Fleet Services Operational Review

Phase Two – Stronger Asset Management Needed

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Executive Summary

The City's fleet is vital to providing many services

The City's Fleet Services Division maintains a fleet of just under 5,000 vehicles and equipment with a value of approximately $330 million. Staff rely on this fleet to deliver various services to the public, such as picking up garbage, repairing roads and infrastructure, and maintaining the City's parks and recreational facilities.

The Fleet Services Division's Asset Management team is responsible for the lifecycle management of the fleet, including the annual procurement and disposal of approximately 500 vehicles and equipment for the City's various divisions and agencies. In addition, the team also maintains the City's fleet inventory records.

This report focuses on asset management

Our audit is divided into two phases. The Phase One report was presented to the Audit Committee on May 3, 2019 and focused on vehicle maintenance and reducing downtime. This Phase Two report focuses on asset management, including vehicle rental and new vehicle warranty.

Our key findings are summarized below:

Stronger asset procurement practices needed

Timing of procurement should reflect the expected time needed to buy the vehicle

The time needed to buy a City vehicle can vary widely, from several months to longer than two years. Fleet Services currently begins the procurement process a year before the end of a unit's expected life. This means that vehicles may arrive much later than optimal, particularly for the more complex and customized heavy duty vehicles. The procurement process timing should be shifted earlier to reflect the expected time needed to buy the vehicle.

Insufficient procurement planning leads to expensive end-of-life repairs

The above delay in procurement results in loss of fleet continuity. Some user groups have kept vehicles in use past the optimal life span recommended by Fleet Services. As any fleet ages, its risk of failure increases, and generally requires more servicing to remain in operation. We identified 69 vehicles over a one year period that incurred final year repair costs greater than their sale proceeds. The cost to keep them in operation for their final year was $875,000, an excess of $448,000 over sale proceeds of $427,000.

Use of multi-year contracts can shorten procurement time

Vehicles bought through an existing multi-year contract can experience a significantly shorter lead time. If greater planning can be done with user groups to anticipate future vehicle needs, it would shorten the procurement time as well as help standardize the City's fleet.

Effective decision-making needed for end-of-life assets

Asset Management staff currently use a lifecycle cost analysis to determine the best time to dispose of a vehicle. The data used for this analysis is not always reliable and should be supplemented by vehicle condition assessments (referred to as "PMVs"). The current process for PMVs needs improvement, including revising the form, timing, and frequency to better inform asset replacement decisions. In addition, garage staff need to apply more care to the PMV process before asset management staff can rely on PMVs in their decision making.

"Beyond economic repair" decision was made too late for almost half of the 526 units reviewed

Furthermore, developing a policy to formalize the process on when a unit is considered "beyond economic repair" will guide Maintenance staff on when to dispose of a unit. We reviewed 526 units that were declared beyond economic repair between January 1, 2014 and June 30, 2019 and found that by the time they were removed from service, almost half of them had incurred lifetime maintenance costs in excess of their original purchase cost. While the user group retains the final decision on when to dispose a unit, removing units later than optimal can result in a higher overall cost to the City.

Improving the above processes, policy and tools will help Fleet Services to ensure that effective decisions are made on when vehicles should be disposed of, and will help to reduce costly maintenance for aged units that are in poor condition.

Redeployed vehicles

Vehicles that are no longer needed by user groups are usually sold at auction, but can be redeployed to a different user group upon request. Despite Fleet Services' expectation that redeployments be made for no longer than one year, we found that almost half of the current 333 redeployed units have been redeployed for more than three years. As these vehicles are generally old, this can lead to costly maintenance. Greater tracking and oversight is needed to ensure that redeployments are only made when it is economical to the City.

Improve rental process to eliminate unnecessary costs

Average delay of 7 days between rental delivery and pick-up

From 2018 to 2019, it took on average seven days from delivery of the rental unit from the vendor to the user group picking it up. This amounted to $79,000 per year in rental costs paid while the vehicle was idling. The delay can be minimized by revising processes to enable users to pick up units directly from the vendor.

City could have saved $431,000 by purchasing instead of renting vehicles for long term

Fleet Services needs to perform cost benefit analysis to determine whether renting is more cost effective than buying, especially in cases where user groups are renting vehicles year after year. We analyzed rental data and identified 27 instances since 2010 where user groups rented vehicles between two to six years. The City could have saved $431,000, or $45,000 per year, by purchasing these vehicles instead.

Missed opportunities for warranty savings

Most new City vehicles come with manufacturer standard warranty coverage for a limited period of time (typically two to three years) or mileage. The warranty period and coverage varies by type of unit. Using one administrative staff person and limited processes, the City successfully claimed about $500,000 per year in warranty repairs over the last three years. Although this is encouraging, Fleet Services' warranty administration needs to be strengthened in the following areas to maximize warranty savings for the City:

Warranty administration needs to be strengthened to maximize savings

- Utilize M5 Warranty Claims Manager module to automate the tracking of warranty claims
- Set up analytics function and warranty performance target, measure and report actual performance against target
- Establish a repair time or cost threshold to guide garage staff on when to pursue warranty claims
- Ensure M5 system contains comprehensive and accurate warranty information, diagnostics, and repair notes
- Track and analyze denied warranties
- Review and revise the current warranty reporting structure

Potential missed warranty opportunities

We analyzed M5 system work orders (greater than $150) from January 2011 to July 2019 for the manufacturer standard warranty coverage. We identified $2.6 million in repairs, or about $300,000 per year, occurring within the warranty period in which the warranty was not claimed. It is not possible to determine how much of this amount could have been successfully claimed due to some of the above deficiencies in the existing warranty function, however it does demonstrate there is still room for increased potential savings. Additionally, free roadside assistance was used only 30 per cent of the time when available.

Repairs caused by lack of operator care

$2.8 million in repairs over 1.5 years categorized as "negligence/vandalism"

Various garage staff have commented that not all operators handle their vehicles with care. Repairs of such damages are coded as “negligence/vandalism” in Fleet Services' system. From 2018 to June 30, 2019, 7.8 per cent of all repairs totaling $2.8 million were categorized as negligence. This represents an unnecessary cost for the City. If the City were able to reduce repairs caused by lack of operator care or vandalism by 10 per cent, the City could save $180,000 a year.

Fleet Services currently charges user groups for repairs incurred due to negligence and provides them with negligence and accident reports monthly. While this provides some level of deterrence, vehicles and equipment are City assets provided to staff to enable them to perform their duties and we believe that City-wide attention is required to ensure that they are operated with due care.

Fleet Services as steward of City's fleet

The role of Fleet Services Division should be examined. During our audit, situations often arose in which it was unclear whether Fleet Services was expected to take the overseer role or to simply assume the role of administrator on behalf of its user groups.

An overseer with a City-wide perspective is needed for fleet assets

When asset management decisions are made by user groups without the benefit of a City-wide perspective, it may result in higher overall costs to the City. The City should consider Fleet Services' appropriate role, responsibility, and authority in order to enable it to act effectively as overseer of the City's fleet assets.

Conclusion

Implementation of the 20 recommendations contained in this report will help improve asset management through long term planning and stronger ownership, and achieve immediate savings by reducing rental costs and improving warranty administration.

We express our appreciation for the staff and management of the Fleet Services Division as well as staff who support the M5 system, whose co-operation and willingness to explore avenues for improvement have assisted us greatly. We also express our appreciation for the other operating divisions that provided information to us during the audit.

Background

The City's fleet is vital to providing many services

The Fleet Services Division maintains a fleet of just under 5,000 vehicles and equipment with a value of about $330 million for the City's divisions, agencies and corporations (referred to as 'user groups' in this report). City staff rely on these vehicles and equipment to deliver many services to Torontonians, such as picking up garbage, repairing roads and infrastructure, and maintaining the City's parks and recreational facilities.

Our audit is divided into two phases. The Phase One report was presented to the Audit Committee on May 3, 2019 and focused on vehicle maintenance and reducing downtime.

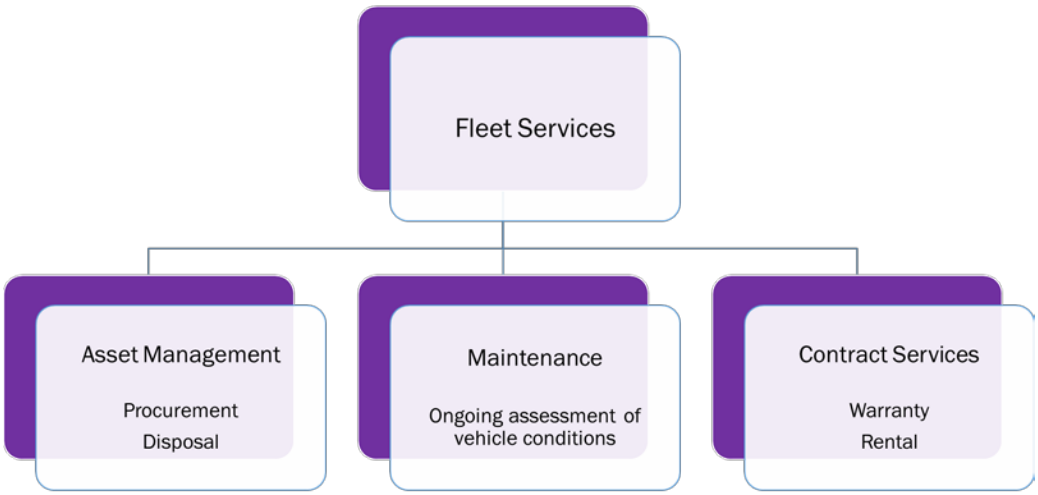
This Phase Two report focuses on asset management, including:

- Vehicle purchases
- Disposals
- Inventory management
- Rentals
- Warranty

Phase Two report focuses on asset management

This work is primarily the responsibility of the Division's Asset Management team, which oversees the lifecycle management and activities of the City's fleet assets. Other Fleet Services teams are also involved in various asset management activities as well. This is summarized in **Figure 1** below:

Figure 1: Asset Management Activities in Fleet Services

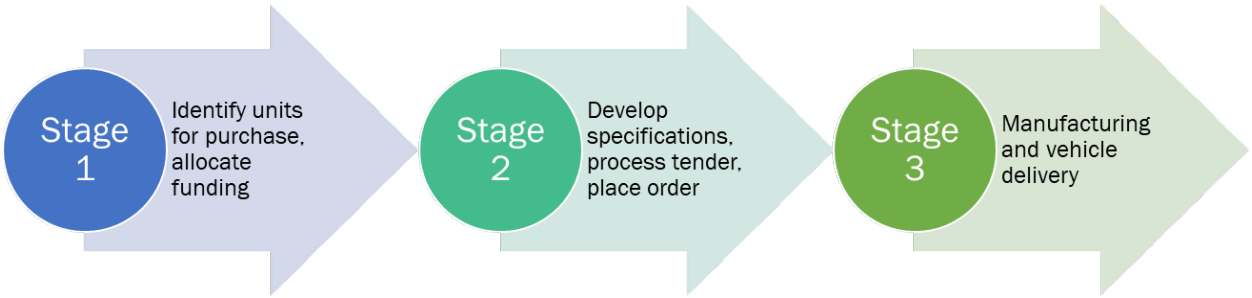


Vehicle procurement overview

Fleet Services procures approximately 500 vehicles and equipment annually for the City's various divisions and agencies.

Although timing can vary widely depending on the type and complexity of the vehicle, **Figure 2** below provides an overview of the main stages of vehicle procurement:

Figure 2: Vehicle Procurement Stages



Funding for vehicle replacements

Each user group sets aside funds annually for vehicle replacements

Funding for vehicle replacements is contributed by each user group out of their annual operating budgets. Contributions are placed into the Vehicle and Equipment Replacement Reserves which are then used to fund the 10-year Fleet Capital Replacement Plan.

Fleet Services calculates the recommended funding amount

Fleet Services calculates the amount of contribution needed from each user group to fund their future vehicle replacements, based on the size and composition of their respective fleets.

When there is a funding shortfall, vehicles may not be replaced on time

When the contribution made by user groups is below Fleet Services' recommendation, this creates a funding shortfall. **When units are not replaced on time, this creates a backlog.**

Replacing units later than scheduled means that existing units remain in operation for longer than the recommended years or usage levels. This increases the risk of vehicle failures and costly repairs. If repair costs are higher, the funds saved from not spending on vehicle purchases are at least in part being used to repair and maintain existing vehicles.

Decision-making of user groups

While Fleet Services provides advice and guidance on fleet-related matters, the decision-making authority currently remains with user groups in many areas. This includes:

User groups generally have control over their own fleet

- **Funding Contributions –** Fleet Services provides funding recommendations as described above. However, how much to contribute is up to the user group.
- **Vehicle Replacements** – Fleet Services recommends vehicles that should be prioritized for replacement based on the age and usage of the vehicle. User groups may decide whether to adopt these recommendations or not.
- **Maintenance –** When facing an expensive repair, Fleet Maintenance staff will consult with the user group to determine whether to proceed and keep the vehicle.
- **Vehicle Redeployment –** User groups can request that old returned units be redeployed to their area instead of being disposed of. There is no term limit for redeployments.
- **Vehicle Rentals** – Fleet Services has, on occasion, provided rental cost benefit analysis for user groups upon request. The user group decides which units to rent instead of buying.

Fleet Services' activities thus have to strive to **achieve the most economical decisions for the City** as a whole, while ensuring that the operating needs and priorities of user groups are met.

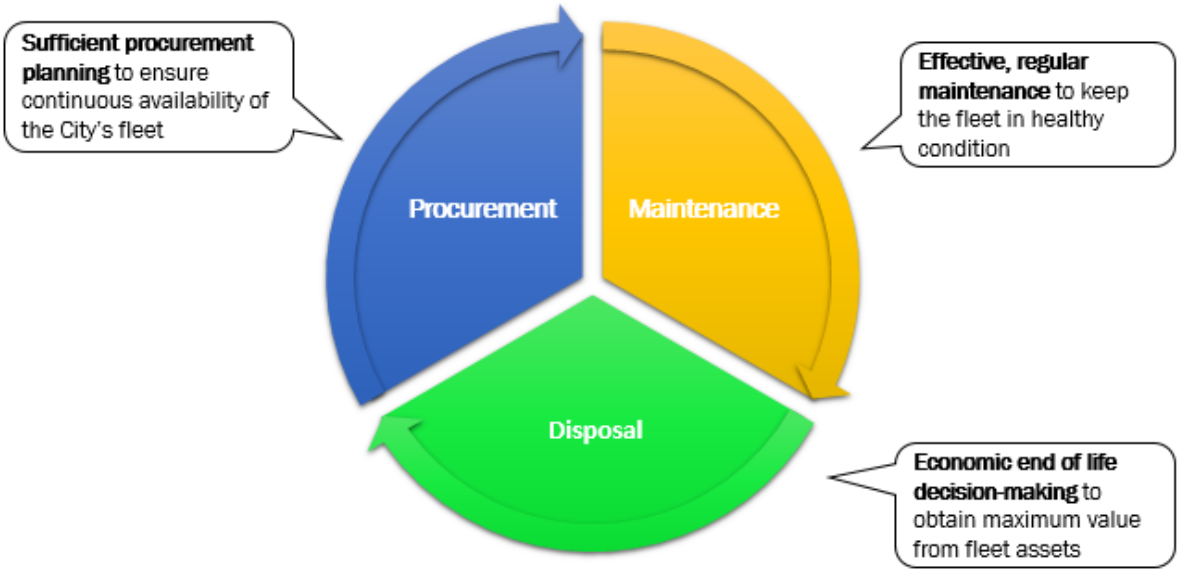
Audit Results

This section of the report contains the findings from our audit work followed by specific recommendations.

A. Stronger Asset Procurement and Disposal Practices Needed

The age and condition of a fleet is affected by different stages in its lifecycle. This is shown in **Figure 3** below:

Figure 3: Key Fleet Lifecycle Activities



Maintenance was the focus of our Phase One report which was released in May 2019. Opportunities to improve **procurement planning** and related practices are discussed in Section A.1, while Section A.2 examines the **decision-making process for vehicles approaching its end of life**. If more economical decisions are made with sufficient planning for the replacement and disposal of units, the City as a whole will benefit with the quality and age of fleet and its economical use of funds.

Section A.3 discusses **inventory management**, which impacts Fleet Services' ability to effectively oversee the City's fleet assets. And, Section A.4 discusses the need for improved **communication** between groups related to the management of fleet.

A.1. Better Procurement Planning Needed to Ensure the Continuity of Fleet

This section discusses measures that Fleet Services and the City can take to improve its long term planning, to ensure that its fleet is replaced in a timely manner.

Longer lead time needed for vehicle purchases

Buying a City vehicle is a lengthy process. Some of the major steps include:

- Developing specifications for user group needs
- Processing the tender
- Manufacturing time
- Test drives and/or revisions
- Final delivery

Time needed to buy a vehicle can vary from a few months to over two years

The time needed can vary widely depending on the type of vehicle and whether a suitable contract with a manufacturer is already in place. This is illustrated in **Table 1** below:

Table 1: Estimated Vehicle Procurement Times

	Light Duty (more standardized)	Heavy Duty (more complex & customized)
Contract already in place	6-8 months	1-1.5 years
No contract	1 year	2-3 years

Other factors such as evolving industry standards, add-on components, and whether user needs were communicated clearly, may also affect the time needed to acquire a vehicle.

Current process does not provide enough lead time

Fleet Services begins the procurement process for most vehicles the year before the end of its expected life. Although this provides sufficient lead time to procure some light duty vehicles, it is insufficient for many heavy duty vehicles vital to City operations, particularly those that are more complex and customized.

The result is that **even in cases where vehicles are replaced according to recommended timelines, they may not arrive until more than a year later**. The previous vehicle is then required to stay in use for longer than optimal to meet operational needs, and may incur higher maintenance costs and expensive end-of-life repairs due to operational necessity.

To ensure the continuous availability of fleet, procurement timing should be aligned with the expected time needed to acquire the vehicle. This means starting the procurement process earlier where needed, and in the case of the more complex and specialized units, two to three years before the projected end-of-life span.

Higher maintenance cost for vehicles past optimal life span

Some vehicles have remained in use past the optimal life span recommended by Fleet Services. This is the result of a combination of procurement timing, discussed above, and decisions by user groups to replace their vehicles later than recommended, thus creating a replacement backlog.

