

# CITY OF PHILADELPHIA PENNSYLVANIA

## OFFICE OF THE CONTROLLER

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### **PHILADELPHIA'S TRASH COMPACTORS**

Analysis of Costs & Collections

April 2015



City Controller  
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### BACKGROUND:

Over the last two years, the Philadelphia Streets Department has had as much as a 30 percent reduction in its trash compactor fleet, according to its management. The City needs 324 compactor vehicles daily to meet budgetary and operational goals; however, it has been as low as 230. In addition, approximately a third of the fleet is between 10 and 20 years old and the vehicles removed from service have not been replaced.

With a reduction of trash compactors, the average on-time collection rate has declined to 85 percent. This has resulted in 80,000 homes that have not had their trash picked up on time or on the regular scheduled pick-up day. The impact of the fleet reduction has been recognized by residents as there have been concerns regarding trash not being picked up on the scheduled day.

The City Controller's Community Affairs Division was alerted by the trash pick-up problems when residents at a February 2015 Normandy Civic Association meeting stated that trash was being picked up days after the usual collection schedule. In addition, at a March 2015 Holme Circle Civic Association, an administrator with the Streets Department indicated that residents were not getting timely trash pickup because of a shortage of trash trucks. Many of the trucks were in the shop getting extensive repairs and others were removed from service entirely because they were too damaged or too old to fix, according to a April 1, 2015 Northeast Times article.

### FINDINGS:

#### Collection Rate

The Streets Department has a service level target of completing 96 percent of collections on time, which is supposed to be by 3 p.m. While severe weather and emergency closings of streets can impact the collection rate, the primary factors are personnel and equipment, staffing for collection crews and compactors. The average annual on-time collection rate over the last ten years includes the following:

FY06	95.2%	FY11	94.2%
FY07	96.6%	FY12	93.6%
FY08	97.5%	FY13	95.7%
FY09	97.3%	<b>FY14</b>	<b>85.3%</b>
FY10	89.6%	<b>FY15</b>	<b>85.4%</b>

Over the last decade, the collection rate has been above 93 percent, with the exception of the last two years and FY10, which was the year the City faced severe winter conditions. Heavy rain, snow and other rigorous weather events can contribute to lower collection rates.

#### Overtime Costs

The daily condition and availability of compactors can be a primary component of unanticipated or unbudgeted overtime. According to the Streets Department, "This has reached a crisis stage this year,

with an already aging fleet suffering further wear and tear over a second consecutive winter of severe weather and multiple events requiring Sanitation vehicles in the snow plowing operation.”

The significant reduction in trash compactors has resulted in increased overtime costs needed to collect all of the trash. These costs have increased to \$3.5 million and \$3.1 million in FY2015 and FY2014, respectively – a more than 150 percent increase compared to prior years. The Streets Department determined that on average there were 13 compactor breakdowns per day that negatively impacted collections. The following are estimated costs of overtime due to the compactor shortage:

FY06	\$1,078,000	FY11	\$1,154,000
FY07	\$1,110,000	FY12	\$1,154,000
FY08	\$1,154,000	FY13	\$1,154,000
FY09	\$1,154,000	<b>FY14</b>	<b>\$3,138,502</b>
FY10	\$1,154,000	<b>FY15</b>	<b>\$3,544,122</b>

### Budget Overview

Recognizing the higher costs and the longer work weeks for employees associated with a reduced fleet, the City of Philadelphia’s FY2016 Budget includes a projection of \$4.9 million this year in the capital program to replace trash compactor trucks, and \$7 million each year until 2021, ensuring one-eighth (or 40 trucks) of the fleet to be replaced each year. At this projected rate, it would take about eight years for the trash compactor fleet to be replaced with new vehicles. With trash compactors expected to last eight years, the funding would have to continue after the eight years so that the current problem does not occur again.

According to budget testimony provided by the Streets Department on April 21, 2015, the Department is expected to be receiving delivery of 30 trash compactor trucks on or around July 1, 2015. The Department also indicated that the current trash compactor problem should be eliminated at that time.

### REVIEW OF OTHER CITIES:

While no city’s operations and procedures are exactly the same, the Controller’s Office reviewed trash collections in other cities to discover other methods that are deployed to reach maximum results.

#### Baltimore

In July 2009, the City implemented the “One PLUS ONE” system, which moved the City from a six-day operation to a four-day, ten-hour work week under the new system. The initiative decreased the number of person hours for trash pickup by 5,296 hours and decreased the amount of vehicles needed by 12. Workers that were not needed became dedicated to other services, such as cleaning alleys and streets.

Prior to this initiative, the percent of service requests completed on time was at 60 percent. After a few years of implementation of the One PLUS ONE system, service request completion increased to 92 percent in FY13, surpassing the City’s goal of an 85 percent target rate.

#### Chicago

In 2012, the City began the transition from ward-by-ward to grid-based collection of waste. Under the ward-based system, Chicago’s cost of waste collection and disposal was significantly more than in most major metropolitan areas. The transition to a more efficient system of garbage collection reduced the average daily refuse collection truck deployment from 360 trucks to less than 320 trucks each day. In addition, the refuse collection costs were decreased by more than \$18 million annually, enabling the City to redirect resources to support other essential services.

### City of Phoenix

In 2013, the City of Phoenix began implementing new compressed natural gas (CNG) solid waste trucks into its fleet. By the summer of 2014, the total percentage of CNG vehicles in the City's Public Works Department fleet increased to 30 percent with a goal to increase numbers by 10 percent to 15 percent every year after. Once the fleet is fully converted to CNG, the city is expected to save almost \$2 million annually. According to Phoenix Mayor Greg Stanton, the lower prices will help minimize fee increases for weekly trash collection, which have not been raised since March 2009.

### CONCLUSION:

The ongoing deterioration of the City of Philadelphia's aging-fleet of trash compactors has resulted in additional financial resources needed over the last two years to maintain at least the same level of services. With an 11 percent decline in the City's on-time collection rate since 2013, the impact has been a 207 percent increase in overtime costs.

Although trash pick-up schedules have been delayed, the Streets Department still manages to collect the trash and recycling, which the Department's management should be recognized for completing these tasks with fewer resources. When there has been funding dedicated to the Department to allow the required daily number of trash compactors to be operating, the City's statistics indicate that collection rates are achieved, and in some instances beyond projected goals.

As a result of the "trash crisis", the City recently has recognized the need for additional funding to upgrade its fleet of trash compactors. The City of Philadelphia's FY2016 Budget includes \$7 million in the capital program to replace trash compactors. This will include replacing 30 trucks starting July 2015.

With trash compactors expected to last eight years, the City will need to ensure that it will dedicate ongoing funding beyond eight years to avoid realizing a similar problem with lower collection rates and higher costs for overtime. In addition, compressed natural gas solid waste trucks should be analyzed to determine if savings could be realized.