Mary Taylor, CPA
Auditor of State

CITY OF SHAKER HEIGHTS
PUBLIC WORKS DEPARTMENT
PERFORMANCE AUDIT

FEBRUARY 5, 2008

Mary Taylor, CPA
Auditor of State

To the Residents of the City of Shaker Heights:

In order to provide an independent assessment of procedures related to fuel management, and tools and parts inventory, the City of Shaker Heights engaged the Auditor of State (AOS) to conduct a performance audit. As requested by the City, the performance audit assessed the Public Works Department's process for tracking and monitoring fuel usage and tools/parts inventory, as well as the methodology for charging fuel costs to the respective departments.

The performance audit contains recommendations which identify the potential for operational improvements. While the recommendations contained in the audit are resources intended to assist with continuing improvement efforts, the Public Works Department is also encouraged to assess overall operations and develop alternatives independent of the performance audit.

The report includes the project history; the scope, objectives and methodology used in the performance audit; background information; assessments not yielding recommendations; items for further study; and audit conclusions and recommendations. This report has been provided to the City, and its contents have been discussed with the appropriate officials. The Public Works Department has been encouraged to use the results of the performance audit as a resource in improving its overall operations and service delivery.

Additional copies of this report can be requested by calling the Clerk of the Bureau's office at (614) 466-2310 or toll free at (800) 282-0370. In addition, this performance audit can be accessed online through the Auditor of State's website at http://www.auditor.state.oh.us/ by choosing the "Online Audit Search" option.

Sincerely,

Mary Taylor

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Auditor of State

February 5, 2008

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City of Shaker Heights
Public Works Department

Project History

In May 2007, the City of Shaker Heights (City) engaged the Auditor of State's Office (AOS) to conduct a performance audit of the Shaker Heights Public Works Department's (SHPW or Department) procedures related to fuel management, and tool and part inventories.

Objectives

A performance audit is defined as a systematic and objective assessment of the performance of an organization, program, function or activity to develop findings, conclusions, and recommendations. Performance audits are usually classified as either economy or efficiency audits or program audits. Economy and efficiency audits consider whether an entity is using its resources efficiently and effectively. Program audits are normally designed to determine if the entity's activities and programs are effective, if they are reaching their goals, and if the goals are proper, suitable, or relevant. This performance audit reviewed selected areas of SHPW operations and contained elements of both audit classifications. The overall objective of this performance audit was to review and analyze selected functions for the purpose of developing recommendations for additional study or improvement, where appropriate. Specific objectives of this performance audit include the following:

- How effective and efficient was/is the Public Works Department's previous and current process for tracking and monitoring fuel use by the City and respective departments, including controls to prevent abuse or misuse of fuel?

- Does the City have a sound and reasonable methodology for charging fuel costs to the respective departments?

- How effective and efficient was/is the Public Works Department's previous and current process for tracking and monitoring tools and parts inventory, including controls to prevent loss or misuse of tools and parts?

The performance audit was designed to provide an independent assessment of internal controls. Where warranted, recommendations were developed to strengthen internal controls and identify areas where efficiency could be improved. In addition, issues for further study were identified in areas outside the scope of the audit. The issues for further study and recommendations comprise options that SHPW can consider in its efforts to improve overall operations.

Scope and Methodology

The performance audit was conducted in accordance with Generally Accepted Government Auditing Standards. Audit work was conducted between June 2007 and September 2007, and data was drawn from fiscal year 2007. To complete this report, auditors gathered a significant amount of data pertaining to SHPW; conducted interviews with numerous individuals; and reviewed and assessed available information. The City's data used to conduct the assessments in this performance audit was deemed reliable. Other information that was used for comparison purposes was not tested for reliability, although the information was reviewed for reasonableness and applicability.

The performance audit process involved information sharing with SHPW, including preliminary findings related to the audit objectives. Furthermore, periodic updates were held throughout the engagement to inform Public Works management of key issues impacting the selected areas. Throughout the audit process, input from Public Works staff was solicited and considered when assessing the selected areas and framing recommendations. Finally, SHPW provided verbal and written comments in response to various recommendations, which were taken into consideration during the reporting process. Where warranted, AOS modified the report based on SHPW comments.

External organizations and resources were used to provide comparative information and benchmarks, including the Government Accounting Standards Board, the Government Finance Officers Association, and the American Public Works Association.

The Auditor of State and staff express their appreciation to SHPW for its cooperation and assistance throughout this audit.

Background

The purpose of SHPW is to perform the following functions for City residents: collecting refuse and leaves, maintaining shrubs and trees, mowing parks and public lands, and maintaining streets and sewers. The following staff members perform fuel management and inventory control activities:

- **Business Services Manager:** reports to the Public Works Director; formulates and recommends operational policies and procedures; evaluates department needs and develops plans for equipment and supplies; maintains records and files; and supervises office and customer service staff.

