Fleet Utilization Performance Audit

October 2011
Date: October 4, 2011

To: Thomas Bonfield, City Manager
From: Germaine F. Brewington, MBA, CPA, CFE
Re: Transmittal of Fleet Utilization Performance Audit (October 2011)

The Department of Audit Services completed the report on the Fleet Utilization Performance Audit dated October 2011. The purpose of the audit was to determine the adequacy of controls over the City’s fleet management function including the following activities: utilization, disposal of surplus vehicles and equipment, acquisition, maintenance, and fuel purchases and consumption.

This report presents the observations, results, and recommendations of the Fleet Utilization Performance Audit. City management partially concurs with the recommendation(s) made. Management’s response to the recommendation(s) is included with the attached report.

The Department of Audit Services appreciates the contribution of time and other resources from employees of the Departments of Fleet Management, Budget and Management Services and Finance in the completion of this audit.
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The Fleet Management Department’s (FMD) Fleet Maintenance Division aims to provide cost effective, quality, timely vehicle repair and management services to all City departments. Services are provided through seven organizational teams: Heavy Equipment, Light Equipment, Service, Night, Fire, Parts and Administrative. The objectives of the Fleet Maintenance Division are twofold: 1) to provide cost effective and efficient maintenance services to ensure vehicles and equipment are serviced, safe and reliable including maintaining high preventative maintenance compliance; and 2) to ensure the City’s fleet has high availability and that repairs are made properly.

As of September 28, 2011, there are 1,602 vehicles and equipment in the City of Durham fleet. The acquisition cost for the 1,602 vehicles and equipment is approximately $68,025,761. The table below shows the total number of fleet by department.

<table>
<thead>
<tr>
<th>Department</th>
<th>Fleet Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Affairs Office</td>
<td>1</td>
</tr>
<tr>
<td>Human Relations</td>
<td>1</td>
</tr>
<tr>
<td>Off Street Parking</td>
<td>1</td>
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<tr>
<td>Finance</td>
<td>2</td>
</tr>
<tr>
<td>Durham Emergency Communications</td>
<td>3</td>
</tr>
<tr>
<td>Technology Solutions</td>
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</tr>
<tr>
<td>Housing &amp; Community Development</td>
<td>4</td>
</tr>
<tr>
<td>City/County Planning</td>
<td>8</td>
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<tr>
<td>Fleet Management</td>
<td>23</td>
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<td>City/County Inspections</td>
<td>31</td>
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<tr>
<td>Neighborhood Improvement Services</td>
<td>38</td>
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<tr>
<td>Transportation</td>
<td>40</td>
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<tr>
<td>Durham Parks and Recreation</td>
<td>54</td>
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<tr>
<td>Fire Department</td>
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<td>Solid Waste</td>
<td>109</td>
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<td>General Services</td>
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<tr>
<td>Public Works</td>
<td>291</td>
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<tr>
<td>Water Management</td>
<td>303</td>
</tr>
<tr>
<td>Police</td>
<td>462</td>
</tr>
<tr>
<td><strong>Total Fleet</strong></td>
<td><strong>1,602</strong></td>
</tr>
<tr>
<td><strong>Total Acquired Cost</strong></td>
<td><strong>$ 68,025,761.26</strong></td>
</tr>
</tbody>
</table>
BACKGROUND INFORMATION

In addition to vehicle replacement and maintenance, fleet provides refueling for all City vehicles and equipment at two operational sites. Employees have access to the pumps twenty-four hours per day.

The Fleet Management Department has the following polices in place:

- **Policy FLT 100- “City Vehicle Policy”**. The purpose of the policy is to ensure vehicles under the control of the City of Durham are acquired, assigned, utilized, replaced and maintained in the most efficient and effective manner to conduct City business.
- **Policy FLT 101- “Fueling Policy and Procedures”**. The purpose of the policy is to provide reasonable assurance that fuel accountability information is obtained, maintained, reported, and used for decision-making and to provide refueling instructions and locations.
- **Policy FLT 200- “Idling Reduction Policy”**. The purpose of the policy is to reduce vehicle idling.
EXECUTIVE SUMMARY

Purpose

The purpose of the audit was to determine the adequacy of controls over the City’s fleet management function including utilization, disposal of surplus vehicles and equipment, acquisition, maintenance, and fuel purchases and consumption.

