



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Board of Directors

Audit and Risk Committee

April 27, 2023

9:30 a.m.

Microsoft Teams Meeting

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Phone Conference ID: 843 178 074#

1. **Call to Order**..... Jed Ross, Vice Chairperson
2. **Roll Call**..... Michelle Rhodd, Board Secretary
3. **Enterprise Risk Management Briefing**..... Francis Cooper, Director EPMO
4. **Internal Audit Update**..... Dan Whelan, RSM, Auditor General
 - A. FY 2023 Internal Audit Plan Status Update
 - B. Status Update on Prior Audit Findings
 - C. Contract Compliance Audit
 - D. Metering, Billing & Collections Audit
 - E. Hotline Update
5. **Executive Session*** Jed Ross, Vice Chairperson
6. **Adjournment**..... Jed Ross, Vice Chairperson

1The DC Water Board of Directors may go into executive session at this meeting pursuant to the District of Columbia Open Meetings Act of 2010, if such action is approved by a majority vote of the Board members who constitute a quorum to discuss certain matters, including but not limited to: matters prohibited from public disclosure pursuant to a court order or law under D.C. Official Code § 2-575(b)(1); terms for negotiating a contract, including an employment contract, under D.C. Official Code § 2-575(b)(2); obtain legal advice and preserve attorney-client privilege or settlement terms under D.C. Official Code § 2-575(b)(4)(A); collective bargaining negotiations under D.C. Official Code § 2-575(b)(5); facility security matters under D.C. Official Code § 2-575(b)(8); disciplinary matters under D.C. Official Code § 2-575(b)(9); personnel matters under D.C. Official Code § 2-575(b)(10); third-party proprietary matters under D.C. Official Code § 2-575(b)(11); train and develop Board members and staff under D.C. Official Codes § 2-575(b)(12); adjudication action under D.C. Official Code § 2-575(b)(13); civil or criminal matters or violations of laws or regulations where disclosure to the public may harm the investigation under D.C. Official Code § 2-575(b)(14); and other matters provided under the Act.



Strategy & Performance Cluster

Enterprise Risk Management Briefing to Audit & Risk Committee

April 27, 2023

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Matt Ries, Acting EVP Strategy & Performance

Status

1. **Realigned** on ERM phase 2 scope of work with our consulting partner. Developed a preliminary **project plan** to serve as a **roadmap** for this phase. This effort is slated to start in early May.

This phase looks to perform the following work activities:

Enterprise Risk Deep Dives

- Perform risk deep dive analysis to **gain a deeper understanding** of the top enterprise risks, underlying root causes and drivers, and associated risk indicators to enable more effective risk-informed decision-making.

Origami Platform

- Implement Origami solution to support **automating the business process**. Leverage the solution to report on top enterprise risks facing the Authority and their trends to better inform senior leadership and Board members.

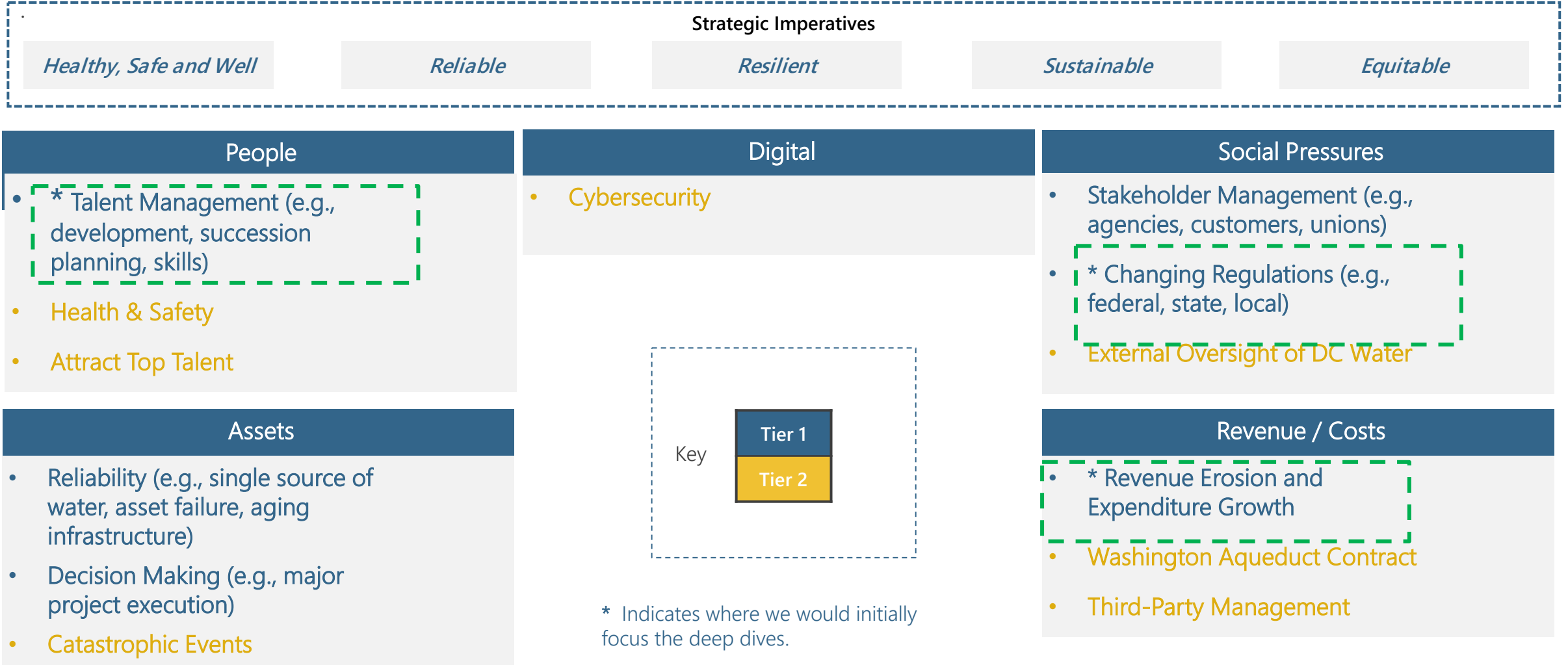
Change Management

- Roll out **ERM 101 training** for all staff to promote a **strong risk-aware culture** at DC Water to advance risk thinking and awareness, drive engagement, and bolster risk understanding across the Authority.

DC Water Top Enterprise Risks



Below is the prioritized list of top enterprise risks. This is the output at the end of the top-down enterprise risk assessment. Using a combination of identification methods: surveys and interviews with DC Water Leadership and specific board members, and internal and external research, top risks to DC Water were identified and ranked.



