

FOLLOW-UP REPORT

Debt Management

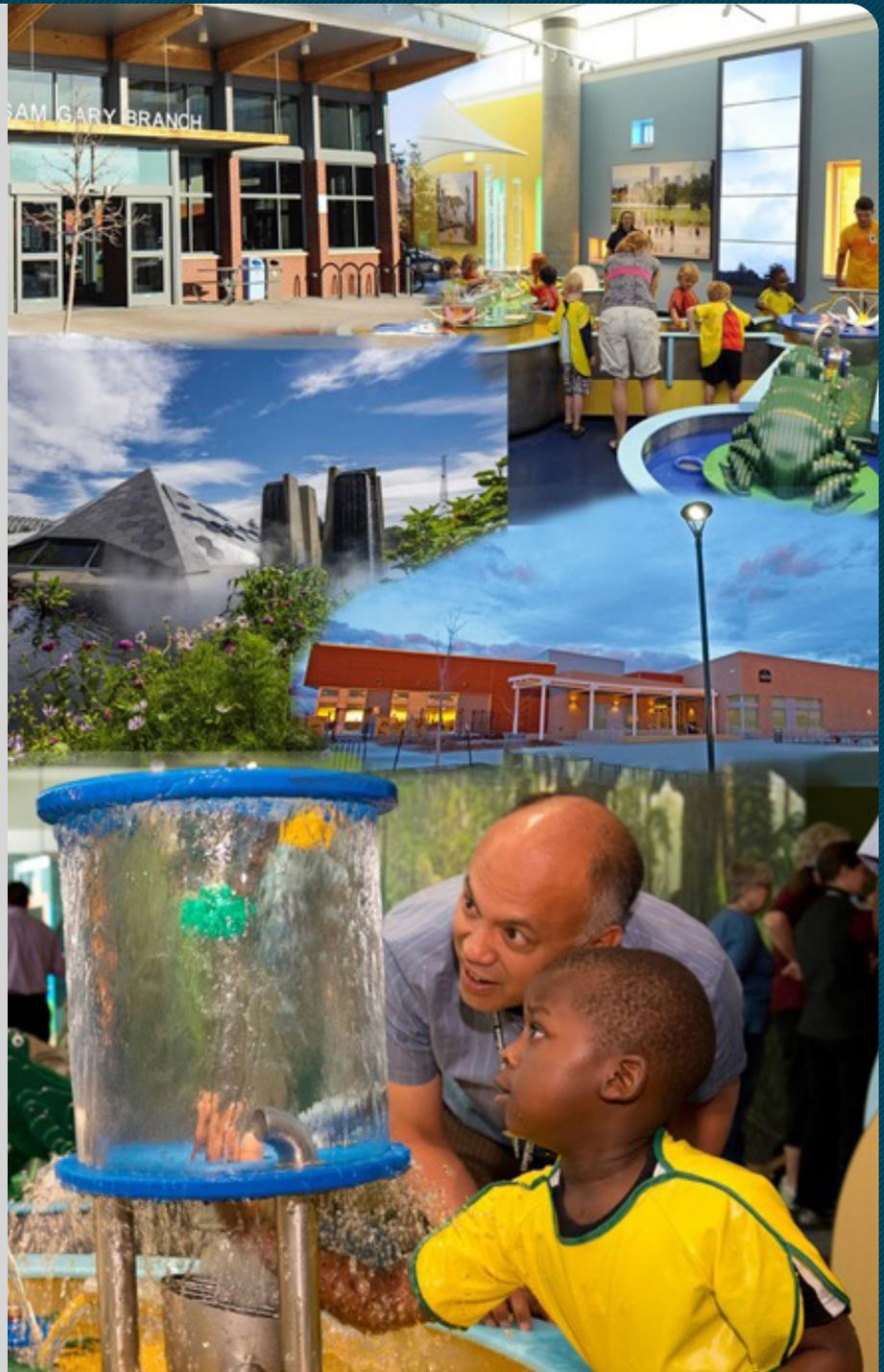
**Department of Finance and Department
of Public Works**

January 2020

**Office of the Auditor
Audit Services Division
City and County of Denver**



**Timothy M. O'Brien, CPA
Denver Auditor**



Audit Team

Jeremy Creamean, CPA, Audit Supervisor
Brian Cheli, CISA, CISSP, Senior IT Auditor
Alex Dickerson, Senior Auditor
Laura Santos, Audit Intern

