

Fleet Management
2018
Annual Report

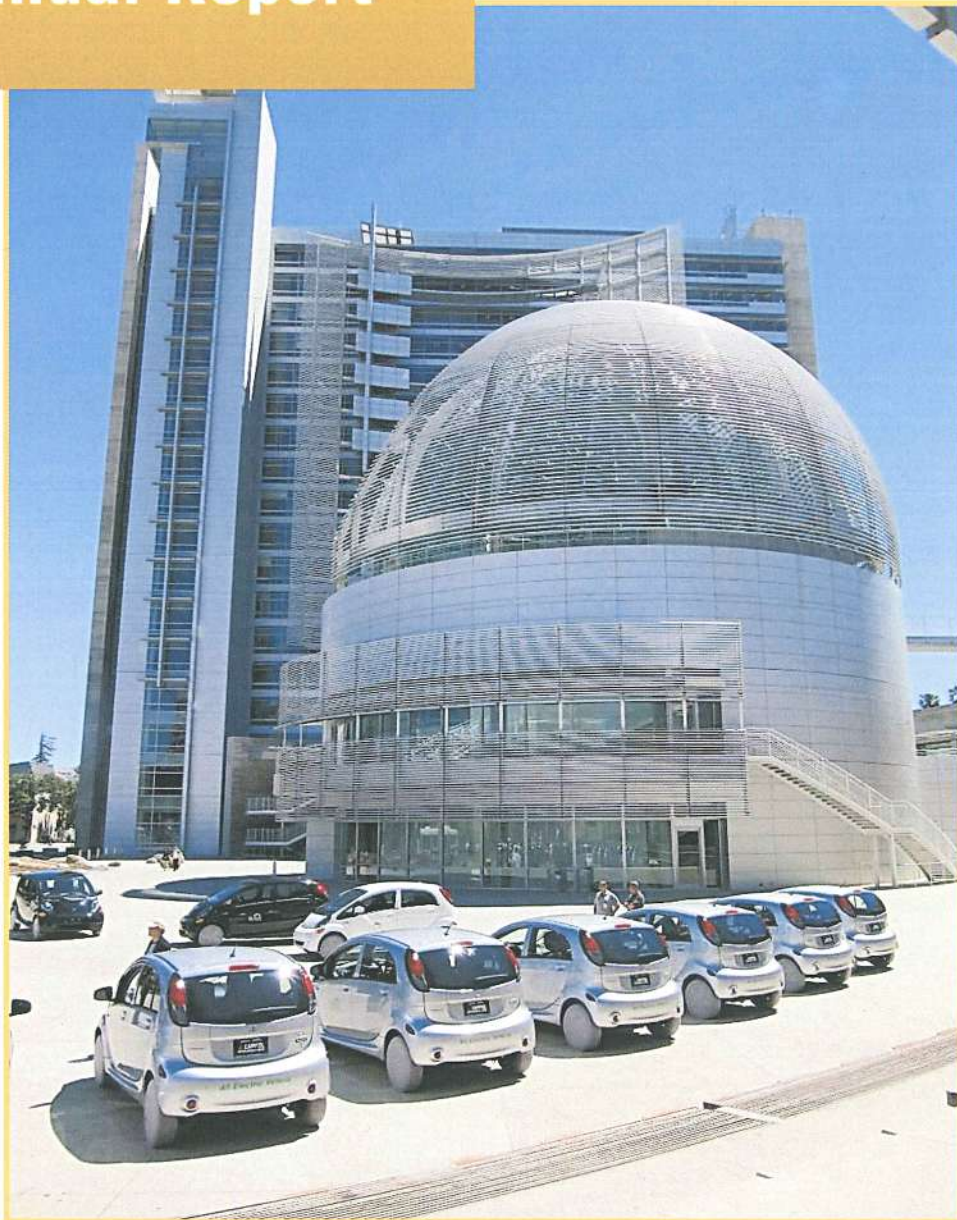


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EXECUTIVE SUMMARY

This is the fifth edition of the Fleet Management Annual Report prepared by the Department of Public Works. The Fleet Management Division (Fleet Management) resides in the Strategic Support City Service Area (CSA) and its management and operations are conducted behind the scenes supporting most City Service Areas. In this report are analysis, evaluation, and insight into this pivotal service with far reaching impacts to most City departments and the services they deliver to the residents of San José.

There are over 2,750 active fleet assets in service today. The annual operating budget for Fiscal Year 2017-18 is \$24.4 million, which includes \$4.7 million dedicated to fuel purchases and \$4.9 million for vehicle replacements. In addition to the adopted operating budget of \$24.4 million, Fleet also manages over \$20 million in special funds for vehicle replacement in FY 2017-18.

Fleet Management is a progressive organization that serves all departments in the City of San José. Its operating budget is an internal service fund that directly charges the client department for services rendered. There are currently 55 dedicated, highly trained, and skilled employees that completed approximately 22,000 work orders in 2017.

Fleet Management assets also have a major impact on the City's initiatives since vehicle technology is on the forefront of both smart and environmental innovation. Continued progress toward the City's Green Vision has been achieved with 45% of City vehicles powered by alternative fuel which benefits the transition to San Jose's future sustainability plans and goals. Continued and expanded adoption of innovative vehicle technology in the areas of telematics, idle reduction, renewable fuel, cleaner emissions, fuel efficiency, electric vehicles, and infrastructure, support significant progress towards sustainability and reduced greenhouse gas (GHG) emissions.

Fleet Management is a customer-service driven organization closely connected with its client departments. However, it has experienced incredible challenges maintaining its high customer service levels, green vision goals, and adequate funding for maintenance and replacement. These challenges and goals include acquiring a younger greener fleet, continuation of improved service delivery, developing and retaining skilled employees, expanding the use of fleet data tracking technology, and actively participating in nationally-recognized governmental fleet management organizations. In meeting these goals, Fleet Management will continue to be a model organization for both the public and private sectors.

