



Office of the Auditor

Capital Project Planning Follow-Up

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SUMMARY

Metro made progress on all of the recommendations from the 2016 audit report **Capital Project Planning: Strengthen management environment**. One recommendation was implemented and the other four were in process. Additional work was needed to ensure compliance with policy, and increase the accuracy and completeness of Metro's capital budget, reports and plans. We also included information in this report about future considerations that would improve its capital program.

BACKGROUND

Capital projects typically involve large investments and have a direct impact on a government's ability to provide services and programs. These could include new buildings, land or improvements to existing facilities. Metro's capital planning applies to projects expecting to cost more than \$50,000 and have a useful life of at least five years. Each year Metro develops a five-year Capital Improvement Plan (CIP) for projects anticipated to cost \$100,000 or more as part of the budget process. The first year of the CIP is Metro's capital budget that gets approved by Metro Council.

The 2016 audit found Metro's management of capital projects was ad-hoc. The management environment allowed some capital projects to move forward without proper planning or budget approval, which increased the risk of unauthorized spending. The audit made five recommendations to improve the completeness and accuracy of Metro's capital budget, work plans, and project reports.

After the audit, Metro made changes to how it plans capital projects. Metro adopted a strategic asset management plan in 2017. It also created the Asset Management and Capital Planning (AMCP) program to implement the plan. The program was tasked with implementing the 2016 audit recommendations.

RESULTS

We found Metro improved its capital planning and budgeting. It made progress on all of the recommendations and fully implemented one. A sample of projects showed Metro followed its policy and project management guidance in most cases. Metro made efforts to improve project cost estimates. It also improved the completeness of both the FY 2017-18 capital budget and project reporting. It implemented the recommendation to establish a policy and process to determine whether natural area restoration projects are capital projects. It also made changes to better align projects funded with the voter-approved Parks and Natural Areas Local Option Levy (Levy) with the CIP.

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Exhibit 1 Most audit recommendations from 2016 were in process

Recommendation	Status
1. Ensure capital planning policies and project management guidance are followed to: <ol style="list-style-type: none"> a. improve the accuracy of project cost estimates; b. document approval of project plans; c. document approval of project budgets; and d. document approval of revised project budgets. 	In process
2. Improve completeness and accuracy of the capital budget by updating it periodically during the year when new projects are approved or existing project budgets exceed established thresholds.	In process
3. Increase accountability by improving the twice-yearly capital project monitoring report to provide accurate information about the scope, schedule and budget for each capital project.	In process
4. Establish a policy and a process to determine if restoration projects are capital projects.	Implemented
5. Align the Levy work plan approval and updating processes with Metro’s capital budget processes to create consistent scopes of work, budgets and schedules for projects.	In process

Source: Metro Auditor’s Office analysis

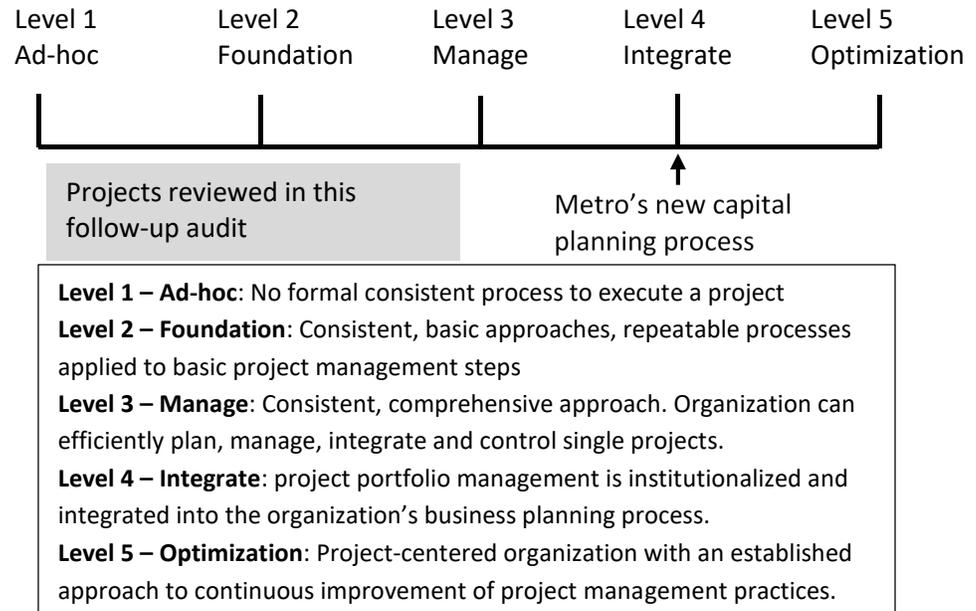
However, there was work remaining to comply with the Capital Asset Management Policy (CAMP) and ensure the accuracy and completeness of Metro’s capital budget, reports, and plans. Metro should determine how non-construction projects fit into the agency’s capital planning process, and which planning requirement should apply to those projects. To improve accountability, Metro also needs to increase reporting about project scopes and schedules. Better alignment between the Levy work plan and the CIP showed significant improvement that should be continued in future budget cycles to fully implement the recommendation.

