



FLEET REPLACEMENT PROCESS

Prepared By:

**Craig Hametner, CPA, CIA, CMA, CFE
City Auditor**

**Randall Mahaffey, CIA, CGAP
Senior Audit Analyst**

**Steve Culpepper, CPA, CIA
Audit Analyst**

INTERNAL AUDIT DEPARTMENT

January 10, 2008

Report 0701

Table of Contents

	<u>Page</u>
Overall Evaluation	1
Background	1
Scope and Objectives	2
Methodology	2
Fleet Services Management Accomplishments	3
Areas for Improvement	4
Appendix - Vehicles and Machinery Meeting the Minimum Age Requirements but Not the Mileage Or Hours Requirement	9

CITY OF GARLAND

AUDIT #0701

FLEET REPLACEMENT

OVERALL EVALUATION

- Fleet Services manages approximately 240 lower-use vehicles and equipment (Appendix A). The initial capital investment in these units is \$8,301,785.
- Financial Services and Fleet Services are using different values to record the purchase price of vehicles and equipment.

BACKGROUND

The fleet replacement process is a coordinated effort between Fleet Services, Budget, Purchasing, Financial Services, and user departments. The primary responsibilities of the departments are:

- User departments – own and operate the vehicles and equipment. Make recommendations to Budget and Fleet Services regarding vehicle specifications and estimated replacement dates.
- Budget – manages the Fleet Replacement Fund and reviews all requests for replacement vehicles and equipment that could be included in the annual operating and capital improvements budgets.
- Fleet Services - annually evaluates vehicles and equipment that meet the guidelines for replacement. They make recommendations to Budget concerning the units to be replaced.
- Purchasing – after the City Council has approved the operating and capital improvements budgets, receives the vehicle and equipment specifications from the user departments and prepares the bid packets for buying the replacement vehicles and equipment. After the new vehicles have been received, disposes of the replaced units at a public or online auction.
- Financial Services – manages the accounting records for the initial purchase costs and any additional costs to make the units ready for service. The department maintains the fixed asset registers used to record the details of the equipment purchase history.

The purpose of the Fleet Services Department (FSD) is to manage the City of Garland's vehicles, machinery, and equipment. Management includes developing equipment specifications, receiving the units, preparing them for service, performing repairs and routine maintenance. The final phase is disposing of the units at the end of their service lives.

Units are owned by the various City departments. Prior to FY 2008, user departments were charged a flat monthly fee for services and repairs for the units under management. The fee was based on the estimated costs to maintain a department's vehicles. FY 2008 costs are based on the average costs to maintain different types of vehicles owned by a department. The mix of different vehicle type classes will determine the annual maintenance cost. Some vehicles, like those owned by Firewheel golf course, are not under Fleet management. Firewheel maintains their equipment and occasionally needs FSD repair work. Those occasional users are billed for repairs and maintenance at shop rates but do not pay the flat monthly fee.

SCOPE AND OBJECTIVES

Our examination was conducted according to Generally Accepted Government Auditing Standards and included tests of the City's records, policies, directives and other auditing procedures deemed necessary under the circumstances. The objectives of this review were:

- To report the progress toward resolution of audit findings from prior audits as they relate to the vehicle replacement processes. The primary findings from Audit #0417 were that cost analyst reports and a formal vehicle replacement policy be developed for the fleet replacement program. Fleet Services has successfully addressed the issues.
- To evaluate vehicle replacement and usage practices by vehicle class and determine areas of cost savings.
- To determine that replaced vehicles are sold at auction.

This audit covers FY 2006. The management of FSD changed after October 2006 and some operating policies and procedures have changed with the new management. This audit was conducted considering the practices applicable to FY 2006 and in light of new changes found at the time of the audit.

METHODOLOGY

This audit was conducted by analyzing information in the Fleet Anywhere system, by interviewing Fleet management and staff, and gathering supporting information from Finance, Budget, and Purchasing staff. While much of the information from Fleet Anywhere was extracted with Crystal reports, Finance, Budget, and Purchasing supplied supporting information in the form of spreadsheets, vehicle analysis, and auction sales documents prepared for the department's use.