- **Purchasing Superintendent:** reports to the Business Services Manager; directs and supervises parts room operations; plans, supervises, and evaluates the maintenance of inventory and control records, including a perpetual inventory and periodic physical inventories; prepares monthly vehicle maintenance reports for various departments; prepares monthly charge back reports for various commodities; supervises, trains, instructs, and evaluates the performance of warehouse personnel; and orders and supervises the distribution of supplies and materials.

- **Accounting Clerk (Parts Room):** reports to the Purchasing Superintendent; prepares and assists with the maintenance of financial and statistical records; processes inventory, fuel, vehicle maintenance and other financial data; designs database tables for data entry and management of information; inventories and accounts for all goods received and disbursed; operates computer terminal, fuel system, vehicle maintenance system; and generates appropriate reports.

- **Accounting Clerk (Office):** reports to the Business Services Manager; gathers, assembles, tabulates, checks and files budgetary and other financial data; maintains financial, insurance, and statistical records; compiles reports; and prepares financial statements for fund accounts.

SHPW also has several software systems that assist in tracking and monitoring fuel and parts inventories. The following software is used to track fuel use:

- **Fuel Force:** tracks fuel use. Employees manually input odometer reading, vehicle number, personal driver identification number, department that owns vehicle, and pump used. Fuel Force records all fuel transactions by date, employee, and department. At the end of each month, the Purchasing Superintendent prints a Fuel Force report for each City department which indicates the amount of fuel obtained during the prior month.

- **Veeder Root:** automatically tracks tank fuel levels and monitors tanks and lines for leaks. Tickets indicating the amount of fuel remaining in the tanks are printed nightly. The Parts Room Accounting Clerk records Veeder Root information on daily inventory worksheets.

The following systems are used by SHPW to record parts and tool inventory data:

- **MaintStar:** contains all parts inventory received, quantity available, price per unit and work order data. In addition, when mechanics complete work on a vehicle, the work order is given to the Parts Room Accounting Clerk. The work order is then closed, and the parts used are subtracted from MaintStar inventory levels.

- **Microsoft Access:** is used as a database application to track all tools and equipment inventory for the Streets, Sewer, Parks, and Forestry departments. The department superintendents are responsible for taking periodic physical inventories and providing the results to the Parts Room Accounting Clerk.

Assessments Not Yielding a Recommendation

In addition to the analyses in this report, assessments were conducted on areas of operation that did not warrant changes and did not yield recommendations. These areas include the following:

- **Fuel Charge-Back and Reconciliation Process:** SHPW has a fuel charge-back process which ensures that each City department is billed for fuel obtained from SHPW. In addition, the fuel charge-back process has appropriate controls, such as detailed fuel reports which are reconciled**.** Furthermore, when determining how the unit cost for fuel was determined, AOS noted that SHPW did not have a motor fuel refund permit from the Ohio Department of Taxation. When this was brought to SHPW's attention, the permit was applied for and received. This allows SHPW to claim a refund of state fuel tax on all fuel used for off the road purposes.

- **Public Sector Enterprise Resource Planning Information System MUNIS:** City Departments will begin using several MUNIS software programs at the beginning of 2008 for financial, revenue, and human resource applications. The MUNIS financial management system includes the following modules: accounts payable, budgeting, fixed assets, Governmental Accounting Standards Board (GASB) 34 reporting, general ledger, inventory, project and grants management, purchase orders, purchase requisitions, treasury management, work orders, and fleet management MUNIS collects and synthesizes financial data. It also provides users with electronic notification of requisitions that can be reviewed for approval. The Business Services Manager indicated the MUNIS inventory and fuel management modules would not be available until summer 2008. When the MUNIS modules are available, SHPW will no longer use MaintStar to track inventory. However, according to the Business Services Manager, SHPW will still need to use Fuel Force because MUNIS does not have the capability of turning the fuel pumps on and off, or compiling detailed fuel use reports.

Items for Further Study

Auditing standards require the disclosure of significant issues identified during an audit that are not reviewed in depth. These issues may not be directly related to the audit objectives or may be issues that the auditors do not have the time or resources to pursue. AOS has identified the following issues:

- **Additional Charge-Backs:** SHPW completes monthly fuel charge-backs to City departments, but there is no approved methodology for charge-backs of other costs related to use of the central garage and fuel related costs such as fuel pump maintenance. The charge back process currently in place consists of SHPW absorbing the first 15 percent of all related central garage costs. The remaining 85 percent of these costs are divided proportionately among the remaining City departments based on the number of cars owned by each City department. According to the Business Services Manager, this methodology is not documented and has been in place for years The Business Services Manager also indicated that rental of the SHPW garage building is only charged back to SHPW departments, and the charge-back methodology is based on total square footage. However, the Police Department Signal Crew stores several trucks in the SHPW garage building and maintains a large office area that is currently not charged back. Assessing the charge back formula and methodology is outside the scope of this performance audit. However, SHPW is encouraged to identify all costs for a year, determine appropriate items to be charged back, develop a charge-back methodology and obtain approval from the City Administration. Once the methodology is implemented, it should be reviewed annually.

