Fleet Management

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OIG NEW ORLEANS OFFICE OF INSPECTOR GENERAL

E. R. Quatrevaux, Inspector General

CITY OF NEW ORLEANS

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INSPECTOR GENERAL

July 13, 2016

Re: Fleet Management

I certify that the inspector general personnel assigned to this project are free of personal or other external impairments to independence.

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I. EXECUTIVE SUMMARY

The Office of Inspector General (OIG) of the City of New Orleans conducted an evaluation of the City's fleet management program. The purpose of the evaluation was to determine if the City had effective policies and procedures in place to manage its fleet effectively and control the cost of fleet operations.

Vehicles and equipment are essential to the delivery of municipal services. At the end of 2014 the City owned more than $60 million in motor vehicle and equipment assets including police cars, fire trucks, garbage trucks, and passenger vehicles. Management of the assets was divided between the Equipment Maintenance Division (EMD), a division of the Chief Administrative Office, and city departments, with user departments bearing a greater share of the responsibility. Most fleet management responsibilities were assigned to user departments including establishing availability requirements, monitoring maintenance, and investigating instances of suspected misuse. The EMD was responsible for providing maintenance and repair services, assisting with developing specifications and coordinating acquisition, and providing fuel.

Evaluators examined the City's fleet management practices from 2009 through 2014. In addition to reviewing the EMD's fleet management practices, evaluators also reviewed fleet management practices in all city departments and some outside agencies to which the City provided fleet services.

Evaluators found that the lack of information related to fleet operations prevented EMD and user department staff from making informed decisions. The City could not produce reliable, basic information such as how many vehicles it had, how often they were used, and what type of repairs were performed. In addition, the City did not use accurate and reliable data to guide management decisions such as determining how many vehicles it needed, whether to outsource maintenance, and when to replace vehicles.

In addition to a lack of information, there was also a lack of oversight related to fleet policies and procedures. Fleet staff did not have the authority to enforce policies related to the appropriate use of vehicles, fueling, adhering to maintenance schedules, and retiring vehicles. The City also had not established policies and procedures with outside entities to which it provided fleet services.

The evaluation included the following findings:

- City decision-making was not informed by data due to the lack of a functional information system.
- The City did not have an accurate and reliable list of vehicles and equipment.
- The City did not establish vehicle use standards or track vehicle use to determine the right size and make-up of the fleet.
- The City did not have an effective mechanism in place to ensure that vehicles received preventive maintenance at recommended intervals.
- The City did not conduct vehicle and equipment life-cycle analyses to create replacement criteria; therefore, it could not determine the optimal time to replace vehicles and equipment.
- The City's decentralized organizational structure did not support effective fleet management.

Based on these findings, the OIG made the following recommendations:

- The City should begin systematically collecting and analyzing information about its fleet.
- The City should ensure that it has an accurate and reliable vehicle list.
- The City should develop standards for vehicle and equipment use, and staff should measure use to determine if those standards are met. That information should be used to achieve the optimal fleet size through acquisition, transfer of vehicles between departments, the sale of surplus vehicles, and sharing lightly-used vehicles among departments.
- The EMD and user departments should establish formal preventive maintenance schedules for vehicles and equipment, and the City should provide the Fleet Manager with sufficient authority to enforce preventive maintenance schedules.
- The City should use life-cycle analysis to create replacement criteria for vehicles and equipment and fund replacements at the optimal time.
- The City should provide the incoming fleet manager with sufficient authority to oversee efficient fleet operations, standardize the role of vehicle coordinators, and establish formal expectations for outside agencies to which the City supplies vehicles and/or service.

The City has agreed to implement the OIG recommendations for improved fleet management.

II. Objectives, Scope, and Methods

The Office of Inspector General of the City of New Orleans (OIG) conducted an evaluation of the City's fleet management program. The purpose of the evaluation was to determine whether the City had effective policies and procedures in place to manage its fleet effectively and control the cost of fleet operations.

Evaluators examined the City's fleet management practices from 2009 through 2014. In addition to reviewing the fleet management practices of the Equipment Maintenance Division (EMD), evaluators also reviewed fleet management practices in all city departments and some outside agencies to which the City provided fleet services.

The objectives of this evaluation were to determine if the City:

- used performance measures to benchmark fleet activities and guide fleet-related decision-making;
- had an accurate and reliable list of vehicles;
- conducted a use study to establish the ideal size and make-up of the fleet;
- conducted life-cycle analyses to establish when it should retire vehicles and if the City retired vehicles when they exceeded their useful lives;
- had a formal mechanism in place to monitor and oversee preventive maintenance; and
- established a fleet management organizational structure consistent with best practices.

To achieve these objectives, evaluators:

- interviewed EMD staff and conducted walk-throughs of fleet maintenance facilities;
- interviewed departmental vehicle coordinators;
- inspected a random sample stratified by department of the 1,784 vehicles reported in the 2015 first quarter vehicle inventory list;
- requested and reviewed use, fueling, and maintenance records for sampled vehicles; and
- reviewed and compared lists of vehicles including the available quarterly inventory reports (second half of 2014 and first half of 2015), a vehicle list

generated by EMD employees, and vehicles from the City's fixed asset list from 2009 to 2014.

This evaluation was conducted in accordance with the Principles and Standards for Offices of Inspector General for Inspections, Evaluations, and Reviews.[1]

The OIG staff was greatly assisted in the preparation of this report by the full cooperation of City of New Orleans employees and officials, including departmental vehicle coordinators and Equipment and Maintenance Division staff.

[1] Association of Inspectors General, "Quality Standards for Inspections, Evaluations, and Reviews by Offices of Inspector General," *Principles and Standards for Offices of Inspector General* (New York: Association of Inspectors General, 2014).

III. INTRODUCTION

Vehicles and equipment are essential to the delivery of municipal services. First responders such as the New Orleans Police Department (NOPD), the New Orleans Fire Department (NOFD), and New Orleans Emergency Medical Services (EMS) rely on functioning vehicles and equipment to provide emergency assistance to the public. The Department of Sanitation ("Sanitation") relies on vehicles to collect trash from public containers and keep streets clean. The Department of Public Works ("Public Works") operates vehicles and equipment that repair streets, keep storm drains functioning, and tow vehicles blocking the right of way. The Department of Parks & Parkways ("Parks and Parkways") relies on equipment to cut grass and trim trees to prevent falling limbs that could cause injury to individuals or damage to private property.

However, effective fleet management goes beyond simply making sure that vehicles and equipment are operational. Fleet managers should consider questions such as:

- How many and what type of vehicles are necessary to achieve operational goals in the most efficient manner?
- How are existing vehicles being used?
- What is the total cost (e.g., purchase price, fuel, maintenance, unscheduled repairs, depreciation) of a vehicle over its lifetime?
- Is it more cost effective to replace a vehicle or extend its operating life?
- Should a vehicle be retired from the fleet; if so, should it be auctioned or used for spare parts?
- Is it more cost effective to outsource repairs or perform them in house?
- Are there mechanisms in place to ensure that preventive maintenance is being performed at recommended intervals?
- Are fleet practices designed to extract maximum value from vehicles and equipment?

Best practices in fleet management require answering these questions using methods from a number of fields: asset management, economics, evaluation, financial analysis, and budgeting. Successfully implementing these methods requires access to reliable, accurate information. With access to data, fleet managers are able to make data-driven decisions to operate the fleet at the lowest possible cost to taxpayers.

IV. FLEET MANAGEMENT ADMINISTRATION

According to the City's certified financial statement, at the end of 2014 the City owned $60 million in assets related to motor vehicles and equipment. Vehicles and equipment used by the City included police cars, fire trucks, ambulances, garbage trucks, street sweepers, vacuum trucks, bucket trucks, and passenger vehicles. The City managed these assets according to CAO Policy Memorandum No. 5(R) (CAO Memo 5(R)).[2] The policy defined responsibilities and accountability related to vehicle and equipment use, operations, maintenance, and fueling.

According to CAO Memo 5(R), "optimization of fleet operations and services is best accomplished by a coordinated effort between the users (departments and their employees) and the fleet service provider," the Equipment Maintenance Division (EMD).[3] The approach described in CAO Memo 5(R) assigns responsibilities for fleet management to individual departments and agencies, establishing a decentralized fleet management structure.

EQUIPMENT MAINTENANCE DIVISION

The EMD is a division of the CAO's Office. CAO Memo 5(R), Section 11 defined the EMD's responsibilities for fleet management. These responsibilities included:

- providing scheduled and unscheduled maintenance services;
- assisting departments in the preparation of vehicle and equipment replacement requirements and specifications;
- coordinating new vehicle and equipment acquisition;
- coordinating the disposition of surplus vehicles and equipment; and
- providing fuel and fuel services, including fuel consumption and discrepancy reports.[4]

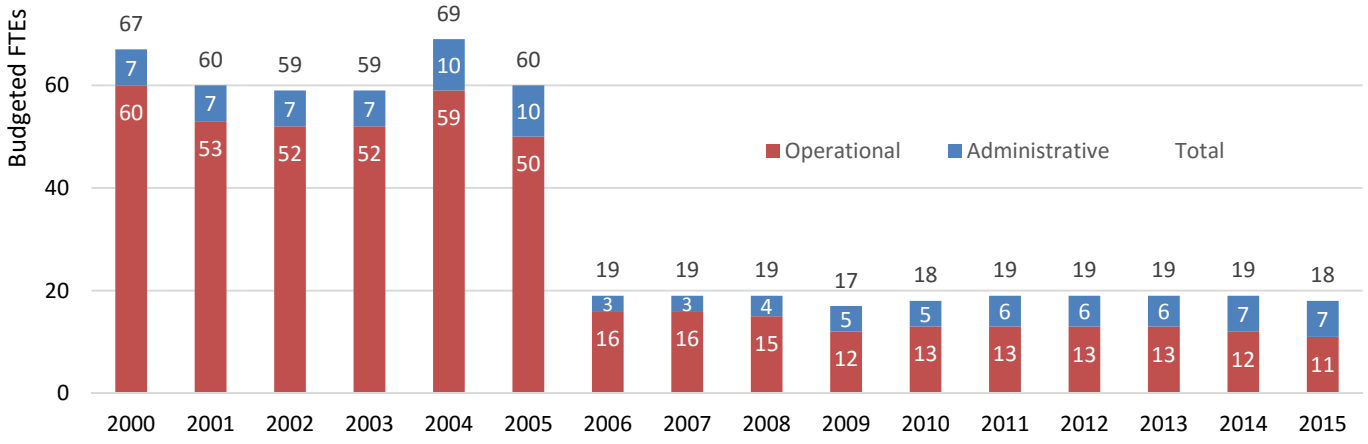
The EMD consisted of both administrative and operational staff. Administrative staff in City Hall oversaw budgeting, vehicle and equipment acquisitions, vendor management, and fuel services. Operational staff were primarily located at the

[2] The most current version of CAO Memo 5(R) at the time of this evaluation was effective on March 1, 2012. The CAO issued a new version of the Memo on May 19, 2016. Evaluators will review any impacts of the new version of the Memo when the OIG conducts its follow-up on recommendations made in the report.
[3] CAO Policy Memorandum No. 5(R) Sec. 2.
[4] CAO Memo 5(R) Sec. 11.

City's Central Maintenance Garage (CMG) on Alvar Street, although a smaller number of staff worked at a satellite garage located in Algiers. Operational staff provided maintenance and repair services including oil changes, brake repairs, and small installations such as alternator replacements. Operational staff also coordinated repairs with outside vendors if the repairs were beyond in-house capacity.

Evaluators used the City's budget books to examine the number of EMD employees. Budgeted full-time equivalent employees (FTEs) decreased sharply after Hurricane Katrina, from 60 to 19 FTEs in 2006. Although the total number of FTEs remained steady from 2006 to 2015, administrative staff increased to pre-Katrina levels while operational staff further decreased from 16 in 2006 to 11 in 2015. Figure 1 lists total administrative and operational FTEs.

Figure 1. Budgeted Full-Time Equivalent Administrative and Operational EMD Employees (2000–2015)[5]

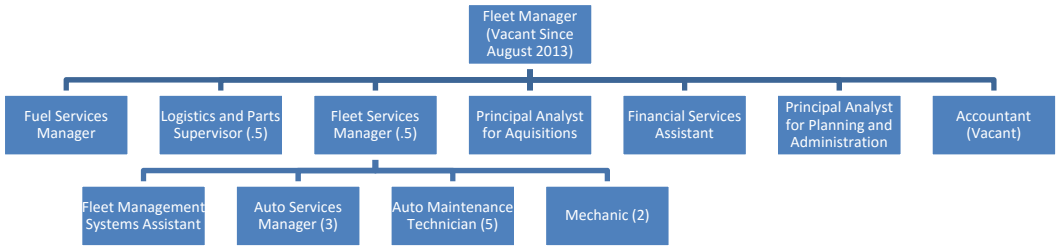


In 2015 there were 18 budgeted EMD positions divided between administrative and operational duties. Although the City budgeted for the Fleet Manager position in 2015, as of August 2014 the position was vacant, and a Management Development Specialist served as interim fleet manager. Another Management Development Specialist focused on vehicle and equipment acquisitions, including

[5] FTEs rounded up to nearest full-time position.

writing bid specifications and overseeing the receiving process. On the operations side, a Fleet Services Manager and the Logistics and Parts Supervisor shared management responsibilities at the Central Maintenance Garage (CMG), overseeing the mechanics and one administrative staff member. See Figure 2 for an organizational chart of EMD employees.

Figure 2. EMD Organizational Chart[6]



User Departments

CAO Memo 5(R) assigned most fleet management responsibilities to user departments and department vehicle coordinators rather than to the EMD. According to the policy, user departments were responsible for:

- maintaining a vehicle assignment database;[7]
- providing the EMD with quarterly inventory reports;
- appointing a vehicle coordinator to monitor fleet operations, policies, guidelines, and practices and to act as a liaison to the EMD;
- establishing minimum vehicle and equipment availability requirements consistent with service requirements and communicating those priorities to the EMD;
- monitoring department maintenance services and coordinating maintenance services with the EMD;

[6] Unless otherwise noted, one FTE was assigned.

