CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

**Office of the City Auditor**

**Report to the City Council**
**City of San José**

# FLEET MAINTENANCE AND OPERATIONS: PUBLIC WORKS CAN CONTINUE TO IMPROVE FLEET OPERATIONS

**Report 20-02**
**August 2020**

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CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

**Office of the City Auditor**
***Joe Rois, City Auditor***

August 7, 2020

Honorable Mayor and Members
Of the City Council
200 East Santa Clara Street
San José, CA 95113

**Fleet Maintenance and Operations: Public Works Can Continue to Improve Fleet Operations**

Public Works' Fleet and Equipment Services Division (Fleet Division) manages procurement, disposition, and maintenance of the City's 2,800 vehicles and pieces of equipment. City departments use these assets to provide residents services such as public safety, wastewater management, and park maintenance, among others. The objective of this audit was to review the efficiency of operations and timeliness of repairs for the City's vehicles and equipment.

**Finding 1: Updating the City's Replacement Criteria Can Help Prioritize Fleet Replacements.** As of January 2020, the City had identified $9.6 million in vehicles and equipment requiring replacement. The City's current fleet replacement criteria have kept assets in service longer than may be cost beneficial and should be updated to help prioritize replacements. We found:

- 70 percent of staff time servicing non-public safety vehicles was spent on assets aged 9 years or older despite only 50 percent of these assets meeting that criteria.
- Current fleet replacement criteria are based on years of service and mileage but do not consider an asset's lifetime maintenance costs (i.e., life-cycle costs) and the resources needed to keep the asset in service.
- Accounting for life-cycle costs may help the City direct its limited funding to replacing those assets impacting resources the most.
- The Fleet Division found that in 2019, one in every four light vehicles, such as sedans and pickup trucks, were potentially underutilized. Regular utilization reviews

**RECOMMENDATIONS**

We made two recommendations to improve the City's fleet replacement approach. The Fleet Division should:

→ Update the vehicle replacement criteria by adjusting the age criteria, accounting for life-cycle costs, and incorporating the City's green fleet goals

→ Adjust minimum utilization standards for all fleet assets and require utilization reviews as part of the annual replacement process

can reduce fleet costs as underutilized assets can be used to expand the Citywide motor pool, or they can be sold, reducing the number of assets that the Fleet Division must service.

**Finding 2: Addressing Staffing and Preventive Maintenance Challenges Can Enhance Fleet Division's Performance.** Turnaround times for repair work orders increased between FY 2014-15 and FY 2018-19. Staffing challenges played a primary role in the increase. Improved compliance with preventive maintenance (PM) schedules may also be able to reduce the number of repair work orders. We found:

- Repair work order turnaround times increased from 3 to 5 days from FY 2014-15 to FY 2018-19 – a 67 percent increase.
- One of the primary reasons for delays was the availability of staff; 48 percent of delays were attributed to waiting on labor.
- The number of fleet assets increased by 5 percent between FY 2014-15 and FY 2018-19, but staffing remained relatively stable. The Fleet Division has also been impacted by vacancies.
- Currently, the Fleet Division makes use of retirees to address workload issues, as well as contractors for some specialty services.
- Although all assets should receive some form of PM annually, nearly one in every five of the City's vehicles and equipment did not receive PM service during FY 2018-19.

**RECOMMENDATIONS**

To reduce repair work order turnaround times, the Fleet Division should:

→ Develop a staffing strategy that could include further use of the rehire retirees program, or additional contracted services if appropriate

→ Enhance the preventive maintenance program through improved coordination with departments and establishing performance targets for preventive maintenance

**Finding 3: Fleet Division Has Instituted Multiple Process Improvements and Can Continue to Enhance Service Delivery.** The Fleet Division has implemented various process improvements to streamline and enhance performance. Additional process improvements can further enhance the Fleet Division's service delivery. We found:

- In recent years, the Fleet Division has deployed telematics (a vehicle tracking system) to remotely monitor fleet performance, created a virtual shop whiteboard to track work orders, and made other improvements.
- Departments generally spoke positively about the Fleet Division; however, communication about the completion of work orders and availability of assets were areas noted for improvement.
- The Fleet Division internally monitors fleet availability at an asset class level, but there is much variability within asset classes. For example, in FY 2018-19 heavy fleet vehicles were available 91 percent of the time in total, but street sweepers, which fall within this asset class, were available just 74 percent of the time.
- The Fleet Division can make additional improvements around monitoring for timeliness of work order turnarounds and ensuring the consistency of data collection and reporting.

**RECOMMENDATIONS**

We made several recommendations to enhance the Fleet Division's ongoing process improvement program and service delivery. The Division should:

→ Improve coordination with departments, including piloting an electronic work order intake system

→ Enhance its performance management system to incorporate more detailed analyses of fleet availability and work order timeliness

→ Create procedures to ensure more consistent data entry and reporting

**Finding 4: The City's Fleet Acquisition Process Can Be Streamlined.** All assets that are replaced or added go through a multi-phase process that requires the coordination of different City departments. Redundant steps add length to the process, and there are opportunities to streamline. We found:

- On average the fleet acquisition process can take over one year. In FY 2018-19, vehicles and equipment waiting to be replaced incurred nearly $300,000 in maintenance costs; over $260,000 of these costs were for repairs.
- The Fleet Division, working with the Budget Office and Finance, has taken steps to reduce the length of the approval process. However, a redundant step in the process for replacements funded by the City's Vehicle Maintenance and Operations Fund (Fund 552) can add extra time to the acquisition process.
- Streamlining the approval process could allow the Fleet Division to consolidate purchases and make better use of existing purchase orders.
- The Fleet Division can also improve how it tracks and charges time for build-out to ensure costs are properly charged to departments.

**RECOMMENDATIONS**

To improve the fleet acquisition process, the Fleet Division should:

→ Work with the Budget Office to remove a redundant approval process for replacements

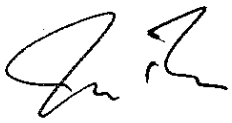
→ Create fleet acquisition guidelines for departments and post these instructions on the Fleet Division's intranet site

→ Develop and report on performance targets related to acquisitions

→ Track staff hours spent on the acquisition and build-out processes, and charge departments a separate labor rate for this work

This report has 13 recommendations. We plan to present this report at the August 18, 2020 meeting of the City Council. We would like to thank the Department of Public Works; the City Manager's Office; the Finance Department; the Department of Transportation; the Police Department; the Airport Department; the Department of Planning, Building and Code Enforcement; the Environmental Services Department; the Fire Department; and the Department of Parks, Recreation and Neighborhood Services for their time and insight during the audit process. The Administration has reviewed the information in this report, and their response is shown on the yellow pages.

Respectfully submitted,



Joe Rois
City Auditor

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**Appendix D**

# Table of Exhibits

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# Background

Public Works' Fleet and Equipment Services Division (Fleet Division) procures and maintains the vehicles and equipment used by the City for public safety, wastewater treatment, park maintenance, and other services. In total, the Fleet Division manages about 2,800 vehicles or pieces of equipment. Their FY 2020-21 operating budget totals $26.1 million and includes 70.6 full-time equivalent (FTE) employees.

The Fleet Division consists of three programs: Maintenance and Operations, Fleet Replacement, and Radio Communications. The scope of this audit included the Maintenance and Operations and Replacement programs, and Exhibit 1 summarizes the responsibilities of these two programs as well as their operating budgets and number of FTE employees for FY 2020-21.

**Exhibit 1: Fleet Division's Maintenance and Operations and Replacement Programs (FY 2020-21)**

| Program | Responsibilities | Operating Budget ($millions) | FTE |
|---|---|---|---|
| **Maintenance and Operations** | Providing maintenance, repairs, and statutory inspections[1] for City vehicles and equipment | $18.3 | 61.55 |
| **Fleet Replacement** | Managing the acquisition and disposal of all City vehicles and equipment | $5.8 | 0* |

Source: PW's Proposed Operating Budget for FY 2020-21 and Manager's Budget Addendum #33

* Two Equipment Specialists and two Communications Installers are responsible for the vehicle acquisition process including ordering, build-out, and asset disposal. These positions are budgeted through Maintenance and Operations.

### Fleet Division Supports a Wide-Range of City Assets and Departments

The Fleet Division maintains a variety of City assets, including code enforcement vehicles, fire apparatuses, police patrol vehicles, and even amusement park rides at Happy Hollow Park & Zoo. The variety of assets requires diverse skill sets among Fleet Division staff to service the City's fleet and equipment.

[1] Fleet must comply with various government regulations including environmental, safety, and performance standards. Ensuring compliance includes such activities as smog inspections, pump tests (fire apparatus), aerial inspections, and others.

*Asset Classes*

The Fleet Division categorizes vehicles and equipment into asset classes for reporting and performance measurement purposes. Exhibit 2 shows the Fleet Division's asset classes as of FY 2019-20 and example assets.

**Exhibit 2: Equipment Asset Classes and Examples**

| Asset Class | % of Active Fleet* | Example(s) |
|---|---|---|
| **Gen Fleet Light** | 42% | Vans, pickup trucks, sedans, SUVs |
| **Police Patrol** | 17% | Patrol motorcycles, sedans, SUVs |
| **Off Road Light** | 16% | Mowers, trailers, utility scooters |
| **Other** | 11% | Generators, dredges, amusement rides |
| **Gen Fleet Heavy** | 8% | Dump trucks, sewer trucks, shuttle buses, street sweepers |
| **Fire** | 4% | Fire engines, apparatuses |
| **Off Road Heavy** | 1% | Loader backhoes |

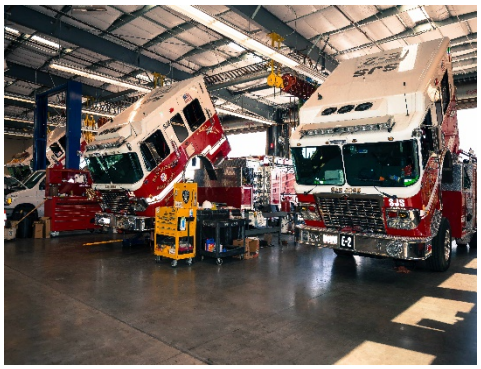
Source: Auditor analysis of Fleet Division equipment list

* Active fleet as of January 7, 2020. Percentages do not add to 100 because of rounding.

## Exhibit 3: Types of Assets Serviced

*Sedans*

*Fire apparatuses*



*Electric Airport bus shuttles*

*Street sweepers*


*Portable generators*

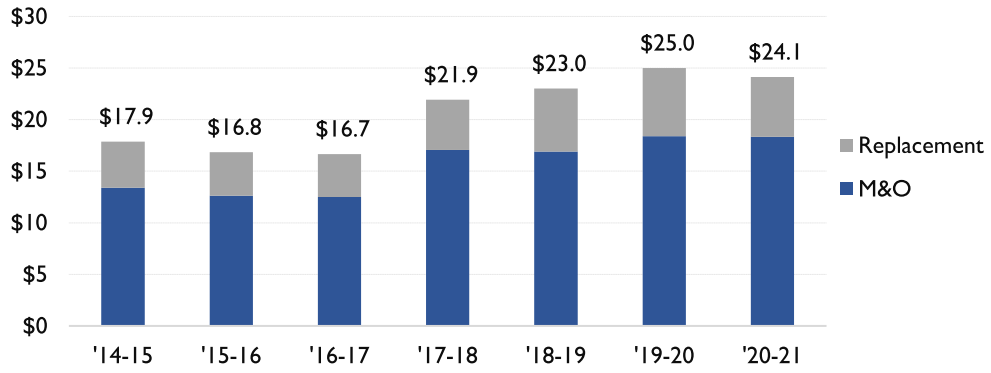
*Happy Hollow's Danny the Dragon*

Source: Public Works' Fleet Division and PRNS Happy Hollow Park & Zoo

**Fleet Division Operating Budget**

The FY 2020-21 operating budgets for the Maintenance and Operations (M&O) and Replacement programs total $24.1 million. Combined, these 2 programs represent 93 percent of the Fleet Division's FY 2020-21 operating budget.

**Exhibit 4: M&O and Replacement Operating Budgets Have Increased in Recent Fiscal Years ($millions)**




Source: Auditor analysis of Division's adopted operating budgets

The Fleet Division is primarily funded through departmental charges. City departments are charged for the fleet services performed on their behalf; around 80 percent of these charges are from the General Fund. City enterprise and special revenue funds (e.g., the Airport Maintenance and Operations Fund or Storm Sewer Operating Fund) provide the balance of the Division's funding.

*Budget Considerations Due to Spread of the Novel Coronavirus (COVID-19)*

The spread of COVID-19 and the associated measures enforced to slow its spread have impacted the City's budget. Effective March 17, the County of Santa Clara issued a shelter-in-place order, barring non-essential activities and businesses. Most of the U.S. has had some form of a shelter-in-place order in effect as well.

