M E M O R A N D U M

FINAL AUDIT REPORT WITH RECOMMENDATIONS
Information Technology No. 10-001

SUBJECT:	Review of the PeopleSoft Remediation Project	**DATE:** 10/21/09
FROM:	IG/OIG – Helen Lew /s/	
TO:	GMGR – John B. Catoe, Jr	

This **Final Audit Report entitled,** *Review of the PeopleSoft Remediation Project,* presents the results of our audit. The objectives of the audit were to determine whether the Washington Metropolitan Area Transit Authority's (WMATA) PeopleSoft Remediation Project is following a sound system development approach and meeting program expectations.

BACKGROUND

In 2001, WMATA's Board of Directors (Board) directed that a comprehensive technology strategy be developed and that $60 million be allocated in capital funds to execute this strategy. The initiative, the Information Technology Renewal Program (ITRP), was designed to replace old, inflexible, non-integrated, legacy and mainframe business and technology systems with modern and fully integrated web-based client server systems. These ITRP systems consisted of: (1) Bus and Rail Scheduling and Dispatch, (2) Accounting, Budget, Capital plus Procurement (ABC+), (3) Manager for Maintenance, and Material Management and (4) Human Resources and Payroll.

In December 2002, WMATA contracted with Booz Allen Hamilton (BAH) to provide system configuration, installation, and data migration services to transition WMATA to a client-server environment. BAH recommended that WMATA integrate its existing human resources, payroll, accounting, budget, and procurement systems into PeopleSoft, because it purportedly provided a systematic solution that would support all of WMATA's operational and business systems. WMATA accepted the recommendation and invested approximately $48 million in the PeopleSoft integration, which took over three years to complete.

Subsequent to the 2002 integration, WMATA awarded a time-and-materials contract (Contract No. 0000009017) on July 20, 2006, to Optimos, Inc., to provide post-production support services for the ITRP. The original contract cost was $495,724.80.

During this post-implementation phase, WMATA user groups, composed of cross-functional personnel, complained of performance issues with the PeopleSoft software. According to Department of Information Technology (IT) personnel, users were not involved in the planning and development process of the PeopleSoft implementation. As a result, users believed that WMATA's core business processes were not addressed. In addition, the Chief Financial Officer at the time was not satisfied with PeopleSoft and wanted to select a different vendor and software.

After WMATA hired a new Chief Information Officer (CIO) in March 2007, a decision was made by IT to modify the existing contract with Optimos, Inc. IT asked the contractor to assess PeopleSoft and to identify the system problems and resolve them. According to a 2007 presentation made by IT to the General Manager, WMATA decided to remediate because the initial PeopleSoft implementation was in danger of failing. As a result, IT decided to remediate PeopleSoft. WMATA estimated approximately $10 million for the whole effort, which was supposed to encompass: (1) Human Resource and Payroll (HRPR), (2) Budget, (3) Finance, (4) Procurement, and (5) Fixed Assets.

The $10 million does not include the $5 million for the Financial Systems Integration Project that will be funded under the America Recovery and Reinvestment Act (ARRA). To date, IT has only undertaken and completed the remediation of HRPR. IT estimated the HRPR portion would cost $4 million, and that this project would be completed in one year. The HRPR remediation began in June 2007 and was to be completed in June 2008. Since IT has only completed the remediation of HRPR, we limited our review to that project (hereafter, "HRPR Project").

WMATA modified the Optimos contract 11 times, increasing the base contract by $7,333,116.04 (from $495,724.80 to 7,828,840.84).[1] Five modifications of the 11 modifications, totaling $2.3 million to the base contract (Contract No. 0000009017), were largely to initiate and carry out the PeopleSoft Remediation Project (see Attachment I). IT divided the HRPR Project into three phases, with projected or expected services (see Attachment II).

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[1] In an August 30, 2007, memorandum, the Office of Procurement & Materials (PRMT) analyzed this Optimos contract and concluded that its original intent had been exceeded through use of excessive modifications (with "no end in sight"), including out-of-scope services, such as the PeopleSoft Remediation Project.

According to the Statement of Work (SOW), the objective of the HRPR Project was to deliver to WMATA additional benefits offered by the PeopleSoft Human Capital Management (HCM) Software. The overall scope of the project included:

- Redesign of the HR Position Management Process;

- Improvement of the organization of existing HR Data;

- Automation of a target group of manual Personnel Action Requests;

- Replacement of the Detail-to-Gross (DTG) and Electronic Timesheet System (ETS) with PeopleSoft Time and Labor and Kronos Clocks;

- Training of Metro personnel for the items in the SOW; and

- Automation of the prior-period time adjustment process and selective automation of the payroll retroactive process.

On January 28, 2008, WMATA awarded another time-and-materials contract to Optimos (Contract No CQ8057) to continue the PeopleSoft remediation effort. The original cost of this contract was $305,000. Six modifications were made to this contract to provide remediation services, which increased the contract cost by $4,332,838.47 (from $305,000 to $4,637,838.47).

By March 2009, IT had spent approximately $6.9 million on the HRPR Project. This amount represented approximately 69 percent of the approximately $10 million budgeted for the entire PeopleSoft Remediation Project. Further, the $6.9 million expended was approximately $2.9 million more than the initial estimated cost of $4 million for the HRPR Project. The PeopleSoft HRPR also took approximately 21 months to complete, 9 more than what was originally projected.

AUDIT RESULTS

We found that WMATA did not follow a sound system remediation methodology on the HRPR Project. IT did not adequately: (1) conduct a cost feasibility study, (2) conduct an assessment of alternative solutions,[2] and (3) develop system requirements. IT also did not (1) develop a project master

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[2] Alternative solutions are feasible options to the remediation project. For example, IT could have considered the feasibility of upgrading the current system with a more current system, out-sourcing certain functions of the system or other options that may be available. Generally, these alternatives would be identified in planning and an evaluation to ensure the organization receives the best value and function for the money.

plan, (2) develop and implement a risk management program, and (3) develop and establish project phase approvals for the HRPR Project.

In addition, we found that IT did not meet its program expectations for the HRPR Project of completing the project within the $4 million estimated project cost and in one year. The cost and time overruns occurred because IT did not properly oversee the project. Specifically, IT did not implement critical project management processes, establish realistic time frames for the HRPR Project, and track project costs to ensure that the remediation efforts would effectively meet business users' needs. In addition, the procurement vehicle used to acquire the services (time-and-materials contracts) and budget process may have contributed to the overruns. As a result, WMATA experienced approximately $2.9 million in cost overruns and numerous project delays.