DC WATER

Audit & Risk Committee Meeting



April 27, 2023

Agenda

- FY 2023 Internal Audit Plan Status Update
- Status Update on Prior Audit Findings
- Report on Completed Audits
 - Contract Compliance Audit
 - Metering, Billing & Collections Audit
- Hotline Update
- Executive Session
 - Penetration Testing Audit – External Network

AUDIT PLAN STATUS UPDATE

Internal Audit Plan Status Update

Audit	Status
FY 2023	
Procurement Audit	Report Complete
Contract Compliance Audit	Report Complete
Payroll & Timekeeping Audit	Fieldwork in Progress
Metering, Billing and Collections Audit	Report Complete
Penetration Testing Audit – External Network	Report Complete
Oracle IT General Controls Assessment	Fieldwork in Progress
Oracle Identity & Access Assessment	Fieldwork in Progress
Work Order Management Audit – DWO	Fieldwork in Progress
Business Continuity Assessment	Planning in Progress
Fleet Management Audit	Not Started
FY2024 Risk Assessment	Not Started
Remediation & Follow Up	On-going
Hotline Management	On-going

Internal Audit Plan FY 2023 Timeline

	Oct – 22	Nov – 22	Dec – 22	Jan – 23	Feb – 23	Mar – 23	Apr – 23	May – 23	Jun – 23	Jul – 23	Aug – 23	Sep – 23	Oct – 23
▶ Procurement Audit*		▶											
▶ Contract Compliance Audit*	▶												
▶ Payroll & Timekeeping Audit*				▶									
▶ Metering, Billing and Collections Audit*				▶									
▶ Penetration Testing Audit – External Network*				▶									
▶ Oracle IT General Controls Assessment							▶						
▶ Oracle Identity & Access Assessment							▶						
▶ Work Order Management Audit – DWO*							▶						
▶ Business Continuity Assessment								▶					
▶ Fleet Management Audit										▶			
▶ FY 2024 Risk Assessment											▶		
▶ Ongoing Follow-up Procedures	▶												
▶ Ongoing Hotline Monitoring	▶												

* indicates cycle audit

PRIOR AUDIT FINDINGS – FOLLOW UP STATUS

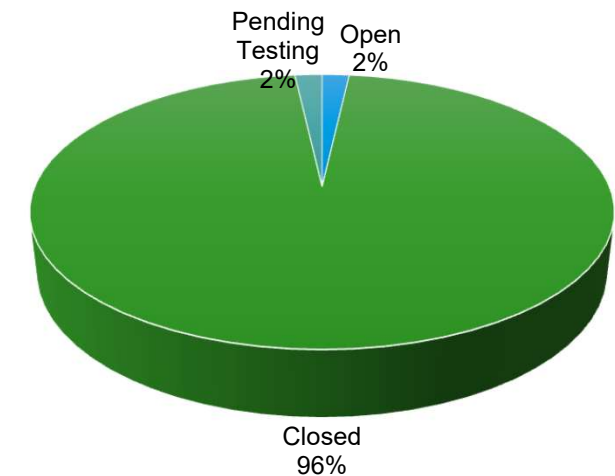
Open High Risk Prior Audit Findings

No open high risk findings to report. All high risk prior audit findings are in pending testing or closed status as of April 2023.

Status Update on Prior Audit Findings

Audit Report/Subject	Report Issue Date	Corrective Actions			
		Total	Open	Closed	Pending Testing ¹
Prior to FY22 Audit Findings					
Training, Licensing & Certification	7/28/2016	7	0	6	1
Entity Level Review	10/26/2017	7	0	6	1
Integrated Work Order Management Audit	1/24/2019	10	0	9	1
Fleet Management Review	1/24/2019	3	1	2	0
Occupational Safety and Health	4/25/2019	4	1	2	1
Customer Billing and Collections Audit	10/22/2020	3	1	2	0
Contract Compliance Audit	7/22/2021	3	1	2	0
	Total	37	4	29	4

FY16 – FY21 Prior Audit Findings Status



¹“Pending Testing” indicates that Management represents that the Action Plan is Completed, but Internal Audit has not yet performed testing to validate the status.

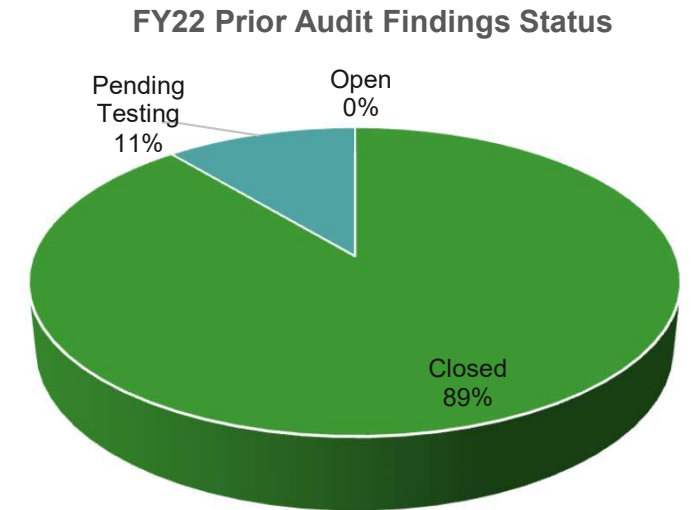
Note that the audit findings reported above only represent findings prior to FY22 with the status of “Pending Testing” or “Open”. Audits conducted prior to FY22 for which all findings have been closed are not represented in this table. However, the pie chart to the right includes status of all audit findings FY16 – FY21.

Color Key

At least 1 original remediation target date has been extended

Status Update on Prior Audit Findings

Audit Report/Subject	Report Issue Date	Corrective Actions			
		Total	Open	Closed	Pending Testing ¹
FY22 Audit Findings					
Contract Monitoring & Compliance Audit	1/27/2022	3	0	3	0
Accounts Payable Audit	4/28/2022	3	0	3	0
Incident Response Tabletop Exercise	4/28/2022	3	0	3	0
Strategic Plan Monitoring Audit	7/28/2022	2	0	0	2
Physical Security Audit – HQO & Ft. Reno	7/28/2022	4	0	4	0
Work Order Management Audit – DSO	10/27/2022	3	0	3	0
	Total	18	0	16	2



Color Key

At least 1 original remediation target date has been extended

¹“Pending Testing” indicates that Management represents that the Action Plan is Completed, but Internal Audit has not yet performed testing to validate the status.

In total, 96% of all prior audit findings from FY16 – FY22 are closed. Management’s target closure rate is 90%.

CONTRACT COMPLIANCE AUDIT

Contract Compliance Audit

Purpose

The purpose of this internal audit was to obtain an understanding of how contracts are managed and assess whether the system of internal controls is adequate and appropriate at the department level for promoting and encouraging the achievement of management's compliance objectives. The testing period was January 2, 2020 (contract award dates) through September 30, 2022.

Scope

The audit scope was based upon the following objectives:

- Determine contractor compliance with specific contract terms and provisions, as applicable;
- Identify the monitoring controls and evaluation process in place for these contracts, including follow-up of remediation of underperformance;
- Review invoice and change order approval processes;
- Review the Contractor's Safety Plan to ensure it meets all contractual requirements and was properly approved (if applicable);
- Verify that DC Water maintains a current Certificate of Insurance for the contractor (if applicable);
- Confirm that DC Water COTRs have completed COTR training requirements; and
- Identify process improvement opportunities and recommend internal control enhancements to improve the contractor management process.