The City anticipates that the resumption of economic activity will be slow as restrictions on civilian and business activities are gradually removed. To address budget shortfalls in the General Fund, the Administration incorporated a mix of ongoing and one-time budget balancing measures for FY 2020-21. The Fleet Division's FY 2020-21 Adopted Operating Budget for the M&O and Replacement programs shows a 3 percent decrease from FY 2019-20 funding levels.

The Budget Office also anticipates impacts to the City's capital funds due to the COVID-19 emergency. For instance, the City projected a $22 million drop in funds from the Construction and Conveyance (C&C) Tax over five years. One of

the programs funded by C&C taxes is the Service Yards Program, which is a program that implements projects to maintain and improve the existing condition of the Service Yards. The Fleet Division operates facilities (which are discussed further in the Background) at these Service Yards.

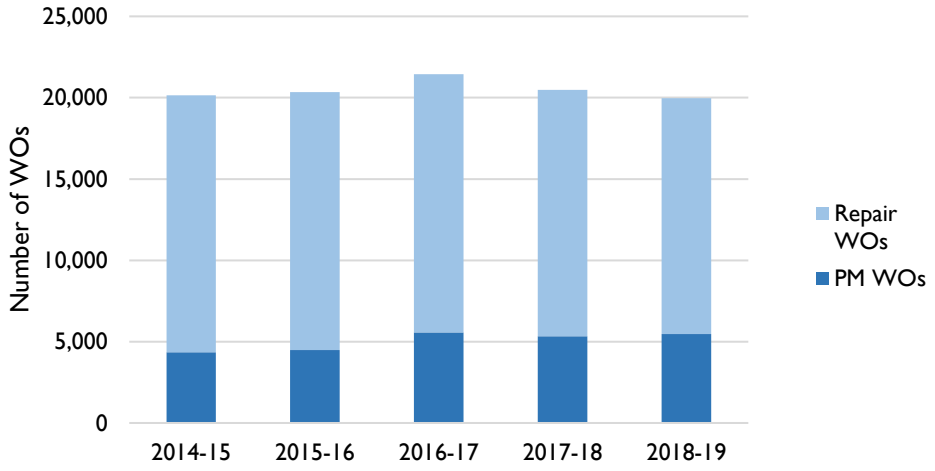
**The Fleet Division Completes on Average 20,500 Maintenance and Operation Work Orders Per Year**

The services performed by the Maintenance and Operation program are categorized as preventive maintenance (PM) or repairs.[2] PM consists of scheduled servicing, inspections, and repairs to help maximize fleet availability. Scheduling for PM is based on time, mileage, engine hours, or gallons of fuel used. Repairs are mostly unscheduled and cost more and take longer to complete than PM work. Most of the work performed by Maintenance and Operation staff are repairs.

The Fleet Division also performs "build-outs", where the Fleet Division modifies an acquired asset to align with City and department requirements before it is put in service. This work is coded as repairs in the Fleet Division's work order system; however, these work orders are identified through a particular job type ID in the system.

[2] Each can be further broken down based on the type of PM or repair service performed. For instance, preventive maintenance and statutory inspections are two types of services that would fall under the PM work order job type, and PM services can vary based on the type of PM required (e.g., safety check and lubrication, oil and filter change, multi-point inspection, brake check, etc.). Statutory inspections would be inspections such as smog tests and other activities regulated by state and federal agencies (e.g., Fire apparatus annual pump test).

**Exhibit 5: Number of Work Orders (WOs) Completed in FY 2014-15 to FY 2018-19**




Source: Auditor analysis of AssetWorks data

Note: Work order counts include those that were opened *and* finished within the respective fiscal year. In a given fiscal year, there are a small number of work orders that are opened in one fiscal year but completed in the next.

The Fleet Division prioritizes work orders based on department function and asset availability. Public safety vehicles and equipment are prioritized first. There are also rules guiding turnaround times for certain public safety fleet. For example, the Fleet Division reports a three-hour turnaround goal for Fire apparatuses. After public safety, work order prioritization is less formal. For example, if an asset needs service and there is no back-up asset to allow for the continuation of the staff member's job duties, the Fleet Division would prioritize that work order over another.

The Fleet Division operates and provides services at eight facilities throughout San José. Each facility supports a specific customer base and geographical area and may offer unique services. Appendix C provides a breakdown of the different facilities and Appendix D shows a map of their geographical distribution.

The Division uses Fleet Focus, a fleet enterprise asset management system from AssetWorks, to manage all fleet activities, such as tracking vehicle maintenance activities, scheduling, vehicle acquisitions, department billing, tracking fueling, and others. Fleet management provides reports to departments, such as billing, fleet utilization, and inventory reports, as well as other customized reports as requested.

### Greening the Fleet

Climate Smart San José, adopted by Council in 2018, details how the City aims to address climate change and reach targets of the International Paris Agreement. As part of its approach, Climate Smart San José calls for the electrification of the City

fleet to reduce greenhouse gas emissions. The Electric Mobility Roadmap provides strategic direction on how the City can make progress to achieve its Climate Smart San José electrification goals. The Roadmap provides direction on both the electrification of the City fleet and the infrastructure (e.g., electrical vehicle charging stations) necessary to support that electrification.

**Public Safety Power Shutdowns, Emergency Operations Center, and the FirstNet Program**

In addition to fleet responsibilities, the Division has a role in the City's emergency response and recovery operations during public safety power shutdowns. They are responsible for ensuring that critical City facilities have adequate power during an emergency to support the continuation of essential City services. These responsibilities consist of mobile maintenance, repair, and fueling services for significant emergency assets that require remote service.

Additionally, some Fleet Division staff members were activated as Disaster Service Workers to the City's Emergency Operations Center's (EOC) Logistics Team in March 2020 as a part of the City's response to COVID-19, which required the Division to channel staffing and resources away from operations over an expanded period.

From the public safety power shut downs that occurred in Fall 2019 to the City's response to COVID-19, the Division has had a role in the City's emergency responses.

Finally, the Fleet Division is also tasked with installing emergency equipment on around 800 vehicles through the City's FirstNet program. FirstNet is a nationwide wireless broadband network for first responders.

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# Finding 1 Updating the City's Replacement Criteria Can Help Prioritize Fleet Replacements


**Summary**

As of January 2020, the City had identified $9.6 million in vehicles and equipment requiring replacement. The City's current fleet replacement criteria are based on both the number of years an asset has been in service and its mileage. However, the criteria require both thresholds to be met and do not include an asset's lifetime costs (i.e., life-cycle costs) and the resources needed to keep the asset in service. As a result, assets with high maintenance costs are kept into service longer than may be cost beneficial. By incorporating life-cycle cost analyses to help prioritize replacements, the City may be able to better direct its limited funding on replacing those assets that impact maintenance resources the greatest. The City should also update its fleet replacement policy to align with the City's Climate Smart San José goals. As part of the annual replacement process, the Fleet Division should also review asset utilization. Underutilized assets, if not needed in the departments where they reside, can be used to replace assets identified for replacement, expand the Citywide motor pool available to all departments, or they can be sold, reducing the number of assets that the Fleet Division must service.


## The City's Fleet Replacement Backlog Requires the Fleet Division to Prioritize Replacements

As of January 2020, the City's fleet replacement backlog totaled $9.6 million, and represented around 8 percent of fleet assets. The backlog represents the estimated cost to replace the fleet assets that have met the City's replacement criteria. Most of the assets on the backlog are funded by the Vehicle Maintenance and Operations Fund (Fund 552) under the "Fleet Replacement" program.[3]

The backlog for Fund 552 replacements has increased as funding has not kept pace with the number of fleet assets needing replacement. On average, $2.5 million worth of fleet assets reach the City's replacement criteria annually; however, annual funding for replacements has been $1.5 million, leaving an ongoing shortfall of $1 million. Most of the assets on the backlog remain in service.

[3] Vehicles supporting Fund 552 activities have a backlog of approximately $6.4 million, with the remaining backlog of $3.2 million supported by special funds.

### The City Has Defined Criteria to Identify Vehicles for Replacement

The Fleet Division identifies and prioritizes vehicles and equipment for replacement in two ways:

- The asset has been removed from service by the Fleet Division (e.g., the asset needs significant and costly repairs), or
- The asset has reached the City's replacement criteria.

The City's replacement criteria are based on defined age and mileage thresholds. For example, the replacement criteria for a Gen Fleet Light Vehicle provides that vehicles can be replaced when they have at least 100,000 miles and have been in-service for at least 10 years.[4]

Assets removed from service receive the highest priority for replacement. Assets that have reached their replacement criteria are placed in a pool and prioritized through a point system that considers, among other items, the asset's reliability and use, maintenance and operation costs, and condition. Those that score highest in these assessments are prioritized over others. Before these factors are considered however, an asset must meet its replacement criteria.

### The City's Replacement Process Does Not Fully Account for Maintenance Costs

The replacement criteria (i.e., age and mileage thresholds) do not account for the full life-cycle costs of assets (i.e., the total cost spent on an asset over its lifetime, such as past and ongoing maintenance and operation costs). Life-cycle costs are only considered after the asset has met its replacement criteria. The effect of this is that the City may keep assets in service longer than it should.

For example, a current vehicle placed in service in October 2000 and with over 95,000 miles has had maintenance costs of more than $140,000 over its lifetime. The estimated cost to replace the vehicle is $41,000. In FY 2018-19, the vehicle accounted for 10 work orders requiring 79 hours of staff time and totaling $18,000 in maintenance costs. Despite these circumstances, the vehicle has not been identified for replacement because although it has met its years in service threshold, it has not met the mileage threshold (or otherwise been removed from service).

There were other vehicles with similar circumstances and there is potential for even more as there are 398 Gen Fleet Light Vehicles (or 1 in every 3 in the asset

[4] Additional and further threshold breakdowns based on the type of asset are as follows: marked patrol sedans - 6 years and 110,000 miles; unmarked sedans - 11 years and 110,000 miles; patrol motorcycles - 4.5 years and 60,000 miles; heavy trucks - 15 years and 100,000 miles; active cargo system (ACS) trucks - 7 years and 100,000 miles; off road light - 6 years and 2,500 hours; off road heavy - 15 years and 6,000 hours.

class) that have met the years in service threshold but not the mileage one. The average age of these vehicles is 16 years.

Other jurisdictions' fleet operations report they are using, or plan to use, life-cycle cost analysis to help make replacement decisions. The Government Accountability Office (GAO) noted in a 2013 report:

> *"Decisions about fleet investments should be informed by an analysis of the life-cycle costs of owning and operating a vehicle, such as acquisition, fuel, maintenance, and administrative costs. Such an analysis helps agencies make cost-effective decisions, including decisions about when to replace or dispose of an owned vehicle…"*

By expanding its use of life-cycle costs to help identify replacements, the City may be able to better direct its limited funding towards replacing those assets impacting fleet resources the most.

**The City's Replacement Criteria Should Be Re-Evaluated to Better Identify Vehicles with High Maintenance Costs**

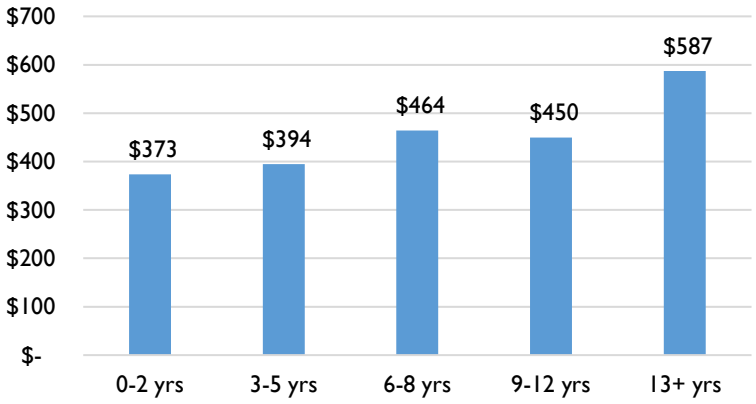
In general, older fleet assets are more expensive to maintain as service costs increase with age. It can also be more difficult to obtain replacement parts for older fleet assets, leading to delays in placing the asset back in service after a repair.[5]

The City's replacement criteria are stricter than those found for the federal government. For instance, the replacement criteria for the Federal General Services Administration (GSA) is 5 years or 60,000 miles for both gas-powered and electric vehicles. Having high thresholds can limit which vehicles are identified for prioritization. This can be exacerbated by requiring assets to meet both age and mileage thresholds before replacement. For example, there are many vehicles in the City's fleet that meet the age but not the mileage threshold because of the nature of their use.

Exhibit 6 shows that as non-public safety Gen Fleet Light Vehicles get older, repair costs increase. These vehicles also take up more staff time. In FY 2018-19, 71 percent of staff time dedicated to repairing non-public safety Gen Fleet Light Vehicles was spent on vehicles aged nine years or older. By contrast, just 50 percent of these vehicles are nine years or older.

[5] In FY 2018-19, one in every six work order that experienced a delay was due to waiting on parts. For these work orders, the average asset age was nine years.