Audit Conclusions

The City of Shaker Heights has installed internal controls for fuel management and parts and tools inventories. The controls for the fuel management process are adequate for tracking and monitoring fuel use and in preventing abuse and misuse of fuel. In addition, the fuel chargeback process is reasonable in that all direct costs are charged back to user departments. However, there is no approved methodology for charge backs related to the use of the central garage and fuel related costs (*see items fore further study*).

The internal controls in place for tool and parts inventory are ineffective and inefficient. Our assessment of these controls show inadequate and inaccurate inventory records that could lead Public Works management to make inappropriate decisions. There is also the potential for loss and misuse of tools and parts paid for with City funds. SHPW management needs to formally document its procedures and formalize its own self assessment process to make sure the procedures are understood and followed.

During the course of the performance audit, no fraudulent activity was observed. In addition, SHPW management began to improve its interim procedures and associated controls. These procedures will be impacted in mid-2008 when the MUNIS inventory and fuel management modules become available (*see assessments not yielding a recommendation*).

Recommendations

Fuel Management

R1.1 The SHPW Purchasing Superintendent should work with the State Fire Marshal's Office, Bureau of Underground Storage Tank Regulations (BUSTR) staff to diagnose issues and determine solutions related to appropriate fuel tank inventory levels. This exchange of information will help SHPW determine if fuel tanks and pumps should be replaced.

During the course of this performance audit, the Business Services Manager indicated the company which SHPW contacted to complete the recalibration installed incorrect tank volume templates which caused fuel tank levels to be recorded incorrectly. Correct templates have been installed and tank levels are now being recorded correctly. According to the SHPW Director, there was never any leakage.

Although SHPW has maintained appropriate fuel tank level documentation, fuel tank readings have not been in compliance with BUSTR standards. To ensure that fuel usage is tracked, SHPW requires two yard personnel to record the fuel tank levels at the end of each shift. Each evening, Veeder Root, which is an automatic tank monitoring system, prints a report of the fuel tank levels. The next day, the Parts Room Accounting Clerk records all of this information in the daily inventory worksheet. This daily inventory work sheet is linked, through Excel formulas, to the monthly fuel inventory sheet. At the end of each month, the variance in the total number of gallons is then calculated along with the total gallons pumped. According to BUSTR, the total gallon variance cannot exceed the leak threshold standard. If the leak threshold standard is not met for two consecutive months, SHPW must have its fuel lines and tanks inspected.

According to BUSTR Daily Inventory Control Procedures, the following information should be maintained by entities with underground storage tanks:

- Daily Inventory Worksheet: Sticking By Hand;
- Filling Out Daily Inventory Worksheet;
- Monthly Inventory Worksheet;
- Monthly Inventory Worksheet: Calculating Daily Changes; and
- Monthly Inventory Worksheet: Calculating Monthly Changes

SHPW maintains all of this required information and has adequately developed all of the forms required by BUSTR. As a result, the Department has reasonable assurances fuel tanks levels are appropriately monitored. However, while SHPW is effectively recording tank levels, it has not been compliant with BUSTR leak threshold requirements. For further information about SHPW compliance see **Table 1-1.**

SHPW provided monthly fuel reports for June, July, and August 2007. The results for the three month period are summarized below.

Table 1-1: SHPW Monthly Fuel Report Summary

	Tank 1	Tank 2	Tank 3
June 2007 (Gallons Over)[1]	379	227	15
Leak Threshold (Gallons)	159.3	168.49	178.67
Was Leak Threshold Met	**No**	**No**	**Yes**
July 2007 (Gallons Over)[1]	251	284	5
Leak Threshold (Gallons)	153.08	175.85	177.15
Was Leak Threshold Met	**No**	**No**	**Yes**
August 2007 (Gallons Over)[1]	278	331	18
Leak Threshold (Gallons)	157.49	174.78	179.94
Was Leak Threshold Met	**No**	**No**	**Yes**

Source: SHPW Monthly Fuel Inventory Sheets
[1]Gallons over/under are calculated daily by comparing the fuel book inventory to the tank stick inventory level s and totaled at month end.

Table 1-1 indicates SHPW has not met the BUSTR leak threshold for tanks 1 and 2. The readings for tanks 1 and 2 were higher than the leak threshold. According to Ohio Revised Code (OAC) 1301:7-9-07(B)(2)(b): "If inventory discrepancies occur for two consecutive months, owners and operators shall perform an investigation in accordance with the following: Conduct a tightness test of the USTR system in accordance with paragraph (F) of this rule within seven days of the discrepancy; Report any failure of a tightness test to BUSTR as a suspected release. A release is suspected and subject to the reporting requirements of sections 3737.88 and 3737.882 of the Revised Code and this chapter of the Administrative Code if a tightness test leak rate exceeds the amount designated for the testing method. Passing tightness test results do not have to be reported to the fire marshal…."