New planning process aims for a higher level of maturity

Metro’s new capital planning process is designed to increase the agency’s capital project management maturity. The 2016 audit found capital project management to be at low levels of maturity. These levels could be described as ad-hoc or foundational.

The AMCP steering committee reviewed Metro’s capital projects in fall of 2018. This process was intended to be both comprehensive and integrated with agency goals and department operations. For the review, departments were required to use a consistent method to rank all capital projects. The method considered several factors including the operational impacts of projects. The AMCP program also analyzed projects as a portfolio, assessed project management capacity, assessed risks, and started to identify ways to achieve efficiencies across Metro’s portfolio of projects. The program also facilitated increased coordination among departments.

Exhibit 2 Metro’s new capital planning process aimed for higher level of maturity



Source: Metro Auditor’s Office analysis based on Project Management Maturity Model developed by Project Management Institute

The projects we reviewed in this follow-up audit showed the maturity of project management still varied. We reviewed a selection of approved and proposed projects in the Levy, General Fund and the Renewal and Replacement Fund in FY 2017-18 through FY 2019-20. Some projects were managed by the Construction Project Management Office (CPMO) while others were managed by departments. The CPMO maintains project management guidance that includes the use of best practice tools including project concept forms, project management plans, status reports, and project change requests. The CPMO monitors the use of most of these tools for the projects it manages. Its reports showed fairly consistent use among CPMO-managed projects.

Department-managed projects appeared to use some of these tools less consistently. A few of the department-managed projects we reviewed did not meet project management requirements. For example, approval for some projects was not well-documented. Although inclusion in the CIP demonstrated approval, it was not always clear whether the steps outlined in project management guidance were followed. When those steps are not followed, it increases the chances that projects will move forward with inaccurate or incomplete scopes, schedules and budgets.

Increasing the agency’s maturity level for capital project management will require Metro to determine what standards should apply to non-construction capital projects. CAMP requires new capital projects to follow the CPMO’s project management guidance, whether managed by the CPMO or by individual departments. However, the guidance only applies to construction projects. This means Metro does not require the use of those project

management tools for a subset of its capital projects including information technology (IT) and some natural area restoration projects.

Metro followed its policy and project management guidance for most projects

Most projects we reviewed followed Metro policies and incorporated at least some of the best practices outlined in the CPMO guidance. All of the projects in our review had been included in the CIP, as required by CAMP, prior to spending in the years we reviewed. We also noted efforts designed to improve future project estimates. However, three projects didn't have approvals for budget changes or use status reports. This meant Metro was in process with the recommendation to ensure policies and project management guidance were followed.

Metro made improvements to document project cost estimates. Almost all of the projects and proposals we reviewed (16 of 18) had concept forms that included cost estimates. Starting with the FY 2017-18 budget cycle, departments were required to submit concept form information through project management software known internally as Honey Badger. All but one project in our review complied with this requirement. Departments were also asked to identify the source of the project cost estimate. The AMCP program used this information to evaluate the quality of the estimates. Records indicated CPMO assisted departments with cost estimates for some projects.

We found three restoration projects did not completely follow the CPMO project management guidance, even though they appeared to involve construction. The projects exceeded their annual budgets in FY 2017-18 but approval of these changes was not documented. The guidance also requires the use of status reports to monitor projects. We were told these projects were tracked in a software system that the Parks and Nature department uses. We reviewed screenshots from the software, but they did not provide detailed information about the project's scope or information about the project schedule.

We noted efforts by the AMCP program that could help improve project estimates and the management of project spending over time. For instance, project cost estimates may change during the project. We were told the AMCP is planning to track these changes. In addition, the program was considering having departments specify their confidence level for project cost estimates. This may help identify instances where project budgets should be adjusted, such as to add an amount for contingency. Finally, a software upgrade may give project managers more direct access to spending data to help them manage project budgets.