**Exhibit 6: The Average Cost of Work Orders for Non-Public Safety Gen Fleet Light Increases as Assets Age**

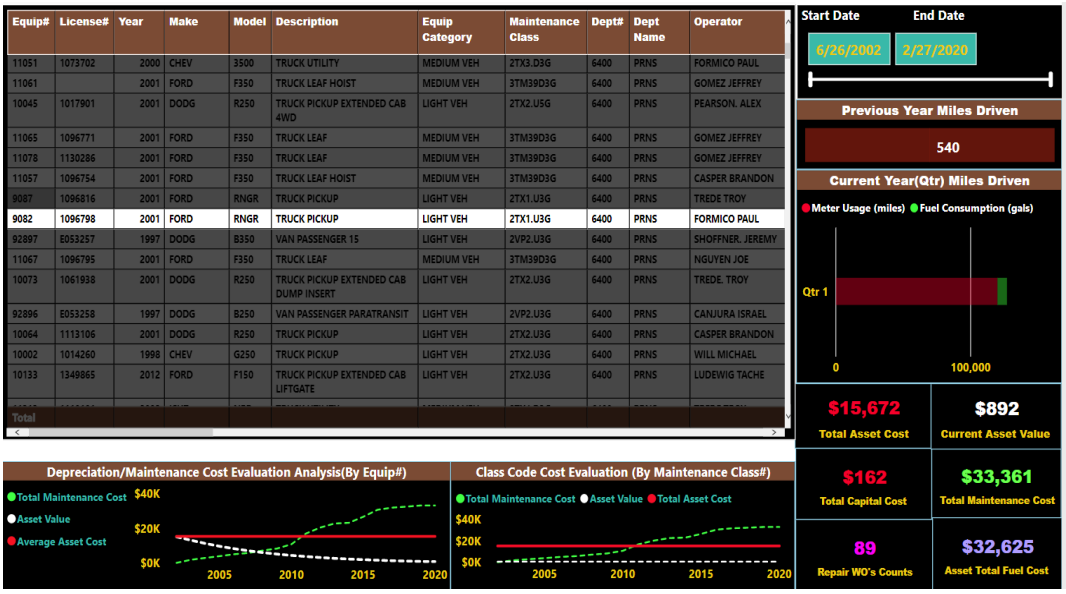



Source: Auditor Analysis of AssetWorks Data

## Fleet Division Has Developed Tools to Incorporate Life-Cycle Cost Analyses Into Their Decision Making

The Fleet Division has developed a Microsoft Power BI dashboard (see Exhibit 7) that reports on an asset's historical maintenance and fuel costs, as well as its current asset value. The information provided in the dashboard identifies the point in time when maintenance costs over an asset's lifetime exceed its current asset value. This point is the asset's breakeven point. Fleet reports that maintenance costs begin to increase at a higher rate after reaching this point due to increasing age and use, which generally result in more repairs. The data reported in the dashboard is pulled from AssetWorks.

**Exhibit 7: Fleet Divisions' Cost Evaluation Dashboard**




Source: Fleet Division's Life-Cycle Cost Dashboard

The Fleet Division can use this data to improve the City's fleet replacement process by identifying assets whose historical maintenance and other costs are approaching or have surpassed the asset's replacement cost, regardless of whether the asset has met its replacement criteria.

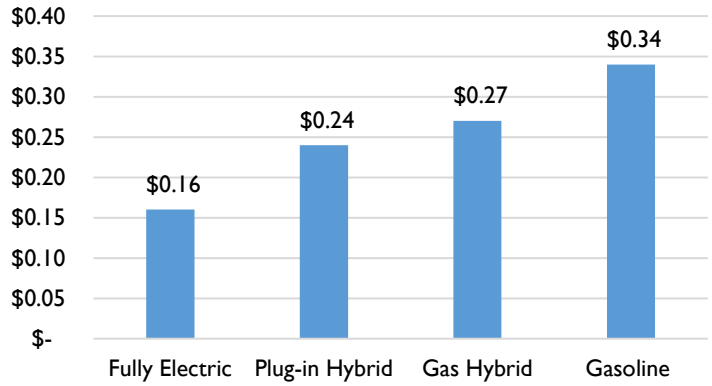
### The Fleet Division Is Performing a Life-Cycle Cost Analysis to Help the City Reach Its Climate Smart San José Goals

The Electric Mobility Roadmap represents the City's strategy to meet the Climate Smart San José goal of reducing the City's greenhouse gas emissions resulting from vehicles. In support of this strategy, the City Council directed the Fleet Division to perform a life-cycle cost analysis of replacing all non-electric fleet vehicles with electric vehicles within the next five years where technologically feasible.[6]

In addition, the current Green Fleet Policy, made effective in 2007, calls for the City to "… make every effort to purchase and use the lowest emission vehicle or equipment item possible, while taking into account the vehicle's life-cycle costs and the ability to support City operations and services."[7]

As described in a memo to Council regarding the Electric Mobility Roadmap, the Administration estimates that the cost per mile to operate and maintain a gasoline-powered City sedan ($0.34) is more than double the City's fully electric vehicles ($0.16) (see Exhibit 8).

**Exhibit 8: Fully Electric Vehicles Are Over 50% Cheaper to Operate and Maintain Than Gasoline-Powered Counterparts**




Source: Electric Mobility Roadmap Memo 11.25.2019

As noted previously, the Fleet Division prioritizes replacements through a point system that considers, among other items, an asset's reliability, maintenance costs,

[6] As of November 2019, 57 percent of the City's non-police sedans are plug-in electric or hybrid. However, as noted previously, the City's fleet is highly diverse and spans beyond sedans. Fleet has reported that it can be a challenge to find reliable green options for larger assets. Fire apparatuses are one such example.

[7] City Policy Manual 5.1.10 Green Fleet Policy, p. 2.

and condition. We recommend that the Fleet Division update its point system to include consideration for electric vehicle replacements, where technologically feasible.

**Recommendation #1: To help identify replacements, Public Works should update its replacement criteria in the Vehicle Replacement Policy to:**

**a) Incorporate life-cycle or other analyses of maintenance costs,**

**b) Update the age and mileage criteria as appropriate, and**

**c) Align with the City's electric mobility and green fleet goals, where technologically feasible.**

### Utilization Reviews Can Augment the Replacement Process by Identifying Underutilized Assets

The City's *Use of City and Personal Vehicle Policy* states that "[a]ll City transport vehicles should meet the following minimum utilization standards: 9,000 miles per year for sedans; 11,000 miles per year for light trucks."[8] During FY 2019-20, the Fleet Division conducted a utilization review to identify vehicles that may be underutilized. Preliminary results identified that 1 in 4 General Light Fleet Vehicles traveled less than 3,600 miles in 2019, far below the mileage noted in the City Administrative Policy.[9]

In addition, several of the vehicles prioritized for replacement in FY 2019-20 appeared on the Fleet Division's utilization review as potentially being underutilized based on annual mileage of less than 3,600. It may be that these vehicles are being used regularly but not traveling a large distance, explaining the low mileage traveled. Or it could be that these assets aren't being utilized because they aren't needed and funding for replacements could be allocated elsewhere.

According to the Fleet Division, the utilization review in FY 2019-20 was the first it had performed since 2003. As noted previously, the results of the review were preliminary, and Fleet has yet to incorporate this information into the City's acquisition process. Identifying underutilized vehicles could help the City reduce its replacement backlog. For example, the utilization review identified 79 potentially underutilized General Light Fleet vehicles that have been in service for less than 6 years; the replacement backlog currently has 162 General Light Fleet

[8] City Administrative Policy Manual 1.8.1 (https://www.sanjoseca.gov/home/showdocument?id=18017).

[9] The Administrative Policy provides utilization standards for "transport vehicles" whereas the review performed by the Fleet Division was based on the asset classes used to categorize vehicles and equipment (e.g., General Light Fleet Vehicles).

vehicles that are in service and waiting to be replaced. These vehicles have been in service for an average of 19 years.

Underutilized assets could also be used to expand the City's motor pool, which currently only has seven vehicles. Expanding the pool would increase the number of vehicles available to all City departments and may reduce the need for departments to acquire or lease vehicles.[10] Alternatively, underutilized assets no longer needed can be sold, reducing the number of fleet assets in service.

Long Beach reported that they perform utilization reviews annually as part of their acquisition process to help manage fleet levels by ensuring the replacement of only vehicles that are needed, reallocating vehicles based upon need, or disposing of vehicles no longer needed. We recommend that the Fleet Division, in coordination with City departments, perform utilization reviews to help manage fleet levels and inform replacement decisions.

**Recommendation #2: To help manage fleet asset levels and the allocation of fleet assets, Public Works should update the City Policy Manual 1.8.1 to:**

a) **Adjust or establish minimum utilization standards for all fleet assets,**

b) **Require annual utilization reviews to identify underutilized assets, and**

c) **Include procedures on coordinating utilization reviews with City departments and the use of underutilized assets, such as transferring underutilized assets to the Citywide motor pool, disposing them, or reallocating them as appropriate.**

[10] The Fleet Division also helps departments manage short-term vehicle leases by providing departments access to Citywide fueling stations for their leased vehicles.

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# Finding 2 Addressing Staffing and Preventive Maintenance Challenges Can Enhance Fleet Division's Performance


**Summary**

Between FY 2014-15 and FY 2018-19, the Fleet Division's average time to complete a repair work order increased from three to five calendar days. These delays can limit the availability of fleet assets for departments across the City. One of the primary reasons identified for work order delays was the availability of staff. The number of Fleet Division staff not keeping up with the growth in the size of the fleet is partly to explain for the delays. Despite budget challenges from the current COVID-19 crisis, we recommend that Public Works work with the Budget Office on a staffing strategy to improve repair work turnarounds. This could include further use of the rehire retirees program or overtime opportunities, or additional contractual services for individual repair types. In addition, improving preventive maintenance (PM) compliance can enhance the Fleet Division's performance by reducing unscheduled repairs. Nearly one in every five assets did not receive preventive maintenance in FY 2018-19. The Fleet Division should work with departments to confirm point of contacts for fleet assets are correct, establish internal PM targets, and implement a PM incentive program such as expanding fuel shut offs for noncompliant assets.


## Work Order Turnaround Times for Repairs Have Increased

Between FY 2014-15 and FY 2018-19, the Fleet Division completed on average about 20,500 work orders per year. In FY 2018-19, the Fleet Division completed about 20,000 work orders; nearly 14,500 of the work orders were for repairs (around 150 of these were build-out work orders), and about 5,500 were for preventive maintenance (PM).

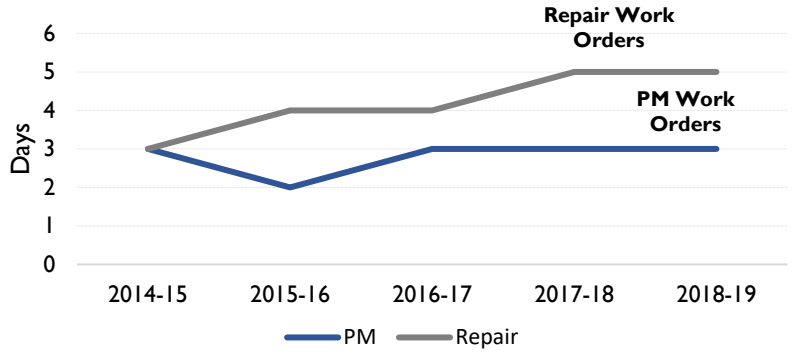
In FY 2018-19, the Fleet Division's overall average time to finish a work order was five calendar days, up from three calendar days in FY 2014-15.[11] This increase was driven entirely by an increase in repair work order turnaround times, which similarly increased from three to five days. In contrast, PM work orders stayed steady at three days (see Exhibit 9).

Departments reported how reduced availability to department fleet can limit their ability to complete City services effectively and efficiently. The length of time without an asset amounts to time that a department has to spread out its current

[11] The analysis excludes potential work orders completed by contractors. Data limitations prevent an accurate reporting of work orders completed by contractors. This resulted in the exclusion of around 9 percent of the work orders reviewed for each of the reported years.

fleet to perform City services. Some departments have a pool of assets they can utilize when faced with reduced fleet availability. However, one department reported they have had to double book vehicles over two or more shifts, which meant they were wearing down those vehicles faster.

**Exhibit 9: Repair Work Order Turnaround Times Have Increased**




Source: Auditor analysis of AssetWorks Data

### Waiting for Labor Is the Source of Nearly Half of Work Order Delays

Despite the increase in the number of days to complete a repair work order, the actual amount of time spent on work orders did not significantly change in recent years. In FY 2018-19, the average number of hours for the Fleet Division to finish a repair work order did not differ greatly from expectations based on historical data. However, although it only took staff members about three hours to work on a work order, it took them five days to finish the work. One of the primary reasons identified for repair work order delays has been the availability of staff. Nearly half (48 percent) of the delay in turnaround time was due to "waiting for labor."

Work that takes ***three hours*** to finish took ***five days*** to close.

