



# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Board of Directors

*Audit and Risk Committee*

*April 28, 2022*

9:30 a.m.

### Microsoft Teams Meeting

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[+1 202-753-6714,,854264508#](#) United States, Washington DC

Phone Conference ID: 854 264 508#

1. **Call to Order**..... Floyd Holt, Chairperson
2. **Roll Call**.....Linda Manley, Board Secretary
3. **FY 2021 Financial Statements Audit Management Letter** ..... Matthew Brown, CFO
4. **Enterprise Risk Management Briefing** .....Deloitte
5. **Internal Audit Update**..... Dan Whelan, RSM, Auditor General
  - A. FY 2022 Internal Audit Plan Status Update
  - B. Status Update on Prior Audit Findings
  - C. [Accounts Payable Internal Audit](#)
  - D. Supply Chain Management Assessment
  - E. Hotline Update
6. **Executive Session\*** ..... Floyd Holt, Chairperson
7. **Adjournment**..... Floyd Holt, Chairperson

The 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: matters prohibited from public disclosure pursuant to a court order or law under D.C. Official Code § 2-575(b)(1); contract negotiations under D.C. Official Code § 2-575(b)(2); legal, confidential or privileged matters under D.C. Official Code § 2-575(b)(4)(A); collective bargaining negotiations under D.C. Official Code § 2-575(b)(5); facility security 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); proprietary matters under D.C. Official Code § 2-575(b)(11); train and develop members of a public body and staff under D.C. Official Codes § 2-575(b)(12); decision in an adjudication action under D.C. Official Code § 2-575(b)(13); civil or criminal matters where disclosure to the public may harm the investigation under D.C. Official Code § 2-575(b)(14), and other matters provided in the Act.

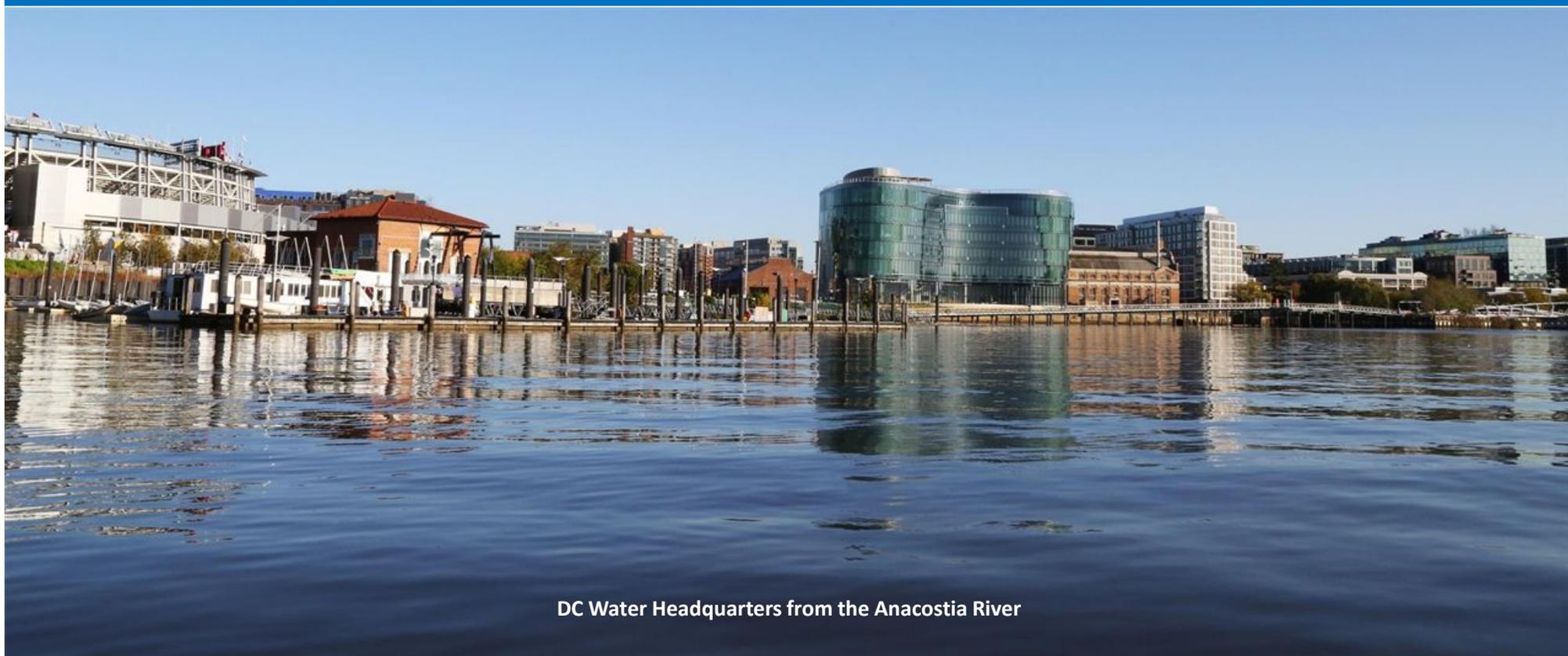


# FY 2021 Financial Statements

Presentation to Audit Committee, April 28, 2022

Matthew T. Brown, Chief Financial Officer and Executive Vice-President

**District of Columbia Water and Sewer Authority**



DC Water Headquarters from the Anacostia River



## Purpose

- Review DC Water's fiscal year 2021 financial statement audit management letter comments and recommendations



## FY 2021 Management Letter

- One comment: Strengthen controls over service periods used in the capital accounts payable accrual
  - Incorrect service periods led to an overestimation of construction in progress by \$521,281
  - The invoice data on the accrual projection did not match the service period of the invoices
    - A review of the invoice coding did not detect the incorrect service periods for the invoices
  - **Recommendation**
    - Management needs to strengthen its controls over the accuracy of the service periods entered in the Oracle
  - **Corrective action plan**
    - The finance team has strengthened controls to ensure that service periods entered in the Oracle system agree with related invoices



## Annual External Audit Process

- Annually the external auditor reviews DC Water's financial and budget processes and controls
- The Auditors:
  - Perform a risk assessment includes a review of board actions and discussion with management across the organization, including ongoing discussions with internal audit
  - Obtain an understanding of DC Water's processes through walkthroughs and discussions with key personnel
  - Review DC Water's financial statements for form and content in accordance with GAAP using proprietary presentation and disclosure checklists
  - Review and discuss with management DC Water's accounting white papers related to new GASB pronouncements and other accounting issues annually
  - Communicate findings and observations to management and the Board through the management letter and report on internal controls in accordance with Government Auditing Standards



## Management Letter, Significant Deficiency and Material Weakness

### Material Weaknesses

Is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis

### Significant Deficiency

Is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance

### Management Letter

Certain matters involving internal control and other operational matters that represent opportunities for strengthening internal controls and operating efficiency

This was the first audit completed in the new Oracle financial system, no significant deficiencies or material weaknesses were identified during the audit



## DC Water's history of strong controls

- Received GFOA Certificate of Achievement for Excellence in Financial Reporting for twenty-four consecutive years
- No material weaknesses or significant deficiencies noted for over eight years
- DC Water continues to maintain a low-risk auditee status for the OMB Uniform Guidance audit (audit of federal awards)
- This was the first audit completed in the new Oracle financial system; The auditor issued unmodified opinions on both financial statements and the schedule of expenditures of federal awards

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# DC Water Enterprise Risk Management (ERM)

## Board Briefing – Enterprise Risk Assessment Summary

April 28, 2022

ARUP + Deloitte & Touche



## Enterprise Risk Assessment (ERA) Overview

DC Water conducted an enterprise risk assessment to identify and prioritize the top risks facing the organization. This reports summarizes the findings from that effort.



### 1. Risk Identification Interviews – Completed

From Nov. 2021-Jan. 2022, 18 interviews were conducted at the Director & VP levels across clusters to gain understanding of existing risk management practices and enterprise risks.



### 2. Leadership Risk Identification Interviews – Completed

Leveraging the results of management discussions, 13 interviews were conducted with DC Water Senior Executive Team (SET) and select Board Members to further understand potential risks and identify those that require additional management attention and resources.



### 3. Develop List of Potential Top Enterprise Risks – Completed

The interview results were synthesized and shaped into a preliminary set of potential top enterprise risks. These risks were documented and shared as a pre-read to the Risk Prioritization Workshop.



### 4. Risk Prioritization Workshop – Completed

The next step in this process was to conduct a leadership workshop to align on the assessment of top enterprise risks, prioritize risks into tiers, and begin the process of identifying risk owner(s) for top risks.



