SACRAMENTO SUBURBAN WATER DISTRICT

FLEET
ASSET MANAGEMENT PLAN

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FLEET ASSET MANAGEMENT PLAN

Adopted by the Board of Directors: September 2020

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Fleet	Includes the entire inventory of District owned vehicles and equipment.
Vehicle	Fleet items that are registered with the California Department of Motor Vehicles to legally operate on public roadways.
Equipment	All other Fleet items with a value greater than the minimum capitalized asset value of $5,000 (e.g., vacuum trailers, backhoes, excavators, large equipment trailers, etc.) and items that generally require maintenance and can be repaired.

Section 1

EXECUTIVE SUMMARY

Sacramento Suburban Water District (SSWD) exists to provide services to its community. Some of these services are provided with the use of Vehicles and Equipment (Fleet) acquired through direct purchase. SSWD's goal in managing its Fleet is to provide service in a cost effective manner for present and future customers.

This Fleet Asset Management Plan (Plan) provides for a modern, high quality, and cost effective Fleet that is an integral part of SSWD's operations to be maintained to industry standards, and managed in-house. The main purpose of this Plan is to establish processes to assess Fleet efficiency and assist staff in selecting a suitable time to replace particular vehicles, groups of vehicles, and equipment items. The Plan does not represent a financial commitment by the District's Board of Directors (Board). Rather, the Plan is a tool for communication between the Board and staff to prioritize the replacement of its Fleet in a manner that controls life cycle costs while maintaining a high level of service for our customers.

SSWD plans to operate and maintain the Fleet to achieve the following operational objectives.

- Economically advantageous life cycle cost
- Provide and actively seek emerging safety features in the acquisition of new items, while ensuring the Fleet is maintained at a safe and functional standard
- Seek reductions in the emissions from fuels
- Meet the functional requirements of District operations
- Limit exposure to fuel availability and price risks

These objectives are in alignment with the Strategic Objectives found in SSWD's 2019 Strategic Plan, Goal B: Optimize Operational and Organizational Efficiencies

- Develop an annual Capital Improvement Program that is prioritized based on risk, condition assessment, capital assets, and aligned with approved budget

- Update Operations & Maintenance Programs and enhance technology that focuses on Prioritized, Predictive, and Preventive Maintenance
- Optimize Equipment and Assets (e.g., create collective purchasing agreements and annual asset purchasing plans)

The actions resulting from this Plan are:

- The development of a Vehicle Replacement Plan to determine the appropriate time to replace vehicles; and
- A Condition Assessment and Equipment Repair Cost criteria to determine the appropriate time to replace equipment.

INTRODUCTION

This Fleet Asset Management Plan (Plan) consists of planning, organizing, and controlling the utilization of the District's fleet to help the District meet its goals. The Operations Manager is charged with making decisions to develop short- and long-term goals; evaluate fleet efficiency; identify positive and negative trends that affect fleet operations; manage the fleet acquisition, replacement, and disposal processes; manage day to day fleet operations; budget funds assigned to the fleet; oversee day to day repair, preventive maintenance, and warranty processes; and assure that fleet operations comply with local, state, and federal regulations.

The main purpose of this Plan is to establish processes to assess fleet efficiency. Using these processes, the Operations Manager decides when particular vehicles, groups of vehicles, or pieces of equipment are in need of replacement.

A decision on when to repair or replace a vehicle or equipment should be based on adequate knowledge of both costs to maintain and repair the existing vehicle and equipment and costs to replace it with a new item. Staff developed the decision points in this Plan to reflect best practices at the District, as well as those of local agencies including City, County, water purveyors, and an energy provider, to serve as guidelines for management of the Fleet.