Equipment Replacement Process Fleet Services Management Accomplishments

Fleet Services has experienced a change in management and management philosophy over the last year with many programs being implemented to improve service efficiency and quality. Fleet Services has also expanded its role beyond a maintenance function to include management of the City's fleet investment and operating costs. Following are some of the improvements in the equipment replacement process as a result of the new programs and expanded role:

- Implementation of a new evaluation process which includes capturing and evaluating comprehensive vehicle use information. This new process has resulted in downsizing over 70% of vehicles one ton and under considered for replacement this year (including purchase of 13 additional hybrid units), and foregoing replacement of 2 units through alternatives such as shared use or vehicle transfers.
- Fleet Services development and coordination of vehicle specifications and production of purchase requisitions previously performed by user departments. This change improves control over the vehicle replacement process and allows for standardization within the fleet.
- Development of a new fleet rate structure creating financial incentive for more careful consideration of the type and number of units in each department.
- Improved preparation of vehicles and equipment for auction resulting in higher auction proceeds.
- Performing life cycle cost analysis of vehicles and equipment to identify optimum ownership time period and allow for improved budget forecasting.

AREAS FOR IMPROVEMENT

1. THERE ARE A SIGNIFICANT NUMBER OF LOWER-USE VEHICLES AND EQUIPMENT IN THE FLEET.

Based on Fleet Maintenance Directive #4, the general guidelines for evaluating a vehicle for replacement will be based on the vehicle's age and/or mileage or hours. Vehicles and pickups are generally 7 years of age or 70,000 miles. Equipment and heavy trucks over two tons are 10 years of age or 5,000 hours of utilization. For analysis purposes, we considered a unit that attained the minimum age for replacement and had not attained the 70,000 miles or 5,000 hours as a lower-use unit.

The evaluation process performed by Fleet Services includes such items as the vehicle's age, life-to-date miles/hours, maintenance and repair history, and condition. The process is concerned with the vehicle under evaluation and not the make up of the department's fleet which can include the number of units similar to the unit being considered for replacement. The utilization of other units is not a factor that is included in the evaluation.

In our analysis of the fleet utilization rates, we identified approximately 240 vehicles and pieces of machinery that were at least seven years old but their mileage and/or hours were less than 10,000 miles per year or 500 hours per year. There are approximately 1,189 vehicles and pieces of machinery in the fleet at this time, so the identified units account for 20% of the entire fleet. The initial capital investment in these units is \$8,301,785. Appendix A included in this report shows the various classes of vehicles containing lower-use units, the number of units in the class, the original capital investment, and the projected annual fleet charge for maintaining the units in FY 2008.

These units were identified because they meet the minimum age for replacement but their mileage/hours are less than expected. For this analysis, we included vehicle classes such as sedans, pickups, trucks, and vans. The machinery classes are tractors, backhoe loaders, motor graders, rubber tire loaders, track excavators, and scrapers. Using the Fleet rates for FY 2008, these vehicles will cost the departments \$918,440 per year to own. During our analysis, we saw that the fleet size has increased from 1,068 units in 2003 to 1,189 in 2007. This is an 11% increase or an average of 30 units per year.

After the initial capital investment, the lower-use units cost the City for maintenance, depreciation, and management. Lower-use units actually cost more per mile or hour to operate because the costs are spread over fewer miles or hours. Garland should keep enough vehicles and equipment on hand to provide the necessary services to the citizens, but should not over invest.

RECOMMENDATION

The City Manager should create a committee to study the impact of lower-use vehicles on the equipment replacement process, Fleet Services operations, and capital improvement budgets. Options available for managing lower-use vehicles can be:

- Creation of a motor pool for renting vehicles to user departments.
- Transferring lower-use vehicles to departments that will use the vehicle more than the current owner will.
- Sell the units at auction and not replace them.
- Use personal vehicles in place of low usage units and reimburse the employee at the standard IRS mileage rate.
- Renting or leasing equipment in place of purchasing.

In the annual budget process, the evaluation of the vehicles can be expanded to include the availability of lower-use vehicles to replace an older unit that is being considered for replacement.