The Purchasing Superintendent stated that due to the leak threshold being exceeded, SHPW contacted a fuel inspection company but has not notified or established a dialogue with BUSTR to resolve the fuel tracking issues. The company that SHPW contacted did recalibrate both the fuel tank lines and the Veeder Root system. However, prior to performing this review, the company indicated that the fuel tank lines and the Veeder Root system were functioning properly. Therefore, SHPW could not explain why the leak threshold has been exceeded.

Inaccurate fuel readings do not allow SHPW to determine the actual fuel levels remaining in the tanks and do not allow reliable fuel tank level reports to be generated. The Business Services Manager indicated that the discrepancies could be due to the age of the tanks and fuel pumps. As a result, SHPW is currently determining whether the tanks and fuel pumps should be replaced.

R1.2 SHPW should update its knowledge of Fuel Force applications to determine the available fuel tracking options. Upon receiving this information, SHPW officials should determine which option best meets the needs of the City. In addition, if SPHW decides to upgrade its Fuel Force software, it should ensure that the upgrade cost is charged back to each department which has vehicles maintained by SHPW.

According to an SHPW employee, Fuel Force has been in place for at least 13 years. SHPW requires employees to manually enter the following information when fueling City vehicles: odometer reading, vehicle number, personal driver identification number, department which fuel will be charged, and the pump that is used. All of this information is recorded in Fuel Force and reviewed by the Purchasing Superintendent and Business Services Manager. These reviews occur prior to distributing the monthly fuel charge back amounts to each City department head.

Although SHPW staff examines data entered into Fuel Force, a potential exists for mileage to be incorrectly entered when vehicles are fueled. The Purchasing Superintendent indicated Fuel Force does require mileage to fall within a certain range in order for the fuel pumps to be activated. However, if employees enter incorrect odometer readings, calculations about vehicle miles per gallon will be inaccurate. As a result, fuel efficiency calculations will not be correct and management will not have appropriate information to determine if vehicles are performing within acceptable standards.

Fuel Force currently offers an Easy Fuel Vehicle Tag option which is a contactless smart card that is installed in the vehicle. Information that can be stored on the vehicle tag includes: registration and VIN or personal account number, fuel grade and permissible volume, minimum distance between refueling, and incremental odometer reading. Therefore, employees do not have to manually enter odometer readings which could result in the recording of incorrect mileage. In addition, a new fuel wireless monitoring system option will be available for trial in early 2008. According to Fuel Force management, this system will be easier to install than the Easy Fuel Vehicle Tag. By purchasing one of these Fuel Force system options, entities can be certain that any vehicle related decisions will be based on reliable data.

Financial Implication: Depending on the specific system SHPW selects, it can expect to spend approximately $70,000 for vehicle tags, installation, and training for mechanics on 208 non-fire vehicles.

Parts and Tool Inventories

R1.3 SHPW should create written parts inventory procedures that include: staff job responsibities, how to establish minimum and maximum inventory levels for all parts, a disposal process, how to perform physical counts, how to make inventory adjustments, and how to provide physical security. After these procedures are approved and implemented, SHPW should consider purchasing bar code scanners to improve the efficiency and accuracy of the parts inventory process.

SHPW does not maintain an accurate inventory of parts and does not have a policy specifying how parts should be inventoried and counted. SHPW uses the MaintStar system to inventory any purchased parts. Currently, when a part is delivered to SHPW, the Parts Room Account Clerk updates the inventory quantity listed in MaintStar. The MaintStar system includes minimum and maximum inventory levels for many, but not all, parts ordered. The Parts Room Account Clerk indicated that these inventory level determinations were made several years ago and are not based on a particular formula. The methodology used to update minimum and maximum inventory levels are based on the Parts Room Account Clerk's own determinations. The Parts Room Account Clerk did indicate that minimum and maximum inventory levels, if they appear to be unreasonable, are currently updated when inventory is entered into MaintStar; however, they have not been updated for every part.

In May 2006, SHPW became a member of a non-profit corporation that has a contract with an automotive parts distributor in order to take advantage of the price discounts offered. An addendum was signed in April 2007 to take advantage of inventory controls and other time saving services. This agreement will allow SHPW to restructure its parts room, determine inventory maximum and minimum levels, and sell back all excess parts. However, despite SHPW efforts to facilitate a relationship with this non-profit corporation and have the organization deliver on its promises, there has been no progress either in the parts room reorganization or creating minimum and maximum inventory levels. Recently, the company sent SHPW a limited list of parts that it would buy.

The SHPW Director indicated the Department's current inventory procedures were intended to be temporary, due to the anticipated services from the non-profit corporation and the impact of MUNIS. Along with the aforementioned lack of progress with the non-profit corporation, the implementation of MUNIS has been delayed. Specifically, the City's original plan was to implement MUNIS in 2005, including the inventory module. However, the City revised its MUNIS implementation plan to start in 2008 (*see assessments not yielding a recommendation*).

