

PERFORMANCE AUDIT REPORT

DEPARTMENT OF PUBLIC WORKS

**FOR THE PERIOD FROM
JULY 1, 2013 THROUGH JUNE 30, 2015**

December 30, 2016



**City of Baltimore
Department of Audits**

CITY OF BALTIMORE

CATHERINE E. PUGH, Mayor



DEPARTMENT OF AUDITS

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December 30, 2016

Honorable Joan M. Pratt, Comptroller
And Other Members of the Board of Estimates
City of Baltimore

We conducted a performance audit of the internal controls and related policies, processes, and procedures for selected performance measures within the Service Areas of the Department of Public Works. The purpose of our audit was to determine whether the Department of Public Works (DPW) met its targets for selected performance measures and to assess whether the internal controls and the related policies and procedures to monitor, control, and report activities related to those performance measures produced valid and reliable information.

As a result of our audit, we found that the targets for the selected performance measures were not met. We also noted certain areas where the effectiveness of the control procedures could be improved, and we recommend that:

- DPW establish procedures to document supervisory reviews and approvals of information contained on the Daily Treatment Worksheets and to reconcile key information, particularly the number of rat burrows baited, to the information recorded and reported in the Customer Service Report (CSR) system, the CitiStat reports, and applicable payroll attendance information.
- In accordance with Baltimore City's Administrative Manual (Section AM-502-1), DPW establish or improve policies and procedures to adequately maintain records.
- The Bureau of Solid Waste's Standard Operating Procedures (SOPs) be expanded to address the Inspection and Follow-Up Checklist for Detecting and Preventing Rats and to include specific instructions for completing the inspection form. Also, Inspectors should be given adequate guidance, direction, and training on completing the inspection form. As part of its review and approval process, supervisors should sign off to verify that the inspection form is properly completed.



- DPW review its performance measures included in the Agency Detail Board of Estimates Recommendations (Budget Books) to ensure that the reported amounts are consistent with the established performance measures and to determine the steps that are necessary to improve actual performance so that the performance measure targets can be met. We also recommend that DPW review future performance measures to determine whether those targets require updating or revisions based on past actual amounts. Before changing any future performance measures, however, DPW should follow the procedures established by the Department of Finance, Bureau of Budget and Management Research, for the review and approval of any suggested changes to performance measures.

Sincerely,

A handwritten signature in blue ink, appearing to read "Robert L. McCarty, Jr.", written in a cursive style.

Robert L. McCarty, Jr., CPA
City Auditor

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Background Information

The Department of Public Works' mission is to enhance and sustain healthy quality of life for every citizen and customer by providing efficient management of its services. The Department of Public Works (DPW) consists of three major divisions: the Bureau of Solid Waste, the Bureau of Water and Wastewater, and the Surface Water Service.

The Bureau of Solid Waste (BSW) is responsible for providing waste removal and recycling services, including curbside collection of mixed refuse, recycling, and seasonal waste for 640,000 residents in approximately 210,000 households. The BSW also provides vacant and abandoned property maintenance services, rat control services, as well as public right-of-way cleaning of streets, alleys, and lots. The BSW is also responsible for disposal of refuse in accordance with governmental regulations and mandates. This includes the management of a 125-acre active landfill at Quarantine Road and through agreements with the Wheelabrator Waste to Energy facility, recycling service providers and maintenance of six closed landfills. The long-term goal is to reduce the volume and amount of waste deposited in landfills in order to extend the life of these assets and make the City self-reliant for the future. The BSW also promotes and markets special initiatives for a cleaner and greener Baltimore.

The Bureau of Water and Wastewater (WWW) is responsible for the operation of a water distribution system that supplies water to 1.8 million customers in the Baltimore Metropolitan Region. These responsibilities include the operation, maintenance, and security of three watershed systems; three filtration plants, pumping stations and 4,500 miles of water distribution mains. The collection and treatment of wastewater, the operation and maintenance of two wastewater treatment plants, approximately 3,100 miles of collection and conveyance lines, pumping stations, and the City's system of storm drains are also the WWWW's responsibility.

