

SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA



ITEM: 2.9
(ID # 23310)

MEETING DATE:
Tuesday, October 31, 2023

FROM : AUDITOR CONTROLLER:

SUBJECT: AUDITOR-CONTROLLER: Internal Audit Report 2024-314: Riverside County Flood Control and Water Conservation District, Follow-up Audit, All Districts, [\$0]

RECOMMENDED MOTION: That the Board of Supervisors:

1. Receive and file Internal Audit Report 2024-314: Riverside County Flood Control and Water Conservation District, Follow-up Audit.

ACTION: Consent


Ben J. Benoit, COUNTY AUDITOR-CONTROLLER 10/23/2023

MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Gutierrez, seconded by Supervisor Spiegel and duly carried, IT WAS ORDERED that the above matter is received and filed as recommended.

Ayes: Jeffries, Spiegel, Washington and Gutierrez
Nays: None
Absent: Perez
Date: October 31, 2023
xc: Auditor Controller

Kimberly A. Rector
Clerk of the Board

By: 
Deputy

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,
STATE OF CALIFORNIA**

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost
COST	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
NET COUNTY COST	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
SOURCE OF FUNDS: N/A			Budget Adjustment: No	
			For Fiscal Year: n/a	

C.E.O. RECOMMENDATION:

BACKGROUND:

Summary

We completed a follow-up audit of the Riverside County Flood Control and Water Conservation District. Our audit was limited to reviewing actions taken as of June 26, 2023, to correct findings noted in our original audit report 2023-005 dated December 13, 2022. The original audit report contained two recommendations, all of which required implementation to help correct the reported findings.

Based on the results of our audit, we found that of the two recommendations, both were implemented.

For an in-depth understanding of the original audit, please refer to Internal Audit Report 2023-005 included as an attachment to this follow-up audit report or it can also be found at <https://auditorcontroller.org/divisions/internal-audit/reports>.

Impact on Citizens and Businesses

Provide an assessment of internal controls over the audited areas.

SUPPLEMENTAL:

Additional Fiscal Information

Not applicable

ATTACHMENTS:

A: Riverside County Auditor-Controller - Internal Audit Report 2024-314: Riverside County Flood Control and Water Conservation District, Follow-up Audit.

