M E M O R A N D U M

FINAL AUDIT REPORT WITH RECOMMENDATIONS
Information Technology No. 13-002

SUBJECT: Review of the Integrated Finance Organization Project

DATE: November 19, 2012

FROM: OIG – Helen Lew ***/S/***

TO: GM/CEO – Richard Sarles

This **Final Audit Report,** entitled *Review of the Integrated Finance Organization Project,* presents the results of our audit. The objectives of the audit were to determine whether (1) the contractor, Metaformers, met the terms and conditions of contract ES-10158, (2) the Washington Metropolitan Area Transit Authority (WMATA) developed and implemented a project management methodology on the Integrated Finance Organization (IFO) Project, and (3) WMATA followed a well defined and structured system development life cycle (SDLC).

Background

Enterprise Resource Planning - In 2002, WMATA embarked on a plan to design and implement a full enterprise resource planning solution, utilizing an external system integrator and internal functional experts from all business units within the organization.[1] Oracle PeopleSoft was selected as the commercial off-the-shelf software for the financial and human resource system, IBM MAXIMO was selected for maintenance and materials management, and Trapeze was selected for bus and rail scheduling. For the next three years, the project team configured, tested, and placed into production the software being utilized today.[2]

Washington Metropolitan Area Transit Authority

[1] WMATA invested approximately $48 million for this integration project.
[2] WMATA contracted with Booz Allen Hamilton (BAH) to 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.

In 2005, WMATA implemented PeopleSoft's Financial and Supply Chain Management (FSCM) as their Enterprise Financial Management system. By implementing PeopleSoft's FSCM, WMATA expected to have a fully integrated, cost effective business system that would provide timely accurate information in a centralized, usable format, eliminating unnecessary manual touch points, and incorporating generally accepted best practices. However, according to WMATA's management, this goal was not fully realized.

In June 2007, WMATA started a PeopleSoft remediation process to correct deficiencies in the system's installation. The remediation process was supposed to encompass: (1) Human Resources and Payroll (HRPR), (2) Budget, (3) Finance, (4) Procurement, and (5) Fixed Assets. However, WMATA only completed the remediation of HRPR. The HRPR remediation started in June 2007 and was completed in March 2009. The cost of the HRPR remediation process was approximately $6.9 million.

Financial Systems Integration Assessment (FSIA) – WMATA's Department of Information Technology (IT) found a critical need to re-architect WMATA's financial operations and the PeopleSoft systems. As a result, WMATA awarded to Metaformers contract ES-9204 in 2009 to conduct an assessment of the current state of the FSCM between October 2009 and February 2010. Metaformers assessed and documented the then current financial management system, which included, but was not limited to the general ledger, accounts receivable, accounts payable, budget, treasury, procurement, human resources, payroll, and project costing core applications. FSCM integrates with the Enterprise Performance Management (EPM) system. The assessment also included other software applications of WMATA, such as MAXIMO and Trapeze, which should interface with the core financial systems.

PeopleSoft Integrated Finance Organization (IFO) Project[3] – In July 2010, WMATA awarded Metaformers contract ES-10158, a $9,147,466 firm fixed-price 24-month base period for PeopleSoft implementation services.[4] The IFO project consisted of integrating WMATA's existing financial systems and functional business processes to accomplish WMATA's strategic objective of establishing a single, enterprise-wide information system. It is basically the upgrade of the legacy financial system, PeopleSoft 8.8 to PeopleSoft 9.1. WMATA has modified the base contract seven times to either amend a contract provision or exercise a contract task. As of June 2012, the approximate cost of the contract was $14 million.

IFO Project Organization Governance – The Project Sponsor, WMATA's Deputy General Manager Administration/Chief Financial Officer (DGMA/CFO), established the strategic vision and criteria for the IFO project. The Project Sponsor established an Executive Steering Committee (ESC) which provided overall governance over the project. The ESC members consisted of selected members of the Executive Leadership Team (business and technology stakeholders) and had full authority to make decisions on issues regarding resource funding, resource allocation, and project scheduling and system functionality. The ESC was also responsible for reviewing project status, expediting critical path issues, ensuring satisfaction of business needs, and resolving any vendor related issues.

Project management included Project Officers and assigned Project Leads.[5] The Project Officers oversaw the day-to-day planning, organization, and direction of resources in order to complete specific project activities and focus the team on meeting project goals. Two-way communication was established between the Project team and the ESC.

---

[3] The PeopleSoft Financial Systems project was a two-phase effort to include finance process redesign, upgrading current modules to PeopleSoft 9.1, re-implementing eProcurement, integrating EPM with Financials and digitizing accounts payable processes with PeopleSoft accounts payable through the use of a document management solution.

[4] The PeopleSoft Implementation services, later referred to as the IFO project, consisted of Task One (Financials Upgrade), Task Two (Data Preparation), and Tasks Three and Four (Phase II Financial Support).

[5] Project Leads are assigned WMATA business leads.

Prior Reviews – The Office of Inspector General (OIG) has issued two audit reports related to WMATA's PeopleSoft Enterprise Financial Management system. The first report (IT No. 10-001), dated October 21, 2009, and entitled, *Review of the PeopleSoft Remediation Project*, noted that WMATA did not follow a sound system remediation methodology on the Human Resource and Payroll (HRPR) system. The second report (IT No. 13-001), dated September 12, 2012, entitled, *Review of Selection and Award Process of Metaformers Contracts,* noted that WMATA did not follow applicable procurement policies and procedures, guidance, regulations and laws in the selection and award of the IFO contract.

Audit Results

We found Metaformers did not adequately meet some key terms and conditions in contract (ES-10158). Specifically, some capital projects in the new PeopleSoft 9.1 system were not linked/mapped to their federal grant award resources. For example, at the end of February 2012, approximately $28 million in project activities (billings) had not been mapped to customers contracts. We also found reconciliation issues existed in the new system, and a number of reports that users need to manage their programs and operations were inaccurate and/or incomplete. We found these problems stemmed from a variety of reasons including (1) failure to coordinate and involve various business function groups in the data cleaning process before the contractor converted data in the new system, (2) unfamiliarity by users and the IFO Project Team with the new data structure and how to load the data, and (3) the contractor did not fully understand the data structure to generate accurate and complete reports.

In addition, WMATA awarded a $2.5 million contract (FQ-12208) to Metaformers in August 2012 for IT support for the PeopleSoft financial systems. We found this contract's statement of work (SOW) lacked specifics on the activities/requirements and milestones.

Lastly, we found WMATA's decision to develop and implement the IFO project within a 12-month timeframe was not predicated on a sound project management methodology or a well defined Systems Development Life Cycle (SDLC). Since 2002, WMATA has invested approximately $72 million to assess, implement, remediate, and integrate its PeopleSoft systems. It is critical that top management at WMATA provide proper management and oversight to this financial systems integration effort to ensure it meets expectations.

To address the above findings, we made five recommendations to the General Manager/Chief Executive Officer (GM/CEO) to direct the Deputy General Manager, Administration/Chief Financial Officer (DGMA/CFO) to:

- Identify all system functionality problems and data issues resulting from implementing the IFO project, prioritize these problems and issues, and take appropriate action to address them promptly (Recommendation 1.1)
- Ensure that system users participate and are consulted on efforts to address outstanding issues from contract ES-10158 (Recommendation 1.2)
- Develop controls to ensure project deliverables under contract FQ-12208 are clearly defined with milestones and completed within timeframe and budget (Recommendation 2.1)
- Ensure all future IT-related system development/implementation projects adopt and follow both a structured IT acquisition methodology (prior to making a decision to acquire or develop an IT solution), and a sound project management methodology, including monitoring the contractor's efforts to meet milestones and staying within budget (Recommendation 3.1)
- Ensure WMATA follows its IT Governance Process, including proper project management and oversight, when developing and implementing automated solutions on future projects (Recommendation 4.1)

We provided a revised draft of this report to the GM/CEO for review and comment on October 15, 2012. In Management's October 31, 2012, response, they did not clearly state whether they concurred or did not concur with our findings and recommendations, as we requested. Management did provide some information on actions they have taken and/or plan to take on some of the findings identified in this report and included a

Management summary regarding the IFO project's success. We captured some of Management's comments after the Recommendation section of each finding; we included the comments in their entirety as Attachment 1 of this report.

We did not make any changes to the findings and recommendations based on Management's comments.

Finding 1 – Metaformers Did Not Adequately Meet Some Key Terms And Conditions In The Contract

Our review showed that Metaformers did not adequately meet some key terms and conditions in the IFO contract. Specifically, we found:

- Some capital projects are not linked/mapped to their federal grant award resources
- Reconciliation/matching issues exist in PeopleSoft 9.1
- PeopleSoft 9.1 does not generate accurate and complete reports

These deficiencies are discussed further in the sections below.

Sub-finding 1.1 - Some Capital Projects Are Not Linked/Mapped To Their Federal Grant Award Resources.

WMATA was unable to link/map some federally-funded capital projects to specific grants in PeopleSoft 9.1. As a result, WMATA cannot readily drawdown on federal grant award resources and must use other resources to pay for project expenses. According to users we talked to and documents we reviewed, WMATA had to use funds from other sources, such as System Performance funds to supplement operating funds to pay for projects.