Contract Compliance Audit (continued)

1

Contract #190010 – Rehabilitation of the Potomac Interceptor Between MH-30 and MH-31		
Contractor	Ulliman Schutte Construction	Ulliman Schutte Construction will provide design and construction services to renew three pipe segments adjacent to Potomac Interceptor (PI) manhole 31. The PI is a critical component of DC Water’s sewer collection system serving Loudoun, Fairfax, and Montgomery Counties. Work will be completed in two (2) phases – Phase I will involve design development to 60% and Phase II will involve completion of design, construction, and restoration.
Award Date	January 2, 2020	
Original Contract Period	May 12, 2020 – December 17, 2023	
Contract Award	\$32,233,433.50	
Type of Contract	Cost Plus Not to Exceed	
COR/COTR	Engineering	

2

Contract #200020 – Emergency Sewer Main IR&R		
Contractor	Spiniello Company	Spiniello Companies will provide emergency and urgent sewer infrastructure repair and replacement services at various public space locations in Washington, D.C. Initially Spiniello Companies partnered with seven (7) WBE/DBE certified subcontractors to deliver the requested services – Shekinah Group, Thomas Construction Group, Arthur Engineering Services, SJ & Son Construction & Tracking, Resource Industries, Savin Engineers, and Sunrise Safety Services. and R&R Contracting Utilities, Inc. – before adding an additional five (5) subcontractors during project execution.
Award Date	January 2, 2020	
Original Contract Period	November 1, 2020 – October 31, 2023	
Contract Award	\$31,461,710	
Type of Contract	Unit Price Contract	
COR/COTR	Operations	

METERING, BILLING & COLLECTIONS AUDIT

Metering, Billing & Collections Audit

Purpose

The purpose of this internal audit was to obtain an understanding of how the Authority executes and monitors the metering, billing, and collections processes and the applicable governing policies. The testing period was 2/1/2022 through 1/31/2023.

Scope

The audit scope was based on the following objectives:

- Reviewing the applicable Authority policies and procedures and conducting walkthroughs with responsible personnel within Customer Care to assess the design of the control environment
- Developing flowcharts to illustrate the metering, billing, and collections processes
- Performing detailed testing over the following processes to assess the effectiveness of the control environment from 2/1/2022 through 1/31/2023. The following subprocesses were tested:
 - Metering:
 - Automated and manual meter reading processes
 - Estimates and adjustment process
 - Periodic reporting (as applicable)
 - Billing:
 - Mass market (i.e., commercial, multi-family, and residential) billing
 - Mass market exception reporting and review (i.e., implausible, bill out sort, and invoice out sort)
 - Mass market cancel rebill process
 - Collective billing processes (design assessment only)
 - Periodic reporting (as applicable)
 - Collections:
 - Inbound and outbound collections communication with customers
 - Escalation to disconnects, liens, receivership, or tax sale
 - Write-offs
 - Installment plan adjustments
 - Periodic reporting (as applicable)
- Identifying strong practices and areas of excellence, as well as potential opportunities for process improvement or control gaps and underlying root causes

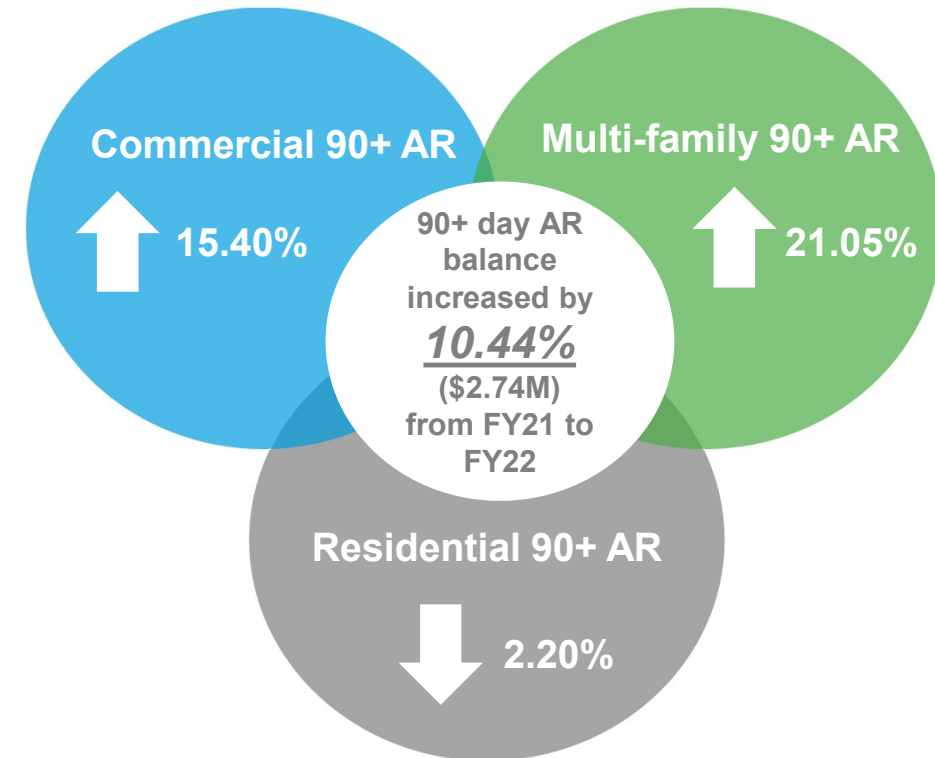
Metering, Billing & Collections Audit (continued)

Collections Activities During Covid-19 Pandemic:

From March 2020 through June 2022, legislation prevented the DC Water Collections team from performing certain collections activities, including sending disconnect notices, making disconnect phone calls, completing disconnect service orders, sending intent to lien notices, making intent to lien calls, and generating liens. Following the lifting of this legislation in June 2022, the Authority instituted guidelines around disconnections. These guidelines included tiered approaches to disconnections in an effort to reduce households losing access to water, as the District of Columbia was in a state of public health emergency due to the coronavirus pandemic.

2022 Collection Trend Analysis:

The suppression and subsequent re-introduction of collections activities due to the COVID-19 pandemic and resulting DC Public Health Emergency have had a significant impact on the Authority's AR aging balance. From FY21 to FY22, there has been a \$2.74M (10.44%) increase in 90+ day AR. The chart to the right shows the peaks and dip by bill class.

