



BALTIMORE CITY DEPARTMENT OF PUBLIC WORKS

Biennial Performance Audit
for Fiscal Years Ended June
30, 2022 and 2021
City Auditor, Josh Pasch
May 17, 2024



CONTENTS

Executive Summary 1

Background Information 3

Objectives, Scope, and Methodology 6

SECTION I: Current Findings and Recommendations..... 7

SECTION II: Implementation Status Of Prior Audit Findings And Recommendations..... 10

APPENDIX I: Management's Response to the Audit Report 18



Office of the Comptroller
Josh Pasch, City Auditor
100 N. Holliday St., Room 321
Baltimore, Maryland 21202

Honorable Bill Henry, Comptroller
and Other Members
of the Board of Estimates
City of Baltimore

Executive Summary

We conducted a *Biennial Performance Audit of the Department of Public Works for the fiscal years ended June 30, 2022, and June 30, 2021*. The objectives of our performance audit were to: (1) assess the efficiency and effectiveness of controls over the water billing process, and (2) follow-up on findings and recommendations that were included as part of the previous biennial performance audit report of Department of Public Works (DPW), dated December 30, 2021. The scope of our audit was fiscal years (FYs) 2022 and 2021, and only included retail water; however, certain other matters, procedures, and transactions outside that period were reviewed to understand and verify information during the audit period.

After the previous audit, DPW made significant effort to improve the billing process (see page 5); however, there are still control weaknesses in the billing processes for both City of Baltimore (City) and Baltimore County (County).

Ineffective Billing Exceptions Review Process

- City - The DPW Customer Support and Service Division (CSSD) implemented Standard Operating Procedures (SOP) for all types of exceptions (see page 4) in UMAX System that give guidance to customer service analysts on how to investigate and resolve exceptions. Customer Care Analysts (CCA) review exceptions daily; however, the CCA review process is not effective as intended.
- County - The DPW currently does not have SOP for exceptions in Legacy System. Instead, DPW has the informal practices and procedures for the CCA review process. However, this review practice is not effective as intended.

A cause of the exceptions is due to lack of periodic supervisor review. Without a supervisory or secondary review, errors and omissions could occur without being prevented. For example, a CCA investigated an exception of high read (e.g. leak). The exception was released by the CCA without a supervisory review resulting in an incorrect bill of \$1 million.

Expected Turnaround Times for Customer Complaints Were Not Met

In November 2021, DPW started using JitBit system (see page 4) that tracks customer complaints. Also, DPW established SOP titled *CSSD JitBit Processes*. However, our review of complaints received from December 2022 through December 2023 indicated that DPW was not in full compliance with this SOP. Specifically, of 46,124 complaints, DPW did not timely:

- Respond to customers (i.e. within five business days from the date of customer complaint) for 32,834 or 71 percent of complaints; and
- Disposition 8,092 or 18 percent of complaints (i.e. within ten business days from the date of customer complaint).

A cause of the issue is that a daily supervisory review of complaints is not working effectively as designed. 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.

Of five recommendations that we followed up as part of the biennial performance audit, one was implemented, three were partially implemented and one was not implemented (See Section II on page 10). Additionally, we followed up on one prior confidential finding and recommendation. The DPW implemented the recommendation. However, we identified additional confidential finding and communicated it to the appropriate DPW and City personnel in the *Confidential Management Comment Limited Use Letter: Department of Public Works Biennial Audit for Fiscal Years 2022 and 2021*. Due to a data security concern, the finding is omitted from this public report. The decision to exclude this information is based on Government Auditing Standards, 2018 Revision Technical Update April 2021, Sections 9.64 - 9.66, *Reporting Confidential or Sensitive Information*.

To continue improving the efficiency and effectiveness of the water billing process, we recommend the Director of DPW implement the recommendations made in this report. Management responses are included in Appendix I (see page 18).

We wish to acknowledge DPW and Baltimore City Information Technology¹ (BCIT)'s cooperation extended to us during our audit.