We conducted this performance audit in accordance with generally accepted governmental auditing standards. Those standards require that we plan and perform the audit to obtain sufficient and appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Results in Brief

The Fleet Management Department compares favorably with other cities according to the UNC School of Government Benchmarking Project on City services for fiscal years 2009-2010. The Fleet Management Department has an adequate process in place to monitor underutilized vehicles. They provide other City departments with valuable information to help manage their fleet and fuel consumption. The Fleet Management Department also has adequate controls in place over purchasing of parts for repair and maintenance of City’s fleet. However, the audit identified areas where the Fleet Management Department can strengthen its processes. These areas are as follows:

- Current polices over the fleet management function need to be revised
- Internal controls over fuel operations need to be strengthened
- Tighter controls over the approval process for the acquisition of new vehicles and equipment need to be implemented
OBJECTIVES, SCOPE AND METHODOLOGY

Objectives

The objectives of the audit were to:

- Determine whether sound fleet utilization and replacement practices and policies are being exercised;
- Analyze whether the fleet maintenance plan is utilized efficiently with limited idle (downtime) capacity and whether there are established standards (to manage under-utilization) for usage of the fleet;
- Review the adequacy of internal controls over the City’s fuel purchases and use;
- Evaluate the fleet database information/data resources for completeness and accuracy; and,
- Determine whether the City’s fleet management operational practices for vehicle and equipment utilization favorably compare to other cities/industries.

Scope

The scope of the audit included all current practices in place as they relate to controls over the fleet administration and management function.

Methodology

In order to achieve the objectives of the engagement, the audit staff performed the following steps and procedures:

- Reviewed current policies and procedures for appropriateness, adequate business practice and reasonableness;
- Reviewed compliance with policies;
- Compared fleet practices and policies with other City governments;
- Performed a walkthrough of the fleet facility;
- Interviewed employees responsible for managing the fleet;
- Reviewed management records for analysis of downtime;
- Examined the utilization records for proper rotation of inventory and periodic maintenance;
- Analyzed the annual miles driven and clocked hours for each vehicle and equipment type;
- Reviewed the minimum utilization criteria used by the Fleet Management Department in analyzing its fleet utilization;
- Compared standards for minimum utilization criteria with other cities;
- Reviewed the process in place for addressing underutilized vehicles;
- Determined the cost of maintaining underutilized vehicles;
OBJECTIVES, SCOPE AND METHODOLOGY CONTINUED

- Compared and analyzed total fuel purchases for FY 2009, FY 2010, and FY 2011;
- Reviewed for proper approval, a representative sample of invoices for fuel purchases;
- Reviewed and analyzed miles per gallon for each vehicle and equipment item;
- Tested and documented controls over fuel usage;
- Reviewed the reconciliation of fuel usage from the Fuel Master system to the Faster system;
- Verified the accuracy and completeness of inventory data using the following attributes:
  a. Type, make, model, ownership, and department unit assignment
  b. Mileage;
- Reviewed operating costs per vehicle and equipment item;
- Reviewed fuel usage and costs for each vehicle and equipment item;
- Tested and documented controls over parts purchasing;
- Reviewed controls over the disposal of vehicles and equipment; and
- Obtained UNC school of Government’s benchmarking study on Fleet Maintenance for fiscal years 2009-2010 and conducted a comparative analysis on performance measures.

During the audit, staff also maintained awareness to the potential existence of fraud.
Finding 1: Current policies over the fleet management function are not comprehensive.

Audit staff reviewed the policies FLT 100, FLT 101, and FLT 200 and found several procedures where current practices differ from the stated practice. These procedures are as follows:

- Policy FLT 100 states that, “all budget requests for new vehicles must be submitted to the Fleet Management Department (FMD) prior to being approved by the Budget and Management Services Department”. The FMD showed several instances of purchases made without its knowledge.

- According to Policy FLT 100, “the minimum utilization rates will be the average use of all City vehicles in each vehicle category rounded down”. The FMD does not follow this guideline when analyzing fleet utilization. All vehicles and equipment with less than 3000 miles or less than 300 hours are considered underutilized.

- According to Policy FLT 100, “vehicle usage logs must be maintained for each City vehicle and include the following information: name of driver, date(s) used, beginning and ending odometer readings, destination and purpose of use”. Maintaining logs is the responsibility of the specific City department that has ownership of the vehicle and equipment item. Audit staff only noticed this practice at one of the departments it visited.

The FMD recently replaced the Trak Fuel System with the Fuel Master System for fuel management. Policy FLT 101, “Fueling Policy and Procedures” refers to the use of the Trak Fuel System which is currently not in use. The FMD is in the process of updating this policy to reflect the system change and to reflect a slight change in procedures for operating keys.

The policies do not address the following areas:

- Appropriate use of fuel, fuel keys, and master fuel keys;
- Standardized practice of transporting fuel in containers;
- Take home vehicles;
- Transfer of vehicles and equipment from one division to another;
- Abuse of City vehicles and equipment by City employees; and
- Disposal of surplus vehicles and equipment.