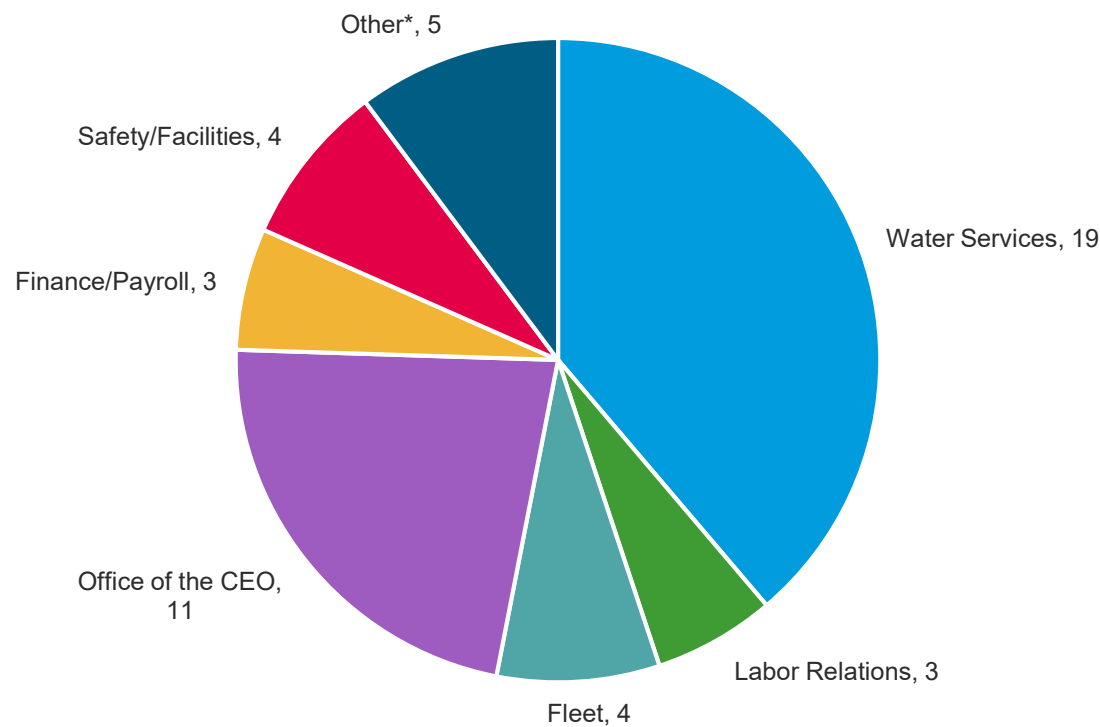


HOTLINE UPDATE

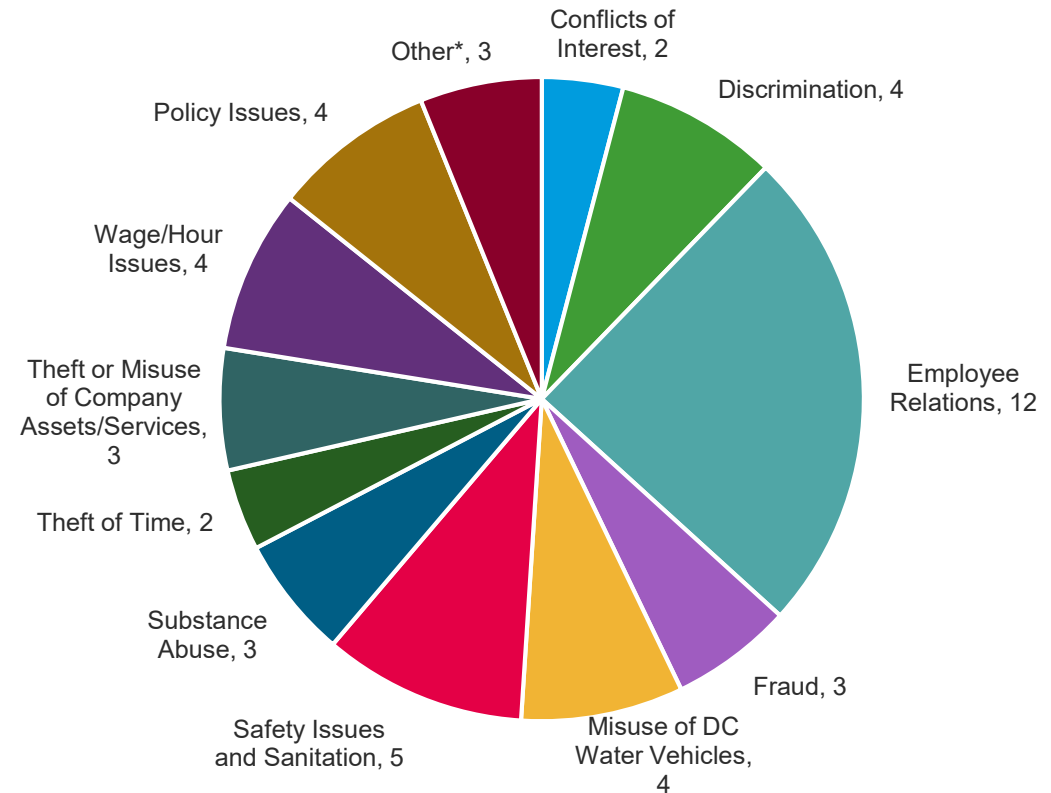
Hotline Call Analysis

We conducted an analysis of the 49 hotline calls that have been received since FY 2020 to date (October 1, 2019 – April 19, 2023), to determine if there are any trends, evaluate the quantity of calls (allegations) that were substantiated, and other matrices. The following charts represent the breakdown of calls by Department and Case Type.

Calls by Department



Calls by Case Type



17 * All other departments received one call. These departments are as follows: Engineering/Procurement, Office of Legal Affairs, Authority Wide, DETS, and Maintenance Services.

* All other case types received one call. These case types were sexual harassment, workplace violence/threats, and product quality and concerns.

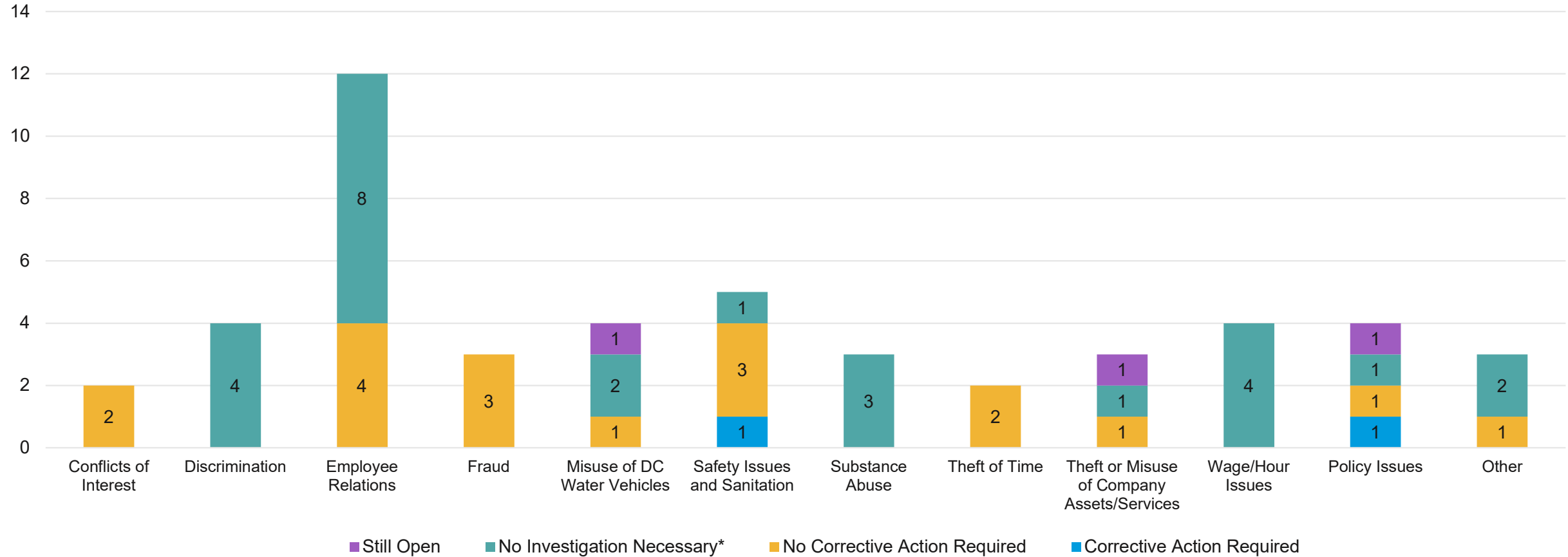
Hotline Call Analysis (continued)

Calls by Type and Department



Hotline Call Analysis (continued)

Calls by Type and Outcome



*Calls marked as No Investigation Necessary contain allegations that are not fraud, waste, and/or abuse related in nature. As such, they were forwarded to the appropriate DC Water department per the Hotline SOP with no investigation conducted by Internal Audit.