The General Manager had issues with "some aspects" of our two findings in his October 2, 2009, response to a draft of this report. However, management agreed with all of our recommendations and provided some corrective actions that they have or intended to implement. Management stated that the urgency of the PeopleSoft Human Capital Management (HCM) problems made it unfeasible to implement a "single, integrated, best practice software development methodology" before repairing the PeopleSoft HCM system. After starting the HRPR project, the CIO instituted equivalent interim system development standards. The complete text of the General Manager's response is included as attachment 3 of this report.

We disagree with management's assertion that its interim measures were sufficient. IT was unable to provide sufficient documentation to demonstrate that it utilized any structured process. The practices cited by management, even if they were used, were not uniform standards, but rather ad hoc activities that were not equivalent to industry recognized standards.

We also disagree with management's assertion that "[p]roof of the adequacy of the interim equivalent standards used in the project is in the project's successful outcomes," given that the project suffered from a 9-month delay and almost $3 million cost overrun. Finally, management asserts that it has permanent systems in place now to address our concerns. Since these systems were not in place during the time of our audit, we will consider reviewing them in the future. We did not change our findings as a result of the General Manager's comments.

Finding 1 – IT Did Not Follow a Sound System Remediation Methodology

We found that IT did not adequately follow a sound system remediation methodology approach for the HRPR Project. As a result, the project experienced cost overruns of approximately $2.9 million and took approximately 9 months longer than expected. A sound system development

methodology, among other things, includes: (1) conducting a cost feasibility study, (2) conducting an assessment of alternative solutions and (3) developing system requirements. WMATA did not place a strong emphasis on developing and implementing a formal structured approach for system development.

No Cost Feasibility Study–We found that prior to initiating the HRPR Project, IT did not conduct a cost feasibility study. IT's decision to implement an IT solution that was not based on a cost feasibility analysis resulted in WMATA not having assurance that the most cost effective and efficient approach was taken when IT decided to remediate HRPR.

COBIT[3] section AI1.6 states: "an organizations system development life cycle methodology should provide for an analysis of the costs and benefits associated with each alternative being considered."

The IT Chief of Application Development & Operations stated that prior to starting the PeopleSoft Remediation Project; the PeopleSoft Steering Committee[4] (Steering Committee) held discussions on the costs and benefits of the project. According to this individual, the Steering Committee reasoned that the projected cost of remediation was justified because WMATA had already invested over $48 million in PeopleSoft, and they did not want to lose that investment. However, we found that the Steering Committee's analysis did not take into consideration that the estimated cost presented to them for remediation was only for the remediation of the HRPR Project and not for the entire PeopleSoft system software (HRPR, Budget, Finance, Procurement and Fixed Assets Systems). The analysis also did not include any examination of costs and benefits of any alternative solutions.

For example, the Steering Committee did not fully consider WMATA's cost of investment in the Kronos Time and Attendance System.[5] WMATA had awarded a consulting contract to implement the Kronos System, which was designed to address several of the same HRPR issues as the HRPR Project. According to IT personnel, Kronos provided a better solution for the time and labor process given WMATA's union work rule and pay rule complexities. According to a June 14, 2007, email, the Chief of Application Development & Operations was instructed by the Steering Committee to immediately stop the Kronos System Project.

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[3] COBIT is an IT governance framework and supporting toolset that allows managers to bridge the gap between control requirements, technical issues and business risks. COBIT enables clear policy development and good practice for IT control throughout organizations. COBIT emphasizes regulatory compliance, helps organizations to increase the value attained from IT, enables alignment and simplifies implementation of the COBIT framework.
[4] The Steering Committee consisted of WMATA's Assistant General Managers (AGM) and user management members involved with the remediation project.
[5] Kronos is workforce management software that specializes in time and attendance, scheduling, absence management, HR/PR, Hiring and Labor Analytics. WMATA was implementing the Kronos system prior to their decision to remediate PeopleSoft HRPR.

By this time, IT had expended approximately $1,200,532 on Kronos, and the project was approximately 95 percent completed. IT transferred $392,370 of the remaining Kronos budgeted funds to the PeopleSoft Remediation Project.

The Chief of Application Development & Operations informed us that the Steering Committee decided to halt the Kronos project because they believed the Kronos software substantially duplicated the PeopleSoft Time and Labor software. He also stated that the Steering Committee wanted to eliminate additional maintenance fees and labor costs by moving forward with the PeopleSoft solution. However, no formal cost study was conducted to verify those assumptions. Furthermore, we found that IT and/or the Steering Committee did not provide any written documentation justifying its action to stop and eliminate the Kronos implementation or any other actions to consider whether Kronos or another alternative solution would not have been able to meet the business needs of its users in a more cost effective manner.

Inadequate Assessment of Alternative Solutions –In addition to the Kronos software discussed above, we found that IT did not adequately consider the merits of upgrading version 8.8 of PeopleSoft to version 9.0 prior to their decision to remediate. IT along with the PeopleSoft Steering Committee decided to remediate using version 8.8 and delay upgrading to version 9.0 until after the HRPR Project was completed. According to an Oracle representative (Oracle is the vendor for PeopleSoft), PeopleSoft version 9.0 was available in 2006. WMATA did not take advantage of the value and benefits of upgrading to the newer version. As a result, WMATA will likely incur additional costs associated with extended support service for version 8.8, maintenance, and tax updates required to calculate employee tax obligations at a later date. COBIT section § AI1.5   states that a organization's system development life cycle methodology should provide for an examination of the technological feasibility of each alternative for satisfying the business requirements established for the development of a proposed new or modified information system project.

In addition to above, the Chief Financial Systems Administrator provided us with a formal assessment dated February 26, 2008, advocating upgrading to the newer 9.0 version of PeopleSoft. The assessment was discussed with IT staff. The assessment stated: "The WMATA user community supports the objectives of the remediation project. At the same time, [it] recognizes that significant value and additional benefits could be realized by first upgrading the existing PeopleSoft Applications to the most current 9.0 release." The benefits from an upgrade cited in the assessment included the following:

- Continued support for tax updates, maintenance releases and support until 2012-2015;

- Reduction in the number of WMATA customizations needing retrofit;

- Significant application enhancements (i.e. payroll & absence management, time and labor benefits, mass updates); and

- Reduction in costs (training, business process re-engineering.

Notwithstanding this assessment by key users, the project team decided to remediate using version 8.8 and defer upgrade to version 9.0 to a later date. The PeopleSoft Project Director explained that IT wanted to stay with version 8.8 because there were data integrity issues that needed to be resolved prior to upgrading to a newer version. Specifically, the data was not accurate and complete. He also stated that some of the customizations made during the original implementation of PeopleSoft would have been lost if they upgraded to version 9.0. However, based on our discussions with Oracle, these rationales are open to question. Oracle informed us that unless significant changes were made to the core program, customizations are easily portable to version 9.0. When asked, the Project Director could not provide us with information on whether WMATA's core program had been significantly changed.