Audit Management

Timothy M. O'Brien, CPA, Auditor
Valerie Walling, CPA, Deputy Auditor
Kevin Sear, CPA, CIA, CISA, CFE, CGMA, Audit Director

Audit Committee

Timothy M. O'Brien, CPA, Chairman
Rudolfo Payan, Vice Chairman
Jack Blumenthal
Leslie Mitchell
Florine Nath
Charles Scheibe
Ed Scholz

You can obtain copies of this report by contacting us:



Office of the Auditor

201 West Colfax Avenue, #705
Denver CO, 80202
(720) 913-5000 ♦ Fax (720) 913-5253

Or download and view an electronic copy by visiting
our website at: www.denverauditor.org.



Timothy M. O'Brien, CPA
Auditor

City and County of Denver

201 West Colfax Avenue, #705 • Denver, Colorado 80202
(720) 913-5000 • Fax (720) 913-5253 • www.denverauditor.org

January 9, 2020

AUDITOR'S LETTER

In keeping with generally accepted government auditing standards and Auditor's Office policy, as authorized by city ordinance, the Audit Services Division has a responsibility to monitor and follow up on audit recommendations to ensure audit findings are addressed through appropriate corrective action and to aid us in planning future audits.

In our follow-up effort for the Debt Management audit issued May 17, 2018, we determined the Department of Finance and Department of Public Works have implemented seven of the 16 recommendations made in the audit report, not implemented five of the recommendations, and partially implemented four recommendations. Auditors determined the risks associated with the audit team's initial findings have not been fully mitigated. As a result, the Audit Services Division may revisit these risk areas in future audits to ensure appropriate corrective action is taken.

The Highlights page in this report provides background and summary information about the original audit and the completed follow-up effort. Following the Highlights page is a detailed implementation status update for each recommendation.

I would like to express our sincere appreciation to the Department of Finance and Department of Public Works personnel who assisted us throughout the audit and the follow-up process. For any questions, please feel free to contact me at 720-913-5000.

Denver Auditor's Office

A handwritten signature in black ink, appearing to read "Timothy M. O'Brien".

Timothy M. O'Brien, CPA
Auditor



Debt Management December 2019

Follow-Up Status

The Department of Finance implemented six recommendations, partially implemented two, and did not implement one.

The Department of Public Works implemented one recommendation, partially implemented two, and did not implement four.

Objective

The objective of the audit was to evaluate how well the Department of Finance is managing debt issuance and post-issuance processes. We also evaluated how the Departments of Finance and Public Works managed the expenditures of debt proceeds. In addition, the audit assessed agencies' general controls over critical information systems.

Background

Our audit focused on the Better Denver Bond Program, authorized by voters in 2007, which allowed the City to issue up to \$550 million in general obligation bonds; and Ballot Measure 2C, approved by voters in 2015, which authorized borrowing of up to \$778 million. Finally, we looked at certificates of participation (COPs) executed and delivered in the last three years.

REPORT HIGHLIGHTS

Highlights from Original Audit

Our review of City processes over debt issuance, administration of bonds and certificates of participation (COPs), management of bond proceed expenditures, and general controls over technology systems identified seven issues:

Finding 1: Debt Policy Does Not Require Documentation for Necessary Policy Deviations – The City executed and delivered COPs in 2015 without sufficiently meeting guidelines for new revenue, savings, or efficiencies. The reasons for this departure were not documented.

Finding 2: Post-Issuance Controls Could Be Improved – Various controls, such as review of covenant compliance checklists, review of the arbitrage rebate calculation, and compliance with private use requirements could have been stronger.

Finding 3: Lack of a Citywide Expenditure Policy for Debt Funds – There was no formal policy to define allowable expenditures paid with funds from debt issuances.

Finding 4: Inadequate Succession Planning Over the Capital Integration System Application – One individual, who was working for a third-party contractor, supported software application code for the City's Capital Integration System, which tracks critical details of capital project management and planning. However, there was no backup for this position.

Finding 5: Risk of Unauthorized Access to Critical Debt Management Systems – The City did not have policies and procedures governing user access to three critical software systems used for managing City debt, project payments, and project and program management.

Finding 6: Software System Changes Could Not Be Verified – The Department of Public Works was not reconciling software changes made to the program management system by the vendor.