Hotline Update

13 calls have been received since the last Audit & Risk Committee meeting. Below are calls received in FY23 to date as of 4/19/2023:

FY 23 Hotline Call Summary	
FY 23 Calls Received	14
FY 23 Cases Closed	11
FY 23 Calls Open	3
FY 23 Open Call Breakdown	
Open Fraud Claims:	
<i>Misuse of DC Water Vehicles</i>	1
<i>Theft or Misuse of Company Assets/Services</i>	1
<i>Policy Issues</i>	1

Total calls by Fiscal Year:

Year	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY19	FY20	FY21	FY22	FY23
# of calls	10	20	16	36	31	21	28	10	7	18	14
Action Taken	0	2	7	7	2	0	1	0	0	2	0



QUESTIONS AND ANSWERS

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DC WATER

Contract Compliance Internal Audit

February 2023

Table of Contents

Executive Summary and Objectives

3

Background

5

Approach

6

Observations and Recommended Action

7

Appendix – Rating Definitions

10



EXECUTIVE SUMMARY, BACKGROUND AND APPROACH

Executive Summary and Objectives

Objective and Scope

The objective of the Contract Monitoring and Compliance Audit was to obtain an understanding of how contracts are managed and assess whether the system of internal controls is adequate and appropriate at the department level for promoting and encouraging the achievement of management’s compliance objectives. Our procedures were performed in accordance with the internal audit scope and approach set forth in our audit notification letter, dated October 31, 2022, and were limited to those procedures described therein.

Our scope included the following:

- Determine contractor compliance with specific contract terms and provisions, as applicable;
- Identify the monitoring controls and evaluation process in place for these contracts, including follow-up of remediation of underperformance;
- Review invoice and change order approval processes;
- Review the Contractor’s Safety Plan to ensure it meets all contractual requirements and was properly approved (if applicable);
- Verify that DC Water maintains a current Certificate of Insurance for the contractor (if applicable);
- Confirm that DC Water COTRs have completed COTR training requirements; and
- Identify process improvement opportunities and recommend internal control enhancements to improve the contractor management process.

Fieldwork was performed from November 2022 – January 2023.

Overall Summary and Highlights

There was one low-risk observation identified during our audit, related to COTR training, which is detailed on pages 8-9.

We have assigned relative risk or value factors to each observation. Risk ratings are the evaluation of the severity of the concern and the potential impact on the operations of each item. Observations will require management action plans with estimated completion dates that will be included in the routine follow up of internal audit observations.

Summary of Observation Ratings (See Appendix for risk rating definitions)

Number of Observations by Risk Rating

High	Moderate	Low
-	-	1

We thank all DC Water team members who assisted us throughout this review.

Background

Contract Sample Selection

- Internal Audit selected a sample of two contracts to review and validate compliance with applicable terms and conditions.
- A designated Contracting Officer Representative (COR) and/or Contracting Officer's Technical Representative (COTR) is responsible for ensuring contract compliance at DC Water. The COR shall be responsible for all administration of the contract. The COTR is the technical expert for the contract and acts as a liaison between the Contractor and the Contracting Officer. COTRs are trained by the Department of Procurement on their responsibilities as it relates to contract monitoring and compliance.
- The Authority enters into many capital procurement contracts through the Departments of Engineering and Technical Services, Pumping and Sewer Operations, Water Operations, Clean Rivers, and CIP Infrastructure Management. Within these departments, there are currently 134 active contracts with a total contract agreed-upon amount of \$1,274,859,486.

Contract #190010 – Rehabilitation of the Potomac Interceptor Between MH-30 and MH-31

Contractor	Ulliman Schutte Construction	Ulliman Schutte Construction will provide design and construction services to renew three pipe segments adjacent to Potomac Interceptor (PI) manhole 31. The PI is a critical component of DC Water's sewer collection system serving Loudoun, Fairfax, and Montgomery Counties. Work will be completed in two (2) phases – Phase I will involve design development to 60% and Phase II will involve completion of design, construction, and restoration.
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Type of Contract	Unit Price Contract	
COR/COTR	Operations	

Approach

Contract Monitoring & Compliance Testing

Our audit approach consisted of the following phases:

Understanding of the Process

The purpose of this phase was to gain an understanding of DC Water's contract monitoring and compliance process for the selected contracts. We submitted requests to the CORs and/or COTRs to gain a better understanding of the contract terms and determine how the contract is monitored. Internal Audit conducted walkthroughs with the CORs and COTRs of the selected contracts, the Contractor's Project Manager, and other employees within the Department, as needed.

Detailed Testing

The purpose of this phase was to test internal controls over contract monitoring and compliance based on our understanding of the contract terms and conditions. The time period covered by testing was January 2, 2020 (contract award dates) through September 30, 2022.

For all contracts selected, Internal Audit conducted the following testing:

- Performed a review of the invoice submission, approval, and payment process to verify:
 - Invoice time/material pricing reconciled to the applicable schedule(s) in the executed contract
 - Invoice support included associated task orders and completed daily inspection reports with appropriate sign-off
 - Invoices were approved by the appropriate authority before payment was made.
 - Invoices were submitted for payment by DC Water within 30 days.
- Verified that DC Water maintained a current Certificate of Insurance for the Contractor.
- Reviewed the reporting processes to verify that contractors are submitting required documentation completely and timely, per contractual requirements.
- Examined the monitoring of subcontractors to verify that subcontractors are approved prior to subcontractors commencing work on the contract.
- Verified that COTRs completed training requirements.
- Verified periodic progress meetings were held and attended by appropriate individuals, in accordance with the contract
- Examined change orders executed during the audit period to verify:
 - Settlement sheet was completed with appropriate sign-off
 - Change order was approved by appropriate authority

Reporting

At the conclusion of this audit, we summarized our observations related to the contract monitoring and compliance process. We have reviewed the results of our testing with management.



OBSERVATIONS AND RECOMMENDED ACTION

Observation 1: COTR Training

Risk Rating: Low

Observation: All Contracting Officer Technical Representatives (COTRs) assigned to a project are required to be appropriately trained by the Department of Procurement. Of the two COTRs assigned to our selected contracts, one COTR did not complete the required internal training prior to being assigned to the contract. The COTR began contract work in July 2022; however, did not complete the training until the next round of annual training in November 2022, resulting in a 4-month period during which contract work was being executed without a trained COTR.

COTR training is administered annually, and supplementary COTR training is available to employees on an on-demand basis. When a first-time COTR is assigned to a project after the annual training has occurred, the COTR is invited to take the supplementary online training for which the system records attendance/completion. In this instance, the individual was not a COTR for any contract at the time the annual training occurred. Once s/he became a COTR, s/he was not selected for enrollment in or, instructed to attend the on-demand training upon project assignment, as required by DC Water policy, resulting in an untrained COTR being assigned to the contract.

Root Cause Analysis: DC Water does not have effective monitoring in place to identify all first-time COTRs that need to complete the required training off-cycle from the annual process.

Impact Analysis: Inadequately or improperly trained COTRs may not fulfill their duties and responsibilities specific to their assigned contracts. The lack of formalized training may lead to misunderstanding of critical COTR monitoring duties and may cause DC Water and/or its vendors to become non-compliant with agreed-upon contract terms, requirements, and deliverables.

