

Performance Audit of the City's Fleet Maintenance

JANUARY 2025 | OCA-25-06

Finding 1

Many City vehicles are not receiving their prescribed preventive maintenance services and safety inspections on time, which can lead to safety risks, increased costs, and negative impacts on City operations.

Finding 2

Fleet is able to complete most preventive maintenance services in less than a day, but additional steps may help streamline services, increase vehicle availability for departments' operations, and improve the timeliness and compliance rates of required maintenance and safety inspections.



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CITY OF SAN DIEGO



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The Office of the City Auditor would like to thank staff from the following departments and agencies for their assistance during this audit:

- Department of General Services, Fleet Operations Division
- Fire-Rescue Department
- San Diego Police Department
- Public Utilities Department
- Parks & Recreation Department



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Performance Audit of the City's Fleet Maintenance

Why OCA Did This Study

The Fleet Operations Division (Fleet) manages the maintenance and repairs of about 4,900 vehicles and motorized equipment with an estimated total replacement value of \$437 million. The City budgeted \$46 million for fleet maintenance in fiscal year (FY) 2025. Timely maintenance and inspection of fleets is important to enhance equipment life, ensure cost-effectiveness, and minimize risks to safety for City operators and the public.

Therefore, we conducted a performance audit with two objectives:

- (1) Determine if City vehicles are being serviced according to Fleet Operations Division's established preventive maintenance schedules; and
- (2) Determine how timely vehicles are being returned to City departments after preventive maintenance.

What OCA Found

Finding 1: Many City vehicles are not receiving their prescribed preventive maintenance services and safety inspections on time, which can lead to safety risks, increased costs, and negative impacts on City operations.

- Most City departments are responsible for bringing in their vehicles for maintenance and Fleet is responsible for maintaining the vehicles.
- **Monitoring and incentivizing** on-time maintenance could **improve accountability and compliance** among departments.
- Citywide, **only 20 percent of preventive maintenance services completed in FY2023 were on time**. When allowing a 10 percent grace period, only **39 percent** were on time. The industry standard goal is 90 percent for timely maintenance compliance.

Exhibit 3: Citywide, Only 20% of Preventive Maintenance Services Completed in FY2023 Were On Time



Source: OCA generated based on data from FleetFocus.

- Inspections enhance vehicle performance and are required by law. While **96 percent of environmental inspections** were completed on time, **only 35 percent of safety inspections** were completed on time.
- **68 percent of overdue safety inspections we sampled identified problems** like brake fluid leaks, broken backup alarms, missing mud flaps, and broken mirrors.
- When inspections and maintenance are late, issues may persist that can lead to increased costs, breakdowns, and safety risks.

Exhibit 6: Negative Effects of Overdue Maintenance

Reduced Productivity:

A previous audit found an **11 percent** reduction in pothole repair productivity while trucks were out of service.

Risk of Crash:

Research has shown overdue maintenance results in a higher crash rate.

Higher Costs:

In FY2023, average repairs costs approximately **3 times** more than average maintenance costs.

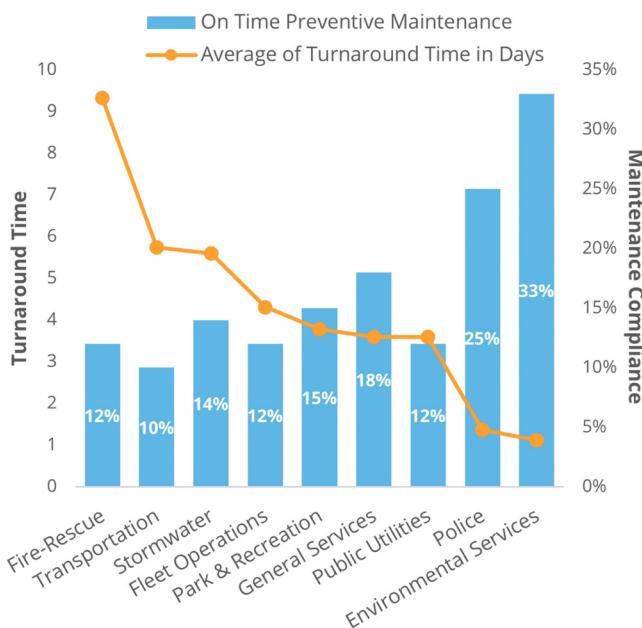
Source: OCA generated based on research, data from FleetFocus, and 2024 Audit of Pothole Repair Operations.

- Although Fleet sends out monthly notifications to departments with upcoming due preventive maintenance and inspections, we found that **contact lists are out of date**.
- In addition, **not all major departments have regular check-ins** with Fleet or Fleet Coordinators.
- Fleet only reported on **its preventive maintenance KPI** one time in FY2017 and removed it in the FY2025 Budget. Monitoring is critical to improve accountability.

Finding 2: Fleet is able to complete most preventive maintenance services in less than a day, but additional steps may help streamline services, increase vehicle availability for departments' operations, and improve the timeliness and compliance rates of required maintenance and safety inspections.

- Unlike many fleet agencies, **Fleet does not have turnaround time goals** for preventive maintenance services and inspections.
- Unknown turnaround time makes it hard for departments to plan their day-to-day operations when vehicles are being serviced, and **may lead to reluctance to bring vehicles in for maintenance.**
- **Scheduling appointments** could help with both City department uncertainty and managing workflow.
- There is a self-service mechanism for City departments to review key fleet metrics, such as upcoming due maintenance. However, **not all departments are aware** or know how to use it.

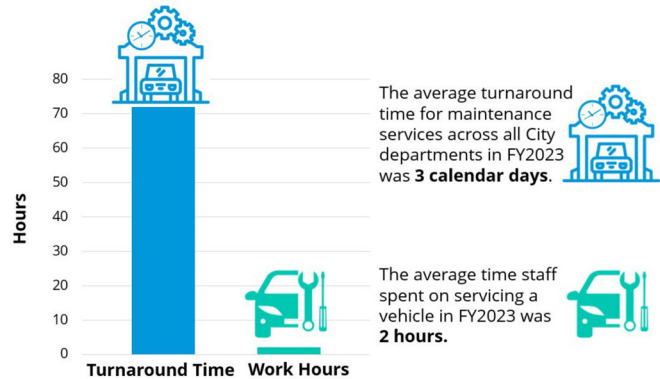
Exhibit 11: Longer Turnaround Times Appeared to Correspond With Lower Rates of Preventive Maintenance



Source: OCA generated based on active vehicle information from FleetFocus and SAP.

- We found that **more than half of maintenance work orders in FY2023 were completed the same day.**
- Preventive maintenance services took an average of 2 labor hours; however, **delays increase the average turnaround time to 3 calendar days.**

Exhibit 13: The Average Maintenance Turnaround Time Was 3 Calendar Days; Fleet Completed the Servicing in 2 Hours on Average



Source: OCA generated based on work order data from FleetFocus.

- 77 percent of preventive maintenance services in FY2023 had a delay. At least **88 percent of delays were caused by waiting for labor.**
- According to Fleet, departments commonly **drop off their vehicles unannounced.** The City's Fleet database, FleetFocus, has a scheduling functionality, but, according to Fleet, **it has not been set up** due to resource constraints.
- The number of fleet technicians has **not kept pace** with the growth of the City's fleet.
- Fleet heavily utilizes the Fleet Technician role but could also use **Assistant Fleet Technicians** to help achieve its preventive maintenance goals in a cost-effective manner.

What OCA Recommends

We made 10 recommendations and City Management agreed to implement all 10. Key recommendations to improve accountability and customer service include:

- Ensuring the correct contact is notified when maintenance is due;
- Addressing late maintenance through incentives, regular meetings, and reporting;
- Establishing, monitoring, and reporting turnaround time goals and performance;
- Setting up a scheduling process and prioritizing vehicles that have scheduled their maintenance appointments in advance; and
- Analyzing optimal staffing levels of certain maintenance positions.

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Background

Timely maintenance and inspection of vehicle fleets is important to enhance equipment life, ensure cost-effectiveness, and minimize risks to safety for City operators and the public. The City budgeted \$46 million for fleet maintenance in fiscal year (FY) 2025. Therefore, we conducted a performance audit of the City's fleet maintenance in accordance with the Office of the City Auditor's FY2024 Audit Work Plan. The objectives of this audit were to:

1. Determine if City vehicles are being serviced according to Fleet Operations Division's established preventive maintenance schedules; and
2. Determine how timely vehicles are being returned to City departments after preventive maintenance.

The Fleet Operations Division works with City departments to perform preventive maintenance and inspections.

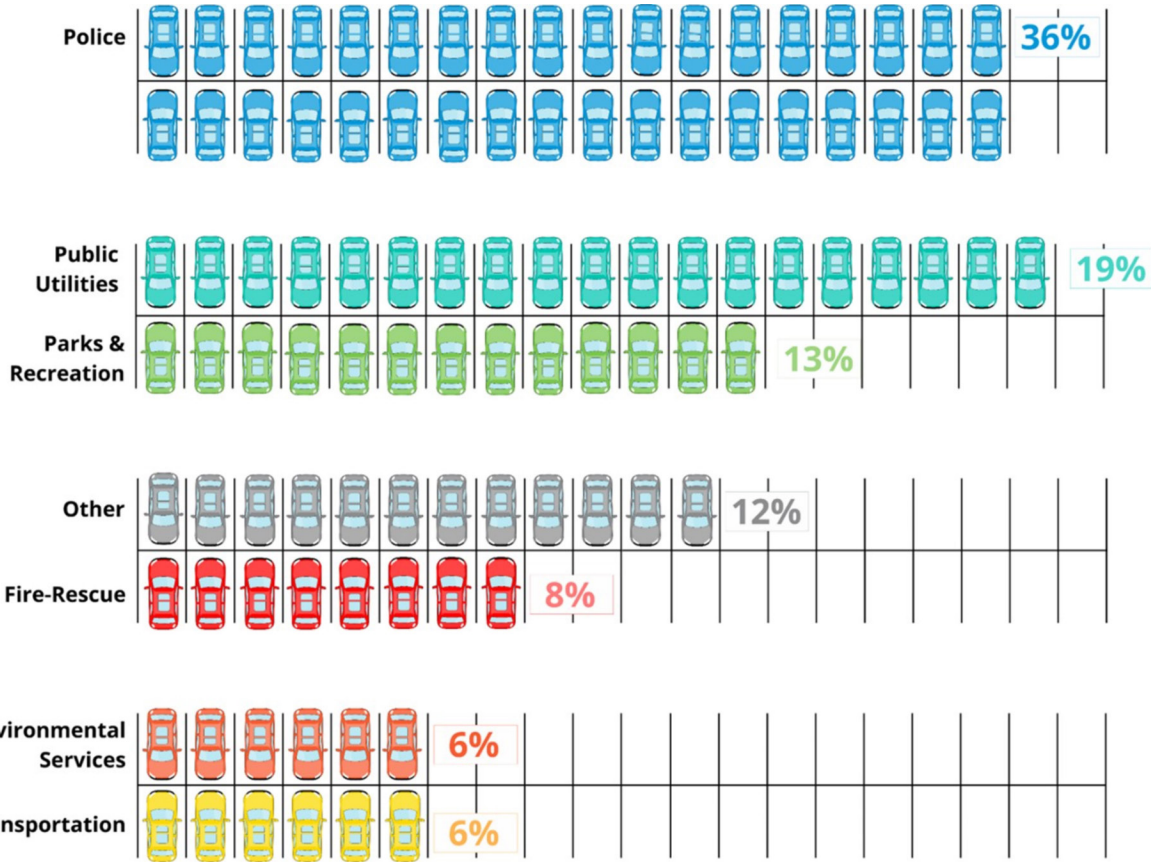
The Fleet Operations Division (Fleet) manages the maintenance, repairs, replacement, and disposal of about 4,900 vehicles and motorized equipment with an estimated total replacement value of \$437 million. The fleet includes a wide variety of vehicles, such as sedans, light- and heavy-duty trucks, trailers, tractors, electric vehicles, and miscellaneous motorized equipment.¹ Fleet provides routine preventive maintenance and inspections across all City departments, as shown in **Exhibit 1**. Though Fleet provides the maintenance, departments are responsible for bringing vehicles into Fleet garages for preventive maintenance and inspections.²

1 We refer to both fleet vehicles and equipment broadly in this report as vehicles.

2 Most San Diego Police Department Divisions have garages on site where technicians retrieve vehicles themselves for maintenance.