To assess the impact of an aged fleet, we analyzed the annual maintenance cost of 145 units that were in use past their optimal life span, considering age, usage, and accumulated maintenance costs. The results are shown in **Table 2** below:

Table 2: Average Annual Maintenance Cost Comparison

Vehicle Category	Annual Cost (During Expected Life)	Annual Cost (Past Expected Life)	Difference	% Difference
Light Duty	$2,450	$2,650	$200	8%
Medium Duty	$4,400	$6,450	$2,050	47%
Heavy Duty	$12,500	$18,200	$5,700	46%

Upkeep for medium and heavy duty vehicles increase significantly

Vehicles were significantly more costly to maintain once they passed their expected useful life. **This was more pronounced for medium and heavy duty vehicles** with annual maintenance costs almost 50 per cent higher. Many medium and heavy duty vehicles are also critical for the City to deliver services to Torontonians, such as garbage pick-up and road maintenance.

When vehicles are not replaced on time, City staff have to rely on older units to perform their duties, and incur costly repairs to keep these units in operation.

Aged fleet leads to other indirect costs

In addition to higher maintenance costs, older units break down more often which may lead to increased downtime, reduced productivity, less reliable service delivery, and associated costs, such as vehicle operator overtime.

Expensive but necessary end-of-life repairs due to lack of fleet continuity

$875,000 was spent to repair 69 units that were sold for $427,000 within a year later

During a one year sample period of September 2017 to August 2018, we identified **69 units that incurred final year repair costs more than their sale proceeds.** The total cost to keep these 69 units in operation for their final year was $875,000, an excess of $448,000 over sale proceeds of $427,000.

We reviewed the work history for 15 of these units and did not identify any potentially inappropriate activity; rather, the repair costs were incurred due to the user's need to keep the vehicles in operation as the replacement vehicle had not yet arrived.

In order to avoid higher maintenance costs and expensive end-of-life repairs, the City should assess and where needed, take steps to reduce its vehicle replacement backlog.

Expand multi-year contracts to shorten procurement timeline and encourage standardization

Fleet Services has been using multi-year contracts to improve efficiency

In addition to starting the procurement process earlier, Table 1 shows that vehicles **bought through an existing contract take a significantly shorter amount of time to procure.** In recent years, Fleet Services has been incorporating multiple extension options in its tenders to increase number of vehicle purchases that can be made through applicable existing contracts.

Success is currently limited to light and medium duty units

For the two years 2018 and 2019, 59 per cent of replacement purchases were made through existing multi-year contracts. This applied to mostly light duty (79 per cent) and medium duty (71 per cent) vehicles. However, contracts were available for only 24 per cent of heavy duty units. Staff commented that the higher degree of customization made it more difficult to make progress on these units.

If planning can be improved and done earlier, and with better collaboration with user groups to anticipate future needs for heavy duty vehicles, it would help shorten the procurement time as well as provide greater standardization of the City's fleet.

Recommendations:

1. **City Council request the General Manager, Fleet Services Division, to revise the timing for replacement vehicle purchases to take into account the time required to acquire complex and specialized units.**

2. **City Council request the City Manager, in consultation with the General Manager, Fleet Services Division, to take steps to assess and where needed, address the vehicle replacement backlog to prevent expensive repairs towards the end of a unit's life span.**

3. **City Council request the General Manager, Fleet Services Division, to assess the tendering needs for heavy duty units and where feasible, streamline the procurement process through the use of multi-year contracts.**

A.2. End-of-Life Decision-Making Needs Improving

This section discusses the various tools and options Fleet Services uses to decide what to do with vehicles reaching the end of their expected life.

A.2.1 Lifecycle cost analysis

Fleet Services' lifecycle cost analysis can be useful for asset planning

Asset Management staff flag vehicles for disposal based on a lifecycle cost analysis of the City's fleet inventory. The analysis is entirely data driven, and takes each unit's age, mileage, engine hours, and maintenance cost into account using data from the City's fleet management system (referred to as M5). We observed various issues which may affect the accuracy of the analysis:

Data used is not entirely reliable

- **Mileage and engine hour readings** were not always transmitted correctly, and were sometimes susceptible to manual input error.

- **M5 vehicle maintenance costs may be understated and inaccurate** due to interfacing issues between the City's SAP financial system and M5. Fleet staff are expected to investigate and resolve errors generated, however this was not being done timely. As of June 30, 2019 there were $556,000 in costs from SAP that were not properly integrated into M5, with some costs dating back to February 2016.

- Data accuracy aside, rates charged by Fleet Services and different vendors for the same services can vary greatly.

- **Vehicle conditions can vary** based on many factors including driver experience, maintenance interval, and their operating environment. For instance, vehicles constantly exposed to salt during the winter will wear faster than those that are not, despite having similar mileage.

To help mitigate these risks, Fleet Services should supplement its data-driven analysis with vehicle condition assessments, which are currently performed by Maintenance staff (medium and heavy duty vehicles) or external vendors (light duty vehicles). The following section discusses condition assessments.

After addressing the issues discussed above, Fleet Services' analysis should form the basis for replacement decisions moving forward, unless there are specific valid reason(s) otherwise documented.

A.2.2 Condition assessment ("PMV") process needs improvement

Mechanics perform approximately 1,300 scheduled condition assessments each year

As per Fleet Services' procedures, mechanics perform inspections (referred to as "PMVs") to determine each vehicle's condition on its fifth year of service and every two years after. For instance, a vehicle with a 10-year expected life will likely go through at least three PMVs during its life span. From January 2014 to June 2019, approximately 1,300 scheduled PMVs were performed each year.

PMVs can be initiated through scheduled vehicle inspections or by request from Fleet Asset Management or user groups. Their results are mainly considered by Asset Management staff during the disposal process, such as disclosing vehicle issues when preparing a unit for auction, and determining whether it can be redeployed. Users sometimes request PMVs to help them decide whether to keep a vehicle in operation.

If done effectively, PMVs can supplement Fleet Services' lifecycle cost analysis

In the section above, we discussed how the lifecycle cost analysis should be supplemented with condition assessments when assessing vehicles and equipment for disposal. However, in order for PMVs to effectively support this process, the following issues need to be addressed:

Current PMVs provide limited value

PMVs performed for vehicles in their early life are not used by staff for any purpose. Furthermore, they are often performed concurrently with mandatory annual safety inspections which are more thorough and held to a higher standard, making the information provided redundant.

Therefore, PMVs performed in the earlier years of a vehicle's life span should be eliminated. Asset Management staff agreed that they should be performed about two years before the end of a vehicle's life span or on demand. **This will reduce the annual scheduled PMVs performed from 1,300 to about 500.**

Poor quality of PMVs

We reviewed 42 PMVs performed over ten vehicles – five light and five heavy, and found the following issues with the way they were completed:

- Completed standard PMV forms were not always attached to the work orders as required by Fleet's internal policy. **Only 26 assessment forms were attached.**

Various missing information and errors observed

Out of the 26 available forms:

- Eight were incomplete or contained errors;
- Eight did not have supervisor approval, which is required since the forms are used to help inform disposal decision making; and
- Only ten contained brief explanations on what was wrong with the vehicle. We also found two instances of conflicting assessments within the PMV form itself.

PMVs appear to be performed in a superficial manner and are not reliable for equipment disposal decision making. The result is a process that takes mechanic time away from performing maintenance, but does not always provide value.

The PMVs should be performed thoroughly and with care, with assessments starting from two years before the end of the expected life span. This includes improving the quality of documentation in the PMV forms. Asset Management staff will then be able to rely on these PMVs for replacement decision making.

Lack of communication between teams

The communication within Fleet Services between its teams needs to be improved. For example, in 2018, Maintenance staff revised the PMV form without consulting the Asset Management team, despite the fact that they were the main users of PMVs. On the other hand, the Asset Management team did not notify Maintenance when changing the vehicle replacement criteria, which may affect mechanics' assessments when performing PMVs.

Inefficiencies in current process

There appears to be duplication of effort in the current process. Mechanics often complete paper PMV forms which are then scanned and attached to the work order in the M5 system. At the same time, the foreperson is required by M5 to complete the electronic PMV form in order to close the work order. In addition to wasted effort, the information entered is not useful as management revisions made to improve the paper PMV form were not reflected on its M5 version.

Joint effort required between Asset Management and Maintenance

The Asset Management and Maintenance teams should improve their communication and inform each other of policy process changes, including those for PMVs. They should jointly redesign the PMV form to provide the right level of detail and determine the appropriate format to include PMV assessments in M5. Such format should lend itself to ease of downloading, summarizing, and analysis of a batch of PMV assessments by Asset Management staff.

Recommendation:

4. City Council request the General Manager, Fleet Services Division, to take steps to improve the consistency and reliability of its decision-making process for vehicles at or near the end of life, including:

a. Supplementing the lifecycle cost analysis with vehicle condition assessments (PMVs); and

b. Revising the PMV form, process, timing and frequency of vehicle condition assessments to better inform asset replacement decisions.

A.2.3 Formalize the process when declaring an asset beyond economic repair

Fleet Services can, with the user group's approval, decline to fix a unit

When a vehicle is facing a potentially costly repair, Fleet Services mechanics may assess that it is not worth the cost to fix it. They will then consult with the user group and, if agreed, decline the repair and instead deem the unit "**beyond economic repair**". Despite Fleet Services' recommendations, the user group, which funds the repairs, ultimately decides whether to proceed with the repair.