Although SHPW does not own any bar code scanners, the MaintStar system can be equipped with bar code scanners to document inventory levels. After a part has been

received, the Parts Room Account Clerk updates the MaintStar inventory and either puts the item on the store room shelves or holds the part for mechanic pickup. The held part will be used to complete a vehicle work order. However, despite use of the MaintStar Inventory System, there is a potential for parts to be taken off the shelves and not subtracted from the inventory. For example, day shift mechanics have access to all parts in the store room. Mechanics are permitted to enter the store room, and are not currently required to notify the Parts Room Account Clerk that a part was removed. The Parts Room Account Clerk is only informed that parts have been obtained from the store room upon receipt of a mechanic's written work order form. The written work order form, generated by mechanics or yard office personnel, indicates the employee name, a description of work performed, parts used, and the amount of time it took to perform the repair. Upon receiving this information, the Parts Room Account Clerk closes out the work order which allows the item to be subtracted from MaintStar inventory. Therefore, if the mechanics do not list all of the parts used on the work order form, or do not submit all work orders, the MaintStar inventory will be inaccurate. Also, since the Parts Room Account Clerk does not generate work orders, the status of open work orders cannot be tracked. However, with the implementation of MUNIS in 2008, the Business Services Manager indicated that mechanics will have access to the online MUNIS work order system.

At the beginning of the audit, the door to the store room remained open during the Parts Room Account Clerk's work day and this provided any employee access to the unlocked parts inventory. The parts room does have a 24 hour surveillance camera installed. During the course of the audit, the Parts Room Account Clerk was instructed to keep the door locked at all times. According to *Best Practices in Achieving Consistent Counts of Inventory and Related Property* (U.S. Government Accountability Office (GAO), 2002), physical inventory controls and accountability can reduce the risk of undetected theft and loss and unexpected shortages of critical items.

In addition, AOS conducted a random physical count of the items in both the store room and the broom room. Inventory on hand was compared to the available quantity of inventory listed in the MaintStar system. Thirty items in the store room and 10 items in the broom room were counted. **Table1-2** presents the results of the review.

Table 1-2: Parts Inventory Review Summary

Parts Inventory Sample Reviews Conducted	Percentage
Percentage of parts room inventory sample that did not agree with MaintStar	**40.0%**
Percentage of broom room inventory sample that did not agree with MaintStar	**70.0%**
Percentage of all sampled items for which count was higher than the quantity listed in MaintStar	**7.5%**
Percentage of all sampled items for which count was lower than the quantity listed in MaintStar	**40.0%**
Total percentage of all sampled inventory which did not agree with the quantity listed in MaintStar	**47.5%**

Source: AOS Analysis and SHPW's MaintStar Inventory List

Table 1-2 shows that nearly half of all parts sampled did not agree with the quantities listed in MaintStar. The AOS sample of 40 items found that 19 items, or nearly 48 percent, did not agree with the inventory list. Specifically, 3 samples had greater quantities on hand, while 16 samples had fewer quantities on hand when compared to the Maintstar inventory list. Furthermore, during the course of the audit, the Business Services Manager completed an audit of five items located in the store room. This review revealed that three items were found to have greater quantities available than amounts listed in Maintstar. The inaccurate inventory levels can be partially attributed to a lack of formal, written inventory procedures. Without formal procedures, employees may not be recording inventory properly or taking the appropriate measures to safeguard inventory.

The lack of reliable inventory information impairs SHPW's ability to perform the following functions:

- Understand the quantity, location, condition, and value of assets it owns;
- Safeguard its assets from physical deterioration, theft, loss, or mismanagement;
- Prevent unnecessary storage costs by purchasing assets already on hand.

As a result of current inventory practices, SHPW decision makers are not provided with accurate information to make informed decisions about how to prioritize future public works funding needs.

In order to ensure the reliability of its parts inventory, the Alachua County Public Works Department (Florida) has created a parts inventory policy which covers the following areas:

- Information to be recorded (purchase price, quantity received, vendor, stock room location);
- Maintaining a maximum stock of 30 days; and
- Responsibilities of the parts manager.

In addition, *Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property* (U.S. Government Accountability Office (GAO), 2002), notes that several leading edge organizations have created written policies concerning their physical inventory process. These policies include all aspects of the physical count, including objectives of the count, types and timing of counts, instructions for counting and recording, and researching and adjusting any variances. The policies also included the following components:

- Planning;
- Observation/Taking;

- Reconciliation;
- Computer Access and Security;
- Special Situations; and
- Frequency.

In addition, all of the organizations reviewed and updated their policies on a regular basis, typically every one to two years. Several companies revised their policies any time there was a change in the process or in specific tasks related to the physical count.