Exhibit 1

Fleet Manages the Maintenance of Approximately 4,900 Vehicles and Equipment Across Various City Departments



Note: Data as of May 2024.

Source: OCA generated based on fleet data from FleetFocus.

Preventive maintenance and inspection schedules are determined by manufacturer specifications or government regulations.

Preventive maintenance refers to scheduled servicing, inspections, and repairs based on time, mileage, engine hours, or gallons of fuel used. According to Fleet, each City-owned vehicle has a service target by miles, operating hours, and/or date, determined by manufacturer specifications. For example, a preventive maintenance schedule may be every 5,000 miles or every 6 months, whichever is sooner. Fleet uses a preventive maintenance checklist of service or inspection tasks performed. An example is shown in **Exhibit 2**. Preventive maintenance actions can include inspecting, lubricating, adjusting, cleaning, testing, and/or replacing worn parts.

Exhibit 2

Fleet Follows a Checklist When Performing Preventive Maintenance and Inspections

PM Checklist Blank		AssetWORKS					
Class Code: All							
PM Service: A							
Work Order Number: _____ Equipment ID: _____ Class Code: 100L2							
Order	PM Task - Task Description	N/A	Completed	Incomplete	Passed	Failed	Comments
PM/Inspection Service: A		Exception PM: _____					
10)	PM000 - VISUAL.....PASS..FAIL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
20)	PM010 - BODY DAMAGE.....[] []	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
30)	PM020 - GLASS AND MIRRORS.....[] []	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
40)	PM030 - WIPERS.....[] []	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Note: This exhibit shows four out of many tasks for one preventive maintenance service (A). Fleet also has checklists for other preventive maintenance services and inspections.

Source: Screenshot from the City's Fleet Enterprise Asset Management system, called FleetFocus by AssetWorks.

Fleet also conducts a variety of inspections of the City's diverse vehicle pool. We limited this analysis to three inspections: Basic Inspection of Terminal (BIT), smog, and diesel opacity. Smog and diesel opacity inspections are required by the State of California on a yearly or twice-a-year basis for environmental protections. BIT inspections are required by the California Highway Patrol (CHP) to verify vehicle safety and prevent collisions or mechanical breakdowns. CHP mandates motor carriers, such as the City of San Diego, to conduct these inspections of applicable vehicles every 90 days.

Fleet uses the FleetFocus Enterprise Asset Management system to track several aspects of its operations.

The City uses FleetFocus, an Enterprise Asset Management System (EAM), to manage and track maintenance and repairs, called work orders, for vehicles in the fleet. FleetFocus serves as a central database for Fleet's information about services and their due dates, equipment, labor costs, labor hours, parts inventory, and more. Fleet repair staff are the primary users of FleetFocus and generate the work orders. There are computers at each repair bay for technicians to use to enter data into FleetFocus in real time. Fleet staff log their labor hours and completed service or repair tasks. Additionally, FleetFocus automatically populates information, such as when a vehicle is in and out of service (i.e., unavailable to the department operator because it is being serviced or repaired).

Finding 1

Many City vehicles are not receiving their prescribed preventive maintenance services and safety inspections on time, which can lead to safety risks, increased costs, and negative impacts on City operations.

Finding Summary

Overdue maintenance can lead to unsafe vehicle conditions, lengthier and more costly repairs, and reduced productivity.³ Inspections are required by law for safety, vehicle upkeep, and environmental protection. We found that Citywide, in FY2023, only 20 percent of preventive maintenance services were on time. Further, while 96 percent of environmental inspections were on time, only 35 percent of safety inspections were on time. Though we cannot estimate costs caused by overdue maintenance, in fiscal year (FY) 2023, repair costs were approximately \$19.3 million, while preventive maintenance cost the City a much lower \$2.2 million. Furthermore, according to a study by the Federal Motor Carrier Safety Administration, failing to properly maintain commercial vehicles was associated with a higher crash rate.

The Fleet Operations Division (Fleet) manages the maintenance of a large fleet of 4,900 vehicles across many departments and divisions. Most City departments are responsible for bringing in their vehicles for maintenance, while Fleet is responsible for maintaining the vehicles. We found that although Fleet sends out monthly notifications to departments with upcoming due preventive maintenance and inspections, contact lists are out of date. In addition, not all major departments have regular check-ins with Fleet or Fleet Coordinators, as required by Administration Regulation 30.20. To improve preventive maintenance compliance and coordination, we recommend the City designate a Fleet Coordinator for each department to meet regularly with Fleet, ensure contact lists remain updated, and discuss vehicle availability. City leadership should also strengthen monitoring and incentivize on-time maintenance. By strengthening communication between Fleet and departments and improving maintenance compliance, the City can reduce the risk of unsafe vehicles, costly repairs, and ensure the \$46 million the City has allocated in FY2025 for fleet maintenance is being used efficiently and effectively.

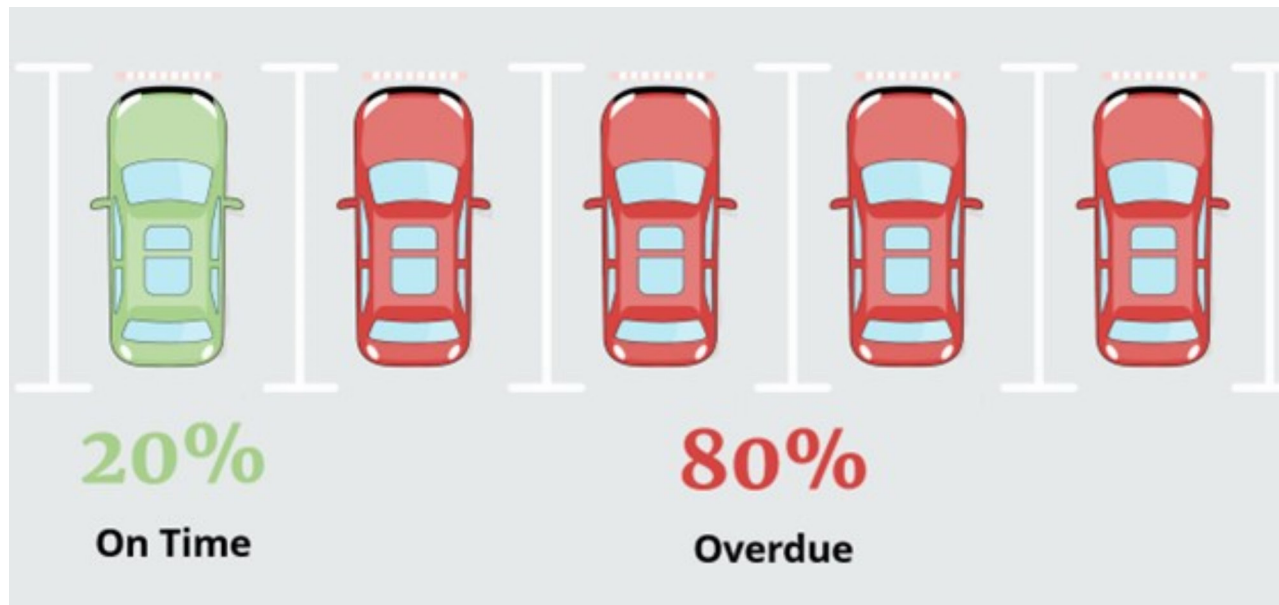
³ We refer to preventive maintenance services and inspections broadly as “maintenance.”

Most preventive maintenance services of the City’s vehicles are not completed on time per established service intervals.

According to Fleet, preventive maintenance schedules are set by manufacturer specifications and best practices. Preventive maintenance can be overdue by miles, operating hours, and/or calendar days. Inspection schedules are set by regulatory requirements, such as the California Highway Patrol, California Air Resource Board, and the State of California. Based on these schedules, we found that Citywide, only 20 percent of preventive maintenance services completed in FY2023 were on time, as shown in **Exhibit 3**. A 2023 National Association of Fleet Administrators (NAFA) review of the “100 Best Fleets in North America” found an average goal of approximately 90 percent for timely preventive maintenance compliance, with actual average compliance of about 86 percent.⁴

Exhibit 3

Citywide, Only 20% of Preventive Maintenance Services Completed in FY2023 Were On Time



Note: Data excludes vehicles that were out of service at the time maintenance was due.

Source: OCA generated based on preventive maintenance compliance data from FleetFocus.

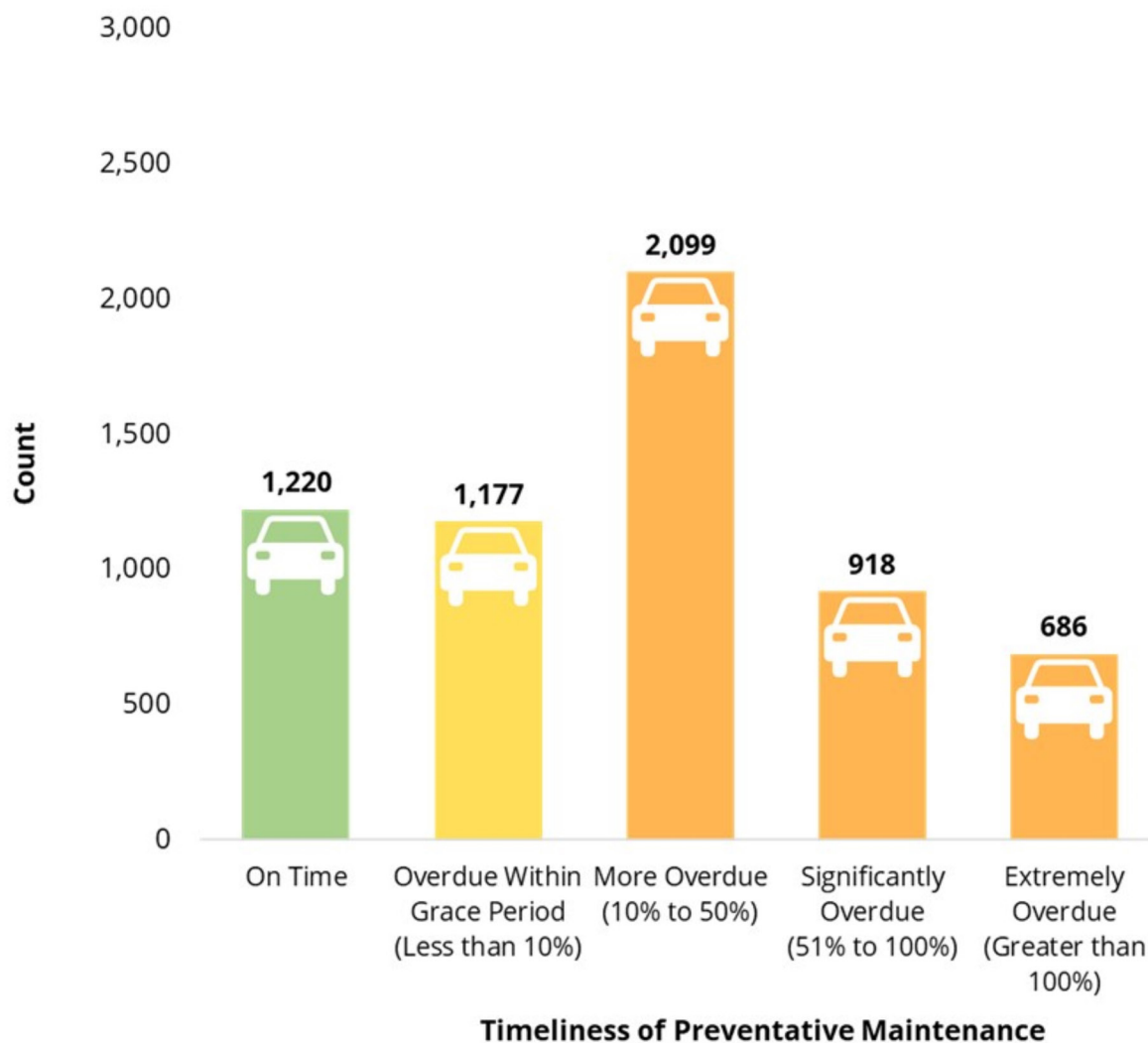
⁴ NAFA's 100 Best Fleets in the Americas recognizes peak-performing public and commercial fleet operations of the year.

Even when allowing for a 10% grace period, most preventive maintenance services were still overdue.