MISSION

The Strategic Support CSA mission is to effectively develop, manage and safeguard the City's fiscal, physical, technological, and human resources to enable the delivery of City services and projects. The outcome is to provide safe and functional public infrastructure, facilities, and equipment. Fleet Management supports public safety and many other City functions that impact the quality of life for our residents. The CSA Mission is an intrinsic part of Fleet Management, where the organization strives to provide the highest quality, professional, customer-focused, and cost competitive services possible. This report includes data and information designed to give insight into these services, customer needs, and professional staff. Fleet Management is proud to support its customers and their endeavors to serve the City of San José residents.

Fire Dept. Tractor Drawn Aerial



CUSTOMERS

Fleet Management primarily serves two general categories of customers - public safety and non-public safety for both vehicles and mechanical equipment.

Public Safety

The City's public safety fleet consists of over 244 fire fleet assets and 828 police fleet assets. This includes over 140 fire support vehicles and equipment and more than 300 unmarked police vehicles. Public Safety vehicles differ from the rest of the

general fleet in the requirements of emergency response, including travel at high rates of speed through city streets. Thus, it is necessary to equip them with unique and special equipment such as speed-rated components, visibility characteristics (special warning lights, sirens, and graphics) and communication equipment (both radio and computer). It is paramount that these vehicles are maintained at the highest levels to ensure safety of our emergency personnel as well as the motorists and pedestrians that share the roads with these vehicles. Fire apparatus, especially trucks and engines, are held to strict standards of design, maintenance and testing governed by the National Fire Protection Association (NFPA). Fire engines that pump water for fire suppression are required to have their pumps tested and certified annually. Fire trucks with ladders or aerial platforms also must be certified annually. Police response vehicles are also regulated, primarily by the California Vehicle Code which defines warning light and siren requirements. Failure to install the correct systems and maintain their functionality creates unnecessary risks. The Public Safety fleet adheres to these standards.

Patrol Utility Vehicle



Non-Public Safety

The City's general fleet is very diverse and complex, with various types of vehicles and equipment assigned to departments throughout the City. This equipment is critical to departments delivering services that support the sewer systems, airport, building and code inspections, facility maintenance, parks, community centers, libraries, water treatment and service, street maintenance, street lights and traffic signals.

Often when people speak of fleets, they are simply referring to passenger vehicles. Given the complexity of City services, the City's fleet includes everything from dredges to amusement rides. The dredges are located at the City's Regional Wastewater Facility and weigh approximately 16 tons. They have large diesel engines with advanced emissions technology that provide power to high volume and high pressure hydraulic systems. The hydraulic systems power pumps and motors that rotate the auger head, propel the dredge, and pump sludge at 1,500 gallons per minute. These dredges mix and aerate bio-solids

before they are hauled away for disposal. Maintenance of amusement rides at the Happy Hollow Park and Zoo, is a highly-regulated activity by the State of California. Fleet Management is required to adhere to strict ride inspection schedules, maintenance tasks and undergo an annual state inspection to ensure that maintenance operations comply with state requirements. These are only two examples of the range and diversity in the assets that are managed and maintained by Fleet Management. A more comprehensive list is in Table 4 of this report and includes a diverse list of light and heavy vehicles and equipment. This diversity requires a wide range of parts resources and skilled staffing to maintain proper function and availability.

Regional Wastewater Facility (Dredge)



Happy Hollow (Carousel)



Table 1: Fleet Assets

Department	Equipment	Vehicles	Total Fleet Assets
Office of Economic Development	0	1	1
Information Technology	1	4	5
Housing	0	6	6
Library	0	9	9
Planning Building & Code Enforcement	0	129	129
Airport	82	78	160
Fire	61	183	244
Public Works	52	179	231
Environmental Services	189	131	320
Parks, Recreation & Neighborhood Services	161	232	393
Transportation	175	286	461
Police	35	793	828
Total	756	2,031	2,787

