AUDIT OF COMMERCIAL REFUSE

Audit No. 16-03
January 31, 2017

City of West Palm Beach
Internal Auditor’s Office

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COMMERICAL REFUSE AUDIT, AUD16-03  
JANUARY 31, 2017

OVERVIEW
- The Sanitation Division provides Commercial and Residential Refuse collection for the City.
- Commercial waste collection services are provided seven days a week utilizing 14 employees and 12 trucks.
- Waste collection begins at 4AM and concludes when routes have been completed.
- Establishments requiring waste collection exceeding 8 cubic yards, are served through franchises with private companies.
- Fees for commercial waste collection are established by City Commissioners through the annual Comprehensive Fee Schedule. Unpaid waste collection fees may become a lien against the property.
- In FY16, the operating budget expenses for the Sanitation Division were about $10.5 million, while the actual revenues were about $14.5 million.

SUMMARY FINDINGS
1. **Routing System:** The Division does not have an electronic system, maps, or GPS to determine the most efficient route to haul waste. Rather, staff are trained to memorize their predecessor's route and operate off of that route.
2. **Cross Training:** The Division hires employees for specific services offered, however, employees are not cross-trained to be able to assist when one area has a larger workload.
3. **Overtime:** Waste collected over the past three fiscal years has increased by 8 percent, however, the overtime has increased by 68 percent. The Residential Refuse section and the Commercial Refuse section accounted for a majority of the overtime with a total of 7,047 and 4,683 hours respectively.
4. **Franchise Waste Collection:** The Division does not have a procedure to independently verify the amount hauled by the franchisees or the locations that were served. Currently, the Division cannot independently confirm that the City received all fees due from waste collected by the franchisees.
5. **Special Pickups:** We found instances where customers requested special pickups, but were not charged for them and/or there was no supporting documentation to determine whether or not waste was collected.
6. **Overweight Vehicles:** Florida statutes regulate the size and weight of each vehicle and its cargo, however, the vehicles used by the Division to haul waste do not have a mechanism for the drivers to use to monitor their weight.
7. **Waste Collection Rates:** We found that the Comprehensive Fee Schedule for all City fees did not accurately reflect the current fees charged by the Sanitation Division.
8. **Updated Commercial Locations:** The Division does not have a documented mechanism to receive timely notifications when a business opens or closes.
9. **Vehicle and Equipment Maintenance:** Having fully operational vehicles continues to be a challenge for the Division. We found that from June to December 2016, approximately 18% of the commercial refuse vehicles were out of service, with a high of over 50% out of service on a few days.

SUMMARY RECOMMENDATIONS
1. The Division should work with City Administration to obtain a software system that can optimize routes cost effectively and limit special requests.
2. The Division should ensure that it has the maximum number of staff available to haul waste by establishing mapped-out routes and cross training employees.
3. The Division should reduce overtime by obtaining a system to create routes that are efficient, and cross training employees.
4. The Division should ensure that it receives all fees for waste hauled by periodically reconciling and verifying the amounts hauled and paid for by the franchisee haulers.
5. The Division should conduct research on resources available to monitor special waste collection.
6. The Division should consider cost effective options to install scales or another weight monitoring mechanism on the trucks.
7. The Division should work with City Administrators to review the fees charged and conduct an analysis to determine whether fees are sufficient to recover costs incurred. Thereafter, the Division should provide the updated fees for approval by the City Commissioners and update the Comprehensive Fee Schedule.
8. The Division should periodically review business locations to ensure that they are accurately serviced and billed.
9. The Division should continue to work with City Administration and Fleet to identify the best options for meeting their needs such as having dedicated mechanics and identify funding to replace the oldest high maintenance trucks.
January 31, 2017

Audit Committee
City of West Palm Beach
401 Clematis Street
West Palm Beach, Florida

RE: Commercial Refuse Audit, AUD16-03

Dear Audit Committee Members:

Attached is the City of West Palm Beach’s Internal Auditor’s Office report on the Sanitation Division’s Commercial Refuse operations. Although the Sanitation Division has done a commendable job in ensuring timely waste collection, additional opportunities for improvement are presented in this report.

We thank the management and staff of the Sanitation Division for their time, information, and cooperation during this audit.

Respectfully Submitted,

/s/ Roger Strout
City Internal Auditor

cc: Jeri Muoio, Mayor
Jeff Green, City Administrator
Scott Kelly, Assistant City Administrator
Peter Bieniek, Director of Public Works
Ferdinand Rivera, Sanitation Division Manager
Background

The City of West Palm Beach provides residential and commercial solid waste services through its Sanitation Division (Division). The Sanitation Division serves approximately 49,000 residential and commercial customers. To service the City’s waste collection needs, the Division has four sections: Residential Refuse, Commercial Refuse, Yard Waste, and Street Sweepers.

There are four crews that operate which include 16 residential refuse employees, 14 commercial refuse employees, 8 yard waste employees, and 5 Street Sweepers. The Division also has two administrative employees, a superintendent, and a manager. In December 2016, a Public Works Director was hired to oversee the Sanitation Division among other duties.

In addition, the Division oversees private companies that operate as franchises to haul large waste of over 8 cubic yards. This is a service that the Division cannot provide because they do not have the equipment. Currently, there are five franchisees that are permitted to haul waste namely:

- S&S National Waste,
- Waste Management Inc.,
- Waste Pro of Florida, Inc.,
- Eastern Waste Systems, and
- Republic Services of Florida.

