

FLEET MANAGEMENT

February 2024



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CITY OF
YELLOWKNIFE

Introduction

- Funding mechanism: Mobile Equipment Reserve Fund (MERF)
- Vehicle class based replacement system.
- Basic asset management principles.
- Fleet Study completed in 2017.
 - (Mercury Associates Inc.)
 - Still relevant.

Report on
**Review of Fleet
Replacement
Practices**
for the



CITY OF
YELLOWKNIFE
September 2017

MERCURY ASSOCIATES, INC.

MERCURY



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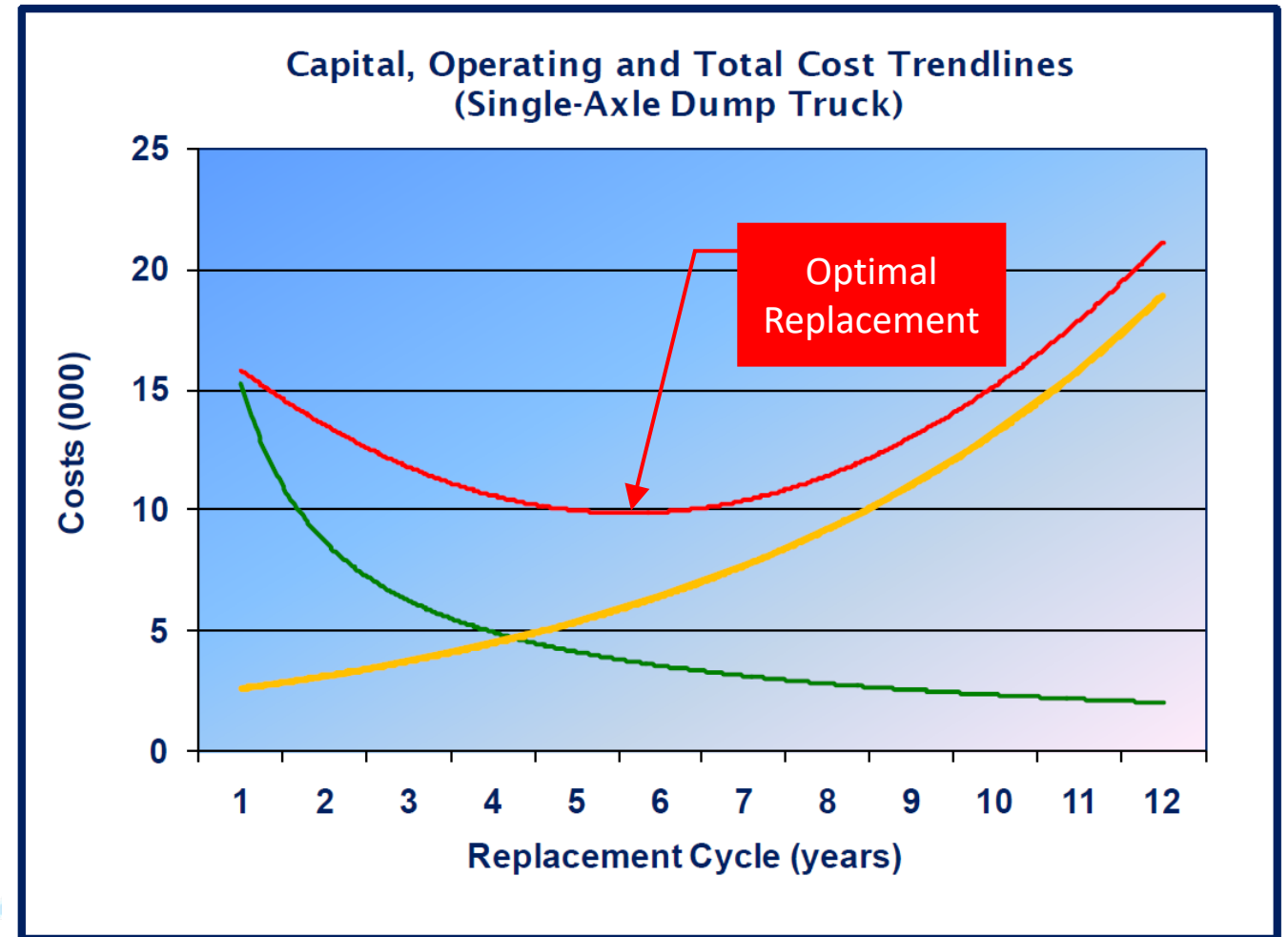
Asset Management

- Fleet management illustrates that structured and proactive asset management is effective.
- Will provide more predictability and cost certainty, with the exception of emergency situations.
- Functions optimally with consistent annual contributions.