DOT Sewer Trucks

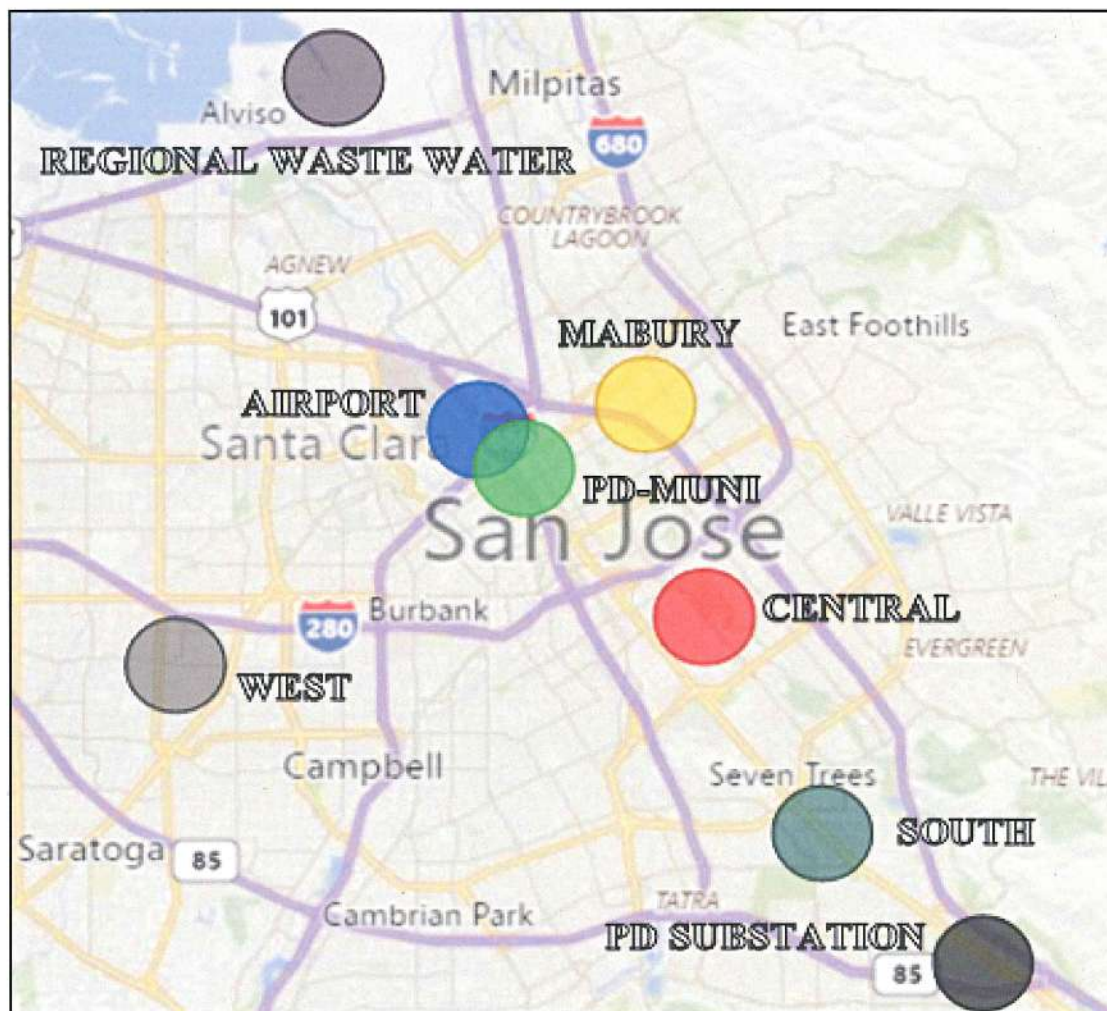
FLEET MANAGEMENT SERVICES

Fleet Management provides an array of vehicle and equipment related services to City departments.

- Preventive Maintenance and Repair
- Mobile Service
- Statutory Compliance
- Acquisition, Buildup and Disposal
- Vehicle and Equipment rental coordination
- Emergency Generator Maintenance and Repair
- After Hours Servicing Program (PBCE and Code Enforcement)
- Fuel Management

Fleet Management operates seven fleet facilities throughout the City with an eighth opening in summer 2018. Each facility supports a unique service and geographical area. The Police Municipal (PD Muni) facility supports public safety operations 7 days a week, 365 days a year, from 5:00 am to 11:00 pm. The remaining facilities are opened for a single shift during the weekday from 7:00 am to 3:30 pm. The map below identifies geographical locations of the eight fleet facilities.

Map 1: Fleet Facility Locations



Central Service Yard**Preventive Maintenance and Repair**

Fleet Management's core service is preventive maintenance (PM) and repair. This is a major component of the services provided for over 2,750 fleet assets. The preventive maintenance occurs on a schedule that is tracked and monitored in the fleet database. Time and/or miles traditionally define these schedules. The PM-to-repair ratio is improving but still lower than industry standards due to an aging fleet and the PM cycles that were extended as a budget reduction strategy. Due to the extended PM cycles there has been an increase in heavy mechanical failures and thus innovative strategies are being implemented such as using fuel consumption data in addition to time and miles. Corrective maintenance occurs when needed repairs are identified either during PM or when an operator discovers a problem between PM cycles. To support the PM and repair program, a comprehensive parts inventory facility was added to several service yards and great strides have been made to remove obsolete parts, update procedures, and recruit staff with parts management expertise. Efficiencies in the PM and repair program can be directly attributed to a well-managed parts program.

DOT Patch Truck**Mobile Service**

Fleet Management provides 24/7 mechanical response services to the Fire Department. Properly operating fire apparatus is critical to life and property preservation. A multi alarm fire requires more fire personnel and resources. An on-duty fire mechanic is called out for all 3-alarm fires or greater. Their role is to monitor and address all fire apparatus issues that may occur during the event in terms of proper performance and safety. For extended events the on-duty fire mechanic will deploy a second mechanic with a fuel truck to assist with maintaining and fueling the fire apparatuses.

Fleet Management also responds to 24/7 call-outs to fire stations for apparatus issues. Removing a fire apparatus from service and switching equipment can take fire personnel approximately three hours. In this process the fire personnel are out of service and unavailable for emergency response. To minimize the out of service time, Fleet Management provides drive-up service during shop hours for repairs that can be quickly completed to avoid unnecessary down time.

Fleet Management provides mobile maintenance, repair, and fueling services for 159 pieces of equipment requiring remote service, including 80 emergency generators and 12 pump stations located though out the City. Extended shop hours and mobile services are available and were utilized throughout the 2017 Flood Event.

Mobile Service (Fire Dept. support)

Statutory Compliance

Operating and managing a diverse fleet of vehicles is a highly-regulated activity by State and Federal agencies. Fleet Management must comply with several agencies and numerous regulations including environmental, safety and performance standards. Below is the number of tests completed by category for calendar year 2017.

Table 2: Statutory Compliance Activity

Program	Fleet Segment	Frequency	Qty	Test/Service Objective	Regulatory Agency
Smog Inspection Diesel	All On Road Diesel	Annual	241	Ensure Vehicle emissions meet standards	BAR ¹ / CARB ²
Pump Test	Fire Apparatus	Annual	63	Ensure pumps perform to requirements	NFPA ³
Aerial Inspection	Fire Apparatus/GF	Annual	69	Ensure cranes perform to requirements	NFPA / OSHA ⁴
Diesel Particulate Filter	2007 & Newer Diesel Trucks	Annual	115	Clean new diesel emission filters	CARB
BIT ⁵ Inspection	GF Trucks & Trailers	Quarterly	438	Ensure heavy truck and trailer brake and coupling systems perform to requirements	CHP ⁶
Smog Inspection	Light Duty	Bi-annual	557	Ensure Vehicle emissions meet standards	BAR / CARB
Total			1,483		