Respectfully,



Josh Pasch, CPA
City Auditor
Baltimore, Maryland
May 17, 2024

¹ The BCIT maintains County accounts in the 3270 - billing system in the Mainframe (3270 System).

Background Information

The City maintains and provides water to the residents of the City and County. The relationship between the City and the County with respect to water is that the City provides water to the County at cost, and the two jurisdictions share the costs associated with the production and use of water. The City is responsible for the maintenance of all the City and County meters. Between the City and the County, there are over 400,000 water meters. More than half of these meters are in the County. There are two separate systems used for water billing processes: Baltimore City (UMAX) and Baltimore County (3270 / Legacy)

City and County Accounts

For the City, the DPW Office of Compliance and Research approves accounts for residential homes and the Department of Transportation Right-of-Way section approves commercial accounts. Upon receiving their respective approval, CSSD's Rates and Revenue section sets up the accounts in the UMAX System, which is the water billing system for City's accounts.

There are 15 billing cycles for all City water accounts. In those cycles, each month collectors and repeaters from Itron Analytics pull reads from the water meter Encoder Receiver and Transmitter (ERT). Information from the ERT goes into Choice Connect. ERT is a wireless transmitter that record water meter consumption. UMAX and Choice Connect are integrated. Choice Connect is a software system that converts wireless meter readings into water consumption data in UMAX for billings through wireless transmission signal. Leaks or other problems can be detected when the owner of the property turns off the water supply to the house, and the meter continues to show usage. Water meters with suspected issues / problems may also be sent to the meter shop to repair, replace, or re-calibrate the meter, if needed. To ensure all water accounts are billed, CSSD reviews the 45-day Exception Report for City accounts and the CS018 Report for County accounts daily.

For the County, the Baltimore County Permits Department sends the required documentation to CSSD to set up the accounts in the 3270 System. There are 14 billing cycles for all County water accounts. There is an Automatic Meter Reading system (AMR) where a meter technician drives a vehicle with a mobile collector that collects all the reads and uploads the reads to the 3270 System for billing. The meters in the County also have ERTs, but the data must be collected by a radio device. The radio device will give a green light if the read for that address was successful, and a red light if not successful. If not successful, the driver will stop and determine the cause of the problem.

All reads, regardless of process, are automatic. If there are bad reads, usually about 100 out of 4,000 per cycle, the Meter Shop will go on site to perform manual reads and fix meters that are giving inaccurate readings.

To ensure all water accounts are billed, CSSD reviews the 45-day Exception Report for City accounts and the CS018 Report for County accounts daily.

Rates

The rates are approved by the Board of Estimates (BOE). The approved rates are set up in the billing systems by DPW IT Division and BCIT for City and County account billings, respectively. These rates are applied for customer billing in UMAX and the 3270 Systems.

Billing and Exceptions

The DPW CSSD oversees the meter and billing systems for all City and County accounts. The CSSD Billing and Adjustments section bills approximately 200,000 City accounts on a monthly cycle and approximately 207,000 County accounts on a quarterly cycle. The CSSD Billing and Adjustments section reviews reports from both the UMAX and 3270 Systems 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. If there is a meter-specific issue, a work order is created in the Cityworks System and a Meter Shop technician is dispatched to diagnose and correct the problem and manually take a meter reading. The manual read is then uploaded to the respective billing system to calculate a new water bill in the next billing cycle.

Also, CSSD is responsible for tracking and resolving exceptions. Unresolved exceptions prevent the account to be billed. The different types of exceptions are listed below.

UMAX System (City):

- No Period to Invoice – account could not be invoiced due to missing consumption.
- Contract is Still Eligible – account has not been invoiced by the date it was expected to be invoiced.
- Average Contract Charge – charges on the bill are unusually higher or lower than the default average bill amount.

Legacy System (County):

- Zero Consumption – captures accounts with zero water consumption.
- Account Not Billed – captures accounts not billed thirty days after a meter reading.