FLEET SERVICES RESPONSES

- It should be noted that the 7 years or 70,000 miles for vehicles, and 10 years or 5,000 hours for equipment is simply one of the milestones prompting evaluation of units for potential replacement. Fleet Services has begun life cycle cost analysis to better identify the optimum ownership time period for different types of vehicles and equipment. This project will likely lead to modification of the current mileage and time period for replacement evaluation specific to the type of unit and application.
- Most of these issues identified herein are already being addressed by the existing Fuel and Emission Strategy Team and/or Fleet Services. A new vehicle replacement evaluation process was implemented earlier this year to identify details of vehicle utilization to include nature and frequency of use, and job demands. This program initially focused on vehicles one ton and under considered for replacement in FY07/08. Through this program, several vehicles were identified as no longer having a justifiable need, or a specialized need but low utilization. This evaluation resulted in either vehicles being sold and not replaced or in the case of justifiable need with low utilization, the application was identified as one in which other vehicles nearing their useful life will be rotated into the application. The Strategy Team is now working on a program to transfer vehicles among departments where appropriate to obtain optimum fuel efficiency and utilization. The new replacement evaluation program will be expanded to include vehicles and equipment over one ton during the next replacement process beginning in the spring of 2008.

- Fleet Services is attempting to shift the philosophy of vehicle and equipment ownership from one of department ownership, to one of Fleet Services ownership to allow more flexibility in transferring units between departments. Introduction of this philosophical change began this year as Fleet Services started initiating vehicle specifications with department input, and started initiating the purchase requisitions on vehicles one ton and under. This change will allow Fleet Services to maximize efficiency of the City Fleet.
- Fleet Services is already working on development of a motor pool to include vehicles and equipment.
- The Strategy Team has conducted initial analysis of using personal vehicles and car allowances in appropriate applications. Thus far, the preliminary analysis did not reveal an economic advantage to the City. We believe there are applications where this option may be appropriate and are continuing to explore this option.
- The option of renting or leasing vehicles was part of the replacement consideration in the initial comprehensive evaluation of vehicles one ton and under this year. Two possible opportunities were identified in this group but further evaluation did not prove the option advantageous. We believe this option will more applicable in the next phase of the project when the more detailed evaluation is expanded to include equipment.

2. THERE ARE DIFFERENCES IN THE PURCHASE PRICES RECORDED BY FLEET SERVICES AND FINANCIAL SERVICES.

The vehicle purchase price used in the Fleet Anywhere system is not always the same price that is used in the Financial Services fixed asset registers. Fleet Services generally records the initial purchase price from the purchase order while Financial Services uses the purchase price plus the cost for accessories or equipment added to the vehicle so it is ready for service. The Financial Services value is used as the capitalized cost in the Comprehensive Annual Financial Report

In testing the values for Police vehicles recorded in the Fleet Anywhere application and the General Fixed Asset (GFA) registers, we found that approximately \$107,000 more costs are recorded in the GFA system than in Fleet. The difference is attributable to the cost of accessories. While we only tested the Police fleet records, we are reasonably sure that similar issues will be found in other departments' records.

The testing showed us that there is a need to reconcile the unit costs as well as the actual vehicles recorded in both systems. There were cost as well as actual unit differences found during the test.

The variations we found in the number of units recorded in the Fleet and GFA/Equipment Replacement Fund records were as follows:

- 109 retired units were recorded in GFA/ERF. Retired in Fleet.
- 1 unit transferred in Fleet and GFA/ERF not informed of change.
- 6 units sold at October 2007 auction are active units in Fleet.
- 17 units in GFA/ERF were not found in the Fleet.
- 24 active units in Fleet not recorded in GFA/ERF.

The problem of having different values for the fleet costs is when someone asks the question “How much did the fleet cost?”. What is the “official” cost? Analysis and reconciliation of the fleet costs will be erroneous if the wrong costs are used. There is a need to establish the correct cost basis so all other users can reconcile their records to the control price.

RECOMMENDATION

The Managing Director of Financial Services should ensure that the costs recorded in the fixed asset registers are the controlling costs and all users will reconcile their costs to the fixed asset registers. The costs recorded in the fixed asset registers will be the basis for the costs recorded in the Comprehensive Annual Financial Report.

After all vehicles and unit costs are updated in the GFA system, the Managing Director of Financial Services should prepare a vehicle listing that can be used to reconcile the actual vehicles on hand and the historic cost of the units to the Fleet Anywhere records.