Finding 7: Departments of Finance and Public Works Are Not Reviewing SOC Reports – Departments of Finance and Public Works were not obtaining or reviewing Service Organization Control reports, which would offer assurance over the services provided by vendors.

For a copy of this report, visit www.denverauditor.org
or contact the Auditor's Office at (720) 913-5000.

RECOMMENDATION — STATUS OF IMPLEMENTATION

Finding 1 – The City's Debt Policy Does Not Require Documentation of Exceptions to Guidelines for Certificates of Participation

Recommendation

- 1.1 **Debt Policy Should Require Documentation of Exceptions** – The Department of Finance should update the City's debt policy to require documentation for any deviation from the policy.

Status: Implemented (Original target date for completion: August 2018)

Agency Action

The Department of Finance updated the city's Debt Policy to address actions to take when deviating from policy. While the policy still contains the original process for debt issuance, it also requires that deviation from this process be justified through documentation. This includes a requirement that the manager of finance must approve the issuance of any such obligation.

RECOMMENDATION — STATUS OF IMPLEMENTATION

FINDING 2 – Opportunities Exist to Improve Post-Issuance Internal Controls in the Debt Management Process.

Recommendation

- 2.1 **Documentation of Internal Controls** – The Department of Finance should improve internal controls over post-issuance procedures by requiring documentation of supervisory review of the covenant compliance checklist, the arbitrage rebate liability calculation, and debt workpapers for the Comprehensive Annual Financial Report.

Status: Partially Implemented (Original target date for completion: March 2019)

Agency Action

While the Cash, Risk, and Capital Funding Division has implemented and documented a secondary review of the covenant compliance checklist, the Controller's Office has not documented any review of the arbitrage rebate calculation or other debt workpapers. The Controller's Office states that it performs a review; however, auditors did not find evidence that a review had been performed. As such, there remains a risk the city's Comprehensive Annual Financial Reports could report erroneous debt-related information. Without a requirement that reviews be documented, there can be a lack of clarity about who is responsible for conducting a review, which may mean the review does not occur.

Recommendation

- 2.2 **Stronger Internal Controls Over Private Use** – The Cash, Risk, and Capital Funding Division should work with the Controller's Office to add a question to the annual financial questionnaire to City agencies. The question should be structured to ask agencies about new potential private use of tax-free, debt-funded facilities.

Partially Implemented (Original target date for completion: September 2018)

Agency Action

The Division of Cash, Risk, and Capital Funding in coordination with the Controller's Office, added a question to the annual post-issuance compliance checklist for consideration of private use on projects funded by debt and other obligations. It also developed a separate "private-use tracking questionnaire" for agencies to determine new potential private use. The questionnaire requires explanation and supporting documentation so that the Department of Finance may monitor private-use compliance.

The compliance checklist from 2018 deferred to this private-use tracking questionnaire, which was

still undergoing revisions. When the division implements the private-use tracking questionnaire in conjunction with the annual post-issuance compliance checklist, it will minimize the risk that debt or other obligation funds could be inappropriately used. The division will implement the private-use tracking questionnaire in the second quarter of 2020, for the 2019 fiscal year.

Recommendation

- 2.3 **Stronger Internal Controls Over Disclosable Events** – The Department of Finance should improve oversight of event disclosure by establishing a formal process to periodically review all potential event disclosures.

Status: Implemented (Original target date for completion: September 2018)

Agency Action

The Department of Finance has tasked a senior capital funding analyst in the Division of Cash, Risk, and Capital Funding with ensuring compliance for event disclosures. Division management explained that the analyst determines the need to disclose any event that could require reporting on a public platform at the time the event occurs. For example, when the city is notified of a rating change to a debt issuance, the analyst may determine that a public disclosure is not necessary if the issuance is privately held. In addition, the Controller's Office confirms completeness of this task through the annual post-issuance compliance procedures checklist.

RECOMMENDATION — STATUS OF IMPLEMENTATION

FINDING 3 – Denver Lacks a Citywide Policy Governing Bond and Certificate of Participation Expenditures.

Recommendation

- 3.1 **Policy Governing Tax-Exempt Debt Proceeds** – The Capital Planning and Programming Division should create a policy governing expenditures of tax-exempt debt proceeds or incorporate such a specific policy into existing City rules or policies for capital projects.

