



BIENNIAL PERFORMANCE AUDIT OF THE DEPARTMENT OF PUBLIC WORKS

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JUNE 5, 2024 – PRESENTATION TO BRIEF BOARD OF ESTIMATES



OUTLINE



1. Audit Objectives and Scope
2. Identified Risks
3. Audit Methodologies
4. Background Information
5. Findings
6. Implementation Status of Prior Findings
7. Confidential Management Comment Limited Use Letter
8. Questions?

AUDIT OBJECTIVE AND SCOPE

- Assess the efficiency and effectiveness of controls over the water billing process
- Follow-up on findings and recommendations that were included as part of the previous biennial performance audit report dated December 30, 2021
- Scope - Fiscal Years 2022 and 2021
- Retail water – Baltimore City and Baltimore County
- DPW Customer Support and Service Division (CSSD)
- DPW Information Technology (IT)



IDENTIFIED RISKS FOR REVIEW

- Operational risk
- Financial risk
- Data Security risk
- Information Technology risk
- Customer service risk



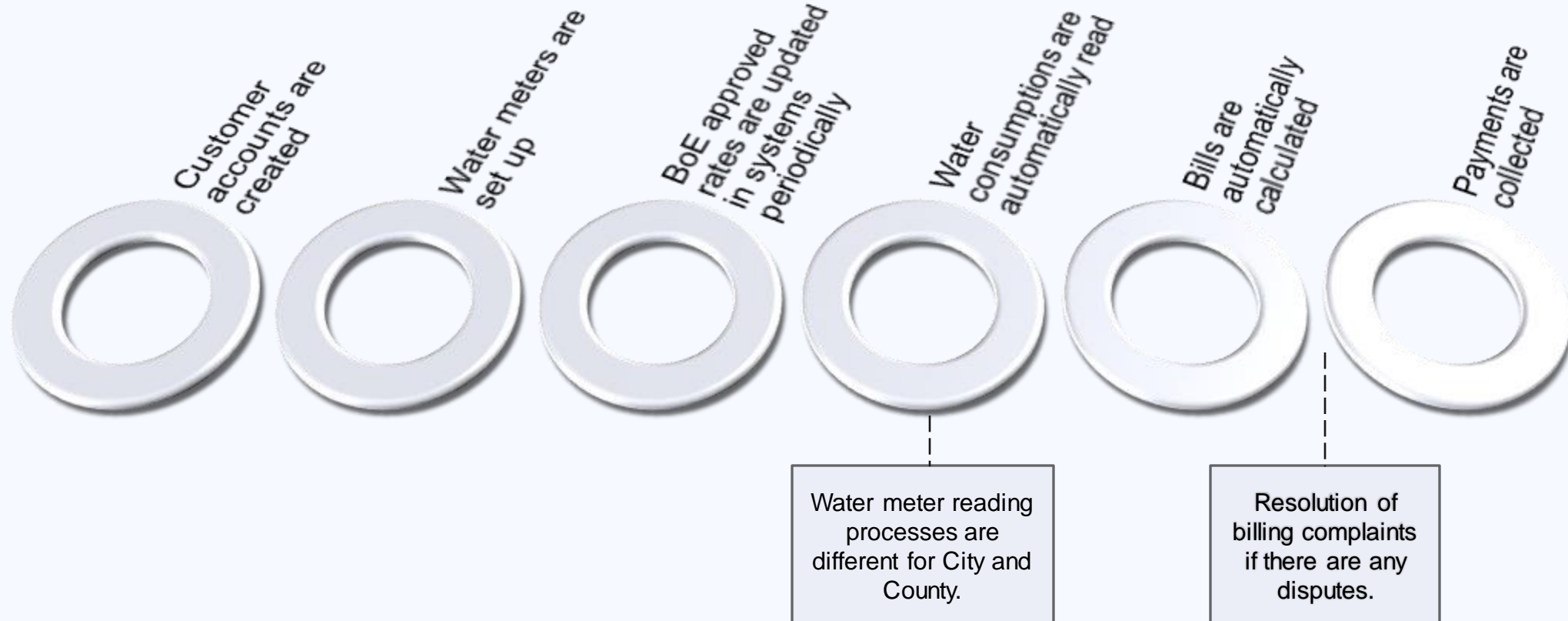
METHODOLOGIES

- Interviewed key individuals from DPW and BCIT
- Reviewed applicable policies and procedures and other relevant information associated with the City and County water billing process
- Evaluated processes and controls to confirm whether identified water process risks are properly addressed
- Reviewed Board of Estimates (BoE) approved rates for Fiscal Years 2022, 2023, and 2024 for both City and County, and tested judgmentally selected transactions to validate correct rates were established in both UMAX and 3270 systems