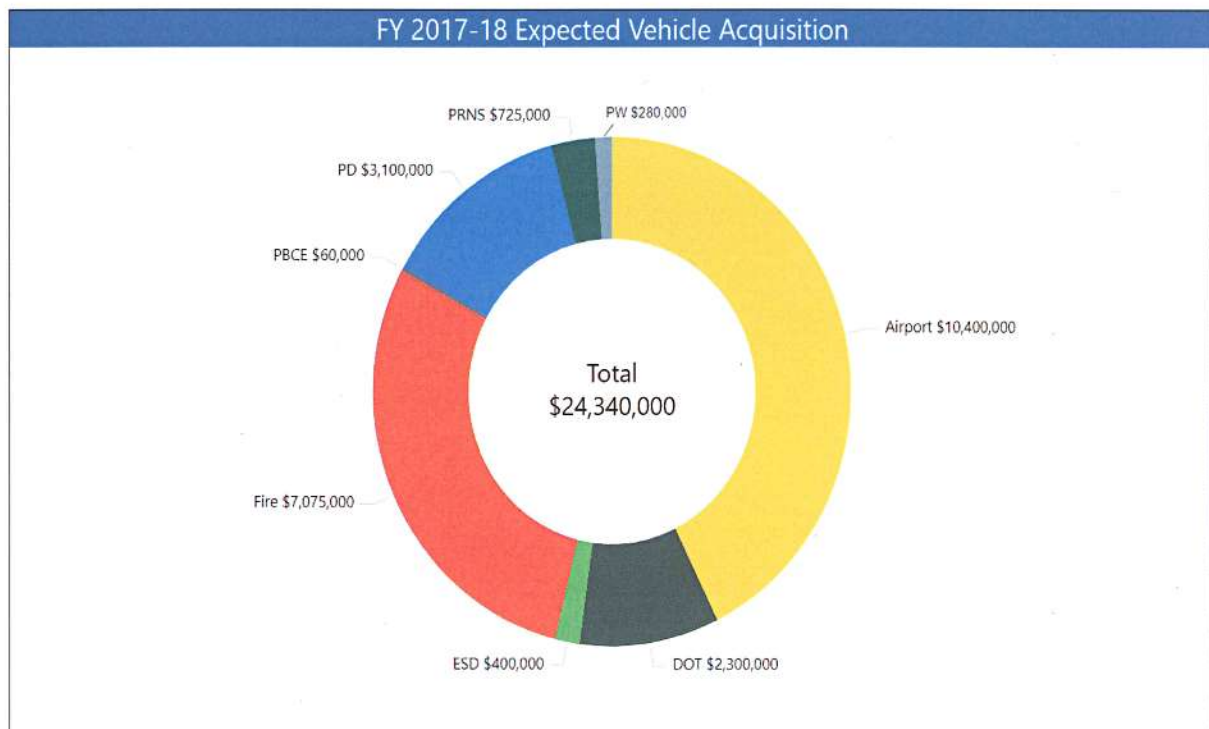
¹Bureau of Automotive Repair, ²California Air Resource Board, ³National Fire Protection Agency, ⁴Occupational Operational Safety and Health Administration, ⁵Basic Inspection of Terminals, ⁶California Highway Patrol

Pump Test



Acquisition, Buildup and Disposal

The Vehicle Support Services Section is part of Fleet Management and manages all vehicle acquisitions Citywide. This section is located at the PD Substation and Central Service Yard fleet facilities where they completed over 1,000 work orders in 2017 which included acquisition, buildup, disposal, modifications, service, and repair. A comprehensive replacement cycle for most vehicles and equipment within the City's inventory has been established. Public safety vehicles are consistently funded at levels that align with established replacement cycles and account for a large part of acquisition and disposal activity. Fleet Management works very closely with each City department during the acquisition phase to ensure new fleet assets meet its operational needs. During FY 2017-18, vehicle acquisitions will be approximately \$24.3 million, per the chart below. Approximately \$8 million will be for the Airport's new electric shuttles buses. In addition to developing specifications and working with Finance through the procurement process, the Vehicle Support Services Section outfits new police vehicles after delivery. Fleet Management averages over 60 public safety vehicle builds annually, which includes lights, sirens, communicating equipment and graphics. As new vehicles come into the fleet, old vehicles are retired and auctioned. Fleet Management prepares the vehicles for auction including removing all graphics and equipment. In 2017, 170 new vehicles were placed into service and approximately 150 were retired. Another function of this section is managing all Department of Motor Vehicles (DMV) vehicle licensing and registration.



Fuel Management

The Fleet Division manages the City's fueling infrastructure and supply. Fleet Management has six main City fuel sites and 26 fire station fuel sites that store and dispense fuel. Fuel management requires storage, dispensing, tracking, environmental compliance, inventory management and delivery coordination. This is a 24/7 service with a \$4.7 million annual budget. Managing the fuel supply optimizes service response, delivery and saves significant costs compared to purchasing from retail suppliers. The City currently pays \$2.91 per gallon for unleaded fuel versus the bay area average retail price of \$3.56.

Fuel consumption for the City's fleet has been declining since 2008. At that time the City's fleet consumed approximately 1.9 million gallons of fuel per year. Currently we are projecting to use 1.4 million gallons for FY 2017-18. Cost savings and reduced GHG emissions are positive results of lower fuel consumption. Fleet Management will continue efforts to reduce fuel use through new vehicle procurements targeting vehicles with improved fuel economy in combination with idle reduction strategies for new and existing vehicles. Another area of focus for reduced GHG emissions has been diesel fuel advances. In the previous year's report, the City was transitioning from the use of bio-diesel and regular diesel to renewable diesel. Renewable diesel results in lower GHG emissions and better vehicle performance than traditional diesel and bio-diesel. The City's fleet has now fully transitioned to renewable diesel. In California, renewable diesel is less expensive than bio-diesel.

Table 3: Fuel Consumption (July 2017 to February 2018)

TOTAL GALLONS AND AMOUNT				
	Gallons			Cost
	Unleaded	Diesel	Total	Total
Fuel Sites	661,507	229,454	890,961	\$2,280,568
Fire Dept.	10,418	119,279	129,697	\$383,617
Pump Station	0	4,200	4,200	\$10,322
Credit Cards	12,648	2,907	15,555	\$48,996
Total	684,573	355,840	1,040,413	2,723,504

South Yard Fuel Site



SERVICE DELIVERY

Supporting Local Agencies

Some municipal fleet services are specialized and require unique skills and not all public agencies have in-house capabilities. For instance, public safety vehicle equipment such as communications, warning lights, and sirens are unique to government fleets. Commercial contractual support is not often available. Thus, several agencies have contracted with Fleet Management over the years given our expertise and diverse talent pool. For example, Fleet Management has worked with the Town of Los Gatos in the past completely outfitting some of their patrol vehicles. Fleet Management also performs fire apparatus pump tests for the City of Sunnyvale. This is work that the City of Sunnyvale was sending to the Central Valley which required their apparatus to be out of service for days as opposed to only a few hours when working with the City of San José. Fleet Management has structured this activity to recover the full costs of providing the service and to offset the portion of overhead expenses that are incurred when performing internal services. The challenge is maintaining appropriate staffing levels and contractual agreements that meet the needs of both agencies.

