



Midpeninsula Regional
Open Space District

R-17-83
Meeting 17-15
June 28, 2017

AGENDA ITEM 5

AGENDA ITEM

Authorization to Purchase Capital Equipment for Fiscal Year 2017-18

GENERAL MANAGER'S RECOMMENDATIONS *SM*

1. Authorize the General Manager to execute a purchase contract with the State Department of General Services and associated contract dealers for five (5) patrol vehicles and nine (9) maintenance vehicles, for a total cost not-to-exceed \$740,000.
2. Authorize the General Manager to execute a purchase contract with the State Department of General Services and associated contract dealers for one (1) aerial lift truck, one (1) tracked chipper, and one (1) mini-excavator, for a total cost not-to-exceed \$330,000.

SUMMARY

The District's current five-year capital equipment schedule provides for replacing five (5) patrol vehicles, replacing two (2) maintenance vehicles, and acquiring seven (7) additional maintenance vehicles in Fiscal Year (FY) 2017-18. Additionally, it includes three (3) new equipment purchases. The cost of the vehicles and equipment is not-to-exceed \$1,070,000. There are sufficient funds budgeted in FY2017-18 to cover this cost. The District's ability to purchase vehicles through an existing contract with the California Department of General Services (DGS) provides a significant cost savings and greatly reduces the amount of staff time that would otherwise be required if the District conducted a separate bid process for each purchase. If the vehicles and equipment are not available through the DGS contracts, staff will attempt to purchase using contracts from other approved cooperative purchasing agreements. If no contracts are available that meet District needs, staff will return to the Board for authorization to solicit bids directly from the manufacturer(s).

DISCUSSION

Eight (8) General Capital Vehicles

Eight (8) vehicles will be purchased using General Capital Funds: Five (5) patrol vehicles and two (2) maintenance vehicles have reached the end of their useful life. These end-of-life vehicles will be sold at public auction and will be replaced with new vehicles. One (1) additional maintenance vehicle, a flat-bed dump truck, will be purchased to support road work and material transport. It will also provide additional hauling capacity for towing smaller equipment.

Six (6) Maintenance Vehicles for New Positions

Six (6) vehicles are required for new positions created as part of the District's Financial Operational Sustainability Model (FOSM) implementation: One (1) vehicle will be assigned to the new Maintenance Supervisor position, one (1) vehicle will be assigned to and shared by the new Facilities Maintenance Supervisor and the new Facilities Maintenance Specialist, and one (1) vehicle will be assigned to the new Capital Projects Field Manager. All of these positions are required to make regular site visits in the field. Three (3) additional maintenance vehicles are needed to support the additional staff who make up the new special projects crews that are assigned to capital improvement projects, such as trail construction. These new staff members include one Lead Open Space Technician, one Open Space Technician and four new Seasonal Open Space Technicians (who were hired April 1, at the beginning of the construction season). Those vehicles include two transport vehicles for special projects staff and one new dump truck for the field.

Two (2) General Capital Heavy Equipment (Attachment 1)

Aerial Lift Truck – The purchase of one (1) dedicated aerial lift truck will allow staff to safely conduct elevated tree and structure work throughout the District. This equipment will be used by staff to more efficiently clear overhead limbs from District fire roads. Additionally, it can be used to reach and service the recently installed golf ball protection net at the Fremont Older Parking Lot.

Large Track Chipper –The purchase of one (1) chipper will increase efficiency for managing fire breaks, structure clearance, and access roads. Tree mortality close to roads and structures is on the rise (drought, sudden oak death). Managing fire roads, firebreaks, and fire safety clearance around structures requires the chipping of large woody material, demanding significant staff time. The large track chipper has an arm to self-load and can reach areas inaccessible with a trailer chipper, which will streamline productivity to clear vegetation along fire roads and off-road fire breaks, resulting in reduced staff time and reduced risk of injury. This equipment will complement the chipping capacity of the current trailer chipper by adding off-road ability and the self-loading mechanism.