The franchise fees are $12,500 per year and $1 for every cubic yard of waste that they haul. Finally, the Division contracts out residential recycling to Waste Pro of Florida Inc., while commercial customers hire companies privately if they choose to recycle.

City Commissioners establish the fees for waste collection services. If fees are not paid after 30 days, then service may be terminated. Further, unpaid waste collection fees may become a lien against the property.

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The Division’s operating budget has increased by about 15 percent over the past three years, peaking at $10,405,961 in FY16 as indicated in the table below.

<table>
<thead>
<tr>
<th>FY14 Expense</th>
<th>FY15 Expense</th>
<th>FY16 Expense</th>
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<tbody>
<tr>
<td>$9,066,880</td>
<td>$9,498,264</td>
<td>$10,405,961</td>
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Source: Internal Auditor’s Office analysis of Sanitation Division documents.

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Over the past three years, actual revenues increased by about 4 percent up to $14,550,478 in FY16 as indicated in the table below.

<table>
<thead>
<tr>
<th>FY14 Revenue</th>
<th>FY15 Revenue</th>
<th>FY16 Revenue</th>
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<tbody>
<tr>
<td>$14,014,617</td>
<td>$14,299,795</td>
<td>$14,550,478</td>
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Source: Internal Auditor’s Office analysis of Sanitation Division documents.

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We also found that overtime costs which are included in the budget, have increased 68% over the past three years, with a peak increase of 84% in FY15. Overtime costs are typically estimated in the budget process, however, in FY14 and FY15, the actual expense was far above budget estimates. For example, in FY15 the Division budgeted about $168,000 for overtime, but the actual expenditure was about $437,478 or about 2.6 times over the budgeted amount.

<table>
<thead>
<tr>
<th></th>
<th>FY14 Overtime</th>
<th>FY15 Overtime</th>
<th>FY16 Overtime</th>
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<tr>
<td>$</td>
<td>$237,996</td>
<td>$437,478</td>
<td>$399,573</td>
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Source: Internal Auditor’s Office analysis of overtime documents.
Auditor Note: Overtime may have increased for a number of reasons, including but not limited to, staff turnover, inefficient routes, vehicle downtime, and new hire training for staff to be able to perform their duties independently.

Commercial Refuse Operations

The Commercial Refuse operations serve businesses as well as government entities within the City. City Code stipulates that the City shall provide appropriate commercial containers to service the volume of garbage and refuse from commercial establishments, except those locations where the City is unable to provide the needed services. Where the volume of garbage does not justify a commercial container, a residential or automated service container may be used for a commercial establishment.

Commercial waste collection is provided based on the volume of waste produced. Only establishments requiring eight cubic yards of waste collection or less are serviced through the Commercial Refuse operations. Establishments requiring more than 8 cubic yards of waste collection are served through the five franchisees we mentioned previously.

Waste collection for commercial establishments occurs seven days a week. There are 12 commercial waste collection trucks available, however, maintenance and repairs may decrease that number on any given day. For safety and efficiency reasons, waste collection begins at 4AM when there are less vehicles and pedestrians on the roads, and concludes once employees complete their routes. Currently employees work mandatory overtime to ensure waste is collected. Waste is collected until trucks are full and/or close to their maximum weight allotments. At that point, waste collectors go to the landfill and dispose of their waste. They return to their route and continue collecting and disposing waste until they complete their route.
Source: Public Works Department

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Statement of Scope

The audit period was June 2016 through December 2016. However, based on the work performed during the preliminary survey and the assessments of risk, the audit period varied depending on the audit objective. The audit included examinations of procedures, controls, transactions, and records associated with the Commercial Refuse operations.

Statement of Methodology

We utilized several audit methodologies to achieve the objectives. These evidence-gathering techniques included, but were not limited to:

- Reviewing applicable local, state, and federal regulatory requirements;
- Interviewing Sanitation Division employees;
- Observing procedures and participating in ride-a-longs;
- Conducting site visits;
- Examining the internal control systems and identifying any material weaknesses; and
- Other audit procedures determined necessary.

Statement of Auditing Standards

We conducted this audit in accordance with Generally Accepted Government Auditing Standards (GAGAS). 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.

Statement of Objectives

The objectives of this audit were to determine whether:

1) Franchise haulers paid all applicable fees and costs;  
2) Billing procedures are sufficient to ensure timely, accurate, and prompt billing and payment from commercial customers; and  
3) Operations are efficient and effective in providing commercial refuse collection services.

Audit Conclusions and Summary of Findings

1. **Routing System:** The Division does not have an electronic system, maps, or GPS to determine the most efficient route to haul waste. Rather, staff are trained to memorize their predecessor’s route and operate off of that route.
2. **Cross Training:** The Division hires employees for specific services offered, however, employees are not cross-trained to be able to assist when one area has a larger workload.

3. **Overtime:** Waste collected over the past three fiscal years has increased by 8 percent, however, the overtime has increased by 68 percent.

4. **Franchise Waste Collection:** The Division does not have a procedure to independently verify the amount hauled by the franchisees or the locations that were served.

5. **Special Pickups:** We found instances where customers requested special pickups, but were not charged for them and/or there was no supporting documentation to determine whether or not waste was collected.