The Surface Water Service (SWS) consolidates all stormwater related functions and includes the Watershed Liaison Office, Stormwater Management and Sediment and Erosion Control, Storm Drain Engineering, Storm Drain and Waterway Maintenance, Water Quality Monitoring and Inspections, and Environmental Engineering. The Division's mission is to restore the City's surface water to swimmable, fishable conditions, in compliance with the Environmental Protection Agency and the Clean Water Act.

Audit Scope, Objectives and Methodology

We conducted a performance audit of the internal controls and related policies, processes, and procedures for selected performance measures within the Service Areas of the Department of Public Works. The purpose of our audit was to determine whether the Department of Public Works met its targets for selected performance measures and to assess whether the internal controls and the related policies and procedures to monitor, control, and report activities related to those performance measures produced valid and reliable information. We conducted our 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.

The objective of our audit was to determine whether DPW met its targets for selected performance measures in fiscal years 2014 and 2015 and to assess whether DPW's internal controls and related policies, processes, and procedures were effectively designed and placed in operation to monitor, control, and report valid and reliable information related to those performance measures. As part of our audit, we addressed selected performance measures within the following Department of Public Works Service Areas:

1. **Vacant/Abandoned Property Cleaning and Boarding – Service 662.** We conducted our audit of the Bureau of Solid Waste's efforts to meet its targets for the number of rat borrows baited. The targets for the number of rat borrows baited were 60,000 for fiscal year 2014 and 100,000 for fiscal year 2015. (Priority Outcome: Stronger Neighborhoods; Performance Measure Type: Output)
2. **Waste Removal and Recycling – Service 663.** We conducted our audit of the Bureau of Solid Waste's efforts to meet its targets for tonnage collected from household recycling. The targets for collecting household recycling were 32,000 tons for fiscal year 2014 and 34,000 tons for fiscal year 2015. (Priority Outcome: A Cleaner City; Performance Measure Type: Output)
3. **Engineering Construction Management – Water and Wastewater – Service 675.** We conducted our audit of the Bureau of Water and Wastewater's efforts to meet its targets to rehabilitate/replace 145,125 linear feet of the water distribution system in fiscal year 2014 and 146,028 linear feet in fiscal year 2015. (Priority Outcome: A Cleaner City; Performance Measure Type: Output)

To accomplish our objectives, we conducted inquiries of key individuals in order to obtain an understanding of the internal controls and related policies, processes and procedures, and systems, established by DPW for the selected performance measures. Where possible, we also utilized the systems' documentation obtained as part of our audit of the City's Comprehensive Annual Financial Report (CAFR). We also performed tests, as necessary, to verify our understanding of the applicable policies and procedures; reviewed applicable records and reports utilized to process, record, monitor, and control DPW's functions pertaining to the selected performance measures; assessed the efficiency and effectiveness of those policies and procedures; and determined whether DPW met its performance measure targets. We performed tests of various records and reports for the period from July 1, 2013 through June 30, 2015.

Our findings and recommendations are detailed in the Findings and Recommendations section of this report. The responses of the Department of Public Works and, when necessary, the Department of Audits' comments to those responses are included as part of each finding.

Findings and Recommendations

Vacant/Abandoned Property Cleaning and Boarding – Rat Burrows Baited

Background

As part of the Rat Rubout Program, Pest Control Workers (PCWs) conduct both reactive and, beginning in January 2015, proactive inspections and baiting of rat burrows, when active burrows are identified. Reactive service calls are based on Service Requests (SR) resulting from Citizens' calls to 3-1-1 complaining about seeing rats on their property. A PCW is dispatched to the said property to inspect the entire block where the property is located for active rat burrows and to apply treatment if active rat burrows are found. Treatment is applied every four weeks until the PCW no longer finds evidence that the rat burrow is active.