One (1) New Special Projects Crew Heavy Equipment (Attachment 1)

Cat 301.8 Mini Excavator - the Skyline Special Projects Crew will start July 3, 2017. The Special Projects Crew's focus is trail construction so the purchase of one (1) mini excavator provides the key piece of equipment for building trail. The mini excavator is also an important piece of equipment for trail maintenance and repairs, fence installation, and other excavation projects for the maintenance crews. It has been difficult to rent mini excavators that have a thumb and are the right size to handle trail construction. This excavator will be the third unit in the Skyline fleet—two of which are committed to Oljon Trail construction this summer and to La Honda Creek Open Space Preserve trail construction for the next several construction seasons. Having three mini excavators will leave one excavator available for routine maintenance needs.

The table below contains the breakdown of estimated costs by vehicle. Costs include tools and additional equipment needed to outfit the vehicles, which can vary depending upon the function of each vehicle.

Vehicle/Equipment Description	Additional or Replacement	Cost	Quantity	Total
General Capital Vehicles				
Patrol Vehicle: Ford F350 or similar	Replacement	\$53,000	5	\$265,000
Maintenance Vehicle: Dodge Quad or similar	Replacement	\$60,000	1	\$60,000
Maintenance Vehicle: Ford F350 or similar	Replacement	\$40,000	1	\$40,000
Maintenance Vehicle: Ford F550 Flatbed	Additional	\$55,000	1	\$55,000
Maintenance Vehicles for New Positions				
Maintenance Vehicle: Ford F350 or similar	Additional	\$40,000	1	\$40,000
Maintenance Vehicle: Ford F350 or similar	Additional	\$37,000	1	\$37,000
Maintenance Vehicle: Toyota Tacoma or similar	Additional	\$35,000	1	\$35,000
Maintenance Vehicle: Crewcab Toyota or similar	Additional	\$44,000	1	\$44,000
Maintenance Vehicle: 2-axle dump truck	Additional	\$120,000	1	\$120,000
Maintenance Vehicle: Crewcab Toyota or similar	Additional	\$44,000	1	\$44,000
General Capital Heavy Equipment				
Maintenance Equipment: Aerial lift truck	Additional	\$100,000	1	\$100,000
Maintenance Equipment: Large track chipper	Additional	\$190,000	1	\$190,000
New Special Projects Crew Heavy Equipment				
Maintenance Equipment: Cat mini-excavator	Additional	\$40,000	1	\$40,000
Total				\$1,070,000

FISCAL IMPACT

The FY2017–2018 District Budget includes \$740,000 for District Vehicles and \$330,000 for Field Equipment. There is sufficient funding in the capital budget of the General Fund to cover the recommended purchase contracts.

	FY2017–2018
District Vehicle Budget	\$740,000
Spent to date (as of 6/28/17):	\$0
Encumbrances:	\$0
[Recommended Action – Costs]	\$740,000
Budget Remaining (Proposed):	\$0

	FY2017–2018
District Equipment Budget	\$330,000
Spent to date (as of 6/28/17):	\$0
Encumbrances:	\$0
[Recommended Action – Costs]	\$330,000
Budget Remaining (Proposed):	\$0

BOARD COMMITTEE REVIEW

There was no Committee review for this agenda item.

PUBLIC NOTICE

Public notice was provided as required by the Brown Act. No additional notice is required.

CEQA COMPLIANCE

No environmental review is required as the recommended action is not a project under the California Environmental Quality Act (CEQA).

NEXT STEPS

If approved by the Board, staff will prepare purchase orders for the vehicles and equipment utilizing the State of California Department of General Services contracts or other approved cooperative procurement contract.

Attachments

1. Equipment Images
2. District Vehicle Fleet Report
3. Fleet Replacement Guidelines
4. Comparable Agency Vehicle Replacement Guidelines

Responsible Department Head:
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Prepared by:
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Attachment 1
Equipment Images



Aerial Lift Truck Example



Large Track Chipper Example



Cat 301.8 Mini Excavator Example

Attachment 2

District Vehicle Fleet Report

June 19, 2017

The District maintains an inventory of 79 vehicles of various models and types based on the needs of different departments and job functions. Our fleet replacement guidelines, last updated August 21, 2012, establish that we replace emergency vehicles between 80-95,000 miles and 7-10 years; replace maintenance vehicles between 85-100,000 miles and 10-15 years; and replace administrative vehicles at 100,000 miles and 20 years. Adjustments to the replacement criteria for individual unit replacement are made depending on condition, operating costs, and down time.

