

August 2023

2023

CORPORATE ASSET MANAGEMENT PLAN

Saskatoon Fleet Services

INTRODUCTION

The City's Fleet Services (Fleet) group is part of the Roadways, Fleet and Support department within the Transportation and Construction division. The services provided by Fleet include maintenance, repair, replacement, specification development, tender evaluations, and administration of an internal rental model for vehicles and equipment.

Fleet is funded through revenue generated from rental fees that are charged to civic departments and boards.

Rental fees are reviewed and adjusted to ensure sufficient funding is available for fleet maintenance and timely replacement of vehicles and equipment in accordance with their assigned service life expectancy. At the current funding level, Fleet is positioned to replace vehicles and equipment according to the assigned lifecycles.

The Parks equipment have been maintained by Fleet, but the overall management and replacement cycles of their equipment has been administered by the Parks team and funded through the Parks cost centre. Fleet is in the process of assuming full responsibility for Parks equipment and assessing if the rental fee model used for the remainder of the civic fleet is also the most appropriate model for the Parks equipment. In alignment with this consolidation of fleet management responsibilities within Fleet, the Parks equipment have been included in the inventory of Fleet as noted in this Asset Management Plan.

The City's active fleet assets are estimated to have a replacement value of

\$163.81 million.

This value includes Parks equipment.

CURRENT INVENTORY

Tables 1 and 2 show the asset group/category replacement value and the percentage of the total value that each asset group/category represents. Table 1 is a summary of the fleet asset groups. Table 2 provides a detailed breakdown of the fleet asset categories.

Table 1: Summary Fleet Asset Inventory (in Millions of Dollars)

Asset Group	Inventory	Replacement Value	% Fleet
Heavy Equipment (HE)	267	\$100.21	61.2%
Light Vehicle (LV)	425	\$29.29	17.9%
Saskatoon Police Service (SPS)	185	\$10.00	6.1%
Parks	269	\$12.65	7.7%
Other	89	\$11.66	7.1%
Total	1,235*	\$163.81	100%

Note: Inventory count includes leased units as these are still considered Capital Assets



Grader



Heavy Tandem



Packer



Sweeper

Table 2: Detailed Fleet Asset Inventory

Asset Group	Asset Category	Unit Count	Replacement Value	% of Fleet (Count)	% of Fleet (Replacement Value)
Heavy Equipment (HE)	Backhoe	8	\$3,676,651	0.6%	2.2%
	Boiler Truck	3	\$744,452	0.2%	0.5%
	Bucket Truck	21	\$7,919,845	1.7%	4.8%
	Digger Derrick	5	\$1,624,176	0.4%	1.0%
	Excavator - Track	2	\$2,095,755	0.2%	1.3%
	Garbage Truck - Side Arm	26	\$17,851,821	2.1%	10.9%
	Garbage Truck Curbster	1	\$207,475	0.1%	0.1%
	Garbage Truck Rear Load	3	\$1,214,986	0.2%	0.7%
	Garbage Truck Roll Off	3	\$739,934	0.2%	0.5%
	Garbage Truck - Front Fork	4	\$1,805,820	0.3%	1.1%
	Grader	17	\$10,300,128	1.4%	6.3%
	Heavy 1 Ton Truck	49	\$6,060,621	4.0%	3.7%
	Heavy Units - Tandem	46	\$11,179,999	3.7%	6.8%
	Knuckle Crane Truck	2	\$682,268	0.2%	0.4%
	Medium Unit	13	\$3,503,958	1.1%	2.1%
	Oil Distributor	1	\$407,307	0.1%	0.3%
	Packer	10	\$1,928,534	0.8%	1.2%
	Rigid Crane Truck	1	\$295,622	0.1%	0.2%
	Sweeper	19	\$9,258,552	1.5%	5.6%
	Tarp Deployer	3	\$298,186	0.2%	0.2%
Trash Compactor	2	\$2,141,613	0.2%	1.3%	
Vac Truck	9	\$7,388,935	0.7%	4.5%	
Washer Truck	1	\$284,846	0.1%	0.2%	
Water Truck	4	\$1,743,327	0.3%	1.1%	
Wheel Excavator	2	\$1,026,038	0.2%	0.6%	
Wheel Loader	12	\$5,830,130	1.0%	3.6%	
Total Heavy Equipment		267	\$100,210,979		