[7] According to CAO Memo 5(R) the database should include a vehicle description (year, make, model, and color), license plate number (if applicable), vehicle identification number (VIN), city asset number, name of the employee assigned to the vehicle, and certification that the vehicle is marked and decaled. See CAO Memo 5(R) Sec. 5(C).

- initiating and conducting investigations for suspected vehicle or equipment misuse and/or abuse; and
- establishing departmental vehicle and equipment replacement requirements and assisting the EMD in the formulation and preparation of specifications.[8]

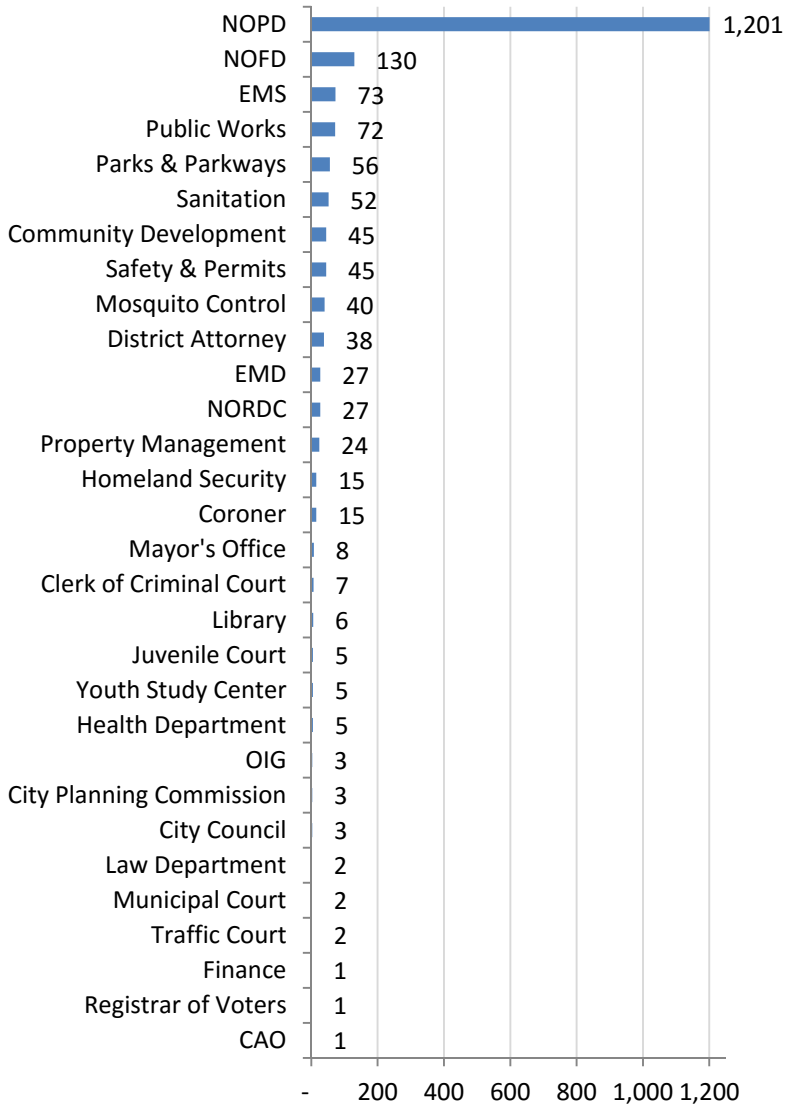
FLEET COMPOSITION: SIZE AND AGE OF FLEET

Departmental fleets varied both in size and composition. According to the inventory report from the second quarter of 2015, 30 departments submitted information about their vehicles. The number of vehicles assigned to each department ranged from 1 to more than 1,000: the NOPD had the largest fleet with 1,201 vehicles (63 percent of the vehicles listed on the inventory report); and the CAO's Office, Department of Finance, and Registrar of Voters had the smallest fleets, with one vehicle each. Figure 3 includes a breakdown of all vehicles listed on the 2015 second quarter inventory report.[9]

[8] CAO Memo 5(R) Sec. 5.

[9] As discussed later in this report, the quarterly vehicle inventory reports were self-reported and sometimes inaccurate.

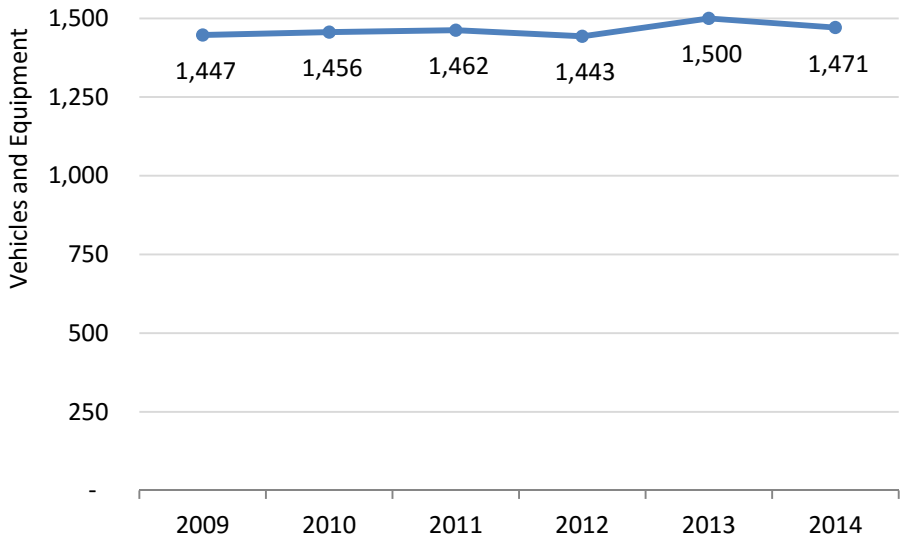
Figure 3. Vehicles Reported by Departments (2015 Second Quarter Inventory Report)[10]



[10] See Appendix A: Department and Agency Abbreviations. The Orleans Parish Sheriff's Office, Louisiana Society for the Prevention of Cruelty to Animals (LASPCA), and the French Market Corporation also reported vehicle inventories to the EMD but were not included in this table because the City did not own those vehicles. Evaluators used the 2015 Second Quarter Inventory Report because it was the most up-to-date, even though it was outside the scope period.

The City did not maintain a reliable master list of all of the City's vehicles and equipment, making it difficult to document how the fleet changed over time.[11] The City's list of fixed assets was the only list that included historical information so evaluators used it to determine fleet size.[12] Based on the City's list of fixed assets, the number of vehicles increased slightly from 2009 to 2014 (see Figure 4).

Figure 4. Number of Vehicles and Equipment on the City's Fixed Asset List (2009-2014)

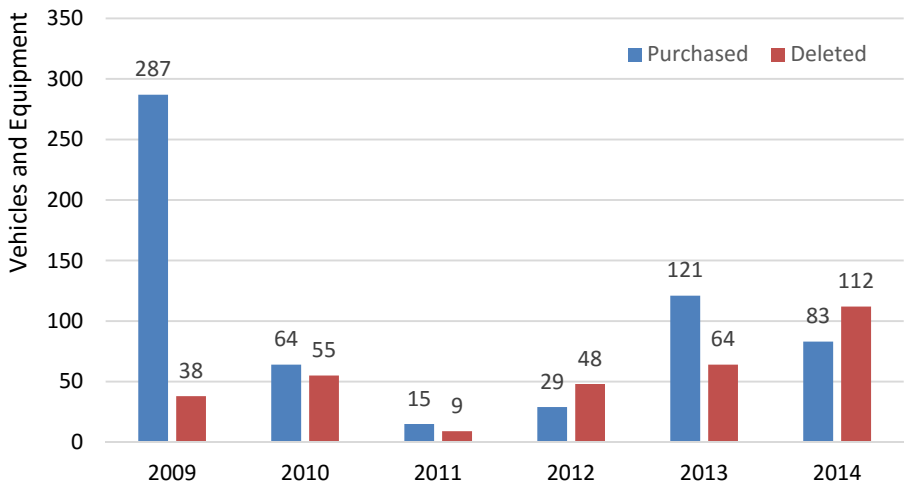


According to fixed asset records, the City did not purchase or dispose of vehicles at a consistent yearly rate from 2009 through 2014. It purchased the largest number of vehicles in 2009 (nearly 20 percent of the fleet) and the fewest in 2011 (1 percent of the fleet). As shown in Figure 5, the City generally disposed of fewer vehicles than it purchased, except in 2012 and 2014.

[11] The City did not have an accurate or reliable list of vehicles but the fixed asset list provided the best information available. The lack of a definitive inventory of vehicles is discussed later in the report.

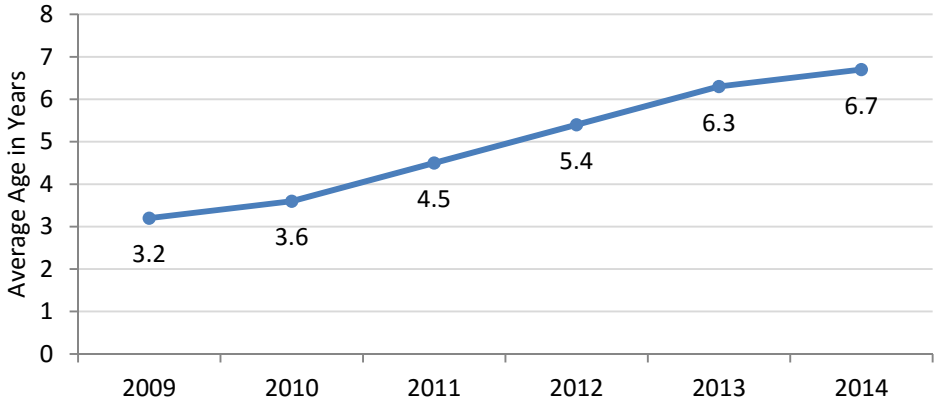
[12] Evaluators used the 2014 fixed asset list because the 2015 fixed asset list was not available at the time of the evaluation. The Bureau of Accounting provided evaluators with a list of vehicles and equipment that appeared on the fixed asset list for each year from 2008 to 2014. Evaluators manually removed items that were not serviced by the EMD including computers and other non-vehicular equipment.

Figure 5. Vehicle and Equipment Purchases and Deletions on the City's Fixed Asset List (2009-2014)



As shown in Figure 5, the City purchased 287 new vehicles in 2009, almost as many as it purchased in the next five years. As a result, the City had a relatively young fleet in 2009 with an average vehicle age of 3.2 years. However, by 2014 the age of the fleet had doubled to 6.7 years, resulting in lower resale values and higher operational costs; older vehicles are less fuel efficient and require increased maintenance and repairs.

Figure 6. Average Age of Vehicles and Equipment on the City's Fixed Asset List (2009-2014)[13]



[13] The City purchased $12.5 million worth of new vehicles and equipment in 2015, but information regarding those purchases had not been added to the certified fixed asset list at the time of this report.

V. DATA AND RECORD KEEPING

Maintenance and operation of a municipal fleet requires significant resources. In 2014 the City owned more than $60 million in fleet assets and spent $12 million on fuel, repairs, and acquisitions (5 percent of its operating non-personnel budget). According to the United States Government Accountability Office (GAO), it is a best practice to monitor and benchmark fleet costs to identify opportunities for cost savings.[14] Benchmarking requires information systems capable of providing data such as records of maintenance and repairs (including personnel time, the cost of parts, and the cost of outside repairs), fueling, and vehicle use.

FINDING 1. CITY DECISION-MAKING WAS NOT INFORMED BY DATA DUE TO THE LACK OF A FUNCTIONAL INFORMATION SYSTEM.

The City could not effectively benchmark fleet costs to guide decision-making because it did not have access to information about its fleet operations. Prior to Hurricane Katrina, EMD staff recorded fleet data on an IBM mainframe software application called the Maintenance Control and Management System (MCMS). The MCMS was capable of recording vehicle status (whether it was active or it had been deleted/sold as surplus) and maintenance histories, including the amount of time mechanics spent on repairs, which parts were used, and their costs.

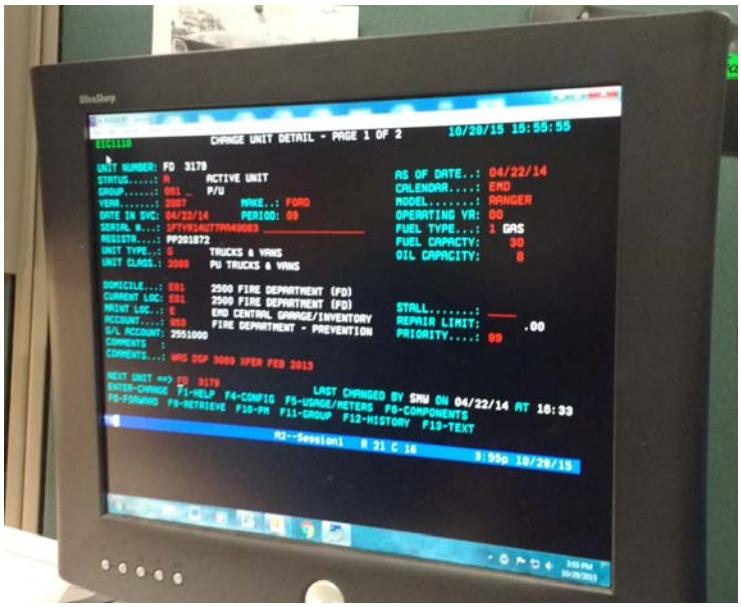
The City purchased the MCMS in 1994 to record vehicle inventory and maintenance records, but in 2002 it stopped paying for vendor support, including software updates. The employee capable of managing the MCMS left the City after Hurricane Katrina; since then no one had been capable of providing technical support to the system.