Section 2

VEHICLE ASSET MANAGEMENT

2.1 Fleet Vehicle Composition and Needs Assessment

Fleet Vehicle Composition and Needs Assessment — The Operations Manager will assess the current fleet to determine the vehicle needs of the District. An electronic inventory must be maintained with sufficient facts about each vehicle. The data will include, at a minimum, the following key factors:

- Number of vehicles, type, age, and condition
- Monthly mileage for each vehicle
- Fleet's average cost per mile for each fiscal year
- Fleet's average fuel economy for each fiscal year

In determining the District's vehicle needs, the Operations Manager will consider the following, at a minimum:

- The number of each vehicle type needed to meet the District's needs
- The fuel economy rating for all planned vehicle acquisitions
- The number of each vehicle type required to meet environmental goals – a key factor is the number of Alternative Fuel Vehicles desired

2.1.1 Alternative Fuel Vehicles

The District has adopted policy PL – Adm 005, *Environmental Sustainability Policy*, which established sustainability as a guiding principle for daily operations and a framework for business decisions. Included in this policy is the Board's acceptance of responsibility to support a sustainable community by reducing energy consumption and air pollution and the use of alternative energy sources. In accordance with this policy, the District will consider options to reduce petroleum-based fuel usage when possible.

The District's petroleum-based fuel usage reduction strategy will include the following components:

- Increase fuel economy by selecting more fuel-efficient vehicles
- Increase the number of Alternative Fuel Vehicles where practical
- Perform preventive maintenance at regular intervals so vehicles operate at greater efficiency
- Maintain vehicle tire inflation at proper pressures for fuel economy
- Right-size each vehicle to meet the specific District need
- Assess vehicle weight to ensure they are not overloaded
- Provide driver training to promote safety and reduce fuel-wasting behaviors

When choosing Alternative Fuel Vehicles, the District will consider:

- Fuel Characteristics — The unique qualities of the fuel type the vehicle utilizes
- Cost — Operating costs in terms of fuel and maintenance expenses and long-term fuel availability and cost
- Performance — Miles per gallon or Kilowatt per hour/100 miles, ability to start in cold temperatures, and acceleration and braking
- Refueling Availability — Location of refueling or recharging facilities, time required to fill a vehicle's tank or recharge its batteries, and method of refueling

2.2 Vehicle Justification

Requests for new vehicles will be submitted by Department managers with justification identifying the specific need with sufficient detail to assess the need. The District will analyze the following information for each proposed vehicle:

- Vehicle Type
- Vehicle Size
- Vehicle “Right Sizing”
- Special Equipment
- Vehicle Use: number of hours per day
- Vehicle Use: number of calendar days per year

2.3 Vehicle Acquisition

The District has applied standards for the acquisition process for new or replacement vehicles, which are intended to:

- Simplify the procurement process
- Improve acquisition cost and availability
- Provide a practical degree of standardization within the District's fleet

Once the need for a new or replacement vehicle has been determined and funding has been approved by the Board, the District’s Facilities & Fleet Specialist begins the acquisition process by developing specifications that define the technical attributes, configuration, and functional capabilities of the vehicle to be acquired.

The methods set forth to acquire vehicles can affect cost, availability, and vendor responsiveness to the District's needs. Acquisition of a vehicle is generally conducted through the State of California Purchasing Program (Program) unless the same vehicle can be obtained

at better pricing outside of the Program. Acquisition through the Program generally provides leveraged buying power to obtain better cost and availability.

Upon delivery of a vehicle, the District's Facilities & Fleet Specialist is required to thoroughly inspect the vehicle to ensure that it complies with the order specifications. Critical parts lists, service manuals, and user and mechanic training services will be included in the purchase specifications for specialized vehicles and equipment for which operating and maintenance requirements are not self-evident.

The District must never install accessory equipment on vehicles merely for the personal convenience or comfort of a vehicle operator; however, improvements to operator ergonomics and safety will be considered. The purpose of accessory equipment added to vehicles shall be to increase the utility so the vehicle can better serve the intended purpose. Factors for basing selection of accessory equipment will include overall safety, efficiency, economy, and suitability of the vehicle for its purpose.

2.4 Vehicle Replacement

In order to achieve a reasonable return on investment in the District's vehicle fleet, a Vehicle Replacement Plan (VRP) was developed that utilizes a methodology of replacing vehicles, with a Gross Vehicle Weight Rating (GVWR) of 1 ton and less, when they are in operation for 10 years or 100k miles have been travelled. However, vehicles with a GVWR greater than 1 ton, such as leak trucks and dump trucks, have highly specialized beds and equipment, do not accumulate mileage as quickly, and are more costly to replace. As such, the replacement cycle for these vehicles will likely be longer than 10 years, and will be assessed on a case-by-case basis.