During the period covered by our audit, the Bureau of Solid Waste had eight PCWs. According to the fiscal year 2016 budget information, however, eight vacant positions were transferred in to support an expanded rat control program, moving from a reactive program to a proactive program. The PCWs report to the office each day to receive their route schedules for inspections and, when necessary, the baiting of rat burrows, based on the Master Route and citizens' complaints/requests (3-1-1 calls) for inspection. At the end of the day, the PCWs return to the office and submit their data sheets to an office support staff who enters the information into the Customer Service Report (CSR) system. The 3-1-1 calls for rat complaints are recorded in the CSR system. For each property inspected, a proactive SR is created by the office support staff after the data sheets are received from the PCWs.

Finding #1

DPW did not meet its targets for the number of rat burrows baited during fiscal years 2014 and 2015. However, because of missing data and discrepancies in data to support the actual reported amounts, we could not determine whether the reported performance measure amounts were accurate and reliable.

Analysis

DPW did not meet its targets for the number of rat burrows baited during fiscal years 2014 and 2015. The reported number of rat burrows baited during fiscal year 2014 was 54,696 compared to the target of 60,000, and the reported number of rat burrows baited during fiscal year 2015 was 49,839 compared to the target of 100,000. However, because of missing data and discrepancies to support the actual reported amounts, we could not determine whether the reported performance measure amounts were accurate and reliable. According to DPW, the reported number of rat burrows baited is not based on the CSR because that information is not reliable. Instead, DPW reports the number of rat burrows baited from reports generated for CitiStat, which we were told, are based on information obtained from the Daily Treatment Worksheets. However, we found many discrepancies between the information on the Daily Treatment Worksheets and the amounts on the reports generated for CitiStat.

We reviewed the PCW's Daily Treatment Worksheets (DTWs) for two weeks during fiscal year 2014 and two weeks during fiscal year 2015 and compared the number of rat burrows baited according to the DTWs to the number of rat burrows baited according to the CitiStat reports and found many discrepancies. For the two weeks we reviewed in fiscal year 2014, according to the DTWs, the number of rat burrows baited totaled 1,924; however the reported amounts for those two weeks totaled 750, a difference of 1,174. The difference may be greater, however, because some of the DTWs were missing, and therefore, not included in our counts. Similar discrepancies were noted for the two weeks we reviewed in fiscal year 2015. For fiscal year 2015, according to the DTWs, the number of rat burrows baited during the two weeks we reviewed totaled 2,690; however, the reported amounts for those two weeks totaled 1,800, a difference of 890. Again, the difference may be greater, because some of the DTWs were missing, and therefore, not included in our counts. We also found discrepancies on two of the days that we tested (one out of the two-week period in fiscal year 2014 and one out of the two-week period in fiscal year 2015), in which the employees in question were marked as Vacation Leave on the City's Payroll System (eTime) but recorded rat burrows baited on the DTWs.

We believe that the discrepancies between the number of rat burrows baited as recorded on the DTWs and the number of rat borrows baited as recorded in the CSR system and on the CitiStat Reports, as well as the discrepancies with eTime occurred because, apparently, there are no reconciliations between the amounts on the DTWs (source documents) and the amounts recorded in the CSR system, the CitiStat reports, and the eTime payroll records. Also, we were told that a Superintendent reviews and approves all DTWs before the applicable information is entered into the CSR system by the office support staff, but there is no official sign-off or other evidence of such reviews and approvals.

Recommendation #1

We recommend that DPW establish procedures to document supervisory reviews and approvals of information contained on the DTWs and reconcile key information, particularly the number of rat burrows baited, to the information recorded and reported in the CSR system, the CitiStat reports, and applicable payroll attendance information. We also recommend that, in accordance with Baltimore City's Administrative Manual (Section AM-502-1), DPW establish or improve policies and procedures to adequately maintain records.

Agency's Response

Finding #1 indicates that DPW did not meet its target for rat burrows baited for fiscal year 2014 and fell short of its target by 5,304 rat burrows baited or 8.84%. This target would have been reached without extenuating circumstances; rat burrow baiting cannot take place when snow covers the ground. The first reported accumulation in 2014 was on January 3rd. The last day of the snow season with snow reported on the ground was March 18. The longest stretch of time during which there was always snow on the ground was from January 21 to January 28 (8 consecutive days). With productivity per PCW averaging 25 burrows baited every work day, during this stretch alone, a work output of 1,600 burrows baited was lost. The target is based on full days of productivity and doesn't account for periods during which weather events preclude the ability to bait since such events cannot be forecasted accurately.