Commercial Contractual Services

Fleet Management uses a combination of City fleet staff for day-to-day maintenance and repairs and contractual specialty services resulting in cost efficiencies and higher fleet availability. For basic engine maintenance and repair services, local commercial service providers are costlier than comparable in-house services. Fleet Management relies on contractual services primarily for specialty services not performed in-house. Specialty services such as metal fabrication, machining, collision repair, painting, towing, upholstery, and glass installation, are contracted out to service providers with specialized tools and training. Fleet Management considers staffing, specialty skills, tooling, regulations, safety, commercial availability, costs, and fleet downtime for contractual services decisions. In FY 2017-18, it is estimated that approximately \$1.2 million will be utilized for contractual services. Two significant Fleet Management challenges are a reduced contractual budget and ongoing staff retention issues, leaving fewer and lower skilled staff. This scenario has a negative impact on fleet availability and if not rectified the cost to maintain the City fleet will substantially increase or fleet availability will be significantly reduced.

In 2017, City departments experienced 239 vehicle crashes, primarily from the Police Department, resulting in outsourcing charges of approximately \$400,000.

Vehicle Crashes



RESOURCES

There are currently 55 dedicated and highly skilled employees assigned to the seven service yards. Fleet Management is projected to complete approximately 22,000 work orders in FY 2017-18. This level of efficiency is achieved through the hard work of the team, who actively seek out opportunities to grow their skills through professional associations and ongoing professional development. Additionally, Fleet Management is working to develop the next generation of staff through a comprehensive apprenticeship program. A discussion of financial resources and budget is included in a later section of this report.

Table 4: Fleet Facilities & Staffing

Fleet Facility	Active Vehicle Count	Mech & Asst.	Support Staff	2017 Work Orders	Vehicle & Support Service Types	Customers
Muni Police	926	10	2	9,305	Police, PBCE Inspection	PD, PBCE, PW, ESD, FD, DOT
Central Service Yard (CSY)	753	16	4	5,044	Fire Apparatus, Parking Control, Construction Equipment, Parks Maintenance Mowers etc.	FD, DOT, PRNS, PW, PD
Police Substation /Build Up	85	4	2	1,056	Acquisition, Vehicle Prep, Disposal, Modifications	All
South Yard	350	5	2	2,377	Roadway Striping, Sign and Markings, Pavement, Construction Equipment	DOT, PRNS
Regional Waste Water	222	3	0	616	Electric Carts, Dredges, Construction and Earth Moving, Pumps etc.	ESD
Airport	158	2	0	952	Emergency Generators, Large Tractors, Runway and	Airport, PD
Mobile Service	151	1	0	761	Amusement Rides, Stationary Generators & Pumps	All
Mabury Yard	142	4	0	1,878	Sewer Repair, Traffic Signal & Street lights	DOT
Total	2,787	45*	10	21,988		

*Does not include six administrative positions: Fleet Manager, Analyst, clerical, and IT staff.

Staff Training

Vehicle technology is some of the most sophisticated and rapidly changing technology that exists. To keep pace with the technology evolution, Fleet Management consistently provides professional training for its employees. Comprehensive training is also provided when purchasing new vehicles and equipment. Additionally, Fleet Management secures on-site instructors and staff attends off site training conferences. Staff attended approximately 500 hours of training in 2017, which does not include the extensive training related to the apprenticeship program.

Apprenticeship Program

The vehicles and equipment maintained by Fleet Management is so diverse it requires that its employees have a wide range of skills. Often when recruiting, applicants must have mechanical experience and even journey-level skills. However, their experience can be one-dimensional. For example, a mechanic from an automotive dealership may only have single brand and light duty vehicle experience. Consequently, Fleet Management recruits most new employees at entry level to compete for vacancies in the Apprenticeship Mechanic Program. When candidates graduate from the apprenticeship program they will have four years of on the job and classroom training. Most of the classroom training is acquired through De Anza College's Automotive Program where employees attend classes on their own time after their work shift. Additionally, during their four-year apprenticeship, employees will have rotated through various fleet facilities so they graduate with a very diverse set of on-the-job skills tailored to City vehicles and equipment.

Fleet Management's Apprentice Mechanic Program is an indentured apprenticeship approved by the State of California, Department of Industrial Relations Division of Apprenticeship Standards, sponsored by the Operating Engineers Local 3 and administered by the City of San José's Apprenticeship Advisory Committee. Upon satisfactorily completing the program requirements, the Apprentice receives Journey Level Certification from the State of California.

The Apprentice Mechanic Program has been highly successful in the training of City mechanics. Fleet Management currently has 11 staff members in the apprentice program, and has 9 Mechanics, 3 Senior Mechanics, 2 Equipment Maintenance Supervisors and a Senior Automotive Equipment Specialist that have successfully graduated from the Apprentice program.

Recent Apprentice Graduation



Professional Affiliations

Leadership is paramount in providing great service. The only way to achieve top performance and great customer service is through exemplary leadership from the Fleet Manager, Supervisors, and the Senior Mechanics. Three critical areas of focus are recruitment, training, and performance metrics. Over the years through budget shortfalls, Public Works has reduced the number of supervisors in Fleet Management. The division is making a conscious effort to maintain the high level of leadership within the organization by participating and actively engaging professional organizations. All supervisors have attended the City's leadership academy and participate in the Public Fleet Supervisors Association (the City currently has one board member), Clean Cities Organization, National Association of Fleet Administrators, American Public Works Association, Municipal Equipment Maintenance Association and several other groups and organizations to manage the City's fleet assets professionally and effectively. In 2017 the City's fleet program received recognition as a top fleet from the nationally recognized "100 Best Fleets" organization. The programs compare and measure fleets in areas including leadership, productivity, sustainability, staff development and customer service.