According to the IFO Statement of Work (SOW), Contract ES-10158, Part III, Section C.5.5.9, Capital Improvement Program – Initial Process, WMATA previously did not utilize the PeopleSoft applications to manage external funding sources, grants and their related agreements. Under the IFO contract, Metaformers would utilize the delivered PeopleSoft business processes for grant and project management and modify the use of the Fund Code to be in line with best practices. The SOW further states the current business practice of entering an accounts receivable for the entire dollar amount of the Federal Transit Administration (FTA) funding creates an inaccurate view of WMATA's receivables and aging, and will create a barrier to using other functionality within PeopleSoft, such as cash position worksheets for cash forecasting. The contractor shall ensure that PeopleSoft Project Costing and Contracts calculate and process FTA bills and receivables.

The former PeopleSoft 8.8 used its core module, the General Ledger (GL), to maintain all capital project data such as project budget, expenses and federal fund resources, etc. The Fund Code was used to link project expenses and federal grant award resources. The new PeopleSoft 9.1 system was re-designed with new project costing, and customer contracts and grants (PCG) modules.[6] In the new system, the Fund Code is not used to link project expenses with federal fund resources. Instead, data related to capital projects and federal funds was moved to the PCG modules. Users create new project activities[7] and customer contracts[8] in the PCG modules. Additional functions such as asset management and project reconciliation are connected to the PCG modules. Assets related to capital project costs are uploaded from the PCG modules to the Asset module.

[6] The PCG modules are critical project deliverables. These modules are expected to support and improve WMATA's capital project funding process with efficiency and accuracy.
[7] WMATA defined 54 categories of capital projects expenditures, for example activity vehicles_OTHER indicates the type of expense for non-revenue vehicles.
[8] Customer contracts are the link between capital projects and the associated grants.

We requested queries of capital project costs incurred during fiscal year (FY) 2012 in the PCG modules to determine whether these costs are properly linked/mapped to their funding resources. We found that a number of capital projects were not mapped to specific grants. For example, at the end of February 2012, approximately $28 million in project activities (billings) had not been mapped to customer contracts. To illustrate, project CIP0142 (Rail Lifecycle Overhaul) during FY12 did not have federal grants mapped through customer contracts.

In addition, approximately $43 million in project activities had not been configured for funds distribution, that is, WMATA did not know the grant amount allocated to specific project expenses. For example, Project CIP0138 (System-wide Infrastructure Rhb) had a cost of $3,257,193 project activities but did not have funds distributed in the PCG modules. The project activities above included expenses for CONSTRUCTION (Construction contract), CONSULT (Administrative Consultants), ENGINEERING (Engineering Contracts), and WMATA_ES (Escort Services), etc.

In July 2012, we requested from the Office of Accounting (ACCT) the most current project expenses that could not be mapped to grants. ACCT did not provide the requested data to us, because they were in the process of preparing the financial statements for fiscal year (FY) 2012. Therefore, the scope of our audit was limited in our effort to obtain the most recent project expenses not properly mapped.

According to the IFO SOW, Contract ES-10158, Part III, Section C.5.5.13, Obtain Federal Reimbursement, WMATA's current process for calculating and obtaining reimbursement for federal grants is primarily a manual process, consisting of several queries of data from PeopleSoft and compiling that data in a series of spreadsheets. Under the IFO contract, Metaformers shall ensure that WMATA is adequately reimbursed using PeopleSoft tools, eliminating many of the manual steps completed by WMATA staff to calculate grant drawdown and billable amounts.

In addition, according to the IFO Project Conversion Plan, Section 1.2, Conversion Approach by Module:

- "All open projects, including those that have both (1) a start date in fiscal year 2011 or prior, and (2) have an end date in fiscal year 2012 or thereafter, will be re-numbered to support a clean conversion as well as maintenance of historical project data. Any such renumbering requires communication to affected parties. The functional conversion design will address the crosswalk of current-state to future-state Project IDs. Projects will be created through manual entry or component interface."
- "Contracts will be created through delivered processing from awarded grants."
- All open grants, including those that have both (1) a start date in fiscal year 2011 or prior, and (2) have an end date in fiscal year 2012 or thereafter, will be created through manual entry or Component Interface.

Further, according to the IFO Conversion Plan, Section 4.2.1, Converted Data Integrity Verification, once data has been converted, data verification and integrity checking will be performed. The two methods that will be utilized are on-line and batch verifications. Data verification will be performed to identify problems such as missing keys, required data that has been dropped during the cleansing or conversion processes.

We found that WMATA can not readily drawdown on some federal grant award resources, because some capital projects were not properly linked/mapped. For example, we noted that on March 12, 2012, project CIP0142 (Rail Lifecycle Overhaul) showed project expenses of $7,074,078 in the GL module, but these expenses did not appear in the PCG modules. In addition, although some projects had the customer contracts set up in the system indicating the projects were mapped to federal grants, some of the project activities were not configured for fund distributions. For example, project CIP0146 (Mainline #8 Switch Replacement) was loaded in the PCG modules, but it showed “0” project expenditures in funds distribution.

Further, users informed us that the IFO team did not coordinate and involve various business function groups in the data cleaning process before the contractor converted data in the new system. Metaformers also said that the grants are not mapped with project costs, because they did not have the right information (clean data) to complete mapping before the system go-live. A representative of the IFO Project Management Team said some of the users and IFO Project Team members were not familiar with the new data structure and how to load the data. Some of the users we interviewed said Metaformers did not provide adequate guidance on how to load the data properly. As a result, the new system experienced poor data quality, hence the phrase "garbage in garbage out," applies. This resulted in capital projects expenses not being mapped to their federal grant award resources.

Operations users we interviewed also confirmed these types of problems. One user told us of an attempt to clean the data before conversion; they invited CFO personnel to meet to discuss matching projects to grants to ensure everything would link/map afterwards. This individual said CFO personnel deferred to a later date.

As a result of the linking/mapping problems, according to documentation we reviewed and users we talked to, WMATA used operating funds to pay for capital expenditures without the corresponding reimbursement from grants. This caused operating cash flow problems resulting in WMATA borrowing funds to supplement operating funds. Documentation we reviewed indicated that the challenges WMATA faced in mapping project expenses with federal grants prevented WMATA from reimbursing operating resources that WMATA had used to prepay project expenses. WMATA borrowed at least $129 million from sources, such as System Performance funds, to replenish the operating funds deficit, because of mapping issues. Operating cash flow problems increase WMATA's overall risk in paying its bills timely, staying within budget, and exhausting operating funds needed for other purposes.

Sub-finding 1.2 - Reconciliation issues exist in PeopleSoft 9.1 system.

We found that Metaformers did not correct the reconciliation issues found in PeopleSoft 8.8 as required in the IFO contract. Reconciliation issues still exist in PeopleSoft 9.1.

According to the IFO SOW, Contract ES-10158, Part III, Section C.5.1.12, General Ledger-Data, Metaformers was required to correct reconciliation issues in PeopleSoft 8.8 between the GL and subsystems. According to the users, the GL module in PeopleSoft 9.1 should contain the project expenses and billing data, and the PCG modules should store project activity, customer contracts, and funding information. The GL and PCG modules should be integrated and the Commitment Control module shall store project budget information. Project cost data from the PCG, the GL, and the Commitment Control modules shall match.

We reviewed data queries from the new system at the end of March 2012 and found the project costs in the GL and the Commitment Control did not match the project costs in the PCG. We also noted that although the IFO team had developed a reconciliation report, known as the Subsystem report, the system was unable to produce this report for our review at the end of March 2012. Users we interviewed and the IFO Program Manager told us IFO project data was not properly set up in the PCG modules, resulting in project costs in PCG not matching data in the GL and Commitment Control.

The ability to reconcile project costs between the PCG, GL, and Commitment Control is a critical deliverable of the IFO contract. Failure to do this means users cannot rely on the system to perform reconciliations between project costs in the GL and PCG. Users also cannot accurately and effectively track whether project costs are within budget in the Commitment Control module.

In addition, we found that capital project costs transferred from the PCG modules to the Asset Management module do not match project costs in the GL module. According to the IFO SOW, Contract ES-10158, Part III, Section C.5.1.11, WORK IN PROGRESS,

WMATA did not implement the PeopleSoft Asset Management feature in PeopleSoft 8.8. As a result, the approach for proper capitalization of costs relied on human judgment and manual intervention through the processing of GL journals to capitalize costs from work-in-progress. According to the IFO contract, Metaformers' solution should:

- Accumulate costs until an asset is put into service and then capitalized, leveraging PeopleSoft's Asset Management solution.
- Establish assets within Asset Management as capital or non-capital, and the decision whether to capitalize a cost after an asset is put into service should be made at the time of transaction input rather than in the GL.
- Ensure that the flow of information from MAXIMO to PeopleSoft adequately and correctly supports WMATA's objectives for the proper accounting of work-in-process.