6. **Overweight Vehicles:** Florida statutes regulate the size and weight of each vehicle and its cargo, however, the vehicles used by the Division to haul waste do not have a mechanism for the drivers to use to monitor their weight.

7. **Waste Collection Rates:** We found that the Comprehensive Fee Schedule for all City fees did not accurately reflect the current fees charged by the Sanitation Division.

8. **Updated Commercial Locations:** The Division does not have a documented mechanism to receive timely notifications when a business opens or closes.

9. **Vehicle and Equipment Maintenance:** Having fully operational vehicles continues to be a challenge for the Division.

10. **Policies and Procedures:** There are no policies or procedures for the Division.

**Noteworthy Accomplishments**

It is important to recognize the significant accomplishments achieved by the Commercial Refuse operations and the Sanitation Division. We commend them for taking pride in ensuring that the City is kept clean. Below is a list of some of the notable achievements:

- The work performed by the Sanitation Division is much more challenging than what meets the eye. In the midst of the various challenges that they face, they approach each day invigorated to work hard and get the job done. We commend the Commercial Refuse crew for managing to complete their routes without basic tools such as maps or routing systems.
- Similarly, administrative staff manage operations and accounting using old paper-based systems for a Division that generates millions in revenue each year.
- The Division has dedicated and committed staff who go out of their way to assist customers. We heard customers call in to thank the Sanitation Division staff.
Opportunities for Improvement

1) Hauling Route System

Condition
The Division does not have an electronic system, maps, or GPS to determine the most efficient route to haul waste. Rather, staff are trained to memorize their predecessor’s route and operate off of that route. We observed that the routes are inefficient and noted that businesses are permitted to select the days and times when their waste is hauled. Further, businesses or residents may complain about noise at certain times of the day and the Division will adjust the pickup schedule. As such, the haulers may not be permitted to haul waste at the most efficient day or time. We observed staff passing by locations that were on the route multiple times, because they were not scheduled for pick up at that time. In other instances, we observed staff hauling one waste container and leaving the other container because the other container was not scheduled for pick up on that day or time. Finally, staff indicated that the routes overlap one another. These inefficiencies occurred throughout the routes we observed.

The City contracted with SCS Engineering to conduct an assessment of the Sanitation Division. We found that SCS Engineering suggested that the Division obtain a system to assist with mapping out routes.

Criteria
As noted in the SCS Engineers report, routing software is used throughout the United States by both private and municipal operations to optimize waste collection and assist in monitoring performance.

Cause
The Division strives to provide the best customer service and accommodate all customers. As such, when customers make requests, they work hard to accommodate them. Further, the Division does not have the tools necessary to create efficient routes and monitor results.

Effect
The current system is inefficient which results in increased labor costs, fuel, and additional wear and tear on vehicles and equipment. Management estimated that staff get in and out of their vehicles approximately 240 times a day, pulling large containers in and out of locations during their route. These inefficiencies create an additional burden that is detrimental to staff. Industry experts indicate that routing software can help sanitation organizations save up to 30 percent, which for FY16 could have been up to approximately $3 million in savings to the City.

Recommendation
The Division should work with City Administration to obtain a software system that can optimize routes cost effectively and limit special requests.
Management Response

We agree with the observations presented in this report. The following are steps that we are going to take to improve the process and operations. Please note that all of the following steps will take time to implement and the results will also take longer based on full implementation.

Route Optimization:
- In process of using an on call engineering service (SCS Engineers) to develop a database of services within WPB.
- This database will be used to develop consistent routes for route optimization.
- SCS engineers will be providing a recommendation of a route software management program with some of the following attributes:
  - Route Optimization
  - Tracking of service time and locations
  - Efforts to reduce off route travel
  - Billing for all services and a way to track appropriately
- We are currently in process with these programs and we expect to put in place some of these processes within 6 months or mid-year 2017.
- We will be hiring an Industrial engineer that will be in charge of the programs. The position will be responsible to review the operations, recommend necessary changes and implement changes in the system as they arise. April 2017 anticipated start.

Target Implementation Date

Within 6 months or mid-year 2017.

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2) Cross Training Employees

**Condition**
The Division hires employees for specific services offered which include: Commercial Refuse, Residential Refuse, Yard Waste, and Street Sweeping. However, employees are not cross-trained to be able to assist when one area has a larger workload. When employees join the Division, they are trained on their specific route. However, the route is not mapped out, rather they are given a list of addresses with the days and frequency of service needed. When one area has a heavy workload or if employees are absent, then the Division is limited as to who it may call upon to assist. As a result, employees work overtime in all areas and the morale is low because some areas generate more overtime than others.

**Criteria**
The Division’s hiring practices are to hire and train for specific areas of service.

**Cause**
The Division changed its procedures and began hiring for specific services such as a commercial refuse collector or a residential refuse collector. Considering that there are no mapped-out routes, it is difficult to cross train employees because they would have to memorize all additional routes.

**Effect**
Employees work overtime to complete their routes and cannot utilize other employees when an area has a heavier workload.

**Recommendation**
The Division should ensure that it has the maximum number of staff available to haul waste by establishing mapped-out routes and cross training employees.

**Management Response**
We agree with the observations presented in this report. The following are steps that we are going to take to improve the process and operations. Please note that all of the following steps will take time to implement and the results will also take longer based on full implementation.