As to the data issues cited, Oracle explained that they would not have had any significant impact on version 9.0, because the upgrade would affect the PeopleSoft program and not the data.

We also found that since IT opted to remain with version 8.8, users have been dissatisfied with various areas of the remediated HRPR system. For example, users have complained about the system's inability to record future leave requests, approvals and processing. Furthermore, by not upgrading to the latest version, WMATA faces the imminent prospect of not receiving software extended support services from the vendor after December 2010 for its PeopleSoft system.

Inadequate System Requirements – We found that WMATA did not adequately document the system requirements for the HRPR Project. As a result, IT did not know whether the remediated system would effectively address end-user concerns or meet WMATA's business needs for HRPR. COBIT section § AI1.1 states: "[T]he organization's system development life cycle methodology should provide that the business requirements satisfied by the existing system and to be satisfied by the proposed new or modified system (software, data and infrastructure) be clearly defined before a development, implementation or modification project is approved." We found that WMATA did not clearly define the system requirements baseline for the HRPR Project. According to the HRPR Project Director, a task force comprised of representatives from several business units reviewed WMATA's HRPR process and identified system requirements needed for the project. The task force[6] along with the project team developed a remediation matrix that

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[6] PeopleSoft Remediation Task Force meeting held on June 26, 2007.

identified problems and issues with the PeopleSoft HRPR process and prioritized system issues along with the corresponding business processes.

Our review of the remediation matrix revealed that there was minimal end-user input or involvement from the business units and a lack of Use Case documentation.[7] We also found that business unit end-users did not formally review or approve the final system requirements prepared during the requirements sessions.

Discussions with task force members revealed that several business process functionality issues discussed and documented were also not included in the task force requirements gathering sessions. A member of the task force informed us that Use Case documentations developed by the task force were never used during the requirements gathering sessions with the project team.

The failure to use the Use Case information that laid out the pre-and post-conditions of each step within the HRPR business process and the failure to adequately consider user input resulted in IT not knowing whether the remediated system effectively addressed end-user concerns or met WMATA's HRPR business needs.
Furthermore, active user involvement would have fostered increased ownership and commitment to the project so that it meets WMATA's goals and business needs as efficiently and effectively as possible.

Recommendation

We recommend that the General Manager:

1.1   Direct the Chief Information Officer (CIO) to ensure that on all future system development projects, a sound system development methodology, which includes conducting a cost feasibility study, conducting an assessment of alternative solutions, and developing system requirements, is followed.

Management Comments

Management disagreed with "some aspects" of our finding. Specifically, management noted that it conducted a benefit realization analysis, an assessment of alternative options, and a series of use cases, functional requirement documents, detailed designed documents, and requirements sessions. Management indicated that these actions were interim equivalents to the COBIT standards OIG used.

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[7] Use Case documents specify required system usages. They typically are used to capture the system requirements of what a system is supposed to do and for functional and technical work flow design and the creation of test plans.

Management concurred with our recommendation and commented that it has implemented this framework for all projects initiated in FY 2010. Concurrent with implementing the HRPR Project, IT has also developed a long-term System Development Life Cycle (SDLC) methodology governance framework. The draft SDLC governance blueprint is designed to support the national DOT Intelligent Transportation Systems architectural "Systems Engineering" framework. Management believes the draft SDLC standards are functionally equivalent to the COBIT standards OIG proposes.

OIG's Comment

For the reasons set out in our report, we do not agree that the interim actions taken by IT were equivalent to the COBIT standards used by OIG. Also, IT was not able to provide us documentation to substantiate that it conducted all the analyses cited in management's response. Accordingly, we did not change our finding in this report.

The corrective actions which management has taken or plans to take should help address our recommendation.

Finding 2 – IT Did Not Provide Adequate Project Management and Oversight

Our review showed that there was inadequate project management and oversight on the HRPR Project. Specifically, we found that IT did not: (1) develop a project master plan, (2) develop and implement a sufficient risk management program, and (3) develop and establish project phase approvals for each phase of the remediation project. This situation occurred because there was inadequate project management oversight of the HRPR Project. As a result, IT has encountered project delays and cost overruns.

According to COBIT Section 10.7 [Planning and Organization], "Management should ensure that for each approved project a project master plan is created which is adequate for maintaining control over the project throughout its life and which includes a method of monitoring the time and costs incurred throughout the life of the project. The content of the project plan should include statements of scope, objectives, required resources, and responsibilities. It also should provide information to permit management to measure progress."

No Project Master Plan - We found that IT did not have a project master plan for the HRPR Project. We asked IT's project management team for a copy of the project master plan, and we were provided with a task list. The task list laid out the various remediation tasks along with timelines estimated for completion, as well as initials of team members for each task. According to the Chief of Applications Development and Operations, the task list served as their

project plan. We reviewed the task list and determined that it was not a comprehensive master plan as contemplated by COBIT. The Deputy Chief of Applications told us that the PeopleSoft project team created the task list during the initial phase of the project, and she did not believe the task list represented a project master plan.

For example, the task list did not contain critical information, including: (1) a definition of the responsibilities and authorities of each project participant, (2) milestones and checkpoints for authorizing various project phases, (3) commitment of financial and human resources and (4) Gantt charts and problem logs to manage the project. The above are needed to assist management in guiding project execution and exercising control over the project throughout its life-cycle. Additionally, the task list was not formalized and lacked information on certain phases of the project, specifically Phases I and III (see Attachment II).

Aside from the task list, the Chief of Applications and Operations indicated that a Steering Committee was in place to oversee the HRPR Project. We reviewed the minutes of the Steering Committee meetings and found evidence of the day-to-day remediation activities conducted by the project team, but did not see anything on how the team was actively managing the time and costs of the project. As a result, IT experienced significant cost and time overruns on the HRPR Project.

Inadequate Risk Management Program - We found that IT did not have an adequate risk management program or any formal methodology to track and manage project-related risks and their impact on the PeopleSoft remediation. In developing a risk management program, organizations identify, assess, and document the risks associated with the cost, resources, schedule, and technical aspects of the project and determine the procedures that will be used to manage those risks.

According to COBIT Section §10.10 [Planning and Organization], management should implement a formal project risk management program for eliminating or minimizing risks associated with individual projects (identifying and controlling the areas or events that have the potential to cause unwanted change).

The Manager of the IT Application System stated that there was no formal risk management plan developed to address potential issues that might arise during the course of the project. For example, IT was required to conduct 10 parallel runs to allow the offices divisions using HRPR to get acquainted with the data-entry screens and processes. WMATA determined after prototyping that some users required online custom reports that were not anticipated and included in the original SOW.   These unanticipated issues resulted in additional work and delays.   The Chief of Application Development & Operations said that these issues, along with user resistance, contributed to

the project's numerous delays. Nevertheless, he acknowledged that had a risk management plan been used, IT may have possibly mitigated some of the serious problem areas that arose during the HRPR Project.