Lack of effective policy/procedures

There is currently no effective policy or procedure in place to guide the decision-making when declaring a vehicle as beyond economic repair. Maintenance staff have an inconsistent understanding of when to declare a vehicle as beyond economic repair. Some staff advised us that the concept applies to a whole unit only; others stated it can apply to a specific component of a vehicle being obsolete.

Matrix tool not used consistently

In May 2018, management developed a matrix tool to provide guidance when considering whether a unit is beyond economic repair. According to the matrix tool, factors to consider include:

- Cost to replace the unit
- Expected annual repair cost moving forward
- Age of the unit and maintenance cost spent to date
- Similar units under the same user group
- Any legislative requirements to keep the unit.

Criteria developed by management was not incorporated

Although this matrix tool represents an improvement, it has not been incorporated into Fleet Services' policies and procedures, and did not appear to be effectively communicated to Maintenance staff. **Out of our random sample of 20 units that had been declared as beyond economic repair, the matrix tool was used in only one instance.**

Decisions made too late

Because there is no standardized practice for declaring a vehicle as beyond economic repair, we observed that **some units were taken out of service too late and incurred costly maintenance.** We reviewed 526 units that were declared beyond economic repair between January 1, 2014 and June 30, 2019 (5.5 years) and found:

- By the time they were taken out of service, 246 units (47 per cent) had already incurred lifetime maintenance costs in excess of their original purchase cost;
- In 27 cases, the maintenance costs were more than double the original purchase cost; and
- 219 units had exceeded the expected age and usage recommended by Asset Management.

Fleet Services should develop a policy to formalize the process for declaring units beyond economic repair to aid in consistent decision making. The policy should include a sufficient level of documentation to support any decisions made.

Recommendation:

5. **City Council request the General Manager, Fleet Services Division, to develop a policy to formalize the process for declaring units beyond economic repair, including the threshold and the criteria to consider, and required level of documentation.**

A.2.4. Improving equipment redeployment process

Returned units can be redeployed instead of disposed

Vehicles that are no longer needed by user groups (because they are about to be replaced, were damaged in an accident, are surplus, etc.) are returned to Fleet Services Asset Management staff. In most cases these units are sold at auction, but they can also be redeployed to a different user group by request.

We identified the following areas of concern with Fleet Services' redeployment process:

- Fleet Services Asset Management staff did not adequately track users' redeployment requests and business cases submitted, resulting in incomplete redeployment records
- User groups often did not provide adequate justification for redeployment
- Vehicles were often redeployed for longer than 12 months, whereas the business case form states that redeployment is for 12 months or shorter, and
- Staff did not monitor redeployed vehicles and equipment, resulting in extended and costly redeployment of older vehicles.

Poorly maintained redeployment records

Redeployment log lacks key information

Based on Fleet Services' redeployment log, **we identified 450 known redeployments, however only 38 requests (8 per cent) were kept on file.** The time period for these 450 redeployments is unknown. The redeployment log lacks key information, such as the request date, redeployment details, and return date. Without accurate information, management cannot monitor redeployment durations and take timely action. Staff advised that they only record fulfilled redeployment requests in the tracking sheet. Requests in progress or declined requests were not logged.

Inadequate justification for redeployment

Out of the 38 redeployments with documentation available, we reviewed a random sample of ten and found only a brief explanation in six of them. The remaining four only contained a cost centre and the unit number to be redeployed.

Long periods of redeployment

Many user groups were redeploying vehicles for much longer than one year

Although currently not formalized through policies, Fleet Services' expectation is that redeployments should be made for no longer than one year, as specified in its vehicle rental business case template. However, we found that in practice many user groups were redeploying vehicles for much longer.

As of June 30, 2019, there were a total of 333 redeployed units, including both vehicles and off-road equipment such as trailers, attachments, and forklifts. 271 out of the 333 units (81 per cent) were redeployed for one year or longer, with 164 (49 per cent) redeployed for longer than three years. This is shown in **Table 3** below:

Table 3: Redeployed Assets as of June 30, 2019

Redeployment Duration	# of Vehicles	# of Equipment	Total # of Units	Percentage
Less than 1 year	32	30	62	19%
1 to 3 years	60	47	107	32%
3 to 5 years	17	34	51	15%
More than 5 years	33	80	113	34%
Total	142	191	333	100%

Costly extended redeployment

Redeploying vehicles that are still in working condition can be a valuable option to provide user groups with temporary support. However, **extended redeployment of aged vehicles can lead to high maintenance costs** and become a costly option for the City to fulfil its vehicle or equipment needs.

44 units had incurred lifetime maintenance costs in excess of their original cost

We analyzed maintenance records of the redeployed vehicles above and found that 44 of the 142 (31 per cent) had incurred lifetime maintenance costs in excess of their original purchase cost. **Total purchase costs for these 44 units was $3.3 million compared to their lifetime maintenance costs of $4.3 million.** We did not have sufficient data to assess the maintenance cost for the 191 off-road equipment units.

Management commented that they are aware of issues in this area and began a process in 2019 to recall old units manufactured in 2005 or earlier. Moving forward, improved record keeping, regular monitoring and review, and relevant cost comparison analysis, will help Fleet Services to better manage the redeployment function.

Recommendations:

6. **City Council request the General Manager, Fleet Services Division, to take steps to review and address the issue of extended redeployment. Steps to be taken should include, but not be limited to:**

   a. **Consistently tracking all relevant redeployment information;**

   b. **Reviewing business cases to ensure proper justification is provided for redeployments; and**

   c. **Regularly monitoring redeployed assets and removing them when it is no longer economical to keep them in service.**

7. **City Council request the City Manager to forward this report to Division Heads and request them to review their respective use of redeployment assets to ensure they are still operationally effective and economical.**

A.3. Stronger Fleet Inventory Management Required

A 2019 Fleet Services review showed 101 fleet units unaccounted for

In early 2019, Fleet Services initiated a comprehensive review of the City's fleet inventory. The review identified **101 units that user groups were unable to locate as of July 2019.** These units primarily belonged to the Parks, Forestry & Recreation, Toronto Water, and Transportation Services Divisions.

Total cost was $1.9 million

The majority of missing units were attachments or off-road equipment (trailers, lawn mowers, leaf boxes etc.). Some units, such as Zamboni machines and forklifts, can have a significant cost. The total original purchase cost of all 101 units was $1.9 million. Attempts to locate them were ongoing at the time of our fieldwork.

We followed up on these discrepancies and identified the following causes:

- **Lack of regular review** – prior to 2019 there were no regular efforts to comprehensively verify the inventory. Lengthy periods without review likely caused discrepancies to accumulate over time.

User groups do not always inform Fleet Services of changes

- **Inventory not updated consistently** – user groups are expected to notify Fleet Services of any pertinent changes as they occur (e.g. change in unit location, billing code, or operator). This has not been done consistently. In addition to the 101 missing units, information for 646 units needed to be updated as a result of the inventory review.

  Minutes from Fleet Client Advisory Committee meetings showed that Fleet Services has been reminding user groups to notify them of inventory changes as they occur. Greater cooperation and assistance is needed to keep the inventory up to date.

Process is unclear and not clearly understood

- **Process is unclear –** User groups were unclear on who to inform of their changes in inventory. Staff turnover at Fleet Services was cited as a source of confusion and loss of continuity.

  Three Fleet Services sections – Finance, Asset Management, and Maintenance – all make vehicle information updates at various times. Having a single point of ownership would allow for better inventory management, as well as improve compliance from user groups.

Majority of missing units were attachments or equipment

- **Stronger physical inventory management required** – the vast majority of missing units were attachments and/or off-road units. These units have a higher risk of loss due to their ease of relocation or reassignment. Fleet Services also provided examples of units that were found on division property after following up. Stronger physical inventory processes and guidance is needed for managing these types of units.

- **Insufficient document retention** – Key documents needed to support inventory decisions were required by policy, but often missing. For example, only four per cent of vehicles disposed of had a return form on file. Other disposal documents were stored haphazardly and often found in paper format only.

When inventory is not kept up to date, the risk of losing track of units increases. Other areas such as maintenance, planning, and billing accuracy are also affected.

The accuracy of inventory is expected to improve as Fleet Services completes its current review. However, stronger inventory management processes are needed to ensure that it remains consistently accurate and up to date moving forward.

