



**Audit of City of Milwaukee
Fleet Management:
Automobiles and Pickup
Trucks**

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Table of Contents

Transmittal Letter.....	1
Audit Scope and Objectives	2
Organizational and Fiscal Impact.....	2
Audit Questions and Conclusions.....	4
I Are the size and cost of the City’s vehicle fleet appropriate?.....	4
A. There is a lack of Citywide fleet management standards and enforcement	6
Recommendation 1: Assign DPW Fleet Services full authority to manage the City fleet	7
Recommendation 2: Survey fleet management practices of comparable organizations	7
Recommendation 3: Develop a Vehicle Usage Policy and Procedures Manual.....	7
B. City vehicles are assigned to departments in a manner that may lack sufficient flexibility, leading to low utilization.....	8
Recommendation 4: Conduct a study to reduce fleet size for the 2005 budget.....	8
Recommendation 5: Prepare an Annual City Fleet Management Utilization Report	9
C. The annual budget process provides little opportunity for a “zero based” analysis of vehicle needs in user departments	10
Recommendation 6: Implement minimum mileage and preventive maintenance policies	11
Recommendation 7: Charge vehicle usage at full cost including depreciation.....	11
Recommendation 8: Examine vehicle repair and downtime data.....	12
Recommendation 9: Explore personal vehicle reimbursement and leasing alternatives	12
Recommendation 10: Consider a separate fleet budget	12
II Does DPW-Fleet Services prepare and timely execute a regular vehicle maintenance schedule?.....	13
Recommendation 11: Standardize and document vehicle maintenance	14
Recommendation 12: Develop and report fleet management performance indicators.....	14
Appendix 1.....	15



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Office of the Comptroller
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To the Honorable
the Common Council
City of Milwaukee

Dear Council Members:

The attached report summarizes the results of our Audit of City of Milwaukee Fleet Management: Automobiles and Pickup Trucks. The overall objective of the audit was to evaluate policies, organization, management practices and controls in the purchase, assignment, use and repair of the City's automobiles and pickup trucks.


Based on actual miles driven in 2003, the audit disclosed that the City's vehicle fleet is too large, leading to an excessive budget and very high per mile costs. The audit makes 12 recommendations to improve management of the City's automobile and pickup truck fleet.

Audit findings and recommendations are discussed in the Audit Questions and Conclusions section of the report.

The Department of Public Works is preparing a response to the audit which will be transmitted to the Common Council under separate cover.

Appreciation is expressed for the cooperation extended to the auditors by the staff of the Department of Public Works.

Sincerely,



W. MARTIN MORICS
Comptroller

Audit Scope and Objectives

The objective of this audit was to evaluate policies, organization, management practices and controls in the purchase, assignment, use and repair of the City's automobiles and pickup trucks. The two major questions addressed by the audit are:

- I. Are the size and cost of the City of Milwaukee vehicle fleet appropriate?**
- II. Does DPW-Fleet Services prepare and timely execute a regular vehicle maintenance schedule?**

The scope of the audit included 627 City automobiles and pickup trucks in service in 2003. It did not include law enforcement vehicles such as Police patrol cars, or vehicles used for specialized activities such as construction. Also, the audit did not include vehicles owned by related City entities such as the Redevelopment Authority.

The audit included interviews of personnel in the Operations Division of the Department of Public Works (DPW) responsible for purchasing and maintaining vehicles, as well as personnel in the Fire Department, Department of Neighborhood Services, and DPW-Water Works responsible for vehicle operations. The audit reviewed data from DPW fleet management system and how that data is being used to manage the fleet. The audit examined utilization and repair records related to a randomly selected sample of 67 of the 627 City automobiles and pickup trucks. Also, information was obtained on the fleet management practices in other governments from the National Association of Fleet Administrators' Fleet Policy Development Resource Guide, as well as a recent survey of its members.

Organization and Fiscal Impact

The Fleet Services Section in the DPW Operations Division maintains, repairs, and replaces City of Milwaukee fleet equipment, including a variety of specialized vehicles. The automobile and pickup truck fleet totals 627 vehicles, with 584 of these vehicles maintained by DPW and the remainder maintained by the Fire Department, Police Department and the Port of Milwaukee. The 584 vehicles maintained by DPW are either assigned to DPW and other departments' work groups and individual employees, or to the DPW auto pool used by all City departments. DPW utilizes a fleet maintenance information system known as the "Fleet Anywhere" system.