Customer Complaints

A ticketing system called JitBit was implemented in November 2021 to improve the customer complaints process for both City and County. Customers can submit billing complaints on DPW website (JitBit platform), send email to CSSD, contact the 311 call

center, or visit DPW walk-in-center. JiBit tracks and monitors all actions that occur from ticket creation to resolution.

The CSSD documents their review of customer complaints as well as other issues such as inspections, follow-ups on residential leaks, repairs, adjustment requests, and missing payments on the account in UMAX.

Table I

Summary of Customer Complaints

Period	Received (Number)	Resolved	
		(Number)	(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.

Collections

City and County customers can pay their water bill by mail, in-person at Bureau of Revenue Collections (BRC) in the Abel Wolman Building, or online. The Department of Finance (DOF) BRC collects and records water revenue in the City's accounting system. For FY 2022 and FY 2021, the City collected \$278 million and \$289.8 million, respectively.

Significant Improvements

DPW made the following significant improvements after the last audit to improve the billing process:

- Implementation of JitBit, which is a ticketing system to track a life cycle of ticket from submission to resolution for both City and County complaints;
- Establishment of DPW IT's semi-annual review process to validate only appropriate users have access to UMAX system; and
- Establishment of SOP including the following but not limited to: *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.*

Objectives, Scope, and Methodology

We conducted our performance 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 objectives of our audit were to:

- Assess the efficiency and effectiveness of controls over the water billing process; and
- Follow-up on prior findings and recommendations included in the previous biennial performance audit report, dated December 30, 2021.

The scope of our audit is FYs 2022 and 2021, and only included retail water; however, certain other matters, procedures, and transactions outside that period were reviewed to understand and verify the information during the audit period.

To accomplish our objectives, we:

- Interviewed key individuals from DPW and BCIT to obtain an understanding of the processes, procedures, and systems relevant to audit objectives;
- Reviewed applicable policies and procedures and other relevant information associated with the City and County water billing process, and evaluated processes and controls to confirm whether identified water billing process risks are properly addressed;
- Reviewed 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;
- 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; and
- Reviewed active users in UMAX and 3270 systems to validate only appropriate personnel with compatible access have access to the systems.

SECTION I: Current Findings and Recommendations

Finding I – The CCA Daily Review of Exception Reports Is Not Effective and Does Not Consistently Catch Errors.

The DPW implemented SOP for all types of exceptions in UMAX that give guidance to CCAs on how to investigate and resolve exceptions. CCAs review exceptions daily; however, based on our review, the CCA review process is not effective as intended. Specifically, our review of 74 samples showed the following:

- Three samples or four percent had reads (water consumption); however, the customers were only billed for the minimum fees excluding fees for actual consumption. For example, one sample had 380 centum cubic feet (ccf) consumption that should have been billed for \$1,421.20 (380 x \$3.74), but it was billed \$38.69 (service charges).
- Twenty-eight samples or 38 percent had insufficient notes to substantiate CCA's reviews of exceptions.

The DPW currently does not have SOP for exceptions in Legacy System. However, based on our review, 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. It is important to note that a CCA must create a workorder to investigate the cause of exceptions if he or she observes a possible leak or malfunctioning meter during his or her review of exceptions (and if work orders were not previously created in the work order tracking system, Citiwork). 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.

A cause of the exceptions is due to lack of periodic supervisor review. Even though DPW's practice is to perform a supervisory review of staff activities, our review of 124 samples of different types of exceptions for City and County did not indicate a supervisory or secondary review. 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.

According to the *Standards for Internal Control in the Federal Government* by the Comptroller General of United States,

- “Transaction control activities are actions built directly into operational processes to support the entity in achieving its objectives and addressing related risks. “Transactions” tends to be associated with financial processes (e.g., payables transactions), while “activities” is more generally applied to operational or compliance processes. For the purposes of this standard, “transactions” covers both definitions. **Management may design a variety of transaction control activities for operational processes, which may include verifications, reconciliations, authorizations and approvals, physical control activities, and supervisory control activities.**”
- **Management performs ongoing monitoring** of the design and operating effectiveness of the internal control system as part of the normal course of operations. **Ongoing monitoring includes regular management and supervisory activities**, comparisons, reconciliations, and other routine actions.