The Finance Department is currently in the process of establishing a policy on take home vehicles. This policy is only going to address the financial impact as a taxable fringe benefit to the employee taking home a City owned vehicle.
Finding 2: Review identified opportunities for improvement in the Fleet Management Department’s internal controls over fuel operations.

Fuel costs increased over the period-fiscal years 2009 to 2011. Chart 1 shows the dollars spent on fuel during fiscal years 2009-2011.

![Chart 1: Fuel Purchased in fiscal years 2009, 2010 & 2011](image)

Fuel costs continued to rise over this three year period. Fuel costs could increase either as a result of an increase in quantity of fuel purchased or an increase in the price of fuel. According to the FMD, the increase was primarily because of increase in global fuel prices. The FMD does not track quantities of fuel purchased. As a result, audit staff could not confirm if the increase was only due to price or if the quantity purchased over the years also increased. The Fleet Management Department (FMD) staff monitor fuel prices daily and spot buy from four different vendors based on the lowest price. Currently FMD does not have a contract with a specific vendor to purchase fuel. Vendors usually give priority to contracted customers if shortages occur in the fuel supply. The FMD is in the process of entering into a contract to purchase fuel.

Audit staff examined controls over fuel purchases. The Fleet Management Department (FMD) has fuel tank monitors at both fuel sites that provide data about the amount of fuel available, quantity of fuel utilized and quantity of fuel delivered. The Fuel Administrator uses this information to determine when to request a fuel delivery. The Administrator selects the fuel vendor, places the order, reconciles the bill for payment to the delivery receipt and processes the bill for payment. One person (in this case the Fuel Administrator) is performing too many
key procedures in fuel operations. This practice creates a lack of segregation of duties. At present, the FMD Director approves all fuel purchases, which mitigates the potential risk of fraud due to this lack of segregation of duties. Nonetheless, management oversight needs to be strengthened.

Audit staff selected a sample of sixty-four fuel purchase orders to:
- Verify proper approval; and
- Verify if the delivery receipt reconciled to the invoice.

Audit staff could not verify five percent (3 out of 64) of the sample due to missing delivery receipts.

The Fuel Administrator captures the amount of fuel delivered as well as the information from the fuel tank monitor manually (in pencil in a notebook/calendar) on a daily basis. The FMD does not track total fuel delivered at present. The fuel tank monitor does not provide cumulative information; it only provides a snap shot at a particular time. Capturing the total quantity of fuel purchased, would allow FMD to perform a reconciliation of fuel inventory (beginning balance plus purchases less consumption should equal ending balance). Basic internal control procedures such as periodic reconciliations of fuel deliveries, payments and inventory balances should be performed to help ensure accountability and use of fuel resources. Reconciliation of these attributes will help ensure fuel purchases do not exceed the operational needs of the City. Reconciliation of fuel purchases to actual fuel on hand will provide better management oversight over fuel purchases and consumption. The fuel master system does have the capabilities to track fuel orders and deliveries; FMD does not use this feature.

In addition to examining controls over fuel purchases, Audit staff also examined controls over fuel consumption. The FMD uses a Fuel Key System to control access to all fuel pumps. Fuel keys are vehicle and equipment specific. In addition to controlling access, the FMD also controls usage. Each class of vehicles has X amount of fuel that can be used per day. The fuel key will not allow the employee to obtain additional fuel if they have exceeded their daily limit. However, according to FMD staff, employees sometimes share keys to help other employees who have exceeded their daily limit. In addition, department supervisors are assigned spare keys that are linked to the department rather than a specific vehicle. Audit staff analyzed use of the spare fuel keys. Fuel consumed from the use of spare keys for fiscal years 2010-2011 represented approximately 1% of the total fuel quantity consumed. One division used its spare fuel key for 49% of the total fuel quantity used.

The Fuel Master System used by the FMD provides detailed information regarding the total fuel consumed by all vehicles and equipment. Department staff track fuel use for utilization and replacement cycle purposes. According to the FMD, user departments should monitor their consumption.
Finding 3: The Fleet Management Department has an adequate process in place to monitor underutilized vehicles. However, opportunity exists for the process to align with best practices of using a Vehicle Review Committee as an effective method for reviewing the need to keep underutilized vehicles.

The Fleet Management Department (FMD) has established minimum utilization criteria as 3,000 miles for City vehicles and 300 hours for City equipment. For fiscal years 2010 and 2011 the FMD identified 341 underutilized vehicles and equipment items. Audit staff analyzed the list of underutilized vehicles and equipment items for fiscal years 2010 and 2011 by department (See Charts 2 and 3).