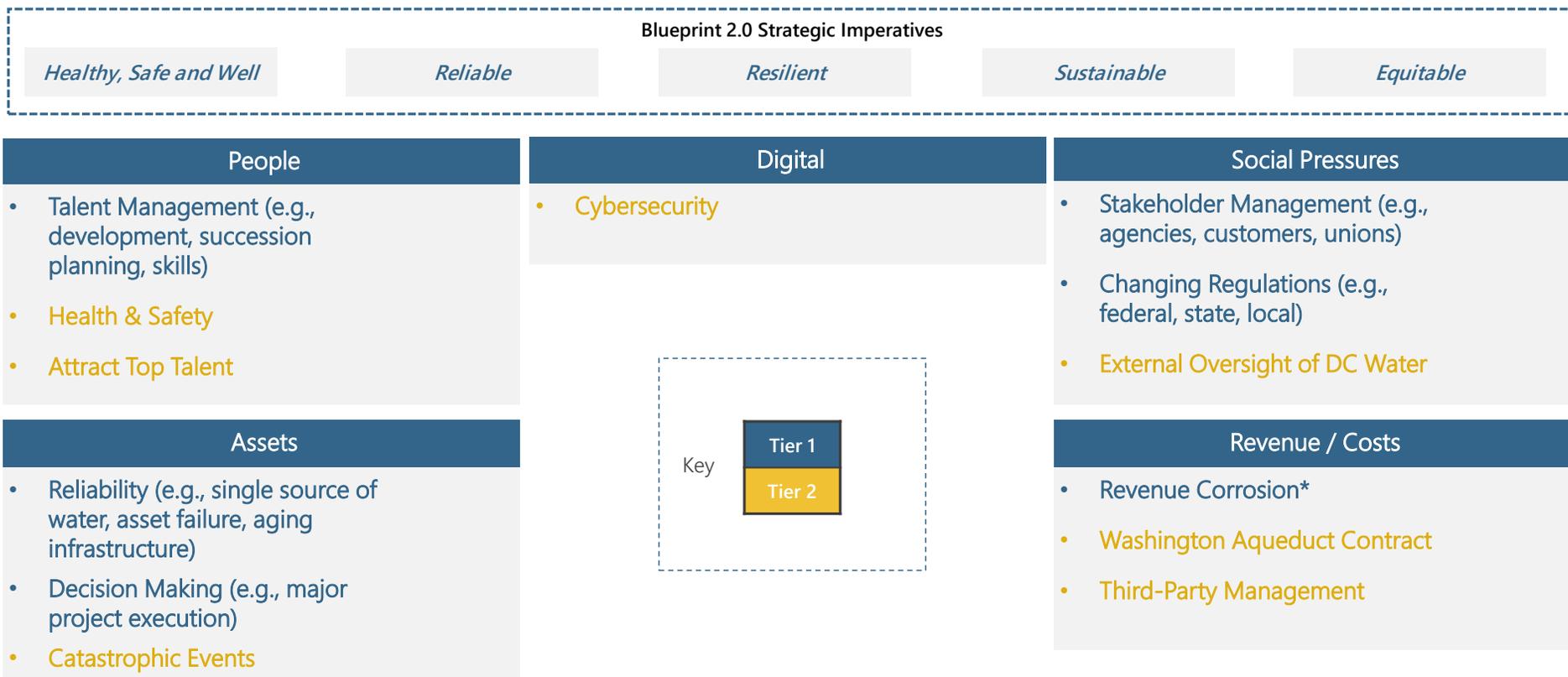
### 5. Enterprise Risk Assessment Results and Executive Summary

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## DC Water Top Enterprise Risks

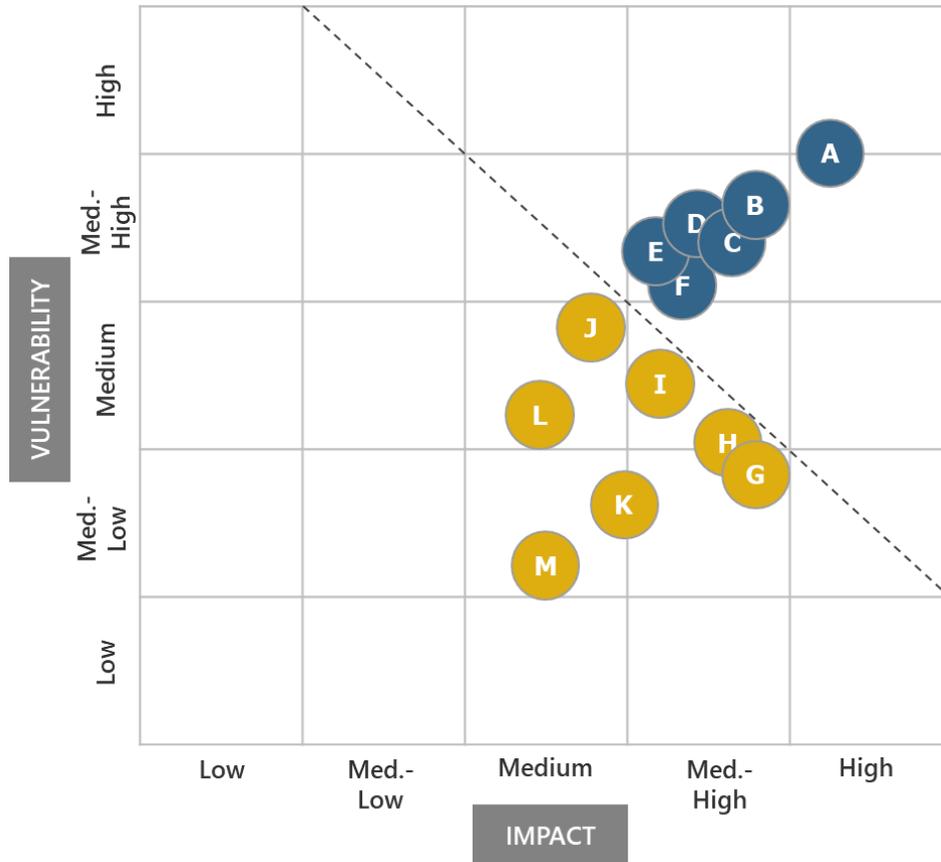
Below is the prioritized list of top enterprise risks as discussed with the DC Water leadership.



\*Pending name change to include cost-related aspect in risk



## Prioritization of Top Enterprise Risks



Priority	Ref.	Risk Name
Tier 1	A	Reliability (e.g., single source of water, asset failure, aging infrastructure)
	B	Revenue Corrosion
	C	Talent Management (e.g., development, succession planning, skills)
	D	Decision Making (e.g., major project execution)
	E	Stakeholder Management (e.g., agencies, customers, unions)
	F	Changing Regulations (e.g., federal, state, local)
Tier 2	G	Cybersecurity
	H	External Oversight of DC Water
	I	Health & Safety
	J	Washington Aqueduct Contract
	K	Catastrophic Events
	L	Attract Top Talent
	M	Third-Party Management

**Impact** measures the consequence of the potential risk should it materialize. **Vulnerability** measures the degree to which controls, and risk mitigation efforts are effective in reducing exposure if the risk occurs.

This document is intended solely for the information and internal use of DC Water and should not be used or relied upon by any other person or entity.

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### Risk Interdependencies

Several of DC Water’s top enterprise risks are interconnected. When Allocating resources to response plans, it will be helpful to understand the connectivity between these risks to gain efficiencies.

	Reliability	Revenue Corrosion	Talent Management	Stakeholder Management	Changing Regulations	Decision Making
Reliability			✓	✓	✓	✓
Revenue Corrosion				✓	✓	
Talent Management	✓					✓
Stakeholder Management	✓	✓			✓	✓
Changing Regulations	✓	✓		✓		
Decision Making	✓		✓	✓		

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## Next Steps: Risk Treatment Plans and Reporting of Top Enterprise Risks

As DC Water mobilizes resources to “take action” on top enterprise risks, consider assigning ownership, developing treatment strategies, reallocating resources, and monitoring for changes and progress.

01

**Assign** (i) SET member to serve as “Executive Risk Sponsor,” (ii) Enterprise Risk Management Committee member as Risk Owner, and (iii) Designated Support members for each top enterprise risk.

03

**Mobilize** resources to activate risk response plans, including the Risk Owner’s Designated Support to drive day-to-day activities.

02

**Document/Develop** risk treatment strategies and response plans.

- Determine risk treatment strategy and tactics to better manage each risk.
- Develop specific and measurable risk response plans, including roadmaps and specific metrics.

04

**Develop** a cadence to monitor and report on risks and response plans.

- Provide periodic risk updates to the SET.
- Provide periodic risk updates to the Audit & Risk Committee.