Recommendation: We recommend that DC Water formalize and implement a monitoring process to identify off-cycle COTRs that need to complete the required training, track off-cycle COTR training completion requirements for first-time COTRs, and consistently enforce completion requirements.

Observation 1: COTR Training (continued)

Management Action Plan 1:

Response:

Category Management staff have been instructed to:

1. When a COTR is about to be assigned to a contract, check whether the assignee has taken COTR training.
2. If yes, complete the COTR form. If no, ask the People & Talent Learning & Development Manager to invite the person to take the recorded COTR training within 30 days.
3. If the COTR training has been completed, sign the COTR form. If not, seek an alternate COTR, but the Category Manager may use judgement as to whether to extend the time to take the COTR training.

Responsible Party:

Joel Grosser, Director of Procurement, Goods & Services

Target Date:

The Managers of Category Management were informed of the above on March 1, 2023 with instruction to roll out these steps to their respective teams. Procurement leadership may adjust these steps in the future.

Management Action Plan 2:

Response:

Department of Engineering will monitor and assure all COTRs for engineering and construction contracts are current and trained.

Responsible Party:

David Parker, VP of Engineering

Target Date:

June 30, 2023

APPENDIX

Appendix – Rating Definitions

RSM defined observations based on the following risk rating definitions:

Observation Risk Rating Definitions	
Rating	Definition
Low	Observation presents a low risk (i.e., impact on financial statements, internal control environment or business operations) to the organization for the topic reviewed and/or is of low importance to business success/achievement of goals. Action should be taken within 12 months (if related to external financial reporting, must mitigate financial risk within two months unless otherwise agreed upon).
Moderate	Observation presents a moderate risk (i.e., impact on financial statements, internal control environment or business operations) to the organization for the topic reviewed and/or is of moderate importance to business success/achievement of goals. Action should be taken within nine months (if related to external financial reporting, must mitigate financial risk within two months).
High	Observation presents a high risk (i.e., impact on financial statements, internal control environment or business operations) to the organization for the topic reviewed and/or is of high importance to business success/achievement of goals. Action should be taken immediately, but in no case should implementation exceed six months (if related to external financial reporting, must mitigate financial risk within two months).



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DC WATER

Metering, Billing, and Collections Internal Audit

April 2023

Table of Contents

Executive Summary and Objectives

4

Background

5

Approach

9

Observations and Recommended Action

10

Appendix

A

Rating Definitions

14

B

Past Due Collections Activity

15

EXECUTIVE SUMMARY, BACKGROUND AND APPROACH

Executive Summary and Objectives

Objective and Scope

The purpose of this review was to obtain an understanding of how the Authority executes and monitors the metering, billing, and collections processes and the applicable governing policies. The audit scope was based on the following objectives:

- Reviewing the applicable Authority policies and procedures and conducting walkthroughs with responsible personnel within Customer Care to assess the design of the control environment
- Developing flowcharts to illustrate the metering, billing, and collections processes
- Performing detailed testing over the following processes to assess the effectiveness of the control environment from 2/1/2022 through 1/31/2023. The following subprocesses were tested:
 - Metering:
 - Automated and manual meter reading processes
 - Estimates and adjustment process
 - Periodic reporting (as applicable)
 - Billing:
 - Mass market (i.e., commercial, multi-family, and residential) billing
 - Mass market exception reporting and review (i.e., implausible, bill out sort, and invoice out sort)
 - Mass market cancel rebill process
 - Collective billing processes (design assessment only)
 - Periodic reporting (as applicable)
 - Collections:
 - Inbound and outbound collections communication with customers
 - Escalation to disconnects, liens, receivership, or tax sale
 - Write-offs
 - Installment plan adjustments
 - Periodic reporting (as applicable)
- Identifying strong practices and areas of excellence, as well as potential opportunities for process improvement or control gaps and underlying root causes

Fieldwork was performed February 2023 – April 2023.

Overall Summary and Highlights

There was one low risk observation identified during our assessment:

1. Incorrect or delayed issuance of rebills

This observation is described in the detailed observations section of the report (pages 11 - 12). We assigned relative risk or value factors to the observation. Risk ratings are the evaluation of the projected severity of the concern and the potential impact on the operations of each item.

Observations will require management action plans with estimated completion dates that will be included in the routine follow up of internal audit observations.

Summary of Observation Ratings

(See Appendix A for risk rating definitions)

Number of Observations by Risk Rating

High	Moderate	Low
-	-	1

Background

Metering

The Metering team's responsibilities include overseeing daily meter reads in the eCIS system (VertexOne), conducting manual meter reads for meters without automatic reads, performing disconnect orders, and completing meter-related work orders.

When performing a manual meter read, a technician can report a trouble or skip code, which automatically generates a work order for the meter. Typically, the Technician completing the work orders differ from the individual performing manual meter reads and completing disconnect orders.

KEY PERFORMANCE INDICATORS	
Meter Transmission Rates	<p>The Metering team:</p> <ul style="list-style-type: none">• Tracks transmission rates of all active meters• Determines which meters are actively transmitting meter reads• Distinguishes areas of non-transmittance that are due to a mechanical failure or a different issue
Consecutive Estimates	<p>The Metering team:</p> <ul style="list-style-type: none">• Tracks consecutive meter estimates twelve months and greater• Maintains awareness of estimated bills as a percentage of meter reads• Provides criteria for decision-making on targeted meter change projects <p>Monitoring activities have fostered the development of a proactive maintenance program that includes meter field testing.</p>

Background (continued)

Billing

The Billing team’s responsibilities include producing timely and accurate invoices, processing bill exceptions, ensuring new accounts are set-up with correct customer information, as well as generating reporting for extended and “catch up” billing events.

The Authority’s operating revenue base is diverse, including established customers such as the Federal government, the District government, surrounding jurisdictions in Maryland and Virginia, and commercial and residential customers within the District. Operating revenues by source is illustrated in the chart below.

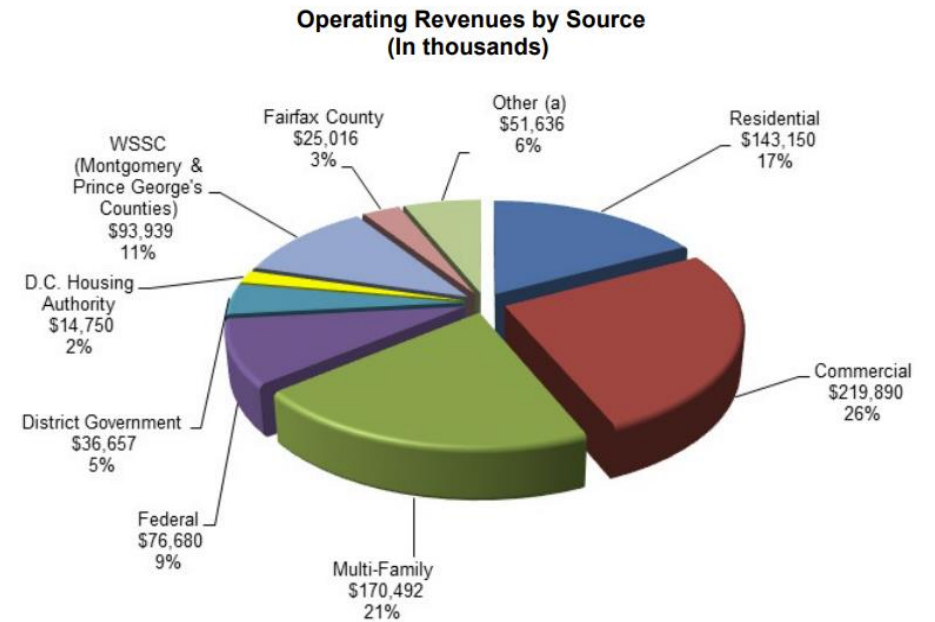
Mass Market Billing Process:

Commercial, residential, and multi-family customers are billed based upon consumption and current rates by premise classification. Leveraging the billing cycle calendar, customer invoices are generated and billed monthly.