After the reconciliation is complete, the Fleet Services Director can update the Fleet Anywhere records to match the fixed asset registers.

RESPONSES

Financial Services concurs in principal with this recommendation. However, this recommendation is viewed as a goal due to the fact that the function of Fleet Anywhere is to track maintenance and fuel cost related to equipment that Fleet Services maintains and should not be relied on for tracking fixed asset values of City assets. In addition it is important to note that there will always be differences between equipment maintained in Fleet Anywhere due to the following and that many of the addition and retirement variations noted above are due to the following.

1. Capitalization limit of \$5,000 for Fixed Assets and no limit for equipment maintained in Fleet Anywhere.
2. Timing differences of recording equipment additions and retirements between Fleet Anywhere and the Asset Management System. Fleet Services will process additions and retirements as equipment is purchased and sold. It may take two to three months before Financial Services adds new assets to assets registers and up to six months before assets are retired in the appropriate asset register.

Action Plan

Financial Services will provide Fleet Services with September 30, 2007, assets registers from the City's Asset Management System. Fleet Services can use the asset cost amounts from the asset registers to update the asset cost maintained in Fleet Anywhere.

Time Line

Financial Services will provide Fleet Services with the September 30, 2007 asset registers by January 31, 2008.

Appendix A.

Vehicles and Machinery Meeting the Minimum Age Requirement for
Replacement But Not the Mileage or Hours Requirement

Class	Original Cost	Budgeted FY 2008 Fleet Cost
0701 Police CID vehicles		
Number of Class Units	11	47,557
0794 Sedan		
Number of Class Units	2	42,181
1002 4 wheel drive vehicles		
Number of Class Units	2	44,472
1150 4 door sedan		
Number of Class Units	23	344,295
1202 4 door sedan		
Number of Class Units	1	-
2050 Pickup compact		
Number of Class Units	16	192,995
2051 SUV		
Number of Class Units	6	110,968
2060 Pickup 1/2 ton		
Number of Class Units	18	263,996
2070 Pickup 3/4 ton		
Number of Class Units	15	272,527
2072 Suburban 3/4 ton		
Number of Class Units	1	22,560
2090 Truck - 1 ton		
Number of Class Units	17	398,994
2091 Box van, small dump bed		
Number of Class Units	2	35,257
2200 Mini, cargo van		
Number of Class Units	22	394,098
2400 Dump truck - 5-6 yard		
Number of Class Units	17	616,541
2420 Truck flat bed, stake		
Number of Class Units	5	127,969
2425 Truck International dump bed		
Number of Class Units	2	89,958
2430 Truck tank mounted or hole digger		
Number of Class Units	3	231,971
4001 Truck over the road		
Number of Class Units	5	438,874
4002 Truck roll-off		
Number of Class Units	1	91,197
5000 Tractor utility		
Number of Class Units	5	82,033

5010 Tractor loader backhoe Number of Class Units	5	176,856	30,306
5011 Tractor bobcat, steer loader Number of Class Units	2	43,913	11,320
5020 Tractor 23 to 60 hp Number of Class Units	10	153,728	22,200
5030 Tractor mower, riding Number of Class Units	9	67,900	7,526
5500 Paving machinery Number of Class Units	9	1,010,963	39,936
5511 Motor grader Number of Class Units	1	63,101	1,808
5521 Loader rubber tired Number of Class Units	4	360,964	35,676
5522 Trencher Number of Class Units	2	48,402	2,566
5532 Excavator track Number of Class Units	3	254,078	15,793
5540 Excavator Number of Class Units	1	158,545	1,579
5560 Forklift 5,000 lb Number of Class Units	8	135,829	5,796
5570 Crane Number of Class Units	1	99,835	6,291
7016 Vacuum sweeper Number of Class Units	1	84,800	23,107
7024 Tractor flail mower Number of Class Units	4	154,270	51,846
7025 Tractor 52 to 62 hp diesel Number of Class Units	3	38,182	4,587
7026 Compactor Number of Class Units	2	555,820	91,312
7050 Scraper Number of Class Units	3	1,046,156	183,110
Total Units Under Utilized (Adjusted)	<u>242</u>	<u>8,301,785</u>	<u>918,444</u>