The City's Information Technology (IT) department told evaluators that "the application broke" in March 2011, and the City abandoned it because the software developer was no longer in business. Although the IT department was unaware, EMD staff continued to use the MCMS to create new asset records, look up records, and mark assets as deleted from the City's vehicle inventory. However,

[14] United States General Accounting Office, *Federal Motor Vehicles Private and State Practices Can Improve Fleet Management*, (Washington, DC: United States General Accounting Office, 1994), 15, accessed February 2, 2016, http://www.gao.gov/assets/160/154786.pdf.

EMD staff did not use the MCMS to record maintenance histories, parts, or personnel time spent on repairs.

Figure 7. Maintenance Control and Management System (MCMS)



In 2008 the OIG found that the MCMS could not provide reliable information or provide fleet managers with the data necessary to guide decision-making. The OIG recommended that the City acquire a system to collect information.[15] In response to the report, the City stated that it was in the process of negotiating upgrades to the MCMS system and expected to purchase the upgrade in June 2009. In a 2012 follow-up report, the OIG found that the City had not purchased the system upgrade and did not have an alternate information system in place.

EMD staff requested funding for a new fleet information system in its budget requests in 2011, 2013, 2014, and 2015, but the Mayor's Office did not include the requests in the budget submitted to the City Council.[16] During the course of this evaluation, EMD staff explained that the City's former technology director decided to incorporate upgrades to the fleet information system into a new enterprise resource planning (ERP) system that could integrate all of the City's financial data, including purchasing, accounts payable, asset management, and fleet

[15] Office of Inspector General, *Interim Report on the Management of the Administrative Vehicle Fleet*, (New Orleans, LA: Office of Inspector General City of New Orleans, 2008), 25, accessed June 30, 2016, http://www.nolaoig.gov/reports/interim-report-on-the-management-of-the-administrative-vehicle-fleet.

[16] The EMD requested $479,373 in 2011 and $125,000 each year from 2013 to 2015.

maintenance and repair.[17] The City had not purchased and implemented an ERP system before the completion of this evaluation.

Consequences of Inadequate Information Systems

In the absence of a searchable and analyzable data base, the City based decisions on anecdotal information and the institutional knowledge of EMD employees. Mechanics at the Central Maintenance Garage (CMG) had the ability to recall vehicle maintenance histories, but reliance on workers' memories precluded the ability to conduct systemic analyses. The reliance on institutional knowledge also meant that the City would lose access to this information when employees left the City's employ or retired.[18]

Figure 8. The City's Central Maintenance Garage

The EMD needed reliable, accurate data to make cost-effective decisions about whether to outsource repairs and maintenance. An information management system could provide the EMD with data about the frequency of repairs, how much time employees spent on specific repair tasks, and which tasks were outsourced. The EMD could use this information combined with the cost of employee wages to determine whether it was more cost-effective to provide services in house or to use outside vendors.

Prior to Hurricane Katrina, the City performed most vehicle repairs and maintenance in house. Hurricane Katrina seriously damaged the CMG, and the facility did not have electricity or plumbing until 2010. The CMG was still in a

[17] The City has released three versions of a request for proposals for an ERP. They released two versions in 2015. The latest version was released in April 2016 and was still in review at the time of this evaluation.

[18] Both of the part-time managers at the CMG had been employed at the City for over 40 years and were eligible for retirement at the time of this evaluation.

state of disrepair at the time of this evaluation, with most of the building empty and much of the equipment damaged.

Due to the decrease in EMD operational personnel (see Figure 1) and the damaged CMG, the City could no longer perform most repairs in house. Instead, the City outsourced most vehicle repairs and maintenance; between 2009 and 2014, the City had 114 contracts with 28 different vendors for fleet maintenance services and spent an average of $800,000 per year on outsourced motor vehicle repairs. Better information about the frequency and cost of repairs could help the EMD decide whether it was more cost effective to perform most repairs in house or continue to contract many services with outside vendors.

Figure 9. Non-functioning Repair Bays at the Central Maintenance Garage

In addition to the decision about whether or not to outsource maintenance and repairs, the City could use data to determine if it was worthwhile to strip retired vehicles for parts or sell them with parts intact. Evaluators found numerous vehicles used as security barriers to prevent trespassing at the CMG or sitting in the yard waiting to be stripped of parts (see Figure 10).[19]

[19] The EMD did not have access to information about how much time mechanics spent stripping parts, but the City kept many vehicles on hand to strip. A better information system should allow the EMD to quantify the amount of time mechanics spent stripping parts and inform decisions about whether the practice was efficient.

Figure 10. Vehicles at the Central Maintenance Garage

A functioning information system could provide the City with the ability to:

- identify problem vehicles (i.e., "lemons");
- maintain vehicle repair and maintenance histories;
- monitor productivity of EMD personnel performing repairs and maintenance; and
- implement inventory controls for parts.

Moreover, the lack of a reliable information system contributed to nearly all of the problems identified during the course of this evaluation: *it was impossible to manage over $60 million in assets effectively and make informed decisions without accurate and easily accessible data*.

RECOMMENDATION 1. THE CITY SHOULD BEGIN SYSTEMATICALLY COLLECTING AND ANALYZING INFORMATION ABOUT ITS FLEET.

It has been eight years since the City committed to purchasing a new fleet information system based on an OIG recommendation. Since then the City had been operating its fleet without reliable and easy access to information about its fleet activities.

Although a fleet information system may be included as part of the planned-for ERP, the City had attempted to procure an ERP three separate times in the past year but did not successfully reach an agreement with a contractor. In each of

these solicitations, the fleet management system was not a required component of the ERP; it was an optional add-on for interested contractors.[20]

The City should not wait on the implementation of the ERP for its fleet information system: the ERP's purchase and implementation will likely be a multi-year process, and it may not include a fleet management system.[21] The large influx of new vehicles in 2015 requires an immediate solution to ensure that the City maximizes the value and useful life of its investment.

The EMD should work with the City's IT department to develop a strategy to begin tracking information about the fleet. The City should purchase an off-the-shelf information system (as proposed in EMD budget requests since 2011) and begin building a database that can be integrated into an ERP.

Tracking Vehicle Inventory

The City had several policies and laws in place related to vehicle inventory. CAO Policy Memorandum No. 48(R) (CAO Memo 48(R)) assigned the responsibility to oversee the tracking and tagging of city assets (including vehicles) to the Finance Department.[22] CAO Memo 5(R) required individual departments to maintain a vehicle assignment database and provide the EMD with quarterly reports detailing vehicle and equipment inventories.[23] In addition, the City Code required the Chief Administrative Officer to submit quarterly reports of all take-home and pool passenger vehicles to the City Council.[24]

The GAO described the importance of maintaining an accurate inventory in a report on best practices for inventory control:

> Managing the acquisition, production, storage, and distribution of inventory is critical to controlling cost, operational efficiency, and mission readiness. Proper inventory accountability requires that detailed records of produced or acquired inventory be maintained, and that this inventory be properly reported in the entity's financial management records and reports. … Physical controls and accountability reduce the risk of (1) undetected theft and loss, (2)

[20] Seven of eleven respondents to the current ERP procurement offered the optional fleet module.
[21] The City selected a vendor and opened negotiations for the new ERP on June 3, 2016. The selected vendor did not include a fleet management information system in the proposal.
[22] CAO Policy Memorandum No. 48(R). See also City Charter Sec. 4-1301(1)(m) and City Code Sec. 2-871.
[23] CAO Memo 5(R) Sec. 5(B-D).
[24] City Code Sec. 2-902.

unexpected shortages of critical items, and (3) unnecessary purchases of items already on hand. These controls improve visibility and accountability over the inventory, which help ensure continuation of operations, increased productivity, and improved storage and control of excess or obsolete stock.[25]

FINDING 2. THE CITY DID NOT HAVE AN ACCURATE AND RELIABLE LIST OF VEHICLES AND EQUIPMENT.

The City had three separate lists of vehicles: one was an informal working document, and the other two were official lists. An EMD staff member generated the informal list as she added vehicles to the EMD inventory. The two official lists were the quarterly vehicle inventory reports that department vehicle coordinators submitted to the EMD and the fixed asset list produced by the Finance Department.

Evaluators compared the lists to test reliability and found vehicles missing from all three lists.

EMD LIST

The EMD employee responsible for coordinating EMD vehicle acquisitions created the first list. In 2005 the employee began keeping a running list of all assigned asset numbers in an Excel spreadsheet maintained for her use only ("EMD List"). The spreadsheet included vehicle identification numbers, license plates, purchase prices, dates of purchase, and the departments to which vehicles were assigned.

There were three reasons that the EMD list was not a reliable inventory list:

- The employee keeping the list did not record when vehicles were deleted from the inventory.
- The list included vehicles that did not belong to the City, but for which the City provided fuel, including vehicles belonging to the Louisiana Society for the Prevention of Cruelty to Animals (LASPCA) and the Orleans Parish Sheriff's Office.
- The list did not include vehicles and equipment purchased before 2005.

[25] United Stated General Accounting Office, *Executive Guide Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property* (Denver, CO: United Stated General Accounting Office, 2002), 5, accessed November 19, 2015, http://www.gao.gov/new.items/d02447g.pdf.

The EMD list included 1,617 vehicles.[26]

Quarterly Inventory Reports

The second list consisted of quarterly inventory reports that departments provided to the EMD each quarter. According to CAO Memo 5(R), since 2009 department vehicle coordinators had been required to submit quarterly inventory reports of all vehicles and equipment to the EMD.[27] However, department vehicle coordinators did not submit quarterly inventory reports and EMD staff did not ask for this information until the third quarter of 2014. EMD staff provided evaluators with inventory reports for the last two quarters of 2014 and the first two quarters of 2015.[28]

Evaluators found that the quarterly inventory reports were not reliable for the following reasons:

- The EMD could not identify a missing vehicle if a department chose not to report it due to carelessness or theft. These self-generated reports were not reconciled with EMD records or fuel use reports to determine whether the information was complete.
- Thirty-two departments submitted inventory reports during at least one quarter, but 13 of those reporting departments missed at least one quarterly report altogether.
- Vehicles that were re-assigned from one department to another were sometimes listed by both departments.

[26] One reason the EMD List may have been incomplete is that there was no guarantee that the employee responsible for EMD vehicle acquisitions would know about all vehicle purchases; EMD staff only had ready access to invoices for vehicles purchased using the EMD budget code. According to the City's accounting software, the EMD made the majority of city vehicle purchases in 2012, but other departments accounted for the majority of purchases in 2009-2011 and 2013-2014. (See Figure 18). When other departments made vehicle purchases, the City's purchasing software sent a message to EMD staff at the requisition stage of the purchase, but not at the invoice or payment stage. EMD staff did not follow up on the requisitions to see if they resulted in an acquisition and payment; EMD staff stated that it was up to other departments to notify the EMD if they needed to add vehicles purchased from other budget codes to the vehicle list, which usually happened when they needed a fuel card.

[27] CAO Memo 5(R) Sec. 5(D). City Code Sec. 2-902 had required the Chief Administrative Officer to submit quarterly reports of all take-home vehicles to the City Council since at least 1956 and quarterly reporting of passenger pool vehicles since 2009. The Clerk of Council did not receive any records of vehicle inventories from the Chief Administrative Officer between 2009 and 2015.

[28] These lists also included vehicles owned by other agencies.

- Departments sometimes reported asset numbers twice or identical asset numbers were assigned to more than one vehicle (as identified by the vehicle identification number or VIN).

There were 1,965 vehicles that appeared on at least one quarterly inventory report.

Fixed Asset List

City accountants in the Finance Department generated a fixed asset list for financial reporting purposes.[29] Accountants compiled the list by manually reviewing the supporting documentation for all checks above $5,000 to determine if the items purchased qualified as fixed assets.[30] The Finance Department sent the list to user departments each quarter and asked them to respond with information about any omissions or deletions. The City's third-party auditors certified the list each year as part of the annual financial reporting process.

The fixed asset list was not a reliable list for the following reasons:

- The manual nature of reviewing thousands of invoices increased the likelihood that items would be missed.
- Accounting staff confirmed that departments did not consistently verify the accuracy of the quarterly list.
- According to department vehicle coordinators, the fixed asset list designated sixteen vehicles "deleted" that were still in service.

The Finance Department provided evaluators with a list of 1,718 vehicles that were active between 2009 and 2014.

Figure 11 summarizes the limitations of the various lists and the number of vehicles on each list.

[29] According to CAO Policy Memorandum 48(R), a fixed asset is defined as "any tangible property having a useful life of more than one year and a cost of $5,000.00 or more for real property. For purposes of this memorandum, personal property is defined as a movable, and real property is defined as an immovable. … Fixed assets generally may be categorized as movables (furniture, fixtures and equipment), and immovable (land, land improvements, buildings, and extraordinary renovations). Fixed assets should be distinguished from operating supplies or other items which are intended to be consumed or expended in less than one year."

[30] Most vehicles met the criteria.

