



## **DEPARTMENT OF PUBLIC WORKS**

### **BIENNIAL PERFORMANCE AUDIT REPORT**

**Fiscal Years Ended June 30, 2018 and 2017**

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

## Executive Summary

We conducted a Biennial Performance Audit of selected performance measures of the Department of Public Works (DPW) for the fiscal years (FYs) ended June 30, 2018 and 2017. The objectives of our performance audit were to determine whether DPW: (1) met its performance measure targets; (2) has adequately designed internal controls related to the selected performance measures; and (3) implemented corrective actions associated with findings and recommendations included in the DPW's previous performance audit report, dated March 5, 2018.

According to the FYs 2017, 2018, 2019, 2020 Agency Detail Board of Estimates Recommendations (Budget Book), all three selected performance measures were met for FY 2018 and one of three selected performance measures was met for FY 2017. Our audit indicated that DPW did not maintain documentation to support the actual FYs 2018 and 2017 performance measures for the Service 661– Public-Right-of-Way Cleaning.

Of five recommendations that were followed up during this Biennial Performance Audit, two recommendations or 40 percent were implemented; one recommendation or 20 percent was partially implemented; and two recommendations or 40 percent were not implemented. The reasons for partially and not implemented recommendations are as follows:

- Service 662 – Vacant / Abandoned Property Cleaning and Boarding: The standard operating procedures (SOPs) to address completion of *the Inspection and Follow-up Checklist for Detecting and Preventing Rats* (Checklist) were developed. However, Parts 2 and 3 of the Checklists were not always prepared or fully completed.
- Service 663 – Waste Removal and Recycling: A process to ensure the accuracy of recycling tonnage collections and a process to collect measureable data to support the missed mixed refuse and missed recycling pickups currently do not exist.

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To improve the reliability of the performance measures, the Director of DPW should implement the recommendations included in this report.

We wish to acknowledge DPW's cooperation extended to us during our audit.

Respectfully,



Josh Pasch, CPA  
City Auditor  
Baltimore, Maryland  
November 14, 2019

## **Background Information**

### **I. Department of Public Works**

The DPW, comprised of the Bureau of Solid Waste, Bureau of Water and Wastewater, and Surface Water Service, is responsible for maintaining a healthy quality of life for City of Baltimore (City) residents through efficient management of its services.

- The Bureau of Solid Waste is responsible for the collection and disposal of refuse in accordance with governmental regulations and mandates.
- The Bureau of Water and Wastewater is responsible for the collection and treatment of water that is supplied to 1.8 million customers and wastewater service for the metropolitan region.
- The Surface Water Service consolidates all stormwater related functions and is responsible for restoration of surface water in compliance with the Environmental Protection Agency and the Clean Water Act.

### **II. Services**

The following services are responsible for the selected performance measures (see Table I, on page 4).

- **Public Right-of-Way Cleaning (Service 661):** This service maintains the cleanliness of public right-of-ways and clears debris away from storm drains to protect water quality. Activities include street and alley operations, mechanical sweeping operations, cleaning of business districts, marine operations and graffiti removal.
- **Water Management (Service 671):** This service provides for the operation of a water distribution system that supplies water to 1.8 million customers in the Baltimore Metropolitan region.
- **Wastewater Management (Service 673):** This service provides for wastewater collection and treatment of up to 253 million gallons per day for 1.4 million people in the metropolitan region.