Capital budget more complete, but could be more accurate

We found Metro made progress implementing the recommendation to ensure the completeness and accuracy of the CIP. However, there were a few cases where the CIP should have been amended, which meant the recommendation was still in process.

CAMP requires that new projects with actual or anticipated expenditures over \$100,000 be added to the CIP. In the three funds we analyzed, all new

project spending occurred under this threshold, or the CIP was amended as required. For instance, the CIP was amended to accommodate a new project as well other project changes, such as budget increases.

CAMP also includes another criterion to ensure accuracy, which states that if actual or anticipated project spending exceeds the original project budget by more than 20 percent, the CIP must be amended.

As in the 2016 audit, we interpreted the 20 percent threshold to apply on an annual basis. We compared project spending in FY 2017-18 to what was budgeted for the projects in that year. Four restoration projects managed by the Parks and Nature department had spending that exceeded the 20 percent threshold in FY 2017-18, but the CIP was not amended for these projects.

The reasons the CIP was not amended for those restoration projects appeared to vary. In one case, a high level of spending occurred late in the fiscal year, which may have led to an unanticipated overage. This overspending may not have been caught in time to amend the CIP. In other cases, it appears information about the overages was available, and a breakdown in communication, coordination, or policy interpretation may have been the reason.

Because of the way the policy was written, the 20 percent threshold may be interpreted to apply only to the entire project budget. In this case, actual spending would have to exceed 20 percent of the entire project budget before a CIP amendment was needed. We were told some employees interpret the threshold as applying only to the entire project budget. This approach could result in spending that was inconsistent with the project's annual budget.

The language in CAMP made it difficult to interpret. First, the term *original project budget* was not defined in CAMP. It was not clear if the term referred to the proposed amount, the amount budgeted in the current year, or something else. It was also unclear whether the project budget included all funding sources for projects that were budgeted from multiple funds. Finally, the policy was not clear which expenditures should apply to the threshold.

Applying the threshold on an annual basis means tighter control over project spending each year. It could also require more amendments to the CIP. Applying the threshold on a total project budget basis (all funds and all years of the CIP) would require careful planning, documented approval of total project budgets, and effective ongoing monitoring to control project spending. It also means that the project expenses planned for years two through five on the CIP are very important, since they could be moved forward and spent on a project without additional budget approval from Metro Council.

Regardless of which interpretation is used, an effort by AMCP could help increase the accuracy of the CIP. The program formalized capital project oversight committees for most areas of Metro operations. The Parks and Nature department planned oversight committee meetings to discuss possible CIP amendments. These meetings will be an opportunity to discuss project spending, and take action to amend the CIP, if needed.

Compared to the 2016 audit, the completeness of the CIP improved, and there were fewer projects that went over budget. However, there may be ways to increase the accuracy of the capital budget. We found a large percentage of projects had little or no spending. This could be interpreted as more cautious budgeting. In some cases, being cautious may have meant the budget was a less accurate predictor of actual spending for each project.

Exhibit 3 Less than 50% of the budget was spent in 27 of 40 projects

Project spending as percentage of project budget	Number of projects
0 - 50%	27
51% - 100%	9
Over 100%	4
Total projects	40

Source: Metro Auditor's Office analysis of FY2017-18 budget and actual project expenditures.

Project spending reports improved, but more information was needed about scopes of work and schedules

Metro was in the process of implementing the recommendation to improve capital project reporting. The reports we reviewed were generally accurate in terms of project budgets and actual spending. They were also more complete than the reports we reviewed in the 2016 audit because they reported on all capital projects and included information about the status of each project. However, the reports did not include information about project schedule or scope.

Twice a year, Metro's Finance and Regulatory Services (FRS) department includes information about capital projects in its quarterly financial report to Metro Council. The 2016 audit recommendation was for Metro to improve the reports by providing accurate information about projects' scope, schedule and budget. These are important pieces of information to help management, Metro Council, and the public understand the status of projects.

We noted scope, schedule, and budget information was already being used in some parts of Metro and could be incorporated into FRS' reports. For instance, Parks and Nature reported on scope, schedule, and budget to an oversight committee for bond-funded projects. Levy-funded projects are expected to be reported in a similar fashion in the future. The CPMO also monitored scope, schedule, and budget for its projects. We were told Metro intends to include schedule information as well as project completion date in future financial reports to the Metro Council. It was unclear if changes to a project's scope would be reported.