![Underutilized Vehicles - FY 2010 & 2011](chart2)

*Other - Departments with less than 15 vehicles: Housing & Community Development, Technology/Solutions, Transportation, Fleet Management, Neighborhood Improvement Services, Parks & Recreation, City/County Inspection & Planning, and Fire*

Chart 2: *Underutilized vehicles for fiscal years 2010 - 2011 by department.*

The City spent approximately $466,000 to operate the underutilized vehicles for fiscal years 2010 and 2011. Audit staff estimated this cost from the Equipment History report provided by the FMD. Total cost included maintenance, repair, warranty, accident and fuel cost.
The Audit Services Department estimates that it cost the City approximately $197,000 to operate the underutilized equipment for fiscal years 2010 and 2011. Audit staff determined this cost from the Equipment History report provided by the Fleet Management Department (FMD). Total cost included maintenance, repair, warranty, accident and fuel cost. According to the FMD staff, approximately 10 of the underutilized vehicles and equipment items have been removed from the City’s fleet because of the utilization study performed by the FMD over the last two fiscal years.

The FMD has the lowest minimum utilization standards compared to the City of Greensboro and the City of Winston-Salem. If FMD raised the minimum utilization standards to Greensboro’s per year standard (3,600 miles and 360 hours), they would identify 418 underutilized vehicles and equipment items. If they raised it to Winston-Salem’s standards (4,000 miles and 400 hours), they would identify 470 underutilized vehicles and equipment items.

The FMD runs underutilization reports to determine the vehicles and equipment items in each department that are underutilized. The FMD meets with department representatives to discuss the underutilized vehicles and equipment items. Based on the discussion with the department
representatives, the Fleet Management Department (FMD) staff make recommendations to either keep or dispose of the underutilized vehicles and equipment. If the FMD and the department disagree regarding treatment of the vehicles and equipment in question, historically a Deputy City Manager in the City Manager’s Office has been notified to mediate the discussion. The decision by the City Manager’s Office staff is final in such cases. According to Government Fleet Magazine, a vehicle review board is considered a best practice and is an effective method for reviewing questions on: keeping underutilized fleet, exploring options for elimination and retention of fleet, or transferring fleet to a centralized motor pool.

Finding 4: The approval process for addition of new vehicles and equipment to fleet can be improved.

Each new vehicle or new piece of equipment adds to the City’s on-going cost to replace, maintain and operate the vehicle or piece of equipment, in addition to the initial cost of the item. The best utilization of monetary resources is essential to the operations of the City given the current budget challenges faced by the City. Per Policy FLT 100, the process for requesting additions to fleet are as follows:

- An “Additional Vehicle Request Form” must be completed;
- Departments should review utilization of existing vehicles in lieu of new or used vehicle purchases, to determine if vehicle reassignment will meet department needs;
- All budget requests for new vehicles must be submitted to FMD prior to being approved by the Budget and Management Services Department;
- The expansion of a department’s vehicle fleet requires approval by the Budget and Management Services Department and the City Manager. Departments must demonstrate: 1) a compelling need for the requested expansion vehicles, and 2) compliance of minimum utilization requirements of existing department vehicles as outlined in this policy.

Department personnel should use the Additional Vehicle Request Form to request the purchase of a new addition to the fleet. The form has fields for the Fleet Manager’s approval, the Fleet Director’s approval, and the Budget and Management Services Department representative’s approval. According to the Fleet Manager, his signature on the Additional Vehicle Request Form indicates he is approving vehicle specifications only. The policy does not clearly define what FMD’s role is in the acquisition process. The FMD provided examples of several instances where departments purchased new vehicles or equipment without their knowledge.
The transactions identified, appeared to be for purchases that were not identified during the budget process. This situation could be eliminated if the FMD was included in the approval workflow in MUNIS, similar to the workflow for all technology acquisitions, where all these purchases are routed to the Technology Solutions Department.

The Fleet Management Department (FMD) has the necessary information to help management make more informed decisions. The ultimate decision to purchase vehicles and equipment can continue to reside with the Budget and Management Services Department and the City Manager’s Office. At the very least however, the form, which provides space for the justification data for an addition to fleet should include FMD’s recommendation based on their analysis of a department’s utilization of current vehicles and equipment. This step will ensure all necessary information to make an informed decision is present, adding transparency to the process.

Finding 5: The Fleet Management Department compares favorably with other cities according to the UNC School of Government Benchmarking Project on city services for fiscal years 2009 and 2010.

Audit staff obtained and reviewed the UNC School of Government Benchmarking Project for fiscal years 2009 and 2010. The report highlights the key dimensions of service for 14 participating North Carolina municipalities. The School of Government study is one objective independent source of information. Audit staff did not verify the integrity of the data used in the report. The study analyzed performance measures based on those key dimensions of service. For purposes of the benchmark, the City of Greensboro and the City of Winston-Salem were compared to the City of Durham (See Table 1).