### The Number of Assets Have Grown Relative to the Number of Staff

Part of the reason for the delays is that between FY 2014-15 and FY 2018-19, there was a 5 percent increase in the number of assets managed by the Fleet Division. Over that same time, however, staffing levels stayed relatively unchanged (see Exhibit 10).

**Exhibit 10: Number of Fleet Division Assets Increased by 5 Percent Between FY 2014-15 and FY 2018-19 but Staffing Remained Relatively Unchanged**

| Fiscal Year | Total # of Assets | Budgeted Full-Time Equivalents (FTEs) |
|---|---|---|
| 2014-15 | 2,652 | 54 |
| 2015-16 | 2,738 | 55 |
| 2016-17 | 2,750 | 55 |
| 2017-18 | 2,787 | 55 |
| 2018-19 | 2,782 | 55 |

Source: Auditor analysis of Fleet Management Annual Report FY 2014-15 to FY 2018-19 and internal Fleet Division Budgeted FTEs documents FY 2014-15 to FY 2018-19

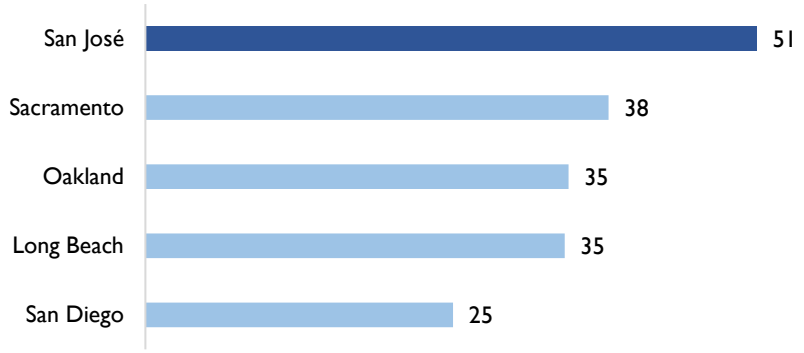
Note: Budgeted FTEs are only positions that directly work on assets, for example mechanics, equipment mechanics, or apprentice mechanics.

The Fleet Division's workload was also impacted by vacancies, in part due to retirements in recent years according to the Fleet Division.

### San José Has More Fleet Division Assets Per FTE Than Other Jurisdictions

Compared with other jurisdictions, the Fleet Division is also thinly staffed. Exhibit 11 shows that San José's maintenance and operations program had the highest asset to FTE ratio (51 assets per FTE) among benchmarked jurisdictions.

**Exhibit 11: San José's Asset to FTE Ratio is Higher than Other Jurisdictions' Estimated Ratios**




Source: Auditor analysis of Fleet Management Annual Report FY 2018-19, internal Fleet Division Budgeted FTEs document FY 2018-19, and interviews and budget documents for Long Beach, Oakland, Sacramento, and San Diego

### Staffing Challenges Are Expected to Persist

Currently, the Fleet Division makes use of the City's reemployment of retirees program (also referred to as the rehire retirees program) to support the Division. This program allows City departments to rehire retirees to address workload issues. These job assignments are meant to be temporary in nature, such as for special projects or seasonal short-term work to supplement the regular workforce. Fleet Division staff has reported that the rehire retirees program has been helpful with offsetting their staffing challenges. Additionally, these retiree staff members possess historical knowledge that the Fleet Division has found highly useful.

Other jurisdictions use contractual services to offset workload challenges. For instance, Oakland contracts out major vehicle outfits and Long Beach contracts out unit disposals. Currently, the Fleet Division uses contractual services mainly for specialty services that are not performed in-house, such as metal fabrication, machining, collision repair, painting, towing, upholstery, and glass installation.

As described in the Background, the impacts of the COVID-19 emergency may significantly affect the City's budget outlook in the future. This may impact Public Works' ability to address the Fleet Division's staffing challenges. However, we recommend that the Fleet Division look at all options to address these challenges, in coordination with the Budget Office. Staffing considerations should be reviewed in the context of overall budget priorities and desired performance levels of the Division.

**Recommendation #3: In the context of overall budget priorities, Public Works should work with the Budget Office to develop short- and long-term staffing strategies to achieve desired performance results, that may include:**

a) **Further use of the rehire retirees program,**

b) **Use of contractual services for additional repair types or asset classes, and/or**

c) **Additional overtime opportunities for current staff.**

## Preventive Maintenance Compliance Varies Across Departments

Preventive maintenance (PM) consists of scheduled servicing, inspections, and repairs to help maximize fleet availability. Scheduled services include such things as oil changes, air filter changes, brake checks, multi-point inspections, and more. According to the National Association of Fleet Administrators (NAFA), PM increases the reliability of assets and helps to minimize the number of unscheduled repairs or emergency maintenance actions.

### Preventive Maintenance Compliance Has Improved, But Nearly One in Every Five Assets Did Not Receive Preventive Maintenance in FY 2018-19

One way to measure PM performance is to compare the number of PMs to repair work orders. Analyses performed by Moss Adams for the City of Santa Monica and by Management Partners for the City of Stockton reported an industry standard ratio that ranges around 55 to 70 percent for PM to between 30 to 45 percent repairs. In recent years, the Fleet Division has improved in increasing PM work orders relative to repairs; PMs as a percentage of overall work orders increased from 22 percent in FY 2014-15 to 27 percent in 2018-19.

However, we estimate that 18 percent of the City's vehicles and equipment did not receive some form of PM service during FY 2018-19.[12] It is even higher for non-Police vehicles and equipment.

**Exhibit 12: Preventive Maintenance Participation Varied Across Departments in FY 2018-19**

| Department | # of Assets without PM Work Order | Total # of Assets | % of Assets without PM Work Order |
|---|---|---|---|
| Airport | 40 | 166 | 24% |
| DOT | 69 | 461 | 15% |
| ESD | 81 | 320 | 25% |
| Fire | 64 | 244 | 26% |
| PBCE | 12 | 128 | 9% |
| Police | 73 | 822 | 9% |
| PRNS | 111 | 391 | 28% |
| Public Works | 44 | 232 | 19% |
| Remaining Departments | 6 | 22 | 26% |
| Total | 499 | 2,785 | 18% |

Source: Auditor analysis of AssetWorks Data and Fleet Management Annual Reports FY 2017-18 and FY 2018-19

Note: "Total # of Assets" is an average of the asset counts in the Fleet Management Annual Reports FY 2017-18 and FY 2018-19. This measure does not represent PM compliance given that different assets may have different PM schedules, and that assets should typically come in for PM service at least once a year by a certain date. Due to rounding, percentages and asset counts may not add up.

### Not All Departments Receive Monthly PM Schedules From Fleet Division

The Fleet Division creates monthly PM schedules that provide details on what assets are due for PM. Some departments reported receiving this monthly schedule from the Fleet Division, others did not. Additionally, the schedule may have been

[12] Out of these assets, 49 did not receive PM in FY 2017-18, which means these assets did not receive PM for two fiscal years. The repair costs for these 49 assets over the two fiscal years totaled almost $92,700.

sent, but not with enough notice to allow the department time to plan for the service impacts on department fleet availability. For example, one department reported that they received the schedule in the middle of the month for vehicles due for PM that month, leaving them with only two weeks to schedule which vehicles should go in for service and coordinate alternate vehicles for staff.

In addition, the Fleet Division may not be contacting the correct staff person when doing its PM notification outreach, since the operator information in AssetWorks may be out-of-date. For instance, there are retirees still listed as the operator in AssetWorks for some assets.

Long Beach, Sacramento, and San Diego use automated PM notifications to notify customers every month of upcoming PM service. The Fleet Division is working to automate PM notifications that should address some of the issues identified by departments.

**Other Jurisdictions Monitor PM Compliance on A Citywide Basis**

Other cities in California also establish performance targets and monitor PM compliance. Long Beach and San Diego target to have 95 percent of preventive maintenance completed on time, which San Diego reported is a value based on National Association of Fleet Administrators (NAFA) standards. San José currently does not appear to monitor PM compliance Citywide nor does it appear to have an internal target.[13]

To address PM non-compliance among departments, Sacramento shuts off fuel access for assets delinquent on their PM schedule. The Fleet Division similarly shuts off fuel access for PM non-compliance, but mainly for assets that could experience severe damages from being excessively late for PM.

**Recommendation #4: To improve Citywide preventive maintenance (PM) compliance, Public Works' Fleet Division should:**

**a) Work with departments to confirm point of contacts for PM notifications and complete implementation of the automated PM notifications,**

**b) Establish a Citywide PM compliance target, as well as internal PM compliance targets for departments/asset classes, and**

**c) Implement a PM compliance incentive program, that could include expansion of the fuel shut-off program for noncompliant assets that meet criteria identified by the Fleet Division, or including departmental PM compliance performance into the fleet replacement prioritization process.**

[13] During the audit and in response to our audit request, the Fleet Division reported that 85 percent of assets were compliant with their PM schedule, a point-in-time value as of January 30, 2020.

# Finding 3 Fleet Division Has Instituted Multiple Process Improvements and Can Continue to Enhance Service Delivery

**Summary**

The Fleet Division has instituted various process improvements to streamline and enhance performance, including deploying telematics to remotely monitor fleet performance, a virtual shop whiteboard to better track work orders, and others. Additional improvements can further enhance the Fleet Division's service delivery, such as improving communication and coordination with departments and piloting an electronic work order intake system. Moreover, improved performance management could help identify additional areas for improvement. For example, the Fleet Division can develop internal performance measures to monitor availability of specific department assets and work order timeliness. Finally, to reduce data entry errors and improve reporting, the Fleet Division should create procedures around data entry, work order classifications, and reporting guidelines.

## Fleet Division Has Incorporated Various Process Improvements to Enhance and Streamline Performance

The Fleet Division has instituted various process improvements in recent years to expand its capabilities and streamline processes. Below are a few of the Fleet Division's completed process improvements:

- Deployed vehicle telematics (a vehicle tracking system) across most of the City's fleet,
- Created a virtual shop whiteboard to monitor real-time open work orders and staff distribution,
- Developed a Microsoft Power BI life-cycle cost analysis tool (see Finding 1),
- Expanded electric vehicle (EV) fleet and charging infrastructure, and
- Automated the Police Patrol dispatch system.

### Fleet Division Uses Telematics Vehicle Tracking System to Enhance Fleet Monitoring

As noted above, telematics is a vehicle tracking system. It is integrated into the on-board computers of fleet assets and provides the Fleet Division the capability to remotely monitor fleet assets through performance areas such as idling, braking, speeding, and acceleration. Benefits of telematics also include bypassing smog checks through California's Continuous Testing Smog Program, advanced

mechanical issue alerts, and vehicle theft tracking. The Fleet Division reports that telematics is installed in about 2,000 fleet assets.

The City has a three-year contract with Verizon that provides the telematics service. Under the contract, Verizon covers the costs of telematics, but once the agreement ends in December 2022 the City will have the choice to continue or turn off telematics. If the City chooses to continue the service, the Fleet Division reports that the City will need to cover the telematics costs, which according to Public Works will cost $600,000 annually.

## Opportunities to Improve Customer Coordination and Communication

City departments generally spoke positively about the Fleet Division's customer service. They highlighted that Fleet Division staff is knowledgeable, flexible, and hardworking. They also noted the value of the Fleet Division's process improvements and initiatives, such as the Fleet Management Apprenticeship Mechanic Program and the telematics program noted earlier.

However, there were some areas that City departments felt could be improved, such as communication about the completion of work orders and general coordination with the Fleet Division. Each day a work order is open translates into a day a department does not have access to that asset. Departments noted that Fleet Division staff does not consistently relay what work was completed on a work order, or the estimated completion time. Departments also reported that they do not always receive a notification for when a vehicle will be unavailable because of maintenance service.

A lack of communication and coordination can interfere with departments' ability to plan and perform their responsibilities in a timely manner. For instance, customers have reported going to their vehicle lot space only to find that their vehicle is gone and learning later that the Fleet Division had taken it for service. One customer mentioned that this has meant staff may miss scheduled appointments for that day as the department tries to find a loaner vehicle and contact the Fleet Division to track the whereabouts of the vehicle.

The automated PM notifications noted in Finding 2 can help in this area, but we recommend additional improvements in how the Fleet Division can communicate with departments.

**Recommendation #5: To improve communication with other City departments, Public Works' Fleet Division should develop and implement procedures for communicating:**

**a) Asset unavailability and expected turnaround times for when assets are taken in for service,**

**b) Updates for when there are delays because of staffing or the need to order parts, and**

**c) The work that was completed in a work order.**

### Work Order Intake Is a Paper-Driven Process

The work order process broadly consists of the following three steps:

(1) The customer fills out and submits a paper work order form in-person at a Fleet Division facility.

(2) A Fleet Division mechanic inputs the work order information into AssetWorks.

(3) When the Fleet Division has finished working on the asset and it is available for use, the Fleet Division then notifies department staff by phone, e-mail, radio, or other notification means depending on the facility.

As a manual process, the Fleet Division's paper-based work order intake process increases the chances for work orders to get lost, departments to duplicate work orders, and customers to make writing errors. The intake process is also repetitive, since Fleet Division mechanics are re-entering information that customers already wrote down.