In the previous PeopleSoft 8.8 system, the Asset Management module was linked to the GL module directly, and information was shared. In the new PeopleSoft 9.1, Asset Management is a separate module and interfaces with other financial modules, including the PCG, Accounts Payable, Purchasing, and the GL. Asset-related project cost data is transferred from the Account Payables/Purchasing and PCG modules to the Asset Management module. The total amount of asset-related project costs in the Asset Management module should match the total amount of asset-related project costs from all resources in the GL module.

In March 2012, we reviewed the query results of asset-related costs by projects from July 2011 to January 2012 to verify the interface between the Asset Management module and other financial modules. We found that the asset amounts in the Asset Management module ($418,567,365) did not match the asset related cost from all resources in the GL module ($462,266,266); there was a difference of $43,698,901 in the Asset Management module. We reviewed the Asset Management module in June 2012, and found the project costs in the Asset Management module still had the problem.

We also found the Asset Management module does not provide automatic batch transfer of data from the Accounts Payables/Purchasing or PCG modules to the Asset Management module. According to the PeopleSoft workflow chart posted on WMATA's Intranet, PeopleSoft 9.1 has the capability for automatic data transfer from the PCG modules to the Asset Management module. The IFO team did not implement this feature. Users must manually transfer data from the PCG modules and manually retrieve data from the Asset Management module. This manual process is very time consuming and inefficient. An IFO Project Team member told us in June 2012 that they were working on implementing this functionality. We asked the IFO Program Manager why the automatic data transfer function was not working, but no answer was provided.

We also noted that the Asset Management module does not integrate seamlessly with other modules in PeopleSoft 9.1, because the capital projects were not properly setup in the PCG modules and the automatic data transfer was not implemented. For example, Project CIP0074, Parking Lot Credit Card Reader, has asset-related project costs at the end of May 2012 in the GL module of $2,529,937, while the Asset Management module did not show any costs for this project. In another example, CIP0057, 1000 Series Rail Car Replacement, showed costs of $14,312,806 in the GL module at the end of May 2012, while the Asset Management module showed project costs of $5,287,789.

Sub-finding 1.3 – PeopleSoft 9.1 does not generate complete and accurate reports.

We found that PeopleSoft 9.1 cannot produce a number of reports that users need to manage their programs and operations. In some cases, where reports are available, they are inaccurate and/or incomplete. As a result, users cannot rely on the reports to review, monitor, and/or reconcile information**.**

Based on meetings with some system users and our review of functional report design specifications for PeopleSoft 9.1, we identified reports with deficiencies and/or are not currently available. Some of these reports and their deficiencies are discussed in the sections below.

1) Contract Retention Reconciliation Report – This report should provide information on the retention amounts for each grant/contract relating to vendors and purchase orders. The objective of the report is to list the retention amounts being withheld from vendors for grants/contracts by purchase order identification, and provide retention general ledger beginning and ending balances to support subsystem reconciliation.

   According to users we talked to, the report was tested, but was never finalized. When tested, the query results were not correct. For example, the invoice amount in the GL module for **c**apital project CIP0073, Escalator Rehabilitation, was $3,386. Based on Federal matching requirements,[9] the Federal share of $1,693 or half of $3,386 should have been captured. However, the report showed $10,159, a difference of $8,466. According to users, Metaformers has not delivered this report.

2) Open Item Report – This report is designed to show the remaining balance of capital contracts. Project managers and ACCT staff use the report to track the retainage of capital projects. We reviewed the January 18, 2012, PeopleSoft GL Open Item Report and found some errors and omissions. Specifically, we found:

   - The report did not show the beginning balances of purchase orders (PO) associated with capital contracts when the new system was implemented.

[9] Under Federal matching requirements for dedicated funding, the Federal government pays 50 percent, and the jurisdictions pays the other 50 percent.

- The report listed duplicative contract PO costs. The new system replaced the old PO numbers with new PO numbers, but it did not transfer the balances from the old PO numbers or close out those balances. The true balance is not known, because payments are being made from two PO numbers for the same project. For example, PO000054937 in the old system was replaced with POFP7026 in the new system. The report listed both old and new PO numbers as two separate expenses. Payments were made to both open PO numbers.

3) Subsystem Reconciliation Report **–** This report is designed to provide information on Projects, Commitment Control, and the GL to validate that the data within the projects' ledger reconciles to the Commitment Control and the GL. This reporting tool did not work during the time of our fieldwork. The objective of this report was to support the GL expense reconciliation by comparing the project with the Commitment Control and GL expense account balances at the project level. As of August 20, 2012, Metaformers had not produced this report.

4) Federal Receivable Reconciliation Report **–** This report is designed to list the federal grant allocations to federal capital projects. This reporting tool does not currently exist in the new system. To address the users' need for this information, Metaformers generated query results from the backend database and sent them to users via email. However, the query results were not correct. The query results contained errors on the financial allocations to federal capital projects. For example, the query results showed the federal grant allocated to the customer contract titled, 1/3-2/3 Appropriations (Customer Contract No. 10000), was $2,807,138,675 in the old system on June 30, 2011. However, when queried on January 31, 2012, the new system showed $2,811,232,556 for the same customer

contract, a difference of $4,093,881. The ending balance in the old system should have been the same as the beginning balance in the new system.

5) Transit Infrastructure Investment Fund Report **–** This report is designed to provide information on WMATA real estate properties for which rent or other such payments are received. Users told us this report does not currently exist in the new system. Users need this information to determine the rent or payments by property. According to users we talked to, Metaformers provides them query results generated from the backend database. However, the query results do not identify the specific properties in order for ACCT to determine the gain and/or loss by property.

6) Capital Labor (Project Labor Funding Status) Report **–** According to a user, this report is designed to list the labor hours charged to capital projects by grant/contract. The user would use this report to compare the labor hours charged with the hours budgeted in Commitment Control. The report would help users determine if the projects are running over budget. However, we found that this reporting function has not been implemented in the new system. As a result, users must manually pull labor hour data from the GL module.

During discussions with users and the Business Function Groups, we learned that there are additional reports in the PCG modules that are not available and/or have problems. A listing of these reports and their status can be found in Appendix 1.

We asked users for reasons why a number of the required reports are not available in the new system. Users we interviewed told us that the contractor did not fully understand the data structure to generate the reports. Members of the IFO Project Team told us that the reports were not developed, because the data needed was not

available in many instances. Operations personnel we talked to told us some reports were not available, because the 12-month timeline for the IFO project was too short. We also asked the IFO Program Manager for reasons why certain reports are not available. She did not respond to our repeated requests for information.

Because many of the reports are not available, users are not always able to perform their work in an efficient and effective manner. Users often have to rely on the contractor to perform queries and/or perform alternative procedures. For example, Operations users told us they had to develop other methods to obtain the information despite having paid the contractor for the reports.

Recommendations:

We recommend the General Manager/Chief Executive Officer (GM/CEO) direct the DGMA/CFO to:

1.1 Identify all system functionality problems and data issues resulting from implementing the IFO project, prioritize these problems and issues, and take appropriate action to address them promptly.

1.2 Ensure that system users participate and are consulted on efforts to address outstanding issues resulting from contract ES-10158.

Management Comments

Management stated the IFO project was completed on-time and within budget. Management also stated, at this time, 99 percent of Metro's 30 approved federal grants identified in Sub-finding 1.1 have been mapped and all existing security grants will be mapped before the end of December 2012. Further, the conclusions represented in Sub-findings 1.2 and 1.3, while accurate at the time, have since been resolved during the final implementation phases or soon thereafter.

OIG Response

We disagree with Management's comment that the IFO project was completed on-time and within budget. Specifically, the data and functionality problems were still being addressed by Management one year after the system "go-live" date. This is evident by the Contract Award and Notice to Proceed letter to Metaformers on August 3, 2012, under contract FQ-12208, to provide critical system functionality support. We did not make any changes to Finding 1 and Recommendations 1.1 and 1.2 based on Management's comments.

FINDING 2 - WMATA Awarded Metaformers Another Contract For Critical IFO Functionality That Lack Specifics On The Activities/Requirements and Milestones

Near the end of our audit, we learned WMATA awarded contract FQ-12208 to Metaformers to support critical system functionality requirements previously contracted for under contract ES-10158 ("the IFO contract"). The functionality requirements generally dealt with "Grantor Drawdowns," specifically, WMATA's ability to associate grants with the appropriate project(s).

The Contracting Officer submitted a contract justification for the contract, stating that "a compelling business reason existed whereby the Authority's ability to automatically draw Passenger Rail Investment and Improvement Act (PRIIA) grant funding through PeopleSoft ERP was at risk without the necessary technical support required in the solicitations."

We reviewed the SOWs for contracts ES-10158 and FQ-12208 to determine similarities and differences. We found the SOW for contract FQ-12208 to be general and lack specifics on the activities/requirements such as tasks being clearly identified with milestones to ensure completion within timeframe and budget. The SOW indicates the contractor is to provide production support/issue resolution, knowledge transfer, and year-end activities/closing/process for PeopleSoft 9.1. Our review showed that some of

the requirements in contract FQ-12208 should have been completed under contract ES-10158, but they were not. For example, according to the Integrated Finance Organization Requirements Traceability Matrix in contract ES-10158 under the Grant & Capital Project Management category, General Requirement GPR-8, there is a mandatory requirement that the system "calculates billing and drawdown amounts for grants and reimbursable agreements. If possible (based on application capabilities of the funding sources), create electronic file to obtain reimbursements for all fund sources. Interface with FTA, if possible." The comment section described the requirement as "a 'fit' with the exception of the FTA interface which was considered out of scope of the proposal."