Figure 11. Comparison of Vehicle Inventory Lists

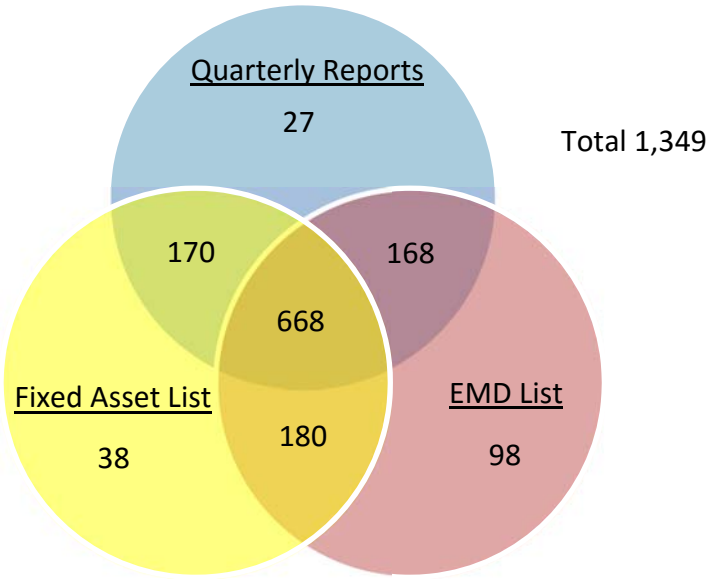
List	Limitations	# Listed
EMD List	• Did not record when vehicles were deleted • Did not include vehicles purchased before 2005 • Included vehicles belonging to other agencies	1,617
Quarterly Inventory Reports	• Self-reported • Departments did not consistently report • Included vehicles belonging to other agencies	1,965
Fixed Asset List	• Manual process increased likelihood of errors • Departments did not always verify accuracy	1,718

There were specific criteria that should have resulted in some vehicles appearing on all three lists even though different entities produced them, and they contained different groups of vehicles. Vehicles should have appeared on all three lists if:

- the City owned the vehicle;
- the vehicle was purchased between 2005 and 2013; and
- the vehicle was used sometime in 2014.

Evaluators identified 1,349 vehicles that should have appeared on all three inventory lists. As shown in Figure 12, only 668 (50 percent) of the 1,349 eligible vehicles appeared on all three lists. An additional 518 vehicles (38 percent) appeared on two of the lists.

Figure 12. Vehicles Appearing on Inventory Lists



The problems identified in these three lists would be less of a concern if the Maintenance Control and Management System (MCMS) was functioning properly. EMD staff kept an inventory in the MCMS, but it could not use the database to create a list of vehicles.[31] As noted earlier in this report, EMD staff continued to use the MCMS to create new asset records, look up records, and mark assets as deleted from the City's vehicle inventory. However, it was not possible to use the MCMS to create a complete list of assets, and the only way EMD staff could create a list of assets from the MCMS was to copy and paste thousands of records manually into an Excel spreadsheet.

As a result of unreliable lists and a marginally functional MCMS, the City did not have an accurate and reliable inventory of its vehicles. The lack of a proper vehicle inventory created three problems. First, without an accurate list of assets, it was impossible to determine how many vehicles the City had or should have had. It is possible that there were other vehicles that should have appeared on the City's list but had been stolen or lost.

Second, the City could needlessly purchase a vehicle when a lightly used vehicle was available but did not appear on whichever list the City was referring to at the

[31] See Finding 1 for a discussion about the history of the City's use of the MCMS.

time. Finally, there was no way for the City to list all of its vehicle assets in its financial statements accurately.

Recommendation 2. The City should ensure that it has an accurate and reliable vehicle list.

The City should strengthen controls related to the creation of the vehicle inventory list. Evaluators identified problems with each of the City's lists, and the inconsistencies between them resulted in an inability to determine how many vehicles the City owned. The lack of accurate information increased the likelihood that vehicles could be stolen or lost. To prevent this problem, there should be only one official list and one official asset number that does not change.

CAO Memo 48(R) made the Department of Finance responsible for creating the fixed asset list.[32] The City asked departments to verify the list on a quarterly basis, but this control was not functioning effectively: 293 eligible vehicles missing from the fixed asset list appeared on other lists.

A more effective control would be to have EMD staff verify that vehicles appeared on the fixed asset list before issuing fuel cards for vehicles. User departments would be more likely to keep the fixed asset list up to date if they needed an asset number in order to obtain a fuel card.[33] However, this practice could only solve the problem of new purchases not appearing on the fixed asset list. The City would need an alternative method, such as inspections of existing vehicles, to ensure that the current list was accurate.

The quarterly inventory reports supplied by user departments should not serve as a substitute for an accurate fixed asset list, but they did provide the EMD with valuable information that only a driver familiar with a vehicle could provide. The EMD should continue to request these reports from user departments. The City should institute controls to improve the accuracy of these reports so that the reports could be used to manage the fleet. The City could also consider deactivating fuel cards for any vehicle that did not appear on a quarterly report or the end-of-year fixed asset list.

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[32] CAO Policy Memorandum No. 48(R). See also City Charter Sec. 4-1301(1)(m) and City Code Sec. 2-871.

[33] There should be an exception to this rule for vehicles that the City fuels but does not own, including vehicles leased by the Mayor and City Council, NOPD leased motorcycles, and vehicles belonging to the OPSO and the LASPCA.

Another problem with the quarterly reports was that some vehicles were reported twice when the City loaned or transferred them between departments. To prevent double entries, the City should formally document and strengthen internal controls over the process by which vehicles were loaned or transferred to other departments. The process should include standards for when vehicles should be temporarily loaned (non-routine instances or a seasonal loan) or permanently transferred. The Department of Finance should also develop a form that documents permanent transfers so that it would be clear which department should report the vehicle on inventory reports.

The GAO identified "assessing utilization to determine the appropriate size of the fleet and to establish a baseline for fleet operations" as one of five essential fleet management practices. A small fleet of optimally used vehicles is less expensive to maintain and operate than a large fleet of under-used vehicles.[34]

The GAO's resource on fleet management advised that successfully conducting a vehicle use study requires the following:

- establishing goals and guidelines for right-sizing efforts;
- measuring frequency and purpose of use, vehicle age, and condition of the existing fleet; and
- considering alternatives (e.g., pool vehicles, use of privately-owned vehicles, rentals) to current vehicle assignments.[35]

CAO Memo 5(R) assigned responsibility to user departments to determine the ideal size of their fleets. The policy stated:

> Each department shall endeavor to deploy a suitable vehicle and equipment complement, emphasizing optimal utilization based on service requirements. … [Each department shall] establish minimum vehicle and equipment availability requirements consistent with service requirements and communicate those priorities to EMD.[36]

FINDING 3. THE CITY DID NOT ESTABLISH VEHICLE USE STANDARDS OR TRACK VEHICLE USE TO DETERMINE THE RIGHT SIZE AND MAKE-UP OF THE FLEET.

Despite the requirements outlined in CAO 5(R) and recommended best practices, user departments had not established vehicle and equipment use and availability standards.

In 2008 the OIG recommended that the City conduct a utilization study to determine the appropriate fleet size and to establish a baseline for fleet

[34] U. S. GAO, *Practices Can Improve Fleet Management*, 3.
[35] Ibid, 23.
[36] CAO Memo 5(R) Sec. 5. Evaluators did not observe a consistent method by which vehicle coordinators communicated priorities to the EMD.

operations.[37] In a 2012 follow-up audit, the OIG found that the City had not conducted a study.[38] During the course of this review, evaluators found that the City could not conduct a meaningful utilization study because it did not set standards for or track vehicle use.

Setting Vehicle Use Goals

The City did not set goals for passenger vehicle use, but a Louisiana statute echoed the GAO's best practice recommendations. In 2014 the State of Louisiana determined that it was worth investigating if its own vehicles driven fewer than 15,000 miles per year were under-used and whether they should be sold as surplus. In fact, state law explicitly authorized the Commissioner of Administration to create a "break even" mileage standard for state-owned vehicles that includes costs such as fuel, insurance, maintenance, and depreciation.[39] Vehicles that did not meet the standard could be replaced by alternative means of transportation such as pool vehicles or reimbursing employees for using their personal vehicles.

Tracking and Measuring Vehicle Use

The City also did not have a reliable or accurate method to track vehicle use. Evaluators interviewed 30 departmental vehicle coordinators and found that most coordinators tracked vehicle use in three ways: trip sheets that recorded daily assignments or vehicle equipment checklists that included mileage and destination, daily use logs, and monthly reports that included odometer inspections. However, evaluators found that some departments did not record vehicle use at all.

Figure 13 summarizes the type of use records maintained by all of the departments and agencies with vehicle coordinators.

[37] OIG, *Management of the Administrative Fleet,* 25.
[38] OIG, *Follow-up: Management of the Administrative Fleet*, 7.
[39] La. R.S. 36:362 established passenger vehicle use standards for state-owned vehicles.

Figure 13. City Departments/Agencies and Type of Use Records[40]

Daily Use Log	Trip Sheets	Monthly Odometer Reports	None
CAO	EMS	NOPD	Clerk of Criminal Court
Capital Projects	NOFD		Coroner
City Council	Parks and Parkways		Criminal District Court
City Planning Commission	Sanitation		Registrar of Voters
Community Development			
Department of Finance			
District Attorney			
EMD			
Health Department			
Homeland Security			
Juvenile Court			
Law Department			
Library			
Mayor			
Municipal Court			
Mosquito Control			
NORDC			
OIG			
Property Management			
Public Works			
Safety & Permits, VCC, HDLC			
Traffic Court			
Youth Study Center			

Trip Sheets

Departments that used heavy equipment as opposed to passenger vehicles were more likely to use trip sheets. For example, the Sanitation Department, Parks & Parkways, EMS, and the NOFD had detailed use records for every piece of heavy equipment each day it was used.[41]

Coordinators who worked for departments that completed paper trip sheets or pre-trip check sheets compiled the most detailed vehicle use data. Some of these departments aggregated the detailed information on the daily sheets into spreadsheets on an ongoing basis to analyze use and condition of the fleet. However, there was no standard method to aggregate the data and vehicle

[40] The list includes all departments and agencies using city vehicles.
[41] These departments kept records of passenger vehicle use in daily use logs.

coordinators developed spreadsheets and other analytical tools on an ad hoc basis to meet their individual department's needs.[42]

Daily Use Logs

The next most detailed method of tracking vehicle use, and the method most frequently used by vehicle coordinators, was daily use logs. CAO Memo 5(R) required departmental vehicle coordinators to maintain use logs for pool vehicles and take-home vehicles.[43] In addition, vehicle coordinators were required to review and assess the use logs for pool vehicles. Although use logs documented vehicle use, evaluators found that none of the vehicle coordinators analyzed that information or used it to coordinate the deployment of passenger vehicles.[44] Instead, vehicle coordinators used logs primarily to determine who was responsible for parking and traffic camera tickets.

Monthly Reports

The final method vehicle coordinators used to track use was monthly reports. Each NOPD district and division had an officer assigned to maintain the fleet and to inspect vehicles monthly. These officers submitted reports to the NOPD Fleet Manager that included the miles driven each month. However, these monthly reports did not provide the number of miles each vehicle was driven on a daily basis.

In addition to the records described above, the City had two more mechanisms that could be used to track vehicle use: the automated fuel dispensing system and quarterly inventory reports vehicle coordinators submitted to the EMD. However, evaluators found that both of these sources provided unreliable data.

Automated Fuel Dispensing System

The City's automated fuel dispensing system had the ability to track vehicle use. An EMD staff person assigned fuel cards to specific vehicles, and vehicle users were required to use the card and a personal identification number (PIN) to access

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[42] Vehicle coordinators found that use analysis was helpful to justify requests when the City made a large equipment purchase in 2015: coordinators who were better at record keeping were able to make more convincing requests; departments with poor recordkeeping would be less able to justify their requests. This topic is discussed further in Finding 5.

[43] CAO Memo 5(R) Sec. 7(D). CAO Memo 5(R) includes templates for each of these logs. The memo does not specify how departments should keep track of equipment other than passenger vehicles.

[44] Coordinators may have been reluctant to analyze use logs for two reasons. Although some vehicle coordinators felt that odometer readings in use logs were reliable, one coordinator did not feel he had the authority to require supervisors or other drivers to enter data consistently. Second, vehicle coordinators kept the data in paper format, and none of the coordinators transferred the data to an electronic format, making an objective analysis of use impossible.

fuel for that vehicle at city-owned facilities. In addition, the fuel system prompted drivers to enter an odometer reading to access fuel. However, evaluators found that drivers entered inaccurate odometer readings in approximately 25 percent of fueling transactions in 2015 and shared fuel cards among different vehicles.[45] These inaccurate entries made the mileage data from the fuel system unreliable for a utilization study.

Quarterly Inventory Reports

As discussed in Finding 2, CAO Memo 5(R) required departmental vehicle coordinators to submit quarterly reports to the Chief Administrative Officer beginning in 2009.[46] The quarterly inventory reports included a field for odometer readings to measure use. However, the reports had limited utility for analyzing use, identifying lightly-used vehicles, or deploying vehicles: vehicle coordinators reported their own odometer readings, and no one at the EMD audited the reports for accuracy or reconciled them with other lists of assets.[47]

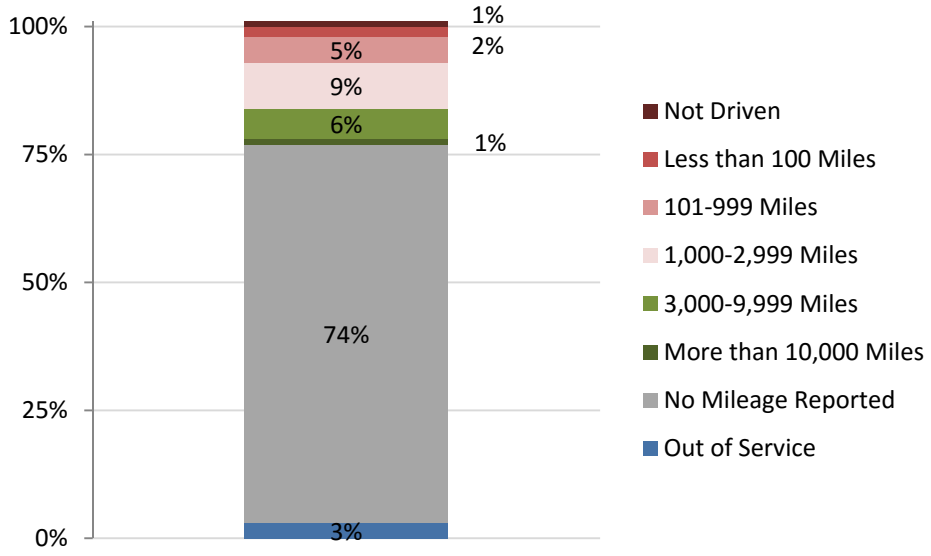
The quarterly inventory reports were also missing information. The NOPD, the largest vehicle user in the City, did not report odometer readings in the second quarter 2015 report even though it had those data available. In fact, 74 percent of the passenger vehicles listed did not include any mileage information. The percentage of vehicles driven various distances in the second quarter 2015 vehicle inventory report is shown in Figure 14.