The Fleet Division reported that they currently have the capability in AssetWorks for an electronic work order intake process but providing and coordinating this service to customers could be a challenge given current resources.

**Recommendation #6: Public Works' Fleet Division should pilot an electronic work order intake process using AssetWorks to increase efficiency and remove duplication of efforts.**

## Improved Performance Management Could Help Identify Additional Areas for Improvement

The Fleet Division reports on performance measures and workload highlights in the City's Adopted Operating Budget, including the total number of work orders, percent of alternatively fueled vehicles, cost per mile or hours by asset class, and more. Additionally, the Fleet Division annually reports to the City Council on the Fleet Division's performance in its Fleet Management Annual Report.

Internally, the Fleet Division also has created a virtual whiteboard that tracks staff workload and open work orders. Furthermore, AssetWorks has wide-ranging monitoring and reporting capabilities that Fleet uses to produce customized reports that can help managers identify areas for improvement.

### Monitoring of Fleet Availability Could Be More Targeted

The Fleet Division could internally monitor fleet availability with more granularity to highlight availability challenges for department assets. Currently, the Fleet Division internally monitors fleet availability by asset class. However, there is much variability within the asset classes. For instance, although overall assets in the Gen Fleet Heavy category were available 91 percent of the time during FY 2018-19, Department of Transportation's street sweepers were available just 74 percent and sewer trucks 79 percent of the time.

Without this level of breakdown, the Fleet Division may not easily understand the challenges departments face with the downtime of individual assets. Additionally, this type of information could be helpful for further measurement of the Fleet Division's performance, decisions on staff allocation, and prioritization of asset replacements and adds.

**Recommendation #7: To enhance performance monitoring and inform resource allocation decisions, Public Works' Fleet Division should develop internal performance measures and reports to monitor availability of specific assets at the department level.**

### Reporting on Work Order Timeliness Can Improve Accountability and Transparency

The Fleet Division's currently reported performance measures do not specifically address work order timeliness. According to the National Association of Fleet Administrators (NAFA), "[f]requent evaluation of repair times is essential in monitoring the productivity of a maintenance operation."[14] In addition, an article published in *Government Fleet*, an industry publication, identified timeliness of service as an area that fleets should include in their performance measures, and reported that percentage of repair orders completed within 24 hours is a commonly used measure.

Other jurisdictions, such as Long Beach, Oakland, Sacramento, and San Diego measure work order timeliness. Exhibit 13 shows jurisdictions' performance measures relating to timeliness and how San José compares.

[14] National Association of Fleet Administrators, "Preventive Maintenance & Warranty Operations," *NAFA's Fleet Maintenance Operations Guide*, p. 18.

**Exhibit 13: Other Jurisdictions Have Performance Measures on Work Order Timeliness**

| Jurisdiction | Reported Timeliness Performance Measures |
|---|---|
| **San José** | • None |
| **Long Beach** | • Complete 95% of preventive maintenance on time<br>• Complete 70% of repair WOs within 24 hours |
| **Oakland** | • Complete 90% of preventive maintenance on time<br>• Complete 70% of scheduled and unscheduled WOs for equipment within 48-240 hours (timeframe depends on type of equipment and whether or not WO was scheduled) |
| **Sacramento** | • Percent of total work completed within 96 hours on average |
| **San Diego** | • Complete 95% of scheduled preventive maintenance on time |

Source: Auditor analysis of benchmarking documents and interviews, Fleet Division interviews, Fleet Division's Adopted Operating Budget Report, and Fleet Division's Performance Summary Dashboard

**Recommendation #8: To enhance accountability and transparency, Public Works' Fleet Division should develop and report on performance measures on work order timeliness.**

### Fleet Division Can Improve Data Collection and Documentation of AssetWorks Processes

Measuring performance relies on consistent data collection and reporting. During our analysis, we noted some data issues, including:

- Incorrectly labeled work orders,
- Work orders with finish dates preceding work order open dates, and
- Inconsistencies in how work orders for contracted services are entered.

Currently, there is little or no documentation around how staff should classify or enter work orders in AssetWorks. As noted in Finding 2, there is also outdated operator data in AssetWorks. The Fleet Division uses this information to communicate with customers regarding fleet assets, such as notifications on upcoming PM services.

Additionally, one employee handles pulling reports for maintenance operations, utilization, and other such analyses. Pulling these reports requires specialized knowledge to know which fields to select in AssetWorks and the Fleet Division's Access database. Procedures around pulling these reports are not documented, nor does it appear that there are backup capabilities in the case of staff turnover.

**Recommendation #9: To support consistent data entry and reporting, Public Works' Fleet Division should create procedures around:**

a) **Classification of repair reason IDs in AssetWorks,**

b) **Data entry of work orders and contracted services work orders, and**

c) **Pulling reports on active assets, preventive maintenance compliance, vehicle utilization, work orders, and/or others as necessary.**

# Finding 4 The City's Fleet Acquisition Process Can Be Streamlined


**Summary**

On average it has taken the City more than one year to purchase and put in service a new fleet asset. In FY 2018-19, assets waiting to be replaced cost the City nearly $300,000 in maintenance and repairs. The initial approval and ordering phases of acquisitions can take about half the time. The Fleet Division, along with the Budget Office and Finance, has taken steps to streamline approvals and ordering. However, the process can be further streamlined by removing a redundant step in the approval process that could allow the Fleet Division to consolidate purchases and make better use of existing purchase orders. Additionally, the Fleet Division should evaluate how acquisition staff is budgeted. Currently, acquisition staff is budgeted under maintenance and operations and their hours are included in the total maintenance labor rate charged to departments for individual work orders. The Fleet Division should track hours spent on acquisitions and build-out, and charge a separate labor rate accordingly for this work.


## The Fleet Acquisition Process Requires the Coordination of Multiple Departments

All assets (vehicles and equipment) that are replaced or added go through a multi-phase process that requires the coordination of different City departments, including Public Works (Fleet Division), the Budget Office, the Finance Department, and the department that will use the asset.

There are several ways an asset can be removed, replaced, or added to the City's fleet.

1. The Fleet Division determines it needs replacement based on the City's replacement criteria (see Finding 1),
2. A mechanic determines the asset should be removed or replaced,[15] or
3. A department requests a replacement or addition.

In all three instances, a department submits a Vehicle and Equipment Request Form (VRF) that specifies the type of request being made, the program or operation supported by the asset, and other accompanying data. The Fleet Division and the Budget Office evaluate the asset requests to determine whether they are appropriate and necessary. Departments can also include asset data provided by

[15] This may occur when a vehicle is brought in for service, or if a department requests a mechanical evaluation.

the Fleet Division, such as utilization data and maintenance and operation costs to justify their request.

*Funding for Vehicle Acquisitions*

The Vehicle Maintenance and Operations Fund (Fund 552) under the "Fleet Replacement" program accounts for the replacement costs of most City vehicles and equipment. The budget for Fund 552 is approved annually through the budget process.

Departments can also use Special Funds or Capital Funds to replace or add an asset, with the approval of the Fleet Division and the Budget Office.

**There Are Multiple Phases in the Vehicle Acquisition Process**

Listed below are the different phases of the fleet acquisition process for fleet replacements or additions.

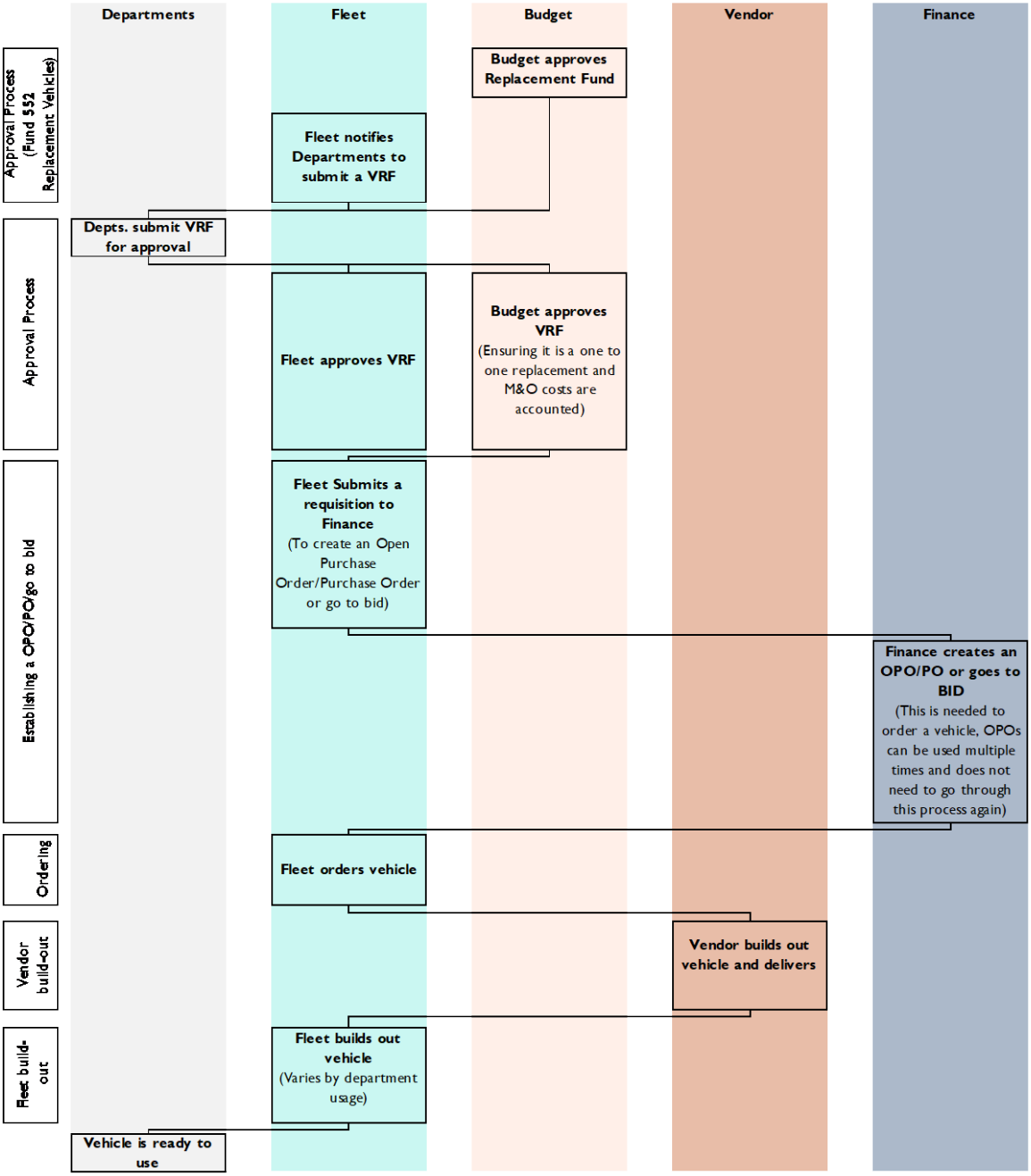
- **Phase 1 (First Approval for Fleet Replacements (Fund 552) – Annual Budget Process):** During this phase, funding for replacements is approved by the Budget Office. This phase is only for replacement vehicles that are budgeted out of the Vehicle Maintenance and Operations Fund (Fund 552) and occurs during the annual budget process.
- **Phase 2 (Second Approval – VRF Approval Process):** Next is the VRF approval process for all assets requesting to be replaced or added. Departments submit a VRF to the Fleet Division for review and approval (this may initially be requested by the Fleet Division if they originally identified the asset in Phase 1). After the review, the Fleet Division then submits the VRF to the Budget Office for approval.
- **Phase 3 (Establishing an Open Purchasing Order or Purchase Order / Going to Bid):** Once the VRF is approved by the Budget Office, the Fleet Division submits a requisition with specifications to the Finance Department's Purchasing Division. The Fleet Division works with the customer department to define and write the specifications, which are reviewed by Purchasing. The specification process can require several revisions. Finance then creates an open purchase order, a purchase order, or goes to bid.

  If the asset identified to be ordered fits the terms (specifications) outlined in an existing open purchase order (OPO), the Fleet Division can skip phase 3 and use the existing OPO to order in phase 4.
- **Phase 4 (Ordering)**: During this phase, the Fleet Division uses open purchase orders/purchase orders to order the asset.
- **Phase 5 (Vendor Build-out):** Once ordered, the vendor builds-out the asset to meet the City's specifications and delivers it to the Fleet Division.

- **Phase 6 (Fleet Build-out):** In the last phase, the Fleet Division completes the final build-out based on more specific City or department requirements (e.g., applying a City logo, installing radio communication equipment, mounting safety equipment). Once completed, the asset is ready for department use.

Exhibit 14 shows the break-down of the process and stakeholders involved.