Our review of some of the Steering Committee presentations revealed some effort by IT to identify and mitigate these and other project-related risks. But, we found that the project risks identified were either not fully addressed or did not identify the person(s) responsible for mitigating the risks.

Had IT developed and implemented an adequate risk management plan, IT might have identified these and other risks associated with the HRPR Project and devised a disciplined approach to mitigate those risks. Instead, it appears IT took a reactive approach to risk which may have contributed to cost overruns and delays.

No Project Phase Approvals - We found that there were no formal project phase approvals by IT or the project team during the HRPR Project. The approval process ensures that each project phase and associated deliverables is successfully completed before subsequent phases. IT was unable to provide us with any documentation which demonstrated the initiation of project phase approvals or that subsequent phases were completed and that appropriate sign-offs were occurring.

According to COBIT Section§10.6 [Planning and Organization], the organization's project management framework should provide for designated managers of the user and IT functions to approve the work accomplished in each phase of the system development life cycle before work on the next phase begins.

We evaluated six expected tasks set out in the SOW for Phase I of the HRPR Project[8] (see Attachment II). IT was unable to provide us with documentation evidencing a formal phase approval process to ensure that these tasks were completed on-time and that they met WMATA's needs before subsequent work was undertaken.

The Project COTR informed us that the functionality of the newly remediated system, along with new process changes, should provide assurance that the project is meeting expectations and achieving its goals.

The Deputy Chief of Applications stated that some of the project approvals can be found as a result of user acceptance testing, as well as in e-mail communications to and from each business unit.[9] However, the Deputy Chief of Applications informed us that some of the approvals were lost, and he could

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[8] The Chief of Applications Development & Operations informed us that project approvals for Phases II & III contract work were not readily available because work on the project was ongoing.
[9] Human Resources and Payroll are the business units involved with the HR/Payroll remediation efforts.

not provide us with the results of the user acceptance testing. Furthermore, these are not substitutes for project phase approvals that take place during the life of the project.

Recommendations

We recommend that the General Manager direct the CIO to:

2.1   Ensure that on all future IT projects there is adequate project management and oversight, and a project master plan is developed for maintaining control over the entire project. The plan should include a method for monitoring the time, allocated resources, and costs incurred throughout the life of the project.

2.2   Ensure that on all future IT projects that a risk management plan is developed and implemented to identify, assess, and document the risks associated with the costs, resources, schedule, and technical aspects of each project. This plan also should identify the procedures to predict and mitigate risks so the project will meet performance and business requirements and/or be delivered on schedule and within budget.

2.3   Direct the CIO to develop a process on all future IT projects to ensure appropriate project sign-offs after each phase is completed and prior to proceeding to the next phase of a project.

Management Comments

Management disagreed with "some aspects" of our finding. Specifically, management noted that IT implemented Master Project Plans, Phase Plans, Checklists, Risk Logs, Risk Management Plans, and obtained User Signoffs from user leadership. Management indicated that these actions are interim equivalents to the COBIT standards OIG used.

Management concurred with our recommendations. Management commented that it has developed a SDLC methodology which:

- Requires achievement-based Project Master Plans from project managers. Sample project master plans have been provided to Project Managers.

- Requires project reporting on a bi-monthly basis. Project reporting tracks schedule, budget, and deliverables. The Project Management Office is monitoring project budgets and has begun to report on project encumbrances and revised project budgets.

- Requires each project to provide at least a high-level BPI risk assessment and risk mitigation strategy and a SWOT Analysis (Strength, Weaknesses, Opportunities and Threats).

- Requires an Enterprise Architecture (EA) assessment. The EA assessment is a risk-based assessment that occurs during the project initiation.

- Requires customer/stakeholder signoffs and involvement in every phase of the SDLC.

- Requires customer/stakeholder signoffs before moving to the next phase.

OIG's Comment

For the reasons cited in our report, we disagree with management's assertion that the interim equivalents cited meet the COBIT standards OIG used.
Also, IT was not able to provide us documentation to substantiate that it conducted all the analyses cited in management's response.   Accordingly, we did not change our finding in this report.

The corrective actions which management has taken or plans to take should help address our recommendations.

Other Matters of Concern

Concern over Use of Time-and-Materials (T&M) Contracts on HRPR Project

Our audit raised a concern about the use of time-and-materials contracts to carry out the HRPR Project. Under this type of contract, it is not possible at the time of executing the contract to estimate accurately the extent or duration of the work or to anticipate costs with any reasonable degree of confidence. The more consultant time used, the more the contractor earns.   Without specific tasks to complete and milestones to meet, the contractor's performance is difficult to assess, and it is difficult to control contract costs. The risk of delay and cost over-runs falls disproportionately on WMATA.

We found that IT did not adequately monitor the Optimos contractor to ensure that the consulting time used to complete the remediation tasks was appropriate. Since Optimos was paid purely by consulting hours, IT project managers had no firm benchmarks by which to measure Optimos' performance and ensure that it was working efficiently. In carrying out our audit, we were unable to determine whether Optimos met WMATA's expectations in terms of quality of work and timeliness. In a September 21, 2007, memorandum, WMATA's Supervisory Contract Administrator stated that " the [contractor's performance] is difficult to assess since the contract is being used to bring consultants on board…there is no specific tasks orders or deliverables in most cases so it is difficult to assess the value of services provided."

In addition, it appears that WMATA did not comply with its own rules on time-and-materials contracts. Specifically, WMATA's Procurement Manual (Tenth Addition [sic] 2004) states:

> A time-and-materials contract may be used only after the Contracting Officer determines <u>in writing that no other type of contract is suitable, and only if the contract includes a ceiling price that the contractor exceeds at its own risk </u>(Section 1212.1). (Emphasis added).

We were unable to locate the written justification required by the Manual, and we were unable to obtain any ceiling price that shifts some of the risk to the contractor.

By not having clear expectations established for the consultant services provided under the time-and-materials contracts with Optimos, WMATA did not have adequate controls over the time Optimos billed WMATA for the HRPR Project. Also, Optimos had no incentive to work in the most efficient manner possible without a ceiling price. This situation likely contributed to the cost overruns and delays experienced on the HRPR Project.

We recommend that the General Manager direct the Chief Financial Officer (CFO) to work with the Leadership Team in all future procurements, to:

1.1   Ensure that the proper type of procurement vehicle is used and procurement policies and procedures are followed.

1.2   Ensure that there is adequate management oversight over all contracts and that WMATA gets the best value for its scarce resources.