For fiscal year 2015, the reported number of burrows baited was 49,839 while the target was 100,000 burrows baited. The fiscal year 2015 target, an increase of 40,000 burrows baited over the fiscal year 2014 target, was set under the supposition that the fully staffed Proactive Baiting Program which began in October 2014 would dramatically increase the number of burrows baited. The Proactive Baiting Program was envisioned as a fully staffed program of 16 PCWs that would be able to cover the entire City. While the Proactive Baiting Program has been a success in bringing the Rat Rubout effort into all areas of the city, when it was launched there were only eight PCWs on staff. In fact, all the additional positions were not fully created until April 2015 and at that time there were only 11 PCWs on staff. At present, there are 14 PCWs on staff still short of the 16 planned for and that number has only recently been attained.

DPW must also note that some discrepancies with employees on leave and the submission of DTWs may arise from the fact that when vehicles are being shopped or are unavailable, a PCW will double up with another worker. These occurrences are noted on the daily run down sheets and in comments on the CitiStat report. Upon further examination of the records in storage, initially requested DTWs have been pulled and will be furnished.

While the Bureau of Solid Waste's Standard Operating Procedures (SOPs) do reflect adherence to Baltimore City's Administrative Manual (Section AM-502-1), the Bureau does agree that there should be a clear and unambiguous lineage from the DTWs, the CSR system, the CitiStat reports, and applicable payroll attendance information especially if PCWs, due to vehicle breakdowns, repairs or preventive maintenance, are teamed with another PCW and then share the same DTW. Supervisor documentary reviews and reconciliation of key information occurs but DPW agrees such data "chains of custody" need to be strengthened and documented.

The Bureau aims to establish technology which will enable the electronic recording of such work in real time and fully verify work performed. Such technology would establish an electronic linkage from the field work to the administrative staff and to the CRS system and the CitiStat reports. Inputting such information will enhance accurate reporting and eliminate the mis-transcription of data due to ineligible handwriting and unclear markings.

Finding #2

Parts 2 and 3 of the Inspection and Follow-Up Action Checklist for Detecting and Preventing Rats were rarely completed by the inspectors for the four weeks that we tested.

Analysis

Parts 2 and 3 of the Inspection and Follow-Up Action Checklist for Detecting and Preventing Rats, a form used by the inspectors to record, among other things, the number of rat burrows found and baited, were rarely completed by the inspectors for the four weeks that we tested. We believe that the checklists included in Parts 2 and 3 were designed to assist in providing information to enhance proactive and preventive rat control measures. Part 2 addresses ways rats may feed and contains a checklist to assess whether garbage is being handled in ways that discourage rats from finding food. Part 3 addresses ways for rats to seek and find shelter and contains a checklist to inspect for landscaping and other conditions that enable rats to hide, nest,

and travel freely. The checklists include various conditions and provide space for “yes” or “no” answers. However, for the four weeks that we tested (two weeks in fiscal year 2014 and two weeks in fiscal year 2015), most of the forms that we reviewed were either marked “N/A” or left blank in the spaces provided for Parts 2 and 3. The Bureau of Solid Waste has Standard Operating Procedures (SOPs); however, the SOPs do not address the Inspection and Follow-Up Checklist for Detecting and Preventing Rats and do not include specific instructions for completing that inspection form, particularly Parts 2 and 3. Instead, the SOPs merely state that when filling out the paperwork for rat inspections/baiting, make sure you fill out the Daily Worksheet correctly.

Recommendation #2

The Bureau of Solid Waste’s Standard Operating Procedures (SOPs) should be expanded to address the Inspection and Follow-Up Checklist for Detecting and Preventing Rats and to include specific instructions for completing the inspection form, particularly Parts 2 and 3. Inspectors should be given adequate guidance, direction, and training on completing the inspection form. As part of its review and approval process, Supervisors should sign off to verify that the inspection form is properly completed.