**Exhibit 14: Multiple Departments Are Involved in the Fleet Acquisition Process**




Source: Auditor analysis of VRF documents, purchasing documents, and interviews with the Fleet Division, Budget Office, and Finance Department

## The Fleet Acquisition Process Takes on Average More Than One Year

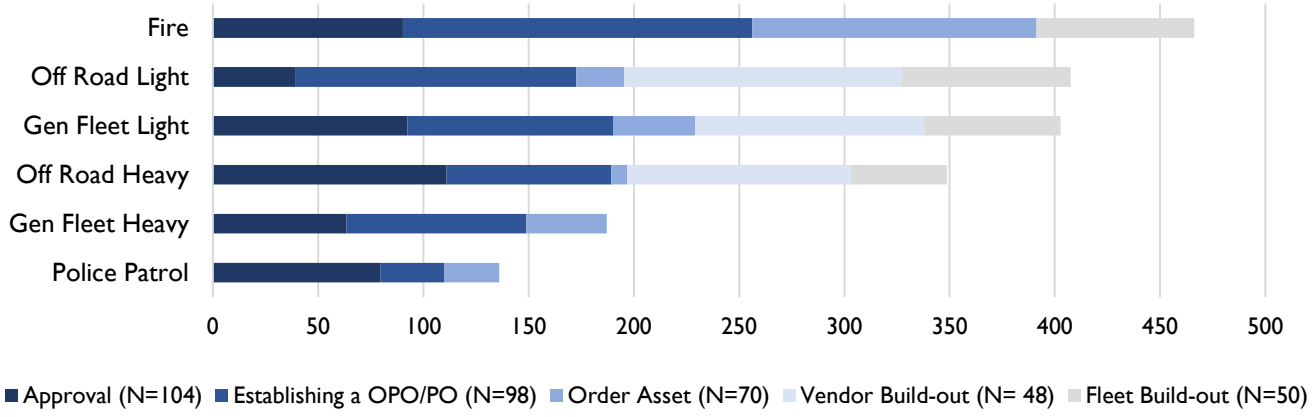
Once a VRF is submitted for an asset replacement or addition, the process to replace it can take on average more than one year. While departments wait for their vehicles and equipment to be replaced, the assets continue to be in use and incur costs for repairs. During FY 2018-19, vehicles and equipment waiting to be replaced incurred over $297,000 in maintenance costs (89 percent were repair costs - $264,820).

Some departments noted having assets retired before its replacement arrives, which can create a service delivery challenge if the department has few backup assets. This may occur if the Fleet Division determines that an asset is inoperable and pulls it out of service based on the results of a mechanical evaluation.

### Each Phase of the Acquisition Process Can Add a Significant Amount of Time

The average length of the acquisition process varies depending on the asset class. Some assets, such as Fire apparatuses are expected to have a lengthy process due to customization and lengthy build-outs (vendors for these apparatuses are contracted to complete build-out within one year). Exhibit 15 shows a break-down of the average number of days to acquire a vehicle by process by asset class for FY 2018-19.

**Exhibit 15: Fleet Acquisition Process Length by Asset Class in Days, FY 2018-19**




Source: Auditor analysis of the Fleet Division's VRF tracking worksheet and AssetWorks data

Note: There were no fleet build-out values for Gen Fleet Heavy and Police Patrol assets as they were still with the vendor at the point of analysis. The asset class populations for phases differ widely due to availability of complete data.

### Redundant Approval Process for Some Fleet Replacement Vehicles Can Create Delays

As indicated earlier, fleet replacement requests go through two approval processes. The first is during the City's annual budget process to approve funding for replacements within the City's Vehicle Maintenance and Operations Fund (Fund 552) and the second is through the VRF approval process.

The second approval process appears redundant for some vehicles as the Fleet Division has already identified vehicles for replacement and funds have been approved during the budget process. To streamline the approval process, the Fleet Division should provide the Budget Office with information identifying specific vehicle replacements during the budget process when approving funding for the City's Vehicle Maintenance and Operations Fund, and remove the secondary approval process.

This secondary approval process would still be required for adds or replacements not being funded out of the Vehicle Maintenance and Operations Fund. This would allow the Fleet Division and the Budget Office to assess the request in the context of overall fleet data (e.g., utilization or other data), as well as associated maintenance and operations costs of adding the asset.

### Ordering an Asset Requires Using an Open Purchase Order or Establishing a Purchase Order

The Fleet Division coordinates with the Finance Department to create open purchase orders or individual purchase orders for fleet acquisitions.

- Open purchase orders (OPO): Purchase orders are "open" in that they are set for a certain amount and can be repeatedly used for specified purchases until it expires. Once an OPO is established by Finance, Finance does not have to be involved again until its expiration.
- Purchase orders (PO): POs are for one-time use with the items to purchase noted on the PO. For every PO that is used, Finance must be involved to establish it. Using a PO rather than an established OPO can add months to the ordering process.

Finance will often leverage a state cooperative or an existing contract from another jurisdiction to create the OPO or PO.[16] Once established, the Fleet Division orders the new asset under the OPO or PO.

[16] If the existing contract does not fit the needs of the City's vehicle request, Finance will go out to bid. Once this competitive process is complete, a purchase order will be created.

*Many Purchases Are Made Through Multiple POs, Adding Time to the Ordering Process*

The City has had to use duplicate "one-off" POs with the same vendor to make purchases that could have been made under existing POs/OPOs, if appropriately planned and ordered timely. For example, if vehicles are ordered late in the fiscal year, this could prevent the use of existing POs/OPOs before they expire. This would require Finance to create "one-off" POs for these assets, and a delay in the ordering of those assets.

*Removing Duplication in Approving Replacement Vehicles Will Also Improve the Ordering Process*

The Fleet Division, the Budget Office, and Finance/Purchasing have made some improvements to streamline the process and reduce acquisition times, including establishing VRF submission deadlines. Below is an example of the deadlines established for FY 2019-20.

- June 24th – General Fund replacement VRFs submitted to Fleet Division
- July 1st – Fleet Division submits the VRFs to the Budget Office
- August 1st – The Budget Office responds to Fleet Division
- September 9th – All other non-General Fund vehicle replacement or fleet add VRFs for FY 2019-20 submitted to Fleet Division
- October 1st – Fleet Division submits these VRFs to the Budget Office
- November 1st – Budget Office responds to Fleet Division

Finance/Purchasing has also established cut-off dates for ordering vehicles that has helped in establishing OPOs early on.

However, even with these deadlines for VRF submissions and vehicle ordering, there is still the possibility for late submissions or "special case" circumstances that could result in usage of a "one-off" PO. With the removal of the redundant VRF approval process for Fund 552 replacements, it would enable the Fleet Division to establish OPOs early in the fiscal year and order vehicles as early as July (Finance/Purchasing staff resources permitted) after assets have been identified for replacement and budget is approved.

Other jurisdictions such as Sacramento have a similar process of identifying replacement vehicles early and ordering vehicles within one or two weeks after their operating budget has been approved.

**Recommendation #10: To streamline the fleet replacement process, Public Works' Fleet Division should work with the Budget Office during the annual budget process by:**

a) **Providing the Budget Office with information to approve replacements funded by the Vehicle Maintenance and Operations Fund (Fund 552), such as assets identified for replacement, new replacement assets, or other information as determined by the Budget Office, and**

b) **Removing the secondary Vehicle and Equipment Request Form approval process for Vehicle Maintenance and Operations Fund (Fund 552) replacements so that the Fleet Division can start the ordering process as soon as the Adopted Operating Budget is approved.**

### Departmental Guidelines for Acquiring Assets Can Be More Accessible

Currently, guidelines surrounding the acquisition process, including VRF requirements and deadlines, are maintained internally and shared amongst the Fleet Division, the Budget Office, and the Finance Department. The Fleet Division has an intranet site that includes information about the Division, but instructions and deadlines for the fleet acquisition process are not posted there.

One department reported that it missed the new VRF submission deadlines established by the Fleet Division for FY 2019-20 because they were unaware of the deadlines and the acquisition process in general. Departments that are unfamiliar with the acquisition process or who to contact for help may see delays in their ability to acquire assets.

**Recommendation #11: Public Works' Fleet Division should create fleet acquisition guidelines for departments, including updated instructions for vehicle and equipment requests and deadlines. These should be posted on the Fleet Division's intranet site and include contact information for departments to have their questions answered.**

### Fleet Division Should Report Annually on Measures Related to Fleet Acquisition

Other jurisdictions such as Long Beach report on key performance targets related to fleet acquisitions, such as the timeliness of acquisitions, actual expenses against budgeted expenses, as well as units placed on order. The Fleet Division should similarly track performance and report on them in its Fleet Management Annual Report, such as actual expenses against budgeted funds as well as fleet acquisition

timeliness, which assets were replaced, and new assets purchased to ensure assets were replaced accordingly.

**Recommendation #12: Public Work's Fleet Division should develop performance targets related to the timeliness of fleet asset purchases and actual costs of acquisitions against budgeted funds. Performance against those targets should be reported in the department's Fleet Management Annual Report.**

## Fleet Division Staff Members Oversee Vehicle Acquisitions in Addition to Maintenance and Operation Responsibilities

Four Fleet Division staff members are involved in the acquisition process including two Equipment Specialists and two Communications Installer positions. Their responsibilities generally include:

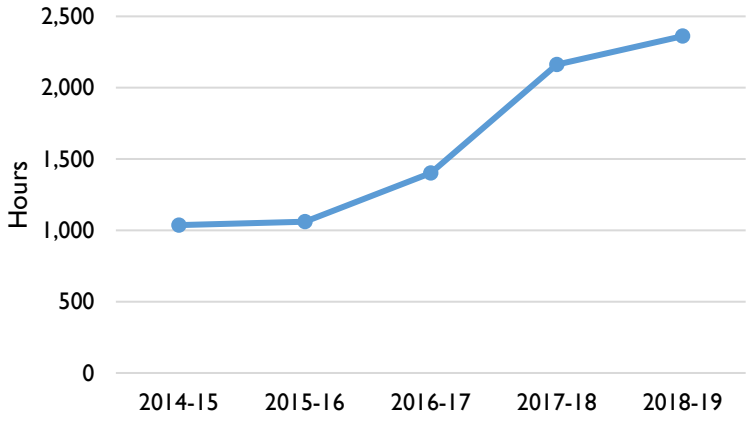
- Coordinating with multiple departments,
- Finalizing specifications,[17]
- Ordering the vehicle,
- Building out the vehicle based on the department needs (e.g., Public Safety vehicles need the appropriate lights, sirens, and radio communication),
- Installing telematics,
- Registering the vehicle with California Department of Motor Vehicles, and
- Removing/auctioning old vehicles.

### Staff Time for Fleet Acquisition Is Not Tracked Except the Build-Out Process

Asset build-out is done mostly at the Police Substation. During FY 2018-19, staff spent a total of 2,361 hours on build-outs. This is a 128 percent increase from FY 2014-15 when build-out staff hours totaled 1,037 hours (see Exhibit 16).

[17] For Fire, finalizing specifications requires Fleet Division and Fire staff to travel to the vendor in Wisconsin three times during the process to ensure specifications match the build-out. Finalizing specifications for all assets requires Fleet Division staff to coordinate with departments and align with Finance to establish an OPO/PO.

**Exhibit 16: Hours Spent on Build-out Work Orders Have Increased by 128 Percent**




Source: Auditor analysis of AssetWorks Data

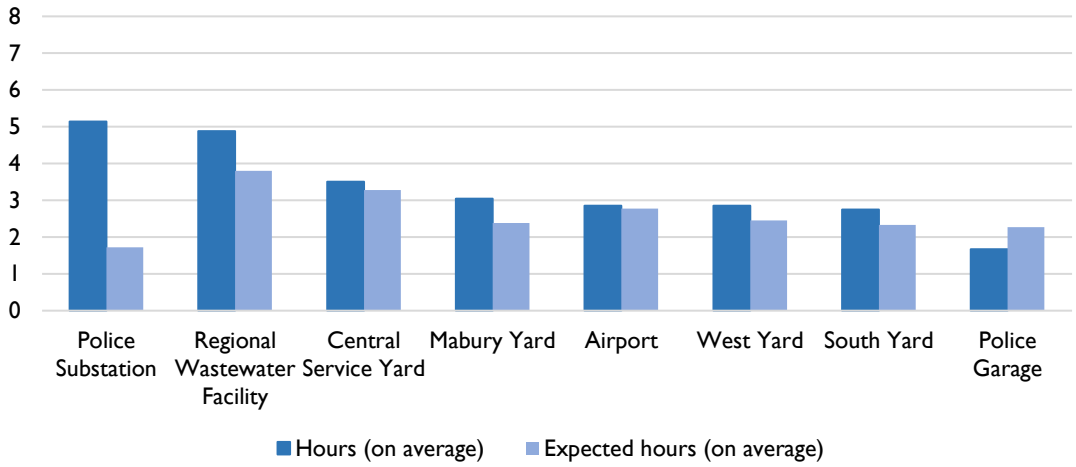
*Build-out Process Impacts Work Order Timeliness*

In Exhibit 17, actual hours for work orders generally match expected hours based on historical data in the Fleet Division's asset database at each location except the Police Substation, which is where most build-outs take place. Appendix C provides a breakdown of the different work order locations and their services.