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.

In November 2021, the DPW started using JitBit system that tracks customer complaints. At the same time, the DPW established SOP named *CSSD JitBit Processes*. However, our review of complaints received from December 2022 through December 2023 indicated that DPW is not in full compliance with this SOP. Specifically, of 46,124 complaints that we reviewed,

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

A cause of the finding is that a daily supervisory review of complaints is not working effectively as designed. 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.

The *CSSD JitBit Processes* states that:

- “Tickets should be responded to within one to five business days.”
- “Tickets should be resolved within ten business days.”
- “If CCA has not been responded to the ticket within ten business days, the Supervisor will follow the step of corrective action within the expectations of Disciplinary Action.”

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*.

SECTION II: IMPLEMENTATION STATUS OF PRIOR AUDIT FINDINGS AND RECOMMENDATIONS

Table II

Summary of Implementation Status of Audit Findings and Recommendations from the Biennial Audit Report for Fiscal Years Ending 2020 and 2019 ²

No.	Findings	Recommendations	Prior Management Response	Audit Status
1.	Although DPW IT Division has the rate setting processes and performs testing before execution of the new rates, these processes are not formally required and documented in policies and procedures or a manual.	Implement formal (written, approved, and dated) policies and procedures for the requirement of new rate setting and testing processes for the City and the County accounts.	DPW will work to implement policies and procedures for the rate setting and testing processes for City and the County accounts. The Agency will monitor and document the steps taken to set and test rates based on existing informal processes, assess the process for adequacy according to the Green Book and other best practices, and create a formal procedure. The procedure will be distributed to all relevant personnel and kept centrally for continuity.	Implemented

² The objective of prior audit was to assess whether the DPW policies and procedures adequately address water billing procedures.

Biennial Performance Audit Report on Department of Public Works

No.	Findings	Recommendations	Prior Management Response	Auditor's Assessment
2.	<p>The DPW Meter Shop does not have written policies and procedures for meter reading processes for City and County, although it has automated and systematic water meter reading processes. Without formal policies and procedures, DPW cannot promote compliance, accountability, consistency, and continuity. According to DPW, the new management for Meter Shop is in the process of developing policies and procedures for the Meter Shop.</p> <p>Also, the DPW Meter Shop does not replace water meters until they no longer function properly. As a result, there is an increased risk of meter reading inaccuracy, which ultimately results in potential financial loss for the City.</p>	<ul style="list-style-type: none"> • Establish formal (written, approved, and dated) policies and procedures for water meter reading processes for the City and County accounts; • Assess the value of proactive water meter calibration and replacement; and • Establish and implement processes and controls for water meter calibration and replacement, then document those processes formally in policies and procedures if management decides to implement the second bullet. 	<p>The DPW is currently developing policies and procedures for the DPW Meter Shop as noted in the finding. The Agency, also as noted, has automated and systematic water meter reading processes. The Agency is a member of multiple national industry associations and routinely supports professional development opportunities for personnel. However, the Agency is also determined to maximize customer value, carefully balancing best practices, regulatory compliance, limited resources, and rate increases. The Office of Fiscal Management will work with the Meter Shop to conduct a survey of varying options for proactive meter calibration and replacement and cost-benefit analysis of those options in in Summer 2022. Policies and procedures associated with the action will be finalized and / or updated as necessary.</p> <p>As it relates to proactive maintenance of water metering, the Meter Shop and the Office of Fiscal Management will be</p>	<p>Not Implemented</p> <p>The DPW self-reported that they identified 24 SOPs which are related to the Meter Shop. According to DPW, they finalized four of 24 SOPs. In addition, the DPW stated that they: (i) drafted a preventative maintenance plan; and (ii) are currently updating the cost of the replacement of meters, of which all are awaiting approval after the pilot implementation by the end of CY 2023. However, as of December 5, 2023, Department of Audits did not receive copies of any documents noted by DPW.</p>