The City must sometimes prioritize providing critical services over preventive maintenance. For example, according to the San Diego Police Department (SDPD), certain situations, such as the need to staff large events or protests, might cause a delay in surrendering vehicles for preventive maintenance. Therefore, a small grace period beyond the scheduled maintenance due date or time can be acceptable. According to Government Fleet, a resource for public sector fleet professionals, a 10 percent grace period is acceptable before most fleets consider preventive maintenance late. For example, if a vehicle should be serviced every 5,000 miles, 10 percent overdue would mean 500 miles overdue. However, as shown in **Exhibit 4**, even when allowing a 10 percent grace period, most preventive maintenance services were still overdue. Citywide, with a 10 percent grace period, only 39 percent of preventive maintenance services were completed on time in FY2023.

Exhibit 4

Most Preventive Maintenance Services Completed in FY2023 Were Overdue by More Than 10%



Note 1: Data excludes vehicles that were out of service at the time maintenance was due. Categories are based on preventive maintenance schedules (days, miles, or operating hours) and reflect the metric most overdue out of the three schedule intervals.

Note 2: According to Government Fleet, a resource for public sector fleet professionals, a 10 percent grace period is acceptable before most fleets consider maintenance late. For example, if a vehicle should be serviced every 5,000 miles, 10 percent overdue would mean 500 miles overdue.

Source: OCA generated based on preventive maintenance compliance data from FleetFocus.

Though inspections enhance vehicle performance and are required by law, we found that only about half of required inspections were completed on time in fiscal year 2023.

Inspections, like preventive maintenance, detect problems before they become more serious. Inspections are required by State agencies to ensure driver and public safety and environmental protections.

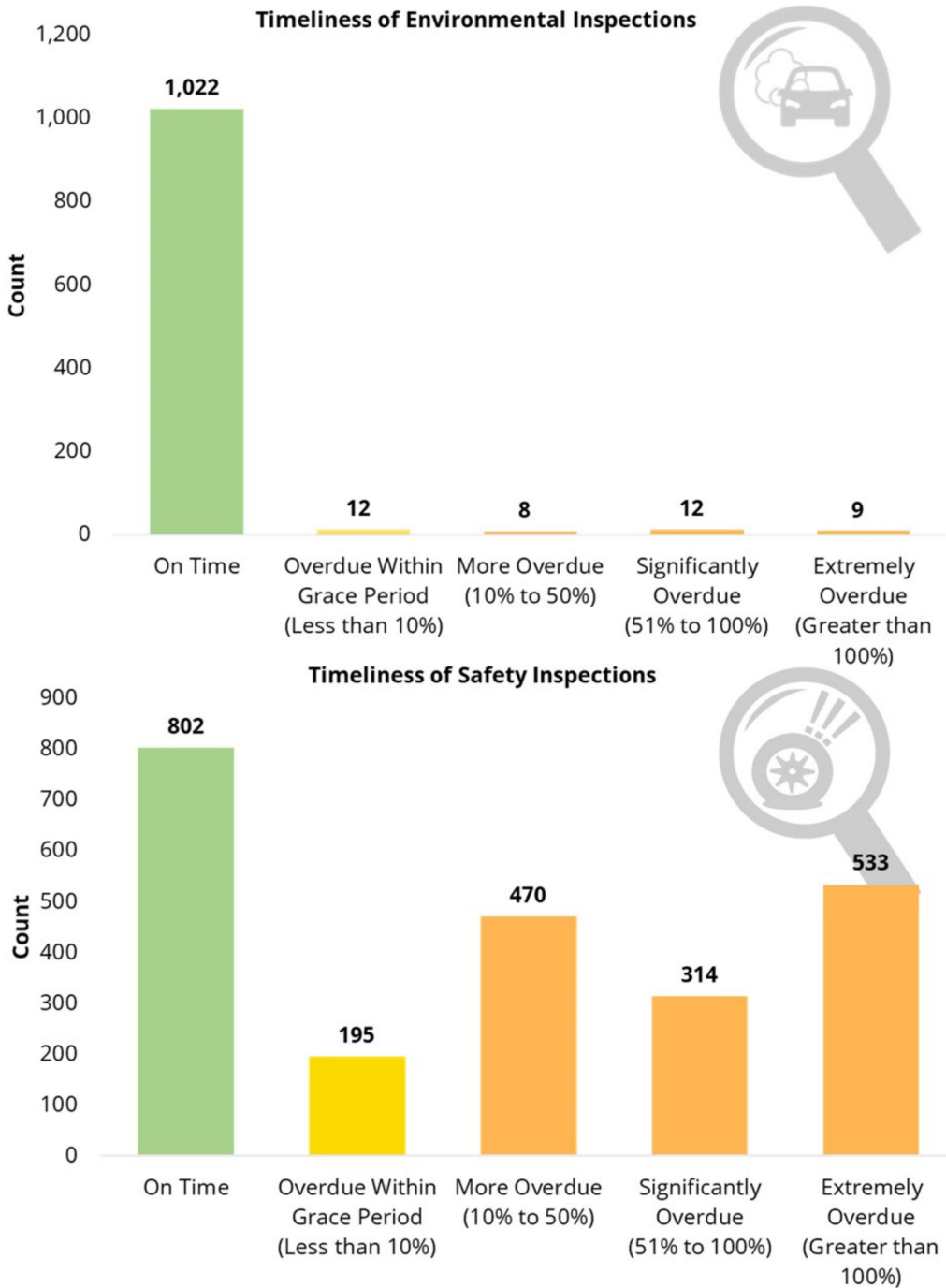
We focused our analysis on two types of environmental inspections: smog inspections and diesel engine opacity inspections; and one type of safety inspection: Basic Inspection of Terminal, also known as “BIT inspections.” BIT inspections are inspections of certain larger vehicles required by the California Highway Patrol every 90 days. In FY2023, smog inspections and diesel engine opacity inspections, also known as smoke opacity, were required by California law biennially and annually, respectively. We found BIT inspections were on time only 35 percent of the time, while smog inspections were 98 percent compliant and diesel engine opacity tests were 95 percent compliant. Overdue BIT inspections were late on average by 99 days. Many inspections were overdue by more than 10 percent of their inspection schedule, as shown in **Exhibit 5**. According to industry standards and the General Services Administration Motor Vehicle Management Manual, overdue inspections can lead to increased costs due to breakdowns and downtime.⁵ In addition, inspections identify and correct important issues, such as vehicle safety and fuel efficiency. The longer these issues go undetected, the larger the risk of negative consequences.

Overdue inspections can lead to increased costs due to breakdowns and downtime.

⁵ Downtime refers to the period when a vehicle is unavailable for use due to maintenance, repairs, or other issues.

Exhibit 5

Almost All Environmental Inspections Completed Citywide in FY2023 Were On Time, But More Than Half of Safety Inspections Were Overdue



Note 1: Data excludes vehicles that were out of service at the time inspections were due. Safety inspection data includes BIT safety inspections, which are required every 90 days. Environmental inspections data includes diesel engine opacity testing and smog inspections, both of which are required annually and biennially, respectively.

Source: OCA generated based on inspection compliance data from FleetFocus.

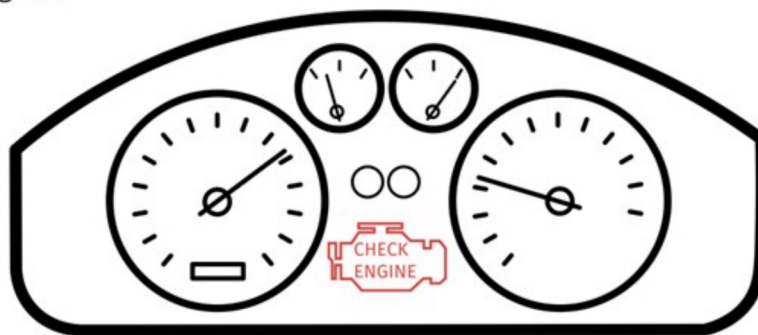
Overdue maintenance can have negative consequences on vehicle performance, resulting in lengthier repairs, higher costs, and impacts to City operations.




Letting maintenance fall behind can lead to unexpected breakdowns, reduced vehicle lifespan, and unnecessary downtime by putting additional strain and wear and tear on vehicles.

Exhibit 6 demonstrates the potential negative effects of overdue maintenance: unscheduled repairs, lost productivity, and even vehicle accidents. According to a study by the Federal Motor Carrier Safety Administration, not properly maintaining commercial vehicles was associated with a higher crash rate.

Exhibit 6
Negative Effects of Overdue Maintenance

Overdue maintenance can have negative consequences on vehicle performance, resulting in...



<p>Higher Costs:</p>  <p>In FY2023, average repairs cost approximately 3 times</p>	<p>Reduced Productivity:</p>  <p>A previous audit found an 11 percent reduction in pothole repair productivity while trucks were out of service for maintenance.</p>	<p>Risk of Crash:</p>  <p>Research has shown overdue maintenance results in a higher crash rate.</p>
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Note: The Federal Motor Carrier Safety Administration found that not properly maintaining commercial vehicles was associated with a higher crash rate.

Source: OCA generated based on research from the Federal Motor Carrier Safety Administration, work order data from FleetFocus, and our 2024 Re-Review of the Performance Audit of Pothole Repair Operations.

Improving preventive maintenance compliance would help the City avoid additional costs.

Citywide in FY2023, we found that preventive maintenance services cost an average of about \$258 per service. By contrast, average repair costs are nearly 3 times greater than maintenance costs, at an average of \$752 per repair. In FY2023, preventive maintenance cost the City \$2.2 million while repairs cost \$19.3 million. Since preventive maintenance reduces the amount of unscheduled maintenance and repairs, as well as the costs associated with downtime, improving preventive maintenance compliance would help the City avoid additional costs.

We found that BIT inspections often identify and trigger necessary repairs.

BIT inspections on larger vehicles are intended to reduce safety risks, such as collisions or mechanical breakdowns. Missing an inspection may allow problems to become more costly and unsafe. Given that overdue inspections on larger vehicles pose high risks to drivers and the public, we conducted a statistically significant sample of 52 vehicles subject to BIT requirements serviced at the City's Chollas Service Center in FY2023 to determine if BIT inspections were identifying needed repairs.⁶ We found that more than half of all BIT inspections in our sample identified issues requiring repairs at the time of the inspection. **Exhibit 7** shows we found 45 percent of sampled on time BIT inspections and 68 percent of overdue BIT inspections identified issues requiring repairs. Examples of some of the high-risk issues identified by the BIT inspections in the sample include repairs for flat tires, brake axle fluid leaks, broken windshield washer nozzles, broken backup alarms, missing mud flaps, and broken mirrors.

68% of overdue BIT inspections identified issues requiring repairs.

⁶ Our statistically significant sample consisted of 52 heavy-duty vehicles serviced at the City's Chollas Service Center in FY2023 for a 10% error rate at 90% confidence of 219 vehicles serviced at that location. We reviewed paper records for 141 BIT inspections forms to ensure data in FleetFocus matched technicians' paper forms.

Exhibit 7

More Than Half of BIT Inspections in Our Sample Identified Issues Requiring Repairs



Note: We conducted a statistically significant sample of 52 heavy-duty vehicles serviced at the City’s Chollas Service Center in FY2023. We reviewed records for 141 BIT inspections.

Source: OCA generated based on inspection compliance data from FleetFocus and sampling of paper BIT inspection forms.

Unplanned downtime can be disruptive and impact department productivity.

Increased downtime can affect a department’s ability to perform normal City operations, which can impact customer satisfaction and City services. Fleet indicated that all its City-owned loaner vehicles available to departments are currently being used long-term and are therefore not available to other departments short-term when a vehicle is being repaired or serviced. When back-up vehicles are not available to departments, they may experience a loss in productivity. For example, in 2024, the Office of the City Auditor conducted an audit of pothole repair operations and found that the Transportation Department did not have a sufficient supply of specific trucks to account for when trucks are out of service for maintenance, reducing productivity.⁷ The audit found that an extra truck would increase pothole crews’ productivity by 11 percent. Similarly, according to SDPD, a lack of vehicles can affect patrolling. When there are not enough patrol vehicles, SDPD officers may need to return from their patrol earlier than expected to allow for the next shift to take vehicles out and continue patrolling.