<table>
<thead>
<tr>
<th>City</th>
<th>Number of Rolling Stock Maintenance</th>
<th>Average Age of Rolling Stock (in Years)</th>
<th>Number of Work Orders</th>
<th>Number of Preventive Maintenances</th>
<th>Number of Work Bays</th>
<th>Authorized Technician FTE</th>
<th>Labor Rate (per Hour)</th>
<th>Parts Inventory Turnover per Year</th>
<th>Fund Type</th>
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<td>Durham</td>
<td>1,476</td>
<td>6.2</td>
<td>12,632</td>
<td>5,457</td>
<td>33</td>
<td>24.0</td>
<td>$59 – Heavy Equip $47 - Others</td>
<td>3.6</td>
<td>General Fund</td>
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<tr>
<td>Greensboro</td>
<td>1,961</td>
<td>5.6</td>
<td>12,823</td>
<td>6,242</td>
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<td>31.0</td>
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<td>Winston-Salem</td>
<td>1,778</td>
<td>7.9</td>
<td>10,633</td>
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<td>31</td>
<td>18.0</td>
<td>$50.00</td>
<td>3.0</td>
<td>General Fund</td>
</tr>
</tbody>
</table>

Table 1: Fleet Maintenance Summary of Key Dimensions of Service
Workload Measures

The City of Durham is near the benchmark average for workload measures, which include the number of vehicle equivalent units and preventive maintenance completed in-house per tech FTE (See Chart 4).

![Chart 4: Preventive Maintenance (PMs) Completed In-House per Tech FTE](chart)

The preventive maintenance (PMs) completed in-house per tech FTE for the City of Durham dipped drastically from 282 in 2009 to 226 in 2010, although that number was still higher than the benchmark average of 196. The City of Greensboro increased their PMs completed in-house per tech FTE from 2009 to 2010, although they were still lower than the benchmark average. The City of Winston-Salem saw a decrease from 2009 to 2010, but their PMs completed in-house per tech FTE are still well above the benchmark average.

Effectiveness Measures

According to the study, the City of Durham is above the benchmark average in three out of five effectiveness measures – preventive maintenance (PMs) as a percentage of all work orders, percentage of preventive maintenance (PMs) completed as scheduled, and percentage of work orders requiring repeat repair within 30 days. The City of Durham is slightly below the benchmark average for percentage of rolling stock available per day, and substantially below the benchmark average for percentage of work orders completed within 24 hours. Details of two of the 5 effectiveness measures are shown below (See Charts 5 and 6):
Chart 5: Preventive Maintenance (PMs) as a Percentage of All Work Orders

The City of Durham saw a steep decline in PMs as a percentage of all work orders from 2006 to 2010, although the 43% in 2010 is still higher than the benchmark average of 39%. The City of Greensboro saw a 9% increase from 2007 to 2010 putting it ahead of the benchmark average. The City of Greensboro outsources a significant amount of their light vehicles for PM and outsources oil changes on medium vehicles. The City of Winston-Salem saw stable production from 2006 to 2010, hovering in the mid-to-high 40%; higher than the benchmark average.

Chart 6: Percentage of Work Orders Completed within 24 Hours

The City of Durham saw an increase in the percentage of work orders completed within 24 hours from 2006 to 2010, reaching 54%. The City of Winston-Salem also saw an increase, with 86% of work orders completed within 24 hours in 2010. The City of Greensboro maintained a consistent percentage throughout the years, with the highest being 89% in 2008 and the lowest being 82% in 2007.
The City of Durham is significantly below the benchmark average for percentage of work Orders completed within 24 hours. There was a 27% decrease in work orders completed within 24 hours from 2006 to 2008. In 2008, the City of Durham was 56% below the benchmark average. From 2008 to 2010 the City of Durham rebounded to 54% (a 36% positive change) but it was still 24% below the benchmark average. According to the FMD Director, for percentage of work orders completed within 24 hours, the City of Durham was reporting work orders completed within 24 hours, but other cities were reporting work orders finished within 24 hours. A work order completed means that the operator can use the vehicle or equipment item, the work order has been audited by FMD 3 times, and it is complete. Work order finished means it can be issued back to the operator for use but the invoice and audit process from FMD has not been completed yet.

Finding 6: The Fleet Management Department has adequate controls in place to ensure that fleet information maintained in the FASTER System is accurate and complete.