This methodology is based on research into vehicle replacement methodologies of three other local jurisdictions that we consider a proxy for the region: Sacramento Municipal Utility District (SMUD), City of Sacramento, and County of Sacramento. SMUD relies on the American Public Works Association point system; the City of Sacramento uses an internally-developed point

system; and the County of Sacramento replaces vehicles when they reach 10 to 12 years of age or 100k to 120k miles have been travelled. After reviewing these methods, SSWD will implement a plan to replace vehicles at 10 years of age or 100k miles travelled, which is consistent with regional practice.

Utilizing the VRP, the District will annually update a Fleet Replacement Plan to project annual vehicle acquisition and Maintenance and Repair (M&R) costs, as well as an estimated replacement year for each vehicle for the next ten years. The purpose of the VRP is to identify long-term replacement spending needs and associated budgetary requirements and to communicate these to the Board. If this is not done annually it could lead to under-funding of fleet replacement, which can cause large replacement backlogs to develop.

A vehicle that meets VRP replacement criteria, but is in usable condition, may be retained provided that an assessment indicates that the vehicle can be operated safely and excessive M&R costs or substantial reduction in resale value is not expected. If a vehicle has been worn or damaged beyond economical repair, the District may replace the vehicle prior to its meeting a VRP criterion.

An initial 10-year projection of the annual vehicle acquisition and M&R costs for 2021-2030 is shown in Table 1, and graphically represented in Chart 1.

Table 1. Projected Annual Vehicle Acquisition and M&R Costs

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Vehicle Acquisition	$142K	$110K	$140K	$78K	$100K	$64K	$113K	$163K	$150K	$152K
M & R	$25K	$22K	$19K	$16K	$14K	$14K	$14K	$14K	$14K	$14K