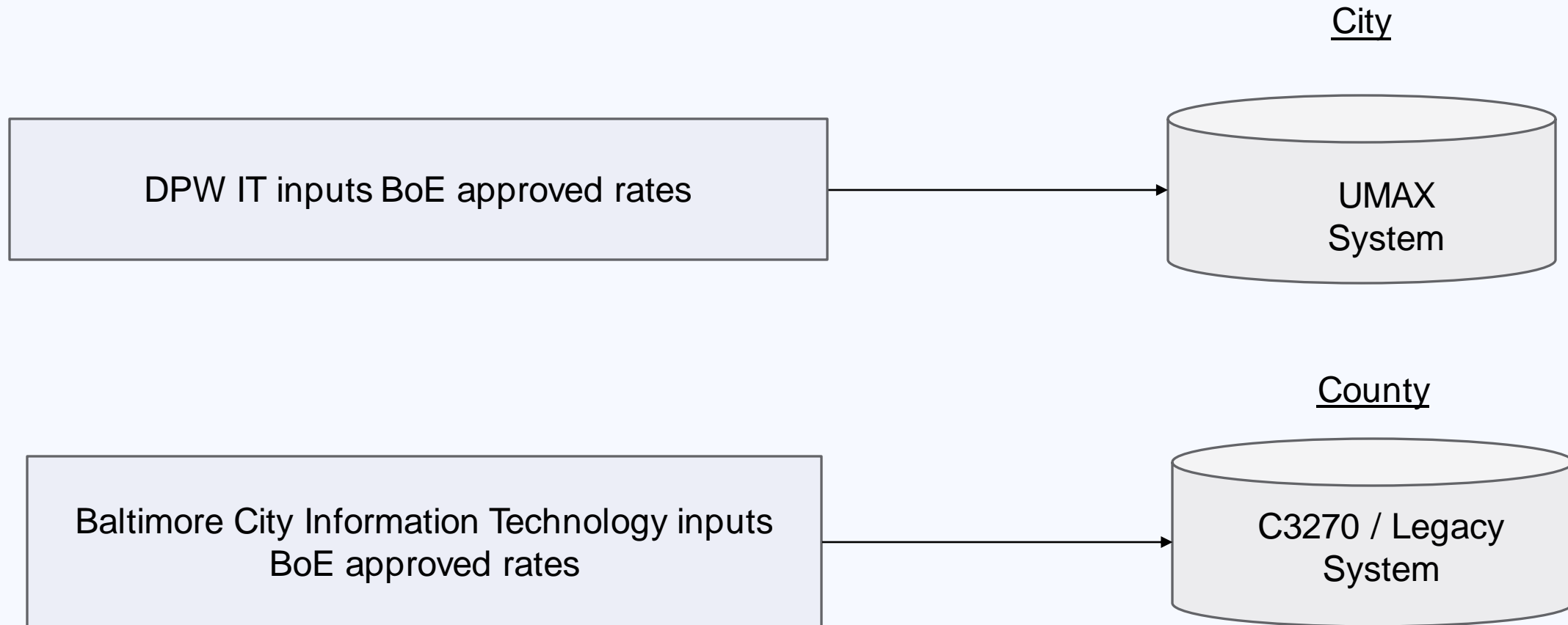
METHODOLOGIES (CONTINUED...)

- Judgmentally selected 124 samples and tested CSSD's tracking, monitoring, and resolution of identified exceptions
- Analyzed complaints received from December 2022 to December 2023 to evaluate timely resolution of customer complaints
- Validated DPW IT's semi-annual review of active user access to UMAX System
- Review active users in UMAX and 3270 systems to validate only appropriate personnel with compatible access have access to the system

OVERALL PROCESS



SIGNIFICANT BILLING SYSTEMS



CUSTOMER SUPPORT AND SERVICE DIVISION

- Creates customer accounts in the systems
- Daily reviews 45-day Exception Report for City accounts and the CS018 Report for County accounts
- Is responsible for tracking and resolving exceptions
 - If there is an error associated with the collected data, or
 - If there is a billing-related customer complaint, to manually adjust the bill as needed



SIGNIFICANT IMPROVEMENT AFTER LAST AUDIT



Implementation of JitBit ticketing system in November 2021



Establishment of Standard Operating Procedures (SOP)

E.g., No Period to Invoice, Average Contract Charge, Contract is Still Eligible, CSSD JitBit Processes, New Rate Configuration in UMAX, and Auditing Users in the UMAX Billing System



Establishment of DPW IT's semi-annual review process to validate only appropriate users have access to UMAX system

BILLING COMPLAINTS



Period	Received (Number)	Resolved (Number)	Resolved (Percentage)
November 2021 to November 2022	50,485	50,365	99
December 2022 to December 2023	46,124	46,123	99

Source: Auditors' analysis based on the data received from JitBit System as of December 15, 2023.