MANAGING PUBLIC SECTOR
VEHICLES & EQUIPMENT



PERFORMANCE MEASURES

Fleet Management uses a fleet enterprise asset management system from Assetworks called Fleet Focus. All fleet activities including vehicle maintenance, scheduling, acquisition, billing, performance standards, motor pool, parts inventory management, commercial services, and fueling activity are managed through Assetworks. Through this database program, Fleet Management can effectively communicate and prepare reports for internal and external customers utilizing tools such as Microsoft Access and Crystal Reports. Internal customers are also able to access these reports such as billing, fleet utilization, and inventory. Fleet Management provides key reports that automatically run on a schedule and are emailed directly to staff. The billing data is transferred to the citywide financial management system (FMS). Database and reporting tools are used to create replacement forecasting for public safety and non-public safety fleets. Data is captured by either fuel transactions by customers at City fueling sites or from fleet staff entering information through daily fleet operations. All seven fleet facilities have computers for mechanic staff to track and record labor and parts transactions in the system which is used to bill our customers and track vehicle and operational performance. Fleet Management has been utilizing an enterprise asset management system for many years. The fleet industry is a leader in using data to manage productive and efficient operations. These systems and data are relied upon heavily for day-to-day operations as well as strategic and long term planning.

Customer Surveys

Fleet Management distributes more than 1,200 automated customer surveys each quarter to measure, evaluate and improve customer service levels. Ratings are based on a scale of 1 (extremely poor) through 5 (excellent) that were submitted through the automated database system. The survey results below reflect the percentage of customers rating fleet services 4 (good) or 5.



Work Orders

In 2017, Fleet Management completed 21,988 work orders; 25% were preventive maintenance and 75% were repairs. This is a high ratio of repair to preventive maintenance which can be attributed to expanding service intervals and an aging fleet. In addition, there were 239 crashes that required contractual repair services.

Table 5: 2017 Work Orders

Department	2017 Work Orders	Preventive Maintenance	Repair	% PM	Crashes
Police	8,670	2,121	6,549	24%	138
Transportation	4,149	1,098	3,051	26%	19
Fire	1,915	359	1,556	19%	23
Airport	1,335	212	1,123	16%	2
PRNS	2,820	733	2,087	26%	25
Environmental Services	1,093	313	780	29%	8
Public Works	1,149	374	775	33%	14
Planning, Building & Code	746	177	569	24%	7
Library	74	22	52	30%	3
Housing	15	6	9	40%	0
Information Technology	19	9	10	47%	0
Office of Economic Development	3	1	2	33%	0
Total	21,988	5,425	16,563	25%	239

INITIATIVES

Several key initiatives are underway to address growing trends in Fleet Management. They range from reducing greenhouse gas (GHG) emissions to improved fleet and customer operations using technology. Other significant ongoing issues include retaining key staff and managing the deferred vehicle replacement backlog. Following is a discussion of each key initiative.

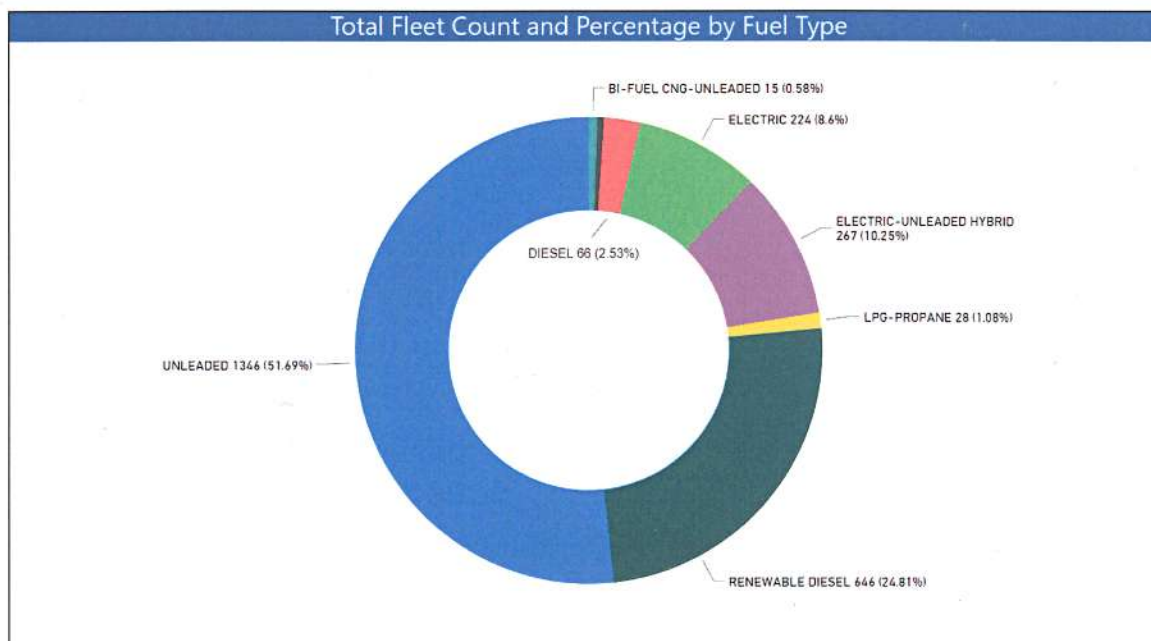
Green Fleet

Fleet Management is continuously working to obtain green vehicles that meet operational and funding needs. In 2017, 41 new Hybrid and Electric vehicles were placed into service. 45% of the City's fleet now uses alternative fuel which represents significant progress over the years. The evolving technology has made more options available but is still somewhat limited in large segments of the fleet, such as patrol vehicles, light duty trucks, and vans.

In addition to alternative fueled vehicles, a measure of reduced GHG emissions can also exhibit progress achieved in our fleet program. This is evident in vehicle segments where viable alternative fuel options may not yet exist (such as the patrol fleet) but reduced GHG emissions is achieved by replacing older vehicles with new vehicles that have improved fuel economy. Fleet Management is also exploring Idle Reduction Technology to further reduce the patrol fleets carbon footprint through decreased fuel consumption. In the last year Fleet Management worked with the Transportation Department to upgrade the City's Level two EV charging infrastructure to increase the number of charging ports in many City locations. Fleet has also been successful in purchasing electric vehicles

where rebates exist to offset the purchase costs making acquisition comparable to a non-alternative fuel option. Fleet Management will continue to seek out grant funding and partnerships to expand our alternative fuel fleet and EV charging infrastructure.