Contract FQ-12208 under Project Costing, Project Management & Grants again requested Grantor Drawdown Support. As we noted in Finding 1 of this report, this critical function was not working at the end of our field work along with other deliverables, such as system reports.

The IFO Project Management team did not ensure that all project deliverables that WMATA paid for were completed in contract ES-10158. As a result, WMATA had to award Metaformers another contract for approximately $2.5 million to complete and/or resolve outstanding deliverables from the prior contract.

Recommendation:

We recommend the GM/CEO direct the DGMA/CFO to:

2.1 Develop controls to ensure project deliverables under contract FQ-12208 are clearly defined with milestones and completed within timeframe and budget.

Management Comments

Management stated the second contract (FQ-12208) was initiated to provide PeopleSoft users with continued technical and functional support of the software which

was not part of the base contract. Management stated this contract did specify the number of hours by resource required for each of the four functional and technical disciplines; Accounting, Inventory, Maximo interface, and Procurement. Each area has an identified functional business owner, who is responsible for determining the work effort. Management further indicated two sign-offs are required prior to the work effort being deployed to ensure that all work falls within the confines of the contract.

OIG Response

We did not make any changes to Finding 2 and Recommendation 2.1 based on Management's comments.

FINDING 3 - WMATA Did Not Adequately Follow A Sound Project Management Methodology

We found WMATA did not follow a sound project management methodology in the development and implementation of the IFO project. Specifically, WMATA did not have (1) a full understanding of the project management methodology and (2) an understanding of the timeframes for accomplishing the tasks associated with utilizing a structured SDLC[10] methodology. WMATA management omitted critical steps relating to project planning and proceeded directly into the systems development and implementation phase.

While WMATA's strategic vision for the PeopleSoft Financial Systems project was well intended, the decision to upgrade, re-engineer, and integrate an IT solution within 12 months was unrealistic and not predicated on sound methodologies. This decision contributed to the system deficiencies identified in Finding 1 of this report.

[10] SDLC is a process involving multiple stages used to convert a management need into an application system, which is custom-developed or purchased or is a combination of both. For example, a sound SDLC project management methodology should include, at minimum, the project scope, the allocation of responsibilities, task breakdown, budgeting of time and resources, milestones, checkpoints, and approvals.

PeopleSoft Financial Systems Planning - According to the IT Department's October 2009 Business Plan Initiation (BPI) Form which included both the BPI and project scope,[11] the FSIA project included: (1) a complete assessment of WMATA's current installed version of PeopleSoft Financials and other software applications of the organization (such as MAXIMO and Trapeze), (2) identify business process best practice recommendations that would promote WMATA business objectives, and (3) identify a business process to promote business objectives and define a set of requirements for the Finance organization's technology needs. The BPI scope included developing a set of plans which would be actionable by the Department of IT, Finance, and Procurement.

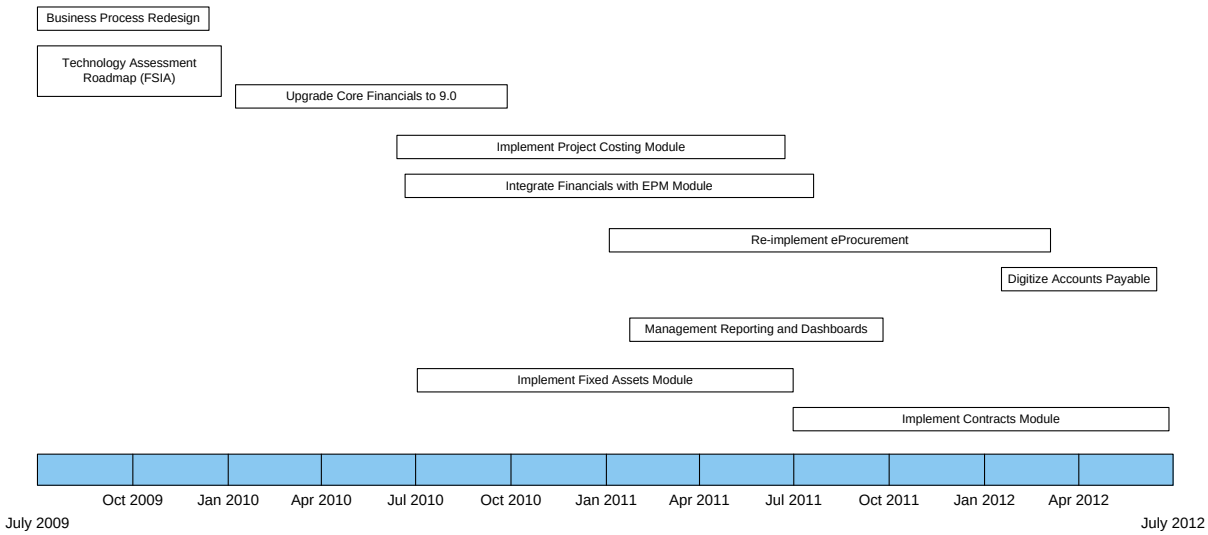
The IFO Program Manager informed us that the FSIA project was initiated to understand WMATA's current state of PeopleSoft processes and to provide a roadmap[12] for the development and actual implementation of the IFO project.

According to a July 2009 "PeopleSoft Financials BPI" presentation document provided by the Department of IT, the PeopleSoft Financial Systems' timeline had a project start and completion timeframe for the FSIA and the development and implementation of PeopleSoft 9.1 from July 2009 to July 2012. See Figure 1 on the next page.

[11] The BPI form is used for Assistant General Manager-Information Technology/Chief Information Officer (AGM-IT/CIO) review and approval of IT projects. The form is designed to ensure a comprehensive process and enhance the IT customer's experience in requesting projects.

[12] The FSIA Roadmap identifies the technical and organizational constraints considered for purposes of the upgrade path recommendations.

Figure 1. PeopleSoft Financial Systems Project Timeline[13]



The ESC led by the DGMA/CFO[14] accepted the recommendations from the assessment and moved forward with the IFO project. The FSIA was completed in February 2010. According to contract documentation and Project Officers, the IFO project began in July 2010, six weeks after the planned startup date of June 1, 2010, due to contractual delays. Despite the delays, the project was initiated and the 24-month timeframe was reduced to a 12-month timeframe from start to deployment.

According to the IFO Program Manager, the CFO and the ESC all agreed on the July 2011 "go-live" date. The IFO Program Manager stated management believed a newly developed financial system should be deployed and implemented at the beginning of a fiscal year. IFO project management could not provide us with documented analysis to demonstrate that they adequately conducted a formal exercise to substantiate this business decision.

[13] This was the original PeopleSoft Financial System timeline that depicted the project's integration assessment and development and implementation phases (it excludes the support phase).
[14] According to the Program Manager, the control of the IFO project transitioned from the Department of IT to the CFO.

The Control Objectives for Information and Related Technology (COBIT),[15] Section Acquire and Implement (AI1), Identify Automated Solutions, provides the following summary pertaining to the identification of business needs, viable alternatives, and cost prior to deciding on an IT solution:

> The need for a new application or function requires analysis before acquisition or creation to ensure that business requirements are satisfied in an effective and efficient approach. This process covers the definition of the needs, consideration of alternative sources, review of technological and economic feasibility, execution of a risk analysis and cost-benefit analysis, and conclusion of a final decision to 'make' or 'buy'. All these steps enable organizations to minimize the cost to acquire and implement solutions whilst ensuring they enable the business to achieve its business objectives.

Further, WMATA's IT Governance Process[16] describes the structured methodology and processes that management should consider in an effort to align IT actions with their goals and objectives. This involves establishing decision rights and an accountability framework in the deployment and use of IT. For example, the Governance Process recommends management to do, at a minimum, formally develop the following documents prior to obtaining approval: (1) BPI Form, (2) System Definition and Design Form, (3) Development and Implementation Form, (4) Change Control Board[17] (CCB) Request, (5) Project Closeout and Project and Post Mortem Report.

---

[15] COBIT is framework created by Information Systems Audit and Control Association (ISACA) for IT management and IT Governance.

[16] IT's Governance Process is based on both COBIT and the Department of Transportation ITS framework.

[17] WMATA's CCB is comprised of 11 members, 7 executives of WMATA's Department of IT, and 4 WMATA Project Leads. The four Project Leads submit the Change Requests (CRs) information for review. Then the seven IT members review the CRs and have the power and voting rights on project decisions to approve CRs.

According to WMATA's IT Governance Process, prior to developing and implementing the IFO project the following should occur: (1) prepare a definition of the business needs, (2) consider alternative solutions, (3) conduct a risk analysis and cost-benefit analysis, and (4) document the "make" or "buy" decision. The following sub-headings discuss deviations we identified from proper project planning/initiation and sound project management.