Status of natural area restoration projects clearer

Metro implemented the recommendation to develop a policy or procedure to determine if restoration projects are capital projects. The 2016 audit found conflicting information about why some restoration projects were included in the CIP, while others were not.

In October 2018, the Parks and Nature department issued a guidance memo intended to help employees determine which restoration projects should be listed on the CIP. One set of criteria in the memo defined which restoration projects were capital projects, such as those involving construction. These projects were to be listed on the CIP if they were over \$100,000.

The memo also stated that certain other restoration projects not fitting the definition of capital projects should be included on the CIP as well. These included restoration projects expected to cost \$100,000 or more in a year. The rationale was that such projects are complex, and would benefit from being tracked on the CIP.

Exhibit 4 Some restoration projects involve construction



Source: Photo of River Island Natural Area Restoration Project from 2016 Parks and Nature System Plan

The guidance may help ensure consistency over time. However, it had not been implemented for the start of the FY 2019-20 budget development process. Some restoration projects were not individually reviewed along with other capital projects by the AMCP program in Fall 2018. We were told this was because the budgets for those projects had not been finalized by the Parks and Nature department. In January 2019, Parks and Nature provided project budgets to the AMCP program and informed them that the projects would be included in their capital budget submission.

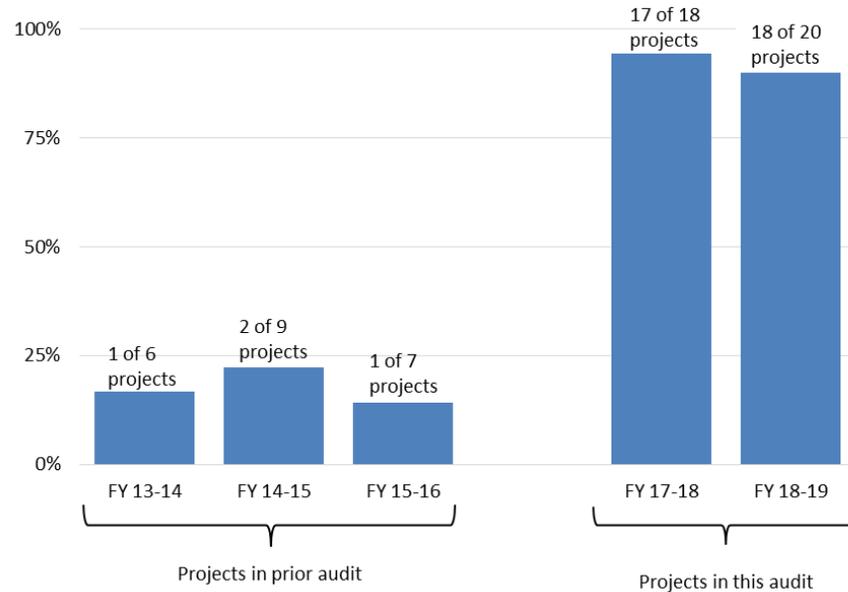
Levy plan and CIP better aligned

Metro also made progress aligning the Levy work plan approval and budget processes. The Parks and Nature department moved the timing of the Levy work plan approval closer to when the capital budget was approved. This made alignment between the two documents more likely. We found the documents were misaligned for a couple of projects. This meant the recommendation was still in process.

We compared Levy work plans and CIPs for FY 2017-18 and FY 2018-19 and found the alignment improved significantly since the 2016 audit. Most projects appeared on both documents, and both documents generally had

the same budget total for most projects as well. However, both years showed places where the two documents diverged. Over the two years we reviewed, a total of three projects appeared on either the CIP or the Levy work plan, but not both. Since the FY 2019-20 CIP will not be finalized until spring 2019, we could not determine whether the Levy work plan and the CIP would be aligned for that fiscal year.

Exhibit 5 The percentage of projects appearing in both the CIP and the Levy work plan increased



Source: Metro Auditor's Office analysis of Levy work plans and CIPs

AREAS FOR FURTHER CONSIDERATION

Ensuring consistency could lower risk

Ensuring that policies, guidance, and procedures are consistently applied to all capital projects will help Metro lower risk in its capital program. It will be important to clarify language about the project spending threshold in CAMP and ensure that department-specific guidance is consistent with CAMP. Even though it is not required for non-construction capital projects, it might be expected that departments follow the CPMO guidance for all large projects. Some capital projects that don't involve construction could be complex, such as large IT-related projects or certain restoration projects. They may benefit from more consistent use of project management best practices.