Biennial Performance Audit Report on Department of Public Works

No.	Findings	Recommendations	Prior Management Response	Auditor's Assessment
			conducting a cost-benefit analysis on proactive meter maintenance. There are, indeed, standards on water meter maintenance. That being said, DPW uses meters that are connected to equipment that transmits data remotely. Given the cost of update, programming, removing, and reinstalling a meter and its concomitant equipment and fittings, the overall cost to the Agency is proactively maintaining a meter may exceed that of simply replacing it.	

Biennial Performance Audit Report on Department of Public Works

No.	Findings	Recommendations	Prior Management Response	Auditor's Assessment
3.	<p>Although DPW CSSD's current policies and procedures for water usage exceptions give guidance to customer service analysts on how to investigate exceptions when they are assigned (reactionary basis), these policies and procedures do not reflect the current management's practices of reviewing exceptions daily (proactive basis) for the City and County accounts. Additionally, another initiative to safeguard that all accounts are billed has not been formally documented in the current policies and procedures for City accounts. Effective May 2021, the CSSD new management started reviewing for City accounts the 45-day exception report generated from UMAX. The report is run each morning, showing accounts not billed within the last 45 days to reach the goal of all accounts becoming billable.</p>	<p>Implement formal (written, approved, and dated) policies and procedures for daily reviews of exceptions for the City's accounts.</p>	<p>A written, approved, and dated policy will be produced to allow for the consistent application of policy. However, management is requiring certain information be reviewed and approved ONLY by senior managers so as to maximize consistency</p>	<p>Partially Implemented</p> <p>City - The DPW implemented the following three SOPs: <i>Billing Exceptions (Contract is still Eligible)</i>, <i>Billing Exceptions (Average Contract Charge)</i>, <i>Billing Exceptions (No Period to Invoice)</i> in July 2022 - October 2022. During the course of audit, the DPW revised these SOPs in November 2023. The original versions did not sufficiently address the prior audit recommendations. However, the DPW made significant improvement in the revised SOPs. Audit concludes that the DPW still needs to further improve the following processes to fully address the previously identified risk: (i) individually identifying exceptions that falls under each Billing Exceptions category to ensure all processes are documented (e.g. Leaks); and (ii) making appropriate and approved adjustments to customer bills after closing of a work order, if applicable.</p> <p>County - The DPW has not developed SOPs for County billing exceptions.</p>