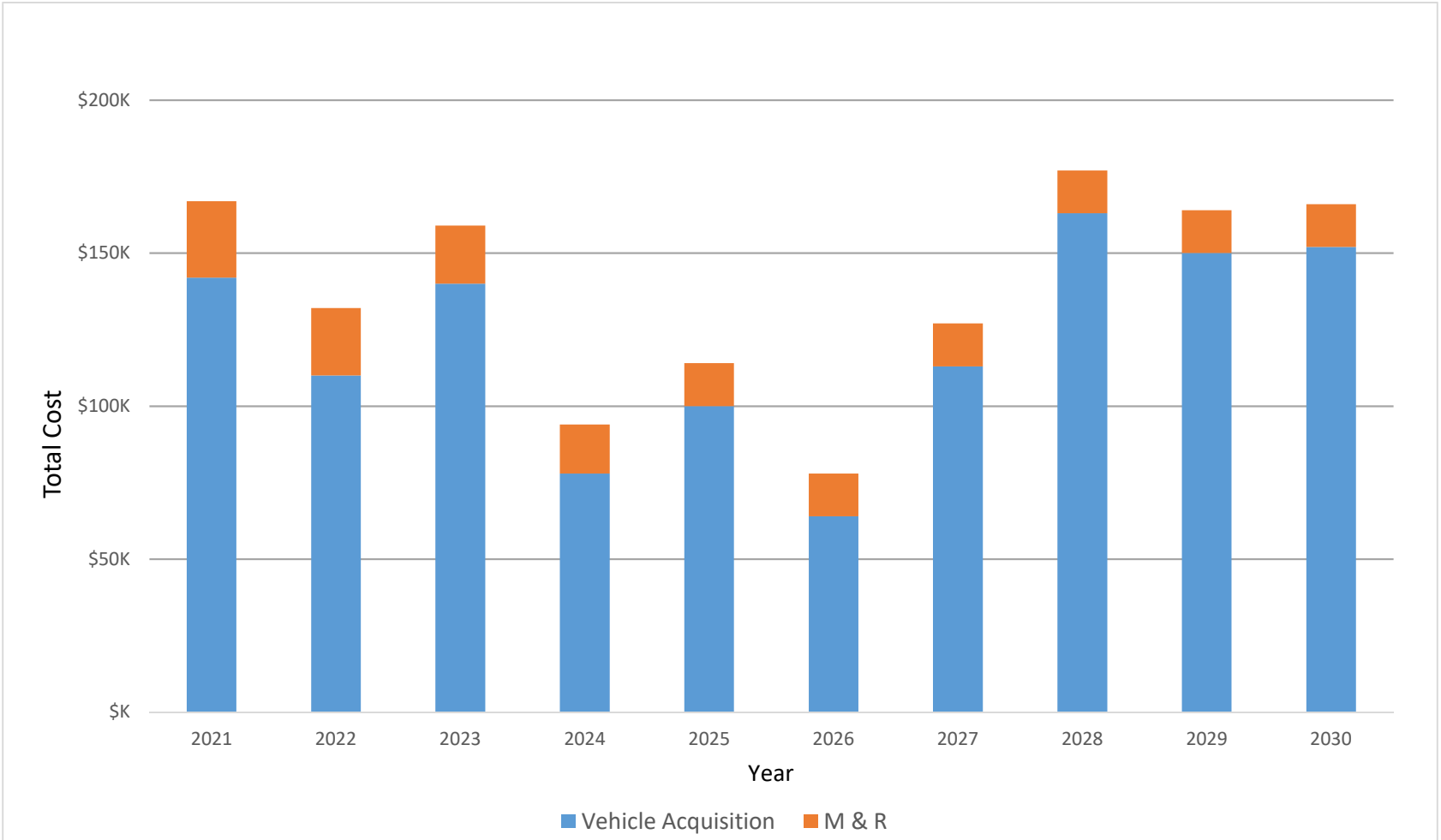

Chart 1.
Projected Annual Vehicle Acquisition and M&R Costs

Table 2 shows the estimated year of replacement for all District vehicles with a GVWR rating of 1 ton and less. Chart 2 on the following page shows the estimated number of vehicles scheduled for replacement annually from 2021 through 2030.

Table 2. Estimated Vehicle Replacement Year

Vehicle No.	Fuel Type	Vehicle Year	Vehicle Model	Mileage (Dec. 2019)	Replacement Year	Age* (Years)
9	Gas	2001	Tundra	110,930	2021	20
42	Gas	2002	Tundra	108,845	2021	19
50	Gas	2007	F-250	76,567	2021	14
57	Gas	2008	F-250	66,575	2021	13
52	Gas	2008	F-150	80,388	2022	14
53	Gas	2008	F-150	73,240	2022	14
60	Gas	2010	F-250	77,552	2022	12
58	Hyb.	2009	Escape	83,412	2023	14
62	Gas	2012	F-350	69,640	2023	11
63	Gas	2011	E-350	52,723	2023	12
59	Gas	2010	F-150	41,334	2024	14
61	Gas	2011	F-250	41,589	2024	13
64	Diesel	2014	F-350	34,694	2025	11
65	Gas	2014	F-250	58,876	2025	11
67	Gas	2016	F-150	52,327	2026	10
68	Gas	2016	F-150	24,829	2026	10
69	Gas	2017	F-250	19,854	2027	10
70	Gas	2017	Transit	16,578	2027	10
72	Gas	2017	Silverado	8,754	2027	10
75	Gas	2018	F-250	13,313	2028	10
76	Gas	2018	F-250	12,498	2028	10
77	Gas	2018	F-250	9,885	2028	10
79	Gas	2018	Colorado	4,800	2028	10
80	Gas	2019	F-150	2,605	2029	10
81	Gas	2019	F-150	2,148	2029	10
83	Hyb.	2019	RAV4	374	2029	10
87	Gas	2019	F-350	1,091	2029	10
82	Elect.	2019	Bolt	0	2030	11
84	Hyb.	2019	RAV4	66	2030	11
85	Gas	2019	F-250	0	2030	11
86	Gas	2019	F-250	0	2030	11

*Age of vehicle at estimated year of replacement.