**III. Selected Performance Measures**

We judgmentally selected three DPW performance measures, which are summarized as follows:

Table I

**Summary of Selected Performance Measures' Targets and Actuals as Reported in the Budget Books for Fiscal Years 2018 and 2017**

Service	Performance Measure	2018		2017	
		Target	Actual	Target	Actual
661	Percent of alley cleaning service requests closed on time	80	89	70	63
671	Cost of water treatment per million gallons	\$305	\$247	\$305	\$333
673	Cost of wastewater treatment per million gallons	\$1,470	\$1224	\$1,470	\$1,169

**Source:** FY 2017, 2018, 2019, 2020 Budget Books

## **Objectives, Scope, and Methodology**

We conducted our performance audit in accordance with *Generally Accepted Government Auditing Standards*, except for peer review requirements. 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 objectives of our performance audit were to:

- Determine whether DPW: (1) met its FYs 2018 and 2017 performance measure targets; and (2) has adequately designed internal controls related to the selected performance measures.
- Follow-up on prior findings and recommendations included in the DPW's previous performance audit report, dated March 5, 2018.

The scope of our audit includes three performance measures (see Table I on page 4) reported for the periods of FYs 2018 and 2017.

To accomplish our objectives, we interviewed key individuals to obtain an understanding of internal controls such as input, processing, output, and monitoring of selected performance measures. Additionally, we obtained the general ledger detail, water flow data and other supporting documentation for the audit period and re-performed the metric calculations to determine accuracy.

Management's responses are included in Appendix I and Appendix II.

## SECTION I - Finding and Recommendation

### Finding #1: Absence of key data precludes Service 661 selected metric validation.

The DPW did not maintain documentation to support compliance with their standard operating procedure. The City converted to Salesforce (see textbox) in November 2018 and the business requirements did not include a transfer of the photographs (key control)<sup>1</sup>. The photographs were placed on a disk that was stored in a format that cannot be viewed.

The DPW standard operating procedure requires before and after photographs be taken to evidence the completion of the corresponding task(s). In addition, according to the *Standards for Internal Control in the Federal Government* issued by the Comptroller General of the United States,

“Management clearly documents internal control and all transactions and other significant events in a manner that allows the documentation to be readily available for examination. The documentation may appear in management directives, administrative policies, or operating manuals, in either paper or electronic form. Documentation and records are properly managed and maintained.”

### Recommendation #1:

We recommend the Director of DPW confirm that any modifications / replacements to DPW information technology systems include retention of historical documentation, especially for key controls.

#### Salesforce

Salesforce is a Customer Relationship Management platform that allows DPW to manage the data and information that result from service requests processed online and through 311 calls. The workflow tool tracks the services requests and provides management reports that can be used to allocate resources, manage activities, determine results, and provide customer service.

Source: DPW and Salesforce website

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<sup>1</sup> We observed photographs were captured and accessible for service requests after the conversion period.

## SECTION II - Implementation Status of Prior Audit Findings and Recommendations

Table II

### Summary of Implementation Status of Audit Findings and Recommendations from the Performance Audit Report for Fiscal Years Ending 2016 and 2015 for Service 662 – Vacant / Abandoned Property Cleaning and Boarding

No.	Finding	Recommendation	Management's Self-reported Implementation Status	Auditor's Assessment
1	The DPW did not meet its targets for the number of rat burrows baited during FYs 2014 and 2015. However, because of missing data and discrepancies within the data, we could not determine whether the reported performance measure amounts were accurate and reliable.	<ul style="list-style-type: none"> <li>Establish policies and procedures to document supervisory reviews and approvals of Daily Treatment Worksheets.</li> <li>Reconcile key information (e.g. number of rat burrows baited) to the Customer Service Report system, CitiStat reports, and applicable payroll attendance information.</li> <li>Retain all documentation appropriately.</li> </ul>	<p>Implemented</p> <ul style="list-style-type: none"> <li>The DPW established procedures as outlined in the audit recommendation.</li> <li>The DPW is also pursuing acquisition of technology to permit real time reporting.</li> </ul>	<b>Implemented</b>
2	Parts 2 and 3 of the <i>Inspection and Follow-up Action Checklist for Detecting and Preventing Rats</i> (Checklist) were rarely completed by the inspectors for the four weeks that we tested.	<ul style="list-style-type: none"> <li>Expand SOPs to address the Checklist for detecting and preventing rats and to include specific instructions for completing the inspection form.</li> <li>Require supervisors sign off to verify that the inspection form is properly completed.</li> </ul>	<p>Implemented</p> <ul style="list-style-type: none"> <li>SOPs were developed.</li> <li>Required employee signature.</li> <li>Checklists are appropriately prepared and retained.</li> </ul>	<p><b>Partially Implemented</b></p> <p>The SOPs were developed. However, the Checklists were not always prepared and the lead schedule signed by management did not include all required data.</p>