By documenting a formal inventory control procedure, SHPW will ensure that accurate and proper inventory levels are maintained to provide parts when needed to complete orders, reduce the need for emergency deliveries at a premium cost, and reduce the investment in inventory, making funds available for other purposes.

Financial Implication: If SHPW decides to implement bar code technology, the purchase price of a bar code scanner for the parts room, according to one supplier for bar coding equipment, can range from $199 to $359, depending on the software selected.

R1.4 The SHPW Director should review each Operations Superintendent's inventory guidelines. Upon completion of the review, the Director should create a standard equipment inventory policy. The policy should specify the frequency of inventory reviews, expectations for the equipment sign-out process, and how to add and dispose of items.

Table 1-3 presents results of an AOS equipment inventory review for the following operations departments.

Table 1-3: SHPW Departmental Equipment Summary

Department	Number of Samples Completed	Number of Samples Which Did Not Match Listed Inventory	Total Number of Counted Items Which Exceeded Listed Inventory	Total Number of Counted Items Which Were Less Than Listed Inventory	Total Pieces of Equipment
Forestry	20	5[1]	11	4	122
Parks	20	5[1]	16	1	137
Sewer	8	0[1]	0	0	36
Streets	5	0	0	0	23
Building Maintenance	20	0	0	0	116
Total	**73**	**10**	**27**	**5**	**434**

Source: SHPW Equipment List and AOS Review

[1] Multiple equipment was found on various department trucks. However, the inventory list stated the equipment was located in the specified department rooms.

Table 1-3 indicates the Forestry and Parks Departments had the largest discrepancies in the number of counted items when compared to the equipment list. The audit review determined that of 40 sampled items for both the Forestry and Parks Departments, 10 items (25 percent) did not agree with the inventory list. However, both departments utilize more pieces of equipment than any other departments. As a result, there is an increased potential for inaccurate inventory counts in these departments. Also, the equipment lists reviewed by AOS are maintained by the Parts Room Accounting Clerk in an Access database. Therefore, as indicated in **R1.6**, if Department Superintendents do not inform the Parts Room Accounting Clerk of changes to inventory levels, equipment lists will not be accurate.

SHPW Operations Superintendents were instructed in February 2007 to develop a procedure for their area of responsibility which specified the process for monitoring inventory and sign-out sheets. In addition, in February 2006, supervisors were required to develop an inventory sign-out sheet. Prior to February 2006, SHPW did not have equipment lists and inventory sign-out sheets were not used. However, because Superintendents created their own inventory policies, SHPW does not have a standard procedure. As a result, each Superintendent can have different expectations for department equipment and how often equipment checks should occur.

In addition to separate department inventory processes, SHPW operational departments have different requirements for daily sign-out sheets. To validate information contained in the sign-out sheets, audit staff sampled the daily sign-out sheets for the Forestry, Parks, and Streets Departments. Each of these Departments maintains and monitors a sign-out sheet which employees must use when removing tools and equipment from the individual department storage area. The list indicates the employee who removed the equipment, a description of the equipment taken, serial/model number, location item was removed from, the date signed out, and the date the equipment was returned. The audit review found only one item in question for the Parks Department. The model/serial number of a chainsaw was not clearly written on the sign-out sheet and could not be verified.

The Sewer Department does not have an equipment sign-out sheet for large scale items; instead employees only sign out for the room key. Therefore, the Sewer Department does not maintain a comprehensive list that indicates when equipment is removed from the storage area and the date on which the equipment is returned. By failing to maintain similar information across all departments, SHPW cannot easily determine where all of its equipment is located on a specific day. The *Public Works Management Practices Manual* (American Public Works Association (APWA), 2001) recommends that entities create on inventory program that includes information on where the equipment is being used and how often inventory will be counted.

R1.5 SHPW Operations Superintendents should ensure all required information is on their respective equipment lists. The lists should include the following information: manufacturer, model, serial number, condition, personnel trained and home location. This will allow SHPW to have a more accurate account of all of its equipment.

Operations Superintendents have not followed the Director's guidelines concerning inventory requirements. According to the Director's December 1, 2005 email, a complete inventory of tools, pumps, generators, portable leaf blowers, chain saws, weed whackers, and other equipment should be completed. The inventory should include the following information:

- Manufacturer;
- Model;
- Serial Number;
- Condition;
- Personnel Trained; and
- Home location

However, the inventory list supplied to audit staff by the Business Services Manager did not include information on condition and personnel trained. In addition, many of the items were missing model and serial numbers. Without a comprehensive equipment list detailing all relevant information, it may be difficult to determine whether SHPW has possession of the items. By creating a complete inventory list, SHPW personnel can easily verify if everything is accounted for.

R1.6 SHPW should create a comprehensive equipment and parts disposal policy. The policy should include the following guidelines: information to be documented prior to disposal, specific disposal options (such as an explanation of the auction process and identification of specific disposal companies), and employees to be notified when disposal is imminent. As part of this policy, Superintendents should be required to notify both the Business Services Manager and the Parts Room Accounting Clerk prior to equipment disposal. After the creation of this policy, the Director should review it with each Superintendent to ensure compliance.