Recommendation:

8. City Council request the General Manager, Fleet Services Division, to take steps to improve management of the City's fleet inventory, including:

   a. Perform inventory reviews on a regular basis moving forward;

   b. Revise the process to receive ongoing inventory information updates for greater efficiency, and ensure that user groups have a clear understanding of expectations and the process;

   c. Work with user groups to ensure that Fleet Services is notified of inventory changes as they occur;

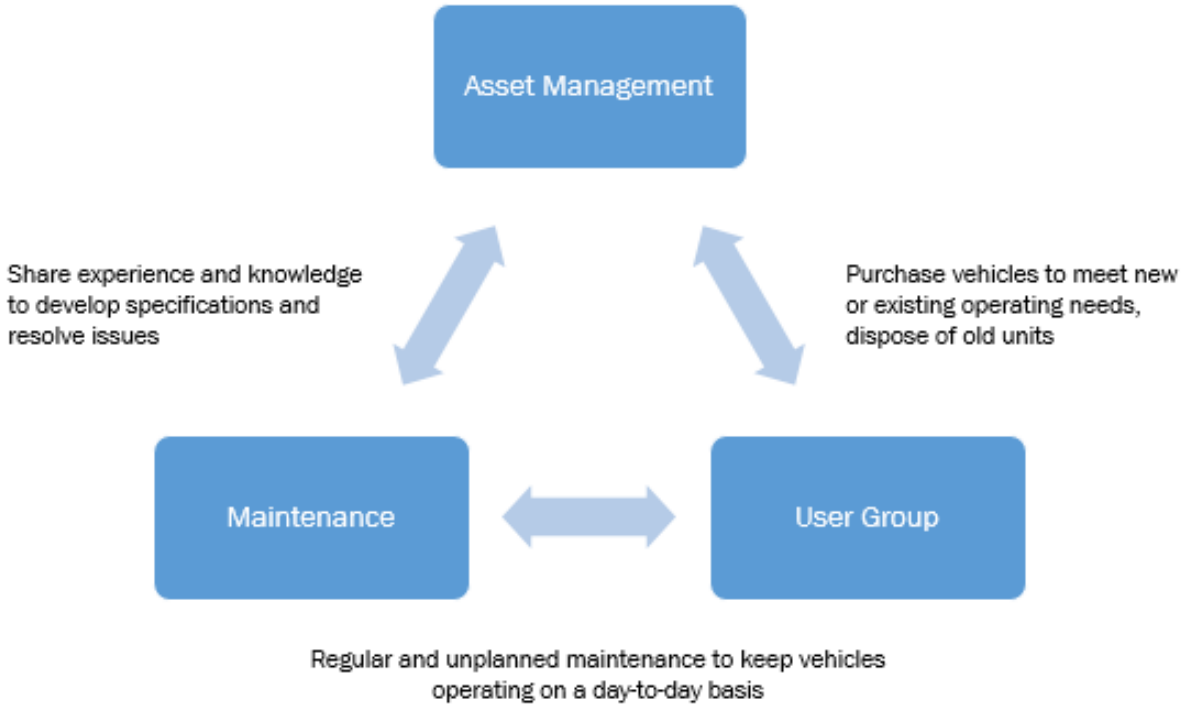
   d. Work with user groups to improve physical inventory management practices, particularly for attachments and other off-road equipment which may have a higher risk of loss; and

   e. Ensure appropriate document retention practices for vehicle returns and disposals.

A.4. Better Communication Needed Between Groups

In order to manage the City's fleet effectively, a close working relationship is needed between Fleet Services Asset Management and Maintenance staff, as well as the end user, shown below in **Figure 4**.

Figure 4: Relationship



Communication between groups was inconsistent

We observed that important information was not consistently communicated between these groups, causing some issues and challenges below:

- Operating needs were not communicated clearly from user groups to Asset Management during the procurement process. This led to instances of vehicles purchased that did not exactly match the user group's needs, causing subsequent modifications and extra costs.
- Each group held differing views in a variety of areas including the suitability of particular vehicle models, vehicle specifications, and expected life for capital planning purposes.
- Operating changes were not being communicated from the user groups back to Fleet Services, leading to an inaccurate inventory (discussed in Section A.3).

The Asset Management team possesses a wealth of engineering and procurement knowledge. Maintenance staff service the fleet regularly and should be familiar with their condition and general performance. Finally, the end user is in the most natural position to reflect on the unit's performance as it relates to their specific working environment. In order to provide effective service to its clients, Fleet Services should establish formal communication channels, such as regular meetings, to take all of these unique perspectives into account.

Recommendations:

9. **City Council request the General Manager, Fleet Services Division, to formalize communication channels between Fleet Maintenance and Fleet Asset Management, particularly relating to acquisition and disposal of fleet assets.**

10. **City Council request the City Manager, in consultation with the General Manager, Fleet Services Division, to establish formal communication channels to ensure that operating requirements of user groups both at the frontline and leadership level are clearly communicated to Fleet Services Division in a timely manner.**

B. Improving Rental Process Will Eliminate Unnecessary Rental Costs

In some cases it may be beneficial to rent vehicles instead of buying them. Two common examples are to meet seasonal operating needs, or to bridge a temporary gap due to vehicles retiring early.

Fleet Services manages rental contracts on behalf of the City

To obtain rental vehicles, user groups submit approved business cases to Fleet Services, which centrally manages rental contracts with external vendors on behalf of the City. However, **the decision of whether and how long to rent rests with each individual user group.**

As rentals are intended to help address short-term needs, approvals are only valid for up to one year. If the user group still requires the rental afterwards, they are required to submit another approved business case and the vehicle is then replaced with a newer one by the vendor.

Based on the audit work performed, vehicle rental processes can be improved in several areas to minimize unnecessary costs.

Improve rental pick-up and drop off logistics to eliminate delays and unnecessary costs

Prep work for rental units causes delay

After Fleet Services orders the vehicle(s) from the external rental vendor, rental units are first delivered to the Fleet Services main office. Fleet Services staff then perform a visual inspection, attach City of Toronto decals to the unit, input the unit information into their system, and notify the user group that the vehicle is ready for pick-up.

Average delay of seven days between vehicle delivery and pick-up

Based on data provided by Fleet Services, the City rented 450 units between April 2018 and mid-July 2019. However, due to incomplete documentation, we were only able to analyze 380 of the units. We found that for these rentals, there was an average delay of seven days between the vehicle delivery and pick-up at the time of rental. Table 4 below shows the breakdown:

Table 4: Delays between Vendor Delivery and User Pickup

Delay (days)	Number of Vehicles	Per cent of Total	Total delay (days)
0	9	2%	0
1	38	10%	38
2-4	131	35%	380
5-9	122	32%	836
10-14	46	12%	562
Over 14	34	9%	768
Total	**380**	**100%**	**2,584**

As vendors begin charging the City the moment they deliver the vehicle, the City is incurring unnecessary costs for these delays.

City incurred $79,000 per year in idling rental costs

In addition to delays in pickup, Fleet Services staff estimated a one day delay in returning vehicles back to the vendor. Based on an average rental cost of $30 per day, we estimate that **these delays cost the City a total of $106,000 during the period tested (16 months), or approximately $79,000 per year**.

With some process revisions, this cost can be minimized by allowing user groups to pick up rental vehicles directly from the vendor. For instance, vendor staff can affix the decals, inspect driving permits and perform visual inspections with the user at the time of pick-up. Fleet Services rental staff should still retain an oversight role, including monitoring the rental program, negotiating contracts, and booking the rentals.

Improving coordination of staffing coverage for rental function

Inadequate coordination of staffing coverage likely contributed to the pick-up delays discussed above. The Rental clerk, Licensing clerk, and Fuel clerk currently all report to one manager. When the rental clerk is absent, the two other clerks are unable to provide full coverage to the rental function.

Improving on the job responsibilities to allow all three clerks to cover each other will improve customer service, and help to minimize delays if any of them are absent.

Lack of monitoring of repeated rentals results in uneconomical decisions for the City

It may be cheaper to buy vehicles instead of renting year after year

Except for isolated instances, Fleet Services and user groups **do not perform any cost benefit analysis** to determine whether renting is more cost-effective than buying. As some vehicles are rented continuously year after year, the City may be incurring higher expenses than necessary to meet its operating needs.

We analyzed rental data and identified **27 occurrences since 2010 where it would have been cheaper for the City to purchase vehicles instead of renting them.** The rental period for these cases was between two to six years, with the average rental period being 3 years for these 27 rental occurrences.

The City has **foregone a total of $431,000 in savings, or about $45,000 per year,** by renting these vehicles instead of purchasing them. This is summarized by division below:

Table 5: Foregone Savings from Prolonged Rentals

Division	Number of times	Avg. years rented	Cost to rent (actual)	Cost to buy* (projected)	Difference
Parks, Forestry & Recreation	11	3.30	$410,000	$261,000	$149,000
Toronto Water	8	2.84	324,000	176,000	148,000
Transportation Services	3	2.93	92,000	37,000	55,000
Facilities Mgmt. & Real Estate	2	3.45	90,000	53,000	37,000
Other	3	2.57	74,000	32,000	42,000
Grand Total	**27**		**990,000**	**559,000**	**431,000**

* Purchase cost plus projected maintenance costs, prorated for rental period

If Fleet Services performed a cost benefit analysis on a regular basis and if divisions comply with the related recommendations, this would result in increased cost-effectiveness for the City as a whole.

Track and analyze rental vehicle usage

Vehicle utilization should be tracked

Our Phase One report identified a high number of City vehicles with low usage. It is likely that some of the rental vehicles are also not fully utilized. However, we were unable to verify this as unlike vehicles owned by the City, no usage information is being tracked.

Rental vendors should be able to provide telematics information on rental vehicles for an additional fee. This will allow the City to make more informed decisions and ensure that vehicles are only rented based on needs.

Recommendation:

11. City Council request the General Manager, Fleet Services Division, to revise rental vehicle processes with a view to minimizing unnecessary costs, including:

a. Streamline pick-up and drop-off logistics to minimize delays and unnecessary costs;

b. Explore opportunities to increase coverage of rental duties;

c. Analyze and monitor rentals regularly, including length of time rented, to ensure that rental decisions are economical to the City; and

d. Explore opportunities to identify and minimize low utilization rental vehicles.

C. Warranty Administration Needs Strengthening

Current report focuses on new vehicle warranty

There are generally two categories of warranties:

1. New vehicle warranty; and
2. Aftermarket parts warranty.

Aftermarket parts warranty was reviewed in our Phase One audit report. This report focuses on the new vehicle warranty.