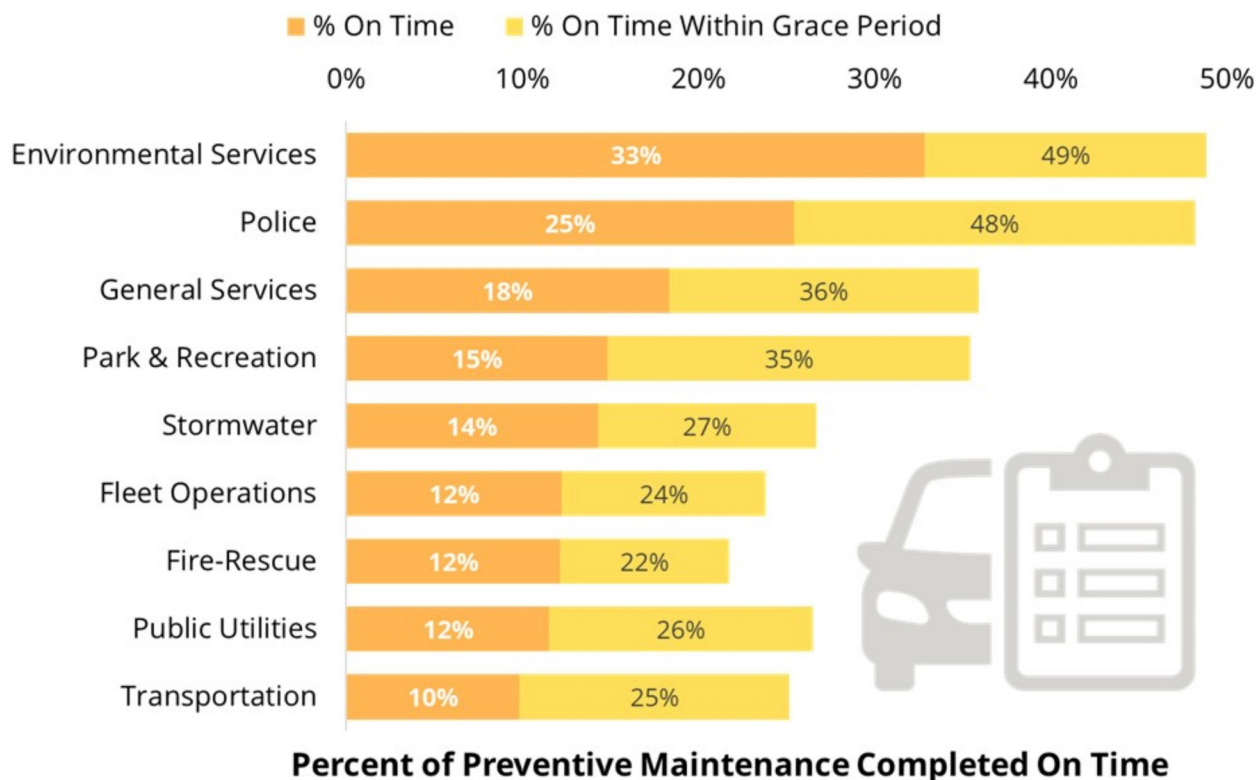
7 The link to the 2024 Re-Review of the Performance Audit of Pothole Repair Operations is provided here and can be located on the City Auditor’s website: [Re-Review of the 2013 Audit of the City’s Pothole Repair Operations](#).

Fleet and City departments should enhance coordination and communication efforts to improve maintenance compliance.

Most City departments are responsible for bringing vehicles into Fleet garages for preventive maintenance and inspections. Fleet serves as the coordinator for services for many departments and divisions. These departments have various missions and fleet needs, and each communicates with Fleet in different ways. Broadly, to coordinate maintenance with the departments, Fleet sends reports or notifications on vehicles due for maintenance or vehicle availability. However, City departments still may not bring their vehicles in on time. We found a wide range in the rate of maintenance compliance among larger departments, as shown in **Exhibits 8 and 9**.

Exhibit 8

We Found a Wide Range in Preventive Maintenance Timeliness by Department in FY2023



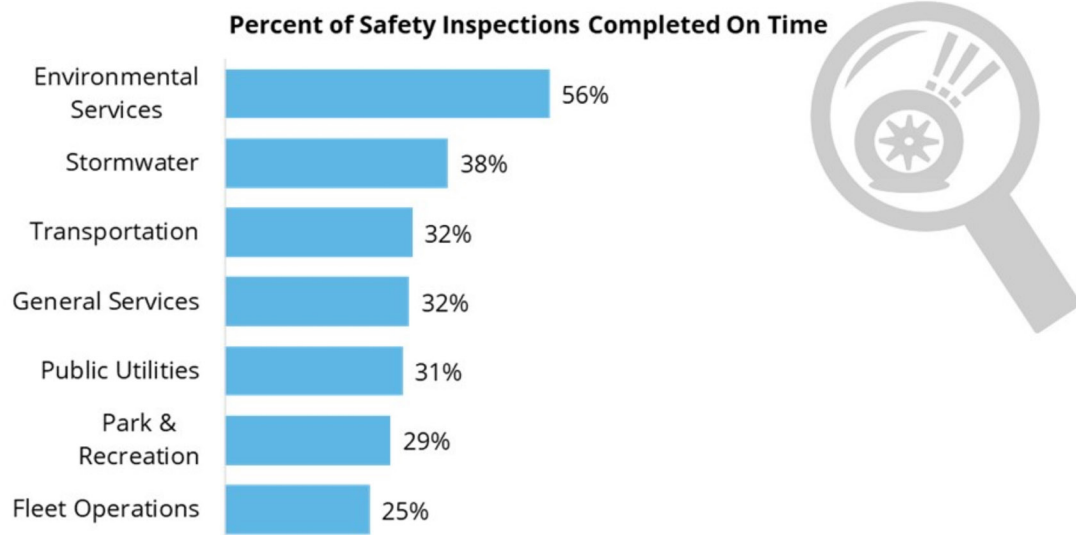
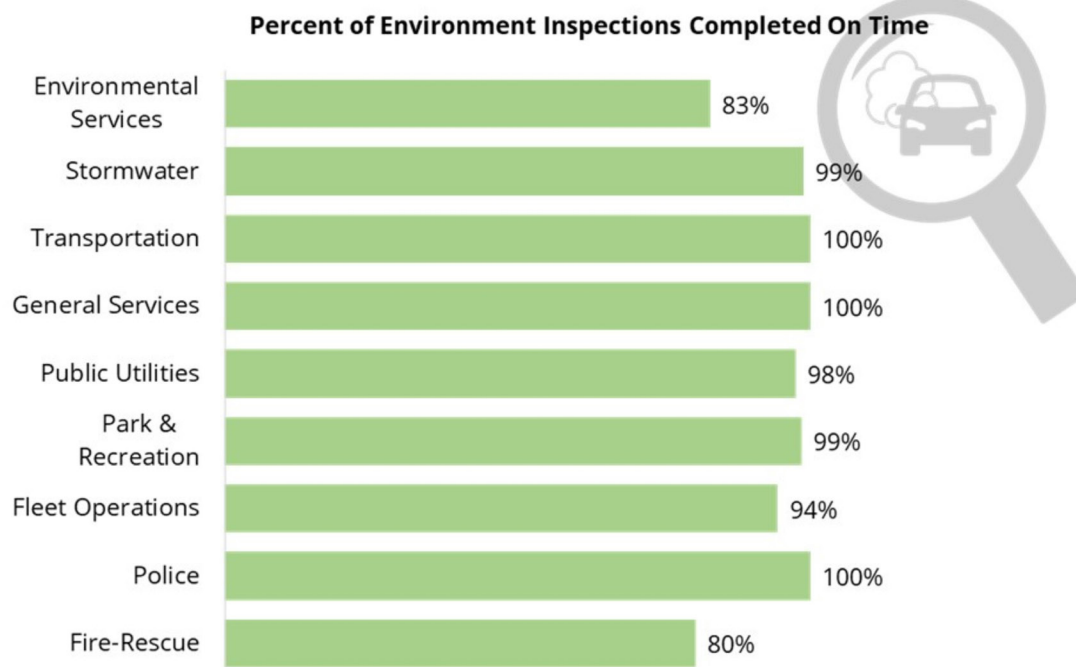
Note 1: Exhibit includes only departments with more than 100 vehicles. Data excludes vehicles that were out of service at the time maintenance was due.

Note 2: Fleet has its own vehicles and City-owned loaner vehicles that it loans out to departments, which are categorized in FleetFocus as "Fleet Operations" vehicles. Most of these Fleet vehicles with overdue preventive maintenance are rented out to other City departments.

Source: OCA generated based on preventive maintenance compliance data from FleetFocus.

Exhibit 9

We Found a Wide Range in Inspection Timeliness by Department in FY2023



Note 1: Exhibit includes only departments with more than 100 vehicles subject to each inspection. Data excludes vehicles that were out of service at the time inspections were due. Safety inspection data includes BIT safety inspections, which are required every 90 days. Environmental inspections data includes diesel engine opacity testing and smog inspections, both of which are required annually and biennially, respectively.

Note 2: Fire-Rescue is exempt from the California law requiring BIT inspections.

Note 3: Fleet has its own vehicles and City-owned loaner vehicles that it loans out to departments, which are categorized in FleetFocus as "Fleet Operations" vehicles. Most of these Fleet vehicles with overdue preventive maintenance are rented out to other City departments.

Source: OCA generated based on inspection compliance data from FleetFocus.

Exhibits 8 and 9 show that SDPD has high environmental inspection compliance and one of the highest preventive maintenance compliance rates in the City, though 25 percent is low compared to the NAFA “100 Best Fleets in North America” average compliance of 86 percent. Most SDPD divisions have garages on site and therefore have relatively easy access to Fleet staff.⁸ Furthermore, SDPD reported that it has excellent communication with Fleet and that roles are clearly defined for employees at both SDPD and Fleet. However, other departments we interviewed did not have as much communication with Fleet.

Designated Fleet Coordinators from City departments would improve preventive maintenance facilitation.

Though Administrative Regulation (AR) 30.20 states that City departments should designate one or more Fleet Coordinator(s) to address acquisition planning, according to Fleet, many departments have not made or maintained a designation. Having a Fleet Coordinator allows a clear point of contact with whom Fleet can communicate regarding maintenance, in addition to vehicle replacement, acquisition, and disposal needs. Thus, City leadership should ensure City departments designate one or more Fleet Coordinators to serve as liaisons to Fleet.

Similarly, AR 30.20 states that certain City departments should be having regularly scheduled quarterly meetings with Fleet to discuss acquisition planning.⁹ According to Fleet, a loss of contact due to personnel changes or scheduling may cause divisions to stop meeting with Fleet. Many vehicles are subject to multiple preventive maintenance services or inspections per year; for example, environmental inspections shown in **Exhibit 9** above are required annually or biennially, but for vehicles subject to BIT safety inspections, the frequency is every 90 days. Thus, monitoring and communicating regularly is critical to help ensure timely preventive maintenance and inspection compliance. Regular meetings allow departments and Fleet to be aware of relevant fleet topics, such as maintenance compliance and other issues. Fleet should utilize the existing meeting requirement to include preventive maintenance and inspection compliance rates in discussion at regular meetings with City departments.

Monitoring and communicating regularly is critical to help ensure timely preventive maintenance and inspection compliance.

⁸ Most SDPD vehicles are stored at the same facility where the vehicles are repaired and maintained. According to Fleet, this provides easy access to vehicles and can minimize downtime.

⁹ AR 30.20 specifically requires Acquisition Planning Meetings with Environmental Services, General Services Facilities Division, Fire-Rescue, Parks & Recreation, SDPD, Public Utilities, Stormwater, and Transportation.

Fleet sends out monthly notifications to departments for upcoming due preventive maintenance and inspections; however, department contacts are not up to date.

Fleet sends monthly maintenance notifications to departments with upcoming due maintenance, but in our interviews with departments we found multiple instances of contacts being out of date, inconsistent, or not receiving monthly maintenance reports. For example, while Deputy Directors at PUD are receiving monthly reports, PUD's Fleet Coordinator was not on the contact list and had just received access to FleetFocus after our audit began. According to one Parks & Recreation Division, the Senior Management Analyst receives the report then distributes it to District Managers, who then forward it to the supervisors of the operators of the listed vehicles. However, according to Fleet, it is difficult to maintain updated contact lists with City departments due to turnover or changing positions.

Fleet should work with each City department to confirm or update its contact list for preventive maintenance notifications and develop a policy or procedure to ensure the list is kept current through future updates.

The City of Long Beach Fleet Services Bureau, voted number one leading fleet in 2024 at the Government Fleet Expo, stated that it improved its preventive maintenance compliance rates from 55 percent to 90 percent by, among other actions, identifying the proper contacts and training departments to frequently review reports and identify maintenance needs. To improve communication and maintenance compliance, Fleet should work with each City department to confirm or update its contact list for preventive maintenance notifications and ensure the right contact is receiving notifications regarding past due and upcoming preventive maintenance. Fleet should also develop a policy or procedure to ensure the list is kept current through future updates.