Biennial Performance Audit Report on Department of Public Works

No.	Findings	Recommendations	Prior Management Response	Auditor's Assessment
4.	<p>Although DPW has certain policies, procedures, and practices for processing customer billing complaints, DPW does not have policies, procedures, and practices for the following controls to reduce the risk of not solving billing customer complaints timely.</p> <ul style="list-style-type: none"> • Periodic reviewing and revising the benchmarks of the Service Level Agreements - The DPW's current benchmarks for the Service Level Agreements (SLA) are: (1) acknowledging customer billing complaints within 48 hours; and (2) resolving them within five business days. However, the history of how these benchmarks of the SLA were established is unknown. Customer billing complaints could have been attributed to water leakage, a broken water meter, broken pipes, etc., which may need more than five business days to resolve. As a result, an unreasonable benchmark of the SLA affects results of customer complaints. • Periodic systematic monitoring of customer billing complaints to be sure the current benchmarks of the Service Level Agreements are achieved - According to DPW, they were monitoring City but not County customer billing complaints. 	<ul style="list-style-type: none"> • Establish and implement formal (written, approved, and dated) policies and procedures for tracking, monitoring, and periodic (e.g., annually, biennially, every three or five years) evaluation of the benchmarks of the SLA of the customer billing complaints for the City and the County accounts; • Document: (1) the monitoring activities to demonstrate DPW is following the established policies and procedures; and (2) the change if the benchmarks of the SLA are modified; and • Include the benchmarks of the SLA in the DPW systems to efficiently monitor customer billing complaints. 	<p>Management at DPW does agree that "DPW Customer Support Service Division needs to improve policies, procedures, and practices for tracking and monitoring of customer billing complaints for both City and County accounts." To this end, Management concurs that we need to "establish and implement formal (written, approved, and dated) policies and procedures."</p> <p>The updating and managing of SLAs for customer complaints will be a difficult process, as is noted. The numbers DPW uses are generalized benchmarks for customer service inquiries. They are not necessarily based on the specific inquiries DPW receives. As is noted, some complaints are resolved immediately and some require a much longer period of time.</p> <p>Through the Turnaround Initiative, DPW management believes billing and customer service staff must first work towards</p>	<p>Partially Implemented</p> <p>System implementation: After the last audit, the DPW implemented the JitBit system to track and monitor customer complaints for the City and County on November, 2021. The DPW established expectations in the system e.g. within how many days tickets must be closed. The system has a dashboard including pink color indicating a ticket is longer than the expected timeframe. Also, the DPW can query the ticket status such as "Unanswered", "Unclosed", "Unassigned", "Assigned to You", "All" for monitoring purpose.</p> <p>Establishing SOP: The DPW implemented <i>DPW - CSSD JitBit Processes</i> on December 16, 2022. During the course of audit, DPW revised it on October 12, 2023. According to DPW, they are monitoring status of tickets on a daily basis. However, this is not documented in the current SOP i.e. who is responsible for monitoring and how often.</p>

Biennial Performance Audit Report on Department of Public Works

No.	Findings	Recommendations	Prior Management Response	Auditor's Assessment
	<p>Without monitoring the timeliness of resolving customer billing complaints, DPW cannot manage the operating effectiveness and adequacy of the workforce.</p>		<p>a consistent and coordinated process in addressing inquiries. Only after such a process is established can DPW begin to evaluate SLAs and hold employees accountable.</p>	<p>Overall, the risk of not addressing customer compliant in a reasonable time frame is reduced. However, DPW should further improve the SOP by including monitoring requirements of complaints. See Finding II on page 9.</p>

Biennial Performance Audit Report on Department of Public Works

No.	Findings	Recommendations	Prior Management Response	Auditor's Assessment
5.	<p>Currently, DPW generates a monthly aging accounts receivable (AR) report (based on criteria such as 30-60-90 days or more) for City accounts, showing which bills are outstanding. However, there are no processes to collect delinquent accounts for the City and the County accounts, which increases the risk of potential financial loss. Specifically, the City does not:</p> <ul style="list-style-type: none"> • Monitor aged AR for individual customer accounts, even though the report is generated monthly; • Send separate late notices to customers for any overdue water bills; • Establish timeframe (30/60/90 days) to send demand letters; • Refer overdue accounts to the City's Department of Law or a collection agency to collect debt; and • Write off uncollectable AR from individual accounts. 	<p>Quantify amounts, customers, and months that water bills have not been paid or paid late and share these statistics with the City's leadership team to consider the ways to maximize revenue collection efficiency.</p>	<p>It is generally correct to characterize the City's efforts as not being proactive in increasing utility revenue collections. Limited passive tools were used to collect delinquent accounts such as a delinquency charge, termination procedure for delinquent balances, and liens.</p> <p>As a result, balances are only able to be collected in these instances where there is a transfer of real property. Moreover, in March 2020, the Mayor of Baltimore and Baltimore County Executive issued executive orders that neither jurisdiction would turn off water service for failure to pay during the State of Emergency related to the COVID-19 public health emergency.</p> <p>Agency leadership continually monitors revenue and holds discussions internally about revenue collection practices. Current collection practices have not had a material impact on the financial condition of any of the utility funds.</p>	<p>Partially Implemented</p> <p>The DPW did not implement water turn-on and turn-off, collection, and write-off policy and procedures for Baltimore County accounts. The DPW established the <i>Baltimore City Water Turn-On and Turn-Off Policy and Procedure 2023</i> on June 15, 2023 for City accounts. However, the policy and procedures do not include the following: (i) tracking and monitoring AR; (ii) sharing statistics of overdue accounts with the City's leadership team to consider the ways to maximize revenue collection efficiency; and (iii) provision for allowance of doubtful accounts and writing-off individual accounts upon receiving notifications of delinquent accounts from the Department of Law rather than writing-off aggregate amounts at once on an annual basis</p>