Management's Comment

Management concurred with our recommendations. For example, management acknowledged the importance of clear guidelines on the use of

T&M contracts, and Procurement is in the process of updating the relevant policy for issuance in October 2009.

OIG's Comment

The corrective action which management plans to take on Recommendation 1.1 should help address our concern.   Management did not indicate how it would address Recommendation 1.2.

Concern over Budget Process for the PeopleSoft Remediation Project

Our audit also raised concern over the budget process for the PeopleSoft Remediation Project. Specifically, WMATA did not clearly document the budget and cost of the Peoplesoft Remediation Project in a manner that would enable decision-makers such as the WMATA Board of Directors to make informed, sound business decisions. We could not locate any documents that clearly established a total budget for the PeopleSoft Remediation Project in general and the HRPR Project in particular.   We also had difficulty gathering documentation that showed how much WMATA actually spent on the work to date.   For example, only through interviews did we determine that $392,370 had been transferred to the HRPR Project from the Kronos Project. We also determined through interviews that when the new CIO came onboard in 2007, $1 million had been set aside for the PeopleSoft Remediation Project.

Furthermore, on February 28, 2008, the Board of Directors approved $5.1 million in additional monies for continuation of the PeopleSoft remediation. We question whether the Board was fully aware of total expenditures when it approved this amount, and of the cost over-run on the HRPR Project or that only this one phase of the remediation project had been undertaken.   In addition, there are $5 million in federal funds from the American Recovery and Reinvestment Act (ARRA) (stimulus funds) earmarked for a "Financial Systems Integration."   This appears to involve work that is related to the PeopleSoft Remediation Project.

WMATA does not have an encumbrance or project cost management system that reserves or tracks commitments and spent costs allocated to projects. A project cost management system or similar system would allow WMATA to examine cost trends, forecast the cost of remaining work, compare the estimated total cost with the approved budget, compare variance with the previous reported variance and alert management when the cost are not within bounds.

Recommendation

We recommend that the General Manager direct the CFO to:

2.1   Implement an encumbrance and/or project cost management system that keeps track of commitment and spent costs allocated to projects such as the PeopleSoft Remediation Project.

Management Comments

Management concurred with our recommendation. However, management asserts that there is a project management cost system already in place at Metro that tracks commitments, obligations, and costs by project. Management also asserts that all funding for the HCM project was approved by the Board.

OIG's Comment

During our audit, the Managing Director of Management & Budget Services told us the project management cost system was not widely used due to technical issues. He also indicated that the system was not reliable for reporting purposes.

In addition, while the Board approved the total amount that was eventually spent on HRPR, we questioned whether it knew at the time of approval that these amounts were for HRPR only. For example, the $971,279 that the Board approved for the Kronos T&L Project was later transferred to the HRPR Project.

OBJECTIVES, SCOPE AND METHODOLOGY

The objectives of the audit were to determine whether WMATA's PeopleSoft Remediation Project is following a sound system development approach and meeting program expectations. The audit was conducted from February 2009 through June 2009.

To accomplish our objectives, we examined the ITRP post production support services contract, the PeopleSoft HR/Payroll Remediation Phase 2 and 3 contract, billing documents, reports on the PeopleSoft remediation project, operational and procurement policies and procedures, and other relevant documentation pertaining to the remediation project for the period 2007 to 2009. We conducted interviews with IT personnel, PeopleSoft vendor, remediation services contractor and Kronos services contractor, and WMATA staff personnel.

We conducted our audit in accordance with generally accepted government auditing standards appropriate to the scope of the review described above. Those standards require that we plan and perform the audit to afford a reasonable basis for our judgments and conclusions regarding the organization, program, activity or function under audit.

An audit also includes assessments of applicable internal controls and compliance requirements of laws and regulations when necessary to satisfy our audit objectives. We believe that our audit provides a reasonable basis for our conclusions.

ADMINISTRATIVE MATTERS

Corrective actions proposed (resolution phase) and implemented (closure phase) by the affected Departments/Offices will monitored and tracked through the Office of the Inspector General's Audit Accountability and Resolution Tracking System.   Department policy requires that you develop a final corrective action plan (CAP) for our review in the automated system within 30 days of the issuance of this report. The CAP should set forth specific action items and targeted completion dates necessary to implement final corrective actions on the findings and recommendations contained in this report.

Should you have any questions, please call Andrew Clemmons, Assistant Inspector General – Audits, on (202) 962-1014 or me on (202) 962-2515.

   /s/
Helen Lew
Inspector General

cc: AGM/IT – Suzanne Peck
     CFO – Carol Kissal
     CHOS – Shiva Pant
     COUN - Carol O'Keeffe

TABLE 1: PEOPLESOFT REMEDIATION PROJECT COSTS

	Contract Action	Actual Costs of the PeopleSoft Remediation	Description of Modification
Phase 1 Contact No. PO0000009017	Modification 4	$173,717.00	According to PRMT, this modification initiated the PeopleSoft Remediation Project. Furthermore, this modification requested additional staff to be added to the contract
	Modification 8	$832,176.00.	Additional staff added to work with WMATA to provide ongoing operation and maintenance of the PeopleSoft systems and additional staff to work with WMATA on knowledge transfer.
	Modification 9	$95,000.00	Travel expenses
	Modification 10	$1,004,945.05	Remediation services to the PeopleSoft software system
	Modification 11	$195,000.00	Remediation services to the PeopleSoft software system
Phase 2 and 3 Contract No. CQ8057	Award	$305,000.00	Phase 2-3 Partial Funding
	Modification 1	$2,515,537.56	Phase 2-3 Balance Funding
	Modification 2	$160,000.00	Remediation services to the PeopleSoft software system
	Modification 3	$0.00	No Cost modification. Remediation services extended for an additional month.
	Modification 4	$368,767.91	Remediation services to the PeopleSoft software system
	Modification 5	$472,414.00	Additional remediation services to the PeopleSoft software system and travel expenses.
	Modification 6	$816,119.00	Additional remediation services to the PeopleSoft software system and travel expenses.
Total		$6,938,676.52	

PeopleSoft Remediation Project Phases

The project has been organized into three (3) phases as follows:

Phase I
- Server Infrastructure and PeopleSoft Internet Architecture
- HR Position Management Automation
- Strengthen and Improve HR Core Data
- Phase 1 Manager and Employee Self Service Implementation
- Replace Non-Operational Time Collection (DTG)
- Phase 1 MSS and ESS Training

Phase II
- Strengthen and Improve HCM System, Business Processes and Core Data
- Self Service/Personnel Action Request Automation
- Replace Salary Union/Non-Union Time Collection (ETS)
- Phase 2 MSS and ESS Training
- Develop a Comprehensive End to End Regression Test Suite for the PeopleSoft HCM Suite

Phase III
- Phase 3 Self Service/Personnel Action Request Automation
- Automation of Retroactive Processing for Payroll
- Automation of Labor Time Prior Period Adjustments

M E M O R A N D U M

SUBJECT: Review of the PeopleSoft   DATE: October 2, 2009
          Remediation Project

    FROM: GMGR – John B. Catoe, Jr.