Over the last three years, DPW operating expenditures for fleet maintenance and repairs by the Fleet Service Section have averaged \$11.5 million a year. These expenditures relate to all equipment maintained and repaired by DPW Fleet Services, including vehicles assigned to other City departments. Also, over the past three years, DPW capital expenditures for vehicle purchases have averaged \$4.0 million a year. The total dollar amount of DPW Fleet Services equipment purchases has grown by 185 percent from 2001 to 2003, or about \$1.85 million annually. See Table 1 below for the summary of DPW Fleet Services operating and capital expenditures.

The expenditures cited above do not include vehicle operating and capital expenditures budgeted in the Sewer, Water, and Parking funds, and in other non-DPW departments such as the Milwaukee Police Department, which is responsible for the purchase, maintenance and repair of its own fleet.

Table 1: City Fleet Services Expenditures (2001-2003)

	2001	2002	2003
Operating Expenditures	\$11.4M	\$11.7M	\$11.4M
Capital Expenditures			
- Car Purchases	\$ -	\$ -	\$334K
- Pickup Purchases	\$187K	\$203K	\$203K
- Equipment Purchases	\$2M	\$3.5M	\$5.7M
Total Capital Expenditures	\$2.2M	\$3.7M	\$6.2M
Grand Total	\$13.6M	\$15.4M	\$17.6M

Source: DPW Operations Division Staff

Audit Questions and Conclusions

I Are the size and cost of the City of Milwaukee vehicle fleet appropriate?

The audit indicates that the City's vehicle fleet is too large, resulting in inefficient utilization and excessive cost.

As shown in Table 2 below, 61 percent of the City autos and pickup trucks included in the audit were driven less than 6,000 miles in 2003. Over 85 percent of these vehicles were driven less than 10,000 miles. The total 584 City autos and pickup trucks managed by DPW Fleet Services traveled about 3.4 million miles in 2003, averaging 5,874 miles per vehicle.

Table 2: 2003 Automobile and Pickup Truck Miles Driven

Miles Driven	Number	Percent	Cumulative Percent	Average Miles Driven
Under 2000	74	12.7 %	12.7%	1,166
2000-3999	151	25.9	38.6	2,931
4000-5999	131	22.4	61.0	5,059
6000-7999	83	14.2	75.2	6,960
8000-9999	59	10.1	85.3	9,005
Over 10,000	86	14.7	100	13,135
Totals	584	100%		5,874

Source: DPW Fleet Services "Fleet Anywhere" vehicle information system

The audit sampled 2003 vehicle fleet records on 67 vehicles for an analysis of auto and pickup truck usage. The average mileage per auto in the sample was 4,504. Exhibit C estimates the **total cost per auto mile at \$0.70 to \$0.95**. The average mileage per pickup truck in the sample was 6,735, with **total cost per pickup truck mile estimated at \$0.69 to \$0.85**.

In 2003, the National Association of Fleet Administrators (NAFA) surveyed its members regarding mileage standards used to determine whether vehicles are needed¹. The respondents to that survey included 140 governments, 37 of which reported using a minimum mileage standard to justify the continued retention of a vehicle. **The median standard used by these government respondents was a minimum of 10,000 miles**

¹ NAFA surveyed all members (respondents included 108 Government and 32 Law Enforcement). NAFA personnel stated that the names of the specific respondents are confidential.

driven per vehicle, per year. As shown in Table 2, less than 15 percent of City vehicles would have achieved this minimum usage standard in 2003. In addition, NAFA's Fleet Vehicle Policy Development Resource Guide reports that data from selected corporate, government, university and law enforcement fleets found mileage standards ranging from 6,000-15,000 auto miles per year. Therefore, the average miles driven by City vehicles in 2003 falls well below these minimum fleet industry standards, indicating an excessive number of vehicles in the City's fleet.

