



Town of The Blue Mountains
Fleet Asset Management Plan

March 2020

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Executive Summary

This Asset Management Plan is written as per the requirements of Ontario Regulation 588/17 (O.Reg 588/17) as per the *Infrastructure for Jobs and Prosperity Act, 2015*. This plan consists of the following sections:

1. State of Infrastructure;
2. Current Levels of Service;
3. Lifecycle Model; and
4. Population and Economic Activity.

The Town owns and operates 54 fleet assets with a replacement cost of \$8,772,000. These assets include SUVs, light and heavy duty pick-up trucks, Fire emergency equipment and Snow Plows. Unlike most other asset types no specific condition rating index has been calculated for Fleet. Staff have calculated a remaining life expectancy by using the age and kilometers driven by the asset. A Fleet asset given a *Critical* rating means that asset is nearing replacement and will be included in the five year capital forecast as presented with the annual budget.

The Town's Fleet currently has 20% of the assets in this critical category, which includes the replacement of the Town's aerial pumper which is scheduled for 2025.

This plan looks at the current level of service that the Fleet assets are in and costs out the annual operating costs (fuel, licensing, insurance etc.), the annual transfer requirement to replace the asset without the use of long-term debt, and a capital replacement forecast. It should be noted that long-term debt will be required for the funding of this plan as the Town has not sufficiently saved for some of the larger purchases.

Introduction

The Town owns and operates 54 fleet assets with a replacement cost of \$8,772,000. These include general use pick-ups, fire pumpers and winter control vehicles. Unlike other asset classes it is more difficult to assign a condition for a fleet asset as no one standard rating system exists. For the purposes of this asset management plan National Fire Protection Association (NFPA) guidelines will be used as well as the Town's historic practice. Using these guidelines as well as staff knowledge this plan has been created in accordance with O.Reg 588/17.

Table 1 outlines the type of fleet that the Town owns, the estimated useful life (used for the Financial Statements), and the guideline used to set this useful life.

Table 1 Useful Life by Fleet Type		
General Pick-ups and SUV	10 years	Town Historic Practice
Winter Control (Snow Plows)	10 years	Town Historic Practice
Fire Pick-ups and SUV	10 years	Town Historic Practice
Fire Pumper and Tankers	20 years	NFPA Guidelines

Where possible staff have included using the kilometers as a criteria to use when prioritizing fleet replacement years. Using the Town's asset management software, Cityworks, repairs and maintenance cost (both internal and external) are being tracked against specific fleet. Having this information gives staff an additional criteria to use when building the annual replacement budget. Table 2 outlines the criteria that will be used when determining the condition of the assets.

Table 2 Fleet Condition Rating Criteria	
General Pick-ups and SUV	Combination of age and kilometers
Winter Control (Snow Plows)	Combination of age and kilometers
Fire Pick-ups and SUV	Combination of age and kilometers
Fire Pumper and Tankers	Age only

By taking this information and applying it, a condition rating can be calculated for each fleet asset. As the percentage increases the fleet is getting closer to requiring replacement, with 100% being an indication that the vehicle should be replaced.

Table 3 Fleet Condition Rating Index	
Ratings	Metric
1 – Very Poor	75% +
2 – Poor	50% to 74.99%
3 – Fair	25% to 49.99%
4 – Good	0% to 24.99%

Plan Structure

The structure of this plan is in alignment with O.Reg 588/17. This was done so that the Town can include this piece in the final Asset Management Plan that will include all asset classes. This plan includes the following sections:

1. State of Infrastructure – Fleet;
2. Current Levels of Service and Performance;
3. Lifecycle Model; and
4. Population and Economic Activity.

State of the Infrastructure

The following tables look at each vehicle and outlines the basic information that is required through O.Reg 588/17;

- i. Fleet
- ii. Replacement Cost
- iii. Year of Purchase
- iv. Kilometers
- v. Condition Index
- vi. Funding Stream

Planning and Development Services	Replacement Cost	Year	KMs	Condition Index	Funding Stream
Chevy Equinox	\$ 35,000	2017	8,986	8.57%	Building
Ford Escape	\$ 36,000	2018	10,306	6.59%	Building
Ford Escape	\$ 36,000	2018	8,746	5.97%	Building
Ford Escape	\$ 36,000	2018	7,750	5.58%	Development Engineering

By-law	Replacement Cost	Year	KMs	Condition Index	Funding Stream
Nissan Frontier	\$ 38,000	2013	103,009	66.62%	Taxation
Chevy Silverado	\$ 41,000	2017	56,085	27.27%	Taxation
Chevy Equinox	\$ 34,000	2016	37,420	22.36%	Taxation