Agency’s Response

Finding #2 presupposes that the Follow-Up Action Checklist for Detecting and Preventing Rats, Parts 2 and 3 should be completed for every rat treatment. This is an internal document that the PCWs use when a vacant property is baited proactively or when a right-of-entry to a private property has been granted. PCWs attach this form to the DTWs and keep copies with themselves so they know to follow up.

As can be gleaned from Parts 2 and 3 of the Checklist, such conditions such as high, grass and weeds, improper trash storage and improper storage on a property are violations of Baltimore City’s Building, Fire, and Related Codes and thus would need to be addressed by Code Enforcement in the Department of Housing and Community Development. Unsanitary conditions as indicated in Parts 2 and 3 of the checklist are well established in studies of rodent control as essential in depressing rat populations. Noting such conditions on private and vacant properties is key in addressing them and attacking the root causes of rodent infestations.

In such cases, this information would either be called in to 3-1-1 or administrative staff to create the DHCD SR. It should be noted that in cases of rat burrow baiting on public property, completion of this form would be superfluous as it addresses conditions on private property alone.

DPW agrees that the Bureau of Solid Waste’s Standard Operating Procedures (SOPs) should be expanded to address when and under what conditions the Inspection and Follow-Up Checklist for Detecting and Preventing Rats, Parts 2 and 3, should be completed including specific instructions for completing the form and has done that with the distribution of the Municipal

Cans and proactive baiting strategy, both essentially tools or strategy for addressing rat infestations. PCW workers are now instructed to note the sanitary condition of an alley and backyards including household's not using cans for trash storage. This information is noted on their worksheet daily. Supervisors will verify that the inspection form is properly completed. DPW will also ensure that when such conditions are noted that they are followed up with DHCD for enforcement actions when called for.

Waste Removal and Recycling – Tonnage Collected From Household Recycling

Background

DPW's Recycling Office oversees the City's recycling program and promotes and markets recycling to the communities to maximize residential, public, and commercial participation. Baltimore City is divided into five Districts (Downtown, Northwest, Northeast, Southwest, and Southeast), where City trucks pick up recycling materials. Citizens can also dispose of recycling materials at Citizen Convenience Center drop-off locations. City trucks also pick up recycling materials from Schools/Libraries and Condos/Businesses. The City uses a third-party vendor to process the City's recyclables collected. After recyclable materials are processed and weighed, the third-party vendor pays the City for the materials recycled.

Finding #3

DPW did not meet its targets for the tonnage collected from household recycling for fiscal years 2014 and 2015 even though the reported tonnage collected was overstated because it included items that are not considered as household recycling.

Analysis

DPW did not meet its targets for the tonnage collected from household recycling for fiscal years 2014 and 2015. For fiscal year 2014, the reported tonnage for household recycling was 26,083 tons, or 82%, compared to the target of 32,000 tons. For fiscal year 2015, the reported tonnage for household recycling was 27,941 tons, or 82%, compared to the target of 34,000 tons. The reported tonnage collected, however, was overstated because it included items that are not considered as household recycling, such as recycling from schools, libraries, and large businesses.

Recommendation #3

DPW should review its performance measures included in the Agency Detail Board of Estimates Recommendations (Budget Book) to ensure that the reported amounts are consistent with the established performance measures and to determine the steps that are necessary to improve actual performance so that the targets can be met. We also recommend that DPW review future performance measures to determine whether those targets require updating or revisions based on past actual amounts. Before changing any of its future performance measures, however, DPW should follow the procedures

established by the Department of Finance, Bureau of Budget and Management Research for the review and approval of any suggested changes to performance measures.

Agency's Response

Finding #3 is accurate that DPW did not meet its recycling target for fiscal years 2014 and 2015; however, DPW disputes the finding that the tonnage was overstated because it included items that are not considered as household recycling. If anything, the tonnage was understated.