Cross Training:
- Currently in the process of changing how we identify employees.
- We intend to go to a career ladder that will allow cross training with incentives.
- This will lead to potential growth for the employee.
- The operation will be able to have employees that can work across operational divisions, both residential, commercial, yard waste, and sweepers.
- This will help with morale by changing the working conditions to take the monotony out of the daily routine plus keep operators on their toes because they change operations regularly.
…Cross Training Employees (continued)

Target Implementation Date
We anticipate these changes to be in place on or around the start of FY18.

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3) Overtime Condition

We reviewed overtime data and found a significant amount of overtime for the Division as a whole. We compared waste collected over the past three fiscal years to the overtime generated during the same time period, and found that the volume of waste collected increased 8 percent, however the overtime increased by 68 percent.

![Waste Hauled in Tons](chart1.png)

Source: Internal Auditor’s Office analysis of Sanitation records.

![Overtime Cost](chart2.png)

Source: Internal Auditor’s Office analysis of budget documents.

Approximately 13,480 hours of overtime were accrued during FY16. The Residential Refuse section and the Commercial Refuse section accounted for a majority of the overtime generated, with a total of 7,047 and 4,683 hours respectively. We reviewed the
…Overtime (continued)

FY16 budget for the Division and found that it included $400,000 for overtime and services provided on holidays, which was approximately 20% of the base salary budget of $2,028,812.

We noted that Division management and City Administration were aware of the overtime generated by the Division and were reviewing options to reduce it.

Criteria

The Division may require mandatory overtime to complete work, provided that funding is available to pay the employees. Further, overtime should not only be budgeted for, but also economically justifiable to ensure prudent use of public funds.

Cause

There are several causes for overtime as follows:

- Routes are inefficient and take much longer to complete.
- Equipment breaks down and needs repairs.
- Employees are not cross trained and cannot assist on other routes.
- Businesses may request and receive specific days for pick up as well as specify when haulers may arrive to haul waste.
- Changes were made such that employees must work a full day even if they can complete their route in less time.

Effect

Employees work overtime to complete their routes and the City requires more assistance from external waste haulers. This results in additional wear and tear on equipment and additional fuel because the vehicles and equipment are in use for much longer periods.

Recommendation

The Division should reduce overtime by:

a. Obtaining a system to create routes that are efficient.

b. Scheduling businesses which are located in close proximity for waste hauling at the same times and concurrently limiting requests that create inefficiencies.

c. Cross training employees based on the new routes.

d. Consider charging for special pickups when special requests are made.

Management Response

We agree with the observations presented in this report. The following are steps that we are going to take to improve the process and operations. Please note that all of the following steps will take time to implement and the results will also take longer based on full implementation.

Overtime:

- Route optimization and routing software are needed to change the way the operation plans its daily activities. We are currently in process with these programs
and we expect to put in place some of these processes within 6 months or mid-year 2017.
  - SCS engineers will be providing a recommendation of a route software management program with some of the following attributes;
    - Route Optimization
    - Tracking of service time and locations
    - Efforts to reduce off route travel
    - Billing for all services and a way to track appropriately
  - Cross Training is needed to ensure enough staff are available to complete all routes. We intend to go to a career ladder that will allow cross training with incentives. These plans should result in a reduction in necessary overtime and better employee morale.
  - We anticipate that by the beginning of FY18 we will have in place the start of all the methods to improve the overtime usage. It may take up to two years from implementation to fully recognize the improvements because of the necessary cross training and implementation of the software programs.

The addition of the industrial engineer will add a position that will in its own right be an internal audit of how we do operations that can make recommended changes. Anticipated start of April 2017.

**Target Implementation Date**

We anticipate these changes to be in place on or around the start of FY18.
4) Franchise Waste Collection

Condition

The Division utilizes franchisees to haul large volumes of City waste, which is a service that the Division does not provide. City Code stipulates many requirements for the franchisees to adhere to. Some of the requirements include:

- Payment of an annual franchise fee in the amount of $12,500.
- Payment of $1 for every cubic yard of waste hauled, payable monthly.
- Providing a certified and signed statement of cubic yards hauled every month.
- Providing the names and addresses of each location served including the rates charged to each account.

We conducted interviews, site visits, and data analyses to determine whether fees were paid accurately. Based on data we reviewed for the five franchisees the City has authorized, we found that the monthly franchise fee is generally billed to the customers as a pass through cost and then paid to the City. However, the Division does not independently verify the amount hauled by the franchisees or the locations that were served. Rather, they rely upon self-reported information from the franchisees. Further, the Division does not maintain a list of customers served by the franchisees, nor is there a mechanism to track or monitor waste hauled. As a result, we found that currently the Division cannot independently confirm that the City received all fees due from waste collected by the franchisees.

Finally, we reviewed the monthly statements provided by the franchisees and found that they do not provide all the required information on their monthly statements. Specifically, we found:

- 100% of statements provided were not certified.
- 60% of statements did not contain the rates charged to each customer.
- 60% of statements were not signed.

Criteria

City Code 74-122 permits companies to obtain a franchise license authorizing them to haul City waste, provided that they pay the associated fees. In addition, the franchisees are required to provide a certified statement of the number of cubic yards collected as well as a list of the customer names, addresses, and rates for each location served during the previous month.

Cause

The City Code does not require verification of the amount hauled. Rather, it requires the franchisee to provide a certified statement containing specific information. Further, the Division does not have policies or procedures that would expand upon the Code and provide parameters for implementation of the Code requirements. Finally, the franchisees we contacted reported that they were not aware of the requirements.