[45] Office of Inspector General, *Fuel Dispensing* (New Orleans, LA: Office of Inspector General City of New Orleans, 2016), 25, accessed June 30, 2016, http://www.nolaoig.gov/index.php?option=com_mtree&task=att_download&link_id=155&cf_id=37.

[46] CAO Memo 5(R) Sec. 5(D).

[47] For additional details about the City's vehicle lists, see Finding 2.

Figure 14. Distance Driven by Passenger Vehicles[48]



In the absence of reliable data related to vehicle use, the EMD interim fleet manager used a less formal method to measure use. When evaluators asked EMD staff how they measured vehicle use, the interim fleet manager stated that he occasionally walked through the Heal Garage and if he noticed that a car was too dusty, he assumed it was underused and could be assigned to another user.[49] The Deputy Mayor who oversaw the EMD stated that EMD staff used dust to measure use because its information systems were incapable of reporting use data.

A departmental vehicle coordinator confirmed that one of their vehicles was transferred in this manner. The coordinator told evaluators that a driver went to the Heal Garage to pick up a vehicle, found it missing, and almost called the NOPD to report it stolen. The Deputy Mayor who oversaw the EMD confirmed that EMD staff had assumed the vehicle was underused because it was dirty, and they had reassigned it.[50]

[48] Percentages total 101 percent due to rounding.

[49] The Heal Garage, located at 300 LaSalle Street, housed City vehicles for departments and agencies located in City Hall including Community Development, the Registrar of Voters, the Health Department, and Capital Projects.

[50] Evaluators attempted to conduct various analyses using available data to determine whether the City had too many passenger vehicles and found several indicators of underused vehicles. However, it was not possible to draw definitive conclusions without reliable information. For these analyses, see Appendix B.

Figure 15. Dirty Car in the Heal Garage

User departments lacked incentives to maintain the optimal number of vehicles in their fleet. In many cases the cost of initial vehicle acquisition came from department or agency budgets in the form of dedicated funding or grants. In these cases, after the initial outlay of funds, users had little incentive to give up vehicles that were not being used.

RECOMMENDATION 3. THE CITY SHOULD DEVELOP STANDARDS FOR VEHICLE AND EQUIPMENT USE, AND STAFF SHOULD MEASURE USE TO DETERMINE IF THOSE STANDARDS ARE MET. THAT INFORMATION SHOULD BE USED TO ACHIEVE THE OPTIMAL FLEET SIZE THROUGH ACQUISITION, TRANSFER OF VEHICLES BETWEEN DEPARTMENTS, THE SALE OF SURPLUS VEHICLES, AND SHARING LIGHTLY-USED VEHICLES AMONG DEPARTMENTS.

The City should create objectives and goals for each of its passenger vehicles and pieces of heavy equipment based on service-level expectations.[51] Departments should measure use and communicate that information to the City in order to keep the fleet at an optimum size either through acquisitions or the sale of surplus.

The automated fuel dispensing system was equipped to measure vehicle use if drivers entered accurate odometer readings when fueling and refrained from

[51] All similar vehicles will not necessarily have similar goals. For example, a vehicle used as back-up for important functions may get less use that a primary vehicle or a vehicle used by an off-site department might be used less frequently than one that could be shared by departments located at City Hall.

sharing fuel cards among vehicles. The City's fuel system could be programmed to send email notices to vehicle coordinators if drivers entered invalid odometer readings, but the City did not use this function. The City should program the system to perform this function.

In addition, the City may wish to consider changing the method by which it charged departments and user agencies for vehicle and equipment acquisition cost. The current method could create an incentive for users to keep vehicles that they did not actually need.

Other cities lease vehicles to users rather than having them make purchases in order to keep fleets at the optimum size. Fleet managers charge user departments a monthly fee that includes prorated costs for repair, maintenance, and replacement in addition to prorating the acquisition cost. This approach could give user departments or agencies an additional incentive to return vehicles not being regularly used.

FLEET MAINTENANCE

Preventive maintenance can reduce overall fleet costs by extending the useful life of a vehicle and ensuring that vehicles are safe to drive. CAO Memo 5(R) made departmental vehicle coordinators responsible for monitoring preventive maintenance and the EMD responsible for providing services.[52] The policy did not describe what monitoring should entail, set standards for the frequency of preventive maintenance, create a preventive maintenance oversight mechanism, or create consequences for failing to keep up with a preventive maintenance program.

FINDING 4. THE CITY DID NOT HAVE AN EFFECTIVE MECHANISM IN PLACE TO ENSURE THAT VEHICLES RECEIVED PREVENTIVE MAINTENANCE AT RECOMMENDED INTERVALS.

There were two options for drivers whose vehicles needed an oil change: the Central Maintenance Garage (CMG) or the City's third-party oil change vendor, which had locations throughout the city.[53] EMD staff preferred that drivers come to the CMG for every other oil change so that EMD mechanics could perform a

[52] CAO Policy Memorandum 5(R) Sec. 5(L) and 11(A).
[53] Mosquito Control and the NOFD also had mechanics on staff who could perform preventive maintenance.

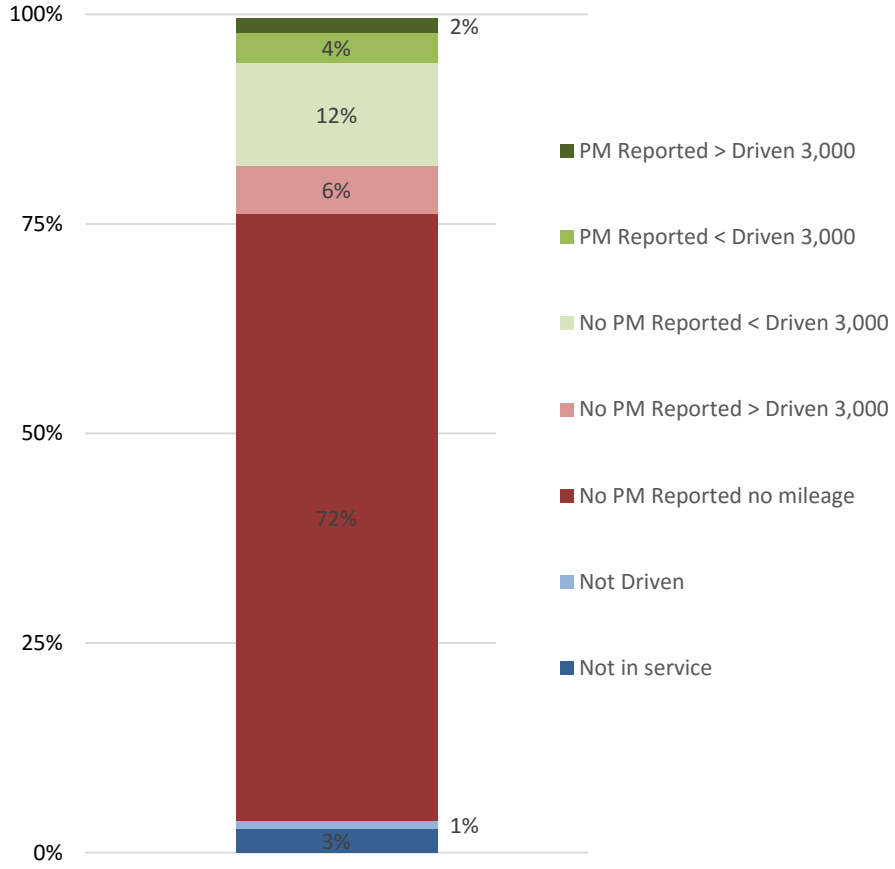
more thorough maintenance inspection that included checking tires, belts, and fluids. EMD staff stated that this was a request and not an official policy.

Evaluators found that vehicle coordinators did not consistently adhere to the request. Some vehicle coordinators instructed drivers always to go to the CMG, others sent drivers to the CMG on various schedules (every other, every third, or every fourth trip), and others always sent drivers to the vendor.

Evaluators found that there was little monitoring and no oversight of preventive maintenance by the EMD because of the absence of an information system and the lack of clearly defined responsibilities in CAO Memo 5(R). In the second quarter of 2015, EMD staff added a section on preventive maintenance to the quarterly inventory reports.

However, vehicle coordinators did not complete that section of the quarterly inventory report consistently. Of the 1,937 vehicles included in the report, 72 percent did not report mileage or preventive maintenance. (See Figure 16.)

Figure 16. Percentage of Passenger Vehicles Reporting Preventive Maintenance by Miles Driven[54]



Inadequate maintenance potentially shortens the life of vehicles and compromises drivers' safety. In addition, not keeping adequate records of preventive maintenance can adversely affect the City's liability in the case of vehicle accidents. For example, in 2006 an NOFD captain died when the fire truck in which he was riding was involved in an accident and rolled over. The City did not have documentation proving that the vehicle received preventive maintenance, which raised the question of the City's potential liability. According to mechanics at the CMG, the City must retain the fire truck because the case is in litigation.

[54] The City required that vehicles receive preventive maintenance every 3,000 miles according to the version of CAO Memo 5(R) released on May 19, 2016. Figure 16 does not include the less than 1 percent of vehicles for which vehicle coordinators reported preventive maintenance but not mileage.

Figure 17. NOFD Fire Truck Retained as Evidence in Liability Case Following a 2006 Accident

Departmental vehicle coordinators offered different explanations for why preventive maintenance for equipment and vehicles might not occur. One departmental vehicle coordinator stated that it was difficult to schedule preventive maintenance because there were not enough back-up vehicles available to meet operational objectives when a vehicle was being serviced. Another departmental vehicle coordinator stated that the EMD did not have enough mechanics available to perform preventive maintenance in a timely manner. In two cases departmental staff expressed doubt that EMD maintenance staff performed all necessary preventive maintenance activities. They suggested that a checklist of activities would make them more confident in the preventive maintenance service their vehicles received from EMD mechanics.

The City purchased $12.5 million in new vehicles in 2015. Failure to conduct regular preventive maintenance would likely reduce the availability and overall lifespan of the new vehicles: to protect this significant investment of public funds, regular monitoring and oversight of the preventive maintenance program is essential.

RECOMMENDATION 4. THE EMD AND USER DEPARTMENTS SHOULD ESTABLISH FORMAL PREVENTIVE MAINTENANCE SCHEDULES FOR VEHICLES AND EQUIPMENT, AND THE CITY SHOULD PROVIDE THE FLEET MANAGER WITH SUFFICIENT AUTHORITY TO ENFORCE PREVENTIVE MAINTENANCE SCHEDULES.

The EMD and user departments should establish preventive maintenance schedules for all vehicles and equipment based on manufacturer's recommendations and expected use. This will require the successful implementation of an information and monitoring system, as outlined in Recommendation 1. EMD staff should document and monitor the cost of repairs and maintenance. EMD staff should also track and record whether drivers and operators follow preventive maintenance schedules.

In addition to creating and funding preventive maintenance according to prescribed schedules, the City should outline consequences for not following prescribed maintenance schedules in policy. The EMD should notify drivers and vehicle coordinators who do not follow schedules that they are not in compliance and implement consequences as outlined in policy.[55]

LIFE CYCLE ANALYSIS AND VEHICLE REPLACEMENT

In 2009 the City purchased 287 vehicles (19 percent of its fleet at the time), but in the years following, it purchased fewer vehicles (see Figure 5). As a result, the average age of vehicles increased from 3.2 years in 2009 to 6.7 years in 2014, likely resulting in increased fleet maintenance costs (see Figure 6).

The GAO recommended that fleet managers monitor life-cycle costs of vehicles to assist agencies making decisions about when to replace or dispose of vehicles. The GAO stated that the analysis should include "the life-cycle costs of owning and operating a vehicle, such as acquisition, fuel, maintenance, and administrative costs."[56] Knowing when to replace rather than repair vehicles makes the fleet more cost efficient because ongoing repair costs for older vehicles can outweigh the upfront costs of a new acquisition. Older vehicles also have lower resale value and fewer safety features, which can increase vehicle liability costs.

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[55] See Finding 6 for further discussion regarding central authority over fleet management.

[56] United States Government Accountability Office, *Federal Vehicle Fleets Adopting Leading Practices* (Washington, DC: United States Government Accountability Office, 2013), 9, accessed February 2, 2016, http://www.gao.gov/assets/660/656444.pdf.

FINDING 5. THE CITY DID NOT CONDUCT VEHICLE AND EQUIPMENT LIFE-CYCLE ANALYSES TO CREATE REPLACEMENT CRITERIA; THEREFORE, IT COULD NOT DETERMINE THE OPTIMUM TIME TO REPLACE VEHICLES AND EQUIPMENT.

From 2009 to 2014 the average age of vehicles in the City's fleet increased, but the EMD did not have a standard in place to determine when vehicles should be replaced.[57] In addition, the City lacked a reliable and ongoing funding mechanism to pay for replacements, and the number of purchases in a year varied markedly.

The City could not conduct life-cycle analyses and develop an optimum vehicle replacement schedule for two reasons. First, city policy did not assign responsibility for making decisions about when to replace or dispose of vehicles. CAO Memo 5(R) made the EMD responsible for "assisting Departments in the preparation of vehicle and equipment replacement requirements and specifications."[58] However, it did not specifically make user departments responsible for preparing replacement requirements, and it did not prescribe any methods for developing requirements. Second, no one at the City had access to reliable information that could be used to perform an accurate life cycle analysis, such as acquisition costs, fuel costs, or maintenance costs.