For fiscal year 2014, DPW reported recycling tonnage as 26,083 tons and for fiscal year 2015, 27,941 tons was reported. These tonnages obviously missed the target goals of 32,000 tons and 34,000 tons respectively. Given its resources, the Bureau of Solid Waste, Recycling Office promotes recycling through postcard mailings, recycling bins sales, paper shredding events, other activities and through press releases issued through DPW's Media Communications Office. The Bureau recognizes these efforts have not provided the impetus to push residents to recycle and to recycle more. The Bureau feels more efforts should be made in social media, mobile technology and looking for ways to make recycling bins more available to residents. As was demonstrated in the Municipal Trash Can Pilot, when residents are provided with recycling bins, they recycle. Giving the Recycling Office more direct input in posting information on social media and re-establishing its Speaker's Bureau would also let BSW more directly deliver its message to residents.

DPW does dispute that the tonnage figures are overstated. This is the result of a misnomer. Finding #3 bases its claim on the fact that the tonnage figures include recycling collected from schools, libraries and large businesses. Finding #3 states that these items are not considered household recycling. Household recycling does not exist. Recycling is based on materials collected regardless of the source. A typical household recycles paper, metal and aluminum cans, bottles and plastic. In fact, the recycling waste sort under the current contract shows that a typical ton of recycling collected by the Bureau of Solid Waste in Baltimore City consists of 68.27% mixed paper, 17.06% of mixed broken glass 1.42% of PET plastic and 0.30% of aluminum cans. All recycling collected by the Bureau is single stream – all of these materials are collected together and delivered to our vendor where they are sorted into their respective commodities. There is no distinction if the paper is collected from a school, a mom and pop store, a single family dwelling, a high rise building or an office complex. The distinction arises when considering different materials recycled. Industrial recycling usually consists of recycling concrete or soil or other industrial materials. These are not single stream materials.

In reviewing its performance measures included in the Agency Detail Board of Estimates Recommendations (Budget Book) to ensure that the reported amounts are consistent with the established performance measures and to determine the steps that are necessary to improve actual performance so that the target can be met, DPW recommends that the nomenclature "Household Recycling" be replaced with "Single Stream Recycling" to more accurately reflect the true nature of the recycling which the Bureau of Solid Waste Collects. In fact, as a true measure of the Bureau's performance the single stream recycling goal still leaves out much of the other recycling that the Bureau is responsible for including scrap tires, polystyrene,

electronics, and scrap metal. Again, including these tonnages would show that DPW is not overstating the recycling it collects, it is understating it.

DPW agrees that it should review future performance measures to determine whether those targets require updating or revisions based on past actual amounts and should such revisions be determined by the DPW Director and Head of the Bureau of Solid Waste, DPW will follow the procedures established by the Department of Finance for the review and approval of any suggested changes to performance measures.

Auditor's Comments

DPW agrees that it did not meet its recycling targets for fiscal years 2014 and 2015; however, DPW disputes that the recycling tonnage figures were overstated, even though the tonnage figures included items that are not considered as household recycling, such as recycling from schools, libraries, and large businesses. It states that this is the result of a misnomer because "household" recycling does not exist, and recycling is based on materials collected regardless of the source. During the periods covered by our audit (fiscal years 2014 and 2015), however, the performance measure targets included in the Agency Detail Board of Estimates Recommendations (Budget Book) were for tonnage collected from household recycling. DPW agrees that it should review future performance measures to determine whether those targets require updating or revisions and will follow the procedures established by the Department of Finance for the review and approval of any suggested changes to performance measures.

Finding #4

We were unable to verify the accuracy of the reported amounts of recycling tonnage collected because, even though DPW did not meet its performance measure targets, we were not given the recycling truck tickets that we requested for testing.