Efficient fleet management is dependent on the accuracy of the information maintained. For example, accurate mileage information helps the Fleet Management Department (FMD) schedule timely preventive maintenance. The FMD has controls in place to ensure accurate mileage information is entered in the system. The FMD uses a fuel key system to control access to all fuel pumps. Fuel keys are vehicle and equipment specific. When employees use their fuel keys, they are required to enter the mileage for the vehicle or equipment item associated with each fuel key. At present, the fuel key is programmed to preclude an employee’s access to fuel if the mileage entered is greater than or equal to 350 miles from the previous mileage. The employee must get the fuel key reprogrammed to access the fuel.

Employees sometimes use the same fuel key to fill up two pieces of equipment. This practice affects the accuracy of mileage data. The FMD relies on departmental statistics to verify mileage information for vehicle and equipment with unusual mileage data.

Audit staff selected a sample of 42 vehicles and equipment items. The sample was selected to verify the existence of the fleet items. The cost of the selected sample represented 3% of the total acquired cost of approximately $68 million dollars. The information pertaining to the sample selected was correct in the fleet database. Some of the 42 vehicles and equipment items were traced from the fleet inventory database to the actual units on hand and others were selected from the field and traced back to the inventory list to verify completeness. No exceptions were noted.
Finding 7: The Fleet Management Department should strengthen controls over surplus vehicles and equipment items returned to the department for disposal.

The Fleet Management Department (FMD) notifies the user departments when a vehicle or equipment item needs to be replaced. The FMD places a vehicle or equipment item on an auction list upon receipt of the vehicle or equipment item. At present, the auction list serves as a log for all vehicle and equipment returned from the departments for disposal. The auction list log does not include information on the date the items were received nor does it reference the FMD staff who received the item. The FMD should use a receiving log to document all vehicles and equipment returned by departments for disposal which includes information on the received date as well as who received the item.

Finding 8: The Fleet Management Department has adequate controls in place over purchasing of parts for repair and maintenance of City’s fleet.
Recommendation 1
The Fleet Management Department should implement additional oversight controls over fuel operations by performing the following:

- Reconcile the beginning fuel balance to purchases, consumption and ending balance. The reconciliation should be performed by someone other than the Fuel Administrator;
- Regular management review of system generated reports to monitor usage by vehicle and equipment item to identify unusual activity;
- Track on an excel spreadsheet on a daily basis, fuel purchased from the delivery receipt source document and the tank monitor;
- Monitor usage of spare keys; and
- Place warning or instructional signage at the (fueling sight) gas pumping stations, to act as instructional and theft deterrent measures to users.

Recommendation 2
The Fleet Management Department should continue its efforts to enter into a contract to purchase fuel.

Recommendation 3
The Fleet Management Department should revise the existing polices to include:

- Guidance on appropriate use of fuel, fuel keys, and master fuel keys;
- Standardized practice of transporting fuel in containers;
- Guidelines surrounding take home vehicles;
- Transference of vehicle and equipment from one division to the other;
- Disposal of surplus vehicles/equipment;
- Accountability for abuse of City equipment/vehicle;
- A correct minimum utilization criteria established by the FMD; and
- A correction to reflect the current use of the Fuel Master System.

Recommendation 4
The Additional Vehicle Request Form should provide space to document the recommendation of the Fleet Management Department regarding acquisition of a specific vehicle or equipment item. The recommendation should become a part of the decision making process, so the Budget and Management Services Department and the City Manager’s Office can make informed decisions in an atmosphere of transparency.
**Recommendation 5**

The City Manager’s Office should determine if establishing a Vehicle Review Committee to include representation from the City Manager’s office, the Budget and Management Services Department and the Fleet Management Department would be an effective method to mediate all vehicle and equipment replacement/acquisition disagreements and exemption requests based on utilization requirements. The City Manager’s Office should also determine if FMD should be included in the electronic workflow for all fleet purchases.

**Recommendation 6**

The Fleet Management Department should maintain a receiving log to document all vehicles/equipment returned by departments for disposal. The log should include the date of receipt and the receiver’s name/signature.
Recommendation 5
The City Manager’s Office should determine if establishing a Vehicle Review Committee to include representation from the City Manager’s office, the Budget and Management Services Department and the Fleet Management Department would be an effective method to mediate all vehicle and equipment replacement/acquisition disagreements and exemption requests based on utilization requirements. The City Manager’s Office should also determine if FMD should be included in the electronic workflow for all fleet purchases.

Management’s Response:
We concur. The City Manager’s Office in conjunction with the Budget and Management Services Department and the Department of Fleet Management will review and approve all new and replacement vehicle requests. This process will begin effective immediately.
Date: October 14, 2011

To: Germaine F. Brewington, Director of Audit Services

From: Kent Cash, Director of Fleet Management

Subject: Management’s Response

Fleet Utilization Performance Audit (October 2011)

The following is management’s response to the Fleet Utilization Performance Audit dated October 2011.