Although build-outs only make up less than 1 percent of work orders in FY 2018-19 overall, when they are included in calculating overall work order timeliness they add one full day to the average number of days to complete a work order. Build-out work orders on average took 44 days to finish in FY 2018-19.[18]

[18] Turnaround time for build-outs by asset class varied widely, ranging from 60 days (Police Patrol) to 5 days (Off Road Heavy). Police Patrol and Gen Fleet Light made up 83 percent of the analyzed build-out WOs.

**Exhibit 17: Work Orders Impacted at Police Substation Due to Vehicle Build-out and Modification Workload, FY 2018-19**




Source: Auditor analysis of AssetWorks data

Note: Expected hours are based on historical data from the Fleet Division's asset database.

### Fleet Division's Labor Rate Charged to Departments Combines Staff Costs for Both the Maintenance and Replacement Programs

There is no budgeted staffing allocation specifically for the Fleet Division's vehicle acquisitions and replacement program. Rather, the four staff members are budgeted to the maintenance and operations program. Other jurisdictions, such as Sacramento and San Diego have budgeted FTE for their vehicle acquisition process.

*Build-out Labor Hours Are Included in the Labor Rate Despite Not Being A Maintenance Service*

Departments are charged for maintenance services provided by the Fleet Division. The labor rate charged to departments to recover costs is calculated using the current FY's total costs (e.g., personal services, non-personal services, overhead, surcharges for fuel and inventory) divided by the total number of labor hours from the previous FY.

There is not a separate labor rate for the acquisition and build-out process. Work orders related to the build-out process are included in the overall labor rate. The Fleet Division reported having started billing Fire separately for the acquisition process because of the extensive staff time involved for finalizing specifications and build-out for Fire apparatuses.

A separate labor rate for acquisitions and build-out would allow the Fleet Division to better allocate costs to departments for the acquisition process, as well as to understand staffing needs to budget for this program.

**Recommendation #13: To better allocate the costs of the maintenance and replacement programs, Public Works' Fleet Division should:**

a) **Track staff hours for the fleet acquisition process, and**

b) **Charge City departments separate labor rates to recover the staff costs for (1) maintenance services and (2) acquisitions and build-outs of new or replacement assets.**

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# Conclusion

Public Works' Fleet and Equipment Services Division (Fleet Division) manages procurement, disposition, and maintenance of the City's 2,800 vehicles and pieces of equipment. City departments use these assets to provide a range of City services, such as public safety, wastewater management, and park maintenance, among others.

In recent years, the Fleet Division has implemented various process improvements, such as deploying telematics across most of the City's fleet, creating a virtual whiteboard to monitor work orders, and others. In our review, we identified additional opportunities for the Fleet Division to continue to enhance its operations. For example, the Fleet Division should update the City's replacement criteria to better identify and prioritize replacement of fleet assets, address staffing challenges, improve preventive maintenance compliance, and streamline the City's fleet acquisition process.

## RECOMMENDATIONS

### Finding 1: Updating the City's Replacement Criteria Can Help Prioritize Fleet Replacements

Recommendation #1: To help identify replacements, Public Works should update its replacement criteria in the Vehicle Replacement Policy to:

a) Incorporate life-cycle or other analyses of maintenance costs,

b) Update the age and mileage criteria as appropriate, and

c) Align with the City's electric mobility and green fleet goals, where technologically feasible.

Recommendation #2: To help manage fleet asset levels and the allocation of fleet assets, Public Works should update the City Policy Manual 1.8.1 to:

a) Adjust or establish minimum utilization standards for all fleet assets,

b) Require annual utilization reviews to identify underutilized assets, and

c) Include procedures on coordinating utilization reviews with City departments and the use of underutilized assets, such as transferring underutilized assets to the Citywide motor pool, disposing them, or reallocating them as appropriate.

### Finding 2: Addressing Staffing and Preventive Maintenance Challenges Can Enhance Fleet Division's Performance

Recommendation #3: In the context of overall budget priorities, Public Works should work with the Budget Office to develop short- and long-term staffing strategies to achieve desired performance results, that may include:

a) Further use of the rehire retirees program,

b) Use of contractual services for additional repair types or asset classes, and/or

c) Additional overtime opportunities for current staff.

Recommendation #4: To improve Citywide preventive maintenance (PM) compliance, Public Works' Fleet Division should:

a) Work with departments to confirm point of contacts for PM notifications and complete implementation of the automated PM notifications,

b) Establish a Citywide PM compliance target, as well as internal PM compliance targets for departments/asset classes, and

c) Implement a PM compliance incentive program, that could include expansion of the fuel shut-off program for noncompliant assets that meet criteria identified by the Fleet Division, or including departmental PM compliance performance into the fleet replacement prioritization process.

**Finding 3: Fleet Division Has Instituted Multiple Process Improvements and Can Continue to Enhance Service Delivery**

Recommendation #5: To improve communication with other City departments, Public Works' Fleet Division should develop and implement procedures for communicating:

a) Asset unavailability and expected turnaround times for when assets are taken in for service,

b) Updates for when there are delays because of staffing or the need to order parts, and

c) The work that was completed in a work order.

Recommendation #6: Public Works' Fleet Division should pilot an electronic work order intake process using AssetWorks to increase efficiency and remove duplication of efforts.

Recommendation #7: To enhance performance monitoring and inform resource allocation decisions, Public Works' Fleet Division should develop internal performance measures and reports to monitor availability of specific assets at the department level.

Recommendation #8: To enhance accountability and transparency, Public Works' Fleet Division should develop and report on performance measures on work order timeliness.

Recommendation #9: To support consistent data entry and reporting, Public Works' Fleet Division should create procedures around:

a) Classification of repair reason IDs in AssetWorks,

b) Data entry of work orders and contracted services work orders, and

c) Pulling reports on active assets, preventive maintenance compliance, vehicle utilization, work orders, and/or others as necessary.

**Finding 4: The City's Fleet Acquisition Process Can Be Streamlined**

Recommendation #10: To streamline the fleet replacement process, Public Works' Fleet Division should work with the Budget Office during the annual budget process by:

a) Providing the Budget Office with information to approve replacements funded by the Vehicle Maintenance and Operations Fund (Fund 552), such as assets identified for replacement, new replacement assets, or other information as determined by the Budget Office, and

b) Removing the secondary Vehicle and Equipment Request Form approval process for Vehicle Maintenance and Operations Fund (Fund 552) replacements so that the Fleet Division can start the ordering process as soon as the Adopted Operating Budget is approved.

Recommendation #11: Public Works' Fleet Division should create fleet acquisition guidelines for departments, including updated instructions for vehicle and equipment requests and deadlines. These should be posted on the Fleet Division's intranet site and include contact information for departments to have their questions answered.

Recommendation #12: Public Work's Fleet Division should develop performance targets related to the timeliness of fleet asset purchases and actual costs of acquisitions against budgeted funds. Performance against those targets should be reported in the department's Fleet Management Annual Report.

Recommendation #13: To better allocate the costs of the maintenance and replacement programs, Public Works' Fleet Division should:

a) Track staff hours for the fleet acquisition process, and

b) Charge City departments separate labor rates to recover the staff costs for (1) maintenance services and (2) acquisitions and build-outs of new or replacement assets.

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# APPENDIX A

## Audit Objective, Scope, and Methodology

The mission of the City Auditor's Office is to independently assess and report on City operations and services. The audit function is an essential element of San José's public accountability, and our audits provide the City Council, City management, and the general public with independent and objective information regarding the economy, efficiency, and effectiveness of City operations and services. In accordance with the City Auditor's Fiscal Year (FY) 2020-21 Audit Work Plan, we have completed an audit of fleet maintenance and operations.

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.

The objective of this audit was to review the efficiency of operations and timeliness of repairs for the City's vehicles and equipment. To understand management controls over fleet operations and meet our audit objectives, we did the following:

- To understand City policies surrounding fleet operations, we reviewed relevant Citywide policies and internal procedures including:
    - City Policy Manual 1.8.1 *Use of City and Personal Vehicles*
    - City Policy Manual 3.1.5 *Reemployment of Retirees*
    - City Policy Manual 5.1.10 *Green Fleet Policy*
    - Muni Code Part 29 Vehicle Maintenance and Operating Fund
    - Fleet Division's Vehicle Replacement Guidelines and Process Policy
    - City's green initiatives based on Council and Committee meetings (e.g., Transportation and Environment Committee), as well as City documents such as the Electric Mobility Roadmap, Climate Smart San José, and Envision 2040

- To understand general fleet operations and resources:
    - Interviewed staff in Public Works' Fleet Division
    - Conducted site visits at the Central Service Yard to understand maintenance and inventory operations
    - Reviewed the Fleet Division's Adopted Operating Budgets for annual budgets, reported performance measures, and staffing levels from FY 2013-14 to FY 2020-21
    - Analyzed vacancies from FY 2009-10 to FY 2019-20 based on data from PeopleSoft, the City's human resource management system
    - Reviewed the Fleet Division's performance measures from their internal performance measurement dashboard for FY 2018-19
    - Reviewed fleet availability performance measure for FY 2018-19 from the Fleet Division's internal performance measurement worksheets and analyzed the availability of particular department assets

- Reviewed Fleet Management Annual Reports for FY 2013-14 to FY 2018-19

- To understand the customer perspective of fleet operations, we interviewed staff from the following departments and offices: Fire; Police; Transportation; Airport; Planning, Building and Code Enforcement; Environmental Services; Emergency Management; and Parks, Recreation and Neighborhood Services. In addition, we reviewed available fleet customer reports with data pulled from AssetWorks, the Fleet Division's asset management system.
- Reviewed data on the Fleet Division's performance and general fleet data, including:
  - Analyzed work orders opened and finished within FY 2014-15 to FY 2018-19 to measure work order timeliness and assess work orders by asset age and class, location, and type
  - Assessed preventive maintenance (PM) participation across departments by reviewing work orders finished within FY 2017-18 and FY 2018-19
  - Analyzed the Fleet Division's replacement backlog data for FY 2019-20
  - Reviewed the Fleet Division's utilization analysis performed in FY 2019-20
- To understand the fleet acquisition process, we:
  - Interviewed staff within the Fleet Division, as well as staff in the City Manager's Budget Office and the Finance Department
  - Analyzed the fleet acquisition process based on the Fleet Division's internal acquisition tracking sheet for FY 2018-19 and FY 2019-20
  - Reviewed Open Purchase Orders/Purchase Orders for FY 2018-19
- Reviewed industry materials on fleet operations from the National Association of Fleet Administrators, Government Fleet, as well as other industry organizations/publications
- Benchmarked with other jurisdictions to understand their approach to fleet maintenance and operations, including acquisitions, replacement criteria, utilization, staffing allocation, and performance measurement. This included:
  - Reviewing fleet-related management reports or performance audits from the cities of Austin, Dallas, San Diego, Santa Monica, Sacramento, Stockton, Toronto, West Palm Beach, and San Francisco, as well as the Government of Accountability Office (GAO)
  - Interviewing fleet staff from the cities of Long Beach, Oakland, Sacramento, and San Diego

In March 2020, one member of the audit team was activated as a Disaster Service Worker to the Emergency Operations Center (EOC) Logistics Section as part of the City's response to the COVID-19 emergency. The auditor worked closely with Public Works staff regarding Personal Protective Equipment (PPE) forecasting. Work done in the EOC did not relate nor cross over with the audit subject of Fleet maintenance and operations. As such, this did not impair auditor independence.

We would like to thank the Department of Public Works; the City Manager's Office; the Finance Department; the Department of Transportation; the Police Department; the Airport Department; the Department of Planning, Building and Code Enforcement; the Environmental Services Department; the Fire Department; and the Department of Parks, Recreation and Neighborhood Services for their time and insight during the audit process.

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# APPENDIX B

## Department Fleet Assets for FY 2018-19

| Department | Equipment | Vehicles | Total Fleet Assets |
|---|---|---|---|
| Airport | 81 | 91 | 172 |
| Environmental Services | 191 | 128 | 319 |
| Fire | 62 | 182 | 244 |
| Housing | 0 | 6 | 6 |
| Information Technology | 0 | 2 | 2 |
| Library | 0 | 9 | 9 |
| Office of Economic Development | 0 | 1 | 1 |
| Office of Emergency Management | 2 | 2 | 4 |
| Parks, Recreation & Neighborhood Services | 159 | 230 | 389 |
| Planning, Building & Code Enforcement | 0 | 127 | 127 |
| Police | 38 | 778 | 816 |
| Public Works | 52 | 181 | 233 |
| Transportation | 178 | 282 | 460 |
| **Total** | 763 | 2,019 | 2,782 |

Source: Auditor analysis of Fleet Management Annual Report FY 2018-19

Note: The number of equipment and vehicles for FY 2018-19 is a point-in-time value.