Analysis

We were unable to verify the accuracy of the reported amounts of recycling tonnage collected because, even though DPW did not meet its performance measure targets, we were not given the recycling truck tickets that we requested for testing. For fiscal year 2014, we requested truck tickets from the Southeast quadrant for the period from January 11, 2014 through January 24, 2014; however, we were told that the warehouse that stored those tickets was broken into and the tickets were missing. Instead, we were given the truck tickets from the Northwest and Southwest quadrants. Also, for fiscal year 2015, we requested truck tickets from the Southwest quadrant for the period from September 20, 2014 through October 3, 2014; however, we were given the truck tickets from the Northwest quadrant. Although the tickets that we were given were not for the sample quadrants that we requested for testing, those truck tickets did support the reported amounts for recycling tonnage collected. After the Exit Conference, held on December 13, 2016, DPW furnished us with the fiscal year 2015 truck tickets that we selected for audit testing but were missing at the time we were conducting our audit and some of the missing tickets from fiscal year 2014. The tickets that DPW furnished us supported the reported amounts for recycling tonnage collected.

Recommendation #4

We recommend that, in accordance with Baltimore City's Administrative Manual (Section AM-502-1), DPW establish procedures to adequately maintain records.

Agency's Response

Finding #4 is accurate in that for fiscal year 2014 requested tonnage tickets from the Southeast quadrant for the period January 11, 2014 through January 24, 2014 could not be produced by DPW. The documentation was destroyed when vandals broke into a warehouse where the documents were stored. A copy of the police report verifying the incident will be attached to this response; however, the Bureau of Solid Waste is reaching out to its vendor Waste Management to see if supporting back up data for the time period in question exists. It is the Bureau's belief that for the time period in question recycling materials were delivered directly to Waste Management's Quad Avenue facility and that tonnage tickets generated by them would verify the tonnages in question.

DPW has found and submitted some tonnage tickets for fiscal year 2015 from the Southwest quadrant for the period from September 20, 2014 through October 3, 2014; however, many of the vehicles from that time period unloaded at Waste Management's Quad Avenue facility. The Bureau of Solid Waste is currently reaching out to them in order to get copies of those tonnage tickets.

DPW would like to point out that other tonnage tickets submitted under Finding #4 (tickets from the Northwest Quadrant) did support the reported amounts for recycling tonnage collected.

DPW agrees with the recommendation that, in accordance with Baltimore City's Administrative Manual (Section AM-502-1), DPW establish procedures to adequately maintain records. In fact, while DPW does already follow the procedures in AM-502-1, it recognizes the need to more adequately secure them to preclude acts of vandalism or accidental destruction and to ensure that copies of the documentation are made so that in cases of destruction, supporting documentation can be provided.

Auditor's Comments

We did not include a copy of the Police Report (Victim Assistance/Incident Information Form), referred to in the Agency's Response, as part of this audit report. However, we noted that the Victim Assistance/Incident Information Form does not include an address location or building identification where the destruction of property occurred.

Engineering Construction Management – Water and Wastewater Linear Feet of Water Distribution System Rehabilitated/Replaced

Background

The Office of Asset Management, created in 2014, is responsible for assessing the condition of the water distribution system and determining whether repairs or replacements of the water pipes are needed. Citizens can also call 3-1-1 to report a water main break. When repairs or replacements are needed, the Office of Engineering and Construction Management (OEC) executes and monitors such work. OEC employs both City Public Works Inspectors (PWIs) and Contracted Consultants to track and monitor the work done by contractors on various rehabilitation/replacement projects. The number of PWIs and Contracted Consultants assigned to each project is primarily dependent upon the size of the project. Various tracking and monitoring information is recorded on the Inspector Daily Report (IDR), which is further reviewed and approved by various supervisory personnel responsible for overseeing the operation. In fiscal year 2015, the OEC converted to an electronic system to accumulate data and generate various reports to assist management in carrying out its duties.

Finding #5

DPW did not meet its targets for the linear feet of water distribution system rehabilitated/replaced in fiscal years 2014 and 2015. Also, we could not verify the reliability of the reported linear feet of water distribution system rehabilitated/replaced in fiscal year 2014 because the supporting documentation for those amounts was not available for audit testing.

Analysis

DPW did not meet its targets for the linear feet of water distribution system rehabilitated/replaced in fiscal years 2014 and 2015. Also, we could not verify the reliability of the reported linear feet of water distribution system rehabilitated/replaced in fiscal year 2014 because the supporting documentation for those amounts was not available for audit testing.