Regular analyses of fleet size and needs could help City departments address maintenance compliance issues.

As previously discussed, the City must sometimes prioritize providing critical services over receiving preventive maintenance. However, we found some City departments may be delaying maintenance in order to perform their duties. Fleet reported that some departments delay maintenance because they do not have backup vehicles for crews to use while vehicles are receiving services. For example, according to SDPD, detectives may not drop off their cars for service if there are no loaner vehicles available. According to PUD, it may need to delay maintenance, depending on the ratio of spare or rental vehicles available. According to Parks & Recreation, given its need to transport staff to do their jobs, flexibility to bring vehicles in when possible is required so it can adjust for emergencies, holidays, and other unknown

factors. Additionally, according to Fire-Rescue, staff can be hesitant to bring in fire apparatuses for maintenance due to the lengthy time it can take to service and repair Fire-Rescue equipment.

Regular scheduled analyses to define the optimal number of vehicles necessary to conduct department operations would help City departments understand if the fleet size is sufficient to meet department needs. Fleet should support the analyses by providing data, such as vehicle availability and vehicle usage, to departments. The analyses and reasons why maintenance compliance is or is not timely can be discussed by Fleet and Fleet Coordinators at the regular meetings to ensure the \$46 million the City has allocated in FY2025 for fleet maintenance is being used efficiently and effectively.

Incentivizing on-time preventive maintenance and inspections could improve compliance.

According to Fleet, it has experimented with monetary disincentives for bringing vehicles in late for maintenance, but the amounts were too small to affect departments' compliance rates. Some cities have experimented with more direct measures to incentivize complying with maintenance schedules. Both the City of San Jose and the City of Long Beach Fleet Departments can cut off fuel for vehicles that are excessively late for maintenance.

However, there could be operational consequences to such actions for the City of San Diego. A monitoring process with escalation to executive City leadership for overdue maintenance is another course of action taken in the City of Long Beach to discourage late maintenance. In this process, a list of vehicles and departments with significantly overdue maintenance is elevated progressively through supervising management and City leadership. Incentives could also be implemented appropriately to improve timely preventive maintenance and inspections. For example, the City of Long Beach has a pilot rideshare program used to transport drivers back to their offices when they drop off a vehicle for maintenance. They have also started a motor pool for vehicles that are able to be shared among multiple departments for temporary use.

Incentives could be implemented appropriately to improve timely preventive maintenance and inspections.

Due to potential operational and budgetary impact, the Office of the Chief Operating Officer should consult with Fleet and City departments to develop and communicate a set of workable and appropriate incentives, disincentives, and/or monitoring capabilities to reduce the number of late preventive maintenance services and required regulatory inspections.

Industry standards state that monitoring and reporting preventive maintenance metrics is essential or cost-effective fleet management.

City leadership should be aware of departmental preventive maintenance and inspection compliance.

Industry standards state that monitoring and reporting preventive maintenance metrics is essential for cost-effective fleet management. However, as shown in **Exhibit 10**, though Fleet had a Key Performance Indicator (KPI) on preventive maintenance in the FY2017 through FY2024 budgets, it has not reported preventive maintenance compliance rates publicly since FY2017, the first year Fleet was a standalone department. Additionally, Fleet removed this KPI for the FY2025 Budget. According to Fleet, it cannot report on the KPI until the maintenance schedules in FleetFocus are updated to reflect new manufacturer service specifications on when maintenance is due. The last KPI target in FY2024 was 95 percent of scheduled preventive maintenance completed on time. City leadership should be aware of maintenance and inspection compliance to intervene if necessary. Given the multi-department nature of the City's Fleet, to improve maintenance timeliness, Fleet should monitor and report the percentage of preventive maintenance and safety inspections completed on time by department or other accountable work group to management, including the Deputy Chief Operating Officers.

Exhibit 10

Fleet Has Reported on Its Former Preventive Maintenance Key Performance Indicator One Time

Fiscal Year	Preventive Maintenance KPI in Budget	Reported on Preventive Maintenance KPI
2017	✓	✓
2018	✓	✗
2019	✓	✗
2020	✓	✗
2021	✓	✗
2022	✓	✗
2023	✓	✗
2024	✓	✗
2025	✗	N/A

Note 1: Fleet became a department in FY2017 and beginning in FY2022, Fleet Operations Division was placed under the newly created General Services Department.

Note 2: According to Fleet, it cannot report on the KPI until the maintenance schedules in FleetFocus are updated to reflect new manufacturer service specifications on when maintenance is due.

Source: OCA generated based on adopted budgets.

Recommendations

To improve the City's preventive maintenance and inspection compliance and timeliness, we recommend:

Recommendation 1.1

(Priority 2)

The Office of the Chief Operating Officer, in accordance with Administrative Regulation 30.20, should ensure City departments meet section 5.2.1 to designate one or more Fleet Coordinator(s) based on the size of the department's fleet; for example, by submitting a dated list of identified names, and an updated directive to departments to ensure that departments maintain active designees.

Management Response: Agree [See full response beginning on page 40.]

Target Implementation Date: June 2025

Recommendation 1.2

(Priority 2)

The Fleet Operations Division should work with each City department's Fleet Coordinator(s) (per Recommendation 1) to confirm or update its contact list for preventive maintenance and inspection notifications and ensure the correct contact is receiving notifications regarding past due and upcoming preventive maintenance. Fleet should develop a policy or procedure to ensure the list is kept current through future updates.

Management Response: Agree [See full response beginning on page 41.]

Target Implementation Date: September 2025

Recommendation 1.3

(Priority 2)

The Fleet Operations Division should lead regular quarterly meetings with relevant City departments, in compliance with Administrative Regulation 30.20, to review and discuss their current fleet issues, needs, and concerns wholistically; for example, by using a standardized agenda template including their recent preventive maintenance compliance rates (including relevant inspections), vehicle availability and fleet size, and adherence to defined roles and responsibilities, etc.

Management Response: Agree [See full response beginning on page 41.]

Target Implementation Date: September 2025

Recommendation 1.4

(Priority 1)

The Office of the Chief Operating Officer should consult with the Fleet Operations Division and City departments to develop and communicate a set of workable and appropriate incentives, disincentives, and/or monitoring capabilities to reduce the number of late preventive maintenance services and required regulatory inspections. The resulting effects and outcomes should be monitored, for example through a reporting control as in Recommendation 1.5, and adjusted as appropriate to increase the compliance rate.

Management Response: Agree [See full response beginning on page 42.]

Target Implementation Date: December 2025

Recommendation 1.5

(Priority 3)

The Fleet Operations Division should monitor and report quarterly the percentage of preventive maintenance and inspections completed on time by City departments or other accountable work groups to the Deputy Chief Operating Officers.

Management Response: Agree [See full response beginning on page 42.]

Target Implementation Date: December 2025

Finding 2

Fleet is able to complete most preventive maintenance services in less than a day, but additional steps may help streamline services, increase vehicle availability for departments' operations, and improve the timeliness and compliance rates of required maintenance and safety inspections.

Finding Summary

Ensuring timely preventive maintenance and inspections requires the efforts of the Fleet Operations Division (Fleet) as well as departments throughout the City. Measuring, monitoring, and communicating are a critical part of those efforts. To that end, many fleet agencies use turnaround time metrics to measure efficiency of a preventive maintenance program. However, Fleet does not have established expected turnaround targets for preventive maintenance services and inspections to communicate with City departments. According to Fleet, it is challenging to communicate a projected turnaround time due to the unpredictability of delays or the potential of identifying a repair during services. However, this adds uncertainty and makes it hard for departments to plan their day-to-day operations. The lack of visibility may also lead to reluctance to bring vehicles in for maintenance. To improve clarity around turnaround times and help minimize impacts to City operations, Fleet should develop and communicate expected turnaround time and targets for maintenance services to departments.

The National Association of Fleet Administrators (NAFA) recommends measuring turnaround times by three metrics: percent returned in less than 24 hours, less than 48 hours, and over 48 hours. We found that more than half of preventive maintenance work orders were completed the same day. However, because of outliers, the average turnaround time in fiscal year (FY) 2023 was calendar 3 days, even though Fleet staff would spend an average of only 2 hours servicing a vehicle. Much of the delay was attributed to labor availability, far more so than due to ordering and waiting for parts to arrive. We found examples where vehicles were dropped off and technicians were not able to work on them for a few days. The lack of available staff poses a greater challenge for Fleet to reduce turnaround times. Notably, the City's fleet size has grown faster than the number of technicians available to service the vehicles. Scheduling appointments for preventive maintenance could help with both City department uncertainty and managing internal workflow. In addition, increasing use of the Assistant Fleet Technician position could help Fleet achieve its preventive maintenance goals timely and efficiently.

Knowing fleet maintenance schedules and vehicle downtime could help City departments plan their operational activities and turn in their vehicles for timelier preventive maintenance.

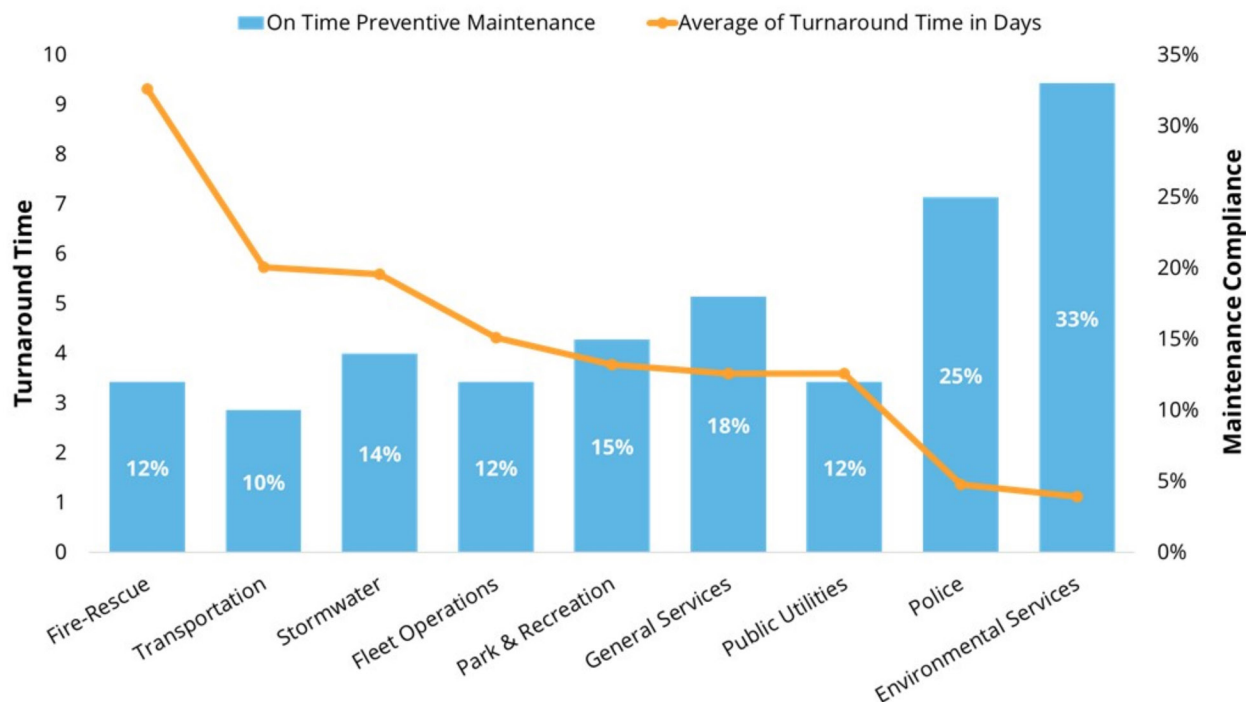
According to NAFA, turnaround time is a key metric for fleet maintenance operations. For example, the City of Long Beach Fleet Services Bureau has turnaround time performance metrics in its department Key Performance Indicators. Best practices state that City departments should know their fleet's maintenance schedules and downtime to help plan their day-to-day operations. However, Fleet does not communicate expected turnaround times for preventive maintenance services and inspections to City departments. According to Fleet, turnaround times can be difficult to estimate due to the potential of identifying a repair during services or the need to order a part for the vehicle.

Unknown turnaround time makes it hard for departments to plan their day-to-day operations when vehicles are being serviced.