Similarly, AMCP will need to determine whether all large restoration projects will be reviewed during the budget process. The Parks and Nature department guidance specified that all restoration projects at or above \$100,000 will be included on the CIP, even though some may not be capital projects. The AMCP program reviews all capital projects at or above \$100,000, but it was not clear if non-capital restoration projects would be reviewed.

Long-term planning will require better project completion rate

The AMCP program focused on projects for FY 2019-20 and FY 2020-21, but not projects planned for future years. It intended to analyze projects for future years as part of long-term planning to find efficiencies, for example. One challenge in using the CIP for long-term planning is project carry-forward.

A high degree of project carry-forward makes planning future budget years more difficult. Assuming limited resources to manage and accomplish projects, projects planned for future years may need to be postponed. Accomplishing projects in the time for which they are budgeted decreases the need for project carry-forward. We noted more than a fourth of FY 2017-18 projects we reviewed had no spending and would likely be carried forward to the next fiscal year.

The AMCP program plans to address project carry-forward in several ways. For instance, during the development of the FY 2019-20 budget, the program assessed historic project completion rates. It also facilitated assessments of project management capacity with the CPMO and the IS department. The program cautioned that the proposed budget was ambitious, and asked departments to assess if some projects could be scheduled for the following budget year.

Departments also have a role in ensuring projects are completed when budgeted. Particularly for the projects they manage, departments should ensure that projects are carefully planned and managed. Along with FRS, they also need to ensure that multi-year projects are budgeted as such.

Scope of AMCP will need to be carefully managed

Looking forward, Metro will need to set priorities for the AMCP to ensure it can be successful. September 2018 marked the start of the first budget cycle for the AMCP program. We attended some of their meetings and found they were focused on several things. For instance, the program oversaw the initial parts of capital planning and the implementation of the asset management system. It analyzed capital project proposals in order to help Metro comply with several policies. The program also planned to develop capital planning standards and update the agency's asset management plan. It also anticipated working with departments on other more specific plans for managing Metro's assets.

In addition to these responsibilities, there are other possible areas where Metro could improve capital project management. Some of those areas might include training, performance measurement, and continuous improvement for capital project management. Ensuring that funded projects comply with CAMP mostly requires coordination between departments, FRS, and the Metro Council, but AMCP may also have a role. AMCP is uniquely situated at Metro to accomplish work in these areas. However; giving the program too many responsibilities could overwhelm it.

SCOPE & METHODOLOGY

The objective of this audit was to determine the status of recommendations from the 2016 audit. The scope included capital projects and expenditures in the Parks and Natural Areas Local Option Levy fund, the General fund, and the General Renewal and Replacement fund from FY 2017-18 to FY 2018-19. It also included projects proposed for the FY 2019-20 budget.

To meet our objective, we reviewed expenditures from Metro's accounting system. We compare those figures to Metro's capital budget, Metro's quarterly financial reports and Parks and Natural Areas Local Option Levy work plans. We reviewed documentation from the Asset Management and Capital Planning (AMCP) program and the Construction Project Management Office. We interviewed employees involved in capital project planning and the budget process, and observed AMCP meetings.

We also reviewed documentation for a sample of capital projects and proposed projects. We used a non-probability sample so our results cannot be generalized to all projects. Our sample of projects was selected based on the following criteria: projects that overspent their annual budget amount, projects with little or no spending in the current year, and new or proposed projects. We reviewed documentation about these projects to determine how well the projects followed Metro policy and project management guidance.

This audit was included in the FY 2018-19 audit schedule. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

MANAGEMENT RESPONSE



Metro

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Memo

Date: April 5, 2019

To: Brian Evans, Metro Auditor

From: Heidi Rahn, Asset Management and Capital Planning Program Director
Andrew Scott, Deputy Chief Operating Officer

Subject: Management Response - Capital Project Planning Follow Up Audit

Management would like to thank the Metro Auditor for reviewing the progress made with capital project planning throughout the agency. Metro has invested significant resources to address the Auditor's recommendations from the 2016 Capital Project Planning audit and agrees with the findings in the 2019 follow up audit. We appreciate your recognition of our efforts to improve capital project planning and the recommendations you provide to help us continue to refine and prioritize our continuing improvement initiatives.