Office of Ben J. Benoit
Riverside County Auditor-Controller

4080 Lemon Street, 11th Floor

Riverside, CA 92501

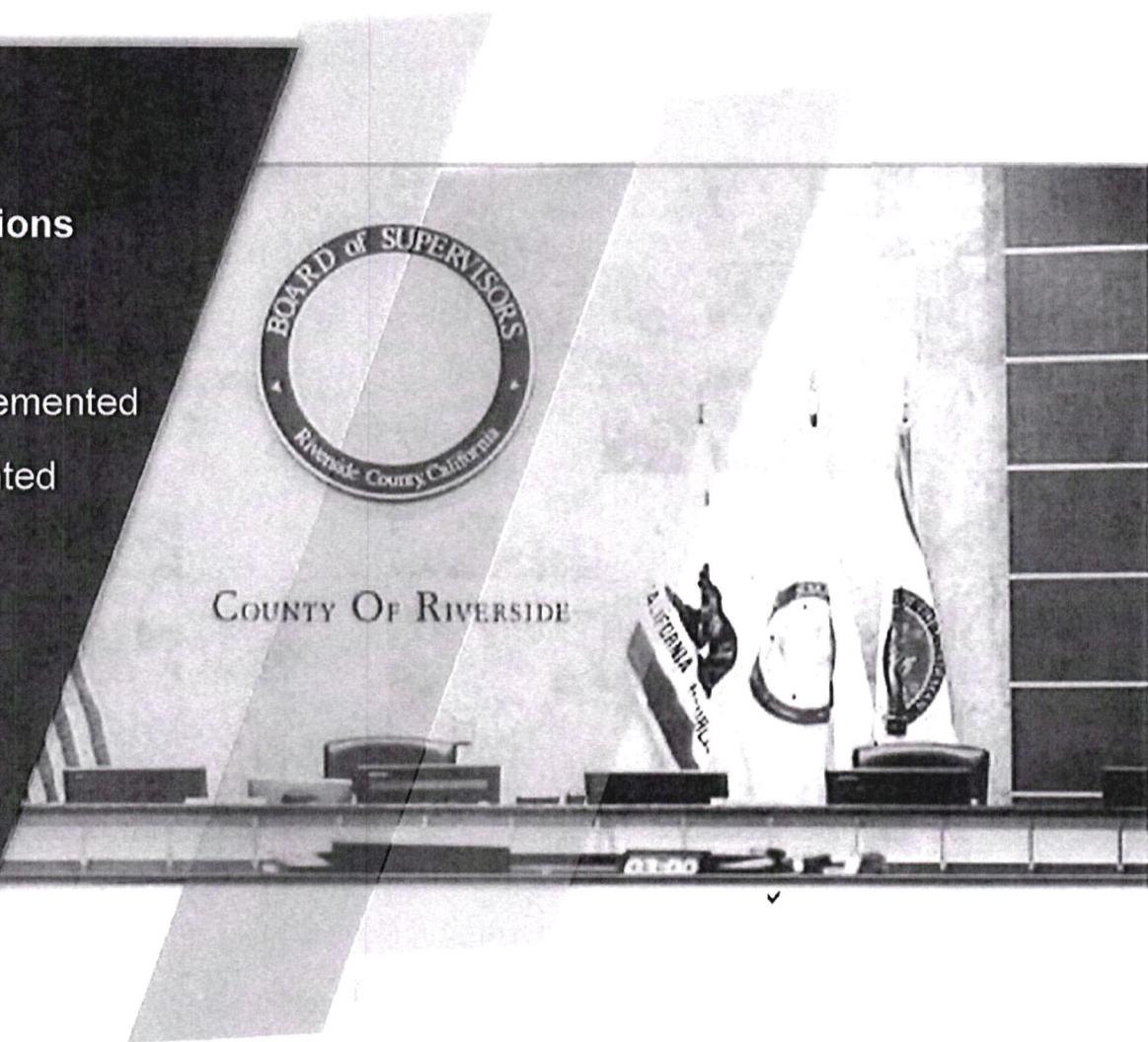
(951) 955-3800

Internal Audit Report 2024-314

Follow-up

2 Recommendations

- ✓ 2 Implemented
- ▶ 0 Partially Implemented
- ✗ 0 Not Implemented



**Riverside County
Flood Control and Water Conservation District,
Follow-up Audit**

October 31, 2023



**COUNTY OF RIVERSIDE
OFFICE OF THE
AUDITOR-CONTROLLER**

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CONTROLLER
COUNTY OF RIVERSIDE

Ben J. Benoit
County Auditor-Controller

Tanya S. Harris, DPA, CPA
Assistant Auditor-Controller

October 31, 2023

Jason Uhley
General Manager – Chief Engineer
Riverside County Flood Control and Water Conservation District
1995 Market St.
Riverside, CA 92501

Subject: Internal Audit Report 2024-314: Riverside County Flood Control and Water Conservation District, Follow-up Audit

Dear Mr. Uhley:

We completed the follow-up audit of Riverside County Flood Control and Water Conservation District. Our audit was limited to reviewing actions taken as of June 26, 2023, to help correct the findings noted in our original audit report 2023-005 dated December 13, 2022.

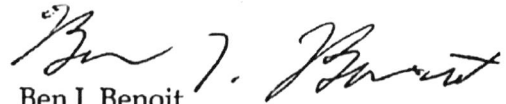
We conducted our audit in accordance with the International Standards for the Professional Practice of Internal Auditing. These standards require that we plan and perform the audit to obtain reasonable assurance that our objective, as described in the preceding paragraph, is achieved. Additionally, the standards require that we conduct the audit to provide sufficient, reliable, and relevant evidence to achieve the audit objectives. We believe the audit provides a reasonable basis for our conclusion.

The original audit report contained two recommendations, all of which required implementation to help correct the reported findings. Based on the results of our audit, we found that of the two recommendations, both were implemented.