Replacement Cycle Guidelines

Capital Costs – Green
Operating Costs – Yellow
Total Cost of Ownership – Red

- As an asset ages or depreciates, it loses fair market value.
- O&M costs increase with the age of assets.
- Replacement should occur when TCO is at a minimum.



Yellowknife Replacement Cycles (vs. Industry)

- Typically within industry standards. But on high side.
- With exception of:
 - Fire & Emergency life cycle is higher than industry.
 - Stationary engines life cycle is higher.
 - Grader life cycles are lower.

City of Yellowknife and Typical Industry Replacement Cycle Guidelines

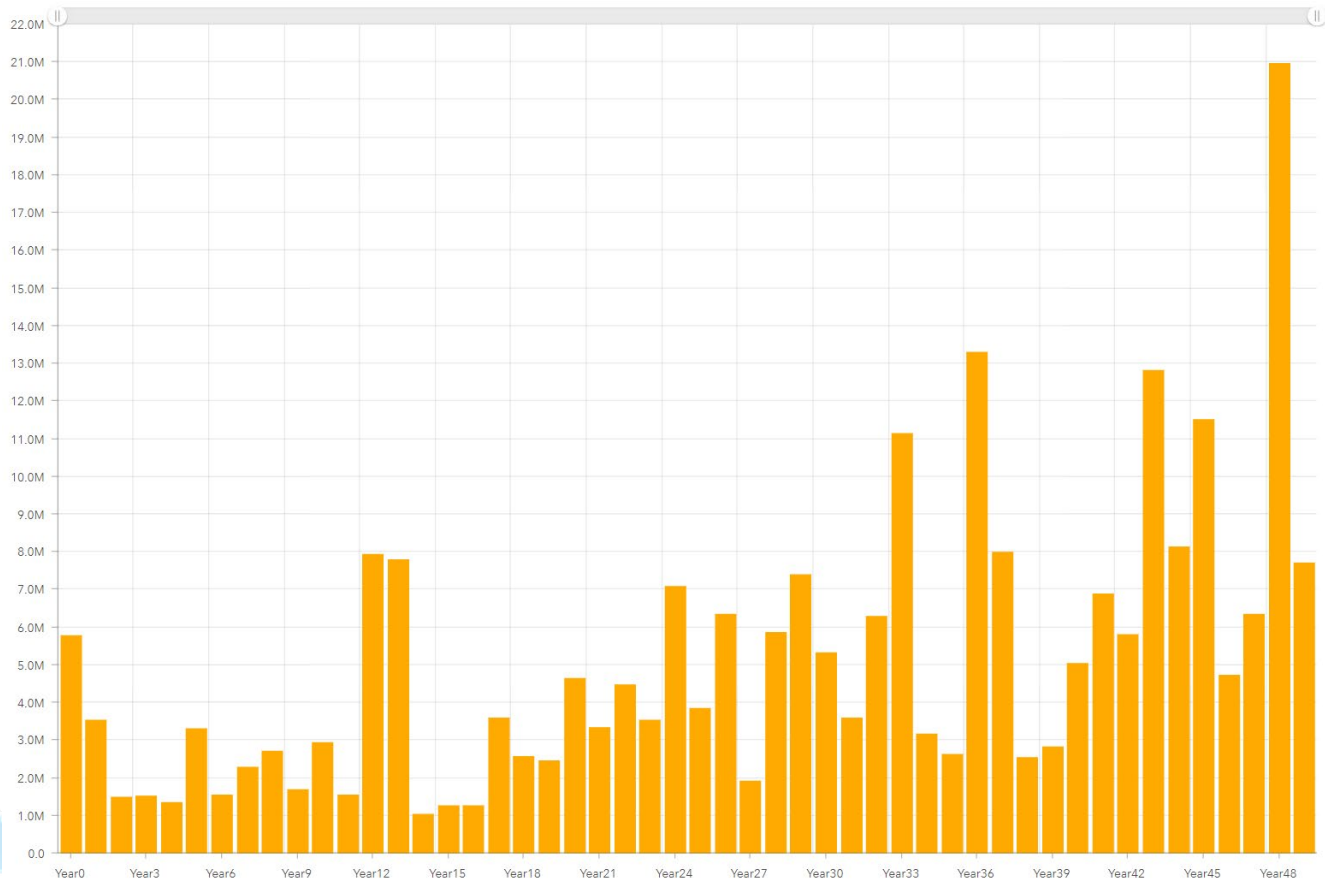
Class	Class Description	City	Industry
1	Small Equipment (mowers, carts, mules, etc.)	10	7-10
2	Light Duty (Sedans, pickups, etc.)	10	7-10
3	Medium Duty (Trucks 10000-14000 GVWR)	10-12	8-10
4	Heavy Duty (Truck > 14000 GVWR)	12-14	10-12
5	Heavy Equipment (Loaders, Backhoes, etc.)	10	10
6	Mobile Tractors (Skid steers, paving, etc.)	12	10-12
7	Municipal Enforcement (Police patrol, etc.)	4	3-5
8	Emergency Equipment (Fire)	15-20	12-15
10	Stationary Engines (Stationary generators, etc.)	20	10-12
11	Graders (e.g., snow removal)	6	10-12
12	Specialty Equipment (Sewer, etc.)	10-12	10-12