Most City vehicles have manufacturer standard warranty coverage for two to three years

Most City vehicles and equipment have manufacturer standard warranty coverage for a limited period of time (typically two to three years) or mileage. This warranty coverage excludes maintenance items such as wiper blades, filters, and various fluids. Some components are covered for longer periods of time, for example powertrain parts, such as engines, transmissions, and drivetrain, generally come with a five year warranty.

C.1. Take Advantage of Free Roadside Assistance Program

Free roadside assistance should be used as a first resort

All of the City's light duty and some of its medium duty vehicles come with free roadside assistance of up to five years or 100,000 kilometres of use. We expected that free roadside assistance would be used as a first resort, unless there were valid reasons for using the City's contracted tow services instead.

We analyzed M5 data and observed that free roadside assistance was used only 30 per cent of the time when available. **This amounted to annual tow charges of $35,000.**

Staff provided the following main reasons why free roadside assistance was not being used:

- Warranty information on towing coverage was not entered in the M5 system and/or vehicle operators were unaware of available free roadside assistance;
- Staff had competing priorities to deal with instead of waiting for what could be lengthy phone delays; and
- When Automotive Service Advisors were away on vacation, backup staff may not have the knowledge of who to call.

By using the available roadside assistance at no extra charge, Fleet Services can maximize these cost savings.

We understand that free roadside assistance may not be practical in every situation. For instance, staff reported that some programs will only tow vehicles to the nearest dealers which the City may not have a service contract with. Furthermore, the waiting time may occasionally be so long that it outweighs the cost of a contracted tow service. However, Fleet Services should educate garage staff and users to **use free roadside assistance whenever it makes economical and practical sense**. This includes providing garage staff and users with contact information for available free roadside assistance and providing guidance on when to use the service versus contracted tow service.

Recommendation:

12. City Council request the General Manager, Fleet Services Division, to provide garage staff and vehicle operators with contact information of available free roadside assistance services and guidance on when to use this program.

C.2. Strengthen Warranty Administration and Oversight

Currently, Fleet Services Asset Management staff enter warranty terms for new vehicles in the M5 system. When a new work order is created, the M5 system uses these terms to automatically flag any repairs where warranty may be applicable. When the warranty terms are properly entered, this automatic flag helps to remind garage staff to consider and claim the warranty, if available.

Currently, there is only one person responsible for vehicle warranties for the City's nine garages and approximately 5,000 units. The main focus for this staff member is to follow up on work orders that garage staff have already identified and coded as warranty work orders, using a manual spreadsheet to track the warranty claims.

Fleet Services took advantage of $500,000 per year in warranty repairs

Based on information provided by Fleet Services warranty staff, the City took advantage of about half a million dollars per year in warranty repairs during the past three years. It is encouraging to see the opportunities realized by the City over this period, however we identified a need for improvement in the following areas of warranty administration as shown in **Figure 5:**

Figure 5: Improvements Needed for Warranty Administration

1. Lack of analytics and internal warranty performance target

No periodic reviews or targets to measure performance

Fleet Services does not conduct periodical reviews of the work order system to identify missed warranty opportunities. There are also **no warranty performance targets**, such as a warranty submission rate and warranty success rate, against which to measure and report the actual warranty performance.

Measuring actual performance against warranty performance targets will provide management with quantitative information to know how its warranty administration is performing and whether improvements need to be made.

Analytics can also help identify concerns with garage maintenance practices, driver usage issues, and vehicle latent defects (hidden vehicle design and build flaws).

2. Use the Warranty Claims Manager module in M5

The Warranty Claims Manager module in M5 has the ability to automate claims tracking from start to finish, including tracking the savings from each warranty claim. However, instead of using this module, Fleet Services staff manually track warranty claims with an off-line spreadsheet. Using the Warranty Claims Manager module would be a key improvement for Fleet Services' new vehicle warranty function.

3. No guidance on when to pursue warranties

There is no repair cost threshold to guide staff on whether to pursue warranty coverage. Repair costs can range from a few dollars to thousands of dollars. Small value claims may not be worthwhile to pursue at the expense of prolonged downtime. We interviewed multiple Maintenance staff and received different answers on what would be an appropriate threshold for the City. Fleet Services should establish a threshold to guide staff on when to send vehicles to external vendors for warranty repairs.

4. Insufficient job notes in pursuing warranty claim

Job notes should contain enough information for staff to pursue claims

Warranty repairs represent a cost to manufacturers. In order for Fleet Services warranty staff to effectively conduct analytics, file warranty claims, and resolve warranty disputes, garage staff need to have detailed job notes that document vehicle complaints, failure mode, repair details, and steps taken to fix the vehicles. In addition, job notes should also include the reasons of denied warranties, and the nature and causes of damage where applicable.

We selected a sample of 67 work orders costing $2,000 or more for detailed review. Out of the 67, 12 had insufficient job notes to determine why the warranty was not claimed, and another eight work orders involving damaged parts did not have details for us to determine who likely caused the damage or how. Wherever possible, garage staff should include pictures, email correspondence, the driver report, repair estimate, and invoices in their job notes for future reference. **Providing sufficient diagnostics and repair notes is crucial for staff to successfully pursue and obtain warranty claim coverage**.

Additionally, we found 16 cases where vehicle warranty information in M5 was either incomplete, missing, or inconsistent. Setting up correct and complete warranty information in M5 can help garage staff pursue warranty repair coverage.

5. Track and analyze reasons of denied warranty orders

M5 warranty tracking function is not being used

The M5 system has the ability to track warranty claim submissions, status changes, and success rates. However, staff do not use this functionality. Instead, **when a change occurs (e.g. a claim is denied), they manually change the work order from a warranty to non-warranty status.** This prevents Fleet Services from accurately monitoring the effectiveness of its warranty program.

At our request, staff began using this functionality in mid-June 2019. We observed that in the next three months, 90 per cent of work orders initially marked as warranty claims were changed to non-warranty work orders.

Reasons for denied claims were not accurately recorded

Furthermore, only one reason for denied warranty claims was recorded – operator negligence and vandalism. Other typical reasons for denied warranties within the fleet industry were not recorded, including:

- Not meeting manufacturer recommended maintenance intervals
- Poor quality of workmanship by internal and external garage staff
- Misdiagnosis.

6. Review the reporting structure for warranty administration

Warranty function should report to Asset Management

Warranty administration, including follow up on warranty claims, coordinating recalls, and identifying latent defects, is an integral part of the new vehicle acquisition function. Currently, the Warranty Administrator reports to Contract Management. For the warranty administration function to be effective, this function should report to the manager responsible for vehicle acquisition. Fleet Services should review and revise the current reporting structure to improve the effectiveness of the warranty function, and for the warranty experience to feed directly into acquisition decisions.

Possible missed warranty opportunities

Additional repairs identified which warranty was not claimed

We analyzed M5 work orders (greater than $150) from January 2011 to July 2019 for the manufacturer standard warranty coverage. We identified $2.6 million in repairs, or about $300,000 per year, occurring within the warranty period in which the warranty was not claimed. It is not possible to determine how much of this amount could have been successfully claimed due to deficiencies in the existing warranty function as discussed above, however it does demonstrate there is still room for increased potential savings.

Our analysis excluded the following items:

- Normal maintenance items that would not qualify for warranties, such as filters, wiper blades, and fluids;
- Repairs involving parts that frequently fail due to repetitive actions, such as garbage truck grip assembly, snow plow assembly, hydraulic lift mechanism, bin loading and tilting;
- Repair involving high-frequency action items such as re-torque and calibrate; and
- Repairs below $150 as the increased downtime may outweigh the potential cost savings.

There may also be additional foregone warranty opportunities for the longer warranty coverage on individual vehicle parts, such as power train parts, which were not included in our above analysis.

The analysis above highlights the need for Fleet Services to further improve its warranty administration processes, so that the City can maximize savings from warranty activities going forward.

Recommendations:

13. City Council request the General Manager, Fleet Services Division, to take steps to strengthen vehicle warranty administration. Such steps should include but not be limited to:

a. Ensuring all warranty information for vehicles, equipment, and related add-ons and attachments are entered into the M5 system in a timely manner;

b. Establishing a threshold to guide garage staff on when to pursue warranty claims, considering both downtime and repair costs; and

c. Ensuring work order notes contain sufficient details and evidence to allow staff to effectively pursue warranty claims.

14. **City Council request the General Manager, Fleet Services Division, to revise the warranty administration reporting structure to allow effective communication of warranty related issues to Asset Management.**

15. **City Council request the General Manager, Fleet Services Division, to utilize the Warranty Claims Manager module in the M5 system to automate the tracking and reporting of warranty claims.**

16. **City Council request the General Manager, Fleet Services Division, to track warranty work order statuses and periodically review work orders for missed warranty opportunities.**

17. **City Council request the General Manager, Fleet Services Division, to establish internal warranty claim submission and success rate targets, and to measure and report actual performance against these targets.**

C.3. Establish Service Contracts with Warranty Providers

Warranty providers do not always have service contracts with the City

Manufacturers hired through the tendering process for vehicle purchases generally provide warranty coverage for new City vehicles. Meanwhile, Fleet Services establishes maintenance contracts through a separate competitive process. The result is that **some vendors provide warranty services, yet do not have service contracts with the City.**

We observed instances where vehicles required services that were partially, but not fully, covered under warranty. **Maintenance staff were unable to pay warranty providers due to the lack of contract**, and had to either obtain a sole-source procurement or deliver the unit to a second vendor for the remaining work, likely resulting in higher costs and downtime.