Unknown turnaround time makes it hard for departments to plan their day-to-day operations when vehicles are being serviced. It may also lead to reluctance to bring vehicles in for maintenance, adding to the effects discussed in Finding 1. In fact, as shown in **Exhibit 11**, longer turnaround times appeared to correspond with lower rates of preventive maintenance compliance. Therefore, Fleet should develop and communicate turnaround time goals for maintenance services to departments to improve clarity around turnaround times and help minimize impacts to City operations.

Exhibit 11

Longer Turnaround Times Appeared to Correspond With Lower Rates of Preventive Maintenance Compliance in FY2023



Note: Exhibit includes only departments with more than 100 vehicles and only preventive maintenance services (i.e., no inspections or repairs). Delays are included in turnaround time. Some vehicles were returned to service while they waited for maintenance; however, data includes only vehicles that remained out of service during maintenance.

Source: OCA generated based on data from FleetFocus.

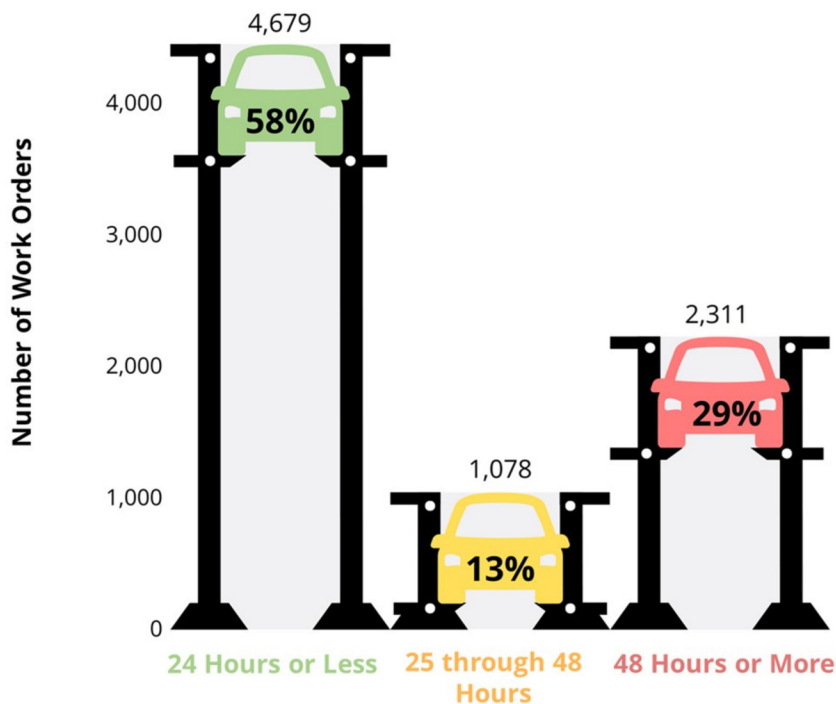
In addition to recent dashboards that Fleet has built out to show information about overall vehicle availability, FleetFocus has a self-service mechanism for City departments to access the status of their service and repair requests in real time. Through this feature, departments can review work orders and view other key fleet metrics, such as upcoming due preventive maintenance. However, we found that not all departments were aware of the self-service mechanism or how to use it. For example, some departments we interviewed stated that they were unaware of maintenance and inspection turnaround time. They reported having no insight into where their vehicles stood in the maintenance queue and having to call Fleet personnel to individually check on repair status. Departments should be made aware of the abilities of FleetFocus and be trained on how they can use it to support their operations and planning.

Fleet’s preventive maintenance services take an average of 2 labor hours; however, delays increase the average turnaround time to 3 calendar days.

According to NAFA, fleets commonly track turnaround time using the percent of vehicles returned to customers in the following categories: less than 24 hours, less than 48 hours, and over 48 hours. However, we did not find a common industry standard for the actual percentage returned in each of the categories. We measured turnaround time based on the duration between when Fleet checks in a vehicle to when the maintenance or repair is complete (i.e., out-of-service to back-in-service). We found that more than half of maintenance work orders were completed the same day, as shown in **Exhibit 12**. However, the average turnaround time for maintenance services across all City departments in FY2023 was 3 calendar days, even though Fleet staff was able to complete the actual servicing of a vehicle in just 2 hours on average, as shown in **Exhibit 13**. Therefore, impacts to City operations could be minimized if Fleet were able to service vehicles with fewer delays.

Exhibit 12

In FY2023, 58% of Maintenance Work Orders Were Completed in Less Than 24 Hours

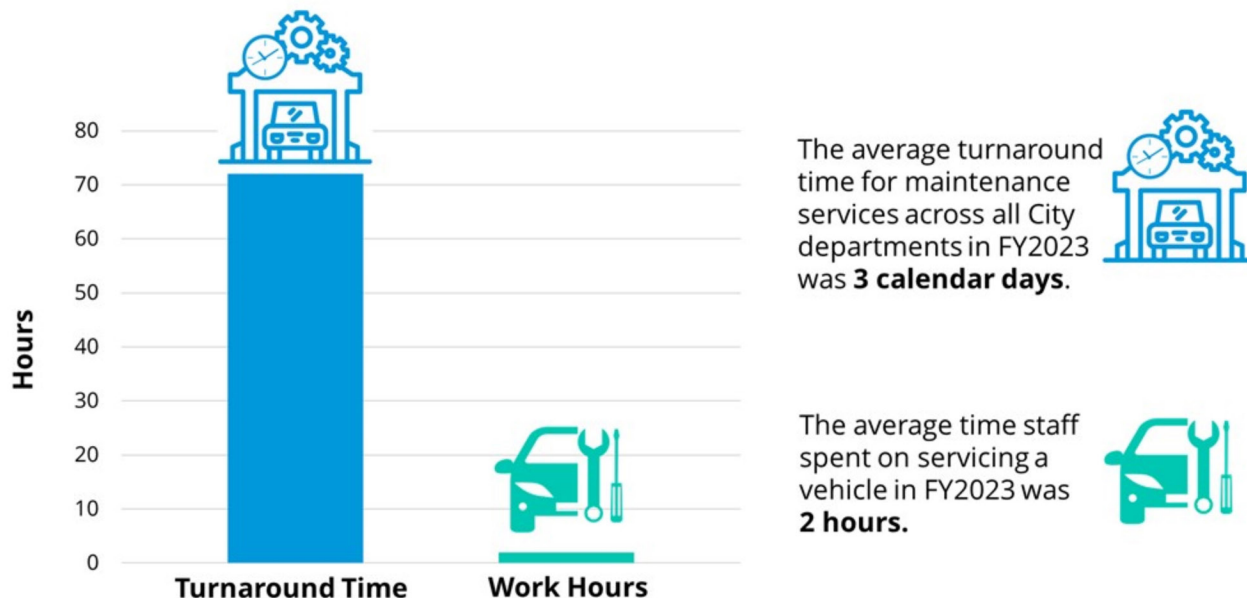


Note: Exhibit includes only preventive maintenance services (i.e., no repairs). Delays are included in turnaround time. Some vehicles were returned to service while they waited for maintenance; however, data includes only vehicles that remained out of service during maintenance.

Source: OCA generated based on work order data from FleetFocus.

Exhibit 13

The Citywide Average for Maintenance Turnaround Time Was 3 Calendar Days, Even Though Fleet Was Able to Complete the Servicing in Just 2 Hours on Average



Note: Maintenance services includes preventive maintenance and inspections. Some vehicles were returned to service while they waited for maintenance; however, data includes only vehicles that remained out-of-service during maintenance.

Source: OCA generated based on work order data from FleetFocus.

77 percent of preventive maintenance services in FY2023 had a delay, the vast majority of which were attributed to labor availability.

To reduce turnaround time, the lack of available Fleet staff appears to pose a greater challenge than parts delay.

Citywide, in FY2023, we found that 77 percent of preventive maintenance services had a delay of any kind. Examples included, but were not limited to, waiting for labor, transferring the vehicle from one facility to another, or waiting for parts. Further, at least 88 percent of delays were caused by waiting for labor. A work order that has a labor delay means there is no technician available to service the vehicle. In addition to labor delays, Fleet will order vehicle parts if they are not available at the repair facility. A vehicle can be out of service even longer while waiting for parts; however, in FY2023, we found that only 2 percent of work order delays were caused by waiting for parts. Therefore, to reduce turnaround time, the lack of available Fleet staff appears to pose a greater challenge than parts delays.

For example, a Vactor truck from the Stormwater Department was brought in for both a preventive maintenance service and a BIT inspection.¹⁰ On Tuesday April 4, 2023, Fleet checked in the truck for maintenance and listed a labor delay. When a technician was available on Friday April 7, the services were completed, resulting in a labor delay of 27.1 hours.¹¹ Though the maintenance and inspection took just 3.2 hours total, it took 3 days from April 4th to April 7th before the truck was returned to the Stormwater Department and back in service. The Stormwater Department could have received its vehicle in about 3 hours rather than 3 days had there been available technicians.

In another case, a Ford F350 truck from the Public Utilities Department was brought in for both a preventive maintenance service and a BIT inspection. Fleet checked in the truck for maintenance on November 4th. Because November 4th was a Friday, the services were not completed until Monday, November 7th after a labor delay of 5.8 hours—a 3-day turnaround total from Public Utilities' perspective.

Labor delays can be prolonged due to the capacity and condition of Fleet's facilities.

Labor delays can also be prolonged due to the capacity and condition of Fleet's facilities. For example, we found inoperable steam bays and car washes at more than one garage. In addition, according to Fleet, technicians sometimes need an entire shift to clean a vehicle to be able to service it. Technicians may also be the ones servicing the car washes to keep them active. Facilities maintenance is not within the scope of this audit; however, in July 2024, we published an audit of the City's facilities maintenance, which identified several potential improvements and recommended a plan to present actual and anticipated facility maintenance needs.¹²

¹⁰ A Vactor is a truck with a pump and tank used for cleaning and excavation tasks such as storm drain or sewer cleaning.

¹¹ The labor delay of 27.1 hours is calculated in FleetFocus using available working hours.

¹² The link to the Performance Audit of Facilities maintenance is provided here and can be found on the Office of the City Auditor's website: [Performance Audit of Facilities Maintenance](#).

Scheduling appointments for preventive maintenance could help with both City department uncertainty and managing internal workflow.

Given limited staffing, managing workflow is critical to reducing turnaround time. Unscheduled fleet vehicle drop-offs make managing a consistent workflow difficult. Some departments may schedule appointments in advance. However, according to Fleet, departments commonly drop off their vehicles unannounced, often before weekends and holidays, which often results in a backlog of work orders. We also spoke with multiple City departments who expressed uncertainty around when their vehicle would be worked on and available again.

Fleet should prioritize vehicles that have scheduled preventive maintenance appointments over unscheduled drop-offs.

According to Fleet, currently, FleetFocus has the capability to set up an appointment system; however, due to resource constraints, Fleet has not set up a way for departments to schedule maintenance in advance. Scheduling appointments for when labor is available would likely improve turnaround time and maintenance timeliness by increasing predictability and reducing the inconvenience of downtime for City departments. To mitigate delays and improve customer service, Fleet should implement or update the intake process by utilizing scheduled preventive maintenance appointments in advance, where possible, and training departments on the scheduling process. Fleet should also prioritize vehicles that have scheduled preventive maintenance appointments over unscheduled drop-offs, allowing for exceptions in extenuating circumstances, such as major repairs or public safety.