# Appendix

## Summary of Top Enterprise Risks – Tier 1



Risk Statement	Risk Drivers and Considerations	What We Heard	Rating
<p><b><u>Reliability (e.g., single source of water, asset failure, aging infrastructure)</u></b></p> <p><i>Inability to provide reliable service due to water supply shortages, asset failure or aging infrastructure, may lead to unsatisfied customers and regulatory scrutiny.</i></p>	<ul style="list-style-type: none"> <li>• Reliance on single water source, which DC Water does not own</li> <li>• High cost to <b>replace aging infrastructure</b></li> <li>• Potential for <b>asset failure</b></li> </ul>	<p><i>"We only have a 24–36-hour water supply if something happens on the Potomac."</i></p> <p><i>"I worry about asset failure."</i></p>	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <div style="background-color: red; color: white; padding: 2px 5px;">High</div> <div style="background-color: yellow; padding: 2px 5px;">Med.-High</div> </div> <div> <p><b>Impact</b></p> <p><b>Vulnerability</b></p> </div> </div>
<p><b><u>Revenue Corrosion</u></b></p> <p><i>Inability to keep rates affordable while promoting sustainability and maintaining sufficient revenue to operate the business, may lead to inadequate funding to provide safe and reliable services.</i></p>	<ul style="list-style-type: none"> <li>• ~1% annual decrease in water consumption, likely due to conservation efforts</li> <li>• <b>Mandated</b> capital improvement projects</li> <li>• <b>Late fees paused</b> due to COVID-19</li> <li>• Global <b>supply chain and inflation</b> effects on costs</li> </ul>	<p><i>"With the rise in cost of materials and supplies, either we ask more from rate payers, or have to do fewer capital projects."</i></p>	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <div style="background-color: yellow; padding: 2px 5px;">Med.-High</div> <div style="background-color: yellow; padding: 2px 5px;">Med.-High</div> </div> <div> <p><b>Impact</b></p> <p><b>Vulnerability</b></p> </div> </div>
<p><b><u>Talent Management (e.g., development, succession planning, skills)</u></b></p> <p><i>Failure to maintain a skilled workforce may lead to increased cost, safety missteps, challenges with succession planning, or potential negative impact on operational reliability.</i></p>	<ul style="list-style-type: none"> <li>• Impact of contractors on ability to <b>develop in-house skills</b></li> <li>• Institutional knowledge <b>not shared consistently</b></li> <li>• <b>Key person risk</b> / single point of failure</li> <li>• <b>Scarcity of niche talent</b> needs</li> <li>• <b>Lack of performance plans</b> for unionized workforce</li> </ul>	<p><i>"We have an aging skills profile based on what the organization needed 25 years ago, but as we build new capabilities, we need people with new sets of skills."</i></p>	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <div style="background-color: yellow; padding: 2px 5px;">Med.-High</div> <div style="background-color: yellow; padding: 2px 5px;">Med.-High</div> </div> <div> <p><b>Impact</b></p> <p><b>Vulnerability</b></p> </div> </div>

## Summary of Top Enterprise Risks – Tier 1 (cont.)



Risk Statement	Risk Drivers and Considerations	What We Heard	Rating
<p><b><u>Decision Making (e.g., major project execution)</u></b></p> <p><i>Inability to streamline decision making and culture to prioritize or execute on its major projects may lead to operational inefficiencies and increased cost.</i></p>	<ul style="list-style-type: none"> <li>DC Water historically had a <b>siload culture</b></li> <li>Focus on meeting regulatory requirements may <b>delay funding</b> for other <b>infrastructure projects</b></li> </ul>	<p><i>"Without all the necessary information, we manage risk by being overly conservative, which is expensive."</i></p>	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <div style="background-color: #ffc107; padding: 2px 5px; font-size: 8px;">Med.-High</div> <div style="background-color: #ffc107; padding: 2px 5px; font-size: 8px;">Med.-High</div> </div> <div> <p><b>Impact</b></p> <p><b>Vulnerability</b></p> </div> </div>
<p><b><u>Stakeholder Management (e.g., agencies, customers, unions)</u></b></p> <p><i>Failure to manage its stakeholders, including local and federal agencies, customers, and unions, may lead to reputational harm, project delays, and budgetary issues for the Authority.</i></p>	<ul style="list-style-type: none"> <li>Coordination with other <b>utilities and agencies</b></li> <li><b>Managing customers' expectations</b> as a non-profit</li> <li>70% of DC Water workforce is <b>unionized</b></li> <li><b>Operational incident</b>, caused by DC Water or not</li> <li><b>Public perception management</b> of projects and products</li> </ul>	<p><i>"We need to collaborate with other utilities and agencies to fix issues, but if they don't want to play ball, then we are stuck."</i></p>	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <div style="background-color: #17a2b8; padding: 2px 5px; font-size: 8px;">Med.</div> <div style="background-color: #17a2b8; padding: 2px 5px; font-size: 8px;">Med.</div> </div> <div> <p><b>Impact</b></p> <p><b>Vulnerability</b></p> </div> </div>
<p><b><u>Changing Regulations (e.g., federal, state, local)</u></b></p> <p><i>Inability to anticipate and adequately respond to the adoption of statutes, regulations, or standards (federal, state, local) may impact the Authority's ability to achieve its strategic imperatives.</i></p>	<ul style="list-style-type: none"> <li>Potential federal or local <b>regulatory changes'</b> affect on water standards could have a financial impact</li> <li>Relative <b>ease to pass local legislation</b> in DC</li> <li><b>Federal mandates</b> for programs (e.g., Clean Rivers)</li> </ul>	<p><i>"We don't think enough about how we will work to meet future regulatory requirements."</i></p>	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <div style="background-color: #17a2b8; padding: 2px 5px; font-size: 8px;">Med.</div> <div style="background-color: #17a2b8; padding: 2px 5px; font-size: 8px;">Med.</div> </div> <div> <p><b>Impact</b></p> <p><b>Vulnerability</b></p> </div> </div>

## Summary of Top Enterprise Risks – Tier 2



Risk Statement	Risk Drivers and Considerations	What We Heard	Rating
<p><b>Cybersecurity</b></p> <p><i>Failure to support and protect technology, systems, and critical data assets from a cyber attack could lead to significant disruptions to our business operations and potential loss of stakeholder trust and confidence.</i></p>	<ul style="list-style-type: none"> <li>Status as <b>critical infrastructure provider</b> for U.S. capital</li> <li>Evolving and increasingly <b>complex nature of cyber threats</b></li> </ul>	<p><i>"Cyber is always going to be a risk, especially as threats become more complex and prevalent."</i></p>	<p>Med.-High Impact Med. Vulnerability</p>
<p><b>External Oversight of DC Water</b></p> <p><i>Inability of DC Water to maintain its independence from the Washington, DC government or increased oversight efforts around rate approvals and key operational decisions may impact available resources or ability to borrow money at lower rates.</i></p>	<ul style="list-style-type: none"> <li>Increased DC <b>government scrutiny</b> of DC Water and its rates (e.g., Office of People's Counsel)</li> <li><b>Reallocation of resources</b> to meet demand of DC governmental requests for meetings &amp; inquiries</li> <li>Potential <b>impacts to credit and bond ratings</b> due to increased oversight / scrutiny from regulators</li> </ul>	<p><i>"Increased government oversight and interaction has forced us to dedicate resources to appease meetings and inquiries"</i></p>	<p>Med.-High Impact Med. Vulnerability</p>
<p><b>Health &amp; Safety</b></p> <p><i>Failure to ensure the safety of the workforce or the broader community may result in serious injury / illness, financial losses, and/or reputational damage.</i></p>	<ul style="list-style-type: none"> <li>Lack of comprehensive <b>safety assessment</b></li> <li><b>Lack of accountability</b> at frontline level</li> <li>No systematic process to <b>measure changes in safety culture</b></li> </ul>	<p><i>"We don't have a great safety culture or tools to measure it. We've come a long way in the past three years, but we have a long way to go."</i></p>	<p>Med.-High Impact Med. Vulnerability</p>
<p><b>Washington Aqueduct Contract</b></p> <p><i>Inability to negotiate favorable terms in the contract negotiation for purchasing water from the Washington Aqueduct may result in unfavorable financial and reliability performance.</i></p>	<ul style="list-style-type: none"> <li>Water purchase contract with Washington Aqueduct <b>expires in 2023</b> and has been in place since the 1990s</li> <li>DC Water is the Aqueduct's <b>primary customer</b> but <b>relies solely</b> on it for its water supply</li> </ul>	<p><i>"Even though we don't operate the Washington Aqueduct, the public would probably blame us if something failed."</i></p>	<p>Med. Impact Med. Vulnerability</p>