Effect

During calendar year 2016, the franchisees submitted payments for waste collected in the amount of $271,235 not including the annual franchise fee. As such, obtaining the
required information in a timely manner and periodically verifying the information, is necessary to help ensure recovery of all fees owed. Once waste has been hauled and disposed of, it is difficult to verify the source and the amount of waste collected and potential revenues could be lost.

**Recommendation**

The Division should ensure that it receives all fees for waste hauled by periodically reconciling and verifying the amounts hauled and paid for by the franchisee haulers. Reconciliations should include matching independent documentation to volumes paid for, as well as the addresses served. Further, the Division should monitor statements more closely and ensure that franchisees comply with City Code requirements and deadlines. Finally, the Division should create a new franchise training program and/or a refresher training program for franchisees to explain the applicable requirements.

**Management Response**

We agree with the observations presented in this report. The following are steps that we are going to take to improve the process and operations. Please note that all of the following steps will take time to implement and the results will also take longer based on full implementation.

**Franchise Fees**

The program has major deficiencies that are being discussed. While it is alright to expect the haulers to provide the information, to assume they would do so accurately would definitely be premature and inaccurate.

The following ideas on the surface may help, but may not be financially feasible at this time. It is our intent to hold discussions and discuss possible ideas within our operation, with external agencies like other municipalities or engineering firms that specialize in this area to try and come up with solutions.

1. Initiate or identify a method using the Solid Waste Authority identification number along with their assistance to verify amounts hauled to the facility.
2. We may have to look at how it is billed. Instead of looking at it by the cubic yard, maybe we look at it by the ton instead.
3. Hire another code enforcement officer or utilize the new Industrial Engineer to track and identify the locations using GIS for stationary compactors/roll-offs.
4. Hire an internal accountant that can track all the fees and ensure proper billing is completed along with proper billing for commercial services.
5. Using the new routing software that may have an A/R component to properly bill for these services.
6. Continue to look for other possible solutions.
All of these possible ideas and solutions will be long term in nature because we currently do not have an absolute method in place nor the operational capacity to run the problem to ground. It could take a year or more to fully implement a reasonable solution.

**Target Implementation Date**

It could take a year or more to fully implement a reasonable solution.
5) Special Pickups

Condition

When commercial or residential customers have waste that they need collected outside of their scheduled pickups, they can call the Division and request a special pickup for a fee of $100 plus the cost of disposal. Administrative staff notify refuse collectors of the special pickups and the refuse collectors determine when they can go and collect the waste. Once waste is collected, administrative staff are notified and fees are imposed. We reviewed special pickups from June 2016 through December 2016 and found 68 instances where customers requested special pickups, but were not charged for them and/or there was no supporting documentation to determine whether or not waste was collected. There are valid reasons for not charging customers such as when the customers cancel prior to waste collection or if refuse collectors do not find the waste. However, proper documentation is needed to ensure consistent delivery of services and recovery of all fees.

Criteria

The City Commissioners established rates for the collection of waste which includes special pickups. Waste should be collected and billed appropriately.

Cause

The Division does not have the tools necessary to monitor special pickups or verify when they collect waste. The Division implemented a procedure for refuse collectors to take pictures before and after they collect waste, however, its use is inconsistent. In addition, the Division may not arrive to collect the waste in a timely manner. Finally, customers call to dispute charges and whether the waste was collected.

Effect

The City is using its resources to provide a service, but it may not recover all fees due for the service. In the 68 instances that we reviewed, the City may have lost the revenues from the fee of $100 as well as the cost of disposal which is based on the waste collected.

Recommendation

The Division should conduct research on resources available to monitor special waste collection. Ideally, a waste collection software should be able to handle general waste collection, routing, and billing, as well as specialized waste collection.

Management Response

We agree with the observations presented in this report. The following are steps that we are going to take to improve the process and operations. Please note that all of the following steps will take time to implement and the results will also take longer based on full implementation.

Special Waste Pick Ups:
Several issues arise in these instances. Most all relate to the tracking and verification of services being provided. The following are some of the efforts to correct the current issue and improve the operation in the future:
…Special Pickups (continued)

- Install Routing software that will allow the routes and pickups to be documented and billing to be allocated based on the service provided.
- The Lytx system is being installed in trucks. This system is a GPS system that will allow us to identify where a vehicle is and how long it is at any one location. We can then verify if a pickup has occurred based on the vehicle being at the location and for how long.
- We are going to be developing SOP’s that will identify how the process is to be handled along with checks and balances to prevent information from being mishandled.
- This Lytx system is in the contracting phase now and we expect that it can be physically installed and operational within 3 months.
- The routing software will take a little longer and it is anticipated to be in use beginning in about 6 months depending on the vendor’s success.
- The SOP’s will be a work in progress and after the Department of Public Works administrative operations have been finalized and drive to complete the SOP’s will be under way. These SOP’s should be in process if not underway within 6 months.