SHPW does not have an effective equipment disposal process. During the course of the audit, AOS conducted interviews with each Department Superintendent. Several of the Superintendents indicated that they were unaware of how to properly dispose of equipment, despite having items available for disposal. Even though SHPW has a brief description of the disposal process, it does not provide sufficient detail to inform employees how the process should occur. The SWPW disposal procedure includes the following components:

- Once an item has been identified as junk and does not have any use to the City, document the item and destroy it. Photographs can be taken as support.
- A spreadsheet should be kept on all disposed items.
- If an item has any value do not destroy it, other arrangements will be made.
- The items should be junked and not taken by anyone.

The procedure does not describe what other arrangements will entail or who should be provided with this information. As a result, Superintendents continue to keep equipment which may be eligible for disposal, taking up space and forcing SHPW to use additional resources.

The Parts Room Accounting Clerk, under the supervision of the Purchasing Superintendent, is responsible for identifying parts for disposal. Currently, SHPW has a bin located outside the parts room that contains old parts that can no longer be used. The usual procedure is to offer these items for auction. However, if this is not feasible, SHPW asks the Finance Department for permission to destroy the items.

For equipment, the Parts Room Accounting Clerk maintains an Access database (**see R1.4**), but is not normally alerted when Department Superintendents dispose of items. If this information is not given to the Parts Room Accounting Clerk, the equipment lists will not be accurate. The *Public Works Management Practices Manual* (APWA, 2001) recommends that public works departments develop a procedure which identifies the disposal method for parts and materials in an environmentally sound manner. For example, it is recommended that an agency establish controls to dispose of oil, tires, batteries, and other parts and materials. In addition, recycling or reuse of parts and materials should be implemented.

R1.7 SHPW should establish greater accountability for the physical count of parts through the creation a performance measurement system. This system should include mutually agreed upon goals which reflect departmental objectives regarding inventory levels. These goals could include the percentage of accurate counts and the frequency of reviews. The goals should be measured at least annually in order to assess progress in achieving and maintaining attainment of those objectives. These results should also be communicated to employees and other City officials. By developing clearly written inventory goals, SHPW can be in a better position to measure future performance.

SHPW has not established any performance measures or goals for the parts physical count process. Creating performance goals can help to establish accountability for the inventory physical count process and can be use to hold employees responsible for the parts inventory levels.

However, in order to establish goals, organizations need to determine how data will be measured. Performance measurement is the regular collection of specific information concerning key management objectives. Fairfax County (Virginia) started to use performance measurement in preparation for its FY 99 budget and found that it yielded the following benefits:

- Supported strategic planning and goal setting;
- Strengthened accountability;
- Enhanced decision making;
- Improved customer service; and
- Assisted with determination of efficient resource use.

Once performance measures have been created, entities determine target goals for each of the measures. According to the GAO, setting high goals for inventory record accuracy rates is one way to establish accountability. Setting high goals requires the organization and employees to perform inventory counts with greater detail. Several inventory experts believe that inventory accuracy goals should be set at 95 percent or higher. In addition, other performance goals can be set, such as inventory adjustments and the number of accurate counts.

Financial Implications Summary

The following table presents a summary of the estimated one-time implementation costs identified in this performance audit. For purposes of this table, only recommendations with quantifiable impacts are listed.

Table 1-4: Summary of Financial Implications for SHPW

Recommendation	Estimated One-Time Implementation Costs
R1.2 Upgrade Fuel Force Software	**$70,000**
R1.4 Purchase Bar Code Scanner	**$199**
Total	**$70,199**

CLIENT RESPONSE

Client Response

The letter that follows is the City of Shaker Heights' official response to the performance audit. Throughout the audit process, staff met with officials to ensure substantial agreement on the factual information presented in the report. When the officials disagreed with information contained in the report and provided supporting documentation, revisions were made to the audit report.

SHAKER HEIGHTS

January 23, 2008

The Honorable Mary Taylor
Auditor of the State
Cleveland Regional Office
Lausche Building, 12th Floor
615 West Superior Avenue
Cleveland, Ohio 44113

Dear Ms. Taylor:

On behalf of the Mayor and Council of the City of Shaker Heights, I would like to extend my thanks for the professional manner in which the team of the State Auditor's Office conducted the Performance Audit for our city.

Our primary objective in requesting a performance audit was to obtain a third party objective assessment of two of our 'Interim' Public Works procedures for fuel management, and tool and parts inventories.

In reviewing your assessment and recommendations contained in the completed audit, I find that the information and recommendations will be very useful in developing procedures once our new 'Financial Accounting and Control System (entitled "MUNIS")' is fully on line.