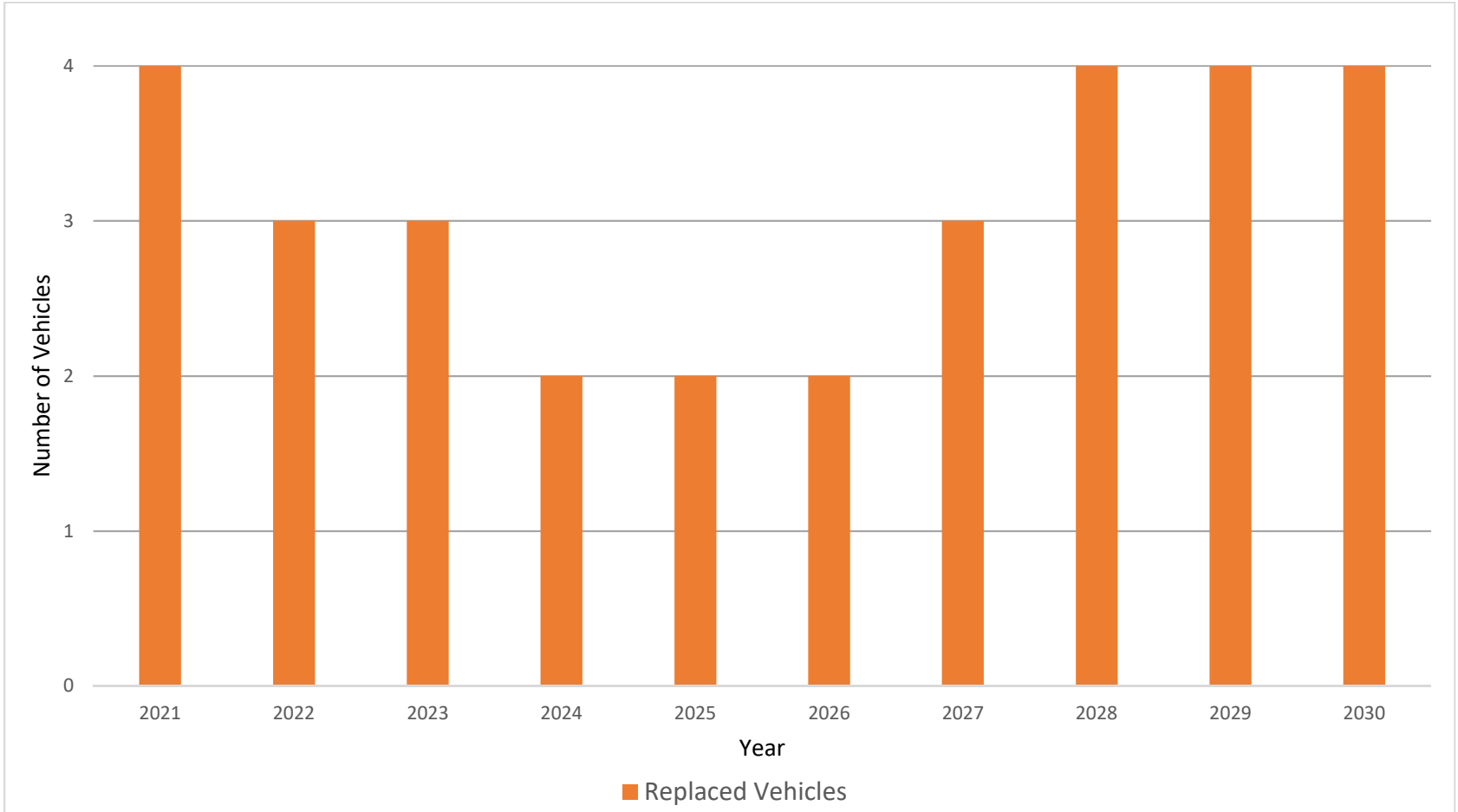

Chart 2.
Estimated Number of Vehicles Replaced by Year

Section 3

EQUIPMENT ASSET MANAGEMENT

3.1 Fleet Equipment Composition and Needs Assessment

In determining the District's equipment needs, staff will consider the following, at a minimum:

- The type and size of equipment needed to safely and efficiently perform specific tasks
- The number of each equipment type needed to meet the District's operational needs
- If powered, the fuel or energy source required to operate the equipment safely throughout a normal work shift

In addition, staff will assess the current fleet to determine the equipment needs of the District. An electronic inventory must be maintained with sufficient descriptive facts about each piece of equipment. The data will include, at a minimum, the following key factors:

- Number of each equipment type, age, and condition
- Total hours of operation, if applicable
- Average cost of operation and maintenance for each fiscal year

3.2 Equipment Justification

Requests for new equipment will be submitted to the Operations Manager. Requests will include justification identifying the specific need in sufficient detail to determine the need for the equipment.