Target Implementation Date
Within 6 months or mid-year 2017.
6) **Overweight Vehicles**

**Condition**

The vehicles used to haul waste do not have scales for the drivers to use to monitor their weight. Staff use cameras on their vehicles to see how far back the compactor is able to compress waste. As the compactor is unable to compress anymore waste, staff take the waste collected and dispose it. We also observed that staff are familiar with their trucks and use their experience to assist them. We obtained data on citations issued by the Florida Highway Patrol to Division staff for overweight vehicles and found seven citations from June 2016 through December 2016. However, there were five citations issued in January 2017. In total these citations cost the City $2,163. An analysis of the citations indicated that the total gross vehicle weight may be within the regulations, but each axle has a weight limit that cannot be exceeded. Therefore, in some cases the vehicles were overweight on one axle and in other cases the vehicles were overweight on both axles.

**Criteria**

Florida statutes regulate the size and weight of each vehicle and its cargo. Specifically, Florida Statute 316.535(6) states that trucks engaged in waste collection and disposal are subject to all safety and operational requirements of law including the weight of the vehicle which cannot exceed 70,000 pounds. We also found that each axle has a weight limitation of 20,000 pounds.

**Cause**

The trucks do not come equipped with a mechanism such as a scale to monitor the total weight of the vehicle or the individual axles. Further, staff work diligently to complete their route and may not dispose of waste prior to exceeding their weight limitations.

**Effect**

According to the Florida Department of Highway Safety and Motor Vehicles, the State's weight and size limits were established to prevent heavy trucks from causing unreasonable damage to highway systems, thereby protecting the public's investment in these roadways. Further, excess weight may cause additional wear and tear on the vehicles.

**Recommendation**

The Division should consider cost effective options to provide scales for the trucks. Information from the Florida Department of Highway Safety and Motor Vehicles states that sworn law enforcement officers use portable scales to weigh vehicles, this may be an option that the Division could consider.

**Management Response**

We agree with the observations presented. The following are steps that we are going to take to improve the process and operation. However, please note that all of the following steps will take time to implement and the results will also take longer based on full implementation.
Over Weight Vehicles:

On January 27th, 2017 The Department of Public Works staff met with a member of the Highway Patrol/DOT to discuss ways to improve our situation. The following are some of the interesting items we found out.

- All vehicle have a GVWR which may be 70,000 lbs. as noted but it depends on how many axels the vehicle has, what size and rating the tires are on the vehicle and how well the load is distributed that determines if the vehicle is overweight.
  - For example a two axle truck has a front axle with a weight rating of 19,500 lbs. and the two rear axles of 44,000 lbs. for a total of 63,500 lbs. The vehicle can be underweight but if the load is not distributed properly it can still be over weight on the individual axles.
  - There are a lot of scenarios that can cause a vehicle to be overweight. So the following are some of our short and long range plans to help correct the issue:

  - **Short Term**
    - Place true max weight stickers in the vehicle so the driver becomes more aware.
    - Start working with the drivers to try and assess and identify what the vehicle looks like at certain weights based on how far the axle springs are compressed.
  
  - **In Process and should be complete in the next couple of weeks.**

  - **Medium Term**
    - As noted in other findings we are looking to implement a routing system. This routing system can be used in conjunction with industry standard MSW weight per container to try and predict when a vehicle will be at capacity and send them to the landfill.
  
  - **In process with a route software implementation of 6 to 8 months estimated.**

  - **Long Term**
    - Install a weight system on the vehicles that will identify the vehicle at individual times as they progress through the routes. It needs to be understood that these scales are not as accurate as the Landfill and portable scale of the police but it will give the drivers a better gauge based on their load.
…Overweight Vehicles (continued)

- These systems could be installed as new vehicles come in and if possible retrofit the older vehicles with the system.

This may take several years to complete because it will be done incrementally to help defray the costs. The units could cost around $1500 to $2000 per truck unless installed as part of a new vehicle.

Target Implementation Date

Currently in progress with short and medium solutions/implementations completed within 6 to 8 months.

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7) Waste Collection Rates

Condition

In FY14, the City Commissioners created a comprehensive fee schedule through Resolution 290-13 because various departments were updating their fees throughout the year. The Comprehensive Fee Schedule was intended to be a single source of reference for current fees to ensure consistency, transparency, and efficiency. To create the Comprehensive Fee Schedule, departments submit their fees to the Finance Department as well as requests for changes to their fees. The approved fees are then compiled into one fee schedule.

We reviewed the Comprehensive Fee Schedule for FY16 and FY17 and found that it did not accurately reflect the current fees charged by the Sanitation Division. Some rates charged by the Division were higher than those listed on the Comprehensive Fee Schedule and other fees were not charged to customers. For example, an additional residential waste container is listed at $75 for the setup, but the Division has not charged this fee which is in the current fee schedule. On the other hand, the Division has historically billed commercial accounts based on the number of cubic yards that their container holds, but the current fee schedule only lists a fee per container without specifying any size limitations. This appears to be an error that occurred when the City converted to a comprehensive fee schedule. The following table lists the rates in question.