The excessive number of City vehicles and resulting low usage lead to an exceedingly high cost per mile driven (see Appendix 1). The Internal Revenue Service's 2004 full cost standard for income tax deductible auto usage totals \$0.375 cents per mile². This standard mileage rate is based on an annual study of the fixed and variable costs of operating an automobile. These costs include an annualized cost of purchase, insurance, repair, maintenance, etc. At \$0.69 to \$0.95 per mile, the average per mile cost of operating a City vehicle in 2003 is 2 to 2 ½ times the IRS cost per mile standard.

Over the last three years, the annual cost of operation and replacement for all vehicles in the City's fleet ranged from \$14 million to \$18 million. By increasing average automobile and pickup truck utilization to, say, 10,000 miles per vehicle annually, these 3.4 million vehicle miles driven in 2003 could be provided to City department users with as few as 340 vehicles, with a resulting auto and pickup truck fleet reduction of over 40 percent. Therefore, fleet reduction efforts would provide a substantial savings.

The major reasons why City fleet size and per mile costs are excessive include:

- A. **There is a lack of Citywide fleet management standards and enforcement.** Little emphasis is placed on cost control.
- B. **City vehicles are assigned to City departments in a manner that may lack sufficient flexibility, leading to low utilization.** Too many individuals and small work groups may be assigned vehicles. More vehicles may need to be assigned to the City-wide vehicle pool and larger departmental work groups.
- C. **The annual budget process provides little opportunity for a "zero based" analysis of vehicle needs in user departments.** Budgeting for City vehicles is fragmented and for many City departments, minimizes their incentive to lower vehicle related costs.

² www.irs.gov ~ The IRS mileage rate is based on a study conducted by Runzheimer International of automobile operating costs.

These issues are explained further below with related recommendations to address the issues.

A. There is a lack of Citywide fleet management standards and enforcement.

The current operation of the City's vehicle fleet is decentralized with little central guidance or oversight. Most decisions regarding vehicle retention and assignment are made by user departments without the aid of Citywide policies or standards. DPW and other user departments request vehicle acquisitions as part of the annual budget process without the aid of meaningful Citywide policies or standards.

DPW Fleet Services Section sees its role as principally a service provider to DPW Divisions and other vehicle user departments. This service orientation is a strength. However, the audit found little evidence of fleet management and cost control by DPW.

- No manual of City vehicle usage policies exists. DPW's current practices indicate neither a perceived responsibility to establish vehicle usage standards nor the authority to enforce those standards.
- There are no minimum mileage standards for justifying continued user department vehicle retention.
- DPW Fleet Services Section maintains a vehicle management information system with the capability to provide a variety of useful information which would assist in evaluating vehicle cost, usage and assignment. However, for the most part, this capability has not been utilized.
- The personal use of City of Milwaukee vehicles is prohibited based on a statement in a DPW Buildings & Fleet Safety Manual. However, there is no clear definition of "personal use", making it likely that City departments are applying different rules related to the use of City vehicles for trips to and from work, to and from lunch, personal trips during work hours, after-work usage, etc.
- The use of City vehicles for commuting to and from work is permitted in some City departments where an employee's supervisor believes that the nature of that employee's job demands it. Commuting to and from work by individuals who take City vehicles home is not considered personal use. Further, logs of commuting mileage incurred by individuals assigned a City vehicle are not required.

State of Wisconsin rules require employees to reimburse the State for personal use of State vehicles, including commuting to work³.

³ Fleet Management Policies: Wisconsin State Government (Date of Release – July 1, 2004; pg.13).

Department of Neighborhood Services inspectors who are assigned vehicles are required to complete a daily activity report. This report lists locations visited, work completed and vehicle mileage. This is the exception rather than the rule in the City. In most cases, employees who are allowed to take City vehicles home are not required to report commuting mileage to and from their homes. A report of vehicle usage by DPW personnel who take vehicles home was made available by Fleet Services. However, the vehicle usage in this report was based on employee estimates rather than actual logs of commuting miles driven.

Recommendation 1: Assign DPW Fleet Services full authority to manage the City fleet

The Mayor and Common Council should assign DPW overall authority and responsibility for the management of the City's vehicle fleet. DPW Fleet Services could then assume responsibility to minimize the cost of the City's vehicle fleet, as well as providing user departments with the needed vehicles, repairs and maintenance. This would include the development and enforcement of City vehicle assignment, retention and replacement standards and a clearly defined written policy regarding the personal use of City vehicles.