Project Preplanning/Initiation – We found WMATA lacked a formalized and detailed preplan for the IFO project. For example, management did not conduct a business and cost-benefit analysis for the IFO project. Both COBIT and WMATA's IT Governance Process requires a cost benefits analysis. According to the IFO Program Manager**,** the FSIA conducted during Phase 1 addressed these planning requirements and was initiated to study the financial system's current state and to determine the project's roadmap and corrective actions.

However, our review of the FSIA and IFO project documentation revealed no analysis of costs, benefits, and/or qualitative/quantitative performance metrics for the project. Failure to adequately plan the project may have contributed to user dissatisfaction and problems with getting timely system reports and other deliverables identified in this report.

Project Plan – Although a formal project plan[18] was developed, we found the plan did not specify the manner in which controls would be maintained to assure task breakdowns were completed and milestones were met. Specifically, we found project activities in the plan that were either incomplete or did not start as indicated. We also found activities that were shown as completed on the project plan at the time of system deployment but were performed well after the go-live. For example, our review of the plan revealed that several construction and initial (unit) testing activities (the ARRA[19]

[18] Metaformers created a Technical Assessment and Recommendation document and a PeopleSoft Upgrade Roadmap to meet the requirements of the SOW and/or Project Plan.
[19] American Recovery & Reinvestment Act of 2009.

Report, Joint and Adjacent Projects Reconciliation, Equity Reconciliation) were shown as 100 percent completed. As of March 2012, during our "walkthroughs" of the system with business users, we found that these reports did not exist in the production system. As of June 2012, these reports were still in different stages of development and had not moved into production.

A formal process provides management with a structured and rational basis for identifying an IT solution, selecting an IT solution, and the subsequent decision to implement, develop, and/or modify an existing IT solution. WMATA management did not conduct a formal IT solution exercise that would allow for an effective plan to upgrade, re-engineer the business processes, and integrate the IFO project within the 12-month timeframe. Despite identified issues, WMATA management made the decision to proceed with the implementation to meet the expectations of key stakeholders and CFO program staff.

WMATA personnel[20] we interviewed informed us that the IFO project was flawed from the beginning and fell victim to poor management execution. These personnel informed us they did not believe 12 months was sufficient time to undergo a project of this magnitude. Metaformers also said it would take 18 to 24 months to complete the project, but the project was condensed to 12 months and the development team was challenged to complete the project in the shorten time period.

IT Consultation - The former CIO[21] told us the CFO took full responsibility of the IFO project and personally managed it. She informed us that IT personnel were consistently bypassed regarding project decisions, and their input was excluded during the initial phase of the project. The former CIO also stated that the IFO project lacked a benefits realization approach. Such an approach would have clearly identified the IFO project's business needs and established quantitative metrics to ensure accountability

[20] IFO business leads and users.
[21] The former CIO was an ESC member during the initial phase of the IFO project.

for performance results. This would have allowed management to effectively evaluate the projects desired and realized outcomes. The former CIO stated that a project of this size could not have been effectively deployed within a 12-month time period. She believed that this project should have taken at least 18 months.

WMATA management is responsible for understanding and managing: (1) WMATA's expectations for the PeopleSoft Financial Systems project and (2) the risks, complexities, and magnitude of developing and implementing the IFO project. Based on our review, management did not fully understand the magnitude and complexities of the tasks associated with implementing an IT solution and relied on the consultant's assessment and strategic roadmap to develop and implement the IFO project within 12 months. This in turn contributed to a schedule driven effort for which key processes were omitted or shortcuts were taken. Many of the users that we interviewed were dissatisfied with the system deployed and were experiencing problems at the end of our field work.

Recommendation:

We recommend the GM/CEO direct the DGMA/CFO to:

3.1 Ensure all future IT-related system development/implementation projects adopt and follow both a structured IT acquisition methodology (prior to making a decision to acquire or develop an IT solution), and a sound project management methodology, including monitoring the contractor's efforts to meet milestones and staying within budget.

Management Comments and OIG Response

Management combined their comments to Findings 3 and 4. As a result, Management comments and our response are captured after the Recommendation section of Finding 4.

FINDING 4 – WMATA Did Not Use A Structured Systems Development Life-Cycle Methodology

We found that WMATA did not follow a structured systems development life-cycle project methodology, including WMATA's Information Technology Governance Process, in developing and implementing the IFO Project.

According to the IFO SOW, Contract ES-10158, Part III, Section C.6.1, Project Approach, the project was to use WMATA's IT Governance methodology to provide a structured approach focused on delivery, risk mitigation and quality.

The IFO Program Manager informed us the IFO project relied solely on the contractor's MetaStream methodology for project delivery because the project fell under the authority of the CFO rather than IT. However, we found no contractual amendment, waiver, and/or modification of the contract clause that authorized the change in methodology.

In addition, we identified several processes within the MetaStream methodology that were not fully performed and/or omitted. Management's actions were inconsistent with COBIT guidelines and WMATA's internal IT standards. COBIT, Section AI2, Acquire and Maintain Application Software states:

> Applications have to be made available in line with business requirements. This process covers the design of the applications, the proper inclusion of application controls and security requirements, and the actual development and configuration according to standards. This allows organizations to properly support business operations with correct automated applications.

We found systems development life-cycle related control deficiencies in the areas of (1) user requirements documentation, (2) conversion/migration, (3) logical security, (4) testing/evaluation, and (5) change control. We discussed deficiencies relating to project preplanning/initiation and the project plan in Finding 3 of this report. The above five deficiencies are discussed in the sections below.

1. **User Requirements Documentation** – We found user requirements for the IFO project were not fully defined. Users informed us they were not actively involved with the gathering of the requirements, because they were told that the requirements had already been pre-defined in the FSIA project. According to the IFO Program Manager and the project charter, most of the requirements for the IFO project were identified and gathered during the FSIA and later refined and filtered when the IFO contract was awarded. However, we found the contractor spent significant effort on gathering additional functional and business requirements after the contract was awarded, which indicated the contractor and management did not fully understand the full scope of the IFO project.

   Based on our discussions with some Operations users in BUS and RAIL, the contractor did not appear to have a good understanding of user requirements and WMATA's environment during the assessment phase. As a result, users' requirements had to be addressed again during the development phase.

   In addition, some of the same users stated they believed the contractor did not have a full understanding of WMATA's business processes/needs. Users stated that their input was limited, they were not solicited, or they were excluded from group discussions pertaining to the system's design by both WMATA management and the contractor.

   The IFO Project Team made frequent modifications to PeopleSoft 9.1 after the system was put in production. For example, the CIO instructed a contractor other than Metaformers to consult with the project team and users to develop a

second project plan to address all the outstanding tasks and activities associated with developing and implementing the IFO project. This contractor informed us that a plan was developed to identify existing issues related to the IFO project and assign WMATA resources to resolve the problems.

2. **Conversion/Migration –** We found that data from PeopleSoft 8.8 was not properly converted and migrated to PeopleSoft 9.1. The latter system was deployed despite having numerous issues with the financial data. For example, we learned that customer contracts (grants) were not mapped or mapped incorrectly to projects/project activities (billings). We also found that some project activities had not been mapped and configured for funds distribution. As a result, WMATA is unable to obtain timely reimbursements from federal grant award resources; this problem was discussed in Finding 1 of this report.

   We also found all system conversion activities were not completed prior to the system go-live date. Although the IFO Project Management Team had developed a conversion plan, we found PeopleSoft 8.8 system data had not been fully converted to PeopleSoft 9.1. As of June 2012, we learned that staff persons assigned to set-up and load grants data into PeopleSoft 9.1 had not completed the task. According to the IFO Project Management Team, data quality in PeopleSoft 8.8 was inadequate and had to be completely restructured, converted, and set-up in PeopleSoft 9.1. These problems increased the likelihood of errors and omissions, and limited WMATA's ability to timely identify and resolve issues impacting its financial operations.

3. **Logical Security –** We found the security administration protocols were inadequate for the IFO project. Specifically, contract personnel had shared User IDs and passwords, granted varying levels of access, as well as inappropriate access to production data without proper controls or documentation. Our review of an access activity log revealed the contract

personnel were sharing user access information, such as log-on/log-off information.

Some IT personnel we interviewed told us a contractor informed them that he had been using another contractor's log-on information. He stated that he was using the contractor's log-on information to load data into production and needed additional access privileges since his access privileges were insufficient. IT personnel informed us that they suspended the shared user account as a result of the security violation, but they were later instructed by WMATA personnel to reinstate access to the contractor.

Further, our review of access privileges revealed several contractors with full update access privileges to the production environment of PeopleSoft 9.1. We found that these contractors had access to various core financial modules, including administrator and supervisor level access to the systems' Accounts Payable, Accounts Receivable, General Ledger Project Costing, Contracts/Grants etc. We were unable to determine how long these contractors had access privileges to PeopleSoft production systems, because there was no information available on when these accounts were created or when/if users' access privileges were granted or changed.

4. **Testing/Evaluation** – We found that the IFO system was not fully tested prior to system implementation, and system testing was limited due to the project's aggressive timeframe. Our review of test scenarios and the associated expected results did not provide reasonable assurance that business rules and/or system functionality requirements were met.