As mentioned in the fuel management section of this report, a very significant advancement in diesel fuel technology became readily available and has been adopted by San José and many California fleets. Renewable diesel is a non-petroleum product made from renewable sources. It significantly reduces GHG emissions compared to diesel and traditional biodiesel blends. The State of California provides incentives to the suppliers that are passed on to the users, which results in a lower cost than traditional biodiesel fuel. As exhibited in the following chart, diesel accounts for a significant portion of the City's fuel consumption and renewable diesel fuel will have a positive effect on reducing GHG emissions.



Deferred Vehicle Replacement Backlog

An ongoing challenge is the deferred backlog for general fleet vehicle replacement. The current unfunded need for all funds is \$8.2 million. If current funding levels remain consistent over the next five years, the \$8.2 million will decrease to \$6.9 million. The FY 2017-18 General Fund appropriation is \$1.2 million. Based on a recent 5-year vehicle replacement projection, there is an annual budget shortfall of \$1.4 million for general fund vehicle replacements. This has been caused by several years of General Fund reductions and now there are many vehicles in the backlog that exceed the current replacement guidelines and vehicles that meet their replacement criteria and are not being funded for replacement. Another issue exists where vehicles may only meet the age requirement but not the mileage requirement. The replacement backlog does not include funding for vehicles that exceed age but not miles. Older vehicles become less reliable, parts are more difficult to acquire, and emission and safety standards fall far behind current vehicles. Additionally, retaining older vehicles while adding new vehicles to the fleet increases the diversity and number of parts to service the fleet, which is a significant

cost driver. With recent increases in replacement funding there has been movement to reduce the average age. The chart below identifies segments of the fleet and the average age.

Table 6: Light Duty Fleet Condition

Department	Number of Light Vehicles	Average Age (Years)	Average Miles
Police	365*	6.4	67,900
Parks Recreation & Neighborhood Services	217	12.7	67,700
Transportation	168	9.3	66,800
Public Works	164	11.4	65,600
Planning Building & Code Enforcement	127	5.4	23,200
Planning Building & Code Enforcement	155	11.2	65,700
Environmental Services	115	8.7	38,700
Fire	71*	8.8	47,700
Airport	69	15.4	46,600
Library	8	3.7	39,100
Housing	6	18.3	53,969
IT	3	19.9	50,400

*Does not Include Patrol or Fire Emergency Response Vehicles

Staff Retention

Fleet staff are highly skilled and their training and experience are specialized to the City's extensive fleet, which makes the retention of talented staff a critical focus. In the last four years 38 of 55 positions have been vacant which equates to 69% turnover. These vacancies were the result of separations, retirements, and promotions. This has created a 1-to-1 mechanic to apprentice mechanic ratio versus a 3-to-1 ratio which is optimal.

Table 7: Staff Departures

Number of Employees	Position Title	Agency or Organization
1	Equipment Mechanic Assistant I	Santa Clara Valley Water District
6	Equipment Mechanic Assistant II	Other Agencies/Private Sector/RWF
3	Apprentice Mechanic	RWF/Other Agencies
3	Mechanic	Private Sector/RWF
2	Senior Mechanic	Santa Clara Valley Water District/RWF
1	Supervisor	RWF

As shown in the table above, the division lost several staff to external agencies, and internally to the San José-Santa Clara Regional Wastewater Facility (RWF) primarily for lateral positions that pay higher salaries. Of concern is the significant City investment in developing and training fleet mechanics and the significant compensation discrepancies between City Fleet Mechanics and external and internal comparable mechanic positions. Compensation discrepancy is the Fleet Division's most challenging issue with employee retention. The Fleet Division employees are highly engaged and accountable with a culture of recognition and continuous improvement however, salary discrepancies make it very difficult to retain these highly-motivated mechanics. In 2015 fleet management conducted a wage compensation survey using the City's standard comparable jurisdictions. In every classification the City's fleet personnel were near the bottom of the compensation list. In 2017 so far, two more staff were lost to the Regional Wastewater Facility, a mechanic assistant, and a journey level mechanic (shortly after graduating from the City's Apprenticeship Program). The situation is at the point where mechanic vacancies can no longer be filled with apprentices because the ratio of apprentices to journey level staff is too great. Losing highly trained and skilled mechanics creates a significant skill level void within the Fleet Division. Without compensation alignment that better matches internal and external mechanic positions, it will be very difficult to retain or recruit skilled mechanics into the Fleet Division. Public Works has been working with the Department of Human Resources and the Office of Employee Relations to address the compensation issue.