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Table III

### Summary of Implementation Status of Audit Findings and Recommendations from the Performance Audit Report for Fiscal Years Ending 2016 and 2015 for Service 663 – Waste Removal and Recycling

No.	Finding	Recommendation	Management's Self-reported implementation status	Auditor's Assessment
1	The DPW did not meet its target for tonnage collected from household recycling for FYs 2014 and 2015 even though the reported tonnage collected was overstated because it included items that are not considered as household recycling.	Review performance measures 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.	Implemented  Performance measurements were reviewed and FYs 2018 and 2017 targets were met.	<b>Implemented</b>
2	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.	Establish procedures to adequately maintain records in accordance with Baltimore City's Administrative Manual (Section AM 502-1),	Implemented  The Agency reviewed AM-502-1 with its senior managers to ensure the policy is adhered to. Security of records has been strengthened and the Agency is exploring means to have all records digitally preserved.	<b>Not implemented</b>  The DPW provided auditors with truck tickets for selected dates for testing; however, DPW does not have a process to ensure the accuracy of recycling tonnage collections.
3	The DPW did not meet its FYs 2016 and 2015 performance targets for percent of missed trash and recycling pickups. The performance measure targets were .05 percent and .04 percent, respectively. The actual amounts for FYs 2016 and 2015 (reported in FYs 2018 and 2017 Budget Books) were .07 percent and .06 percent, respectively.	Review and monitor missed trash and recycling pickups to determine the causes of missed pickups and corrective actions required to reduce the percentage of missed trash and recycling pickups, especially crew errors.	Implemented  The Bureau would like to point out the Service Requests (SRs) upon which this performance is based are South West (SW)-Mixed Refuse and SW-Recycling. Although these SRs are used to report missed mixed refuse and missed recycling pickups, they are not exclusive to those concerns.	<b>Not Implemented</b>  A process to collect measureable data to support the performance measure currently does not exist.

## APPENDIX I

### Management's Response to the Audit Report

Date: November 13, 2019

To: Josh Pasch, City Auditor

Subject: Management Response to Audit Report:  
Biennial Performance Audit of the Department of Public Works for the Fiscal  
Years Ended June 30, 2018 and 2017

Our response to the audit report finding and recommendation is as follows:

#### **Recommendation # 1**

We recommend the Director of DPW confirm that any modifications / replacements to key DPW information technology systems include retention of historical documentation, especially for key controls.

#### **Management Response/Corrective Action Plan**

**Agree**

**Disagree**

In the future the Bureau of Solid Waste will ensure that any upgrades to information technology systems include retention of historical documentation before accepting the end product. It should be noted that this is a citywide contract and the DPW Director did not have control over the contract process.

#### **Implementation Date**

November 7, 2019

#### **Responsible Personnel**

John Chalmers, Bureau Head Solid Waste – 410-396-8450

## APPENDIX II

### **Management's Response to Prior Audit Findings and Recommendations**

#### **Management Response to Table III, Finding 2 (see page 8)**

The requested data was not readily available do to vandalism at 6101 Bowleys Lane refuse yard. A Police report and photographs were submitted for proof. The Bureau is actively pursuing technology that will allow us to safely store documents and produce accurate reporting.

#### **Management Response to Table III, Finding 3 (see page 8)**

The DPW has been tracking ALL mixed refuse / recycling requests. The plan moving forward is to create an outcome in Salesforce that would allow DPW to pull true missed pickups from the mixed refuse and mixed recycling requests.