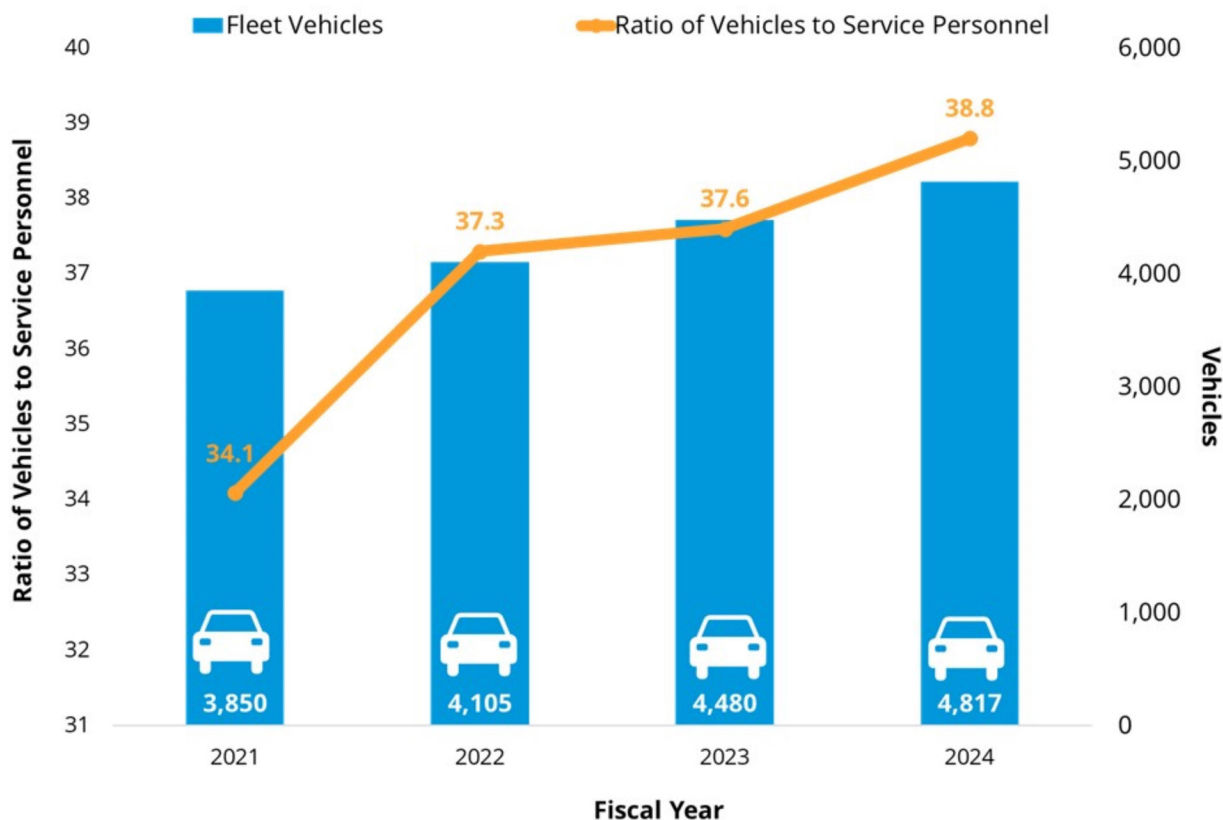
The number of fleet technicians has not kept pace with the growth of the City's fleet.

Over time, the number of vehicles per service professional at the City has grown each fiscal year.¹³ **Exhibit 14** shows that while the fleet has grown by almost 1,000 vehicles and equipment, the ratio of vehicles to Fleet service professionals has gone from 34.1 to 38.8. According to the City's Independent Budget Analyst, Fleet has had difficulty filling vacant service professional positions with qualified staff. Fleet has not been able to fill vacancies due to challenges competing with other agencies and private companies. There is also an industry-wide shortage of technicians. The rising number of fleet vehicles per fleet service personnel is contributing to higher turnaround time for maintenance.

¹³ According to Fleet, Assistant Fleet Technicians, Fleet Technicians, Master Fleet Technicians, and Fleet Team Leads are known as repair "service professionals." These professionals are the staff performing preventive maintenance and inspections.

Exhibit 14

The Number of Fleet Service Personnel Has Not Kept Pace With the Growth in the City’s Fleet in Recent Years



Note: Based on the following roles: Fleet Technicians, Assistant Fleet Technicians, Master Fleet Technicians, and Fleet Team Leaders – SAP workforce snapshot taken as of November 7th, 2021, 2022, 2023, and 2024.

Source: OCA generated based on active vehicle information from FleetFocus and SAP.

Increasing use of the Assistant Fleet Technician position could help Fleet achieve its maintenance and turnaround time goals.

Currently, Fleet heavily utilizes the Fleet Technician role for maintenance, as shown in **Exhibit 15**. The job description in the City of San Diego employment website states the Fleet Technician role requires successful completion of a State-accredited 4-year apprenticeship program or 4 years of full-time experience as part of the minimum qualifications for the role. The job requirements for the role could limit its ability to attract talent even with private sector experience.

The Assistant Fleet Technician role could help Fleet achieve its preventive maintenance and other repair goals in a cost-effective manner. The Assistant Fleet Technician is an additional position that does not require 4 years of experience as a minimum qualification. The Assistant Fleet Technician role is a skilled position that can contribute to Fleet’s goals and services in many ways, including preventive maintenance and inspections.

Exhibit 15 demonstrates the position is significantly less utilized than a Fleet Technician, with just 22 Assistant Fleet Technicians as of November 2024.

Exhibit 15

Increasing Use of the Assistant Fleet Technician Position May Help Fleet Achieve Its Preventive Maintenance Goals Timely and Efficiently (Fleet Services Roles Snapshot – November 2024)

Job Classification	Positions	Average of Annual Salary	Total of Annual Salary
Fleet Manager	5	\$131,265	\$656,323
Fleet Repair Supervisor	10	\$108,834	\$1,088,337
Fleet Team Leader	9	\$95,188	\$856,693
Master Fleet Technician	12	\$85,110	\$1,021,320
Fleet Technician	83	\$79,522	\$6,600,353
Fleet Parts Buyer Supervisor	1	\$79,456	\$79,456
Fleet Parts Buyer	5	\$65,865	\$329,326
Asst Fleet Technician	22	\$64,847	\$1,426,628
Fleet Attendant	1	\$50,357	\$50,357
Total	148	\$82,816	\$12,108,793

Source: OCA generated based on data from SAP (workforce snapshot as of November 7, 2024).

Identifying the optimal share of the Assistant Fleet Technician position out of service professional positions may help Fleet achieve its preventive maintenance goals timely and cost-effectively, while attracting talent that can grow and develop from within.

Recommendations

To help streamline services, increase vehicle availability for departments' operations, and improve the timeliness and compliance rates of required maintenance and safety inspections, we recommend:

Recommendation 2.1

(Priority 2)

The Fleet Operations Division should establish, monitor, and report turnaround time goals and performance to City departments and Deputy Chief Operating Officers along with the information in Recommendation 1.5.

Management Response: Agree [See full response beginning on page 42.]

Target Implementation Date: June 2026

Recommendation 2.2

(Priority 2)

The Fleet Operations Division should ensure City departments are aware of the self-service mechanism they can use to see the status of each of their service and repair requests. For example, Fleet can ensure read-only access in FleetFocus to select staff from each department and train them on how to monitor the status of their service requests.

Management Response: Agree [See full response beginning on page 43.]

Target Implementation Date: September 2025

Recommendation 2.3

(Priority 1)

The Fleet Operations Division (Fleet) should implement or update the intake process by utilizing scheduled preventive maintenance appointments in advance where possible, and training departments on the scheduling process.

Management Response: Agree [See full response beginning on page 43.]

Target Implementation Date: December 2025

Recommendation 2.4

(Priority 1)

The Fleet Operations Division (Fleet) should prioritize vehicles that have scheduled their preventive maintenance appointments in advance, allowing for exceptions in extenuating circumstances, as set by Fleet.

Management Response: Agree [See full response beginning on page 43.]

Target Implementation Date: June 2026

Recommendation 2.5

(Priority 2)

The Fleet Operations Division should conduct an analysis to determine the optimal share of the Assistant Fleet Technician position out of service professional positions and/or their ability to more strategically target their time to help achieve its preventive maintenance goals timely and efficiently.

Management Response: Agree [See full response beginning on page 44.]

Target Implementation Date: December 2025

Appendix A

Definition of Audit Recommendation Priorities

The Office of the City Auditor maintains a priority classification scheme for audit recommendations based on the importance of each recommendation to the City, as described in the table below.

While the City Auditor is responsible for providing a priority classification for recommendations, it is the City Administration’s responsibility to establish a target date to implement each recommendation, taking into consideration its priority. The City Auditor requests that target dates be included in the Administration’s official response to the audit findings and recommendations.

PRIORITY CLASS*	DESCRIPTION
1	Fraud or serious violations are being committed. Significant fiscal and/or equivalent non-fiscal losses are occurring. Costly and/or detrimental operational inefficiencies are taking place. A significant internal control weakness has been identified.
2	The potential for incurring significant fiscal and/or equivalent nonfiscal losses exists. The potential for costly and/or detrimental operational inefficiencies exists. The potential for strengthening or improving internal controls exists.
3	Operation or administrative process will be improved.

* The City Auditor is responsible for assigning audit recommendation priority class numbers. A recommendation that clearly fits the description for more than one priority class shall be assigned the higher priority.

Appendix B

Audit Objectives, Scope, and Methodology

Objectives

In accordance with the Office of the City Auditor's approved Fiscal Year 2024 Audit Work Plan, we conducted a performance audit of the Fleet Operations Division (Fleet). The objectives of this audit were to:

1. Determine if City vehicles are being serviced according to Fleet Operations Division's established preventive maintenance schedules; and
2. Determine how timely vehicles are being returned to City departments after preventive maintenance.

Scope

Our analysis focused on preventive maintenance and inspection work orders completed in fiscal year (FY) 2023 of City-owned fleet vehicles. We analyzed all preventive maintenance services. For inspections, we include Basic Inspection of Terminal (BIT), smog, and diesel opacity inspections. We exclude preventive maintenance and inspection work orders on vehicles that were out of service at the time maintenance was due. For the amount of time it takes for Fleet to return vehicles to City departments, we exclude vehicles that were returned to service while they waited for maintenance. Our audit scope did not include analysis of repair work orders, inventory management, vehicle acquisition, vehicle lifecycle analysis, transition to zero-emission vehicles, and hiring policies.

Methodology

To determine if City vehicles are being serviced according to Fleet's established preventive maintenance schedules and the amount of time it takes for Fleet to return City vehicles to City departments after preventive maintenance is complete, we:

- Analyzed Fleet's data from FleetFocus Enterprise Asset Management System (FleetFocus) to review fleet maintenance activities and operations, including:
 - Matched FleetFocus repair work order data to preventive maintenance data in R Studio to determine services due on out of service vehicles and equipment.
 - Matched FleetFocus delay code data to preventive maintenance data in R Studio to determine vehicles returned to service while waiting for parts or labor.
 - Tested for trends in preventive maintenance/inspection compliance, turnaround time, and out of service time by department, vehicle type, priority, and repair facility.

- Analyzed the length of delays for parts, labor, and other reasons for delay.
- To determine if vehicle operators conduct safety inspections and the inspections are accurate and uploaded in FleetFocus, we tested a statistically significant sample of 52 heavy-duty vehicles serviced at the City's Chollas Service Center in FY2023 for a 10% error rate at 90% confidence. We reviewed paper records for 141 BIT inspections forms to ensure data in FleetFocus EAM data matched technician's paper forms.
- Reviewed industry standards, best practices, and benchmark information on preventive maintenance/inspection compliance, turnaround time, and effects of overdue maintenance from:
 - California Highway Patrol
 - Government Fleet
 - Geotab
 - National Association of Fleet Administrators
 - U.S. General Services Administration
- Reviewed applicable City policies and regulations relevant to fleet maintenance:
 - San Diego Municipal Code 2 Article 51
 - Administrative Regulation 30.20
 - California Vehicle Code Section 34501.12
 - California Smog Health and Safety Code Division 26 Part 5 Chapter 5 Article 2
- Reviewed fleet maintenance audits and reviews conducted by:
 - Austin, TX
 - Chicago, IL
 - County of San Diego, CA
 - Fort Worth, TX
 - Dallas, TX
 - Glendale, AZ
 - Long Beach, CA
 - Orange County, CA
 - Pittsburgh, PA
 - San Diego, CA
 - San Jose, CA
- Reviewed City budget and documents relevant to Fleet's Adopted Budgets and Workforce Reports from FY2017 through FY2025, including an Office of the Independent Budget Analyst review.

- Reviewed Herc Rentals purchase order expenditures from October 2019 through March 2024.
- Determined the status of preventive maintenance notifications to City departments and researched how Fleet tracks, measures, and communicates fleet vehicle maintenance activities by interviewing key staff and stakeholders:
 - Deputy Chief Operating Officer overseeing General Services
 - Director of General Services
 - Assistant Director of General Services
 - Deputy Director Fleet Operations Division and Fleet Operations Division staff, including technicians
 - Fire-Rescue staff
 - Parks and Recreation staff
 - Public Utilities staff
 - San Diego Police Department staff
 - California Highway Patrol representative
- Conducted site visits to Fleet's repair facilities, including:
 - Chollas Operational Yards
 - Kearny Mesa Repair Facility
 - Mid-City Police Station repair facility
 - Miramar Place Operations
 - Western Police Division repair facility
- Benchmarked Fleet's maintenance workflow, preventive maintenance compliance, incentives, and turnaround time with the City of Long Beach, CA.
- Analyzed the number of budgeted and filled positions at Fleet compared to the fleet size to determine the ratio of Assistant Fleet Technicians, Fleet Technicians, Master Fleet Technicians, and Fleet Team Leads (i.e., service professionals) to vehicles.