   We also found that testing of system outputs (reports) had not been included in the testing phase of the system. According to some users we interviewed, test scenarios and test cases were inadequate, because the tests did not use actual

data, and they could not validate all of WMATA's business process requirements in the IFO Requirements Traceability Matrix (RTM). For example, we noted that several required functions in the RTM did not specifically identify and relate to an individual test case for validation.

According to the IFO Project Management Team, during the development and implementation of PeopleSoft 9.1, several requirements in the RTM were no longer required to satisfy some users' functional business needs. The IFO Project Management Team told us that some requirements, which were initially agreed upon, were no longer necessary, and were excluded from validation. However, we noted that these changes were not evaluated, approved, or documented, as required.

We also found some reports, such as the Equity Reconciliation Report in the PCG modules, had not undergone unit testing. According to an IFO Project Business Lead, several of the reports were not tested, because data was not available. We were informed that the reports functional design existed, but the data was not available. We were also informed that testing was not done, because of the scheduled go-live date. A Business Lead indicated the testing was to take place after the go-live date, when additional data is converted and migrated into production.

5. **Change Control -** We found that the IFO Project Management Team did not follow a well-defined change control process to ensure project objectives and changes were completed. Based on our discussion with the IFO Program Manager and review of IFO project documentation, we found the IFO Project Management Team used the MetaStream[22] change control process.

[22] MetaStream is a methodology used to provide a structured approach focused on delivery, risk mitigation, and quality over the IFO project.

The MetaStream process consisted of two plans, the Change Control Plan and the Change Management Plan. The Change Control Plan was suppose to control any changes that could possibly have an impact on three principle cornerstones of project control - time, cost, or quality. We reviewed the Change Control Plan and Change Management Plan documentation and did not find any evidence to support the change control process was followed. Our analysis of change requests for the PeopleSoft modules revealed that some of them were incomplete. For example, the Office of Procurement & Materials (PRMT) submitted a change request to Metaformers to implement the PeopleSoft Inventory module, which has 18 system requirements PRMT needed to be transferred from the old Warehouse Control System[23] to the PeopleSoft Inventory module. According to PRMT, these 18 requirements are critical to PRMT's inventory and distribution business processes. PRMT indicated that Metaformers was only able to implement 17 of PRMT's requirements.

The critical requirement that was not implemented was the bar coding capability. Bar coding under the old Warehouse Control System gave PRMT the capability to receive, distribute, and monitor WMATA's inventory warehouses for parts needed to support Bus, Rail, and maintenance for daily operations. The bar coding was not implemented because the ESC, the IFO Change Control Board, and IFO Project Management Team made the decision to postpone this requirement due to the tight project timeframe and the need to meet the go-live date.

Additionally, the IFO Program Manager indicated the IFO Project Team and Metaformers did not use a full-fledged change management methodology that included all of the steps outlined in Metaformers' Change Management Plan. We asked the IFO Program Manager why she did not follow Metaformers' Change

[23] The Warehouse Control System or "Warehouse 400" was the old inventory system that was developed internally within WMATA. This system was in production for 20 years before being replaced by the PeopleSoft Inventory Module.

Management Plan; she stated that Metaformers proposed a shortened methodology to accommodate the aggressive timeline set by WMATA management. WMATA management agreed that the project would follow an abbreviated MetaStream methodology in order to save time. This abbreviated methodology ignored critical project phases in the Change Management Plan - evaluate, deliver, and measure. These three phases ultimately align with the IFO project objectives to ensure all project changes made are properly assessed and completed. The Program Manager said WMATA management also agreed there would be no planned change management for this effort, except for the training activities identified.

WMATA continues to struggle with the integration of PeopleSoft systems. Since 2002, WMATA has invested almost $70 million to this effort. Just recently, WMATA awarded another $2.5 million contract (FQ-12208) to Metaformers to provide IT support for the PeopleSoft financial systems. Without proper project management and oversight to ensure a structured system methodology is followed, WMATA will continue to pay for systems that do not fully meet its needs.

Recommendation:

We recommend that the GM/CEO to direct the DGMA/CFO to:

4.1 Ensure WMATA follows its IT Governance Process, including proper project management and oversight, when developing and implementing automated solutions on future projects.

Management Comments

Management stated WMATA did follow a sound project management methodology that included a structured System Development Lifecycle methodology, consistent with best practices, along with an operational construct that accommodated the complexity of the project. Management stated the firm chosen had turned around several failed implementations and one of the key reasons for success was the use of the contractor's

MetaStream Methodology, which is a combination of standard methodology of SDLC, system architecture and general upgrade methodology. Management also employed a structured project governance framework with a dedicated cross-functional team from Bus and Rail Operations, IT, Accounting and Budgeting. The team members worked hand-in-hand and met weekly and made day-to-day decisions on project direction. Management also stated an executive steering committee (ESC) was established that included the DGMA/CFO, DGMO, AGM, IT, and AGM BUS; the ESC met bi-monthly for status updates and to make decisions on the scope and other project issues. Metro's Inspector General (IG) was a regular attendee, often providing valuable input. The governance method ensured that all of the ESC members, including the IG were aware of project risks and could make informed decisions. The key decision makers reviewed and approved any stated changes to project scope, schedule, and budget.

In addition, Management stated sound institutional project management obligates continuous process improvement. One such area involves improving User Acceptance Testing (UAT) documentation to support the decision to "go live" with system implementations because UAT documentation did not always meet a common acceptable standard. Management will ensure that all future projects adopt the standards being developed by IT for UAT testing.

Management agreed that at the time of our audit there were insufficient resources in Security trained in PeopleSoft workflow. This led to a greater dependency upon the contractor and resulted in contractors having "superuser" (access to both production and development) status. Management stated the lesson learned from this is project management needs to continuously evaluate resources and skills requirements of both the contractor community and internal resources in a project, and transition of certain roles from contractor to internal employees (like Security) needs to occur much sooner in the project lifecycle.

OIG Response

We disagree with Management's comment that they followed a sound project management methodology including a structured SDLC methodology. As noted in our report, we found project management and systems development life-cycle related control deficiencies in the areas of (1) user requirements documentation, (2) conversion/migration, (3) logical security, (4) testing/evaluation, and (5) change control. We did not make any changes to Findings 3 and 4 and Recommendations 3.1 and 4.1 based on Management's comments.

In addition, we would like to clarify the role and presence of the IG or her designee at ESC meetings. The IG served as an observer when attending ESC meetings. In this capacity, she has provided advice on routine business matters and responded to technical questions discussed in ESC meetings. The IG was not a chartered or voting member of the ESC, and did not participate in making decisions regarding the acquisition, deployment and control of human, financial, physical, and intangible resources.

Objectives, Scope and Methodology

The objectives of the audit were to determine whether (1) the contractor, Metaformers, met the terms and conditions of contract ES-10158, (2) WMATA developed and implemented a project management methodology and (3) WMATA followed a well defined and structured system development life cycle. To accomplish our audit objectives, we reviewed contracts ES-9204, ES-10158, FQ-12208, and contract deliverables. To gain an understanding of the functionality of PeopleSoft 9.1, we conducted walkthroughs of the new system modules and observed users demonstrating the core areas, including accounts receivable, accounts payable, capital grant and payment, financial allocation, capital project reconciliation, asset management, project cost, customer contract and grant, procurement to pay and budget.

We also analyzed documentation provided by the IFO Project Management Team, and conducted interviews with responsible personnel, such as users in ACCT, IT, PRMT, the Office of Treasurer, Office of Management and Budget Services, BUS and Rail. We talked to contractor personnel, and we interviewed IFO Project Team members who were functional business leads for the period between FY 2010 to FY2012 to answer our audit objectives.

We also assessed the adequacy and reliability of the PeopleSoft 9.1 system by reviewing the system functionalities, reports/queries, test scripts, and financial/accounting data for completeness and accuracy. We reviewed information from queries for various PeopleSoft modules, as well as the conversion plan. We reviewed timelines, pre-planning, and any project management documentation that was available. We applied COBIT, where applicable in our analysis of WMATA's IT management and IT governance. We also reviewed prior OIG audit reports related to the FSCM system. We reviewed the Project Organization Governance and IT Governance processes. Audit fieldwork was conducted from January 2012 through August 2012. We held an exit conference on August 2, 2012, with WMATA Management to discuss the preliminary results of the audit.

We encountered a scope limitation when we requested information concerning system generated queries and financial data from PeopleSoft 9.1. Management did not provide the requested information, because Management stated their business priority was closing FY2012 and preparing for the financial statement audit. This scope limitation resulted in auditors not receiving the most up-to-date queries from the PeopleSoft system. Our last request for the information occurred on July 19, 2012. As of August 24, 2012, we had not received the requested information.

We conducted our audit in accordance with *Government Auditing Standards* appropriate to our scope. 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 includes assessment of

applicable internal controls and compliance requirement 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 be 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 finding and recommendations contained in this report.