Community Services	Replacement Cost	Year	KMs	Condition Index	Funding Stream
Ford F-150	\$ 37,000	2000	108,493	90.58%	Taxation
Ford F-150	\$ 36,000	2006	140,118	88.13%	Taxation
Ford F-450	\$ 52,000	2003	93,200	77.00%	Taxation
Ford COF	\$ 36,000	2011	141,444	76.16%	Taxation
Ford F-150	\$ 37,000	2007	102,715	70.78%	Taxation
Ford F-150	\$ 38,000	2008	109,000	70.78%	Taxation
Ford Ranger	\$ 39,000	2009	111,607	69.31%	Taxation
Ford F-250	\$ 49,000	2008	88,607	62.68%	Taxation
Ford Ranger	\$ 36,000	2011	50,000	39.85%	Taxation
Chevy Silverado	\$ 40,000	2016	14,875	13.41%	Taxation
Chevy Silverado	\$ 41,000	2017	16,814	11.68%	Harbour
Ford F-250	\$ 55,000	2019	0	0.00%	Taxation

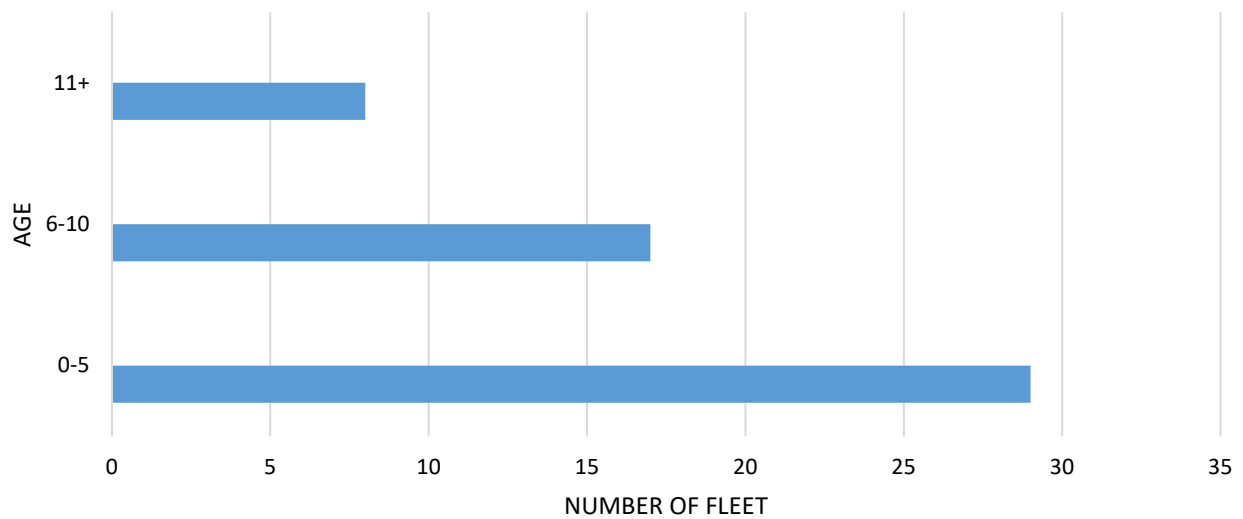
Operations	Replacement Cost	Year	KMs	Condition Index	Funding Stream
Ford Escape	\$ 31,000	2010	200,617	102.15%	Taxation
Chevy Silverado	\$ 36,000	2011	137,813	74.72%	Wastewater
Toyota Tacoma	\$ 36,000	2011	117,826	66.78%	Taxation
Ford E-250	\$ 37,000	2012	116,811	63.88%	Taxation
Dodge Ram	\$ 38,000	2013	95,124	52.77%	Water
GMC Sierra	\$ 37,000	2012	58,890	40.88%	Taxation
Chevy Silverado	\$ 40,000	2016	78,790	38.78%	Taxation
Ford F-350	\$ 57,000	2016	61,576	31.95%	Water
Ford F-150	\$ 41,000	2017	64,533	30.62%	Wastewater
Chevy Silverado	\$ 53,000	2017	55,736	27.13%	Taxation
Chevy Silverado	\$ 40,000	2016	41,051	23.80%	Water
Chevy Equinox	\$ 35,000	2017	29,533	16.73%	Water
Chevy Silverado	\$ 59,000	2017	26,772	15.63%	Taxation
Chevy Silverado	\$ 41,000	2017	22,635	13.99%	Water
Ford F-150	\$ 42,000	2018	12,227	7.35%	Taxation
Ford Escape	\$ 36,000	2018	8,926	6.04%	Water
Ford F-150	\$ 43,000	2019	0	0.00%	Water
Ford F-150	\$ 43,000	2019	0	0.00%	Wastewater

Operations – Snow Plows	Replacement Cost	Year	KMs	Condition Index	Funding Stream
International	\$ 325,000	2013	121,854	66.93%	Taxation
Volvo	\$ 312,000	2011	79,441	53.85%	Taxation
International	\$ 345,000	2016	103,055	51.42%	Taxation
Freightliner	\$ 351,000	2017	31,821	18.56%	Taxation
International	\$ 359,000	2018	11,053	7.21%	Taxation