FINDING I

The Customer Care Analyst Daily Review of Exception Reports Is Not Effective and Does Not Consistently Catch Errors.

City

- The DPW implemented SOP for all types of exceptions in UMAX.
- CCAs review exceptions daily; however, CCA review process is not effective as intended.
- Of 74 samples that we reviewed:
 - Three samples or four percent had reads (water consumption); however, the customers were only billed for the minimum fees excluding fees for actual consumption.
 - Twenty-eight samples or 38 percent had insufficient notes to substantiate CCA's reviews of exceptions.

FINDING I (CONTINUED)

County

- The DPW currently does not have SOP for exceptions in Legacy System.
- The informal practices and procedure for the CCA review process is not effective as intended.
- Of 50 samples that we reviewed,
 - Six samples or 12 percent identified CCA failed to create work orders. These six samples ranged from July 14, 2023 to December 27, 2023; however, work orders were not created until February 7, 2024 (Auditor's site visit).
 - Seven samples or 14 percent had no notes documented in Legacy system to substantiate CCA's reviews of exceptions.

FINDING I (CONTINUED)

Cause

- DPW's practice is to perform a supervisory review of staff activities.
- No indication of a supervisory or secondary review for 124 samples of different types of exceptions for City and County.

Effect

- Without a supervisory or secondary review, errors and omissions could occur without being prevented.
- For example, a CCA investigated an exception of high read or leak. The exception was released by the CCA without a supervisory review resulting in an incorrect bill of \$1 million.

FINDING I (CONTINUED)

Recommendation I: We recommend the Director of DPW: (i) formalize and implement the SOP for exceptions in Legacy System; and (ii) update and implement the current SOP for exceptions in UMAX System to require:

- A periodic supervisor or secondary level review of water usage exceptions. A real-time / or historical sampling methodology could be established based upon employee's work experience and assignment difficulty.
- Documentation to evidence CCA review and status of account.
- Documentation to evidence supervisor reviews.

FINDING II

The CSSD Is Not in Full Compliance with the Customer Complaints Standard Operating Procedures.

Condition: Of 46,124 complaints that we reviewed,

- Responsiveness to Customers: The DPW did not respond customers timely for 32,834 or 71 percent of complaints. (Target - within five business days from the date of customer complaint)
- Timely Dispositioning of Complaints: The DPW did not disposition 8,092 or 18 percent of complaints timely. (Target - within ten business days from the date of customer complaint)

FINDING II (CONTINUED...)

Cause

- Daily supervisory review of complaints is not working effectively as designed.

Effect

- Effective monitoring of pending customer complaints and resolutions improves timely resolutions of customer complaints.
- Unresponsiveness and untimely resolution of customer complaints could cause public distrust in water services.

Recommendation II

- We recommend the Director of DPW require the CSSD Management to review periodic (e.g., weekly) status report of customer complaints to make sure CSSD personnel adheres to *CSSD JitBit Processes*.

SUMMARY OF PRIOR FINDINGS

Finding	Division	Formal policies and procedures related to:	Implementation Status
1	DPW IT	Rate settings in UMAX and Legacy Systems	Implemented
2	Meter Shop	<ul style="list-style-type: none"> - Water meter reading processes for the City and County accounts - Water meter calibration and replacement 	Not Implemented
3	CSSD	Daily reviews of exceptions for the City's accounts	Partially Implemented
4	CSSD	Tracking, monitoring, and periodic evaluation of the benchmarks of the Service Level Agreement of the customer billing complaints for the City and the County accounts	Partially Implemented
5	Leadership	Revenue collection efficiency	Partially Implemented

CONFIDENTIAL MANAGEMENT COMMENT LIMITED USE LETTER

- Followed up on one prior confidential finding and recommendation. - Implemented
- Identified additional finding and communicated it to the appropriate DPW and City personnel
- Omitted the finding from this public report due to a data security concern
- The decision is based on Government Auditing Standards, 2018 Revision Technical Update April 2021, Sections 9.64 - 9.66, *Reporting Confidential or Sensitive Information*





Questions?