## Summary of Top Enterprise Risks – Tier 2 (cont.)



Risk Statement	Risk Drivers and Considerations	What We Heard	Rating
<p><b>Catastrophic Events</b></p> <p><i>Inability to respond quickly and effectively to catastrophic events, e.g., pandemics, extreme weather events, etc., may negatively impact annual budgets, disrupt operations, and erode public trust.</i></p>	<ul style="list-style-type: none"> <li>• <b>Climate change</b> and weather-related events (e.g., floods)</li> <li>• <b>Infrastructure failure</b> (e.g., Blue Plains)</li> <li>• Multiple risks <b>materializing concurrently</b></li> </ul>	<p><i>"We should be planning for two or more unknowns at the same time, like Japan when it had a tsunami and nuclear reactor go down in the same event."</i></p>	<div style="display: flex; flex-direction: column; align-items: flex-end;"> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="background-color: #0070C0; color: white; padding: 2px 5px; font-size: 8px;">Med.</div> <div style="margin-left: 5px;">Impact</div> </div> <div style="display: flex; align-items: center;"> <div style="background-color: #0070C0; color: white; padding: 2px 5px; font-size: 8px;">Med.</div> <div style="margin-left: 5px;">Vulnerability</div> </div> </div>
<p><b>Attract Top Talent</b></p> <p><i>Inability to attract top talent may result in insufficient resourcing or misalignment with roles, significantly impacting the Authority's ability to maintain reliability, affordability, and achieve its overall corporate objectives.</i></p>	<ul style="list-style-type: none"> <li>• <b>Competition for talent</b>, especially in evolving, post-COVID labor market</li> <li>• Requirements to <b>source talent from DC area</b></li> <li>• Difficulty bringing <b>institutional knowledge in-house</b></li> </ul>	<p><i>"One of the biggest risks we have is that we are too lean. We can't hire enough people."</i></p> <p><i>"The availability of qualified people is not there."</i></p>	<div style="display: flex; flex-direction: column; align-items: flex-end;"> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="background-color: #0070C0; color: white; padding: 2px 5px; font-size: 8px;">Med.</div> <div style="margin-left: 5px;">Impact</div> </div> <div style="display: flex; align-items: center;"> <div style="background-color: #0070C0; color: white; padding: 2px 5px; font-size: 8px;">Med.</div> <div style="margin-left: 5px;">Vulnerability</div> </div> </div>
<p><b>Third-Party Management</b></p> <p><i>Risk that third parties' (e.g., partners, vendors, suppliers, and contractors) poor performance, the Authority's ineffective management, or excessive reliance may have negative impacts to the Authority's reputation and/or operations.</i></p>	<ul style="list-style-type: none"> <li>• Balance of what is developed <b>in-house vs. outsourced</b></li> <li>• <b>Reliance on third parties</b> for critical parts of business</li> <li>• Third parties may be <b>unable to meet obligations</b></li> </ul>	<p><i>"We don't have a dashboard to monitor vendor performance."</i></p>	<div style="display: flex; flex-direction: column; align-items: flex-end;"> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="background-color: #0070C0; color: white; padding: 2px 5px; font-size: 8px;">Med.</div> <div style="margin-left: 5px;">Impact</div> </div> <div style="display: flex; align-items: center;"> <div style="background-color: #70AD47; color: white; padding: 2px 5px; font-size: 8px;">Med.-Low</div> <div style="margin-left: 5px;">Vulnerability</div> </div> </div>

# DC WATER

## Audit & Risk Committee Meeting



April 28, 2022

# Agenda

- FY 2022 Internal Audit Plan Status Update
- Status Update on Prior Audit Findings
- Report on Completed Audits
  - Accounts Payable Internal Audit
  - Supply Chain Management Assessment
- Hotline Update
- Executive Session
  - Incident Response Tabletop Exercise

# AUDIT PLAN STATUS UPDATE

# Internal Audit Plan Status Update

Audit	Status
<b>FY 2022</b>	
Contract Monitoring & Compliance Audit	Report Complete
Supply Chain Assessment	<b>Report Complete</b>
Accounts Payable Audit	<b>Report Complete</b>
Incident Response Tabletop Exercise	<b>Report Complete</b>
Expenditures Analytics Assessment	Fieldwork in Progress
Strategic Plan Monitoring Audit	Planning in Progress
Employee Retention Assessment	Planning in Progress
Physical Security Audit – HQO & Ft. Reno	Planning in Progress
Work Order Management Audit – DSO	Not Started
Cyber Threat Intelligence	Not Started
FY2023 Risk Assessment	Not Started
Remediation & Follow Up	On-going
Hotline Management	On-going

# Internal Audit Plan FY 2022 Timeline



# PRIOR AUDIT FINDINGS – FOLLOW UP STATUS

# Open High Risk Prior Audit Findings

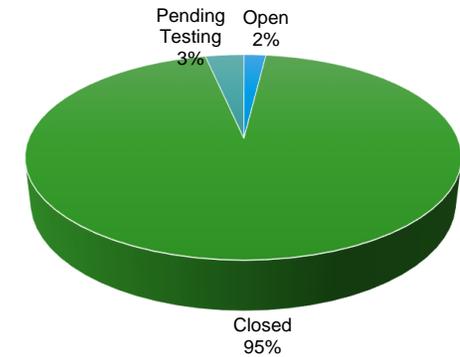
	Audit FY	Issue Date	Audit Report	High Risk Open Finding	Original Target Date	New Target Date	# Extensions
1	2016	7/28/2016	Training, Licensing, and Certification	<p><b>Identification and monitoring of training requirements by position</b></p> <p><i><b>Status notes:</b> Three training buckets (safety, compliance, and technical) have been configured in Cornerstone learning management system (LMS), but will be transitioned into the new Oracle LMS module that went live in March. Technical training requirements have been identified by each department. Requirements are undergoing validation by HRBPs and all training content is being collected by People &amp; Talent. Trainings will be assigned by role once content is uploaded to Oracle LMS.</i></p> <p><i><b>Reason for extension:</b> Multiple changes in leadership within People &amp; Talent, not prioritized under previous leadership, difficulty organizing technical trainings requiring cross-departmental support, delay in Oracle implementation go-live.</i></p>	9/30/2017	6/6/2022	5

Legend	
	Past due
	Original target date has not yet come due

# Status Update on Prior Audit Findings

Audit Report/Subject	Report Issue Date	Corrective Actions			
		Total	Open	Closed	Pending Testing <sup>1</sup>
<b>Prior to FY21 Audit Findings</b>					
Training, Licensing & Certification	7/28/2016	7	1	6	0
HR/Employee Privacy Review	4/27/2017	7	0	6	1
Entity Level Assessment	10/26/2017	7	0	6	1
Integrated Work Order Management	1/24/2019	10	0	8	2
Legal Operations	4/25/2019	4	0	4	0
Occupational Safety and Health	4/25/2019	4	1	2	1
Purchasing Card Internal Audit	7/25/2019	3	0	3	0
Asset Management Assessment	1/23/2020	2	0	1	1
SCADA ICS Review	10/22/2020	16	1	14	1
Customer Billing and Collections Audit	10/22/2020	3	1	2	0
<b>Total</b>		<b>63</b>	<b>4</b>	<b>52</b>	<b>7</b>

**FY16 – FY20 Prior Audit Findings Status**



<sup>1</sup>“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 FY21 with the status of “Pending Testing” or “Open”. Audits conducted prior to FY21 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 – FY20.

8

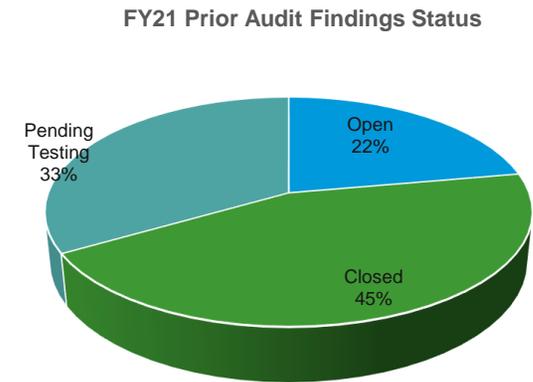
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Color Key	
	At least 1 original remediation target date has been extended



# Status Update on Prior Audit Findings

Audit Report/Subject	Report Issue Date	Corrective Actions			
		Total	Open	Closed	Pending Testing <sup>1</sup>
<b>FY21 Audit Findings</b>					
Work Order Management - DMS	1/28/2021	1	0	1	0
Procurement Audit	4/22/2021	2	0	0	2
Succession Planning Assessment	4/22/2021	1	1	0	0
Remote Workforce Security Assessment	4/22/2021	2	0	0	2
Contract Compliance Audit	7/22/2021	3	1	1	1
PCS Review	10/28/2021	8	2	6	0
Materials Management Audit	10/28/2021	1	0	0	1
	<b>Total</b>	<b>18</b>	<b>4</b>	<b>8</b>	<b>6</b>



**Color Key**

At least 1 original remediation target date has been extended

<sup>1</sup> "Pending Testing" indicates that Management represents that the Action Plan is Completed, but Internal Audit has not yet performed testing to validate the status.