VEHICLE ACQUISITION

Neither vehicle coordinators nor the EMD had full access to information about vehicle acquisition costs. EMD staff had access to procurement records, including purchase price, for all of the vehicles procured through the EMD budget code, but it did not consistently have access to invoices for vehicles purchased by other departments.[59] According to the City's financial records, a number of departments made vehicle purchases; the Mayor's Office, the NOPD, and the EMD usually made

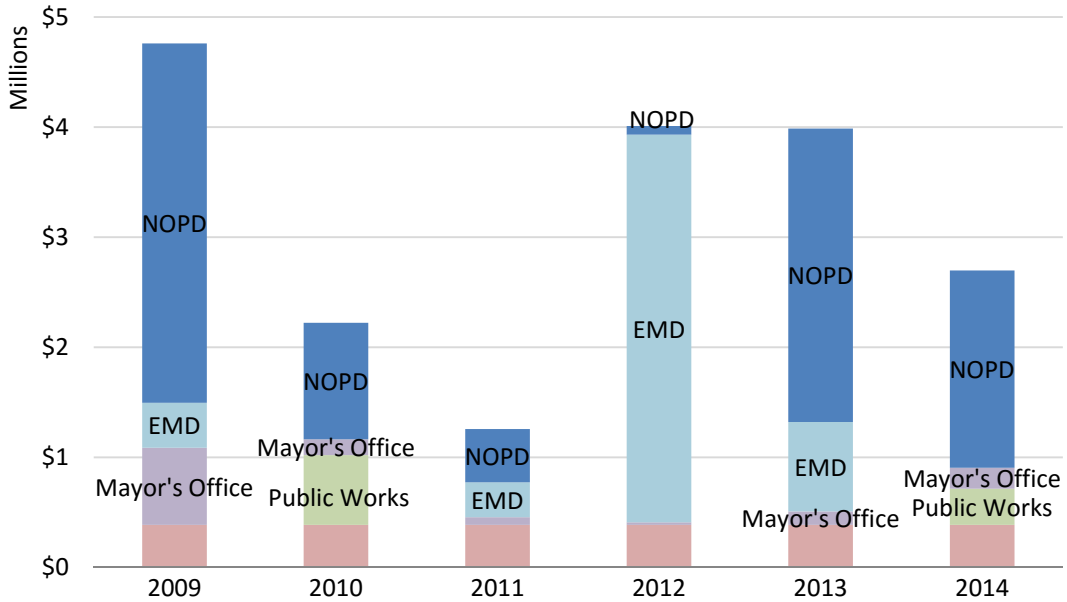
[57] In 2014 the Office of Performance and Accountability (OPA) listed the percentage of vehicles exceeding replacement criteria as a performance measure for the EMD in the ResultsNOLA reports. OPA could not provide evaluators with a definition of the replacement criteria and did not use the measure in 2015 because it determined that the methods used to calculate the metric were not rigorous.

[58] CAO Policy Memorandum 5(R) Sec. 11(E).

[59] If the fixed asset list were complete, the EMD could access information about purchase costs using the list.

the largest number of purchases. However, as shown in Figure 18, the EMD made the majority of city vehicle purchases in 2012.[60]

Figure 18. Vehicle Acquisition Expenses by Purchasing Department (2009-2014)



	2009	2010	2011	2012	2013	2014
NOPD	$3,266,150	$1,058,624	$484,132	$78,800	$2,666,510	$1,793,510
EMD	$408,932		$316,804	$3,523,275	$813,183	
Mayor's Office	$700,815	$144,049	$70,265	$23,298	$122,928	$190,300
Public Works		$634,612				$328,838
Other Category	$385,313	$385,313	$385,313	$385,313	$385,313	$385,313
% of Veh. Exp. From EMD Code	9%	0%	34%	91%	20%	0%

Fuel Costs

As discussed in Finding 3, the City's automated fuel dispensing system had the ability to track fuel consumption and cost by vehicle. The Fuel Systems Manager assigned a fuel card to each vehicle. According to City policy, drivers were supposed to use the fuel card only to fuel the vehicle to which the card was assigned. If the policy was followed, the automated dispensing system could track fuel consumption by vehicle.

However, evaluators found that many drivers shared cards to fuel different vehicles, especially if another vehicle's fuel card had been lost. Some drivers also misunderstood the system and believed that a card should always be used by the

[60] The EMD made the majority of purchases in 2012 because it purchased a large number of ambulances for EMS.

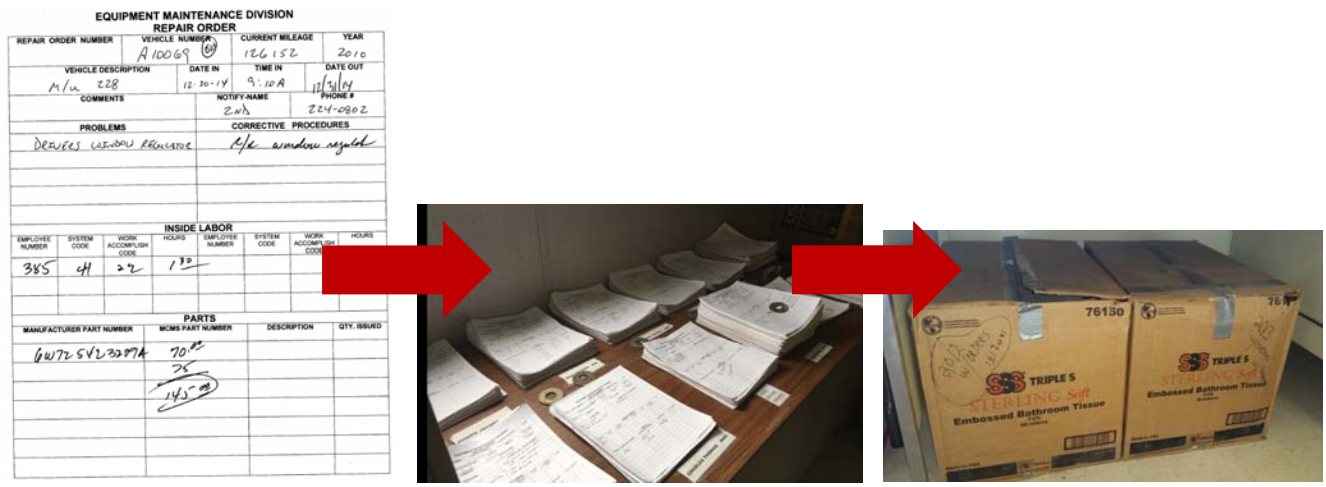
same driver, regardless of which vehicle the driver was fueling. These errors made it impossible to calculate accurate fuel costs for many of the vehicles in the fleet.[61]

Vehicle Repair and Maintenance Costs

Neither vehicle coordinators nor the EMD had complete vehicle maintenance history records. CAO Memo 5(R) did not specify who was responsible for maintenance records. As discussed in Finding 1, the EMD did not keep searchable records of their own work because of the limitations of the MCMS.

The EMD kept records of the work it performed on vehicles in paper work orders and work logs. Mechanics completed work orders that included the tasks performed, the time it took, and the parts used. At the end of the day, the supervising mechanic entered completed work orders into a paper work log. Because these were paper records, EMD staff could not analyze the data or report vehicle work histories. EMD maintenance staff stated that a department asked for all of its vehicle records for one year, and it took 13 hours to compile the information. The photos in Figure 19 show how the EMD recorded and stored its repair and maintenance records.

Figure 19. EMD Repair and Maintenance Records



In addition to maintenance and repair work performed by EMD mechanics, records for outside repairs were not searchable. EMD staff received invoices for repairs paid by the EMD, and the invoices included vehicle identification numbers.

[61] OIG, *Fuel Dispensing*, 12.

EMD staff stated that they did not enter the invoices into a searchable database or keep records filed by vehicle; instead they filed these paper documents by the date the invoice was paid. As a result, it was almost impossible to develop a complete maintenance and/or repair history of an individual vehicle.

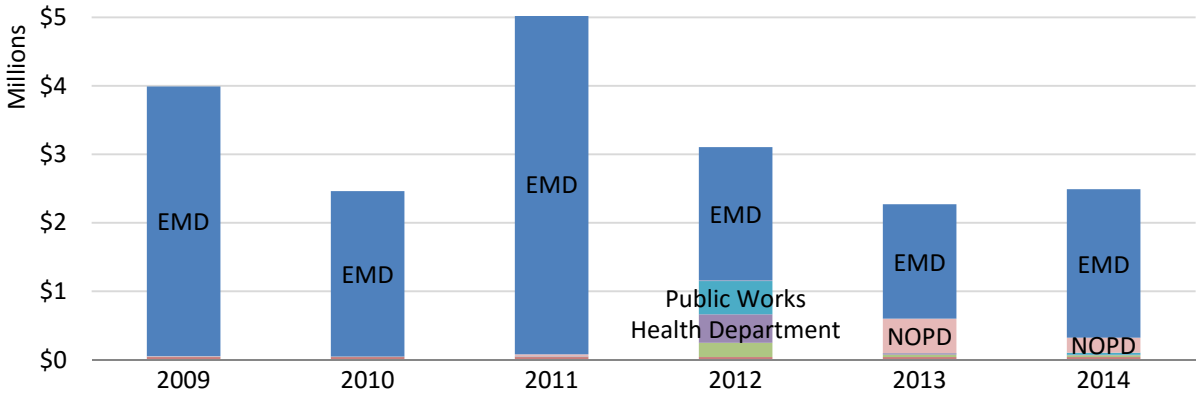
Departmental vehicle coordinators also kept inconsistent records of both EMD and outside vendor repairs. Nine departmental vehicle coordinators kept records of all maintenance in some form. Four kept only records of oil changes on file. Fifteen kept no records at all. A number of vehicle coordinators assumed that the EMD kept comprehensive records of maintenance.

Instead of replacement criteria based on life-cycle cost analysis, EMD maintenance staff stated that it was their policy to delete vehicles rather than perform repairs if the cost of the repair was more than the resale value of the vehicle. In these cases, the EMD refused to pay for repairs and recommended deletion.

Using resale value as a replacement criterion differs from life-cycle analysis because it does not take into account the full cost of operating a vehicle. For example, it does not consider that older cars may require increasingly frequent repairs that fall below the resale value, leading the City to spend more on repairs over time than the vehicle was worth. In contrast, using life-cycle cost analysis to create replacement criteria takes into account when the owner is likely to maximize resale value for the vehicle.

EMD's repair criteria were not effective in controlling the cost of the fleet because EMD budget constraints led departments to pay for repairs from outside vendors from their own budget codes. The EMD's share of total vehicle repair payments was 98 to 99 percent between 2009 and 2011. However, it ranged from 63 to 87 percent between 2012 and 2014.

Figure 20. Yearly Maintenance and Repair Expenses by Department (2009–2014)



	2009	2010	2011	2012	2013	2014
EMD	$3,936,894	$2,417,035	$4,972,517	$1,948,349	$1,669,010	$2,166,578
NOPD	$8,016	$3,445	$28,162	$7,559	$503,427	$221,790
Public Works				$485,974	$2,288	$29,826
Health Department	$2,315	$1,610	$6,053	$414,426	$19,503	$6,955
Mayor's Office	$578	$194	$3,959	$208,200	$34,625	$24,349
Other Category	$41,874	$41,874	$41,874	$41,874	$41,874	$41,874
%EMD	99%	99%	98%	63%	72%	87%

Departments paid for repairs for a variety of reasons. In some cases departments paid for repairs that EMD staff deemed worthwhile but did not have the budget to cover. In other cases departments chose to pay for repairs that EMD staff deemed not worthwhile.

Some departments and agencies paid for all repairs regardless of the EMD's willingness or ability to pay for repairs. Other departments concluded that because vehicles were not likely to be replaced, it was worth repairing vehicles despite the EMD's recommendation that repairs were not cost effective or worthwhile.

Departments were supposed to notify the EMD if they were getting outside repairs, but there was no control in place to ensure that they did. Departments' ability to override the EMD's decision about whether to repair or delete vehicles made the City's fleet more costly than it should have been due to increased repair and liability costs.

Operational Status of Fleet Vehicles

Evaluators conducted inspections of a random sample of city vehicles included on a quarterly report submitted to the EMD during the second quarter of 2015.

Evaluators used a stratified random sample to ensure that vehicles were selected from all departments. Based on weighted counts, more than 30 percent of the sample was deleted, not in operable condition, or in need of repair (See Figure 21).

Figure 21. Status of Vehicles Inspected by the OIG

Deleted	6
Not operational, but not deleted	19
Operational but with serious problems[62]	6
Operational	66
Total	97

Evaluators observed serious problems with vehicles during inspections:

- Two drivers stated that they would not drive vehicles on the interstate because the brakes were bad.
- Firefighters demonstrated that the doors on a fire truck that had just returned from fighting a house fire only opened if you rolled down the window and opened them using the handle on the door's exterior.
- A garbage truck's front bumper was held in place with a bungee cord.

Figure 22. Bumper Fastened to Garbage Truck with Bungee Cord

[62] Examples of vehicles with serious problems included a Ford Explorer with more than 100,000 miles that had broken down; a Ford Taurus and a Ford F-150 with unreliable brakes; and a garbage truck with body damage, a malfunctioning speedometer, a leaking air conditioner, and broken seats.

Managing Vehicle Replacement

The City did not set aside funds for vehicle and equipment replacement or plan for replacements. The lack of planning and funding for new acquisitions reduced the likelihood that vehicles would be retired when they became too costly to maintain. Evaluators found that user departments were usually responsible for asking the City to fund replacements, but the EMD made the decision about whether repairs were worthwhile. As a result, decisions about whether to repair or replace a vehicle were not based on what would be most cost effective.

In 2015 the City spent $12.5 million on 240 vehicles and pieces of equipment. The fleet was in a critical state of repair when the CAO decided to make the purchase. Departmental staff had expressed concerns that they were unable to meet operational targets due to equipment with high maintenance needs.

There were two problems associated with the City's process for purchasing vehicles and equipment in 2015:

1) According to some vehicle coordinators the process was not transparent and logical; and
2) The purchase did not come close to meeting the full replacement needs of the City.