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…Waste Collection Rates (continued)

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>CURRENT FEE SCHEDULE</th>
<th>DIVISION RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family - Additional 95 Gallon Can Setup Fee</td>
<td>$75</td>
<td>Not Charged</td>
</tr>
<tr>
<td>Single Family - Additional 95 Gallon Service Fee</td>
<td>$10</td>
<td>Not Charged</td>
</tr>
<tr>
<td>Commercial - Two 30 gallon cans or bags</td>
<td>$20</td>
<td>NA</td>
</tr>
</tbody>
</table>

| COMMERCIAL/CONTAINER SYSTEM                           |                      |               |
| Condominium/Government 1 time/week - Non-compacted container | $19 per container | $19 per cubic yard |
| Condominium/Government 1 time/week - Compacted container | $38 per container | $38 per cubic yard |

| COMMERCIAL/CONTAINER SYSTEM                           |                      |               |
| Condominium &Government - Non-compacted container    | $19 per container | $19 per cubic yard |
| Condominium &Government - Compacted container         | $38 per container | $38 per cubic yard |

| COMMERCIAL/CONTAINER SYSTEM                           |                      |               |
| Other 1 time/week - Non-compacted container           | $32 per container | $32 per cubic yard |
| Other 1 time/week - Compacted container               | $64 per container | $64 per cubic yard |

| COMMERCIAL/CONTAINER SYSTEM                           |                      |               |
| Other more than 1 time/week - Non-compacted container | $32 per container | $32 per cubic yard |
| Other more than 1 time/week - Compacted container     | $64 per container | $64 per cubic yard |

Source: Internal Auditor’s Office analysis of documents and practices.

Criteria
City Commissioners establish the rates for waste collection services provided by the Sanitation Division. The current rates for FY17 can be found in Resolution 316-16 which establishes the Comprehensive Fee Schedule for FY17.

Cause
We believe that the differences identified were an oversight by the various people involved in the process. It appears that when the Comprehensive Fee Schedule was established, the information may have been submitted without adequately reviewing the rates or comparing the information submitted to the final approved rates.

Effect
The intent of creating a Comprehensive Fee Schedule was to ensure consistency and transparency in fees charged by the City. Due to the differences found, there are instances where the Division should have charged fees for services provided. Further, there are instances where the Division charged more than the approved rate, however this appears to be an error in the approved fee schedule because the Division would not be able to operate at such low rates.

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…Waste Collection Rates (continued)

Recommendation

Considering that the current Comprehensive Fee schedule must be updated, the Division should work with City Administrators to review the fees charged and conduct an analysis to determine whether fees are sufficient to recover costs incurred. The analysis should include benchmarking with other similarly situated cities to assist in establishing rates. Thereafter, the Division should provide the updated fees for approval by the City Commissioners and have the current Comprehensive Fee Schedule amended or incorporate the changes into the next Comprehensive Fee Schedule.

For future changes to the Comprehensive Fee Schedule, the Division should implement a review procedure of the current rates and what is submitted as well as a procedure to review the final approved rates and adjust the billed rates.

Management Response

We agree with the observations presented in this report. The following are steps that we are going to take to improve the process and operations.

Please note that all of the following steps will take time to implement and the results will also take longer based on full implementation.

We believe that the discrepancies were omissions of certain words or abbreviations that should be in the chart. We are going to look at each individual line item and ensure the proper wording so as to formally set the table up with the correct fees.

We also believe that staff was unaware of the changes and continued using the code as their guide. We now have a new Director of Public Works and will be looking carefully at what is charged and how. We will also get the fees in the table updated and are in the process of getting a route planning system. Most of these systems also include billing software that will allow you to implement the proper fees and charge based on the services provided.

This new system is anticipated to be in place in 6 to 8 months. The fee schedule changes we intend to begin working on them and getting them before commission as soon as practicable.

Target Implementation Date

Within 6 to 8 months.
8) Updated Commercial Locations

Condition

The Division does not have a documented mechanism to receive timely notifications when a business opens or closes. The Division staff and management stated that periodically they may drive around the City to look for changes or they may read local newspapers that discuss changes within the City. We observed one newspaper article that was utilized to determine which businesses had closed and which had opened.

Criteria

According to City Code 74-31, every commercial establishment within the city is required to subscribe for regular commercial waste collection services from the city unless the city is unable to provide the needed services. Further, the current Comprehensive Fee Schedule, as approved by City Resolution 316-16, establishes fees for services based on the type of container and the frequency of waste collection.

Cause

The Division does not have a written or documented procedure in place to periodically review and update commercial accounts.

Effect

The City may not recover all fees for services provided or the City may continue to charge for services that are no longer needed.

Recommendation

The Division should periodically review business locations to ensure that they are accurately serviced and billed. One option could be to use the refuse collectors to periodically verify the locations that they service on their routes, notate the container in use as well as the frequency of waste collection, and state whether the container is adequate for the waste collected. Once updated, the Division should ensure that the billing is accurate.

Management Response

We agree with the observations presented in this report. The following are steps that we are going to take to improve the process and operations.

Please note that all of the following steps will take time to implement and the results will also take longer based on full implementation.

Updated Commercial Location:
The following are steps we are going to implement to improve how we track this information:

We will institute SOP’s that will give employees clear guidance on how and when to identify the changes.

- This will be accomplished by using ArcGIS to identify all locations already in business.
…Updated Commercial Locations (continued)

- Work with planning to identify new businesses as they come online.
- Research other municipalities to identify methods they use to find business’s as they turn over.
- Work with the chamber of commerce to get the message out that business is required to contact our operations.

These are steps that ultimately will be used to identify and fill in the gaps to incorporate these changes and collect all revenue that are due. The time frame to complete this is estimated to be 8 to 12 months based on other projects we will be working on to help with this process.

**Target Implementation Date**

The time frame to complete this is estimated to be 8 to 12 months based on other projects we will be working on to help with this process.