For fiscal year 2014, the reported amount of linear feet of water distribution system rehabilitated/replaced was 60,303, or 42% of the performance measure target of 145,125 linear feet. For fiscal year 2015, the reported amount of linear feet of water distribution system rehabilitated/replaced was 83,965, or 58% of the performance measure target of 146,028 linear feet.

Recommendation #5

DPW should review its performance measures included in the Agency Detail Board of Estimates Recommendations (Budget Book) and determine the steps that are necessary to improve actual performance so that the performance targets can be met. We also recommend that DPW review future performance measures to determine whether those targets require updating or revisions based on past actual amounts. Before changing any future performance measures, however, DPW should follow the procedures established by the Department of Finance, Bureau of Budget and Management Research for the review

and approval of any suggested changes to performance measures. We also recommend that, in accordance with Baltimore City's Administrative Manual (Section AM-502-1), DPW establish procedures to adequately maintain records.

Agency's Response

DPW has reviewed the Performance Audit Report findings related to the linear feet of water distribution system rehabilitated / replaced in fiscal years 2014 and 2015.

DPW OEC's target for fiscal year 2014 was originally 145,125 linear feet (27.48 miles), which the auditors used as a baseline target to compare against the actual linear feet of water distribution system rehabilitated/replaced. However, the original target figure of 145,125 linear feet (27.48 miles) was revised down to 53,170 linear feet (10.07 miles) by December 2013, due to funding constraints after Capital Improvement Program Affordability Analysis was completed. The actual linear feet of water mains rehabilitated / replaced in FY 2014 is 60,303 linear feet (11.42 miles).

Similarly, DPW OEC's target for fiscal year 2015 was originally 146,028 linear feet (27.65 miles), which the auditors used as a baseline target to compare against the actual linear feet of water distribution system rehabilitated/replaced. However, the original target figure of 146,028 linear feet (27.65 miles) was revised down to 78,337 linear feet (14.83 miles) in December 2014 due to funding constraints after Capital Improvement Program Affordability Analysis was completed. The actual linear feet of water mains rehabilitated / replaced in FY 2015 is 83,965 linear feet (15.90 Miles).

Based on the revised targets for FY 2014 and FY 2015, DPW not only met its targets but exceeded them in both fiscal years by 13.4% and 7.18%, respectively. The discrepancy between the auditor's baseline targets, which they took from the budget book published by the Department of Finance, and DPW's revised targets is due to the fact that the revised figures were not updated in the budget book.

In the future, DPW will ensure that planned targets are updated to match the Department of Finance records.

The following documentation is enclosed to support our revision of the performance measure targets:

- *E-mail dated 12/4/2014 outlining the FY15 target amount of 78,337 LF from DPW OEC to DPW Fiscal/Dept. of Finance*

Also, DPW OEC has implemented an electronic document system, CM-14, which is used to prepare and store inspectors daily reports, project documentation, meeting minutes, pay

estimates, and change orders. Since this system was not fully implemented until March 2014, the requested documentation from fiscal year 2014 was not accessible. The requested documentation from fiscal year 2015 was easily accessible and available for audit testing. DPW is confident that with the current system, we can provide support documentation for future audits as we did for fiscal year 2015 in this audit.

Auditor's Comments

We did not include a copy of the E-mail dated December 4, 2016, referred to above in the Agency's Response, in this audit report. We reviewed the document, however, and it appears that this was a DPW internal document and was not communicated to the City's Department of Finance. During the periods covered by our audit (fiscal years 2014 and 2015), as well as in fiscal year 2016, the performance measure targets included in the Agency Detail Board of Estimates Recommendations (Budget Book) remained at 145,125 linear feet for fiscal year 2014 and 146,028 linear feet for fiscal year 2015. This performance measure no longer appears in the Agency Detail Board of Estimates Recommendations (Budget Book) for fiscal year 2017. In the future, DPW agreed to ensure that planned targets are updated to match the Department of Finance records.