Background

In response to the Auditor's 2016 Capital Project Planning Audit, Metro staff and leadership throughout the agency worked to address the auditor's recommendations, develop a governance structure, and build a plan. In 2018, Metro launched a new Asset Management and Capital Planning (AMCP) program under the Deputy Chief Operating Officer to continue advancing the agency's management of our capital assets. A program director was hired to lead implementation of the Strategic Asset Management Plan with the aim to improve financial performance, support informed asset management decisions, and enhance organizational best practices around capital planning.

Response to Findings in the Auditor's Report

Management agrees with the auditor's review of progress made since 2016 and is committed to continuously advancing Metro's efforts with capital project planning.

Recommendation #1 In Process

Ensure capital planning policies and project management guidance are followed to improve the accuracy of project cost estimates, document approval of project plans, document approval of project budgets and document approval of revised project budgets.

While significant improvements have been acknowledged by the auditor, management agrees that additional efforts are needed to ensure all capital projects follow Metro policies and best practices for cost estimating, project approval, and continuous budget management and revision approvals. Additional governance structures have been put in

place to ensure that all capital projects, including natural area restoration projects, are following agency practices for budget management and approval. In addition, an effort is underway to expand the usage of Metro's project and portfolio management software to track project status and approvals. Training is also underway for project managers throughout the agency to advance their knowledge and use new tools for project cost estimating and planning.

Recommendation #2 In Process

Improve completeness and accuracy of the capital budget by updating it periodically during the year when new projects are approved or existing project budgets exceed established thresholds.

We agree with the auditor's assessment of the significant improvements made in the accuracy and updates with the capital budget throughout the year. The AMCP program is updating the Capital Asset Management Policy to provide definitions where there is currently inconsistent interpretation.

The auditor mentions the role of the new formalized capital project oversight committees for each department in ensuring capital project budgets are tracked and amended, as needed. This new governance structure is set up in each department to do the following:

Ensure adherence to Metro's policies for:

- a. Capital asset stewardship
- b. Project identification, prioritization and budgeting
- c. Project planning, execution and commissioning
- d. Provide strategic direction and input to Asset Management and construction projects
Facilitate internal and external stakeholder communications

All capital project scope, schedule, and budget status and amendments must go through the capital project oversight committees for each department. Finance and Regulatory Services staff participate in these committees to ensure compliance with Metro's budget policies. Management is confident this new governance structure embedded in each department provides the appropriate control mechanisms for capital budget management.

The auditor highlights that budget accuracy could improve the prediction of actual spending for each project. Additional analysis will be conducted in FY 19-20 by AMCP staff with the capital project oversight committees to assess project spending trends and any underspending. This will allow us to identify what is driving underspending (e.g. cautious budgeting, staff and contractor capacity limitations, planning, etc.) and put in place tools, processes, and resources to improve the accuracy of the budget.

Recommendation #3 In Process

Increase accountability by improving the twice-yearly capital project monitoring report to provide accurate information about the scope, schedule and budget for each capital project.

We agree with the audit that advancements have been made in capital project budget and spending reporting. An effort is underway to expand the usage of Metro's project and portfolio management software to track project scope and schedule for all capital projects. The AMCP program is committed to working with FRS to provide the appropriate level of scope, schedule, and budget updates to the Metro Council.

Recommendation #4 Implemented

Establish a policy and a process to determine if restoration projects are capital projects.

The Parks and Nature Department defined the process and criteria for determining when restoration projects should be listed on the Capital Improvement Plan. Additionally, restoration project managers participate in the Parks and Nature Department capital projects review committee to ensure consistent implementation of capital planning policies and project management guidelines.

Recommendation #5 In Process

Align the Levy work plan approval and updating processes with Metro's capital budget processes to create consistent scopes of work, budgets and schedules for projects.

Significant improvements to align Parks and Nature Levy work plans and the capital budgeting process have been made and acknowledged by the auditor. Systems and controls are in place to ensure continuous alignment in the future. The hiring of the Capital Planning Coordinator for the Parks and Nature Department has been a critical success factor in aligning all capital project planning for the department.

Conclusion

The analysis and recommendations the auditor has provided regarding Metro's capital planning has helped to inform past and future work to advance capital project planning, policies, and tools. The launch of the AMCP program has been critical to standardizing the approach to capital project planning and execution across the agency. We appreciate the auditor's efforts and believe the agency is well positioned for continuous improvement in capital planning.