Status: Implemented (Original target date for completion: July 2018)

Agency Action

Through its Capital Improvement Programs Policy, the Capital Planning and Programming Division has created a policy to govern capital expenditures. As division officials have noted, each capital project is unique. As such, the division has included the following in its new policy:

1. A listing of common and unauthorized expenditure types.
2. An expenditure and approval process including review by the Department of Finance and a reference to the nature of allowable expenditures and use of funds as defined by city ordinance.
3. Explanation of appropriate capital expenditures to be funded by debt and other obligations.
4. A requirement that agencies and the department will develop — or ensure accuracy of — policies and procedures for furniture, fixture, and equipment expenditures for all distinct capital projects or programs.
5. Consistent reminders that all capital expenditures are subject to review by the division as well as the manager of finance.

Capital Planning and Programming has developed general guidance for useful life of furniture, fixtures, and equipment to help project managers define appropriate items for obligation-funded expenditures. Additionally, the division has coordinated with managers on individual projects to develop policies for project expenditures.

Recommendation

- 3.2 **Training on New Policy** – The Capital Planning and Programming Division and the Department of Public Works should provide and document training on the new policy.

Status: Implemented (Original target date for completion: July 2018)

Agency Action

The Department of Finance, in collaboration with the City Attorney's Office, has developed a training program and implemented two trainings since the time of the original audit report. The department said that it plans to carry out this training, at least annually in the future.

RECOMMENDATION — STATUS OF IMPLEMENTATION

FINDING 4 – Internal Controls Related to Succession Planning for the Capital Integration System Application Are Inadequate.

Recommendation

- 4.1 **Third-Party Program Manager Should Provide Training to City Developers** – The Department of Public Works should require the new external program manager to train additional staff on how to operate and make changes to the underlying code of the Capital Integration System software. This training should be completed as quickly as possible to ensure that the City's investment in this system is protected.

Status: Not Implemented (Original target date for completion: August 2018)

Agency Action

In an interview, the owner of the Capital Integration System application told us Public Works officials said there was not sufficient technical expertise on their team to be properly trained on all changes that occur to the Capital Integration System application. Additionally, due to the vendor's agreement being terminated at the end of 2019, the contractor also did not feel the need to train additional staff on the application.

RECOMMENDATION — STATUS OF IMPLEMENTATION

FINDING 5 – Weak Oversight Controls Could Result in Unauthorized Access to Critical Debt Management Systems.

Recommendation

- 5.1 **Implement User Access Policies for the Capital Integration System and Textura Applications**
– Public Works should implement user access policies for Textura and the Capital Integration System based on Technology Services' user access policies as soon as possible. These policies should include requirements for new users' access, changes in users' access, removing users' access, and periodic review of users' access rights by the appropriate business process owner.

Status: Partially Implemented (Original target date for completion: August 2018)

Agency Action

Public Works staff provided auditors with a draft policy for Textura application user access. Auditors determined that the draft policy did not address all best practices related to user access and was not entirely consistent with Technology Services' policies for user access.

Auditors also reviewed the new user access policies for the Capital Integration System application. Upon review of password requirements for users, auditors determined that all users — including privileged users — were only required to have a password that was six characters in length, which is in direct contrast to group policy established by Technology Services. While passwords are only one control in the full suite of IT access controls for user access, they are nevertheless paramount in protecting the front lines of an information system.

Additionally, the application developer confirmed to auditors that the application's password requirements for user access had not changed.

Recommendation

- 5.2 **Document User Access Procedures for the Capital Integration System and Textura Applications**
– Public Works should fully document the procedures for setting user access based on the policies noted in Recommendation 5.1. as soon as possible.

Status: Partially Implemented (Original target date for completion: August 2018)

Agency Action

Public Works supplied procedures for the Textura application and we found them to be appropriate.

For the Capital Integration System, auditors obtained and reviewed a copy of the procedures sent by the point of contact for this audit. We inspected the documentation, and while the procedures for user access were elaborate for adding new users, they do not encompass all of access management and only focus on the provisioning of users. While this is helpful for users to access the application as quickly as possible (i.e., availability), most of the possible security risks exist with transfers, terminated employees, and access reviews (i.e., security). As a result, these access procedures appear incomplete.

Recommendation

- 5.3 **Implement User Access Policies for the DBC Debt Manager application** – The Department of Finance should implement user access policies for DBC Debt Manager based on Technology Services' user access policies. These policies should include requirements for new users' access, changes in users' access, removing users' access, and periodic review of users' access rights by the appropriate business process owner.