First, vehicle coordinators noted that the decisions to replace vehicles did not appear to be based on a rational, objective appraisal of need. Some coordinators stated that departmental personnel were not involved in the decision-making process or that they were able to get equipment only after making personal appeals to administration staff. Most vehicle coordinators were unsure how the CAO made decisions about which departments and agencies would receive vehicles equipment through the 2015 purchase and what type would be purchased.

One staff member stated that after making an appeal to the administration he was told that upper level management would "work something out." In another case the Deputy Mayor for Public Safety directed funds allocated to Homeland Security to fund acquisitions for Parks and Parkways. Sometimes these appeals were successful and departmental staff were appreciative of administrators' responsiveness, but in other cases departmental staff expressed disappointment that the process was not more objective and deliberate.

However, departments that reported to the Deputy CAO for Operations (e.g., Sanitation, Parks and Parkways, and NORDC) engaged in a logical and deliberate

process to create requests for their share of the 2015 purchases. The Deputy CAO asked vehicle coordinators in these departments to connect their equipment needs to service outcomes and provide detailed information about the status of their current fleet, including the cost of repairs and vehicle downtime. The process the operations departments engaged in would have ameliorated the confusion and lack of confidence that other vehicle coordinators expressed about the acquisition process. However, the deliberative process the Deputy CAO for Operations supervised accounted for less than half (42 percent) of the total cost of the acquisition. [63]

Second, although the City committed a significant amount of resources to acquire vehicles in 2015, it did not come close to meeting its replacement needs. For example, EMD staff stated that a four-year replacement plan for police vehicles would require 150 new vehicles every year to maintain the size of the NODP fleet. As part of the 2015 purchase, the City purchased 104 NOPD vehicles, not enough to meet the replacement plan for one year.[64]

Moreover, the City financed the acquisition through payments of approximately $2.8 million each year over five years. The payments were nearly as much as the average annual amount ($3 million) the City historically spent on vehicle purchases between 2009 and 2014. Unless the City increased its budget for vehicle purchases above historic levels, there would be no funds available for vehicle replacement until 2020 when the 2015 purchase was paid in full.[65]

RECOMMENDATION 5. THE CITY SHOULD USE LIFE-CYCLE ANALYSIS TO CREATE REPLACEMENT CRITERIA FOR VEHICLES AND EQUIPMENT AND FUND REPLACEMENTS AT THE OPTIMAL TIME.

The City should develop a long-term, rational vehicle replacement plan and advocate for funding the plan before the City Council. The City Council might be more likely to fund replacements and acquisitions if it was presented with reliable data that illustrated how the funding (or the lack of funding) would impact operational objectives.

The City should also consider creating a fund for vehicle acquisitions. The GAO identified the creation of a revolving fund to finance vehicle acquisitions as a best

[63] Sanitation received $3.8 million in vehicles and equipment, Parks and Parkways received about $900,000, and NORDC received about $400,000.
[64] The City also purchased four horse trailers for the NOPD.
[65] In 2016 the City budgeted to pay for an additional 50 police passenger vehicles.

practice to overcome the reluctance to retire vehicles when they became too costly to maintain. The GAO stated:

> Under this funding approach, a fleet management program functions much like an in-house leasing company, acquiring vehicles and equipment and passing their costs on to fleet users by means of a charge-back system. The proceeds of user charges are to be accumulated in a revolving fund and used to defray costs, including vehicle replacements.[66]

In addition to funding replacements, the GAO noted that revolving funds also create incentives for users to eliminate under-used vehicles because the invested costs are more visible. The GAO stated that the use of a revolving fund creates "powerful incentives for users to be more cost-conscious in their use of vehicles and even to dispose of vehicles that they do not really need."[67] In the City's current vehicle funding system, in which user departments often paid for acquisitions, department had little incentive to retire vehicles when they had made the initial outlay of funds for their purchase.

[66] U.S. GAO, *Practices can Improve Fleet Management*, 27.
[67] Ibid.

VII. FLEET MANAGEMENT ORGANIZATIONAL STRUCTURE

In 2008 the OIG issued a report to the City that identified serious deficiencies in the City's management of the administrative fleet and provided recommendations to improve operations. According to the report the City:

- did not have management information systems that provided managers with the information needed to make sound decisions and assess the performance of the passenger vehicle fleet;
- had decentralized fleet management responsibilities by assigning fleet management decision-making to the various department heads without adequate guidance or monitoring;
- did not have an oversight mechanism to test compliance with CAO Memo 5(R);
- had not assessed vehicle utilization to determine whether fleet size was appropriate and to establish a baseline for fleet operations; and
- could not determine the cost to operate individual vehicles or classes of vehicles and [could not] document the fiscal impact of decisions about passenger vehicles.[68]

The OIG followed up on its 2008 report in 2012. The City had agreed to implement many of the recommendations in the original report, but the OIG's follow-up report noted that only one recommendation had been implemented: the City had placed stricter guidelines on take-home vehicles. Moreover, the underlying problems identified in the original report persisted.[69]

Evaluators documented many of the same deficiencies in this report: the City's fleet management practices evidenced lax controls on record keeping and maintenance, processes and practices carried out by staff with little oversight or guidance, and a lack of replacement criteria and planning for acquisitions.

These deficiencies appeared to stem from insufficient central management: the City's decentralized approach to fleet management diffused responsibility

[68] OIG, *Management of the Administrative Fleet*, 24.

[69] Office of Inspector General, *Follow-Up Report: Interim Report on the Management of the Administrative Vehicle Fleet* (New Orleans, LA: Office of Inspector General City of New Orleans, 2012), Accessed June 30, 2016, http://www.nolaoig.gov/index.php?option=com_mtree&task=att_download&link_id=137&cf_id=37.

for managing the fleet, leaving no one ultimately responsible for cost-effective, rational fleet management.

The GAO has identified central fleet management as a best practice. The GAO reported that fleet management experts agreed that, to ensure effective fleet management, an organization's fleet manager should:

- establish and monitor written policies and procedures to be used by vehicle users throughout the organization;
- collect and analyze fleet data, including fleet costs and performance;
- look for opportunities to improve fleet operations and service to users; and
- serve as the organization's in-house consultant in promoting a corporate culture that focuses the users on reducing their vehicle costs.[70]

Experts also stated that "fleet management responsibilities needed to be centralized so that the fleet manager would have a broader perspective on the organization's fleet. The manager could then better compare the work units of the fleet and compare those work units with similar work units of other fleets."[71]

FINDING 6. THE CITY'S DECENTRALIZED ORGANIZATIONAL STRUCTURE DID NOT SUPPORT EFFECTIVE FLEET MANAGEMENT, AND NO ONE AT THE EMD HAD THE AUTHORITY TO ENFORCE FLEET-RELATED POLICY.

The fleet manager position was vacant for most of the review period, and there was no full-time manager at the Central Maintenance Garage.[72] Regardless, the decentralized nature of city fleet management meant that anyone hired as the City's fleet manager would not have clear authority over fleet operations. EMD staff confirmed that they could not enforce EMD policies and procedures: EMD staff had no recourse if user departments failed to submit reports, did not perform adequate preventive maintenance, or over-rode controls in the fuel dispensing system.

CAO Memo 5(R) delegated much of the responsibility for fleet management to user departments and vehicle coordinators. However, there was a high degree of variability in the quality of fleet management that vehicle coordinators provided.

[70] U. S. GAO, *Practices Can Improve Fleet Management*, 28
[71] Ibid.
[72] During the course of this evaluation, the City advertised a job opening for the fleet manager position, and another EMD employee was acting as interim fleet manager.

Departments with large equipment needs had operations staff with technical expertise overseeing fleet operations. In contrast, departments with administrative functions that used passenger vehicles often delegated fleet responsibilities to administrative or finance staff for whom vehicle maintenance was not a priority. In some cases these responsibilities had been passed down informally to staff who happened to be available when another employee retired or went on maternity leave.

The EMD provided limited direction to all vehicle coordinators. The EMD did not formally meet with vehicle coordinators, and CAO Memo 5(R) was the only guidance provided to coordinators about their duties. The lack of guidance contributed to inconsistency in use and maintenance record keeping (See Findings 3 and 4). Departments that relied on heavy equipment could have especially benefited from additional direction from the EMD because fleet management played an essential role in departmental operations.

There was an additional barrier to strong central fleet management: the City did not always clearly define its relationship with outside agencies to which it provided fleet services, including maintenance and fuel. CAO Memo 5(R) applied to city departments and agencies operating city-owned vehicles, but not to outside agencies such as the LASPCA and the Orleans Parish Sheriff's Office. The City provided fleet services to outside agencies according to varying agreements that had different levels of accountability in place. For example:

- The City provided fuel to the Orleans Parish Sheriff's Office under requirements imposed by a consent decree, but it did not have agreements in place designed to control for risks such as the misuse and/or theft of fuel.[73]
- The City provided maintenance and fuel to the LASPCA under a cooperative endeavor agreement, but the agreement did not require LASPCA drivers to follow city policies regarding vehicle use.
- The City had an agreement in place with the District Attorney to provide vehicles, fuel, and maintenance. In the agreement the District Attorney agreed to "follow the policies and procedures of the City of New Orleans Chief Administrative Policy Memorandum 5(R) and any subsequent amendments as well as any other policies and procedures as directed by the City … ." However, the agreement expired in May 2010 and was not

[73] Hamilton v. Morial, Docket No. 69-2443, E.D. La., *Settlement Agreement*, Doc. No. 1883, March 28, 2003.

renewed despite the fact that the City continued to provide fleet services.[74]

In some cases the City did not have any explicit agreement in place with agencies to which it provided vehicle fuel and maintenance. Examples of these agencies include Criminal District Court, Municipal Court, Traffic Court, Clerk of Criminal Court, and Juvenile Court.

Unlike most CAO policies, CAO Memo 5(R) applied to outside agencies that used city-owned vehicles.[75] Most of the vehicle coordinators followed the policies outlined in the memo, but one of the representatives of an outside agency stated that the memo did not apply to his agency. The City should make it clear that all agencies that use city-owned vehicles are expected to comply with CAO Memo 5(R).

RECOMMENDATION 6. THE CITY SHOULD PROVIDE THE INCOMING FLEET MANAGER WITH SUFFICIENT AUTHORITY TO OVERSEE EFFICIENT FLEET OPERATIONS, STANDARDIZE THE ROLE OF VEHICLE COORDINATORS, AND ESTABLISH FORMAL EXPECTATIONS FOR OUTSIDE AGENCIES TO WHICH IT SUPPLIES VEHICLES AND/OR SERVICE.

The City should provide the fleet manager with the increased authority necessary to oversee $60 million in vehicle and equipment assets effectively. As is the case for other internal service delivery departments (Finance, Information Technology, and Human Resources), the fleet manager should continue to report directly to the First Deputy Mayor and Chief Administrative Officer. The fleet manager should be provided with the necessary tools to ensure that user departments comply with fleet policies and procedures. These requirements include:

- entering accurate data into the City's fuel system;
- completing accurate quarterly reports;
- returning lightly-used vehicles to the central fleet;
- deleting vehicles at the most cost-effective time; and
- adhering to a preventive maintenance schedule.

[74] In contrast to OPSO and LASPCA vehicles, the City owned the vehicles operated by the District Attorney, and therefore the District Attorney's Office was required to follow CAO Memo 5(R) regardless of the agreement.
[75] CAO Memo 5(R) Sec. 1.

Such tools might include revoking driving privileges for drivers who failed to comply or deactivating a vehicle's fuel card. NOPD officers who did not enter valid odometer readings violated NOPD policy and should be subject to the consequences stipulated in the NOPD Manual.[76]

The fleet manager should reinforce the responsibilities of departmental vehicle coordinators by meeting regularly with them to provide training, policy updates, and information regarding best practices. These sessions should be designed to ensure consistent and effective city-wide fleet management practices.

The City should develop formal agreements and reporting requirements with all of the agencies to which it provides fleet services, and the fleet manager should not provide fuel to agencies that do not comply with the terms of the agreements.

[76] New Orleans Police Department, Policy Manual, Sec. 706, 2013.

VIII. CONCLUSION

According to the City's 2014 fixed asset list, the City's fleet consisted of more than 1,500 vehicles valued at more than $60 million, and the City spent $12 million on fuel, repairs, and acquisitions during 2014. Given the significant investment of public funds, city fleet management requires effective oversight and cost controls to prevent misuse and abuse of city resources.

The OIG reported that the fleet information system was not functional as early as 2008, and throughout the course of this review, evaluators found that the lack of information related to fleet operations prevented central fleet staff and user department staff from making informed decisions. The City could not produce reliable basic information such as how many vehicles it had, how often they were used, and what type of repairs were performed. In addition, the City did not use accurate and reliable information to guide management decisions such as determining how many vehicles it needed, whether to outsource maintenance, and when to replace vehicles.

In addition to a lack of information, there was also a lack of oversight related to fleet policies and procedures. The fleet manager position was vacant for part of the review period, and there was no full-time manager at the Central Maintenance Garage after 2012. Additionally, fleet staff had no means of enforcing policies related to the appropriate use of vehicles, fueling, adhering to maintenance schedules, and retiring vehicles. The City also had not established policies and procedures with outside entities to which it provided fleet services.

Evaluators offered the following recommendations to control costs and improve fleet operations. The City should:

- begin to collect and analyze information to guide decision-making related to fleet management;
- create an accurate and reliable list of the vehicles and equipment the City is responsible for fueling and maintaining;
- develop standards for and track vehicle use to determine the appropriate size of the City's fleet;
- create replacement criteria for vehicles and equipment based on life-cycle analyses and fund replacements at the optimal time;
- establish and enforce formal preventive maintenance schedules; and

- hire a fleet manager with the authority necessary to enforce fleet policies and procedures.