Meter readings and estimates feed into the Authority’s eCIS system, VertexOne. Prior to bill job processing, the system automatically validates data collected from meters to check for unexpected period-over-period variances in usage or charges. Once validated, they system automatically generates bills and go to bill print. If it is unable to validate the data, the system automatically flags the bill as “implausible.” Bills flagged as “implausible” require manual review by the Billing team prior to processing.

Collective Invoicing Process:

DC Water has a group billing process in place for customers who own and/or manage a large quantity of premises such as universities and municipalities. One group (i.e., collective) bill is generated for all premises included in the customer’s portfolio. Group bills generally follow the standard monthly billing process; however, the Federal Group Bill is generated two years in advance based upon estimates and are paid quarterly.



Source: DC Water 2022 CAFR

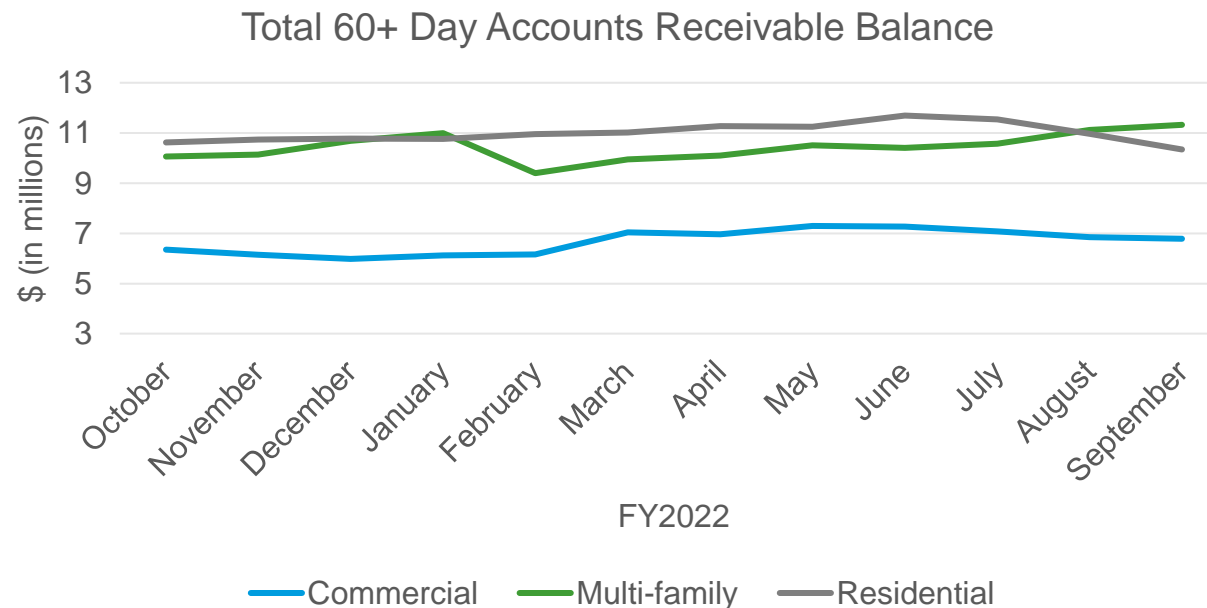
Background (continued)

Collections

The Collections team's responsibilities include producing accounts receivable (AR) reporting, reviewing AR trends, processing account adjustments, updating customer account information, promoting and communicating affordable payment options and payment arrangements, placing liens on delinquent account balances, working with various teams to complete the disconnect process, executing outbound collection calls, writing off uncollectible account balances, and submitting customer accounts to tax sale. When an account becomes 60+ days past due (refer to Appendix B), it is assigned to a team member who is responsible for tracking the account and following up with the constituent.

VertexOne plays a major role in the day-to-day collections process. In addition to acting as the main information repository for customer accounts and their respective receivables, VertexOne provides real-time updates of customer account statuses that may result from collection efforts (e.g., tax sale, lien). eCIS is also leveraged in all operations related to inbound/outbound customer communication, write-offs, and past due collection activities (refer to Appendix B).

The graph below illustrates month-over-month 60+ day AR aging balances by bill class during FY2022.



Background (continued)

Collections Activities During Covid-19 Pandemic:

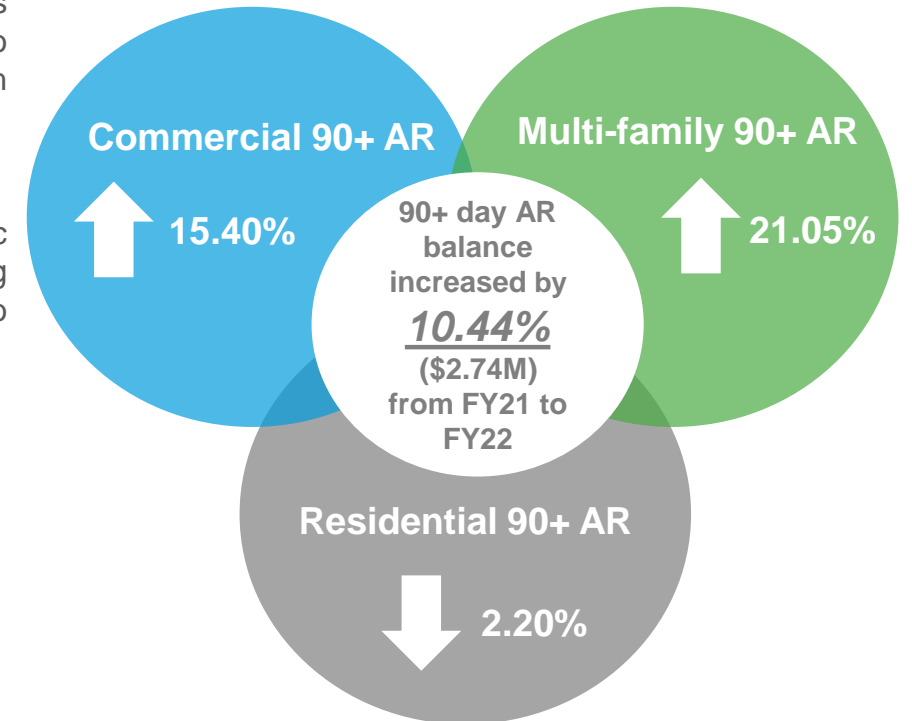
From March 2020 through June 2022, legislation prevented the DC Water Collections team from performing certain collections activities, including sending disconnect notices, making disconnect phone calls, completing disconnect service orders, sending intent to lien notices, making intent to lien calls, and generating liens. Following the lifting of this legislation in June 2022, the Authority instituted guidelines around disconnections. These guidelines included tiered approaches to disconnections in an effort to reduce households losing access to water, as the District of Columbia was in a state of public health emergency due to the coronavirus pandemic.