Status: Implemented (Original target date for completion: August 2018)

Agency Action

Auditors obtained the DBC Debt Manager user access policy from Public Works' point of contact. The policy includes guidance on identity management and authentication, how access permissions are based, and the actions taken when users of the application do not follow the policy. In addition, the document includes a link to Technology Services' "Knowledge Base," which implies that the Controller's Office is trying to align its policies with Technology Services.

Recommendation

- 5.4 **Document User Access Procedures for DBC Debt Manager** – The Department of Finance should fully document the procedures for setting user access based on the policies noted in Recommendation 5.3.

Status: Implemented (Original target date for completion: August 2018)

Agency Action

Auditors were initially provided with a DBC Debt Manager application user access walkthrough guide during fieldwork in 2018. Per inspection, the document closely resembled procedures for the application.

However, these procedures for DBC Debt Manager could not properly be evaluated without an effective policy over the application to provide guidance. As a result, auditors inspected the policy and found the procedures to be properly aligned to the policy. Therefore, procedures for DBC Debt Manager do not need to be revised for the follow-up risk to be remediated.

RECOMMENDATION — STATUS OF IMPLEMENTATION

FINDING 6 – The Department of Public Works Could Not Verify Software Changes to the Capital Integration System.

Recommendation

- 6.1 **Implement Change Management Policies** – The Department of Public Works should implement change management policies for the Capital Integration System application based on Technology Services' change management policies. These policies should include requirements for how changes are requested, approved, and implemented into the production environment.

Status: Implemented (Original target date for completion: August 2018)

Agency Action

Auditors obtained the Capital Integration System change management policy from Public Works' point of contact. The policy is appropriate for its scope of coverage and adheres to policies outlined by Technology Services over the change management process.

For example, the "Change Process" section discusses obtaining authorization through business needs and stakeholder involvement, as well as mandating user acceptance testing before implementing the change to production. Additionally, the "Change Approval" section on page 2 outlines the workflow for approving changes in the environment.

Recommendation

- 6.2 **Implement Change Management Procedures** – The Department of Public Works should implement change management procedures for the Capital Integration System application based on the policies noted in Recommendation 6.1.

Status: Not Implemented (Original target date for completion: August 2018)

Agency Action

Although Public Works' point of contact provided policies to us, there were no procedures over the application for change management. This rationale is mostly due to the transition away from the Capital Integration System application and the lack of technical expertise in Public Works to make developer changes.

Recommendation

- 6.3 **Reconcile Capital Integration System Changes** – The Department of Public Works should work with the new program manager to develop a procedure to identify and reconcile changes that have been made to the Capital Integration System application and its underlying database. This procedure should occur on a routine basis, at least annually.

Status: Not Implemented (Original target date for completion: August 2018)

Agency Action

Auditors initially inquired of Public Works to determine the process for reconciling changes between the program manager and the agency's team. Public Works reiterated that they do not perform any kind of formalized reconciliation or review process on a periodic basis with the program manager. That is, Public Works does not compare the application output provided by the program manager to the underlying source code to gain assurance that only the changes the agency authorized were implemented to the production environment. Therefore, there is a risk unauthorized changes could have been added by the developer without consent.

Still, prior to every implementation of a change for the city, and due to the intimate working relationship between the developer and city employees, there is some form of communication — either through telephone or email — that takes place prior to the change being implemented. To gain comfort that there was collaboration, communication, and stakeholder approval over changes made to the Capital Integration System, auditors chose to sample two changes to the application.

Auditors first requested a list of changes to the Capital Integration System to begin testing. While there were some issues validating the completeness and accuracy of the population, we were able to gain some comfort through various screenshots bookending the first entry date and the most recent entry.

For Change No.19, auditors discerned there was a communication process to notify users of the new release, as well as timely communication around the release in case anything had to be rolled back. While this does not technically qualify as user acceptance testing, it is sufficient given the environment. For Change No. 54, there was no formalized documentation for the change, and the application owner informed auditors the approval communication was strictly over the phone.

RECOMMENDATION — STATUS OF IMPLEMENTATION

FINDING 7 – The Departments of Finance and Public Works Do Not Collect and Review Service Organization Control Reports from Service Providers.