      TO: OIG – Helen Lew

We received your memorandum dated September 8, 2009 regarding the Draft Audit Report No. 10-001 on "Review of the PeopleSoft Remediation Project." You requested that we provide written comments on the findings and recommendations on the draft report. The following are our comments on Draft Audit Report No. 10-001.

BUSINESS BACKGROUND AND CONTEXT

Between 2005 and 2007, the Washington Metropolitan Area Transit Authority (Metro) invested $40 million to implement a PeopleSoft Enterprise Resource Planning (ERP) suite of systems to serve approximately ten thousand employees. By March 2007, users throughout Metro and the PeopleSoft systems sponsors - the Comptroller, Budget, Human Resources, and Payroll departments - were requesting that the PeopleSoft suite be replaced with another solution.

In April 2007, a new Chief Information Officer (CIO) arrived. The new CIO found many challenges facing the Department of Information Technology (IT). One of the most serious issues was the total lack of formal IT systems development and change control procedures identified in this audit. The most urgent need, however, was the immediate remediation of the PeopleSoft systems suite. At stake were the $40 million investment, the satisfaction of the users, and the efficiency of Metro's administrative functions.

In addition to challenges in the IT department, executive leadership in major user departments was in flux. Assistant General Manager-level changes occurred in Rail, Bus, and Workforce Development. Critical staffing changes occurred in the Comptroller, Human Resources, and Payroll areas. The principal project sponsor, the Chief Financial Officer, left Metro. These major shifts in the leadership of user and sponsor departments added to the challenges of successfully completing the PeopleSoft Human Capital Management (HCM) remediation project.

While any senior IT professional would have preferred to have a robust IT governance process in place **before** starting a major initiative like the PeopleSoft Human Capital Management remediation effort, given the urgency of the

Washington
Metropolitan Area
Transit Authority

remediation situation, the CIO began the HCM remediation project **in parallel with** establishing mature, industry standard, IT governance standards.

While the urgency of the PeopleSoft HCM problems made it unfeasible to implement a single, integrated, best practice software development methodology **before** repairing the PeopleSoft HCM system, the CIO and the IT HCM program manager did immediately institute substantial interim system development standards. In parallel with the design and rollout of more permanent IT governance standards, equivalent interim systems development standards were set into place throughout the PeopleSoft HCM remediation project for each of the six major areas of systems development methodology. Metro's responses to the Office of Inspector General's (OIG) findings of standard systems development methodology deficiencies will include our agreement with the OIG's general recommendations. We will assert, however, that all six systems methodology standards areas were in fact more than adequately covered by the interim systems development standards put into place for the project.

The OIG's proposed long-term Systems Development Life Cycle (SDLC) methodology standards, and IT's interim, equivalent, short-term standards (in place during the PeopleSoft HCM remediation project) are outlined below.

TABLE 1 - Systems Development Life Cycle Comparisons

	Systems Development Life Cycle Phase (SDLC)	OIG Proposed Standards*	IT Interim Equivalent Standards
1	Feasibility	Conduct a Cost Feasibility Study	Benefits Realization Worksheets
2	Conceptualization	Assess Alternate Solutions	Pros/Cons of Alternative Options
3	Requirements Analysis	Develop System Requirements	Use Cases, Functional Requirement Documents, Detailed Design Documents, & Requirements Sessions
4	Planning	Develop a Project Master Plan	Project Master Plan, Phase Plans, & Checklists
5	Risk Management	Develop and Implement a Risk Management Program	Risk Logs & Risk Management Plans
6	Phase Approvals	Develop and Establish Project Phase Approvals	User Signoffs
*OIG's proposed standards are based on the Control Objectives for Information and related Technology (COBIT) methodology, one of several standard methodologies available.			

Many **permanent** systems development methodology standards are now in place, with more planned. The majority of the findings in the subject OIG report deal with deficiencies in having a completely planned, organized, and implemented systems methodology in place **before** beginning the PeopleSoft HCM remediation project.

In the individual finding responses, Metro will describe the HCM Remediation project which incorporated a cost-based benefits analysis, an adequate assessment of alternatives, an adequate definition of systems requirements, and adequate project management oversight, including a project master plan, a risk management program, and project phase approvals. Metro will also explain the legitimate use of a time and materials (T&M) contract for this project.

Proof of the adequacy of the interim systems development standards used in the project is in the project's successful outcomes. The PeopleSoft HCM project was completed in 24 months and met all of its business objectives.

Metro identified seven key desired outcomes at the start of the effort. All have been satisfied.

TABLE 2 - PeopleSoft HCM Desired Outcomes

	Project Scope	Project Status
1	Right size the technical infrastructure	Completed
2	Redesign of the HR Position Management Process	Completed
3	Improve the organization of existing HR Data	Completed
4	Automate a target group of manual Personnel Action Requests	Completed
5	Replace the Detail-to-Gross (DTG) and Electronic Timesheet System (ETS) with PeopleSoft Time & Labor (T&L)	Completed
6	Train Metro personnel for the items in the Statement of Work (SOW)	Completed
7	Automate prior-period time adjustment process and elective automation of the payroll retroactive process	Completed

FINDING 1 – IT DID NOT FOLLOW A SOUND SYSTEM REMEDIATION METHODOLOGY

Metro Response: While we have issues with some aspects of the finding, we do concur with the recommendation.

Comments on the Finding

IT implemented equivalent interim feasibility, conceptualization, and requirements analysis standards (see Table 1), while simultaneously developing longer-term SDLC standards during the HCM remediation project.

A Benefits Realization analysis, which justified the investment in the HCM remediation project, was the interim equivalent to the IG's proposed Cost Feasibility Study (Table 1, SDLC Feasibility). IT conducted a Benefits Realization study—the first IT Benefits Realization effort at Metro—to analyze costs and benefits of the PeopleSoft HCM remediation project. The PeopleSoft Steering Committee (Steering Committee) reviewed this analysis, concluded that the project's benefits outweighed its costs, and rejected the alternative of replacing PeopleSoft as higher-risk and too expensive.

Before the PeopleSoft HCM remediation project, Metro was preparing to

implement the Kronos Time and Attendance system to replace the duplicative Details to Gross (DTG) and Employee Timekeeping (ETS) systems. Meeting notes reveal that the decision to look at alternatives resulted from general dissatisfaction with PeopleSoft functionality, not any systematic cost-benefit analysis. Within two months of the new CIO's arrival, the Steering Committee was able to review the cost-based Benefits Realization analysis. This comprehensive, systematic analysis led the Steering Committee to decide at its June 16, 2007 meeting to discontinue the Kronos project. The major rationales for the decision were:

- Kronos T&L and PeopleSoft T&L served essentially the same business functions.