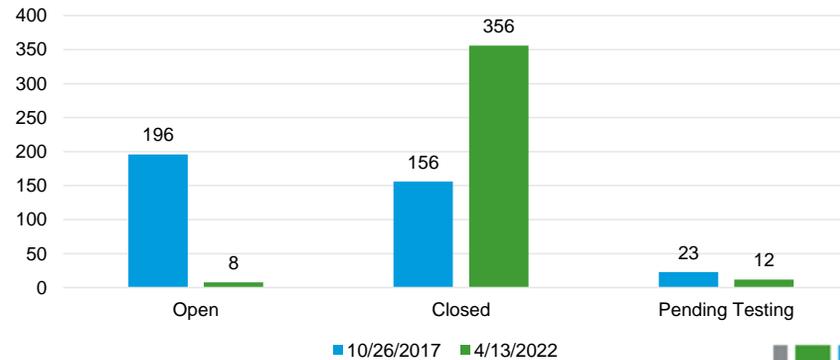
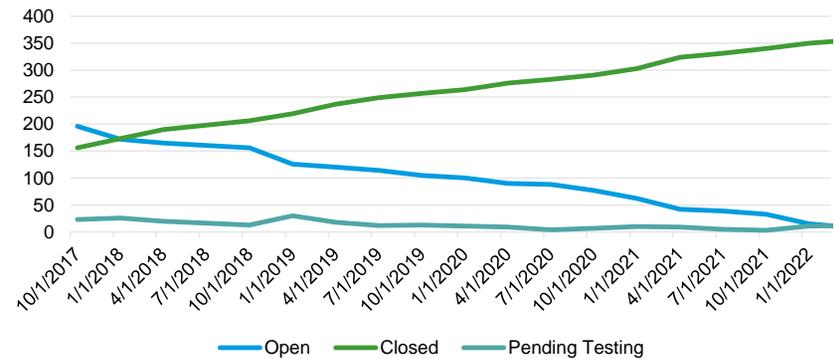
In total, 95% of all prior audit findings from FY14 – FY21 are closed. Management’s target closure rate is 90%.

9

# Follow-up Summary

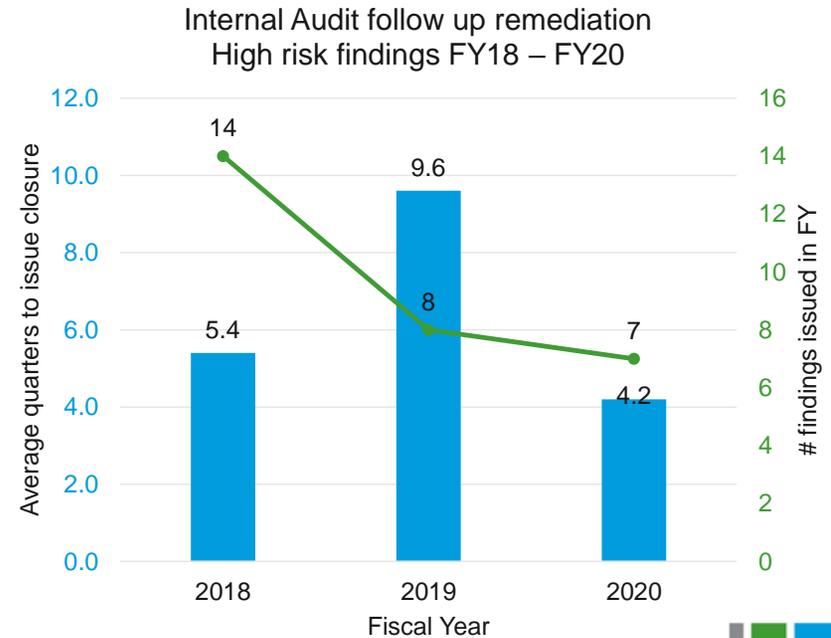
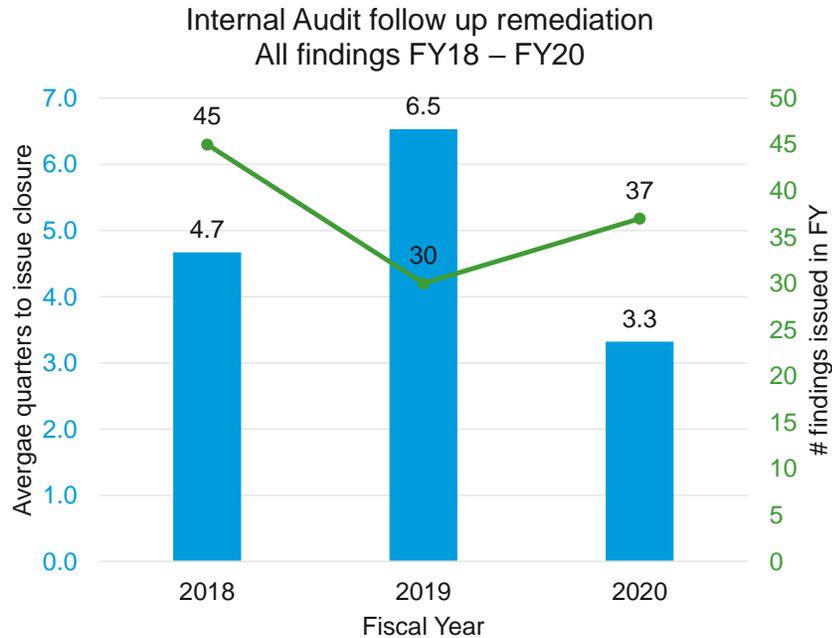
- For FY14 – FY21 prior audit findings:
  - At the start of FY22 (October 2021), there were:
    - 33 open audit items
    - 340 closed audit items
    - 3 pending testing
  - As of April 2022, there are:
    - 8 open audit items
    - 356 closed audit items
    - 12 pending testing
- In total, 95% of all prior audit findings from FY14 – FY21 are closed
  - 16 audit items have been closed in FY22 to date.
  - Management is targeting 90% prior audit findings closure going forward

Follow-Up Progress



## Time to closure by fiscal year

The below graphs illustrate the average number of quarters from audit finding issuance to audit finding closure year-over-year as of April 2022. Management has made significant improvements over the past year to achieve timelier audit finding closure as illustrated by the decline in time to close for FY20 audits.



# ACCOUNTS PAYABLE INTERNAL AUDIT



# Accounts Payable

## Purpose

The purpose of this audit was to obtain an understanding of how the accounts payable process is managed and assess whether the system of internal controls is adequate and appropriate. Our procedures were performed in accordance with the internal audit scope and approach set forth in our audit notification letter and were limited to those procedures described therein. The testing period was January 1, 2021 through December 31, 2021.

## Scope

The audit scope was based upon the following objectives:

- Determine the adequacy of existing accounts payable policies and standard operating procedures;
- Assess whether the system of internal controls over accounts payable is adequate and appropriate through transactional testing over the following subprocesses:
  - Invoice receipt and Oracle entry
  - Invoice matching
  - Compliance with required approval workflows
  - Payment disbursement processes
  - Vendor setup and maintenance;
- Evaluate segregation of duties within Oracle and over manual functions;
- Perform analytics over accounts payable data to identify process permutations, bottlenecks, and exceptions; and
- Identify process improvement opportunities and recommend internal control enhancements to improve the overall accounts payable process.

## Accounts Payable

- Accounts Payable (AP) operates as a centralized function within the Finance and Budget department. Accounts Payable processes vendor payments, customer refunds, payments in lieu of taxes, utility costs, employee benefits, union dues, and other expenditures.
- DC Water implemented the Financials module of their new Enterprise Resource Planning system Oracle in October 2020.
- The AP process includes a system of internal controls designed over each of the subprocesses in the flowchart below:



# SUPPLY CHAIN MANAGEMENT ASSESSMENT



# Supply Chain

## Purpose

The purpose of this review was to identify process improvement opportunities and recommended internal control enhancements for pipe procurement and fleet parts supply/demand planning. Our procedures were performed in accordance with the internal audit scope and approach set forth in our audit notification letter and were limited to those procedures described therein.