Recommendation

- 7.1 **Define Ownership for Reviewing Controls Around Hosted Services** – The Cash, Risk, and Capital Funding Division should review Service Organization Control reports on an annual basis to gain assurance over services provided by third parties.

Status: Not Implemented (Original target date for completion: March 2019)

Agency Action

The Department of Finance responded to this recommendation in the original report stating,

“The Department of Finance is working on an overall strategy around collection and review of Service Organization Control (SOC) reports through the Information Governance Committee. This strategy will include any systems mentioned in this report. As a part of this strategy, the Department of Finance in conjunction with Technology Services will collect and review SOC reports annually.”

Since then, the Controller’s Office updated the year-end questionnaire with three questions regarding Service Organization Controls, or SOC, reports. The questions ask agencies to identify vendors who should provide SOC reports and then request and review these reports. In addition, these questions offer some examples of the types of organizations that should provide a report, such as a vendor who processes transactions for the city, as well inquiring about compensating controls put in place for vendors who do not have SOC reports.

After the Controller’s Office determined it would not perform this function (beyond adding questions to the year-end questionnaire), the Cash, Risk, and Capital Funding Division attempted to work with a financial consultant and the Governmental Accounting Standards Board to figure out how to obtain and use SOC reports. The division procured one SOC report at that time. While the division is actively seeking SOC reports from other vendors, it has not obtained and reviewed necessary SOC reports. Additionally, the division is hoping citywide guidance and processes will be established, because division personnel are not subject matter experts and rely on the Controller’s Office to provide such expertise.

According to the Controller’s Office, citywide guidance for Service Organization Controls reporting now falls under the purview of the Information Governance Committee. The committee added a project to the privacy impact assessment to improve city practices around collecting SOC reports, but the rollout of the assessment is not expected until 2020.

The city has not developed formal written guidance or training for when agencies should request SOC reports for review or for how agencies should develop and implement compensating controls to mitigate risks when SOC reports are not available. This effort was decentralized and moved to the city's Technology Services agency, the Risk Management Office, and to individual agencies.

As this recommendation has not been implemented, the city could still be at risk of making errors in payments to vendors or bondholders, bond project reporting, or regulatory compliance.

Recommendation

- 7.2 **Define Ownership for Reviewing Controls Around Hosted Services** – The Department of Public Works should review Service Organization Control reports on an annual basis to gain assurance over services provided by third parties.

Status: Not Implemented (Original target date for completion: March 2019)

Agency Action

To evaluate this recommendation, auditors first obtained and inspected the Controller's Office's "year-end questionnaire" for Public Works for 2018. Upon review, we determined Public Works officials acknowledged they do rely on Service Organizations; however, they did not collect Service Organization Control reports to confirm the third-party's service organization's environment is secure.

CONCLUSION

While the Department of Finance and the Department of Public Works have implemented some recommendations made in our 2018 Debt Management Audit Report, others have yet to be acted upon or fully implemented. Despite the departments' efforts, auditors determined the risks associated with the audit team's initial findings have not been fully mitigated. For example, the city still has some deficiencies in its safeguards to ensure there is an adequate control environment in place to ensure proper reporting and management of debt obligation funds. As a result, the Audit Services Division may revisit these risk areas in future audits to ensure appropriate corrective action is taken.

On behalf of the citizens of the City and County of Denver, we thank staff and leadership from the departments for their cooperation during our follow-up effort and for their dedicated public service.

Office of the Auditor

The **Auditor** of the City and County of Denver is independently elected by the citizens of Denver. He is responsible for examining and evaluating the operations of City agencies and contractors for the purpose of ensuring the proper and efficient use of City resources. He also provides other audit services and information to City Council, the Mayor, and the public to improve all aspects of Denver's government.

The **Audit Committee** is chaired by the Auditor and consists of seven members. The Audit Committee assists the Auditor in his oversight responsibilities regarding the integrity of the City's finances and operations, including the reliability of the City's financial statements. The Audit Committee is structured in a manner that ensures the independent oversight of City operations, thereby enhancing citizen confidence and avoiding any appearance of a conflict of interest.



201 West Colfax Avenue, #705

Denver CO, 80202

(720) 913-5000 ♦ Fax (720) 913-5253

www.denverauditor.org

Our Mission

We deliver independent, transparent, and professional oversight in order to safeguard and improve the public's investment in the City of Denver. Our work is performed on behalf of everyone who cares about the City, including its residents, workers, and decision-makers.