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# APPENDIX C

## Breakdown of Fleet Facilities' Services and Customers

| Location | Vehicles Types and Services | Customer(s) |
|---|---|---|
| Airport | Large Tractors, Runway | Airport, PD |
| Mabury Yard | Sewer Repair, Traffic Signal, Street Lights | DOT |
| Central Service Yard | Fire Apparatus, Parking Control, Amusement Rides, Stationary Generators, Pumps | All |
| Police Garage (Muni Police) | Police, PBCE Inspection | PD, PBCE, PW, ESD, Fire, DOT |
| Police Substation/Build-out | Acquisition, Vehicle Prep, Disposal, Modifications | All |
| Regional Wastewater Facility | Construction and Earth Moving | ESD |
| South Yard | Roadway Striping, Signs and Markings, Pavement | DOT, PRNS |
| West Yard | Sewer Repair, Construction | DOT |

Source: Auditor analysis of AssetWorks Data, Fleet Division interviews, and Fleet Management Annual Report FY 2018-19

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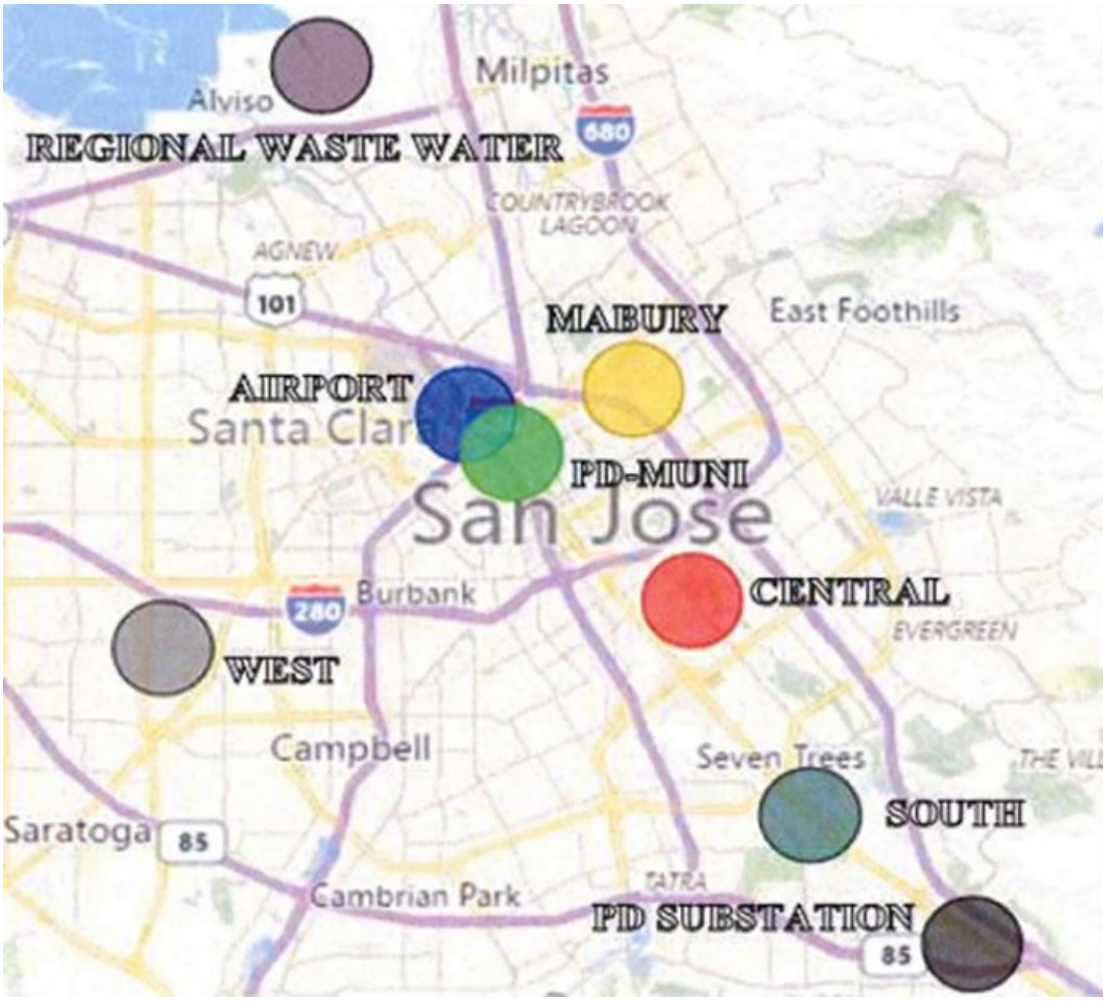
# APPENDIX D

## Map of Fleet Facilities




Source: Fleet Management Annual Report FY 2018-19

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CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

# Memorandum

**TO:** JOE ROIS
CITY AUDITOR

**FROM:** Matt Cano

**SUBJECT:** **SEE BELOW**

**DATE:** August 5, 2020

Approved /s/ Jim Ortbal Date 8/5/2020

**SUBJECT: RESPONSE TO THE AUDIT OF FLEET MAINTENANCE AND OPERATIONS**

This memorandum responds to the recently completed audit of the Public Works Fleet Maintenance and Operations program. The Department appreciates the professionalism of the City Auditor's Office and the time taken to gain insight, understanding, and appreciation for the complexity of the various programs supported by the Fleet Management Division. Public Works appreciates the Auditor's Office in acknowledging the Fleet Division's heavy role with time and staffing in leading emergency events within the City, in particular the recent Public Safety Power Shutdown events and the COVID-19 response efforts throughout the community. The Department also appreciates the City Auditor's effort in recognizing the Fleet Division's continued process improvements and innovations over the past several years and providing recommendations to support continued improvement and efficiencies within the program. Public Works is pleased that the report found no major areas of concern. The Department is in agreement with the details in the report and looks forward in implementing the recommendations identified to improve the program and better serve our partner departments. The following are the Department's responses to each of the Auditor's recommendations.

**Finding 1: Updating the City's Replacement Criteria Can Help Prioritize Fleet Replacements**

**Recommendation #1: To help identify replacements, Public Works should update its replacement criteria in the Vehicle Replacement Policy to:**

**a) Incorporate life-cycle or other analyses of maintenance costs,**
**b) Update the age and mileage criteria as appropriate, and**
**c) Align with the City's electric mobility and green fleet goals, where technologically feasible.**

**Response:** Staff agrees with the recommendation and will develop updated guidelines for replacement criteria of City fleet assets. Staff will also review electric and hybrid options for replacement when there is a viable solution that meets partner department needs.

**Target Date of Completion:** April 2021

**Recommendation #2: To help manage fleet asset levels and the allocation of fleet assets, Public Works should update the City Policy Manual 1.8.1 to:**

**a) Adjust or establish minimum utilization standards for all fleet assets,**
**b) Require annual utilization reviews to identify underutilized assets, and**
**c) Include procedures on coordinating utilization reviews with City departments and the use of underutilized assets, such as transferring underutilized assets to the Citywide motor pool, disposing them, or reallocating them as appropriate.**

**Response:** Staff agrees with the recommendation and will evaluate current standards for utilization as outlined in City Policy Manual 1.8.1 and update the standards to align with current industry standards. Fleet Management will develop an annual reporting form and work with partner departments to analyze City Fleet utilization.

**Target Date of Completion:** December 2021

**Finding 2: Addressing Staffing and Preventive Maintenance Challenges Can Enhance Fleet Division's Performance.**

**Recommendation #3: In the context of overall budget priorities, Public Works should work with the Budget Office to develop short- and long-term staffing strategies to achieve desired performance results, that may include:**

**a) Further use of the rehire retirees program,**
**b) Use of contractual services for additional repair types or asset classes, and/or**
**c) Additional overtime opportunities for current staff.**

**Response:** Staff agrees with the recommendation to continue balancing overtime, rehire and contractual opportunities in order to meet service level demands. Staff will include this as a strategy discussion with the City Manager's Budget Office during the development of future

budgets, with the acknowledgement that the City will likely have significant budgetary constraints over the next few years due to the COVID-19 pandemic's economic impact.

**Target Date of Completion:** June 2021

**Recommendation #4: To improve Citywide preventive maintenance (PM) compliance, Public Works' Fleet Division should:**

**a) Work with departments to confirm point of contacts for PM notifications and complete implementation of the automated PM notifications,**
**b) Establish a Citywide PM compliance target, as well as internal PM compliance targets for departments/asset classes, and**
**c) Implement a PM compliance incentive program, that could include expansion of the fuel shut-off program for noncompliant assets that meet criteria identified by the Fleet Division, or including departmental PM compliance performance into the fleet replacement prioritization process.**

**Response:** Staff agrees with the recommendation related to the Preventative Maintenance Program and will take appropriate actions.

**Target Date of Completion:** December 2021

**Finding 3: Fleet Division Has Instituted Multiple Process Improvements and Can Continue to Enhance Service Delivery.**

**Recommendation #5: To improve communication with other City departments, Public Works' Fleet Division should develop and implement procedures for communicating:**

**a) Asset unavailability and expected turnaround times for when assets are taken in for service,**
**b) Updates for when there are delays because of staffing or the need to order parts, and**
**c) The work that was completed in a work order**

**Response:** Staff agrees with the recommendation and will review and address communication procedures with partner departments.

**Target Date of Completion:** April 2021

**Recommendation #6: Public Works' Fleet Division should pilot an electronic work order intake process using AssetWorks to increase efficiency and remove duplication of efforts.**

**Response:** Staff agrees with the recommendation and will research electronic work order intake into the asset management system to determine if it will work to increase the efficiency of current process.

**Target Date of Completion:** September 2021

**Recommendation #7: To enhance performance monitoring and inform resource allocation decisions, Public Works' Fleet Division should develop internal performance measures and reports to monitor availability of specific assets at the department level.**

**Response:** Staff agrees with the recommendation and will develop internal performance measures and reports to monitor asset availability working with the Public Works' IT team.

**Target Date of Completion:** September 2021

**Recommendation #8: To enhance accountability and transparency, Public Works' Fleet Division should develop and report on performance measures on work order timeliness.**

**Response:** Staff agrees with the recommendation related to the Preventative Maintenance Program and take appropriate actions. Fleet will work with internal IT staff to develop a reporting tool to capture and report out on this data.

**Target Date of Completion:** September 2021

**Recommendation #9: To support consistent data entry and reporting, Public Works' Fleet Division should create procedures around:**

**a) Classification of repair reason IDs in AssetWorks,**
**b) Data entry of work orders and contracted services work orders, and**
**c) Pulling reports on active assets, preventive maintenance compliance, vehicle utilization, work orders, and/or others as necessary.**

**Response:** Staff agrees with the recommendation and to create a SOP that captures correct work flow during work order intake process. This SOP will be shared with staff during trainings of current and future hires. Fleet Management will also review possible data entry improvements as it relates to reports.

**Target Date of Completion:** September 2021

**Finding 4: The City's Fleet Acquisition Process Can Be Streamlined.**

**Recommendation #10: To streamline the fleet replacement process, Public Works' Fleet Division should work with the Budget Office during the annual budget process by:**

**a) Providing the Budget Office with information to approve replacements funded by the Vehicle Maintenance and Operations Fund (Fund 552), such as assets identified for replacement, new replacement assets, or other information as determined by the Budget Office, and**
**b) Removing the secondary Vehicle and Equipment Request Form approval process for Vehicle Maintenance and Operations Fund (Fund 552) replacements so that the Fleet Division can start the ordering process as soon as the Adopted Operating Budget is approved.**

**Response:** Staff agrees with the recommendation and will work with the Budget Office and partner departments to further streamline the procurement process.

**Target Date of Completion:** June 2021

**Recommendation #11: Public Works' Fleet Division should create fleet acquisition guidelines for departments, including updated instructions for vehicle and equipment requests and deadlines. These should be posted on the Fleet Division's intranet site and include contact information for departments to have their questions answered.**

**Response:** Staff agrees with the recommendation and will update Fleet Management SharePoint site.

**Target Date of Completion:** December 2020

**Recommendation #12: Public Work's Fleet Division should develop performance targets related to the timeliness of fleet asset purchases and actual costs of acquisitions against budgeted funds. Performance against those targets should be reported in the department's Fleet Management Annual Report.**

**Response:** Staff agrees with the recommendation and will work to identify performance targets as it relates to acquisitions and report out during the Fleet Management Annual Report.

**Target Date of Completion:** December 2021

**Recommendation #13: To better allocate the costs of the maintenance and replacement programs, Public Works' Fleet Division should:**

**a) Track staff hours for the fleet acquisition process, and**
**b) Charge City departments separate labor rates to recover the staff costs for (1) maintenance services and (2) acquisitions and build-outs of new or replacement assets.**

**Response:** Staff agrees with the recommendation and will work to implement tracking of Build Up administrative staff during the acquisition process. Fleet management will reach out to the asset management provider to determine if various shop rates can be set up based on work location and user.

**Target Date of Completion:** June 2022

/s/

Matt Cano
Director of Public Works

Questions should be directed to Walter Lin, Deputy Director of Public Works.