The type of field vehicle purchased and the assignment are made based on department and position needs. The typical field vehicle is a four-wheel drive truck or sports utility vehicle. Field vehicles are assigned to supervisors/managers; all other trucks are shared vehicles. The exception is resident patrol staff and some resident maintenance staff, who are assigned vehicles to take home for call-out availability.

The type of administrative office (AO) vehicles purchased is usually a compact SUV or similar sedan. Some AO vehicles need to be four-wheel drive to enable staff to drive off-road in preserves. Additionally, some of the SUVs need to have higher seating capacity for carpooling large groups. All AO vehicles are shared, with the exception of one vehicle each being assigned to Visitor Services and Land & Facilities Services Managers, and one to each department: Engineering & Construction, Real Property, and Natural Resources. These vehicles are assigned to staff and departments due to their routine trips into the field to review projects and to meet with contractors, consultants, and other staff.

Breakdown of fleet vehicles:

PATROL EMERGENCY VEHICLES

Emergency vehicles replaced at 80-90,000 miles and/or 7-10 years

Fiscal Year 2016–2017

- **(31)** vehicles total, 35 staff
 - **(8)** SUVs (*Ford Expedition typical*)
 - Assigned to Visitor Services Manager (1 staff, 1 vehicle), Area Superintendents (2 staff, 2 vehicles), Patrol Supervisors (5 staff, 5 vehicles)
 - **(21)** One ton trucks outfitted with 125 gallon slip on fire pumpers (*Ford F350 typical*)
 - Resident rangers are assigned their own vehicle for afterhours call-out availability (8 staff, 8 vehicles)
 - Trucks assigned to field office pools. Individual vehicles were previously assigned to individual rangers. It was decided that the vehicles would be transitioned from ranger assignments to field office pool assignments, as

- maintaining a ratio of one vehicle to one ranger is not sustainable, given projected growth of District. (15 staff, 13 vehicles)
- **(2)** Half ton trucks (*Ford F150 typical*)
 - Trucks assigned to Seasonal Rangers, available as back up patrol vehicles (2 staff, 2 vehicles)

FY18

- **(31)** vehicles total (no additional vehicles), 35 staff
 - **(8)** SUVs (*Ford Expedition typical*)
 - Assigned to Visitor Services Manager (1 staff, 1 vehicle), Area Superintendents (2 staff, 2 vehicles), Patrol Supervisors (5 staff, 5 vehicles)
 - **(21)** One ton trucks outfitted with 125 gallon slip on fire pumpers (*Ford F350 typical*)
 - Resident rangers are assigned their own vehicle for afterhours call-out availability (8 staff, 8 vehicles)
 - Trucks assigned to field office pools. Individual vehicles were previously assigned to individual rangers. It was decided that the vehicles would be transitioned from ranger assignments to field office pool assignments, as maintaining a ratio of one vehicle to one ranger is not sustainable, given projected growth of District. (15 staff, 13 vehicles)
 - **(2)** Half ton trucks (*Ford F150 typical*)
 - Trucks assigned to Seasonal Rangers, available as back up patrol vehicles (2 staff, 2 vehicles)

MAINTENANCE VEHICLES

Maintenance vehicles replaced at 85-100,000 miles and/or 10-15 years

FY17

- **(35)** vehicles total, 53 staff (3 of those are vacant: Maintenance Supervisor, Facilities Maintenance Supervisor, and Facilities Maintenance Specialist)
 - **(7)** Trucks w/ four-wheel drive (*Ford F150 or Toyota Tacoma typical*)
 - Assigned to Area Managers (2 staff, 2 vehicles) and Maintenance Supervisors (5 staff, 5 vehicles)
 - **(5)** Commercial trucks (*Peterbuilt or International typical*)
 - Vehicles are two (2) water trucks and three (3) large dump trucks for various projects and transporting large equipment
 - **(23)** Service Trucks (23 vehicles, 26 permanent staff and 17 seasonal staff)
 - (8) Specialty four-wheel drive trucks (*Ford F550 typical*). Four (4) trucks are flat bed with dump capabilities, one (1) is a one-yard dump bed truck and three (3) are service body vehicles set up for Equipment Mechanic/Operator use
 - (15) Standard four-wheel drive trucks (*Ford F350 typical*). Trucks are configured for different needs; most have utility bodies for project work and transporting staff. Some are configured for specialty use, such as spray rigs