Telematics

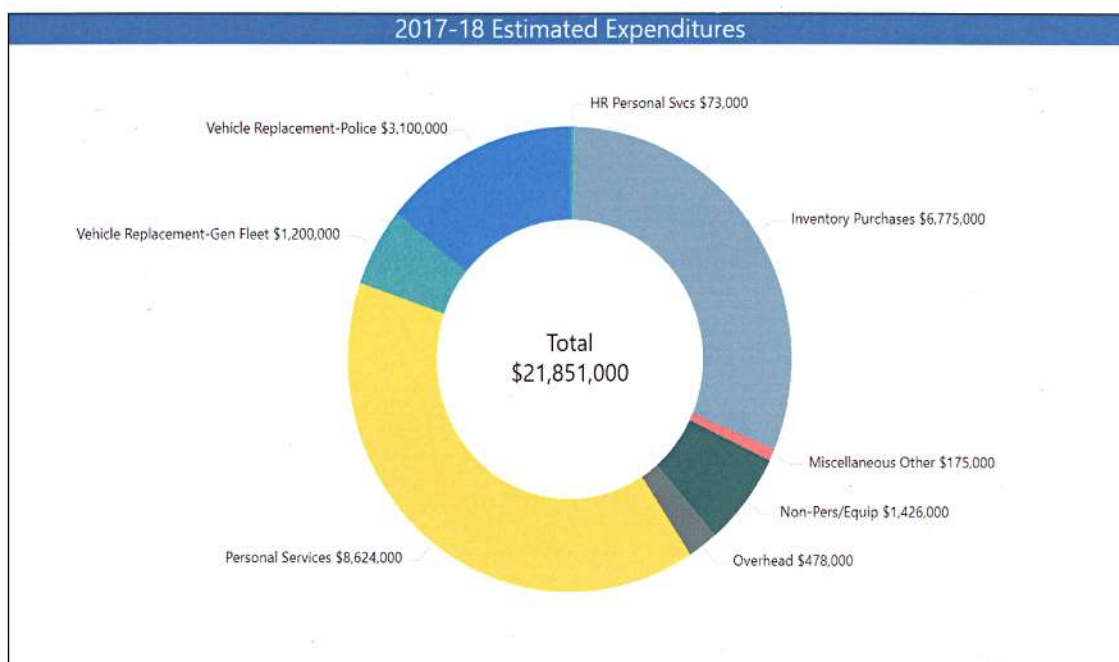
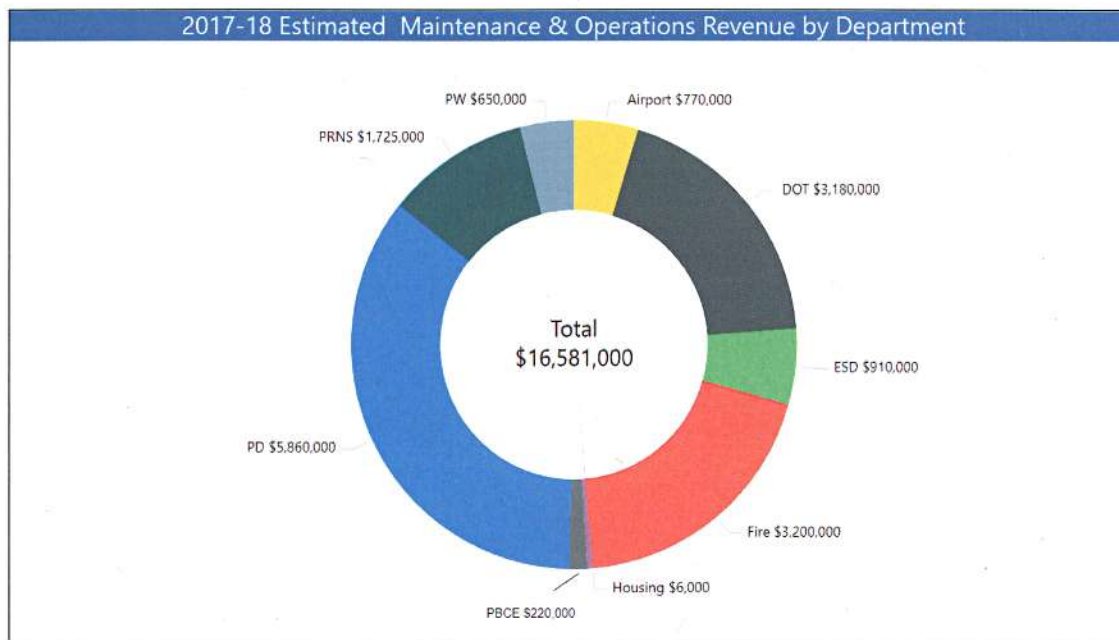
Fleet Management has been working with several departments on a Telematics Deployment Program. Telematics is a vehicle tracking system that integrates into the vehicles on-board computers. This provides the capability to strategically deploy and remotely monitor fleet assets. The system also sends alerts when mechanical issues occur in the field allowing vehicles to be removed from service for repairs prior to catastrophic failure. Since the system communicates directly with the State it allows San Jose to enroll in the California CTP Smog Program eliminating the need to remove vehicles from service for inspections. Vehicle performance is also monitored for critical areas such as idling, braking, speeding, and acceleration. Other benefits are reduced GHG emissions through reduced idling, reduced speeds, efficient route planning and reduced cost in fuel and vehicle wear. Approximately 520 vehicles are equipped with this technology with planned expansion next year to several more programs. Telematics are being deployed in most large public and private fleets because of the opportunity for improved safety, reduced emissions, increased productivity, improved fleet utilization and reduce vehicle operating cost.

Fleet Management continues to look for ways to improve efficiency and customer service by utilizing evolving technology. Recently Fleet Management and Tech Services developed and deployed a state of the art automated parking assignment system for Police Department patrol vehicle deployment. The team integrated multiple technologies into a single platform that allows a visual representation of all available marked patrol vehicles in real time. Large monitors mounted throughout the police campus display available units. Officers can now deploy directly to the field in lieu of having to seek assistance from Fleet Management for vehicle assignments. This allows fleet staff to focus on vehicle repairs and preventative maintenance instead of manually managing patrol car assignments which was very labor intensive. Other benefits of the new system are real time vehicle location information that is critical in emergency response situations as well as vehicle data such as speed, braking, idle time, and mechanical performance.

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BUDGET

The 2017-2018 Adopted General Fund Budget for the Fleet Division totaled \$24.4 million and included funds for personal, non-personal, equipment, inventory (parts and fuel), vehicle replacement (PD and General Fleet), and other miscellaneous categories. The estimated general fund expenditures for 2017-18 are \$21.9 million. In addition to the operating budget, fleet manages an additional \$20 million from other department funds for vehicle replacement and additions. Fleet Management's budget is an internal service fund that directly charges other City departments for services rendered. The revenue recovered for maintenance and operations services is estimated at \$16.6 million.



CONCLUSION

The City's Fleet Management Division is focused on providing a safe and reliable fleet for its customers who deliver critical services to the community. The challenge in this endeavor is the balance of a skilled staff managing sophisticated new fleet assets and an aging fleet. The lack of investment in fleet assets and salaries creates a challenging environment of service delivery to the community. Fleet Management is continuously looking for ways to overcome these obstacles. Investing in the fleet program today could be less costly over the long term and improve service delivery. The intent of this report is to highlight the successes, challenges, and future of the program. In the coming year, the division will continue its efforts to solve staffing retention issues and impacts. There will also be a continued effort to work with departments to replace vehicles that are beyond their useful life. The opportunity for productivity, efficiency, innovation, and sustainability has never been more important. Fleet Management will continue to use every opportunity to achieve excellence in these areas.

New City EV and Charging Station