2022 Collection Trend Analysis:

The suppression and subsequent re-introduction of collections activities due to the COVID-19 pandemic and resulting DC Public Health Emergency have had a significant impact on the Authority’s AR aging balance. From FY21 to FY22, there has been a \$2.74M (10.44%) increase in 90+ day AR. The chart to the right shows the peaks and dip by bill class.

The table below outlines 90+ day AR aging balances and accounts by bill class from FY2021 to FY2022.

Bill Class	As of Period End FY 2021		As of Period End FY 2022		90+ AR (\$) % Change YOY
	90+ AR (\$)	# of 90+ AR Accounts	90+ AR (\$)	# of 90+ AR Accounts	
Commercial	\$6,264,150	1,453	\$7,226,512	1,248	+15.40%
Multi-family	\$9,574,477	1,214	\$11,589,456	1,269	+21.05%
Residential	\$10,472,653	10,900	\$10,242,890	9,651	-2.20%



Approach

METERING

1. Conducted walkthrough interviews with the Metering team to gain an understanding of controls in place for metering activities;
2. Evaluated the design of the metering control environment for gaps;
3. Selected a representative sample of missing meter reads;
4. Selected a representative sample of meter work orders;
5. Reviewed the latest consecutive estimates for 12 months and greater report;
6. Reviewed sample documentation to evaluate the operating effectiveness of the controls identified during walkthroughs.

BILLING

1. Conducted walkthrough interviews with the Billing team to gain an understanding of controls in place for billing processing;
2. Evaluated the design of the billing control environment for gaps;
3. Selected a representative sample of mass market invoices;
4. Selected a representative sample of bills flagged as implausible;
5. Selected a representative sample of cancel rebills;
6. Reviewed sample documentation to evaluate the operating effectiveness of the controls identified during walkthroughs.

**Note the AMI process was out of scope for this audit.*

COLLECTIONS

1. Conducted walkthrough interviews with the Collections team to gain an understanding of controls in place for collection processing;
2. Evaluated the design of the collections control environment for gaps;
3. Selected a representative sample of past due accounts;
4. Selected a representative sample of write-offs;
5. Selected a representative sample of tax sale accounts;
6. Reviewed sample documentation to evaluate the operating effectiveness of the controls identified during walkthroughs.

Reporting: At the conclusion of this audit, we summarized observations related to the Metering, Billing, and Collections processes. Further, we reviewed testing results with management.



OBSERVATIONS AND RECOMMENDED ACTION

Observation 1: Incorrect or delayed issuance of rebills

Risk Rating: Low

Observation: When the DC Water Billing team has to estimate a meter read in order to issue a customer bill, the estimated bill is subsequently canceled and rebilled after an actual meter read is obtained. Per DC Water policy, this cancellation and rebill process should occur within five days of the account's scheduled billing date.

Internal Audit reviewed 25 bills that were canceled and reissued between 2/1/2022 – 1/31/2023. Of these 25 samples, 2 were not rebilled within five days of the account's scheduled billing date. Additionally, of the 25 samples tested, 7 were not rebilled at all. Internal Audit received explanations from the Billing team for each account that did not have a rebill issued, and for each account, the issue was biller error. In these instances, the member of the Billing team that reviewed the account's bill inaccurately assessed that the issued bill did not need to be canceled and corrected.

Of the 25 samples tested, 11 had unique circumstances that precluded the account from requiring a rebill. Internal Audit confirmed the accuracy of these explanations and deemed the lack of rebill appropriate in these instances.

Root Cause Analysis: The Billing team is notified when an actual meter read is uploaded for an account that had previously been estimated. There is no requirement for the Billing team to acknowledge this meter upload, which can result in the Biller disregarding the actual meter read and continuing with the use of an estimated meter read.

Impact Analysis: There are bills being issued based on estimated meter reads, despite actual meter reads being available. The delay of issuing a timely cancel/rebill results in the Billing team needing to retroactively cancel/rebill multiple bills at once for a single account. Cancel/rebills only occur for estimated accounts, which makes up a small portion of total monthly billing. Specifically, the Billing team's target metric for estimated bills as a percentage of meter reads is 4%, and the Billing team has remained close to the target month-over-month (4.5% in February 2023).

Observation 1: Incorrect or delayed issuance of rebills

Recommendation: RSM recommends that the Billing team formalize the rebill process in an SOP document and provide training around the expectations to utilize actual meter reads once they are made and uploaded.

Management Action Plan:

Response: Revenue Assurance has documented the Cancel-Rebill process. The process outlines the appropriate steps a Billing Agent would take when analyzing an account estimated over (X) months and the workflow to resolve the bill correction timely. Additionally, we will continue to identify these instances by pulling samples completed by the team for QA review

Responsible Party: Supervisor, Billing

Target Date: May 15, 2023

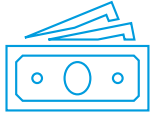
APPENDIX

Appendix A – Rating Definitions

RSM defined observations based on the following risk rating definitions:

Observation Risk Rating Definitions	
Rating	Definition
Low	Observation presents a low risk (i.e., impact on financial statements, internal control environment or business operations) to the organization for the topic reviewed and/or is of low importance to business success/achievement of goals. Action should be taken within 12 months (if related to external financial reporting, must mitigate financial risk within two months unless otherwise agreed upon).
Moderate	Observation presents a moderate risk (i.e., impact on financial statements, internal control environment or business operations) to the organization for the topic reviewed and/or is of moderate importance to business success/achievement of goals. Action should be taken within nine months (if related to external financial reporting, must mitigate financial risk within two months).
High	Observation presents a high risk (i.e., impact on financial statements, internal control environment or business operations) to the organization for the topic reviewed and/or is of high importance to business success/achievement of goals. Action should be taken immediately, but in no case should implementation exceed six months (if related to external financial reporting, must mitigate financial risk within two months).

Appendix B - Past Due Collections Activity



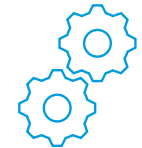
Late Fee

On the 1st day past due, a 10% late fee is applied to the current charges of the delinquent invoice.



Reminder

Reminder notices are mailed on the 1st day past due to the customer's billing address. Reminder calls are generated on the 4th day past due for balances greater than \$80. For impervious only customers, there is a second reminder notice mailed on the 9th day past due.



Disconnects

A disconnection notice is mailed and a disconnection call is generated on the 9th day past due for balances greater than \$200. Disconnect service orders are created and sent to the field for processing if the receivable is still outstanding on the 24th day past due. Note that disconnections do not pertain to multi-family or impervious only accounts.



Liens

An intent to lien notice is mailed and an intent to lien call is generated on the 35th day past due for balances greater than \$200. 15 days after the intent to lien is sent, a lien is triggered by VertexOne and the Collections team is notified to create the image and process the lien.



Tax Sale

On an annual basis, the AR report is assessed against tax sale criteria to determine candidates eligible for submission to the Office of Tax and Revenue. All tax sale accounts are maintained within the internal "Tax Sale List" excel workbook for record keeping and tracking purposes. On a weekly basis, the Collections Coordinator manually updates accounts statuses in VertexOne based on payments collected.

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