## Scope

The scope was based upon the following objectives:

- Pipe and fittings procurement assessment:
  - Review current state procurement process through prime contractors for capital projects
  - Assess feasibility of increased collaboration with distributors
  - Evaluate supply chain opportunities & risks impacted by any transition in pipe procurement process
  - Provide recommendations to reduce supply chain risk and cost effectivity of procuring pipe raw materials
- Fleet parts supply and demand planning:
  - Analyze full spend and usage of parts
  - Analyze impact on vehicle downtime and maintenance schedules
  - Assess parts acquisition process
  - Review inventory method / strategy
  - Recommend process enhancements to expedite repair timeline and reduce costs

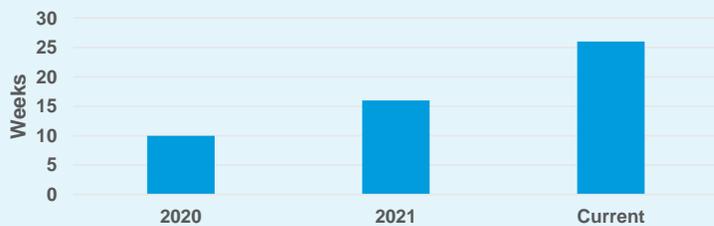
# Supply Chain

Key takeaways from the management assessment are highlighted below:

## Pipe and Fittings Procurement:

- DC Water currently outsources all material procurement to prime contractors for pipe replacement capital projects
- Material lead times have increased 1.6x since 2020 due to high demand and raw material constraints
- As a result of this assessment, we noted there are opportunities for reduction in overall project timelines, cost savings, decreasing material lead times, enhancing design and forecasting processes, and increasing competition in construction contracting through restructuring the current procurement model

Distributor Pipe & Fittings Lead Times\*

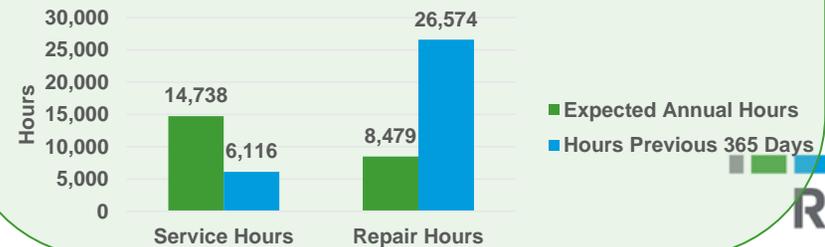


\*Data provided by material distributors Feb 2022

## Fleet Parts Supply and Demand Planning:

- DC Water uses the FleetWave system for fleet and parts inventory management and reporting
- DC Water utilizes a third-party vendor, Parts Authority, to purchase all material required for maintenance and repairs
- Repair hours are exceeding annual service hours due to non-compliance with vehicle preventative maintenance schedules
- As a result of this assessment, the Fleet inventory management process was found to be designed effectively. It is believed to be a low-risk process for supply chain disruption based on Internal Audit's review of control design

Service to Repair Hours



# HOTLINE UPDATE



# Hotline Update

Seven new calls have been received since last Audit Committee meeting.  
As of 4/12/22:

FY 22 Hotline Call Summary	
FY 22 Calls Received	9
FY 22 Cases Closed	7
FY 22 Calls Open	2

Total calls by Fiscal Year:

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

*\*the numbers in the chart above may be inflated based on repeat calls regarding the same matters*



# QUESTIONS AND ANSWERS

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# DC WATER

## Accounts Payable Internal Audit



April 2022

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**Approach**

**Observations and Recommended Action**

**Appendices**

**A Flowcharts**

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# EXECUTIVE SUMMARY, BACKGROUND AND APPROACH

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## Executive Summary and Objectives

### Objective and Scope

The purpose of this audit was to obtain an understanding of how the accounts payable process is managed and assess whether the system of internal controls is adequate and appropriate. Our procedures were performed in accordance with the internal audit scope and approach set forth in our audit notification letter and were limited to those procedures described therein. The testing period was January 1, 2021 through December 31, 2021. The audit scope was based upon the following objectives:

- Determine the adequacy of existing accounts payable policies and standard operating procedures;
- Assess whether the system of internal controls over accounts payable is adequate and appropriate through transactional testing over the following subprocesses:
  - Invoice receipt and Oracle entry
  - Invoice matching
  - Compliance with required approval workflows
  - Payment disbursement processes
  - Vendor setup and maintenance;
- Evaluate segregation of duties within Oracle and over manual functions;
- Perform analytics over accounts payable data to identify process permutations, bottlenecks, and exceptions; and
- Identify process improvement opportunities and recommend internal control enhancements to improve the overall accounts payable process.

Fieldwork was performed February 2022 through March 2022.

### Overall Summary and Highlights

There are no high-risk observations to report. There were three observations identified during our audit, which are summarized below:

1. Lack of Documented Policies and Procedures
2. Form 440 Purchase Requisition Approvals
3. Late Invoice Payment

These observations are described in the detailed observations section on pages 10 – 15 of the report. We assigned relative risk or value factors to each observation. Risk ratings are the evaluation of the perceived likelihood of an adverse event occurring and the potential impact an occurrence could have on the operations of each item. All observations require management action plans with estimated completion dates that will be included in the routine follow-up procedures for internal audit observations.

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

Number of Observations by Risk Rating

High	Moderate	Low
-	1	2

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

## Background

**Accounts Payable Function:** DC Water and Sewer Authority (DC Water) has its accounts payable (AP) process as a centralized function within the Finance and Budget (FAB) department. Accounts Payable processes vendor payments, customer refunds, payments in lieu of taxes, utility costs, employee benefits, union dues, and other expenditures. The AP process includes controls designed to confirm payments are only made for goods and services that were ordered and received, and that the recipients of payments are vendors that have been appropriately approved and established in the Enterprise Resource Planning (ERP) system, Oracle. The AP division is staffed with one Manager who reports directly to the Controller, and five AP Specialists. The Procurement department oversees the setup, maintenance, and approval of vendors in Oracle. The FAB department oversees the approval process for purchase requisitions (PR) and purchase orders (PO), as well as the validation, processing and payment of invoices related to PRs and POs.

**Vendor Setup and Maintenance:** Vendor additions and changes are primarily made by the vendors themselves. Vendors follow a DC Water instructional document that details how to successfully add their profile within the system. Once the vendor has successfully set up their profile, approvals from the Compliance and Procurement departments are obtained through an automated Oracle system routing. Following approval, vendor profiles can be updated by designated vendor contacts or specified members of the Procurement department. In the future, vendors will be reminded twice a year, via formal communications and a supplier portal checklist, to update vendor data in the system.

**Purchase Requisition and Purchase Order Approval:** PRs are entered by requesting departments and routed for approval to the corresponding department leadership and then to the Budget team. Upon receipt of the necessary approvals, PRs are converted into POs, which are routed to the Procurement team for approval. Specific one-time purchases, however, do not require POs.



## Background (Continued)

**Invoice Validation:** Invoices are most commonly submitted by vendors via email (to [invoices@dcwater.com](mailto:invoices@dcwater.com)), from which an OCR auto-populates invoice details within Oracle. AP reviews the invoice entry in the system against the original invoice and makes manual updates as necessary. The Requesting department “receives” the invoice to evidence confirmation of goods or services received (in the case of invoices containing physical inventory items, invoice is matched against the packing slip). AP performs a match between the invoice and the corresponding PO. After the match is complete and amounts received equal the amounts in the PO and invoice, Oracle pushes the invoice to validated status. For non-PO related invoices, approvals are routed to the AP manager for system approval in Oracle prior to validation.

**Payment Processing:** Payment runs are performed every Wednesday, one for each of the three main payment types: check, electronic (ACH), and wire. Payment methods for each vendor were transition from Lawson to Oracle in October 2020 as part of the implementation process. New vendors submit their payment information through the DC Water website, which is reviewed and approved by FAB. The AP Payment Supervisor reviews all invoices ready for payment and submits the Payment File Register to the Financial Controls team and various Finance Directors for review and approval. Check payments are printed by a third-party check printer and mailed to vendors. Oracle communicates with the bank to automatically make ACH and wire payments upon final approval.



## Approach

Our audit approach consisted of the following phases:

### **Understanding of the Process**

The purpose of this phase was to review policies and procedures, user access, segregation of duties, and any other key process information available to further our understanding of the accounts payable process. Internal Audit conducted walkthrough interviews with process owners and appropriate initiative and task owners to obtain a detailed understanding of operating functions and responsibilities related to accounts payable.

### **Detailed Testing**

The purpose of this phase was to test internal controls related to accounts payable based on our understanding of all steps of the process from vendor setup to invoice payment. The time period covered by testing is January 1, 2021 through December 31, 2021.

- For the AP policies and procedures selected, Internal Audit confirmed the policy or procedure is properly documented and reviewed/updated on a periodic basis.
- For all changes to AP module user access in Oracle selected, Internal Audit confirmed the AP module access change is properly documented and authorized.
- For all periodic Oracle AP module user access reviews selected, Internal Audit confirmed the AP module user access review occurred, evidenced by confirmation email.
- For the Oracle user access listing, describing all users and their roles within the system, Internal Audit confirmed that the AP Specialists are not assigned the Payment Supervisor role in Oracle and the AP Specialists and the AP Manager do not have the capabilities to add, modify, or remove vendor information in Oracle.