Table 2: Detailed Fleet Asset Inventory - Continued

Asset Group	Asset Category	Unit Count	Replacement Value	% of Fleet (Count)	% of Fleet (Replacement Value)
Light Vehicles (LV)	1 Ton Truck	70	\$7,371,361	5.7%	4.5%
	1/2 Ton Truck	85	\$5,433,535	6.9%	3.3%
	1/4 Ton Truck	47	\$2,434,650	3.8%	1.5%
	2 Ton Truck	4	\$420,333	0.3%	0.3%
	3/4 Ton Truck	52	\$3,792,842	4.2%	2.3%
	Electric Vehicle	4	\$222,661	0.3%	0.1%
	Heavy Van	75	\$5,488,919	6.1%	3.4%
	Hybrid Light Vehicle	3	\$125,256	0.2%	0.1%
	Minivan	43	\$1,830,180	3.5%	1.1%
	Sedan	5	\$157,057	0.4%	0.1%
	Sport Utility	33	\$1,609,707	2.7%	1.0%
	Van Chassis Custom Deck	4	\$407,243	0.3%	0.3%
	Total Light Vehicles	425	\$29,293,744		
	SPS	Marked Police SUV	78	\$5,276,731	6.3%
Police <1 Ton		8	\$537,768	0.6%	0.3%
Police >1 Ton		2	\$170,000	0.2%	0.1%
Police Motorcycle		2	\$92,775	0.2%	0.1%
Police Sedan		32	\$1,127,558	2.6%	0.7%
Police SUV		19	\$1,022,391	1.5%	0.6%
Police Trailer		7	\$42,103	0.6%	0.0%
Police Van		37	\$1,727,522	3.0%	1.1%
Total SPS		185	\$9,996,848		
Parks		Parks Backhoe	1	\$165,572	0.1%
	Parks Brush Chipper	7	\$453,615	0.6%	0.3%
	Parks Floor Scrubber	1	\$75,000	0.1%	0.1%
	Parks Grader Attachment	2	\$10,510	0.2%	0.0%
	Parks Mini Haul Truck	67	\$1,386,774	5.4%	0.8%
	Parks Mower	73	\$4,790,088	5.9%	2.9%
	Parks Rear Blade	3	\$14,212	0.2%	0.0%
	Parks Seeder	2	\$16,851	0.2%	0.0%
	Parks Skid Steer	3	\$184,240	0.2%	0.1%
	Parks Snow Blower	7	\$69,812	0.6%	0.0%
	Parks Snowmobile	2	\$30,750	0.2%	0.0%
	Parks Stump Cutter	1	\$134,692	0.1%	0.1%
	Parks Sweeper	14	\$1,113,627	1.1%	0.7%
	Parks Top Dresser	3	\$94,683	0.2%	0.1%
	Parks Trackless	5	\$839,067	0.4%	0.5%
	Parks Tractor	34	\$2,712,247	2.8%	1.6%
	Parks Trailer	41	\$395,184	3.3%	0.2%
	Parks Tree Spade	3	\$159,302	0.2%	0.1%
	Total Parks	269	\$12,646,226		