Attachment

cc: DGMA/CFO - C. Kissal
CHOS - B. Richardson
DGMO - D. Kubicek
BUS - J. Requa
COUN - C. O'Keeffe

Appendix 1: List of Additional PCG Reports That Were Not Implemented in PeopleSoft 9.1 by Metaformers		
Report Title	Purpose/Content	Status
Fund Source Closing	The report is used to notify users which Grants/Contracts are reaching the closing point.	Access not provided to all users
Capital Labor Reconciliation	This report provides information to Federal government agencies, such as the FTA, on the encumbrance amounts for each Grant.	Navigation not found in the system
Customer Contract Encumbrances	The report provides information to Federal government agencies, such as the FTA, on the encumbrance amounts for each Contract.	Navigation not found in the system
Capital Costs Reconciliation (Grant Reconciliation Status Report)	This report provides information on the payments, billings outstanding, and expended costs for Grants and Reimbursable and their use of sponsor funding.	Data value issue
New Service Project Report	This report provides information on the billings and costs for new service projects in operating Unit 19 that entails work on new service lines. This report enables ACCT to reduce their liability for billings by the amount of recognized revenue relating to project costs.	Query does not exist in production
American Reinvestment and Recovery Act of 2009 (ARRA) Report	This report lists the ARRA-funded projects by program and their respective Grants/Contracts budget versus actual for labor and PO commitments.	The report does not exist in production
Equity Reconciliation (by Jurisdiction)	This report provides information on the Contract/Grant billings for a period, grouped by jurisdiction. This is reconciled to accounts receivable and the amount received, and the variance is calculated.	Still working on data values
90 Day Vendor Letter for Expiring Grants	This report supports WMATA's grant closeout process. The report informs vendors of an upcoming grant closing which impacts their contract with WMATA.	The report does not exist in production

Appendix 1: List of Additional PCG Reports That Were Not Implemented in PeopleSoft 9.1 by Metaformers (Continued)		
Report Title	Purpose/Content	Status
Joint Adjacent Projects Reconciliation	This report provides information on prepayments and expended costs for projects that entail work on property physically adjoined to WMATA property.	The report does not exist in production
Indirect Cost Basis Reconciliation	This report provides indirect cost relative to direct cost by funding source and operating unit with direct costs broken out by personnel/non-personnel.	The report does not exist in production
Capital Reimbursable Projects Reconciliation	This report provides information on the reimbursable projects as to their respective Grants/Contracts, prepaid amounts, actual costs and the calculated variance, if any.	The report does not exist in production
Funding Source Reconciliation for Capital Projects Indirect Costs	This report provides indirect costs relative to direct costs by project grouped by type of project.	The report does not exist in production
Payment Withholdings	This report reflects contractor payment withholding data within project costing.	Navigation not found in the system
Indirect to Capital Fund Source	This report provides information on capital-funded Grants/Contracts as to the direct and indirect expenditures.	Navigation not found in the system
Obligation Report by Funding Source	This report reflects obligations (encumbrances) by funding source information within project costing.	Navigation not found in the system

Attachment 1

M E M O R A N D U M

SUBJECT: IT No. 13-002: Review of the Integrated Finance Organization (IFO) Project

DATE: October 31, 2012

FROM: DGMA/CFO – Carol Dillon Kissal

THRU: GM/CEO – Richard Sarles

TO: OIG – Helen Lew

Context for the IFO Project:

This memo is management's response to the Office of Inspector General's Audit of the Integrated Finance Organization (IFO) Project, No. 13-002.

Before addressing individual findings, it is important to understand the overall purpose and context for the IFO project, which was to integrate and update PeopleSoft or Metro's Enterprise Resource Planning (ERP) system, defined as the financial system of record, to Maximo, which is the maintenance work order system of record. The initiative was the most recent in a series of efforts dating back to 1998 intended to develop an integrated ERP at Metro. This project has successfully standardized financial data, provided greater visibility and accountability, increased organizational efficiency and reduced operating costs, all of which are detailed further in this memo.

ERPs standardize financial data, while providing visibility and accountability. They improve organizational operational efficiency by increasing transaction speed, collecting useful data to make good business decisions and generally reducing the burden of manual processes. ERPs are designed around the standardized business practices used by most private sector companies.

In order to maximize the value of an ERP, it is necessary for an institution to adopt best business practices where they do not already exist. Metro, like many other transit systems and public sector entities, has historically lagged in aligning business processes to standards-based technology like ERPs. Many Public Sector ERP initiatives have been perceived as failures because of a lack of investment in change management, which led to customizations that stranded the ERP and simply automated existing business processes, negating the efficiencies that could be gained through the automation.

The IFO team was cognizant of these challenges at the outset of the project. The team recognized that Metro must invest significantly more time and effort in change management, data governance, business process re-engineering and training to effectively deploy the system.

The team also recognized that the IFO project would be more than a technical implementation of software. It would be used as a framework and catalyst to introduce industry best practices to Metro. It was understood that change management would not end at the conclusion of the technical system implementation, but continue as the organization strives for continuous improvements in efficiency, leading to additional funded projects and internal activities.

It is important that the prior project history and challenges that Metro faced with large-scale technology projects be understood in the overall review of the IFO project. The relevant prior history is included at the end of this memorandum.

Additionally, it is important to recognize that certain specific findings in the OIG report are based on snapshots taken at discrete points in time when the project and deliverables were in transition. Since the time of the review, the project has continued to successfully evolve and many of the issues raised were common transitional challenges of a project of this size and have since been remedied.

The following responses to each of the findings are provided as follows.

Finding 1 – Metaformers Did Not Adequately Meet Some Key Terms And Conditions In The Contract

- **Sub-finding 1.1 - Some Capital Projects Are Not Linked/Mapped To Their Federal Grant Award Resources**

- **Sub-finding 1.2 - Reconciliation issues exist in PeopleSoft 9.1 system**

- **Sub-finding 1.3 – PeopleSoft 9.1 does not generate complete and accurate reports**

OIG Recommendations:

We recommend the GM/CEO direct the DGMA/CFO to:

1.1 Identify all system functionality problems and data issues resulting from implementing the IFO project, prioritize these problems and issues, and take appropriate action to address them promptly.

1.2 Ensure that system users participate and are consulted on efforts to address outstanding issues resulting from contract ES-10158.

Management Response:

The IFO project was completed on time and budget. The data and functionality problems that surfaced during the initial "go live" phase of the project have been corrected. As noted earlier, this project was a major undertaking that transitioned several internal systems, and it was predictable that there would be issues that needed to be addressed post-technology deployment. It is further understood that additional projects will continue to be initiated as needed as a part of a continuous improvement effort.

At this time, 99 percent of Metro's 30 approved federal grants identified in Sub-finding 1.1 have been mapped. Additionally, the Federal Fiscal Year 2012 (FFY12) grants currently under review with the FTA and all existing security grants will be mapped before the end of December 2012. At that point, all grants will be mapped.

In the future, and as part of the continuous improvement effort, Metro will enhance its current mapping schedule and process to ensure FFY13 FTA grants are mapped prior to the start of Metro's FY2014. Additionally, future security grants will be mapped as soon as the grantor approves them.

The conclusions represented in Sub-findings 1.2 and 1.3, while accurate at the time, have since been resolved during the final implementation phases or soon thereafter

FINDING 2 - WMATA Awarded Metaformers Another Contract For Critical IFO Functionality That Lack Specifics On The Activities/Requirements and Milestones

OIG Recommendations:

We recommend the GM/CEO direct the DGMA/CFO to:

2.1 Develop controls to ensure project deliverables under contract FQ-12208 are clearly defined with milestones and completed within timeframe and budget,

Management Response:

The PeopleSoft upgrade was completed successfully and the deliverables specified in the base contract (ES-10158) were accepted by WMATA. One of the major deliverables of this contract was automating the process to draw down grants, which was successfully implemented, as evidenced by the first draw-

down using the new system on July 28, 2011, 17 days after go-live, for $10 million.

The second contract (FQ-12208) was initiated to provide PeopleSoft users with continued technical and functional support of the software, which was not part of the base contract. In addition to routine maintenance activities, large system implementations require continuous change management and technical support. The statement of work (SOW) for the contract reflects this reality and ensures that WMATA has access to subject matter and technical experts to address any critical production issues that may arise. This contract did specify the number of hours by resource required for each of the four functional and technical disciplines: Accounting, Inventory, Maximo interface, and Procurement. Additionally, each area has an identified functional business owner, who is responsible for determining the work effort. Two sign-offs are required prior to the work effort being deployed to ensure that all work falls within the confines of the contract.

FINDING 3 - WMATA Did Not Adequately Follow A Sound Project Management Methodology

and

FINDING 4 – WMATA Did Not Use A Structured Systems Development Life-Cycle Methodology

OIG Recommendations:

We recommend the GM/CEO direct the DGMA/CFO to:

3.1 Ensure all future IT-related system development/implementation projects adopt and follow both a structured IT acquisition methodology (prior to making a decision to acquire or develop an IT solution), and a sound project management methodology, including monitoring the contractor's efforts to meet milestones and staying within budget.

4.1 Ensure WMATA follows its IT Governance Process, including proper project management and oversight, when developing and implementing automated solutions on future projects.