Internal Audit Report 2024-314: Riverside County Flood Control and Water Conservation District, Follow-up Audit

Summary of the conditions from the original audit and the results of our review on the status of the implementation of the recommendations are provided in this report. For an in-depth understanding of the original audit, please refer to Internal Audit Report 2023-005 included at "Attachment A" of this audit report along with your department status letter as "Attachment B." You can also find the original audit report at <https://auditorcontroller.org/divisions/internal-audit/reports>.

We thank you and your staff for the help and cooperation. The assistance provided contributed significantly to the successful completion of this audit.



Ben J. Benoit
Riverside County Auditor-Controller



By: René Casillas, CPA, CRMA
Deputy Auditor-Controller

cc: Board of Supervisors
Jeff A. Van Wagenen, County Executive Officer
Dave Rogers, Chief Administrative Officer
Grand Jury

Internal Audit Report 2024-314: Riverside County Flood Control and Water Conservation District, Follow-up Audit

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Internal Audit Report 2024-314: Riverside County Flood Control and Water Conservation District, Follow-up Audit

System Access Controls

Finding 1: Timely Termination of Access Rights

“Upon termination or transfer from Flood Control, 22 out of a total of 36 employees (61%) did not have their Active Directory account termination requests created and approved in a timely manner (within 24 hours). Of the 22 untimely account termination requests, 2 Active Directory accounts remained active as a request was not initiated to terminate the accounts. For the remaining 20 employees whose Active Directory accounts were disabled, the average time elapsed between employee termination and ticket approval was 14 days, with the longest taking 69 days for approval and the shortest taking 4 days. County of Riverside Information Security Standard v1.0, Section 4.1, *Account and Access Management*, states, “Accounts for terminated or transferred employees shall be disabled or removed on the day of termination or transfer.” Requests and approvals to disable Active Directory accounts are not created and approved in a timely manner after employees are terminated or transferred from the department. Flood Control’s current policies and procedures do not include a process to ensure user accounts for terminated or transferred employees are to be disabled or removed on the day of termination or transfer. Allowing active directory accounts to remain open after employment has ended exposes the department to risk where information maintained in department systems can be continuously accessed by individuals who no longer have a right or need to know. Depending on the sensitivity of the information maintained by department systems, it can create administrative issues and have a financial impact if held liable.”

Recommendation 1.1

“Ensure compliance with County of Riverside Information Security Standard v1.0, Section 4.1, *Account and Access Management*, by disabling Active Directory accounts on the day of an employee’s termination or transfer from the department.”

Current Status 1.1: Implemented

Internal Audit Report 2024-314: Riverside County Flood Control and Water Conservation District, Follow-up Audit

Recommendation 1.2

“Develop policies and procedures to ensure the disabling of Active Directory accounts are requested and approved within 24 hours of an employee’s termination or transfer from the department.”

Current Status 1.2: Implemented

Attachment A

Internal Audit Report 2023-005

**Riverside County Flood Control
& Water Conservation
District Audit**

Report Date: December 13, 2022



**Office of Paul Angulo, CPA, MA
Riverside County Auditor-Controller
4080 Lemon Street, 11th Floor
Riverside, CA 92509
(951) 955-3800**

www.auditorcontroller.org



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ACC | **AUDITOR
CONTROLLER
COUNTY OF RIVERSIDE**

Paul Angulo, CPA, M.A.
Riverside County Auditor-Controller

Tanya S. Harris, DPA, CPA
Assistant Auditor-Controller

December 13, 2022

Jason Uhley
General Manager – Chief Engineer
Riverside County Flood Control & Water Conservation District
1995 Market St.
Riverside, CA 92501

**Subject: Internal Audit Report 2023-005: Riverside County Flood Control & Water
Conservation District Audit**

Dear Mr. Uhley:

In accordance with Board of Supervisors Resolution 83-338, we audited the Riverside County Flood Control & Water Conservation District to provide management and the Board of Supervisors with an independent assessment of internal controls over system access controls.

We conducted our audit in accordance with the International Standards for the Professional Practice of Internal Auditing. These standards require that we plan and perform the audit to obtain sufficient, reliable, relevant and useful information to provide reasonable assurance that our objective as described above is achieved. An internal audit includes the systematic analysis of information to evaluate and improve the effectiveness of internal controls. We believe this audit provides a reasonable basis for our conclusion.