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9) Vehicle and Equipment Maintenance

Condition
During this audit, the Sanitation Division management stated that they continue to work hard to keep equipment operable as it impacts their ability to haul waste. We reviewed the data of vehicle downtime from June 2016 through December 2016 and found that approximately 18% of the commercial refuse vehicles were out of service each month with a high of over 50% out of service on a few days. These figures do not include the downtime for residential, yard waste, or street sweeper vehicles. During the 2016 audit of the City’s Fleet maintenance, we noted that the Sanitation Division was one of Fleet’s largest customers and that it was challenging for the Division to keep their vehicles properly maintained and repaired. We discussed this issue with the Division and City Administration and we note that they were aware of this issue.

Criteria
The Sanitation Division’s primary responsibility is to haul waste which requires the use of vehicles and equipment in good working order.

Cause
The routes are inefficient thereby requiring the use of vehicles and equipment for extended periods which increases wear and tear. The Division relies wholly on the Fleet Division to repair and maintain their vehicles.

Effect
As we stated in the Fleet Audit, the Sanitation Division relies upon fully functioning vehicles and equipment to avoid sub-optimal operations which impact customers.

Recommendation
The Division should continue to work with City Administration and Fleet to identify the best options for meeting their needs such as having dedicated mechanics and identify funding to replace the oldest high maintenance trucks that are no longer reliable and require frequent maintenance.

Management Response
We agree with the observations presented in this report. The following are steps that we are going to take to improve the process and operations.

Please note that all of the following steps will take time to implement and the results will also take longer based on full implementation.

Vehicle and Equipment Maintenance;

1. We have spoken with Fleet maintenance on this matter. Fleet appears to have a good grasp on what needs to be done. Due to budget constraints and the fact that the fleet is aging, they have in place a plan to replace vehicles in an orderly fashion. This does not solve the immediate issue and using coordination
...Vehicle and Equipment Maintenance (continued)

meetings we are going to work together to implement better procedures to do maintenance and scheduling of vehicles for repairs.

2. We are currently working on routing software that is expected to be implemented in 6 to 8 months. The software may allow us to reduce the wear and tear and the number of vehicles on the road at any given time. This will assist with the downtime ratio.

3. We are also considering having a maintenance mechanic that is assigned to our fleet to do the simple routine repairs that otherwise tie up the fleet shop to improve turnaround time.

4. We are also looking into a program that will allow us to rent vehicles when any one of our fleet would go down for extended periods of time.

In conclusion we will be taking steps to improve coordination, implement a route software program and improve fleet availability through rental programs.

Long term will be replacing the aging fleet and set the equipment up on a better maintenance schedule.

**Target Implementation Date**

Initial routing system will be implemented in 6 to 8 months and long term we will be replacing the aging fleet.

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10) Policies and Procedures

Condition

We found that the Sanitation Division did not have documented policies and procedures. This is of particular concern considering the volume of customers they serve and the revenue they generate. During our interviews and observations, we found that staff operate off memory in all areas. While we commend them for managing to operate a large division in this manner, it would be prudent to implement documented policies and procedures.

Criteria

Best practices indicate that policies and procedures are the foundation of a well-run organization. We also note that SCS Engineering stated that policies and procedures are an integral part of a successful quality system and they detail the regularly recurring work processes that are to be conducted or followed.

Cause

The Division has focused its efforts on ensuring successful waste collection throughout the City. Further, the Division stated that with the volume of work that they must complete, they could not allocate resources to develop policies and procedures because they had other matters that were a higher priority.

Effect

Policies and procedures help to ensure that staff and management operate consistently and provide quality services efficiently. Without policies and procedures, staff may be unaware of necessary procedures and management may not be able to provide appropriate oversight. Further, institutional knowledge may be lost when there is employee turnover. This is particularly important for the Sanitation Division because the majority of staff operate based on memory.

Recommendation

The Division should ensure that it operates efficiently and provides sufficient oversight by documenting policies and procedures. Further, the Division should ensure that all employees receive the final policies and procedures. Finally, the Division should periodically review and update the policies and procedures to ensure that they reflect current business practices.

Management Response

We agree with the observations presented in this report. The following are steps that we are going to take to improve the process and operations. Please note that all of the following steps will take time to implement and the results will also take longer based on full implementation.

Standard Operating Procedures

- As noted, there are no Standard Operating Procedures. As the new Public Works Director this is of great concern. We have already been apprised of the situation upon the Director’s arrival and we are in the process of correcting the issue.
Policies and Procedures (continued)

- We will be hiring an Industrial engineer that will be in charge of the programs. The position will be responsible to review the operations, recommend necessary changes and implement differences in the system as they arise. April 2017 anticipated start date. This position will document these procedures and continually modify them as the natural environment evolves.
  - Until the Industrial engineer starts, we as a Department will start to put basic guidelines in place to include a template that will allow the creation of quality and standardized SOP’s that will be used Department wide, not just divisionally.
  - While not vetted at this point, we would like to additionally look at having SCS engineers look at putting together a rough draft of SOP’s to jump start the process.
  - Ultimately the goal is to have in place SOP’s that will serve as guidance not only for the operations staff but for supervisors in case of emergency or loss of supervisory staff. Someone should be able to walk in and understand what we do and how to do it using an SOP manual.
  - The preliminary concept is already in process, implementation scope should be developed over the next 2 months with a finalized plan being completed and implemented within 6 months or by the beginning of FY18.

Target Implementation Date
By the beginning of FY18.

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