- PeopleSoft T&L was tightly integrated with PeopleSoft Payroll and Human Resources and was already installed in production.
- Kronos T&L would have to be integrated through custom-developed interfaces.

- Metro would have needed staff developers for both Kronos T&L and PeopleSoft T&L, and would have been liable for license fees for both.

The Steering Committee's decision to discontinue the Kronos project avoided the numerous major Kronos project efforts that had not yet begun when the Kronos implementation was discontinued. The substantial efforts Metro avoided include:

- Designing, coding, and unit testing of the complex Kronos-to-PeopleSoft interfaces.

- System testing, user acceptance testing, and parallel testing of the software.

- Installation of Kronos clocks.

- Training of the 1,500 expected users.

- Training and hiring of the IT support staff for Kronos.

An Assessment of Alternate Options, which justified remediation of PeopleSoft Release 8.8 prior to the implementation of PeopleSoft Release 9.0, exactly filled the IG's requirement for Assessing Alternate Solutions (Table 1, SDLC

Conceptualization). This assessment was completed 10 months after the project began. The IG's observation was that this alternate assessment should have been completed before the decision to remediate.

The Assessment of Alternatives determined that upgrading to version 9.0 was not a viable option, because of the poor HCM data. The Chief Financial Officer, the Steering Committee, and the major business units responsible for Human Resources and Payroll unanimously endorsed this conclusion and decided that remediation was the appropriate solution. The major factors driving the "remediate rather than upgrade" decision included:

- Metro had significantly changed the structure of PeopleSoft's foundation data tables during the initial implementation of PeopleSoft. There was a high risk that the 9.0 version would not work at all with Metro's customized foundation data table structures.
- Metro had significant data integrity problems due to faulty, non-standard processes imbedded during the initial implementation of PeopleSoft. For example, 'reports to' data, critical for time approval work flow and Personnel Action Request (PAR) processing, was very inaccurate in PeopleSoft. There was a high risk that the 9.0 version would not work at all given the data integrity issues and non-standard code.

- The upgrade option did not address key business issues that were part of the remediation effort, including:
  - PAR processing automation;
  - elimination of ETS as a time entry system; and
  - improved Human Resources and Payroll controls.

A series of Use Cases, Functional Requirement Documents, Detailed Design Documents, and Requirements Sessions, which fleshed out the project's detailed, re-organized user requirements, were the interim equivalents of the IG's proposed System Requirements phase (Table 1, SDLC Requirements Analysis). At the project's design stage, IT conducted dozens of requirements-gathering sessions, spanning months. For Metro- specific changes, such as pay calculation changes due to union rules, detailed requirements and design documents were created. These requirements were documented in Use Case format as well as in Functional Specifications that the users approved prior to User Acceptance Testing.

Concurrence with Recommendation 1.1

Recommendation 1.1: Direct the Chief Information Officer (CIO) to ensure that on all future system development projects, a sound system development methodology, which includes conducting a cost feasibility study, conducting an assessment of alternative solutions, and developing system requirements, is followed.

Metro Response: We concur with the IG's recommendation that the CIO ensure that on all future system development projects, IT follows a sound system development methodology including a cost feasibility study, an assessment of alternative solutions, and system requirements development. We have implemented this framework for all projects initiated in FY 2010.

Concurrent with implementing the PeopleSoft HCM remediation project, IT has also developed a long-term Systems Development Lifecycle Methodology (SDLC) governance framework. The draft SDLC governance blueprint is designed to support the national DOT Intelligent Transportation Systems architectural "Systems Engineering" framework. Metro believes the draft SDLC standards (Table 3) are functionally equivalent to the COBIT standards OIG proposes. However, in the judgment of Metro's Chief Enterprise Architect, the SDLC approach is preferable because it strengthens coordination with our partners in Metro's transit engineering departments, enables interoperability with our regional partners, and enhances prospects for national grant funding for our initiatives. Metro has no objection to examining how the SDLC processes may be improved by modifications drawn from the COBIT framework. Metro will work closely with OIG to assure compliance with all of the OIG's recommendations.

TABLE 3 - IT Long-Term SDLC Standards

Phase	System Development Life Cycle Phase (SDLC)	OIG Proposed Standards	New IT Standards
1	Feasibility	Conduct a Cost Feasibility Study	Business Case, Investment Evaluation Criteria Assessment, and Business Plan Initiation (BPI)
2	Conceptualization	Assess Alternate Solutions	Enterprise Architecture, Stakeholder Business Case Review, and Signoff
3	Requirements Analysis	Develop System Requirements	Use Cases, Functional, Technical, and Interface Requirements Documents, Detailed Design Documents, Requirements Traceability Matrix, Requirements Sessions
4	Planning	Develop a Project Master Plan	Achievement-Based Project Master Plan and Bi-Monthly Project Reporting on Schedule, Budget, and Deliverables
5	Risk Management	Develop and Implement a Risk Management Program	High-Level BPI Risk Assessment and Mitigation Strategy, SWOT Analysis, Enterprise Architecture Risk Assessment, and Project Risk Management Plan
6	Phase Approvals	Develop and Establish Project Phase Approvals	User Phase Signoffs

FINDING 2 – IT DID NOT PROVIDE ADEQUATE PROJECT MANAGEMENT AND OVERSIGHT

Metro Response: While we have issues with some aspects of the finding, we do concur with the recommendations.

Comments on the Finding

IT and the PeopleSoft remediation team implemented Master Project Plans, Phase Plans, and Checklists as an interim equivalent to the IG's Project Master Plan requirement (Table 1, SDLC Planning). IT led the development of a remediation Project Master Plan, which spawned area-specific plans. Each phase had its own scope and delivery schedule. The Contracting Officer

Technical Representative scrutinized consultant costs weekly and refused charges that appeared excessive or inappropriate.

IT implemented Risk Logs and Risk Management Plans as the interim equivalent for the IG's Risk Management requirement (Table 1, SDLC Risk Management). During the project, IT created risk logs and used them to mitigate project risks, with specific action plans. IT escalated risk logs to the Steering Committee almost every other week. However, an unanticipated risk, which the team was not able to incorporate in project planning, was Metro's pervasive organizational resistance to change. For example, the project encountered stiff resistance to the elimination of DTG, the timekeeping system for non-operating hourly personnel. In addition, even with directives from each divisional AGM, adoption of the new PeopleSoft tool remained low. Further, the Payroll manager refused to turn on the new system without 100% direct usage by the field. Consequently the project required eight parallel tests in addition to the two initially planned. These tests added almost 3 months to the schedule.