Data Reliability

We primarily worked with work order data extracted from FleetFocus. We assessed the reliability of these datasets by reviewing existing information about the data and the systems that produced them and interviewing Fleet management and staff knowledgeable about the data and how it is entered. In addition, we reviewed paper BIT inspection forms for accuracy compared to the system. We determined that the data were sufficiently reliable for the purposes of responding to our objectives.

Internal Controls Statement

We limited our review of internal controls to specific controls relevant to our audit objectives, described above.

Compliance Statement

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 CITY OF SAN DIEGO

M E M O R A N D U M

DATE: January 31, 2025

TO: Andy Hanau, City Auditor, Office of the City Auditor

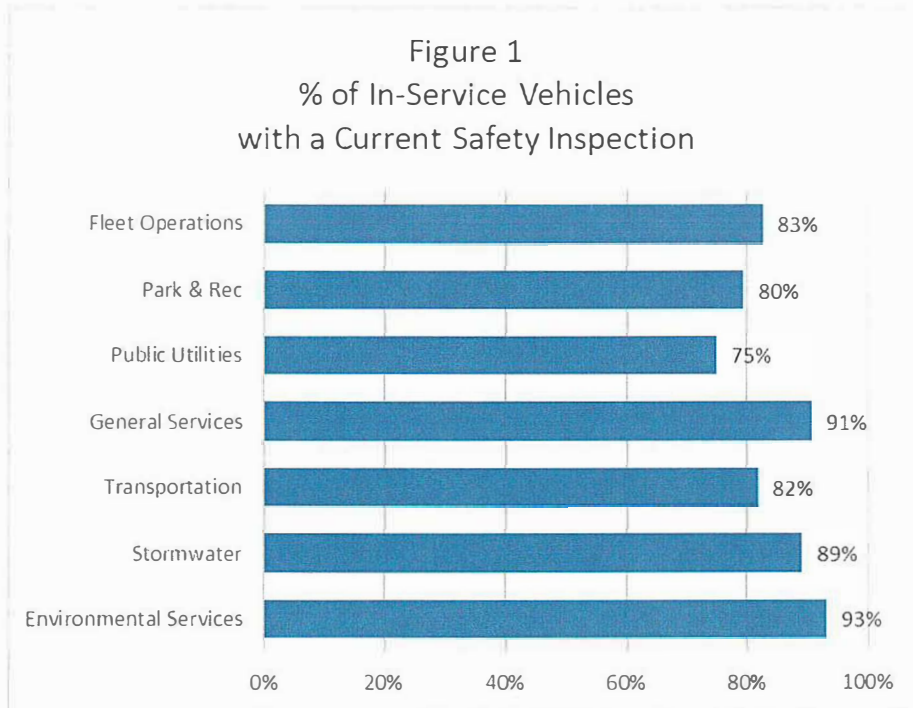
FROM: Musheerah Little, Director, Department of General Services

SUBJECT: Management Response to City Auditor's Performance Audit of the City's Fleet Maintenance

This memorandum serves as the Management Response to the Performance Audit of the City's Fleet Maintenance. Management appreciates the Performance Audit prepared by the Office of the City Auditor and thanks the staff involved. Management agrees with all recommendations.

The Fleet Operations Division (FOD) of the Department of General Services (DGS) provides comprehensive fleet management services by delivering environmentally friendly, safe, and dependable vehicles, equipment, and fuel. While our primary goal is to provide quality fleet service efficiently and economically and maintain vehicle availability to meet the City's needs, the Department has experienced numerous challenges which have hampered performance. Those challenges include: difficulty filling technician positions due to market availability of qualified fleet technicians, increase in the fleet size without proportionally increasing staff to maintain vehicles, and challenges sourcing parts.

Despite these challenges, staff have consistently demonstrated the ability to maintain the City's growing fleet of 4900 motive vehicles and equipment and have made remarkable strides in improving vehicle availability. For instance, safety inspections referenced in Exhibit 9 of auditor's report have increased significantly. Figure 1 below details the current state of safety inspections for those departments as of 1/28/2025. Overall, 80% of in-service vehicles that require a periodic safety inspection are complete, and the Department continues to work towards balancing workloads demands and competing priorities to achieve a sustainable 100% on-time completion rate.



An example of this success is our refuse packer fleet, which has been averaging 99% on-time safety inspections for operational vehicles since the beginning of Fiscal Year 2025. In addition, we continue to update our preventive maintenance (PM) plans ensuring that all vehicles have an appropriate PM associated with each vehicle type. Lastly, we continue to develop and enhance dashboards to more efficiently monitor and report fleet availability, utilization, PMs, and acquisition stages.

FOD has shown a passion for their mission and demonstrated the values of service and responsiveness. Staff have consistently provided outstanding customer service, extraordinary effort, and creative solutions with their limited resources. The Department is committed to continually enhancing maintenance operations.

Management recognizes that there are areas requiring improvement and we are actively working on implementing corrective actions. We appreciate the auditor's insights and recommendations and will keep you informed on our progress as we implement these improvements.

To implement the recommendations and ultimately ensure preventative maintenance (PM) and safety inspections are completed on time, additional resources will be required.

RECOMMENDATION 1.1

The Office of the Chief Operating Officer, in accordance with Administrative Regulation 30.20, should ensure City departments meet section 5.2.1 to designate one or more Fleet Coordinator(s) based on the size of the department's fleet; for example, by submitting a dated list of identified names, and an updated directive to departments to ensure that departments maintain active designees.

(Priority 2)

Page 3
Andy Hanau, City Auditor, Office of the City Auditor
January 31, 2025

MANAGEMENT RESPONSE: Management Agrees with the recommendation.

Target Implementation Date: 6/30/2025

FOD will develop an annual process where a Fleet Coordinator will be identified for each Department by the corresponding Department Director. A Fleet Coordinator Distribution list will then be created and maintained for all coordinators for correspondence as detailed in recommendation 1.2.

RECOMMENDATION 1.2

The Fleet Operations Division should work with each City department's Fleet Coordinator(s) (per Recommendation 1.1) to confirm or update its contact list for preventive maintenance and inspection notifications and ensure the correct contact is receiving notifications regarding past due and upcoming preventive maintenance. Fleet should develop a policy or procedure to ensure the list is kept current through future updates.

(Priority 2)

MANAGEMENT RESPONSE: Management Agrees with the recommendation.

Target Implementation Date: 9/30/2025

FOD will work with the Fleet Coordinators designated by Recommendation 1.1 and will develop means of correspondence and provide access to the Fleet management Information System. FOD will maintain a contact list for preventative maintenance notifications via an agenda item for the scheduled department meetings per recommendation 1.3.

RECOMMENDATION 1.3

The Fleet Operations Division should lead regular quarterly meetings with relevant City departments, in compliance with Administrative Regulation 30.20, to review and discuss their current fleet issues, needs, and concerns holistically; for example, by using a standardized agenda template including their recent preventive maintenance compliance rates (including relevant inspections), vehicle availability and fleet size, and adherence to defined roles and responsibilities etc.

(Priority 2)

MANAGEMENT RESPONSE: Management Agrees with the recommendation.

Target Implementation Date: 9/30/2025

FOD will lead periodic meetings at least quarterly (or more frequently as needed) with the Departments listed below per Administrative Regulation 30.20. FOD will develop a standardized agenda across relevant departments.

ESD
Facilities
Fire
P&R
PD
PUD
Stormwater
Transportation

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RECOMMENDATION 1.4

The Office of the Chief Operating Officer should consult with the Fleet Operations Division and City departments to develop and communicate a set of workable and appropriate incentives, disincentives, and/or monitoring capabilities to reduce the number of late preventive maintenance services and required regulatory inspections. The resulting effects and outcomes should be monitored, for example through a reporting control as in Recommendation 1.5 and adjusted as appropriate to increase the compliance rate.

(Priority 1)

MANAGEMENT RESPONSE: Management Agrees with the recommendation.

Target Implementation Date: 12/31/2025

FOD will develop monitoring capabilities for the performance of Preventative Maintenance services and Regulatory Inspections. FOD will work with the Performance and Analytics team to further develop the existing Citywide Fleet Dashboard to include these monitoring metrics and provide access to the dashboard to the Executive Team.

RECOMMENDATION 1.5

The Fleet Operations Division should monitor and report quarterly the percentage of preventive maintenance and inspections completed on time by City departments or other accountable work groups to the Deputy Chief Operating Officers.

(Priority 3)

MANAGEMENT RESPONSE: Management Agrees with the recommendation.

Target Implementation Date: 12/31/2025

FOD will work with the Performance and Analytics team to further develop the existing Citywide Fleet Dashboard to include Preventative Maintenance and Regulatory Inspection monitoring metrics. FOD will provide access to the Citywide Fleet Dashboard for the Deputy Chief Operating Officers, Chief Operating Officer, and Public Safety Chiefs to provide on-demand access of their department's metrics.

RECOMMENDATION 2.1

The Fleet Operations Division should establish, monitor, and report turnaround time goals and performance to City departments and Deputy Chief Operating Officers along with the information in Recommendation 1.5.

(Priority 2)

MANAGEMENT RESPONSE: Management Agrees with the recommendation.

Target Implementation Date: 6/30/2026

FOD will develop metrics and provide data on the turnaround time for Preventative Maintenance and Inspections to Performance and Analytics team to include on the Citywide Fleet Dashboard to which we will provide Deputy Chief Operating Officers, Chief Operating Officer, and Public Safety Chiefs access.

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RECOMMENDATION 2.2

The Fleet Operations Division should ensure City departments are aware of the self-service mechanism they can use to see the status of each of their service and repair requests. For example, Fleet can ensure read-only access in FleetFocus to select staff from each department and train them on how to monitor the status of their service requests.

(Priority 2)

MANAGEMENT RESPONSE: Management Agrees with the recommendation.

Target Implementation Date: 9/30/2025

FOD will provide read-only access to its Fleet Management Information System ("FleetFocus") to the Fleet Coordinators (Recommendation 1.1) and Department Contacts (Recommendation 1.2). FOD will provide training on the use of the customer portal, reporting tools, and dashboards in FleetFocus.

RECOMMENDATION 2.3

The Fleet Operations Division (Fleet) should implement or update the intake process by utilizing scheduled preventive maintenance appointments in advance where possible, and training departments on the scheduling process.

(Priority 1)

MANAGEMENT RESPONSE: Management Agrees with the recommendation.

Target Implementation Date: 12/31/2025

FOD will review the capabilities and system requirements of its FleetFocus system or other scheduling system and establish the capability to schedule maintenance and inspection appointments in advance.

RECOMMENDATION 2.4

The Fleet Operations Division (Fleet) should prioritize vehicles that have scheduled their preventive maintenance appointments in advance, allowing for exceptions in extenuating circumstances, as set by Fleet.

(Priority 1)

MANAGEMENT RESPONSE: Management Agrees with the recommendation.

Target Implementation Date: 6/30/2026

FOD will develop a Standard Operating Procedure to prioritize PM's scheduled in-advance over unscheduled PMs that are not overdue when other extenuating circumstances do not exist.

FOD will explore other operational efficiency measures that provide for better turn-around time for Preventative Maintenance and Inspections.

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RECOMMENDATION 2.5

The Fleet Operations Division should conduct an analysis to determine the optimal share of the Assistant Fleet Technician positions out of service professional positions and/or their ability to more strategically target their time to help achieve its preventive maintenance goals timely and efficiently.
(Priority 2)

MANAGEMENT RESPONSE: Management Agrees with the recommendation.
Target Implementation Date: 12/31/2025

FOD will conduct an analysis to determine the appropriate staffing levels of Assistant Fleet Technicians and other resources needed (ie: shop space and bays) to achieve and maintain PM goals. FOD notes that with limited resources the Department strives to strike a balance of journey level technicians with non-journey level technicians to support preventative maintenance, repairs, and inspections. A balance of all technician classifications ensures FOD can meet its goals for vehicle maintenance and repair.



Musheerah Little
Director
Department of General Services

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