**Recommendation 1**
The FMD should implement additional oversight controls over fuel operations by performing the following:

- Reconcile the beginning fuel balance to purchases, consumption and ending balance. The reconciliation should be performed by someone other than the Fuel Administrator;
- Regular management review of system generated reports to monitor usage by vehicle/equipment to identify unusual activity;
- Track on an excelsheet on a daily basis, fuel purchased from the delivery receipt source document and the tank monitor;
- Monitor usage of spare keys; and
- Place warning or instructional signage at the (fueling sight) gas pumping stations, to act as instructional and theft deterrent measures to users.

**Management’s Response:**
We partially concur. Management is in agreement with a portion of the recommendation. Responses are in bullet order that coincide with Audit bullet order.

- Fleet Management is exploring the feasibility of using the new FuelMaster System to accomplish the function of reconciliation of fuel purchasing, consumption and ending balances by full automation. We currently use a manual reconciliation; however, starting in November we will add a significant amount of automation. To address the issue of separation of duties for fuel reconciliation, the backup Fuel Administrator will verify the monthly reconciliation for accuracy. Implementation target is January 2012.
• The Fuel Administrator already uses the FASTER fleet software system to monitor unusual consumption amounts. If a vehicle exceeds its original equipment manufacturers (OEM’s) tank capacity during the 24 hour period, the system prints an error report. The Fuel Administrator then contacts the affected department for departmental investigations. The Fuel Administrator already files error reports. We will add the departmental contact name and date on the report before we file it. We already send departments a fuel usage report every month by fleet number, which would allow for them to look at unusual consumption by vehicle. Therefore, we contend that we already are within compliance.

• Addressed with the first bullet for recommendation 1.

• We partially agree with the recommendation to randomly monitor spare fuel key consumption. This will be performed by the Fuel Administrator effective November 2011. The one “miscellaneous fuel key” that showed large percentages of fuel usage for a particular division, was a key used to fuel rental vans for the Mayor’s Summer Youth Program. This program was administered by the Parks and Recreation Department. The audit found only small amounts of usage by other miscellaneous keys. Fleet Management already send departments a fuel usage report every month by fleet number, which includes the miscellaneous or “spare” keys. Each operating department bears some of the responsibility to review these reports and respond accordingly.

• We concur with placing some signage at the fuel islands that warns against theft, sharing fuel keys and for using approved UL containers for fuel not dispensed to a vehicle. The Fleet Manager is assigned this task and a target implementation date of February 2012 has been set.

**Recommendation 2**
The FMD should continue its efforts to enter into a contract to purchase fuel.

**Management’s Response:**
We concur. The new fuel contracts are effective November 1, 2012.

**Recommendation 3**
The FMD should revise the existing polices to include:

• Guidance on appropriate use of fuel, fuel keys, and master fuel keys;
• Standardized practice of transporting fuel in containers;
• Guidelines surrounding take home vehicles;
• Transference of vehicle and equipment from one division to the other;
• Disposal of surplus vehicles/equipment;
• Accountability for abuse of City equipment/vehicle;
• A correct minimum utilization criteria established by the FMD; and
• A correction for the current use of the Fuel Master system.
Management’s Response:
We partially concur. Management is in agreement with a portion of the recommendation. Responses are in bullet order that coincide with Audit bullet order.

- We concur. Fleet Management is already in the process of revising FLT 101 (Fueling Policy and Procedures). With a target of January 2012, the following policy additions are in process:
  - Fuel keys are assigned to vehicles/equipment; do not share fuel keys.
  - Fuel key use is for City of Durham vehicle/equipment; using a fuel key for personal use is a violation of policy FP 108.01.
  - Use only DOT/UL approved fuel containers. It will be the responsibility of each department to assure proper storage cans are used (reference; General Safety Practice (GSP-9) and CFR 1926.152(a)(1).

- We concur. Will be addressed in revised FLT 101 (reference above bullet).
- We concur. Take home vehicles will be addressed by adding language to FLT 100 (City Vehicle Policy). The language will include requiring all departments to develop an internal take home vehicle procedure/policy by January 2012.

- We partially concur. The City Finance Department requires a “Notice of Change in Capital Assets” form to be completed when an asset is transferred. Fleet Management would be required to complete this form if we were transferring one of our assets to another “Org Code.” The originating department should send a copy to FMD so that vehicles/equipment can be changed in the fleet software system for billing charge purposes. In order for this to be seamless, Finance would need to update their policy (FP 202.01). Under the “Notice of Change of Capital Assets” it is recommended that FP 202.01 state that a copy of the form is forwarded to Fleet Management for vehicles/equipment.