It is generally the vehicle manufacturer who determines and authorizes its network of warranty providers. Fleet Services should explore options to establish service contracts with these providers, such as modifying its future procurement tenders to include a service component.

The Auditor General's Phase One report noted the need for additional external vendor capacity to support the fleet's service needs. Establishing contracts with warranty service providers at the time of procurement may help alleviate this issue, as well as ensure timely uninterrupted service for vehicles under warranty.

Recommendation:

18. City Council request the General Manager, Fleet Services Division, to take steps to establish service agreements with its warranty service providers at the time of procurement, to ensure timely and uninterrupted maintenance for vehicles requiring service above and beyond its warranty coverage.

D. Vehicle Neglect and Accidents

Not all operators handle their vehicles with care

Various Maintenance staff have commented that not all operators handle their vehicles with care. Repairs of such damages are coded as "negligence/vandalism" in the M5 system. Some examples noted during the audit include:

- Tires and sides scraping against the side of the road;
- Bent rims and damaged caliper due to driving with a flat tire;
- Extremely dirty interior and exterior causing damages to major vehicle parts. City policy requires operators to perform weekly cleaning, and in addition, certain divisions require cleaning prior to each shift; and
- Unit covered in salt in August 2019 when it came in for end of season maintenance. Salt accelerates the rusting of vehicle parts.

Some examples of repairs incurred as a result of a lack of due care are shown in Exhibit 1.

Repairs resulting from negligence are 85 per cent higher than other repairs

Garage staff advised that **repairs marked as negligence are not eligible for warranty coverage and can be more expensive to repair.** Driver negligence can damage parts that normally don't break down, and as a result, service providers don't always carry these parts in their inventory. This causes increased downtime.

We analyzed M5 data from January 1, 2018 to June 30, 2019 and observed that the average cost of repairs resulting from operator error and unreported accidents is $467 per repair, or 85 per cent higher than the $252 per repair for all other work orders.

Approximately $2.8 million of repair costs, representing 7.8 per cent of all repairs from January 2018 to June 30, 2019, were coded as "negligence/vandalism" (operator error or unreported accidents), and possibly avoidable, according to data from Fleet Services. If the City were able to reduce repairs caused by lack of operator care and vandalism by 10 per cent, the City could save $180,000 per year.

Fleet Services currently bills user groups for repair costs

We did not look further into these negligence work orders to verify whether they were indeed caused by operators. However, Fleet Services sends monthly negligence and accidents reports to user groups and specifically bills them for these repair costs coded as "negligence". If there is any disagreement between Fleet Services and user groups, we expect that the disagreement would be addressed in the process of accepting or denying the billings.

The City Manager should implement a process to effectively identify, report, and deter vehicle damages resulting from operating vehicles without care. This process should include a training component.

Recommendation:

19. City Council request the City Manager, in consultation with the General Manager, Fleet Services Division, to take steps to effectively identify, report, and deter damages caused from operating without care to avoid unnecessary costs to the City.

E. The City Needs to Strengthen Fleet Services' Central Oversight Role

Fleet Services' role is unclear

Divisional fleet practices may not always result in best value for the City

During the course of the audit we observed a number of areas in which the needs or preferences of user groups did not always align with obtaining the best overall value and cost-effectiveness for the City, including:

- How much money to spend on vehicles,
- Which vehicles to replace, what to buy, and when to buy them,
- When to redeploy vehicles and for how long, and
- When to rent vehicles and for how long.

Unclear what role Fleet Services should play

It was often unclear **whether Fleet Services was expected to take the overseer role or to simply assume the role of administrator on behalf of its user groups.**

For example, when purchasing vehicles, Fleet Services considers the submitted needs of the user group when developing tenders or selecting contracts. However, sometimes requests were made by user groups for specific makes and models of vehicles, with no justification to explain why this was required. In the end, Fleet Services accepted these requests.

Fleet Services should drive policies and decisions, and oversee user groups to ensure compliance

In our view, it is important that Fleet Services move from playing an administrator's role to driving policies and decisions and to overseeing user groups to ensure compliance. This role shift will ensure that the City's fleet is managed in the most economical and effective manner.

Issue is not new to the City

The Auditor General has advocated for centralized governance in other areas

The issue of oversight by centralized functions is not new to the City. The Auditor General has on various past occasions recommended establishing, or strengthening, central governance of City functions. These include:

- Cyber security
- IT asset management
- Employee training.

The City services many sectors, and its operations are wide-ranging. Maintaining strong central governance will provide consistency in its cost and risk management processes.

City needs to consider appropriate roles

Role, responsibility, and decision-making ability should be aligned

When asset management decisions are made by user groups without the benefit of a City-wide perspective, it may result in higher overall costs to the City. The City should consider **Fleet Services' appropriate role, responsibility, and authority in order to enable it to act effectively as overseer of the City's fleet assets.**

Operating conditions can occur that require user groups to appropriately deviate from standards. There should be an understanding of expectations from both sides, and a defined and agreed-upon resolution process when these situations occur.

Fleet Services, as with other internal corporate services, possess valuable experience and knowledge in their area of expertise. We believe that they have a responsibility to take leadership as stewards of the City's fleet, while ensuring user groups' operating needs are taken into account.

Recommendation:

20. **City Council request the City Manager to consider the appropriate role of Fleet Services in the management and oversight of the City's fleet assets, and provide the Fleet Services Division with authority to act accordingly.**

Conclusion

This report provides 20 recommendations to improve the City's management of its fleet assets. Improving procurement planning will help to ensure the continuity of fleet and reduce the risk of expensive repairs. Stronger end-of-life decision making will allow the City to make economical decisions to obtain maximum value from its fleet. Strengthening the rental and warranty administration processes will allow the City to reduce unnecessary costs and achieve additional savings.

The City's fleet is a key group of assets that enables staff to deliver vital services to the public. Effective management of fleet requires efforts not just from Fleet Services, but also the various user groups across the City.

Audit Objectives, Scope and Methodology

Audit was part of Auditor General's 2018 Work Plan

The Auditor General's 2018 Audit Work Plan included an operational review of the Fleet Services Division.

Audit Objective and Scope

The objective of the audit is to assess the effectiveness, efficiency, and economy of the Fleet Services Division's operations. The audit is performed in two phases:

- Phase One, presented to the Audit Committee on May 3, 2019, focused on vehicle maintenance and reducing downtime.
- The current Phase Two audit reviewed fleet asset management practices, including funding, acquisition, disposals, rentals, and new vehicle warranty.

This audit covered Fleet Services activities from 2016 to June 30, 2019, with financial data and vehicle history extending back for longer periods where needed.

Audit Methodology

Our audit methodology included the following:

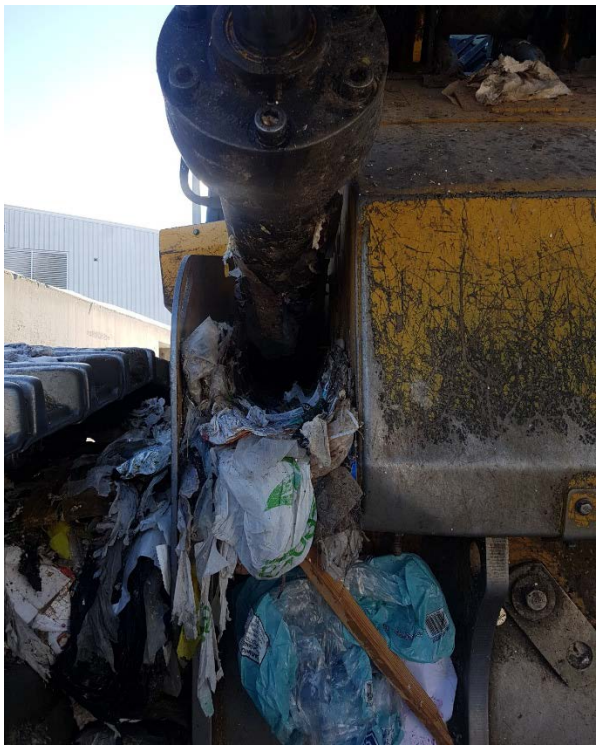
- Review of relevant City of Toronto and Fleet Services Division policies and procedures
- Review of tenders, contracts, invoices, and correspondence between the City and its contracted vendors
- Interviews with Fleet Services and operating staff
- Analysis of vehicle work order information on the M5 system
- Analysis of vehicle maintenance data and financial information
- Review of literature in the fleet management industry and other comparable municipalities
- Review of previous audits and recommendations

Compliance with generally accepted government auditing standards

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

Exhibit 1: Examples of Repairs Resulting from Lack of Care

Example 1



Both cylinders broke due to accumulated garbage as a result of not cleaning debris. Total cost to repair: $40,650.

Example 2

Damaged rim and caliper due to driving with flat tire. Total cost to repair: $435

Example 3

Unit covered in salt in August 2019 when it came in for end of season maintenance. Although the cleanup cost was nominal, prolonged salt exposure rusts and damages the components, greatly increasing the need for future repairs.