Recommendation 2: Survey fleet management practices of comparable organizations

Once the Mayor and Common Council have approved this consolidation of City fleet management authority, DPW should survey the practices of other vehicle fleets comparable to those of the City to establish minimum mileage standards for all user vehicles. Failing to meet this standard would require return of the department assigned vehicle to the City's vehicle fleet. Exceptions could be granted where a unique department service requirement, such as for minimum coverage requirement, short response time, etc., can be demonstrated.

Recommendation 3: Develop a Vehicle Usage Policy and Procedures Manual

DPW should develop policies and procedures defining and guiding the assignment and use of City vehicles. These should be documented in a Vehicle Usage Policy and Procedures Manual, including a glossary defining all terms used. These policies and procedures should define and guide the personal use of City vehicles by City employees

including City reimbursement requirements. All personal miles should be reported to and monitored by DPW Fleet Services throughout the year based upon employee logs of miles driven in City vehicles. All commuting miles should be reported and monitored.

B. City vehicles are assigned to departments in a manner that may lack flexibility, leading to low utilization.

A review of DPW vehicle assignments to individual employees and work groups demonstrates that such assignments do bear a reasonable relation to the job duties assigned to those persons and groups. Typically, vehicles are assigned to inspectors, meter readers, and other jobs requiring extensive day-to-day travel. However, vehicles can be under utilized when assigned to individuals and small work groups without extensive day-to-day travel requirements. The audit sample showed that the highest average auto mileage (over 7,600 miles per auto) was achieved by vehicles in the Citywide auto pool – the vehicle assignment method providing the most flexibility. Providing more flexibility in vehicle assignment will be necessary if the size of the City fleet is to be reduced substantially.

DPW Fleet Services reviews annual department requests for replacement, looking at the age, condition and mileage of the existing vehicle. However, often due to budget constraints, vehicle replacement is not permitted. DPW Fleet Services attempts to keep the vehicle fleet as close to its optimal average age as possible. The audit sample determined that 41 of the 67 vehicles in the sample were beyond their DPW defined optimal (8-10 yr.) replacement age.

Recommendation 4: Conduct a study to reduce fleet size for the 2005 budget

Following the consolidation of vehicle management authority in DPW Fleet Services and the establishment of fleet assignment and retention policies, DPW and the Department of Administration (DOA) Budget and Policy Division should conduct a comprehensive study of the current vehicle fleet with the objective of reducing fleet size.

Aided by an established minimum mileage standard, this study would identify unneeded vehicles for transfer (eg, to the Citywide pool or a larger work group) or sale. As older vehicles are removed from the fleet, this would reduce the age of the fleet and associated

repair and maintenance costs. Vehicle replacement costs would also be reduced as vehicles are pared from the fleet.

This study would include the usage review of all vehicles currently assigned to individuals for consistency with demonstrated job travel demand and the "minimum mileage" criterion. The study should produce added revenue from vehicle sale proceeds and operations cost reductions to begin in the 2005 budget. A similar examination should no doubt also be initiated for Sanitation vehicles as another large City vehicle fleet.

Recommendation 5: Prepare an Annual City Fleet Management Utilization Report

Beginning as soon as possible, DPW should prepare an Annual City Fleet Management Utilization Report to the Mayor and Common Council. This report would present and analyze essential cost and availability information and trends, including trends in key fleet performance indicators (see recommendation 12 below). The report would anticipate the next year's budget, including initiatives to improve fleet services, reduce fleet size and control other operational or capital costs.

C. The annual budget process provides little opportunity for a “zero based” analysis of vehicle needs in user departments.

DOA-Budget and Policy Division analysis of DPW budget requests focuses on the programmatic changes necessary to meet DPW’s budget allocation. With regard to budgeted vehicle purchases, DOA-Budget attempts to keep the average age of each class of vehicle as close as possible to the optimal average age determined by DPW-Fleet Services Section. The number of vehicles purchased in a given year is often limited by City tax levy constraints.

In addition to DPW Fleet Services, four other City departments purchase vehicles for their own use: Milwaukee Police Department, Milwaukee Fire Department, Water Works and Port of Milwaukee. These departments include the purchase cost, maintenance and repair costs of their vehicles entirely within their respective department budgets.