The recommendations made by your Audit Team have been carefully reviewed and analyzed. The following is our comprehensive response to the performance audit recommendations, which indicates that some of the findings and recommendations have already been addressed; that others are being implemented; and that the remaining recommendations will be analyzed and pursued if appropriate for our operation. Implementation timing in some cases will be tied to the availability of new software enhancements to our 'Financial Accounting and Control System (MUNIS)' later this year.

Executive Summary of Conclusions and Key Audit Recommendations

- **Audit Conclusions**

  1. **Fuel Management Controls**: Even though these controls are adequate we will continue to work on improving them. In addition, we will be working with the City's Finance Department to improve our internal charge back system for the Central Garage.

  2. **Internal Controls for parts and inventory**: As we explained to the audit staff these controls were strictly 'Interim Procedures' until we completed the conversion to the new MUNIS system. We have already improved a number of these interim procedures and once all of the MUNIS modules are on line we will be addressing all of the procedures.

Fuel Management

- **R1.1 (Need to address inaccurate Fuel Inventory levels):** As stated in the audit, Shaker Heights Public Works Department (SHPW) already addressed this issue. We determined that the City's vendor had installed the wrong 'tank volume templates', which caused the fuel tank levels to be recorded incorrectly. Correct templates were installed and levels are now being recorded correctly. This discovery and all of our other research showed that there was never any leakage.

  R1.2 (SHPW should update knowledge of Fuel Force and if it upgrades Fuel Force it should charge back each department that has vehicles): As we mentioned during the audit SHPW upgraded our Fuel Force software in 2006. At that time we did charge back all user departments. This upgrade enabled us to continue to meet our needs until MUNIS was installed. Once the MUNIS Fleet Management module is installed SHPW will determine which fuel system solution is most compatible with MUNIS software for the long term.

Parts and Tool Inventories

- **R1.3 (SHPW should create written parts inventory procedures and once approved should purchase bar code readers):** SHPW will create a written parts inventory procedure, once the MUNIS Public Works Module has been installed, to ensure we develop procedures that will incorporate all of the new software's capabilities associated with this module. The procedures will include: staff job responsibilities, minimum and maximum inventory levels, a disposal process, conducting physical counts, making inventory adjustments, and how to provide security for the parts room. In addition, once the Public Works Module, which includes the inventory portion, is implemented and on line our staff with the support of our IT Department will make a recommendation for the implementation

of a bar code system that will assist in inventory documenting and control. Our goal is to have this all implemented within six months of the installation of the Public Works module of MUNIS.

R1.4 (SHPW Director should review and create a standard equipment inventory policy): SHPW will review all of the guidelines currently being used by the Operations Superintendents as soon as possible. We will use these findings with the results of the audit to develop a policy that will standardize all the inventory guidelines as soon as possible, but no later than the end of the 1st Quarter of 2008. This Policy, will be formalized and implemented no later than the end of May 2008 and will specify the frequency of the Superintendents' inventory reviews, standardization of the equipment sign-out process, as well as a procedure for adding or disposing of items. It will also include guidelines for periodic reviews of the Superintendents' responsibilities.

R1.5 (SHPW Operations Superintendents should ensure all required information is on respective lists): SHPW will review all equipment lists currently being used by the Operations Superintendents to ensure that they include the following information: manufacturer, model, serial number, condition, personnel trained and home location. This will be accomplished in conjunction with the corrective actions outlined in Item R1.4.

R1.6 (SHPW should create a comprehensive equipment disposal policy. The Director should review and ensure compliance): SHPW will develop a comprehensive equipment disposal policy in the first quarter of 2008. This 'Equipment and Disposal Policy' will include the following guidelines: information to be documented prior to disposal, specific disposal options, and employees to be notified when disposal is imminent. As part of this policy, Superintendents will be required to notify the Business Services Manager and the Parts Room Accounting Clerk prior to equipment disposal. Once this policy is created and implemented the Director and Assistant Director will monitor to ensure compliance.

R1.7 (SHPW should establish greater accountability for the physical count of parts through creation of a performance measurement system): SHPW will develop a system that will allow us to establish greater accountability for the physical counting of parts. This system will include mutually agreed upon goals that represent the appropriate objectives for each area of inventory control such as the percentage of accurate counts and how often these counts should be made. Once the system and goals are developed they will be included in our annual action plan. Again, this is tied to the implementation of the MUNIS Public Works Module which is scheduled to be installed mid 2008. Based on the successful implementation of this module we would plan on having the system and goals by the end of 2008 to be included in our 2009 action plan.

On behalf of the City of Shaker Heights and the Shaker Public Works Staff, we would like to thank you for your valuable assistance in reviewing our current interim procedures and helping us develop a framework to ensure our new procedures will be more efficient and effective once MUNIS is on line.

Sincerely,

Jeri E Chaikin
Chief Administrative Officer

Cc Mayor Earl M. Leiken
Bill Boag, Public Works Director

Jec08/AuditResponsePW