



# KING COUNTY AUDITOR'S OFFICE

AUGUST 1, 2022

## Follow-up on Metro Transit Information Technology

**Metro Transit has implemented all the recommendations from our audit report of information technology (IT) project management. These changes will help Metro Transit better manage its portfolio of interrelated IT projects to reduce schedule delays and budget overruns.** Technology plays a crucial role in managing and delivering transit service in King County. In our 2017 audit report, we made 12 recommendations to resolve issues with IT projects taking longer and costing more than planned. In addition to the six recommendations implemented before our last follow-up report in 2019, Metro Transit has also adjusted how it tracks project delays, interdependencies, and budget discrepancies so that the challenges and successes of past projects can inform decision-making. Additionally, Metro Transit created a new portfolio manager position within the Capital Technology Project Management group to track and manage these considerations across projects. Metro Transit has also completed an updated strategic technology plan to guide decision-making and ensure that technology projects align with strategic goals.

Of the 12 audit recommendations:

|                                                                                                        |                                                                                                           |                                                                                                       |
|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
|  <p>12<br/>DONE</p> |  <p>0<br/>PROGRESS</p> |  <p>0<br/>OPEN</p> |
| <p><b>Fully implemented</b><br/>Auditor will no longer monitor.</p>                                    | <p><b>Partially implemented</b><br/>Auditor will continue to monitor.</p>                                 | <p><b>Remain unresolved</b><br/>Auditor will continue to monitor.</p>                                 |

Please see details below for implementation status of each recommendation.

Recommendation 1

On August 2, 2019

DONE



Recommendation 2

On August 2, 2019

DONE



Recommendation 3

DONE



**Transit should track and record the duration, project phase, and cause of delays for active and future projects in the lessons learned knowledge base.**

STATUS UPDATE: Metro Transit created a lessons learned knowledge base to record lessons learned from individual IT projects in the prior follow-up period. However, it did not include detailed information about project delays and the duration of those delays. Since then, Metro Transit has added fields that track project duration and delays, including details about cause and duration. Project managers now record delays and other relevant information as they occur rather than waiting until projects close-out. To ensure that IT project managers consistently record this information in a timely manner, Metro Transit has included process steps in its IT capital delivery framework which direct project managers to enter information into the lessons learned template beginning in the design phase.

IMPACT: Recording schedule delays and causes will help Metro Transit identify risks to completing projects on time and develop strategies to address them. This will improve the accuracy of schedule estimates and projects can be completed closer to their estimated schedules.

Recommendation 4

DONE



**Transit should use information in the lessons learned knowledge base to inform schedule estimates for future projects.**

STATUS UPDATE: The Metro Transit Capital Technology Project Management group has created a new portfolio manager position with accountability for budget estimation. Project managers and business systems analysts review the lessons learned while developing new project proposals and establishing schedule estimates. They consider schedule estimates made in prior processes and any lessons learned that identify causes of delays.

IMPACT: Incorporating previous lessons learned into the schedule estimation process helps to improve the accuracy of schedule estimates, lower project risk, and increase transparency.

Recommendation 5

On August 2, 2019

DONE



## Recommendation 6

DONE



**Transit should include the variance between baseline budgets and actual spending in its internal performance reports.**

STATUS UPDATE: Metro Transit tracks information about baseline budgets versus actual spending in the financial system. Metro Transit now runs monthly performance reports in Power BI on all IT projects, including information on spending variances. The Metro Transit reviews the reports at monthly business review meetings.

IMPACT: Including a comparison between anticipated and actual project spending provides Metro Transit management and other stakeholders a clear and objective measure to determine how well projects are performing. It also helps them understand how accurate the project estimates were relative to their baselines. This information can help Metro Transit identify budget risks and address them in a timely manner.

## Recommendation 7

On August 2, 2019

DONE



## Recommendation 8

DONE



**Transit should use information about variances to evaluate and improve the methods it uses to estimate information technology project budgets.**

STATUS UPDATE: In addition to Capital Division's monthly reviews, described in Recommendation 6, portfolio managers also review the project spending and variance data in the monthly Power BI reports. They use this data to validate or adjust assumptions made in the estimation of future technology projects.

IMPACT: Reviewing cost variances from the lessons learned database helps improve the accuracy of future cost estimates. This can help realize the intended benefits of projects without incurring additional or unnecessary costs.

## Recommendation 9

DONE



**Transit should develop an ongoing process for identifying, assessing, and reporting interrelationships and dependencies across project schedules.**

STATUS UPDATE: The new portfolio manager position has the responsibility to identify and track dependencies across project schedules. Portfolio managers assess and report cross-project dependencies as new projects are planned. The identified dependencies serve as a criterion for prioritizing projects in budget proposals. The portfolio managers also assess and coordinate dependencies throughout the project durations. They coordinate standing meetings with the relevant project managers and Transit Technology Operations on a bi-weekly or monthly basis,

depending how significant the dependencies are. They also serve as liaisons to non-technology portfolio projects with identified dependencies on technology projects.

IMPACT: Identifying and reporting the dependencies across projects helps inform Transit IT managers and stakeholders of critical areas of risk within projects and across the IT project portfolio. This can help prevent cascading delays across interdependent projects.

|                   |                   |      |                                                                                     |
|-------------------|-------------------|------|-------------------------------------------------------------------------------------|
| Recommendation 10 | On August 2, 2019 | DONE |  |
| Recommendation 11 | On August 2, 2019 | DONE |  |
| Recommendation 12 |                   | DONE |  |

**Transit should use the Strategic Technology Roadmap for Transit updates in 2017 and future biennia to document its framework for information technology project portfolio development and any changes to it.**

STATUS UPDATE: Metro Transit published its new Metro Technology Strategic Roadmap for 2022-2026 in March 2022 to align with the King County Strategic Plan, the Metro Strategic Plan for Public Transportation, and the King County Strategic Information Technology Plan. The Roadmap will be reviewed and adjusted annually, although project lists and significant issues will be reviewed and updated more frequently. The Roadmap provides a framework and strategies to align Metro Transit’s technology modernization plans with the current business needs and short-term and long-term goals. Metro Transit leadership reported that the development of this plan has already helped identify duplicative tools and led to plans to downsize the number of systems and applications used. Beyond 2026, Metro Transit will develop updated Roadmaps for future timeframes that align with the county’s and the department’s goals.

IMPACT: Documenting this framework provides managers and other stakeholders with transparency and helps ensure that selected IT investments can best contribute to Transit’s operational and strategic goals.

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Mia Neidhardt conducted this review. If you have any questions or would like more information, please contact the King County Auditor’s Office at [KCAO@KingCounty.gov](mailto:KCAO@KingCounty.gov) or 206-477-1033.