Pothole Patcher



Heavy Van



Half-ton Truck



SL&P Electric Vehicle



Compact Hybrid Car



Police SUV

Table 2: Detailed Fleet Asset Inventory - Continued

Asset Group	Asset Category	Unit Count	Replacement Value	% of Fleet (Count)	% of Fleet (Replacement Value)
Other	Asphalt Patcher	2	\$809,230	0.2%	0.5%
	Compressor	5	\$267,176	0.4%	0.2%
	Farm Tractor	9	\$2,116,417	0.7%	1.3%
	Floor Scrubber - Battery	2	\$215,378	0.2%	0.1%
	Forklift - Electric	3	\$316,775	0.2%	0.2%
	Forklift - Fuel	4	\$759,748	0.3%	0.5%
	Forklift - Propane	4	\$415,062	0.3%	0.3%
	Sidewalk Unit	11	\$2,278,131	0.9%	1.4%
	Skid Steer	15	\$1,165,892	1.2%	0.7%
	Snow Blower	4	\$1,209,811	0.3%	0.7%
	Trailers (Engine Equip)	12	\$1,738,377	1.0%	1.1%
	Trailers (Hauler)	18	\$368,135	1.5%	0.2%
	Total Other		89	\$11,660,132	
TOTAL ASSETS		1,235	\$163,807,929		

Sewer Flusher
Vac Truck



PHYSICAL CONDITION OF FLEET

The City’s vehicles and equipment are evaluated for condition based on the percentage of the Estimated Service Life (ESL) used and the timeframe (asset age) when the asset is estimated to reach the end of its service life. For example, a minivan is estimated to have an ESL of 12 years or 230,000 kilometres. If the actual age of the vehicle is 8.4 years but it has 242,443 kilometres on it, this minivan is at the end of its service life (100%+) because of the excess usage. The rating structure shown in Table 3 has been used in the industry to rate vehicles and equipment from “Very Good” to “Very Poor” condition.



Graders

Table 3: Rating Structure

Condition Description	% of Estimated Service Life Used	Explanation
Very Good (VG)	0-20%	New unit, no wear/tear
Good (G)	21-50%	Normal maintenance cost, good overall condition, low km
Fair (F)	51-80%	Maintenance cost begins to rise, moderate km usage
Poor (P)	81-100%	Unit needs to be replaced, high km, maintenance costs at a steep incline, body condition deteriorating
Very Poor (VP)	>100%	Units no longer operational, potential safety issues, not economically feasible to maintain

Table 4 shows a summary of the fleet asset condition assessment by replacement value, which shows that 46.45 % of the total value of the Fleet asset pool are in “Good” to “Very Good” condition, 31.32% are in “Fair” condition and 22.23% are in “Poor” to “Very Poor” condition.

Service life or kilometres/hours used are the two main factors considered to determine the condition of the fleet assets. Ideally, equipment would be replaced at its optimum point based on its economic lifecycle, which is before the equipment becomes more costly to maintain. In addition to these considerations, before Fleet considers assets for replacement, the asset is inspected and prioritized based on a few factors, including safety, cost of maintaining, technological advancements, etc. This assessment along with the current economic and market supply factors are considered when deciding when to replace assets in the “Poor” or “Very Poor” category based on the percentage of the ESL used.

In 2023, Fleet reassessed assigned lifecycles of certain asset categories. This was in response to a growing trend of vehicles exceeding the expected usage well before the expected end of life, and maintenance and repair trend changes. This adjustment resulted in some assigned lifecycles being



Fleet Shop Equipment

shortened and as a result, 35 vehicles being degraded more than one assessment value (example: “Good” to “Poor” status). The value of all assets was also reassessed to reflect current economic environment.

In general, close to 50% of the City’s vehicle and equipment are in “Very Good” or “Good” condition, with less than 50% of the estimated service life of those assets being utilized. The condition rating of each asset is based on the ESL used, and the percentages are based on the replacement values. The goal is to have the average asset condition in the “Good” category. Equipment and vehicles in the desired “Good” condition generally have normal maintenance costs, good overall condition, and low kilometres.