- We partially concur. We currently use an auction/disposal log. However, we will incorporate the recommended additions into a newly developed log sheet. Disposal procedures will be added to the FLT 100 policy explaining the use of the disposal log. The policy implementation target is February 2012. The Fleet Specification Analyst is the departmenal individual responsible for developing the new disposal log, with an implementation date of November 2011. Log will be required to include the following as a minimum:
  - Signature and date blocks for use by the department turning in vehicle/equipment.
  - Signature and date blocks for the FMD employee receiving the turned in for disposal vehicle/equipment.
  - Signature and date blocks should vehicle/equipment need to be placed back into service.
  - Block for the fleet number.
  - Block for description.
  - VIN number.

- We partially concur. The department already captures abuse/misuse by mechanics when they enter repair codes into the FASTER system should abuse/misuse be suspected. The mechanic informs the supervisor who in turn contacts the department in question. However, this existing procedure will be documented in writing as the FLT 100 policy is revised to address abuse/misuse. We will recommend in the revision that every department establish a procedure to address abuse/misuse within their department. Target date of implementation is February 2012.

- We concur. When FLT 100 is revised, it will include making the changes in the policy to match the mileage and hour criteria that we’ve established to be optimum for our size city. The target for implementation is February 2012.
We concur. As stated previously, FMD is already in the process of revising FLT 101 (Fueling Policy and Procedures) to reflect the fueling procedures that have changed as a result of moving from the old system to the Fuel Master system. We have a target of January 2012 for implementation.

Recommendation 4
The Additional Vehicle Request Form should provide space to document the recommendation of the FMD regarding acquisition of a specific vehicle/equipment. The recommendation should become a part of the decision making process, so the Budget and Management Services Department and the City Manager’s office can make informed decisions in an atmosphere of transparency.

Management’s Response:
We partially, concur. The City migrated to a consolidated fleet replacement program in 2005. The Director has at every budget kickoff since 2005 stated that FMD’s signature on any request for an additional vehicle/equipment was not approval of the purchase, but rather assurance that the department had the right specifications for their intended task and an accurate cost estimate for budget planning purposes. However, when FLT 100 is revised, the add-on sheet will have a new check box beside FMD’s signature as to whether we concur or do not concur with the add-on request. Non-agreement would most likely be based on knowledge of underutilized vehicles/equipment within a department. Concurrence or non-concurrence would not be the final decision for add-ons. Rather, departments would still have the opportunity during their budget deliberations with the City Manager to add vehicles/equipment, with or without our approval. Target date for implementation is February 2012.

Recommendation 6
The FMD should maintain a receiving log to document all vehicles/equipment returned by departments for disposal. The log should include the date of receipt and the receiver’s name/signature.

Management’s Response:
We concur. As stated previously, the Fleet Specification Analyst is the departmental individual responsible for developing disposal log, with an implementation date of November 2011. Log will be required to include the following as a minimum:

- Signature and date blocks for use by the department turning in vehicle/equipment.
- Signature and date blocks for the Fleet employee receiving the turned in for disposal vehicle/equipment.
- Signature and date blocks should vehicle/equipment need to be placed back into service.
- Block for the fleet number.
- Block for description.
- VIN number.
Fleet Comments and Recommendations:

We appreciate the Audit’s review of our operations and procedures. Many of the recommendations were already in process due to changes in the fueling system; however, this gives us a chance to improve our procedures and our overall service levels.

As our responses have shown, we were performing many of the functions that came forward as recommendations. A lot of the functions reviewed come down to interpretation and understanding our methodology. Also, the audit came during a transition period from a fuel system that had been in place since 1983 (TRAK Engineering) to our new system (FuelMaster). The system was so new that the operations staff did not have the time to make the changes in FLT 101. However, the update task had been assigned and will be completed as outlined above. In the interim, we did send operational instructions to department liaisons and all system users by email. Additionally, the new system has a LED screen that gives step by step instructions.

As clarification, the section that discussed the reduction in the number of preventive maintenance (PM) activities performed did not discuss fully the reason behind the result. FMD made a conscious decision to change from a mileage based PM interval to a fuel consumption based PM interval. This resulted in an overall reduction of total PM activities; however, we believe that this is a positive outcome rather than a negative since PMs will be better directed to the vehicles that need them and money will be saved in avoiding unnecessary PM activity. Furthermore, mechanics can be redirected to other activities with the available time.

For the past two years the City of Durham has been ranked by Government Fleet Magazine as being in the top 100 Best Fleets in North America (none of the cities we were compare to in the SOG benchmarking study were listed). I believe that Fleet has one of the best staffs in the City. They will master all of the recommendations from this audit; additionally, by building on these actions, we can continue to be counted in the “Best.”