needed to Help Reduce Illegal Dumping

*Community Engagement*  
 A process of working collaboratively with and through groups of people affiliated by geographic proximity, special interest, or similar situations to address issues affecting the well-being of these people.

Community engagement efforts can be viewed as a series of steps or phases on a continuum moving from informing residents to empowering residents. (See Exhibit 6.) The city’s current community engagement efforts for addressing illegal dumping are generally focused on early phases of this continuum.

The early phases of community engagement focus on providing information about city services, educating the community, and establishing communication and outreach channels with individuals, groups, and organizations in the community. The latter phases of community engagement are collaborating and empowering residents to create and lead new programs and services. City efforts to engage community members and move to these latter phases to address illegal dumping can help mobilize resources and influence residents’ actions beyond what the city can do on its own.

Exhibit 6: Community Engagement Continuum



Source: Adapted from Community Engagement Model developed by the International Association for Public Participation.

**Regional efforts can provide additional tools to address illegal dumping.** The Mid-America Regional Council (MARC) has started a new regional initiative to specifically address illegal dumping in the Greater Kansas City region. Addressing the root causes of illegal dumping may be difficult and solutions and strategies vary across jurisdictions. The goal of this initiative is to develop strategies, using a collaborative approach, to reduce illegal



dumping in our communities and improve public health and safety. The city, through a City Councilmember's representative and Public Works staff, is participating in this initiative.

Studies have shown the importance of local governments taking uniform action by providing similar standards, enforcement approaches, education, and awareness initiatives. The city's collaboration with MARC and other jurisdictions can provide additional support, tools, or ideas to combat illegal dumping.

Recommendation To improve community engagement efforts to reduce illegal dumping, the director of public works should develop an anti-illegal dumping campaign and related communications using a community engagement framework as well as regional resources available through the Mid-America Regional Council.

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## Recommendations

1. The director of public works should consolidate all illegal dumping service requests in the 311 system.
2. The director of public works should analyze and report response times for resolving illegal dumping service requests.
3. The director of public works should develop a written set of response time goals for each type of illegal dumping service request, and communicate the goals to residents and department staff.
4. The director of public works should develop an anti-illegal dumping campaign and related communications using a community engagement framework as well as regional resources available through the Mid-America Regional Council.

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## Appendix A: Objective, Scope and Methodology, and Compliance Statement

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We conducted this performance audit of illegal dumping program under the authority of Article II, Section 216 of the Charter of Kansas City, Missouri, which establishes the Office of the City Auditor and outlines the city auditor's primary duties.

A performance audit provides "objective analysis, findings, and conclusions to assist management and those charged with governance and oversight, with among other things, improving program performance and operations, reducing costs, facilitating decision making by parties with responsibility for overseeing or initiating corrective action, and contributing to public accountability."<sup>5</sup>

### Why We Did This Audit

Addressing illegal dumping is important to the city's residents. Residents expressed concerns to the City Auditor's Office about city efforts to deal with illegal dumping in Kansas City and suggested we audit those efforts.

Resident satisfaction with the city's efforts to clean-up illegal dump sites is at its lowest level (20%) in six years. During the same period, residents ranked illegal dumping as the solid waste service that should receive significantly more emphasis.

The current Citywide Business Plan includes strategies to address illegal dumping. Those strategies are developing an anti-illegal dumping campaign tied to health and environmental impact; and developing communication and other strategies to increase compliance with solid waste ordinances, with particular attention to enforcement.

### Audit Objectives

This report is designed to answer the following questions:

- How long does it take the city to respond to illegal dumping complaints and clean-up illegal dump sites?
- How can the city improve community engagement efforts to reduce illegal dumping?

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<sup>5</sup> Comptroller General of the United States, [Government Auditing Standards](#) (Washington, DC: U.S. Government Printing Office, 2018), pp. 10, 11.