## Approach (Continued)

### **Detailed Testing (continued)**

- For all vendor additions and changes selected, Internal Audit confirmed that any vendor payment information changes are appropriate and supported.
- For all invoices selected, Internal Audit conducted the following testing:
  - Verified that the corresponding purchase requisition was approved by authorized personnel;
  - Verified that the corresponding purchase order was approved by authorized personnel;
  - Verified that the invoice was received in Oracle by the requesting department;
  - Confirmed that the three-way match occurred prior to invoice payment evidenced by the Oracle AP approval on the Invoice Lifecycle Report;
  - Confirmed that the invoice entry in Oracle agrees to all supporting documentation (PO document, invoice document, etc.);
  - Confirmed that the invoice amount does not exceed the amount identified in the PO; and
  - Confirmed that the invoice was paid within 30 days of invoice receipt.
- For all weekly payment batches selected, Internal Audit confirmed the payment batch was reviewed by the ERP System and Controls Manager and Finance Directors prior to disbursement.

### **Reporting**

At the conclusion of the audit, we summarized our observations, recommended internal control enhancements, and reviewed the results of our testing with management.



# OBSERVATIONS AND RECOMMENDED ACTION

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## Observation 1: Lack of Documented Policies and Procedures

---

### Risk Rating: Moderate

**Observation:** Internal Audit noted that since the implementation of the new ERP system Oracle, DC Water has outdated documented policies and procedures regarding accounts payable functions, Oracle user access, periodic review of user access, and allowable emergency payment processing.

**Root Cause Analysis:** DC Water transitioned to Oracle effective October 2020 and developed desktop manuals for how to use the system. However, management is in the process of developing new policies and procedures but has not yet completed the development of the documents.

**Impact Analysis:** The risk associated with the lack of documented policies and procedures is inconsistent performance of processes and control activities.

**Recommendation:** Internal Audit recommends DC Water complete and institutionalize policies and procedures for AP functions to include roles and responsibilities, invoice approval process, emergency payment process, invoice payment goals, Oracle user access, periodic review of user access, etc.

## Observation 1: Lack of Documented Policies and Procedures

---

**Management Action Plan:** Management currently is in the process of institutionalizing policies and procedures for AP functions to include roles and responsibilities, invoice approval process, emergency payment process, invoice payment goals, Oracle user access and periodic review of user access

**Responsible Party:** Finance & Procurement

**Target Date:** December 31, 2022

## Observation 2: Form 440 Purchase Requisition Approvals

---

### Risk Rating: Low

**Observation:** Invoice payments without POs have corresponding Form 440 Purchase Requisitions that are required to be approved prior to invoice payment. Form 440 PRs under \$500,000 require approval from a Director of Procurement, PRs between \$500,000 - \$1,000,000 require approval from the Vice President of Procurement, and PRs above \$1,000,000 require approval from the Board. Internal Audit noted that two out of three non-PO invoices selected for testing were under \$500,000 and missing the Director of Procurement's approval on the Form 440 PRs.

**Root Cause Analysis:** Accounts Payable processed invoices without Form 440 PRs containing all required approval signatures. There are instances in which DC Water has regularly recurring payments (i.e., Union dues) that have associated Form 440 PRs for which they bypass Procurement approval due to frequency of processing. Procurement is comfortable with the current process, but it is not formalized in any policy/procedure document.

**Impact Analysis:** The risks associated with lack of proper Form 440 PR approval signatures include non-compliance with DC Water policies, potential disbursement of unauthorized/improper payments, and committing funds that aren't supported by an approved budget. However, the Form 440 PRs that were missing approval signatures within our testing were considered acceptable by the Procurement function which mitigates the potential impact.

**Recommendation:** Internal Audit recommends reevaluating the approval requirements for Form 440 PRs to confirm appropriateness. Additionally, Internal Audit recommends DC Water include requirements and allowable exceptions within a formal policy/procedure and enforce required approvals prior to payment processing.

## Observation 2: Form 440 Purchase Requisition Approvals

---

**Management Action Plan:** Procurement states they do not need to sign 440s for regular payments such as union dues and employee benefits. Accounts Payable will change the process for making such payments.

**Responsible Party:** Accounts Payable

**Target Date:** June 30, 2022

## Observation 3: Late Invoice Payment

---

### Risk Rating: Low

**Observation:** District of Columbia Municipal Regulations Title 1, Chapter 1707.2 requires payment to be made by the 30th day after the receipt of a proper invoice by the designated payment officer for all other goods and services. Additionally, DC Water has an internal policy requiring invoices to be paid within 30 days of receipt of a proper invoice. Internal Audit noted that one of 25 invoices was not paid within 30 days of the invoice receipt date. The invoice was entered into Oracle on August 12, 2021 and paid on September 29, 2021. Note that during FY21 (year one of the new ERP system), DC Water paid 94% of invoices within 30 days of receipt.

**Root Cause Analysis:** The receiving department did not accept the invoice until 47 days after invoice submission. As a result, the invoice was not paid until the day after the invoice was approved by the receiving department, which was outside of the 30-day requirement. Oracle was implemented in October 2020 and the receiving function within the system required by departments is different than how the previous ERP operated. FY21 was a transition year and delays resulted from the adjustment to the use of Oracle.

**Impact Analysis:** The risks associated with late invoice payments include non-compliance with DC Water AP policy, potential late fees or interest, and strained vendor relationships.

**Recommendation:** We recommend DC Water continue to track AP on-time payment metrics and working towards their goal of paying 97% of its invoices within 30 days of receipt.

## Observation 3: Late Invoice Payment

---

**Management Action Plan:** Management has established Internal Review Committee (IRC) to review and track AP on-time payment metrics and to ensure that management is meeting the goal of paying 97% of its invoices within 30 days of receipt.