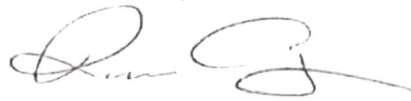
Internal controls are processes designed to provide management reasonable assurance of achieving efficiency of operations, compliance with laws and regulations, and reliability of financial and non-financial information. Management is responsible for establishing and maintaining adequate internal controls. Our responsibility is to evaluate the internal controls.

Our conclusion and details of our audit are documented in the body of this audit report.

Internal Audit Report 2023-005: Riverside County Flood Control & Water Conservation District Audit

As requested, in accordance with paragraph III.C of the Board of Supervisors Resolution 83-338, management responded to each reported condition and recommendation contained in our report. Management's responses are included in the report. We will follow-up to verify that management implemented the corrective actions.

Paul Angulo, CPA, MA
Riverside County Auditor-Controller



By: René Casillas, CPA, CRMA
Deputy Auditor-Controller

cc: Board of Supervisors
Jeff A. Van Wagenen, Jr., County Executive Officer
Dave Rogers, Chief Administrative Officer
Grand Jury

Internal Audit Report 2023-005: Riverside County Flood Control & Water
Conservation District Audit

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Internal Audit Report 2023-005: Riverside County Flood Control & Water Conservation District Audit

Executive Summary

Overview

Riverside County Flood Control & Water Conservation District (Flood Control) was created in 1945 following the floods of 1938. Flood Control oversees 2,700 square miles of stormwater management of the western part of the county. It is also responsible for planning, designing, constructing, and operating regional storm drains, channels, levees, and dams.

Flood Control has an adopted budget of \$212.9 million for FY 2022-23 and 320 adopted positions. *County of Riverside, Fiscal Year 2022-23 Adopted Budget Volume 1, 298-299.*

Audit Objective

Our objective is to provide management and the Board of Supervisors with an independent assessment about the adequacy and effectiveness of internal controls over system access controls. Internal controls are processes designed to provide management reasonable assurance of achieving efficiency of operations, compliance with laws and regulations, and reliability of financial and non-financial information. Reasonable assurance recognizes internal controls have inherent limitations, including cost, mistakes, and intentional efforts to bypass internal controls.

Audit Scope and Methodology

We conducted the audit from June 1, 2022, through August 29, 2022, for operations from June 1, 2021, through August 24, 2022. Following a risk-based approach, our scope initially included the following:

- Construction Contracts
- Disaster Mitigation and Recovery Plan
- Maintenance Service Agreements
- System Access Controls

Through inquiry, observations, and limited examination of relevant documentation, it was determined through a risk assessment of construction contracts, disaster mitigation and recovery plan, and maintenance service agreements, that the risk exposure to Flood Control associated with these processes are well mitigated with internal controls and

Internal Audit Report 2023-005: Riverside County Flood Control & Water Conservation District Audit

are functioning as designed. Therefore, our audit scope focused on internal controls over system access controls.

Audit Highlights

Summary of Existing Conditions

- Terminated employees did not have their Active Directory account termination requests created and approved in a timely manner (within 24 hours). Allowing active directory accounts to remain open after employment has ended exposes the department to risk where information maintained in department systems can be continuously accessed by individuals who no longer have a right or need to know. Depending on the sensitivity of the information maintained by department systems, it can create administrative issues and have a financial impact if held liable.

Summary of Improvement Opportunities

- Ensure compliance with County of Riverside Information Security Standard v1.0, Section 4.1, *Account and Access Management*, by disabling Active Directory accounts on the day of an employee's termination or transfer from the department.
- Develop policies and procedures to ensure the disabling of Active Directory accounts are requested and approved within 24 hours of an employee's termination or transfer from the department.

Audit Conclusion

Based upon the results of our audit, we identified opportunities for improvement of internal controls relating to system access controls.

Internal Audit Report 2023-005: Riverside County Flood Control & Water Conservation District Audit

System Access Controls

Background

System access controls within information systems ensure proper confidentiality, integrity, and availability to the data stored within the system. Authentication is a control which confirms a user's identity to provide access to a systems sensitive information. Sensitive information is any information that must be protected from unauthorized access to maintain the information security of an organization or an individual. Authentication is often achieved by using login credentials such as a username and password. Authentication relies on the presumption that the user is authorized to use the system and that only the user knows the login credentials to gain access.