Table 4: Condition Assessment – Profile of Assets by Replacement Value

Type	Very Good	Good	Fair	Poor	Very Poor	Total
Total	21.05%	25.41%	31.32%	12.00%	10.24%	100.00%

Fleet regularly reviews and assesses the fleet age, condition, and repair trends.

Parks equipment was not considered in Table 4. This type of equipment is different from the civic fleet and thus, their lifecycles and condition ratings will be assessed differently. This equipment can be retained for longer term due to:

- Less frequent use
- Less use in inclement weather
- Less exposure to corrosive materials (sand/salt, asphalt, etc.)

Fleet will be assessing Parks equipment over the next two years to determine their true condition status and will include a summary of their condition in the next Asset Management Plan update.

EXPENDITURE LEVELS

The Administration evaluates the condition of the City’s assets to develop annual programs and maintain the assets at a minimum lifecycle cost. Condition assessments or evaluations are conducted and used to establish condition levels as well as develop annual capital improvement plans.

The expected usage for each type of assets is defined; however, as the actual asset usage increases, so does the cost of maintaining the asset. To compare the level of investment required for all assets, five levels of expenditures are identified below. It should be noted that expenditure levels are not condition assessments but lead to a change in the asset condition over time. “A” represents the highest level of expenditure and “F” represents no expenditure.

Based on the condition assessment ratings, the City’s fleet is generally in “Good” condition state, therefore an Expenditure Level C is targeted to maintain the assets in the current condition.

Table 5: Expenditure Levels

Expenditure Level	Asset Condition	Description
“A”	Getting Better Quickly	Sufficient expenditures to keep assets in the desired condition and to increase asset condition/value quickly over time
“B”	Getting Better	Sufficient expenditures to keep assets in the desired condition and to increase asset condition/value slowly over time
“C”	Maintain Assets in Current Condition	Sufficient expenditures to keep asset in constant condition over time
“D”	Getting Worse	Insufficient expenditures to maintain asset condition. Over time asset condition will deteriorate
“F”	Getting Worse Quickly	No expenditures. Asset condition/value decreased rapidly

Table 6: Asset Performance

Asset	Performance %	Performance Definition
Heavy Equipment	24%	Very Good
	23%	Good
	32%	Fair
	12%	Poor
	9%	Very Poor
Light Vehicle	18%	Very Good
	30%	Good
	34%	Fair
	11%	Poor
	7%	Very Poor
SPS	12%	Very Good
	29%	Good
	26%	Fair
	16%	Poor
	17%	Very Poor
Other	19%	Very Good
	30%	Good
	27%	Fair
	7%	Poor
	17%	Very Poor

The Fleet Maintenance Program is currently funded through the Fleet Services operating budget at an amount of
\$18.8 million.

PREVENTATIVE MAINTENANCE PROGRAM

Fleet Services manages the maintenance of its assets using an electronic fleet management system. Each unit is assigned a preventative maintenance schedule once it is put into service based on Original Equipment Manufacturer (OEM) recommendations. From these set parameters, the unit is then monitored based on hours or kilometres used to determine the preventative maintenance schedule.

FLEET SERVICES FUNDING

As presented in this Asset Management Plan report, the current level of funding for Fleet is currently sufficient to keep the existing fleet in “Good” condition. The Fleet Maintenance Program is currently funded through the Fleet Services operating budget at an amount of \$18.8 million per year, excluding fuel costs. The rental fees charged to the various departments cover this maintenance cost of \$18.8 million, including the contribution to the Civic Vehicles and Equipment Replacement Reserve. Through a recent Fleet Services audit, the rental fee model and calculation was confirmed to be an appropriate method for cost recovery.

The Civic Vehicles and Equipment Replacement Reserve provides funding for fleet replacements. Any additions to the fleet are funded through the individual departments requiring the vehicle. However, once this additional piece of equipment is purchased it becomes the responsibility of Fleet to maintain and replace it at the end of its lifecycle. The current level of funding allows for the replacement of fleet to be made in a timely manner, which will ensure the average condition continues to fall within the “Good” condition category.