FY18

- **(42)** vehicles total (7 additional vehicles), 56 staff
 - **(10)** Trucks w/ four-wheel drive (*Ford F150 or Toyota Tacoma typical*)
 - Assigned to Area Managers (2 staff, 2 vehicles), Maintenance Supervisors (6 staff, 6 vehicles), Facilities Maintenance Supervisor and Facilities Maintenance Specialist (2 staff, 1 vehicle), Capital Projects Manager (1 staff, 1 vehicle)
 - **(6)** Commercial trucks (not assigned to staff) (*Peterbuilt or International typical*)
 - Vehicles are two water trucks and four large dump trucks for various projects and transporting large equipment
 - **(26)** Service Trucks (26 vehicles, 26 permanent staff and 17 seasonal staff)
 - (9) Specialty four-wheel drive trucks (*Ford F550 typical*). Four (4) trucks are flat bed with dump capabilities, one (1) is a one-yard dump bed truck and four (4) are service body vehicles set up for Equipment Mechanic/Operator use

- (17) Standard four-wheel drive trucks (*Ford F350 typical*). Trucks are configured for different needs; most have utility bodies for project work and transporting staff. Some are configured for specialty use, such as spray rigs

ADMINISTRATION VEHICLES

Administration vehicles replaced at 100,000 and/or 20 years

FY17

- (13) vehicles total (91 staff)
 - (7) Vehicles shared by all administration staff, available for reservation via internal Outlook calendar
 - Two hybrid cars (*Toyota Prius typical*), two hybrid SUVs (*Ford Escape typical*), three SUVs with four-wheel drive (*Ford Explorer/Toyota 4Runner typical*)
 - (4) Trucks with four-wheel drive (*Ford F150 typical*)
 - One vehicle assigned to Engineering & Construction Department, one assigned to Natural Resources Department, two assigned to Volunteer Program Leads
 - (2) SUVs with four-wheel drive (*Jeep Wranglers*)
 - One assigned to Land & Facilities Manager and one to Real Property Department

FY18

- (13) vehicles total (91 staff includes only approved positions) (no additional vehicles)
 - (7) Vehicles shared by all administration staff, available for reservation via internal Outlook calendar
 - Two (2) hybrid cars (*Toyota Prius typical*), two (2) hybrid SUVs (*Ford Escape typical*), three (3) SUVs with four-wheel drive (*Ford Explorer/Toyota 4Runner typical*)
 - (4) Trucks with four-wheel drive (*Ford F150 typical*)
 - One (1) vehicle assigned to Engineering & Construction Department, one (1) assigned to Natural Resources Department, two (2) assigned to Volunteer Program Leads
 - (2) SUVs with four-wheel drive (*Jeep Wranglers*)
 - One (1) assigned to Land & Facilities Manager and one (1) to Real Property Department

Employee-to-Vehicle Ratio Tables

Current Fiscal Year 2016-2017

Employee Category	Number of Employees*	Number of Transport Vehicles	Number of Commercial Vehicles
Ranger	35	31	0
Maintenance	50	30	5
Administrative	91	13	0
Total	176	74	5

Proposed for Fiscal Year 2017-2018

Employee Category	Number of Employees*	Number of Transport Vehicles	Number of Commercial Vehicles	Replacement Transport Vehicles**	Additional Transport Vehicles**	Additional Commercial Vehicles**
Ranger	35	31	0	5	0	0
Maintenance	56	36	6	2	6	1
Administrative	91	13	0	0	0	0
Total	182	80	6	7	6	1

**Reflects actual on-duty employees; not FTE*

***These vehicles are accounted for in the Number of Transport Vehicles and Number of Commercial Vehicles totals*

Fleet Program Evaluation

The current guidelines are working effectively to provide the vehicles necessary for the administrative and field need for vehicles. As the District grows, we are making efforts to reduce the ratio of staff to vehicles. The need for vehicles for administrative staff is relatively light. However, field staff need to move from the field offices into preserves every day. Patrol staff perform solo patrols, so generally all on-duty Visitor Services field staff need a vehicle. The Visitor Services Department is beginning the transition from trucks assigned to each ranger to a shared fleet of trucks. The Land and Facilities Services Department field staff perform work in crews ranging from one individual to an entire crew. This facilitates a shared fleet. There are also specialty vehicles, such as the large trucks, that require commercial driver's license that generally do not contribute to transportation of staff into the field.