Active Directory is a directory service which allows Flood Control to manage permissions and access to network resources, and linked data applications utilized by the department. When a user ends employment with Flood Control, it is the department's responsibility to create and approve a help desk ticket to request the removal of the terminated employee's access rights to their Active Directory account. Once the ticket is approved by Flood Control personnel, Riverside County Information Technology (Information Technology) is notified to disable Active Directory to remove permissions and network access. These help desk tickets contain various workflow tasks such as disabling e-mail accounts, active directory, data/application systems access, badge access, reclaiming software licenses, and reclaiming any equipment that may have been issued to an employee. A help desk ticket is not closed until all tasks within have been completed by Information Technology personnel.

Objective

To verify the existence and adequacy of internal controls over employee access termination to system applications used by Flood Control.

Audit Methodology

To accomplish these objectives, we:

- Obtained an understanding of County of Riverside Information Security Standard v1.0.

Internal Audit Report 2023-005: Riverside County Flood Control & Water Conservation District Audit

- Interviewed key personnel regarding the department's employee access termination processes.
- Obtained a listing of all critical systems used by Flood Control and judgmentally selected a sample of systems not linked to Active Directory.
- Obtained listing of employees who had access to the selected system applications not linked to Active Directory during the audit review period.
- Obtained listing of employees whose access to the selected system applications not linked to Active Directory were terminated during the audit review period.
- Obtained report from Information Technology that details Flood Control ticket creation and approval dates for disabling employee access to Active Directory.
- Verify access rights to the selected system applications not linked to Active Directory were disabled within 24 hours of an employee's termination from Flood Control.
- Verify whether requests to disable Active Directory were created and approved by Flood Control personnel within 24 hours of an employee's termination or transfer from the department.

Finding 1: Timely Termination of Access Rights

Upon termination or transfer from Flood Control, 22 out of a total of 36 employees (61%) did not have their Active Directory account termination requests created and approved in a timely manner (within 24 hours). Of the 22 untimely account termination requests, 2 Active Directory accounts remained active as a request was not initiated to terminate the accounts. For the remaining 20 employees whose Active Directory accounts were disabled, the average time elapsed between employee termination and ticket approval was 14 days, with the longest taking 69 days for approval and the shortest taking 4 days. County of Riverside Information Security Standard v1.0, Section 4.1, *Account and Access Management*, states, "Accounts for terminated or transferred employees shall be disabled or removed on the day of termination or transfer." Requests and approvals to disable Active Directory accounts are not created and approved in a timely manner after employees are terminated or transferred from the department. Flood Control's current policies and procedures do not include a process to

Internal Audit Report 2023-005: Riverside County Flood Control & Water Conservation District Audit

ensure user accounts for terminated or transferred employees are to be disabled or removed on the day of termination or transfer. Allowing active directory accounts to remain open after employment has ended exposes the department to risk where information maintained in department systems can be continuously accessed by individuals who no longer have a right or need to know. Depending on the sensitivity of the information maintained by department systems, it can create administrative issues and have a financial impact if held liable.

Recommendation 1.1

Ensure compliance with County of Riverside Information Security Standard v1.0, Section 4.1, *Account and Access Management*, by disabling Active Directory accounts on the day of an employee's termination or transfer from the department.

Management's Response

"Concur. The District should ensure compliance with County policy by requesting the termination of Active Directory accounts within 24 hours of an employee's separation from the District."

Actual/Estimated Date of Corrective Action: October 6, 2022

Recommendation 1.2

Develop policies and procedures to ensure the disabling of Active Directory accounts are requested and approved within 24 hours of an employee's termination or transfer from the department.

Management's Response

"Concur. On October 6, 2022, the District implemented Policy B-24, *Procedure for Removing Computer and Application Access*, documenting the requirement to request and approve disabling Active Directory accounts within 24 hours of an employee's separation from the District. The District also provided supervisors and managers an updated termination checklist outlining the requirements for disabling Active Directory and non-Active Directory user accounts."