DPW-Water Works personnel stated that vehicle replacement decisions are based on an evaluation of the condition of current vehicles. Water Works-Distribution Section uses a seven year replacement cycle which is tracked on a manual spreadsheet. This Section indicated that mileage, repair and maintenance records are reviewed as part of replacement decisions.

Milwaukee Fire Department personnel stated that vehicles are replaced based on their history, age and condition. All vehicles are categorized into the following four classes: suburbans, passenger vehicles, pickups and specialty vehicles. Fire Department Bureau of Construction and Maintenance personnel stated that their intention is to replace two vehicles in each class annually. However, this schedule is often modified due to budget limitations.

DPW Fleet Services purchases vehicles in the Citywide vehicle pool as well as vehicles assigned to all other departments except the above. **These user departments are charged only for maintenance and repair costs, excluding any vehicle purchase cost.** DPW divisions which use Fleet Services vehicles are not charged at all for their use. **In failing to include a portion of the vehicle purchase price each year, this budgeting approach minimizes user department incentives to reduce vehicle related costs.**

To meet budget allocation caps, DPW has limited the number of vehicles purchased by DPW Fleet Services in recent years. This has resulted in both reducing past years' vehicle purchase budgets in Fleet Services and extending the useful life of the existing vehicle fleet. For example, while \$334,000 worth of autos were purchased in 2003 by Fleet Services, no autos were purchased during 2001 or 2002.

The audit sample determined that 41 of the 67 vehicles in the sample were beyond their DPW-targeted 8-10 year replacement age. But based on the historic low annual mileage for current City vehicles, it is unclear what if any impact this aging fleet has had on repair costs, vehicle downtime, etc. **No information was available from DPW - Fleet Services to assist in answering this question.**

The overriding City objective must be to provide the needed employee transportation services at minimum taxpayer cost. In certain instances this could mean considering transportation alternatives to the use of City owned vehicles.

Recommendation 6: Implement minimum mileage and preventive maintenance policies

City departments should be subject to the same minimum mileage and preventative maintenance policies as established by DPW Fleet Services for City owned vehicles.

Recommendation 7: Charge vehicle usage at full cost including depreciation

DPW Fleet Services should add an annual vehicle depreciation charge in its vehicle usage charge schedule to reflect an annual purchase cost factor. Without increasing total City costs, this charge will more than double the current charges assessed to user departments, thereby providing a new incentive for vehicle user organizations to minimize the number of vehicles assigned to each department.

Recommendation 8: Examine vehicle repair and downtime data

DPW Fleet Services should analyze available repair and downtime information to determine the net financial and operational impact of extending the useful life of City vehicles beyond the recommended 8-10 years. Lower mileage vehicles could reasonably be expected to have a longer useful life. Presumably, once the City vehicle fleet has been reduced to an appropriate size, any downtime caused by vehicle aging condition would be minimized.

Recommendation 9: Explore personal vehicle reimbursement and leasing alternatives

In certain instances, ready employee access to a vehicle is mandatory in spite of low vehicle mileage due to unique "on-call", response time or other requirements. In such instances, DPW Fleet Services and the Budget Office should consider the following alternatives to a City owned vehicle:

- Use of an employee's personal vehicle with City reimbursement on a per-mile basis. (\$0.375/mile reimbursement versus current \$0.69 or more per mile now with City owned vehicle) Issues such as personal liability would need to be resolved. However, the City of Milwaukee and virtually all comparable cities already use this method of business travel reimbursement successfully.
- Leasing vehicles to replace aging City owned vehicles.

Recommendation 10: Consider a separate fleet budget

To raise the visibility and accountability of the fleet management function and its related costs, the Mayor and Common Council should consider separating the Vehicle Fleet budget from that of City building repair and maintenance.

II Does DPW-Fleet Services prepare and timely execute a regular vehicle maintenance schedule?

The audit concludes that a regular preventative maintenance schedule is prepared and preventative maintenance performed. However, documentation supporting the specific work completed and items checked was not available.

An audit sample provided evidence that routine maintenance is performed according to a planned schedule. Departments are required to bring automobiles and pickup trucks to DPW-Fleet Services for maintenance every six months or 3,000 miles. The "Fleet Anywhere" system identifies for Fleet Services personnel when vehicles are scheduled for preventive maintenance. Needed repairs beyond routine maintenance noted by mechanics are performed at the same time.