**Responsible Party:** Finance & Procurement

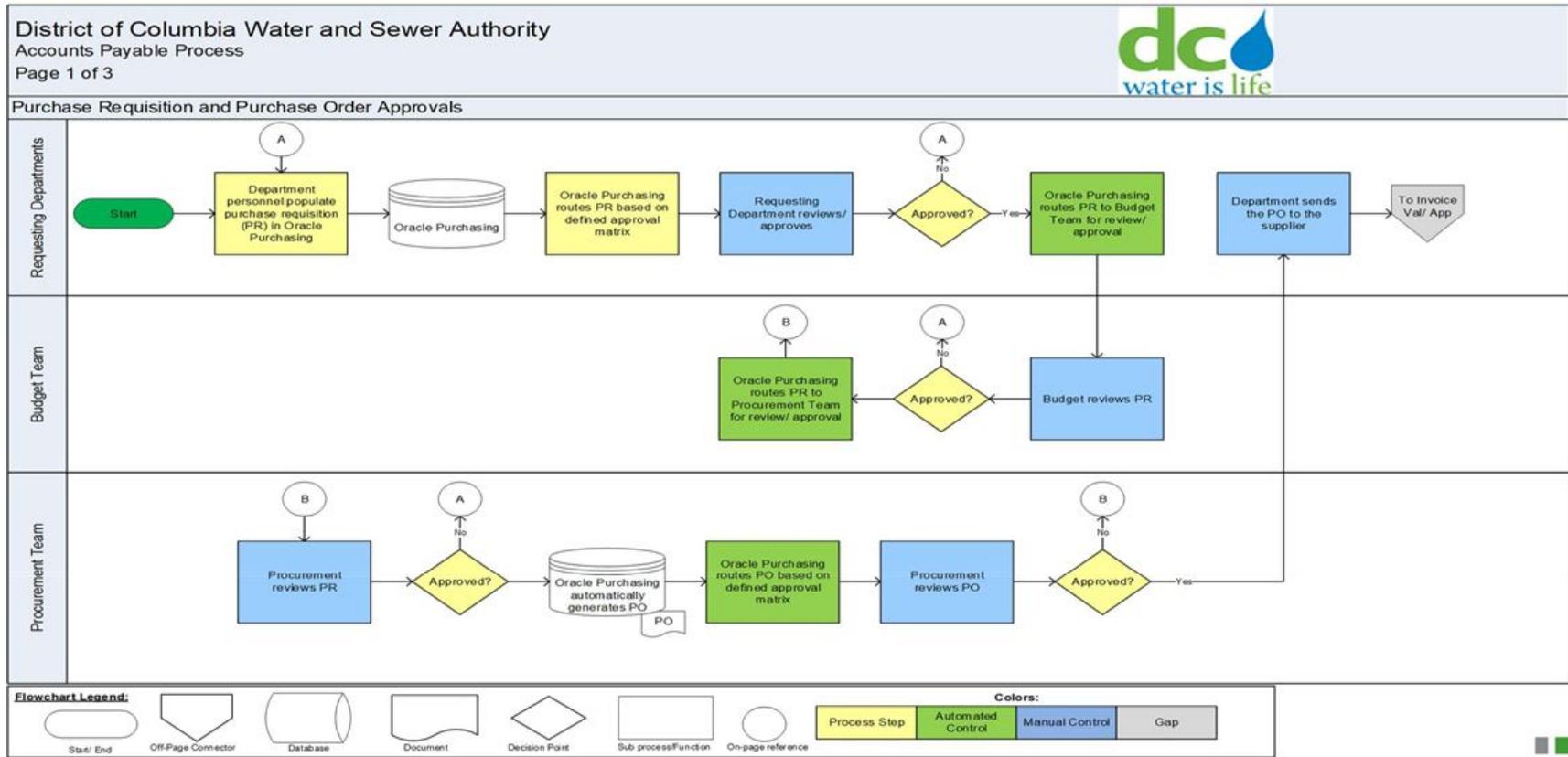
**Target Date:** Ongoing

# APPENDIX

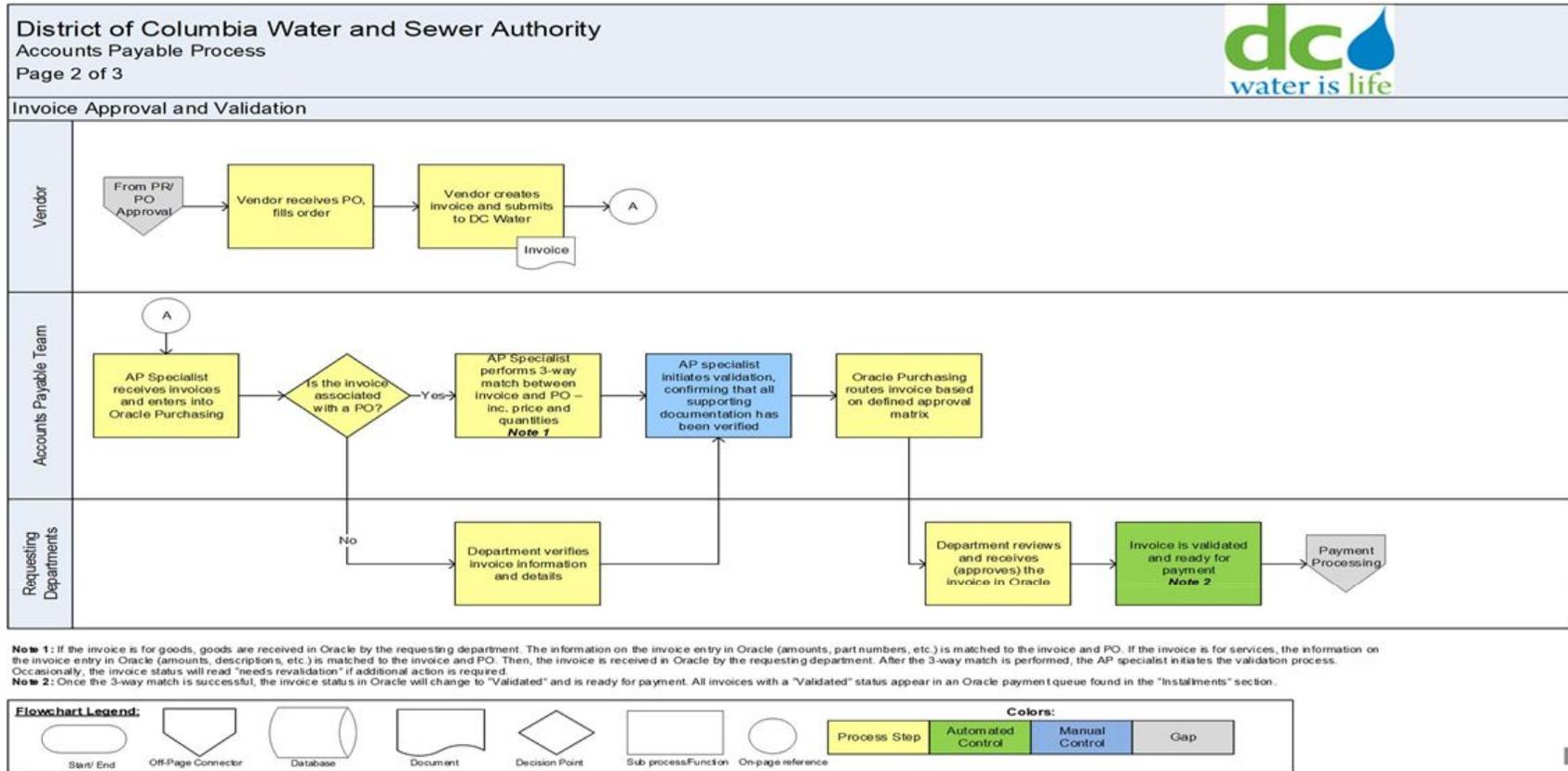
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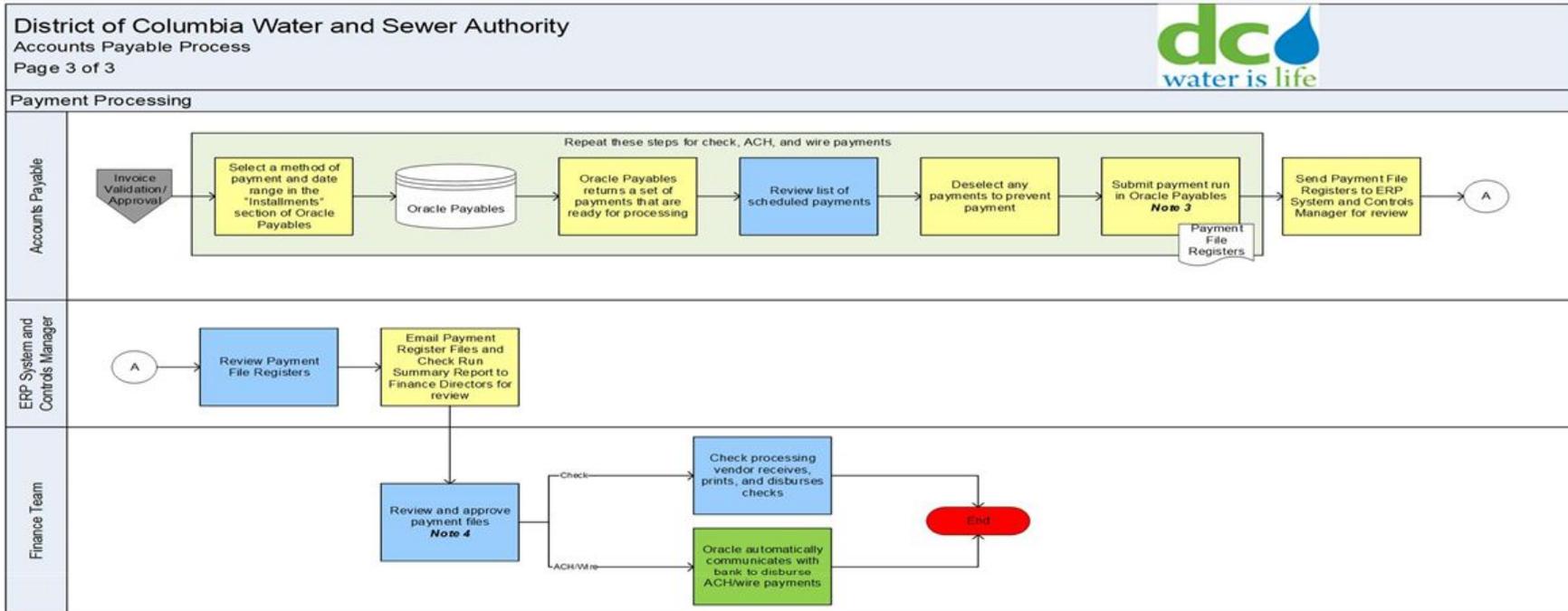
## Appendix A – Flowcharts



## Appendix A – Flowcharts (continued)



## Appendix A – Flowcharts (continued)



**Note 3:** The AP Manager reviews each payment listing in Oracle, which are separated by payment method type, on Wednesday of each week. The invoices in each payment listing are reviewed to ensure all information is accurate and verify that the invoices are ready for payment. Once payment listings are reviewed, the payments are automatically assigned job numbers and the listings are converted into PDFs called "Payment File Registers".

**Note 4:** After Payment File Registers are reviewed, payments are processed and disbursed on Thursday of each week.

## 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 <b>12 months</b> (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 <b>nine months</b> (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 <b>six months</b> (if related to external financial reporting, must mitigate financial risk within two months).

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