The estimated value of the Parks equipment is \$12.65 million and is currently funded as per the approved formula included in Bylaw 6774, The Capital Reserve Bylaw, Page 18, Provision 37 (2). The Bylaw indicates that the Grounds Maintenance Equipment Replacement Reserve will finance the cost of replacing Parks equipment, and that the reserve will be funded annually as per the authorized provision in the Bylaw, in the amount equal to 5.4% of the current replacement value of the equipment (net of salvage value).

Inclusion of the Parks equipment under the Fleet Services Asset Management Plan is expected to result in improved equipment management and replacement planning, use of existing expertise within Fleet, and application of industry best practices and appropriate funding model. An internal assessment will be conducted to evaluate the option of transitioning Parks equipment into the rental fee model. If recommended based on the assessment, the transition would occur over the next two years and include assigning rental fees and appropriate lifecycles to specific Parks equipment and finalizing the cost recovery and funding model. The assessment will determine if this change would have any financial implications, if any changes to Bylaw No. 6774 would be required, and if any additional resources would have to be considered for the 2026/2027 budget cycle.

INFLATION CONSIDERATIONS

Data from the Machinery and Equipment Price Index, reported by Statistics Canada, shows that since January 2019, prices for machinery and equipment have risen by 12.4%. Leading the way is construction machinery and equipment at almost 19%. Should this price increase continue, capital funding for fleet replacement will require an adjustment as Fleet will not be able to maintain the current condition of the fleet. Fleet will continue to monitor inflationary impacts and the global purchase price increases on the automotive and heavy equipment markets and request budget adjustments to the replacement reserve contributions through the Multi-Year Business Planning and Budget process should that be required in future years.

CLIMATE ADAPTION STRATEGY

Fleet has been working with the Sustainability department to take steps towards corporate fleet electrification to reduce fuel usage and greenhouse gas emissions. As part of the City's Climate Action Plan, Fleet has begun to assess electric vehicle (EV) options and will continue to pursue them in accordance with the available funding and electric vehicle and equipment availability. Four electric vehicles were introduced in 2020 as a pilot project to determine potential savings before expanding the fleet of electric vehicles. The pilot supports the City's Low Emissions Community Plan objectives to lower greenhouse gas (GHG) emissions and electrify the municipal fleet over the near term. Currently, the EV pilot project is nearing completion. The goal of the pilot is to obtain operating and maintenance data specific to City's operations. The data will allow for comparison between advertised and actual maintenance costs, assessment of vehicle performance in the local climate conditions, quantification of the reduction in the GHG emissions, assessment of lifecycle costs, and more informed assessment of electric vehicle purchase options including required replacement reserve contributions.

Although purchasing an electric vehicle comes with a higher capital purchase price, savings will be realized with reduced maintenance and fuel costs.



*City
Yards*

THE WAY FORWARD

Fleet Services will continue to:

- › Deliver a high level of routine and preventative maintenance to maintain civic fleet assets in good condition.
- › Deliver best practices and quality service to internal clients.
- › Carefully monitor and manage rental fees and replacement reserves.
- › Bring forward innovative ideas for reducing costs or improving functionality.
- › Monitor and actively participate in emerging trends, such as electric and autonomous vehicles.
- › Improve outreach and better understand the needs of other civic departments supported by Fleet Services.
- › Stay committed to maintaining and carefully investing in civic fleet.
- › Develop formal KPIs as per the 2023 audit recommendations to ensure transparency.
- › Monitor supply trends of critical parts for equipment and vehicles and proactively plan to prevent any disruptions in operations of vehicles and equipment.
- › Complete analysis of various options (purchase, lease, rent) as part of fleet procurement decisions.
- › Use the allocated financial and physical resources to address the needs and expectations of Saskatoon citizens today and for the future.





*We strive to maintain and fund
our key infrastructure assets to
minimize total lifecycle costs.*