IT obtained User Signoffs from area-specific user leadership as interim equivalents to meet the IG's Project Phase Approvals requirement [Table 1, SDLC Phase Approvals]. For Payroll decisions, the Payroll Manager provided user signoff approvals. The Director of HR Operations Services provided the HR-specific user signoff approvals.

At the start of the project, all changes to the IT production environment used the STAT change control tool, which requires user signoff and approval before moving changes to production. Once IT established the Change Control Board (CCB), all changes to the PeopleSoft production environment followed the CCB process, which requires user signoff and approval before accepting change requests.

Concurrence with Recommendation 2.1

Recommendation 2.1: Ensure that on all future IT projects there is adequate project management and oversight, and a project master plan is developed maintaining control over the entire project. The plan should include a method for monitoring the time, allocated resources, and costs incurred throughout the life of the project.

Metro Response: We concur with this recommendation.

IT has developed an SDLC methodology which:

- Requires achievement-based Project Master Plans from project managers. Sample project master plans have been provided to Project Managers [Table 3, SDLC Planning].

- Requires project reporting on a bi-monthly basis. Project reporting tracks schedule, budget, and deliverables. The Project Management Office is monitoring project budgets and has begun to report on project encumbrances and revised project budgets [Table 3, SDLC Planning].

Concurrence with Recommendation 2.2

Recommendation 2.2: Ensure that on all future IT projects a risk management plan is developed and implemented to identify, assess, and document the risks associated with the costs, resources, schedule, and technical aspects of each project. This plan also should identify the procedures to predict and mitigate risks so the project will meet performance and business requirements and/or be delivered on schedule and within budget.

Metro Response: We concur with the recommendation.

IT has developed an SDLC methodology which:

- Requires each project to provide at least a high-level BPI risk assessment and risk mitigation strategy and a SWOT Analysis (Strength, Weaknesses, Opportunities and Threats) [Table 3, SDLC Risk Management].
- Requires an Enterprise Architecture (EA) assessment. The EA assessment is a risk-based assessment that occurs during the project initiation [Table 3, SDLC Risk Management].

Concurrence with Recommendation 2.3

Recommendation 2.3: Direct the CIO to develop a process on all future IT projects to ensure appropriate project signoffs after each phase is completed and prior to proceeding to the next phase of a project.

Metro Response: We concur with this recommendation.

IT has developed an SDLC methodology which:

- Requires customer/stakeholder signoffs and involvement in every phase of the SDLC (Table 3, SDLC Project Approvals).

- Requires customer/stakeholder signoffs before moving to the next phase (Table 3, SDLC Project Approvals).

CONCERN OVER USE OF TIME-AND-MATERIALS CONTRACTS ON HRPR PROJECT

Recommendation 1.1: Ensure that the proper type of procurement vehicle is used and procurement policies and procedures are followed.

Metro Response: We concur with this recommendation. We acknowledge the importance of clear guidelines on the use of T&M contracts and Procurement is in the process of updating the relevant policy for issuance in October 2009.

Recommendation 1.2: Ensure that there is adequate management oversight over all contracts and Metro gets the best value for its scarce resources.

Metro Response: We concur with this recommendation. The original $40 million PeopleSoft implementation and other major PeopleSoft efforts were done on a T&M basis. The proper use of a T&M contract is in cases "when it is not possible at the time of placing the contract to estimate accurately the extent or duration of the work or to anticipate costs with any reasonable degree of confidence." (See Federal Acquisition Regulations (FAR) 16.601(c).) This was the case with the PeopleSoft remediation project. At the outset, there was great uncertainty as to the depth of the problems with Metro's original PeopleSoft implementation, and thus at the time the contract was placed it was not possible to estimate costs or schedule with reasonable confidence. The choice to use T&M was validated as the project unfolded, when the magnitude of problems uncovered far exceeded what was expected or what our consultants, familiar with other problematic PeopleSoft implementations, had experienced.

CONCERN OVER BUDGET PROCESS FOR PEOPLESOFT REMEDIATION PROJECT

Recommendation 2.1: Utilize a project management cost system that keeps track of amounts budgeted and costs incurred by projects.

Metro Response: We concur with this recommendation. **In regard to the**

reference in the audit that Metro does not have a project management cost system, Metro does in fact utilize both project costing and commitment control. These systems reserve and track commitments, obligations, and costs by project. The systems can accommodate a level of detail that allows for the establishment of separate activities for a task or project, if required.

All funding for the HCM Remediation project was approved by the Board. Due to the unfolding nature of the project, the full cost was known only as the project progressed. Because the successor funding was not always fully available in a timely manner, multiple modifications to contracts were required. Major funding sources for the project are detailed below.

TABLE 4 - PeopleSoft Remediation Funding Summary

Source	Dollar	Comment
FY 2008 IT Metro Matters	$ 1,317,562	Board Approved Funding - IT FY08 Plan
FY 2008 Board Approved Reallocation	$ 3,635,000	Board Approved Funding - PeopleSoft Remediation. Total $5.1M approved, $3.6M for HR/Payroll, $1.5M procurement.
Kronos Remaining Funding	$ 971,279	Board Approved Funding - Kronos T&L (used for PeopleSoft T&L)
FY 2008 Operating Budget	$ 500,000	Board Approved Funding - FY08 Operating Budget
FY 2009 Urgent Funding Mainframe Migration	$ 732,881	Board Approved Funding - FY09 Urgent Funding - DTG/ETS retirement
Total	$ 7,156,722	

MANAGEMENT RESPONSE ON THE USE OF THE COBIT FRAMEWORK FOR AUDIT EXECUTION

While the suggestion to adopt COBIT as an IT governance framework is legitimate, the Chief Enterprise Architect has elected to follow the architectural standards required by the Federal government for transit agencies. The Department of Transportation and the Federal Transit Administration (FTA) require all transportation and transit agencies to comply with the Intelligent Transportation Systems (ITS) systems engineering approach in order to be eligible for FTA grant funding. Within the transportation industry, the ITS approach is a proven systems lifecycle approach which has the advantage of

being well-integrated with transit engineering market packages such as real-time train control and transit signal priority technologies.

In the last 12 months, IT has developed several disciplines within a robust IT governance framework. Examples are listed below.

- A Project Management Office that set standards and provides consistent project oversight.

- A System Development Life Cycle for application development.

- An integrated Architecture Standards Guide.

- A formalized Business Project Initiation process for initiating all Board-approved technology projects.

- A formal Change Control Board for approving changes to the production environment.

Metro welcomes a conversation about ways that the ITS system development methodology could be improved by application of the COBIT framework.