Biennial Performance Audit Report on Department of Public Works

No.	Findings	Recommendations	Prior Management Response	Auditor's Assessment
			The Agency has already begun several new proactive initiatives and is developing new initiatives to analyze billing data to maximize revenue collection efficiency.	

APPENDIX I: Management's Response to the Audit Report

Date: May 02, 2024

To: Josh Pasch, City Auditor

Subject: Biennial Performance Audit Report on the Department of Public Works for the Fiscal Years Ended June 30, 2022 and 2021

Our responses to the audit report findings and recommendations are as follows:

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.

Management Response/Corrective Action Plan

Agree

Disagree

The SOP for exceptions in the Legacy System, known as CSSD CS040 Edit Update Error List Report, was originally created on October 16, 2016, and was recently revised and updated on March 20, 2024. Since then, staff that work on County Billing have been trained on the SOP and will receive continuous training on this process.

Likewise, the SOPs for Baltimore City exceptions in the UMAX System were created on October 23, 2023, and later revised on November 9, 2023. The revised SOPs capture the recommendations included in this audit.

Staff agrees with the periodic review and documentation component; however, this would strictly apply to Baltimore City accounts as Baltimore County accounts are held within the 3270 Mainframe system, which has no ability to adequately document such exceptions. Baltimore County is currently underway with a project to upgrade to the UMAX365 System, which would allow this function in the future. As a short-term solution, Baltimore County users will be trained on the OnBase system to ensure notes are

captured and recorded per account exception until the upgrade to UMAX365 is completed.

The periodic reviews are conducted weekly and reported out in our weekly performance meeting on Friday morning. A CSSD Billing Manager will be working with a Quality Assurance Analyst to ensure the periodic reviews are being conducted. The documented data will be incorporated and tracked on CSSD's Key Performance Indicators (KPI) dashboard.

A CSSD Billing Manager and the Quality Assurance and Compliance Manager will create a process to perform the review to perform the review. Understanding that this would be a sampling of the work orders created on a weekly basis. The documented data will be incorporated and tracked on CSSD's KPI dashboard.

As CSSD continues to ensure all billing staff are complying and conducting the functions required within established SOPs, the Training Manager and team will hold frequent trainings on these processes to ensure exceptional customer service is being provided.

Implementation Date: June 30, 2024

Responsible Personnel: Toya Y. Sykes, Chief, CSSD

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*.

Management Response/Corrective Action Plan

Agree **Disagree**

During the period studied (December 2022 to December 2023) CSSD was still working through a high number of customer inquiries, a backlog of 10,000 emails and new cases being submitted daily to the office. Since then, the backlog has been resolved and response times have significantly improved.

Additionally, an amendment to the CSSD JitBit Processes SOP was implemented in October 2023. The amended SOP addresses the business processes that impact the response timeframes for customer assistance requests and complaints.

CSSD will implement the process that all supervisors and / or managers will run the weekly reports to ensure all analysts are meeting the required response time as outlined in the SOP. The weekly reports will be run and reported out on the weekly performance meeting on Friday mornings. The Customer Service Manager will work with the CSSD Quality Assurance Manager to create a process that captures the documented performance reports. The documented data will be incorporated and tracked on CSSD's KPI dashboard. This process will be implemented by June 30, 2024.

As CSSD continues to ensure all billing staff are complying and conducting the functions required within established SOPs, the Training Manager and team will hold frequent trainings on these processes to ensure exceptional customer service is being provided.

Implementation Date: June 30, 2024

Responsible Personnel: Toya Y. Sykes, Chief, CSSD