APPENDIX 1: Management's Response to the Auditor General's Report Entitled: "Fleet Services Operational Review, Phase Two – Stronger Asset Management Needed"

Recommendation 1: City Council request the General Manager, Fleet Services Division, to revise the timing for replacement vehicle purchases to take into account the time required to acquire complex and specialized units.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- Fleet Services will revise the procurement timing for vehicle purchases to take into account the time required to acquire complex and specialized units. (Q2 2021)

Recommendation 2: City Council request the City Manager, in consultation with the General Manager, Fleet Services Division, to take steps to assess and where needed, address the vehicle replacement backlog to prevent expensive repairs towards the end of a unit's life span.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- Starting in 2020 Fleet Services will take appropriate steps over a three year period to work with Financial Planning and Divisions to address vehicle replacement backlogs to prevent expensive repairs towards the end of assets' useful life. (Q3 2020 – Q1 2024)

Recommendation 3: City Council request the General Manager, Fleet Services Division, to assess the tendering needs for heavy duty units and where feasible, streamline the procurement process through the use of multi-year contracts.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- Fleet Services will continue to assess the tendering needs for assets and will expand the multi-year tendering practice for heavy duty units and other asset groups, where feasible. (Q2 2021)

Recommendation 4: City Council request the General Manager, Fleet Services Division, to take steps to improve the consistency and reliability of its decision-making process for vehicles at or near the end of life, including:

a. Supplementing the lifecycle cost analysis with vehicle condition assessments (PMVs); and

b. Revising the PMV form, process, timing and frequency of vehicle condition assessments to better inform asset replacement decisions.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- Fleet Services will take appropriate steps to ensure that an effective and consistent decision making process is in place to support asset replacement decisions and reduce costly maintenance for units at or near the end of life, including:

  a) Lifecycle cost analysis supplemented with vehicle condition assessment report (PMV).

  b) PMV form, process, timing and frequency will be revised to improve asset replacement decisions. (Q1 2021)

Recommendation 5: City Council request the General Manager, Fleet Services Division, to develop a policy to formalize the process for declaring units beyond economic repair, including the threshold and the criteria to consider, and required level of documentation.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- Fleet Services will develop a policy, including formalized procedures for defining units that are beyond economic repair, including the required level of documentation. (Q1 2021)

Recommendation 6: City Council request the General Manager, Fleet Services Division, to take steps to review and address the issue of extended redeployment. Steps to be taken should include, but not be limited to:

a. Consistently tracking all relevant redeployment information;

b. Reviewing business cases to ensure proper justification is provided for redeployments; and

c. Regularly monitoring redeployed assets and removing them when it is no longer economical to keep them in service.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- Fleet Services will take appropriate steps to address the issue of the extended redeployed units, including:

  a) Improve tracking and oversight of redeployment units.

  b) Review business cases and ensure that redeployments are approved only when it is economical and/or operationally viable.

  c) Regularly reviewing and tracking the condition of redeployment units, including taking them out of service when no longer safe or economical.
  (Q2 2021)

Recommendation 7: City Council request the City Manager to forward this report to Division Heads and request them to review their respective use of redeployment assets to ensure they are still operationally effective and economical.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- The General Manger, Fleet Services will coordinate with the City Manager to forward this report to Division Heads and request them to review their respective use of redeployed assets, including justification to ensure they are still operationally effective and economical. (Q2 2020)

Recommendation 8: City Council request the General Manager, Fleet Services Division, to take steps to improve management of the City's fleet inventory, including:

a. Perform inventory reviews on a regular basis moving forward;

b. Revise the process to receive ongoing inventory information updates for greater efficiency, and ensure that user groups have a clear understanding of expectations and the process;

c. Work with user groups to ensure that Fleet Services is notified of inventory changes as they occur;

d. Work with user groups to improve physical inventory management practices, particularly for attachments and other off-road equipment which may have a higher risk of loss; and

e. Ensure appropriate document retention practices for vehicle returns and disposals.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- Fleet Services will take appropriate steps to improve management of the City's fleet inventory, including:

a) Continue to perform annual fleet inventory review as a part of the annual budget and capital replacement program.

b) Review fleet asset inventory process to clearly define roles & responsibilities between fleet asset, maintenance, and the finance team and client divisions.

c) Establish a Fleet Services single point of contact to be notified of inventory changes as they occur.

d) Improve physical inventory management practices and guidance between Fleet Services and user groups.

e) Improve document retention practices for vehicle returns and disposals.
(Q3 2021)

Recommendation 9: City Council request the General Manager, Fleet Services Division, to formalize communication channels between Fleet Maintenance and Fleet Asset Management, particularly relating to acquisition and disposal of fleet assets.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- Fleet Services will establish formal communication channels to improve communication between Fleet Maintenance and Fleet Asset Management, particularly relating to acquisition and disposal of fleet assets. (Q2 2020)

Recommendation 10: City Council request the City Manager, in consultation with the General Manager, Fleet Services Division, to establish formal communication channels to ensure that operating requirements of user groups both at the frontline and leadership level are clearly communicated to Fleet Services Division in a timely manner.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- The General Manager, Fleet Services in consultation with the City Manager will establish formal communication channels to ensure that operating requirements of user groups both at the frontline and leadership level are clearly communicated to Fleet Services Division in a timely manner. (Q3 2020)

Recommendation 11: City Council request the General Manager, Fleet Services Division, to revise rental vehicle processes with a view to minimizing unnecessary costs, including:

a. Streamline pick-up and drop-off logistics to minimize delays and unnecessary costs;

b. Explore opportunities to increase coverage of rental duties;

c. Analyze and monitor rentals regularly, including length of time rented, to ensure that rental decisions are economical to the City; and

d. Explore opportunities to identify and minimize low utilization rental vehicles.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- Fleet Services will review and improve rental vehicle process to minimize unnecessary costs, including:

a) Review pick-up and drop-off process to minimize delays and unnecessary cost.

b) Review roles & responsibilities to increase coverage of rental duties.

c) Develop scheduled reports, analyze and track rental vehicle status and duration to ensure that rental decisions are economical.

d) Develop reporting on low utilized rental vehicles.
(Q2 2021)

Recommendation 12: City Council request the General Manager, Fleet Services Division, to provide garage staff and vehicle operators with contact information of available free roadside assistance services and guidance on when to use this program.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- Fleet Services will provide garage staff and vehicle operators with documented information and guidance pertaining to free roadside assistance services vs. contracted tow services. (Q3 2020)

Recommendation 13: City Council request the General Manager, Fleet Services Division, to take steps to strengthen vehicle warranty administration. Such steps should include but not be limited to:

a. Ensuring all warranty information for vehicles, equipment, and related add-ons and attachments are entered into the M5 system in a timely manner;

b. Establishing a threshold to guide garage staff on when to pursue warranty claims, considering both downtime and repair costs; and

c. Ensuring work order notes contain sufficient details and evidence to allow staff to effectively pursue warranty claims.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- Fleet Services will take appropriate steps to improve warranty administration and maximize warranty claims, including:

a) Address resource gaps through the 2021 budget to review, monitor and ensure that all the warranty information is entered into M5.

b) Provide training to maintenance staff on policies and procedures pertaining to warranty claims, considering both downtime and repair cost.

c) Improve work order job notes to support warranty claim coverage. (Q1 2022)

Recommendation 14: City Council request the General Manager, Fleet Services Division, to revise the warranty administration reporting structure to allow effective communication of warranty related issues to Asset Management.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- Fleet Services will revise the warranty administration reporting structure. (Q2 2020)

Recommendation 15: City Council request the General Manager, Fleet Services Division, to utilize the Warranty Claims Manager module in the M5 system to automate the tracking and reporting of warranty claims.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- Fleet Services will improve the usage of M5 Warranty Claims Manager to track warranty claim status, denials, duration and overall effectiveness of the warranty program. (Q1 2022)

Recommendation 16: City Council request the General Manager, Fleet Services Division, to track warranty work order statuses and periodically review work orders for missed warranty opportunities.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- Fleet Services will develop and implement scheduled reports to track work order warranty activities, including exceptions. (Q1 2022)

Recommendation 17: City Council request the General Manager, Fleet Services Division, to establish internal warranty claim submission and success rate targets, and to measure and report actual performance against these targets.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- Fleet Services will develop performance targets for warranty claims and measure warranty claims effectiveness against the industry leading practices. (Q1 2022)

Recommendation 18: City Council request the General Manager, Fleet Services Division, to take steps to establish service agreements with its warranty service providers at the time of procurement, to ensure timely and uninterrupted maintenance for vehicles requiring service above and beyond its warranty coverage.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- Fleet Services in consultation with PMMD will explore opportunities to establish maintenance service contracts with warranty service providers at time of new acquisitions and where feasible will align with existing contract renewals and/or new procurements. (Q2 2021)

Recommendation 19: City Council request the City Manager, in consultation with the General Manager, Fleet Services Division, to take steps to effectively identify, report, and deter damages caused from operating without care to avoid unnecessary costs to the City.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- The General Manager, Fleet Services in consultation with the City Manager will take steps to effectively identify, report, and deter damages caused from operating without care to avoid unnecessary costs to the City. (Q1 2020)

Recommendation 20: City Council request the City Manager to consider the appropriate role of Fleet Services in the management and oversight of the City's fleet assets, and provide the Fleet Services Division with authority to act accordingly.

Management Response: ☒ Agree ☐ Disagree
Comments/Action Plan/Time Frame:

- The General Manager, Fleet Services in consultation with the City Manager will determine the appropriate role of Fleet Services in the management and oversight of the City's fleet assets, including any required authority. (Q4 2020)

AUDITOR GENERAL TORONTO