## **Scope and Methodology**

To answer the audit objectives, our audit methods included:

- Reviewing professional literature and interviewing experts to identify criteria and recommended practices related to the audit objectives.
- Analyzing illegal dumping service requests through the city's 311 system between February and August 2021 to calculate how much time it took to resolve the requests.
- Interviewing department management and staff about community engagement efforts, program goals and plans, and investigation and clean-up processes to understand what the city is currently doing in the illegal dumping program.
- Reviewing the 2020-2024 City-wide Business Plan to determine city's goals and strategies for the illegal dumping program.
- Conducting ride-alongs with illegal dumping investigators to observe extent of illegal dumping and how staff do their jobs.

## **Statement of Compliance with Government Auditing Standards**

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. No information was omitted from this report because it was deemed confidential or sensitive.


## **Scope of Work on Internal Controls**

We assessed the significance of internal controls relevant to the audit objectives. This included evaluating the adequacy of control designs, confirming the implementation of controls, and evaluating whether management applied controls consistently and at appropriate times to determine their effectiveness. We identified internal control deficiencies related to setting and communicating response time goals, recording and reporting response times, and implementing anti-illegal dumping strategies. The details of these deficiencies are discussed in the body of the report.

**Scope of Work on Data Reliability**

We assessed the reliability of the illegal dumping complaint data in the city's 311 system while reviewing the operation of the program's controls. We tested the data for outliers, invalid or duplicate data entries. We determined the data was sufficiently reliable for our audit work.

## Appendix B: Director of Public Works' Response



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MISSOURI

### Inter-Departmental Communication

### Public Works Department

RECEIVED

APR 20 2022

CITY AUDITOR'S OFFICE

**Date:** April 20, 2022

**To:** Douglas Jones, City Auditor

**From:** Michael Shaw, Director of Public Works *Michael Shaw*

**Subject:** Response to Performance Audit: *Better Data, Analysis, Goals, and Community Engagement Needed to Combat Illegal Dumping*

- 1. The director of public works should consolidate all illegal dumping service requests in the 311 system.**

Agree – The majority of the illegal dumping cases will be captured in 311 system. When a complaint via a phone call provided directly to staff, the job will be conveyed to staff in the field. When the items are collected, a job will be created in Public Work's work order system (Rubicon). That job will be entered into the 311 system within 1 business day and closed appropriately. Requests from Land Bank staff will be placed in 311 system during the off season but during the mowing system, Land Bank shall place it in Public Work's work order system (Mow N Bill). All requests through Mow N Bill system can be tracked in this system as far as days opened and closed.
- 2. The director of public works should analyze and report response times for resolving illegal dumping service requests.**

Agree – At this time, the 311 system does not bifurcate between investigations and clean up. Public Works staff will work with DataKC to analyze the number of days an illegal dumping case is with an illegal dumping investigator and the number of days it takes to clean up once the investigation is completed. Public Work staff will continue to work with the 311 system to be able to prevent duplication of illegal dumping cases.
- 3. The director of public works should develop a written set of response time goals for each type of illegal dumping service request and communicate the goals to residents and department staff.**

Agree – Once response times for illegal dumping requests for illegal dumping investigation and clean up times are analyzed, Public Works will develop a set of response time goals. Investigation times can be narrowed with the hiring of additional code enforcement officers. Creating Illegal Dumping Routes based on waste types and regions, will continue to create efficiencies which will result in shorter response times. Public Works will continue to work on the integration between 311 and Rubicon. Clean up times can be narrowed with the hiring of additional staff.
- 4. The director of public works should develop an anti-illegal dumping campaign and related communications using a community engagement framework as well as regional resources available through the Mid-America Regional Council.**

Agree – Public Works is currently working with MARC to develop metropolitan wide anti- illegal dumping campaign. Solid Waste Services Manager is on MARC Board that is developing this campaign. Working with MARC, Public Works will implement the anti-illegal dumping campaign. Solid Waste will dedicate a full-time staff position to community outreach focusing on anti-illegal dumping, which will include education, the expansion of the blue bag program, neighborhood dumpster program, and neighborhood volunteer clean-up events.

cc: Brian Platt, City Manager