Actual/Estimated Date of Corrective Action: October 6, 2022

Attachment B

JASON E. UHLEY
General Manager-Chief Engineer



1995 MARKET STREET
RIVERSIDE, CA 92501
951.955.1200
FAX 951.788.9965
www.rcflood.org
251640

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

The following are the current statuses of the reported findings and planned corrective actions contained in Internal Audit Report 2023-005: Riverside County Flood Control and Water Conservation District.



Authorized Signature

6/26/2023

Date

Finding 1: Timely Termination of Access Rights

"Upon termination or transfer from Flood Control, 22 out of a total of 36 employees (61%) did not have their Active Directory account termination requests created and approved in a timely manner (within 24 hours). Of the 22 untimely account termination requests, 2 Active Directory accounts remained active as a request was not initiated to terminate the accounts. For the remaining 20 employees whose Active Directory accounts were disabled, the average time elapsed between employee termination and ticket approval was 14 days, with the longest taking 69 days for approval and the shortest taking 4 days. County of Riverside Information Security Standard v1.0, Section 4.1, *Account and Access Management*, states, "Accounts for terminated or transferred employees shall be disabled or removed on the day of termination or transfer." Requests and approvals to disable Active Directory accounts are not created and approved in a timely manner after employees are terminated or transferred from the department. Flood Control's current policies and procedures do not include a process to ensure user accounts for terminated or transferred employees are to be disabled or removed on the day of termination or transfer. Allowing active directory accounts to remain open after employment has ended exposes the department to risk where information maintained in department systems can be continuously accessed by individuals who no longer have a right or need to know. Depending on the sensitivity of the information maintained by department systems, it can create administrative issues and have a financial impact if held liable."

Current Status

Reported Finding Corrected? Yes No

All terminated employee accounts identified during the audit have been disabled. The District has also counseled Managers and Supervisors on the importance of creating and approving Active Directory account termination requests in a timely manner.

Recommendation 1.1

"Ensure compliance with County of Riverside Information Security Standard v1.0, Section 4.1, *Account and Access Management*, by disabling Active Directory accounts on the day of an employee's termination or transfer from the department."

Management Reply

"Concur. The District should ensure compliance with County policy by requesting the termination of Active Directory accounts within 24 hours of an employee's separation from the District."

Actual/Estimated Date of Corrective Action: October 6, 2022

Current Status

Corrective Action: Fully Implemented Partially Implemented Not Implemented

Description of the corrective action taken (or pending action and estimated date of completion for planned corrective action that is partially or not implemented).

On October 6, 2022, the District fully implemented procedures requiring District HR to notify appropriate staff of immediate and upcoming employee separations. Designated staff have been assigned the responsibility of submitting a Service Now Ticket to request the termination of Active Directory accounts for separated employees by the end of the employee's last workday.

District supervisor's are now required to approve the Service Now Tickets within 24 hours of an employee's separation from the District to ensure compliance with County of Riverside Information Security Standard v1.0, Section 4.1, *Account and Access Management*.

Recommendation 1.2

"Develop policies and procedures to ensure the disabling of Active Directory accounts are requested and approved within 24 hours of an employee's termination or transfer from the department."

Management Reply

"Concur. On October 6, 2022, the District implemented Policy B-24, *Procedure for Removing Computer and Application Access*, documenting the requirement to request and approve disabling Active Directory accounts within 24 hours of an employee's separation from the District. The District also provided supervisors and managers an updated termination checklist outlining the requirements for disabling Active Directory and non-Active Directory user accounts."

Actual/Estimated Date of Corrective Action: October 6, 2022

Current Status

Corrective Action: Fully Implemented Partially Implemented Not Implemented

Description of the corrective action taken (or pending action and estimated date of completion for planned corrective action that is partially or not implemented).

The District implemented Policy B-24, *Procedures for Removing Computer and Application Access*, on October 6, 2022 documenting the requirement to request the termination of Active Directory accounts for separated employees within 24 hours of separation from the District. Policy B-24 also documents the requirement to terminate user access from all third-party software immediately upon separation from the District.

The District has also updated all off-boarding procedures and checklists to reflect adherence to Policy B-24.