The OIG reported on similar problems in its 2008 report and made similar recommendations; the City should take steps to provide the EMD with the information, resources, and authority it needs to oversee the City's significant investment in vehicles and equipment.

Appendix A: Department and Agency Abbreviations

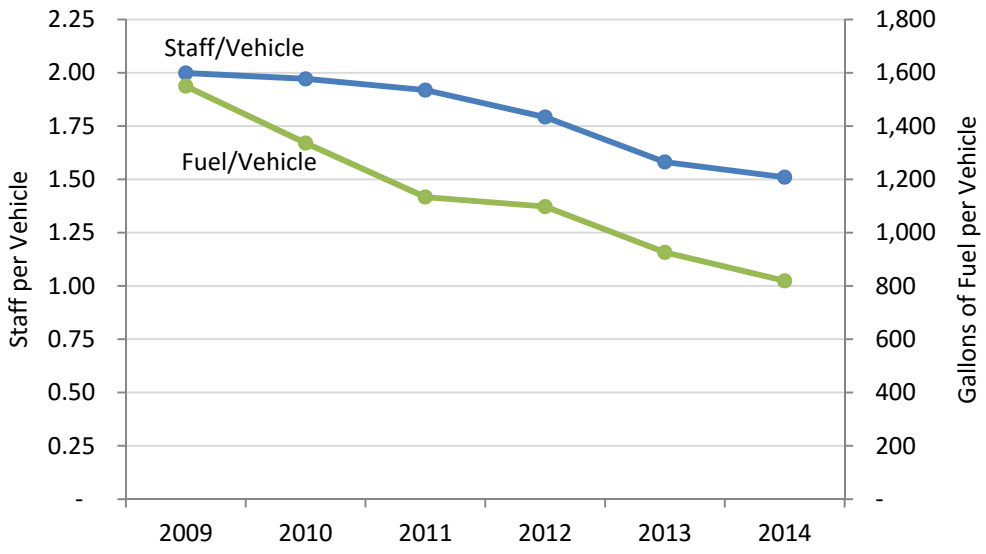
Agency/Department	Short Name[77]
Capital Projects	
Chief Administrative Office	CAO
City Council	
City Planning Commission	City Planning
Civil Service Department	Civil Service
Clerk of Criminal District Court	Clerk of Court
Department of Finance	Finance
Department of Parks and Parkways	Parks & Parkways
Department of Property Management	Property Management
Department of Public Works	Public Works
Department of Safety and Permits	Safety & Permits
Department of Sanitation	Sanitation
Emergency Medical Services	EMS
Equipment Maintenance Division	EMD
Health Department	
Historic Districts and Landmarks Commission	HDLC
Homeland Security	
Law Department	
Louisiana Society for the Prevention of Cruelty to Animals	LASPCA
Mayor's Office	
New Orleans Coroner's Office	Coroner
New Orleans Fire Department	NOFD
New Orleans Mosquito Control Board	Mosquito Control
New Orleans Municipal Court	Municipal Court
New Orleans Police Department	NOPD
New Orleans Public Library	Library
New Orleans Recreation Development Commission	NORDC
Office of Community Development	Community Development
Office of Inspector General	OIG
Orleans Parish Criminal District Court	Criminal District Court
Orleans Parish District Attorney's Office	District Attorney
Orleans Parish Juvenile Court	Juvenile Court
Orleans Parish Sheriff's Office	OPSO
Registrar of Voters	
Traffic Court of New Orleans	Traffic Court
Vieux Carré Commission	VCC
Youth Study Center	

[77] Where no short name is listed, the official name was always used.

There is a potential for cost-savings if the City analyzed vehicle and equipment use. The City could analyze use records to determine if there were under-used vehicles that could be sold. In addition to the revenue sales would generate, a smaller fleet would be less costly to maintain. These cost-savings could be used to replace older vehicles, which would reduce the age of the fleet and reduce maintenance costs. However, evaluators found that it was difficult to analyze use information in the form it was available: use logs and trip sheets were either on paper or generated by software that could not run reports of aggregate use. The City's fueling software would be an ideal method to analyze and measure use, but the data were unreliable.

According to the City's fixed asset list, the size of the City's fleet did not change meaningfully between 2009 and 2014 despite two significant changes that should have led to a reduction in vehicle use. The largest change was the decrease in the number of police officers: NOPD budgeted staff decreased from 1,859 in 2009 to 1,489 in 2014. At the same time, the number of vehicles increased slightly, but the vehicles were used less.[78] According to NOPD fuel consumption numbers, fuel consumption decreased from 1.4 million gallons a year in 2009 to just above 800,000 gallons in 2014.

Figure 23. NOPD Staff and Fuel Use per Vehicle (2009-2014)



[78] This calculation was based on information from the fixed asset list.

The second change was that the City amended CAO Memo 5(R) to restrict the use of take-home vehicles in 2009. In a 2008 report the OIG found that there were 298 take-home vehicles assigned to non-NOPD employees and recommended that the City establish criteria for assigning criteria for take-home vehicles.[79] After the OIG issued its report, Mayor Ray Nagin's administration amended CAO Memo 5(R) to include a description of when it was appropriate to assign a vehicle for take-home use. According to the memo, take-home vehicles were only assigned if they were "used to perform a critical function that contributes to the overall operations and recovery of the City and maintenance of infrastructure; and the vehicle is used to respond to critical needs on a 24-hour basis."[80] In 2010 Mayor Mitch Landrieu's administration further clarified appropriate take-home assignments by amending CAO Memo 5(R) again. The new language stated:

> Take-home vehicles will only be assigned to full-time City employees who need to respond to on-site, City business related incidences on a 24-hour basis. This criterion will not be considered to be attained by employees simply being available on a 24-hour basis. This provision will be considered to be attained when an employee is regularly and recurrently called out during an employee's non-traditional working hours to perform duties associated with that employee's duties and responsibilities.[81]

After these changes, take-home use decreased to 83 take-home vehicles in 2015: a reduction of 75 percent from the 2008 number.[82] See Figure 24 for a table of the number of take-home vehicles in 2008 and 2015 by department.

[79] OIG, *Management of the Administrative Fleet*, 25.
[80] CAO Policy Memorandum 5(R) Sec. 6(A) (2009).
[81] CAO Policy Memorandum 5(R) Sec. 6(A) (2010).
[82] This calculation was based on the number of take-home vehicles listed in the Quarterly Inventory Report from the second quarter of 2015.

Figure 24. Take-home Vehicles by Department 2008 and 2015[83]

	2008	2015
Mayor	74	2
Safety & Permits	46	2
District Attorney	36	34
Health Department	29	0
NOFD	22	14
Public Works[84]	21	1
Property Management	13	7
Administration	12	0
City Council	12	8
Sanitation	12	0
Mosquito Control	10	1
Coroner	8	8
NORDC	7	0
Parks & Parkways	6	0
EMD	5	0
EMS	5	6
Finance	3	0
Law Department	2	0
City Planning Commission	2	0
Civil Service Commission	2	0
Youth Study Center	2	0
HDLC	2	0
Library	2	0
VCC	1	0
Total	334	83

The large reduction in take-home vehicles provides evidence that there were many drivers who did not need vehicles. A reduction in the number of take-home vehicles assigned should have reduced the overall need for vehicles at the City. However, the number of vehicles overall did not decrease when the City reduced the number of employees permitted to have take-home vehicles.

[83] The table excludes NOPD and Homeland Security vehicles because OIG did not include them in the initial 2008 report. In 2015 NOPD had 396 take-home vehicles and Homeland Security had one.
[84] The 2008 number includes take-home vehicles assigned to both Public Works and Streets.

Evaluators performed a limited analysis of Office of Community Development vehicles and entered data from three randomly selected vehicles assigned to individual drivers in the office.[85] Evaluators found that:

- At least one of the three sample vehicles was not used on 84 percent of workdays;
- None of the three vehicles was used on 6 percent of workdays; and
- The vehicles were used an average of less than six hours a day each day they were used.

The Office of Community Development could potentially require fewer pool vehicles by scheduling staggered inspections and adjusting work hours instead of assigning one vehicle to each inspector.

The goal of the EMD should be to maximize the efficiency of fleet operations and deployment. Toward that end, the EMD should work with user departments citywide to reduce the number of assigned vehicles by identifying lightly used vehicles and developing strategies such as vehicle pools.

[85] The analysis excluded holidays and weekends.

City Ordinance section 2-1120(8)(b) provides that a person or entity who is the subject of a report shall have 30 days to submit a written explanation or rebuttal of the findings before the report is finalized, and that such timely submitted written explanation or rebuttal shall be attached to the finalized report.

An Internal Review Copy of this report was distributed on June 9, 2016 to the Chief Administrative Officer in order that he would have an opportunity to comment on the report prior to the public release of this Final Report. Comments were received from The Chief Administrative Officer and are attached.

CHIEF ADMINISTRATIVE OFFICE

CITY OF NEW ORLEANS

MITCHELL J. LANDRIEU
MAYOR

ANDREW D. KOPPLIN
CHIEF ADMINISTRATIVE OFFICER

July 11, 2016

Mr. Ed Quatrevaux
Office of Inspector General
525 St. Charles Avenue,
New Orleans, LA 70130

Dear Inspector General Quatrevaux,

I would like to thank you for the opportunity to review and comment on your report of the City's fleet management policies and procedures.

Like many city departments, the Equipment Maintenance Division (EMD) shrunk dramatically after Hurricane Katrina and operates today with less than one-quarter of the personnel it had in August 2005 and with fewer resources than were budgeted in 2010. EMD's maintenance staff operate out of a yet-to-be fully renovated building that sustained significant damage during the flooding after Katrina. Despite these significant financial and operational impediments, EMD has maintained continuous, 24-hour per day fuel services for city agencies, kept our fleet of vehicles repaired and operating and, in 2015, helped restock the city's fleet by competitively procuring 347 new vehicles and pieces of equipment valued at over $13.5M.

We agree with the OIG that these new assets along with all the others in our fleet need to be well-managed, well-maintained, and well-accounted for. We hope that the EMD's commitment to being good stewards of the city's vehicle fleet is reflected in our positive responses to your recommendations, which are outlined below.

Recommendation #1- "The City should begin systematically collecting and analyzing information about its fleet".

> We agree with your recommendation. As you note, the City has long needed a fleet management system to make data-driven decisions regarding its assets, but was unable to purchase one early in our administration due to funding limitations. More recently, we anticipated that the new Enterprise Resource Planning (ERP) system being procured by the Department of Finance would include a fleet management module. While the original vendor selected by the city for the ERP last year did include a fleet management system among its offerings, the city was never able to reach terms with that vendor and reissued the RFP for the ERP. The most recent selection process concluded approximately one month ago, and the vendor selected by the City this time does not have a fleet management module. As a result, I have allocated resources and directed EMD to issue an RFP for a fleet management system by July 31, 2016 so that we can select a vendor and put a fleet management system in place as soon as possible.

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Recommendation #2- "The City should ensure that is has an accurate and reliable vehicle list".

We agree with your recommendation. As noted above, we will issue an RFP for a fleet management system by July 31, 2016, and this system will give us the ability to better inventory and manage information about all relevant City vehicle and equipment assets.

Recommendation #3- "The City should develop standards for vehicle and equipment use, and staff should measure use to determine if those standards are met. That information should be used to achieve the optimal fleet size through acquisition, transfer of vehicles between departments, the sale of surplus vehicles, and the sharing lightly used vehicles between departments.

We agree with your recommendation. The City will establish baseline mileage goals for each vehicle and equipment type, standardize how departments report usage, and regulate how departments make yearly requests for vehicle and equipment needs. The City anticipates completing these processes by June 30, 2017. The City will then use this information, coupled with the data from a new fleet management system and knowledge of departmental operations and needs, to optimize the size of the City's fleet.

Recommendation #4- "The EMD and user departments should establish formal preventive maintenance schedules for vehicles and equipment, and the City should provide the Fleet Manager with sufficient authority to enforce preventive maintenance schedules.

We agree with your recommendation. The City will update preventative maintenance schedules for each vehicle and equipment type and update Vehicle and Equipment Policy 5(R) to clearly state vehicle user's responsibilities in following these maintenance schedules. The City anticipates updating these schedules and updating the policy in accordance with them by June 30, 2017.

Recommendation #5- "The City should use life-cycle analysis to create replacement criteria for vehicles and equipment and fund replacements at the optimal time."

We agree that our current practice of deleting vehicles from the fleet based on a comparison of the cost of repairs against the vehicle's book value has its shortcomings. We will incorporate life-cycle analysis into our decision-making as recommended once the fleet management system has been implemented. As stated previously, the city intends to issue an RFP for a fleet management system before July 31, 2016 which will include the functionality to enable EMD to conduct life-cycle analysis on all City assets. Additionally, the City will amend Vehicle and Equipment Policy 5(R) to specifically assign responsibility for making decisions about when to replace or dispose of vehicles to the Equipment Maintenance Division (EMD), although they presently operate on that basis today. Lastly, the city agrees that funding replacement vehicles at the optimal time is a best practice that we should aspire to achieve. However, because the city's

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resources have been limited and may be in the future, this may prove challenging from a budgetary perspective.

Recommendation #6- "The City should provide the incoming fleet manager with sufficient authority to oversee efficient fleet operations, standardize the role of vehicle coordinators, and establish formal expectation for outside agencies to which it supplies vehicles and/or service."

> We agree with your recommendation. The City is already planning to provide an in-person training for current vehicle coordinators which details the duties of the position by October 31, 2016. We will clarify with all vehicle coordinators for outside agencies, as well as their leadership, that they are expected to comply with Vehicle and Equipment Policy 5(R). Finally, the City is actively searching for an experienced Fleet Manager and will revisit the City's organizational structure and, as recommended, provide him/her with sufficient authority to be successful.

Thank you again for undertaking this review and for your commitment to helping us continually improve the way city services are delivered to the people of New Orleans.

Sincerely,

Andrew D. Kopplin
First Deputy Mayor and Chief Administrative Officer
City of New Orleans

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