Sample of Replacement Plan

- Part of the Mercury review Fleet.
- Annual fleet totals along the top above replacement year.
- All based on replacement cycle guidelines for that vehicle class.
- Indexed for inflation.
- Large ticket items and deferring replacements can cause spikes.
 - (See Years 2024 & 2026)

Asset Registry Snapshots

50 Year Forecast



<input type="checkbox"/>	OBJECTID	Asset UID	Asset Name	Status	Service	Accountable Division	Asset Class	Asset Subclass	Year Acquired	Years in Service	YK Estimated Service Life
<input type="checkbox"/>	727	FLT-ENG-009143	P143-69 - PH#2	Primary Use	Drinking Water	Works Operations	Fleet	Stationary Engines	1969	54	20
<input type="checkbox"/>	732	FLT-ENG-009150	G150-82 - YKFD	Primary Use	Fire, Ambulance, and Rescue Response	Yellowknife Fire Division	Fleet	Stationary Engines	1982	41	20
<input type="checkbox"/>	724	FLT-ENG-009140	G140-83 - PH#1	Primary Use	Drinking Water	Works Operations	Fleet	Stationary Engines	1983	40	20
<input type="checkbox"/>	729	FLT-ENG-009145	G145-88 - PH#4	Primary Use	Drinking Water	Works Operations	Fleet	Stationary Engines	1988	35	20
<input type="checkbox"/>	721	FLT-ENG-009137	P137-91 - LS#7	Primary Use	Wastewater	Works Operations	Fleet	Stationary Engines	1991	32	20
<input type="checkbox"/>	733	FLT-ENG-009151	G151-92 - RIMP	Primary Use	Indoor Recreation	Facilities	Fleet	Stationary Engines	1992	31	20
<input type="checkbox"/>	536	FLT-LDV-001093	1093-09	Primary Use	Drinking Water	Works Operations	Fleet	Light Duty Vehicle	2009	14	10
<input type="checkbox"/>	543	FLT-LDV-001113	1113-08, RED 3	Primary Use	Emergency Prevention	Yellowknife Fire Division	Fleet	Light Duty Vehicle	2008	15	12

Number of Assets

165

Current Replacement Value

27.2M

Annual Average (10yr Forecast)

2.5M

Annual Average (50yr Forecast)

5.1M



Light Duty Trucks & Seasonal Use

- City employs approximately 20 summer students.
- Equates to approximately 10-12 light duty trucks required each summer.
- Light duty trucks replaced under Fleet Management are retained, not disposed of.
- These units are put into seasonal use for summer students until the maintenance costs become too high.
- Makes the best use of units that have been replaced and puts new, more reliable units in circulation for vital work activities.

MERF Function

- Each City division is assigned vehicles based on work requirements.
- Each division has Vehicle O&M and fuel accounts to accurately assign costs.

Example:

Standard light duty (1/2 ton) truck:
= \$40,000

Has a 10 year life cycle.
= \$4,000 per year.

The MERF needs to allocate \$4,000 per year to reserve to cover the replacement cost of that unit.

MERF Function - continued

- The fund provides stability for Fleet replacement costs.
- Lowers operation and maintenance costs.
- Provides staff with dependable and safe equipment.
- Provides the public with dependable levels of service.
- It provides Administration with budget certainty.

Questions?