3.3 Equipment Acquisition

Once the need for new or replacement equipment has been determined and funding has been approved by the Board, the District's Facilities & Fleet Specialist begins the acquisition process with developing equipment specifications defining the technical attributes, configuration, and functional capabilities of the equipment to be acquired.

Proper management of equipment acquisitions ensures procedures are in place for equipment review upon delivery to ensure that the equipment received complies with the order specifications. Critical parts lists, service manuals, and user or mechanic training services will be included in the purchase specifications for specialized equipment for which operating and maintenance requirements are not self-evident.

3.4 Equipment Replacement

In order to achieve an appropriate return on investment for District equipment, staff developed the Condition Assessment (CA) Criteria, described in Section 3.5, and the Equipment Repair Cost Criteria (ERCC), described in Section 3.6. The CA Criteria helps determine whether a piece of equipment meets current operational standards, and the ERCC helps determine whether a piece of equipment should be repaired or replaced based on a comparison of the estimated repair cost and the actual replacement cost.

3.5 Condition Assessment Criteria

A condition assessment (CA) will be performed after every service cycle or before any necessary repair. The CA will utilize the following criteria to determine if the equipment meets current standards:

- Safety
    - Does the equipment meet current safety standards?
        - No – If equipment cannot be economically brought up to current safety standards, then replace
        - Yes – Continue with CA
    - Are current models safer to operate than the existing model?
        - Yes – Evaluate further and consider replacement
        - No – Continue with CA
- Age:
    - Is the equipment compatible with current technology?
        - No – Evaluate further and consider replacement

        - Yes – Continue with CA
    - Are current models more efficient to operate?
        - Yes – Evaluate further and consider replacement
        - No – Continue with CA

- Serviceability & Repair:
    - Can the equipment be serviced and repaired by local distributors or repair shops?
        - No – Evaluate further and consider replacement
        - Yes – Continue with CA
- Condition:
    - Does the condition make it significantly less efficient to operate?
        - Yes – Evaluate further and consider replacement
        - No – Complete CA

3.6 Equipment Repair Cost Criteria

The Equipment Repair Cost Criteria (ERCC), outlined below in Table 3, will be utilized to assist in determining whether a piece of equipment is either repaired or replaced. This methodology is based on District best practices over nearly two decades. Research into equipment repair/replacement methodologies of three other local jurisdictions that we consider a proxy for the region (SMUD, City of Sacramento, and County of Sacramento) revealed that none has a methodology in place, but all practice a similar approach to that presented here. In all cases the Operations Manager has overall discretion in decisions of repair versus replacement.

Table 3. ERCC

Repair Cost Relative to Replacement Cost	Anticipated Action
< 50%	Repair
50% - 70%	Case-by-Case Assessment
> 70%	Replace

Section 4

OPERATIONS AND RISK MANAGEMENT

The Operations Manager will maintain a procedure(s) to ensure the District's fleet is maintained and serviced at regular intervals, per the manufacturer's recommendations, and operated safely and efficiently by staff who have received appropriate training.

4.1 Fleet Maintenance

A sound Preventive Maintenance Program is essential to reducing total fleet expenditures. Vehicles and equipment will be properly maintained to ensure the District is better able to control maintenance expenses. A sound maintenance program positively affects District cost performance through:

- Reduced downtime
- Reduced operational costs
- Reduced frequency of accidents
- Increased probability of fulfilling mission and work assignments
- Increased resale value

4.2 Fleet Disposal

The District has adopted policy PL – Adm 003, *Disposing of District Real Property, Vehicles and Large Equipment and Other Personal Property Policy*, which defines the guidelines for disposing of District real property, vehicles, and large equipment and other personal property. Once it has been determined that a vehicle or piece of equipment requires replacement, it will be classified as surplus and disposed of in accordance with PL – Adm 003.