Fleet Life Cycle / Optimal Vehicle Replacement Policy

Purpose

This policy will outline the criteria for effective vehicle replacement. All factors of a vehicles mission, purpose, age, mileage and cost of ownership will be assessed to create a benchmark for relinquishment. This policy must be firmly adhered to in order to reduce costs and ensure safe and reliable vehicles to deliver city services.

General

Safety is not usually a factor of a vehicles age and mileage, but dependability and reliability are. Several things influence a vehicles life cycle.

- Service life is the amount of time a vehicle is capable of rendering service. Service life may be quite lengthy if a vehicle receives adequate maintenance and worn components are replaced. There is however a fatigue point for mechanical parts and structures that must be accounted for so as **not** to affect safety.
- Technological life is the relative decline in productivity of a unit when compared to a newer model. Technology advancements affect fuel usage and greenhouse gas emissions
- Economic life is the length of time that a vehicles cost is at a minimum. As the age and mileage of a vehicle increase the maintenance and operating costs increase also.

Benchmarks

The following chart will form the basis for an economical and mechanical inspection to determine a replacement cycle or schedule. This chart was developed using historical maintenance data compiled from fleet management maintenance records. High cost vehicles such as specialized trucks or Fire Apparatus may be retained for additional life as a reserve unit but must be evaluated annually.

Radio patrol cars	125,000 miles and or	5yrs	(total life cycle)
Un-Marked Police	125,000 miles and or	8yrs.	
Medic units	150,000 miles and or	5 yrs.	(Front line)
Fire pumper	100,000 miles and or	12 yrs.	(Front line)
Fire Ladder	100,000 miles and or	12 yrs.	(Front line)
Compact sedan	125,000 miles and or	10yrs	
SUV	125,000 miles and or	10 yrs	
Pick-up truck	125,000 miles and or	10 yrs.	(6 to 8 yrs. Snowfighting)
Cargo van	125,000 miles and or	10 yrs	
Tri axle dump	150,000 miles and or	12yrs	
Crew cab dump	150,000 miles and or	12yrs	
Inlet Cleaner	20,000 **hours** and or	12 yrs.	
Sewer Vac	20,000 **hours** and or	12 yrs.	
Trash compactor	20,000 **hours** and or	8 yrs.	(Front line)
Street sweeper	15,000 **hours** and or	10 yrs.	
Wheel loader (salt)	15,000 **hours** and or	10 yrs.	

Process

Vehicle fuel and maintenance data will be collected in OFMs asset management system (M5)*. All costs including labor, parts, fuel and accidents will be recorded in order to capture lifetime vehicle costs. OFM shop supervisors will identify vehicles that meet the benchmark criteria. OFM Assistant Fleet Managers will review the list with the Shop Supervisor. Any vehicle deemed to be at or beyond its useful life must have the vehicle status in M5changed from 'Active' to 'Flagged for Disposal' A 'flagged for disposal' list will be developed using the benchmarks of this policy. Highest replacement priority will be given to any vehicle meeting the benchmark criteria and / or exceeding 80 % of purchase cost to repair.

Procedure

Beginning each Fiscal Year, a prioritized list will be developed using the guidelines of this policy. The prioritized list will be shared with using departments to determine the correct replacement schedule as well as correct vehicle type and total vehicle inventory*.

Where operationally possible alternatively fueled vehicles will replace conventionally fueled vehicles. Alternative options include Compressed Natural Gas (CNG), Hybrid Electric Vehicles (HEV), Plug in Hybrid Electric (PEHV) and all Electric Vehicles (EV).

Summary

This policy is to be used as *guideline* for cost effective vehicle replacement cycles. Other factors such available funding or vehicle service level agreements* may influence replacements. Increases in public health and safety measures requiring additional vehicles or equipment (New Needs) will also influence vehicle replacement schedules. In these cases, a vehicle may need to be retained past its life cycle however these vehicles must be relinquished at the first opportunity in order to reduce operating costs and allow for on time delivery of city services.

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Service Level Agreement (SLA). Pre-determined number of vehicles needed for a department to deliver city services.

Total Vehicle Inventory. Maximum number of vehicles assigned to a Department

Front Line Vehicle. Daily use, primary vehicle

Reserve Vehicle. Secondary use, spare when front line is un-available

M5. Asset Management software used to capture vehicle cost and maintenance data.

Flagged for Disposal. Reportable designation in M5 to denote replacement needed

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