Management Response:

With regards to OIG Findings 3 and 4, WMATA did follow a sound project management methodology that included a structured System Development

Lifecycle (SDLC) methodology, consistent with best practices, along with an operational construct that accommodated the complexity of the project. Metro selected the vendor (Metaformers) to lead the effort due to its expertise in re-implementation and re-architecture of previously failed installations of PeopleSoft Financials. The firm had successfully turned around several failed implementations. References of the firm (including the CIO in Lexington and the Comptroller at the City of LA) indicated that one of the key reasons for success was Metaformers' use of its MetaStream Methodology, which is a combination of standard methodology of SDLC, system architecture and a general upgrade methodology.

The solution Metro needed to implement was complex -- certain modules required a straight upgrade (Procurement, Asset Management, Payables, Receivables, Cash, Billing), some required a complete overhaul and re-implementation (Commitment Control, General Ledger) and others required a brand new implementation (Project Costing, Grants, Program Management, Inventory). No methodology existed at Metro for implementing a massive ERP that required a complicated re-architecture and project management methodology that could accommodate that challenge. This led to the establishment of a project governance and execution structure for the IFO project.

For the first time on a major system implementation, Metro employed a structured project governance framework with a dedicated cross-functional team that represented staff and project officers from Bus and Rail Operations, IT, Accounting and Budgeting. The Metro team members were co-located and worked hand-in-hand with their consultant counterparts as a single project team with a common purpose. This team met weekly and made day-to-day decisions on project direction. An executive steering committee (ESC) was established that included the DGMA/CFO, DGMO, AGM IT, and AGM Bus, that met bi-monthly for status updates and to make decisions on the scope and other project issues. As directed by the Board, Metro's Inspector General was a regular attendee, often providing valuable input.

This governance method ensured that all of the ESC members, including the IG, were aware of project risks and could make informed decisions. The ESC and the key decision makers reviewed and approved any stated changes to project scope, schedule and budget; for every change that impacted any of those areas, there is documentation to support that appropriate change control was exercised.

Management's Summary Regarding the IFO Project's Success

The latest effort to update and integrate Metro's PeopleSoft ERP has been a success. The multi-functional IFO team used best industry practices in executing the project. A technically well qualified vendor was selected that has been cited a number of times for supporting the rescue of failing Public Sector ERPs. The contracts with the vendor were written to reflect, as best as possible, the desired outcomes. Metro has an integrated financial solution with many benefits that provides the Authority with standardized financial data, greater visibility and accountability, increased organizational efficiency and reduced operating costs. However, there is still much additional work to do.

It must be recognized that system integration is a continuing process of self-improvement requiring periodic evaluations and investments towards adopting standardized business practices. At WMATA, there are challenges related to data governance and business process re-engineering along with the influence these elements have had on both current and past project plans and the deliverables. It should be understood that the vast majority of data quality issues discovered post go-live were related to the operation of the ERP modules in a disconnected state for so many years and not reflective of the quality of the current product.

Most significantly, Metro is challenged in adopting standardized ERPs, because business processes deviate from established industry standards on which Computer off the Shelf (COTS) information management solutions are based. Therefore, sustained long-term investment in business process re-engineering and workforce re-training is required. The adoption of a COTS solution in this environment is a catalyst for change, but as such, obligates continual momentum on all fronts, well past the "go-live" system deployment and may require hybrid contracting vehicles.

Sound institutional project management obligates continuous process improvement and every WMATA IT project provides the opportunity to evaluate our performance and take advantage of lessons learned. One area involves improving the User Acceptance Testing documentation to support the decision to go-live with system implementations. In this project, the User Acceptance Testing (UAT) documentation didn't always meet a common acceptable standard of quality across all participants and it is felt that improvements need to be made both with respect to templates and user instruction.

IT will develop documentation standards to be used for User Acceptance Testing by January 31, 2013. Management will ensure that all future projects adopt the

revised UAT documentation standard and that the project participants are aware of their roles and responsibilities with respect to populating the templates via a process instruction.

Many internal organizations participate in a project of this scope with varying degrees of engagement over the length of the project. Although every attempt is made to provide internal resources to the project with the necessary skill sets, not all internal resources are going to have the necessary skill sets and training on the new tools at exactly the point that they are needed while taking a new IT project into production. At one point in the IFO project, there were insufficient resources in Security trained in PeopleSoft workflow, which lead to a greater dependence upon the contractor community, which isn't uncommon in a resource constrained project of this nature, but is also not a best practice. In another instance, as referenced in this audit, the lack of skilled internal resources obligated two contractors to retain "superuser" status post go-live to assist in transaction management. These contractors (both Solution Architects) worked under the supervision of the WMATA management team and were performing sanctioned tasks for a brief period of time post go-live.

In response to the security deficit, a new Security staff member was hired with these specific skills and the current staff has been trained. As evidence of the successful transition from the vendor to internal staff, the security staff recently successfully updated work flow for the new assistant comptroller position. The Solution Architects performed transactions for only a brief period of time until the internal resources were sufficiently trained and at no point in time did they perform unsupervised or unsanctioned tasks within the system. Today, these transactions are fully performed by internal resources.

The lesson learned from this is that the project manager needs to continuously evaluate resource and skills requirements of both the contractor community and internal resources in a project of this nature to ensure that the appropriate resources are available as required over the project duration. Also, the transition of certain roles from contractors to internal employees (like Security) needs to occur much sooner in the project lifecycle than other roles, which can occur later. Lastly, contractor superuser access to systems during the transition phase needs to be minimized to the shortest duration period through further acceleration of the training process for internal resources.

Prior History of Initiatives

Historically, Metro's information technology capabilities have been provided through a series of disjointed systems, both commercial and homegrown, on

incompatible platforms. Business processes were manually-intensive and tactically-oriented, resulting in lower operating efficiencies. In 1998, Metro's GM mandated a migration from existing business systems to a more modern infrastructure, and by 1999, the major projects were identified, including replacement of all the major administrative systems.

In 2000, a consultant (LMI) was hired to do an assessment of the state of Metro's IT systems and develop a framework for the future. The recommendations included infrastructure architecture and established principles that included the use of COTS software. The recommendations addressed the major applications systems supported by IT, including Materials and Maintenance, Rail Operating Computer System, Financial Systems, Personnel and Payroll, and Bus/Rail scheduling systems.

In 2001, the Board approved a budget for the project (estimated at up to $60 million) and the Infrastructure Technology Renewal Program (ITRP) was created. Metro hired Booz Allen as the System Integrator to manage the effort.

The ITRP team consisted of Project Managers from each of the functional areas. Subject Matter Experts (SMEs) from throughout Metro were added to the project teams and requirements analysis was conducted to determine the functional requirements of each of the systems. The available COTS software was mapped to meet as many requirements as possible within budget and a recommendation was made to use PeopleSoft, Maximo, Kronos and Trapeze based upon a cost/ benefit and "best fit" analysis. The necessary software and hardware infrastructure to support the implementation were then obtained.

In 2004, the implementation commenced with great difficulty. A major effort was needed to develop the interfaces between these new systems and to convert data from the legacy systems, but insufficient investment was allocated to both areas. In addition, none of the selected COTS providers were able to provide the full functionality for the stated requirements. The implementation was carried out in stages and compromises were made along the way due to funding availability, predominantly in training, documentation and data governance. Go-Live was eventually approved before all sign-offs were obtained from the functional communities.

Post-implementation support was required to address a myriad of issues and sufficient IT staff was not available, as they were needed to continue to maintain and support the legacy systems. Kronos was terminated, as it would duplicate functionality in PeopleSoft, for which a remediation project was eventually started to correct the deficiencies.

Although an audit was never performed, in general, the PeopleSoft ITRP effort did not successfully provide the range of capabilities envisioned and therefore, did not yield the anticipated benefits. The systems integrator did not fully comprehend the significance of change management in this environment, nor provide a team with sufficient PeopleSoft experience. The software was also heavily customized from the delivered best practice models, the systems were implemented in a silo approach. Further, the system was implemented before user acceptance testing was completed. Only a fraction of the capability of these tools was realized. Resistance from the users manifested itself in the proliferation of spreadsheets, with each department having its own "version of the truth."

As a result of these issues, the DGMA/CFO directed an assessment at the end of 2009 to determine why the benefits had not been achieved and how the benefits could be achieved going forward. The assessment, which was completed in February 2010, indicated that there were serious inefficiencies with the system as implemented that should and could be corrected. In general, staff was spending time manually collecting and validating data rather than analyzing it. The vision of the IFO project was to reverse that trend and instead, enable staff to spend a majority of their time analyzing and interpreting data to inform good business decisions.

This assessment summarized and rated the severity of the issues by major area: three were "poor to critical" (Automation, Integration, and Data Value & Data Integrity), while one was "severe to critical" (Best Practice) and only one was found "good to critical" (Technical).

These significant findings were brought to the Technology Review Committee (a subcommittee of the Board of Directors' Finance and Administration Committee), followed by a presentation to the Finance and Administration Committee, and then to the Board of Directors in May 2010, where approval was given to initiate and award contracts to implement corrective projects—this action triggered the IFO initiative with a budget of approximately $14 million.