DPW staff indicated that vehicle problems discovered by vehicle users or the repair technician between scheduled maintenance dates are repaired by Fleet Services as needed.

DPW management also indicated that since defined standard preventive maintenance procedures are performed at each scheduled date, the specific maintenance procedures completed are not recorded on the information system. Instead, the audit sample found that only a "preventive maintenance" notation is indicated. Necessary repairs beyond scheduled maintenance are recorded. The Fleet Anywhere information system is capable of producing a report that shows what preventive maintenance was completed and when. However, this capability is not currently used. The system now reports only when preventive maintenance was performed, not what specific preventative maintenance work was completed.

The preventive maintenance procedures performed at scheduled intervals for automobiles and pickup trucks consist of changing each vehicle's oil, replacing the oil filter, and lubricating the vehicle. Mechanics also perform needed repairs of problems they notice at the time of preventive maintenance. However, mechanics do not use a checklist to guide or record the specific items examined on the vehicle. (Such a checklist is used to identify necessary repairs to heavy equipment.)

A recent article in American City and County⁴ magazine recommends tracking and reporting several performance indicators to measure the effectiveness of fleet

⁴ American City & Country Magazine; "Measuring Fleet Performance" (May 2004); pg. 48

maintenance and repair operations. The Fleet Anywhere information system is capable of providing these indicators. However, that capability is not currently used, so the performance is now unavailable.

Recommendation 11: Standardize and document vehicle maintenance

DPW-Fleet Services should develop and use checklists to guide mechanics' examination of automobiles and pickup trucks when scheduled maintenance is performed. Use of such checklists would ensure that all mechanics perform the same examination and provide assurance that needed repairs are identified. Also, the specific preventative maintenance work completed should be documented and entered into the Fleet Anywhere information system.

Recommendation 12: Develop and report fleet management performance indicators

DPW Fleet Services should develop a set of Fleet Management Performance Indicators based on data maintained in its current "Fleet Anywhere" information system to support its monitoring and reporting of fleet usage and cost. Examples of such indicators:

- Total cost per vehicle classified into annual capital (depreciation) and operating costs. This could be further classified by vehicle type.
- Total cost per vehicle mile – could be further classified and monitored by vehicle type and department.
- Preventative maintenance hours vs. repair hours – measures effectiveness of preventative maintenance program.
- Fleet availability and downtime – measures extent to which needed vehicles are available when needed. Again, this could be monitored City-wide and by department.

2003 Estimated Cost Per Mile Driven, Automobiles and Pickup Trucks

Automobiles

Estimated 2004 purchase cost: \$16,000 to \$19,000

Estimated useful life: 7 to 10 years

Estimated annual depreciation: \$1,600 to \$2,700

Estimated annual maintenance costs: \$1,200 (DPW-Fleet Services' 2003 automobile maintenance charge is \$99.90 per month.)

Estimated miles per gallon: 24

Average miles driven per year for audit sample: 4,504

Estimated gallons used per year: 188

Estimated cost per gallon: \$1.90

Estimated fuel cost per year: \$357

Total estimated annual costs

	Low	High
Depreciation	\$1,600	\$2,700
Maintenance	\$1,200	\$1,200
Fuel	\$357	\$357
Total	\$3,157	\$4,257

Estimated cost per mile: \$.70 to \$.95

Pickup Trucks

Estimated 2004 purchase cost: \$18,000 to \$20,000

Estimated useful life: 7 to 10 years

Estimated annual depreciation: \$1,800 to \$2,900

Estimated annual maintenance costs: \$1,964 per year (DPW Fleet Services' 2003 pickup truck maintenance charge is \$163.70 per month.)

Estimated miles per gallon: 15

Average miles driven per year for audit sample: 6,735

Estimated gallons used per year: 449

Estimated cost per gallon: \$1.90

Estimated fuel cost per year: \$853

Total estimated annual costs

	Low	High
Depreciation	\$1,800	\$2,900
Maintenance	\$1,964	\$1,964
Fuel	\$853	\$853
Total	\$4,617	\$5,717

Estimated cost per mile: \$.69 to \$.85