As new and replacement vehicles are purchased they are evaluated to reduce fuel consumption. Examples of vehicles purchased in that effort are plug-in hybrids and smaller Ford F150 trucks for seasonal ranger aides. In addition, diesel trucks have been replaced to meet new emissions guidelines. Several additional measures may be evaluated in the future. A future evaluation of the Fire program may recommend removing pumpers from every patrol truck and purchasing more effective patrol rigs for fire suppression. Electric vehicles, from standard sedans to electric motorcycles and ATVs, have been evaluated and as their technology improves, we will likely recommend electric vehicle purchases in the future. The need for four-wheel drive and specialty vehicles limits the ability to green the fleet but we will continue to include fuel economy in evaluating purchases.

In addition to reducing fuel consumption, the fleet is also evaluated for reducing expenditures and utilizing the life of vehicles up to the point where the maintenance cost, safety issues, and reliability issues make the sale of old vehicles and the purchase of new vehicles cost effective. Currently we rely on the approved replacement guidelines, but we evaluate individual vehicles for use beyond the mileage and age guidelines. In particular, retired Visitor Services SUVs are evaluated for use at the administrative office when four-wheel drive vehicles are needed. Currently one retired patrol vehicle a Ford Expedition is being used in this capacity. As the longevity of vehicles improves, particularly in the administrative vehicle fleet, mileage and age guidelines can be adjusted if vehicles are lasting longer.



Midpeninsula Regional Open Space District

Fleet Replacement Guidelines

May 24, 2017

Attachment 3

The following serves as general guidelines for replacing vehicles and equipment based on usage, operating costs, and downtime. Adjustments in time or miles will be made to replacement criteria for individual units as conditions warrant.

PATROL (CODE 3) VEHICLES 7–10 years and/or 80–90,000 miles

MAINTENANCE TRUCKS 10–15 years and/or 85–100,000 miles

ADMIN VEHICLES 20 years and/or 100,000 miles

EQUIPMENT TRANSPORT TRAILERS 15–20 years

TRACTORS/EXCAVATORS 15 Years and 5,000 hours

FIRE APPARATUS
Slip-On Pumper Units 15 years

Comparable Agency Vehicle Replacement Guidelines

Agency	Years	Miles	Other Considerations
East Bay Parks District	Cars & Trucks = 10 yrs Large Vehicles = 15 yrs	Cars & Trucks = 100,000 mi Large Vehicles = 150,000 mi	-typically pushed back 2-3 years due to budget cuts and lack of funds
San Mateo Parks	Cars & Trucks = 8-10 yrs	Cars & Trucks = 80-100,000 mi	-compliance issues -money in the vehicle replacement fund (VPF) -value at auction which pays into the VPF -large equipment and truck replacements at discretion of department & board due to large budget
Santa Clara Parks	Cars & Trucks = 10 yrs Large Vehicles = 15 yrs Patrol Vehicles = 5 yrs	Cars & Trucks = 100,000 mi Large Vehicles = 150,000 mi Patrol Vehicles = 95,000 mi	-cost per mile analysis (including labor & parts) -saftey features, fuel economy, and vehicle emissions -vehicles that service public health & saftey get overall priority -follows Santa Clara County guidelines, which presumably accounts for primarliy street-driven vehicles, not off-road use
Midpeninsula Regional Open Space District	Cars & Trucks (AO) = 20 yrs Maintenance Vehicles = 10-15 yrs Patrol Vehicles = 7-10 yrs	Cars & Trucks (AO) = 100,000 mi Maintenance Vehicles = 85-100,000 mi Patrol Trucks = 80-90,000 mi	-amount of money that has been spent on repairs and if that exceeds purchase price -condition/safety/reliability issues -down time -fuel efficiency and emissions guidelines

5/24/2017