Fire	Replacement Cost	Year	KMs	Condition Index	Funding Stream
Ford F-150	\$ 52,000	2011	85,500	63.62%	Taxation
Dodge Ram	\$ 54,000	2013	73,700	52.60%	Taxation
Chevy Equinox	\$ 40,000	2016	32,500	24.08%	Taxation
Chevy Silverado	\$ 57,000	2016	21,500	18.47%	Taxation
Ford F-150	\$ 60,000	2018	4,500	4.8%	Taxation

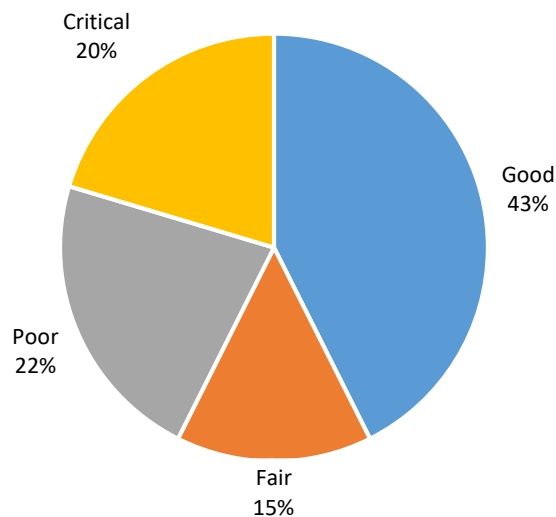
Fire –Pumpers and Tankers	Replacement Cost	Year	KMs	Condition Index	Funding Stream
E-One Cyclone	\$ 963,000	2003	16,900	80%	Taxation
Freightliner	\$ 518,000	2006	40,855	65%	Taxation
Sterling	\$ 534,000	2009	11,110	50%	Taxation
Freightliner	\$ 643,000	2011	17,140	40%	Taxation
Freightliner	\$ 638,000	2013	12,175	30%	Taxation
Spartan Metro	\$ 918,000	2016	8,505	15%	Taxation
Freightliner	\$ 1,106,000	2018	5,990	5%	Taxation

Chart 1
Fleet by Age



The average age of Town owned fleet is 5 years, with the oldest vehicle at 20 years.

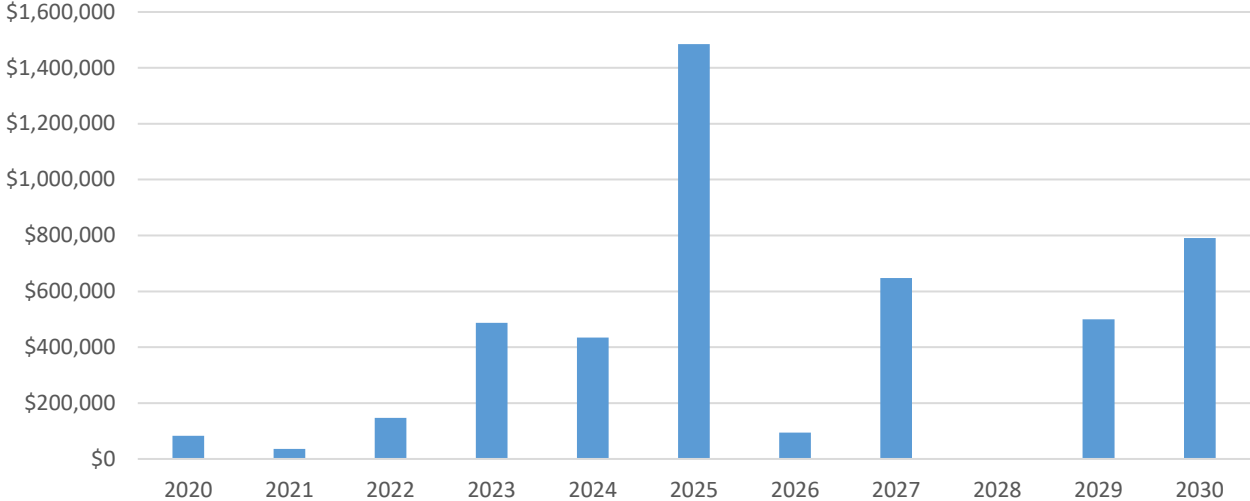
Chart 2
Fleet by Condition Rating



The condition rating that staff have used for fleet uses both the age of the vehicle and kilometers driven. By using two sets of data, instead of just age, it brings forward vehicles that are driven a lot during a year, such as the Road's patrol truck, and delays the replacement of vehicles that are driven fewer kilometers, such as the Park's gardening truck which is only used seasonally.

Additionally, a vehicle that is included in the *Critical* category doesn't mean that it will be replaced immediately. Being in this category means that vehicle has less than 25% of life left and will be included in the five year capital program in the annual budget.

Chart 3
Replacement Cost by Year



Over the next 10 year period the Town will need to replace \$4.7M in Fleet assets. This ranges from some years at \$0 to other years at almost \$1.5M.

Chart 4
Replacement Cost by Funding Type

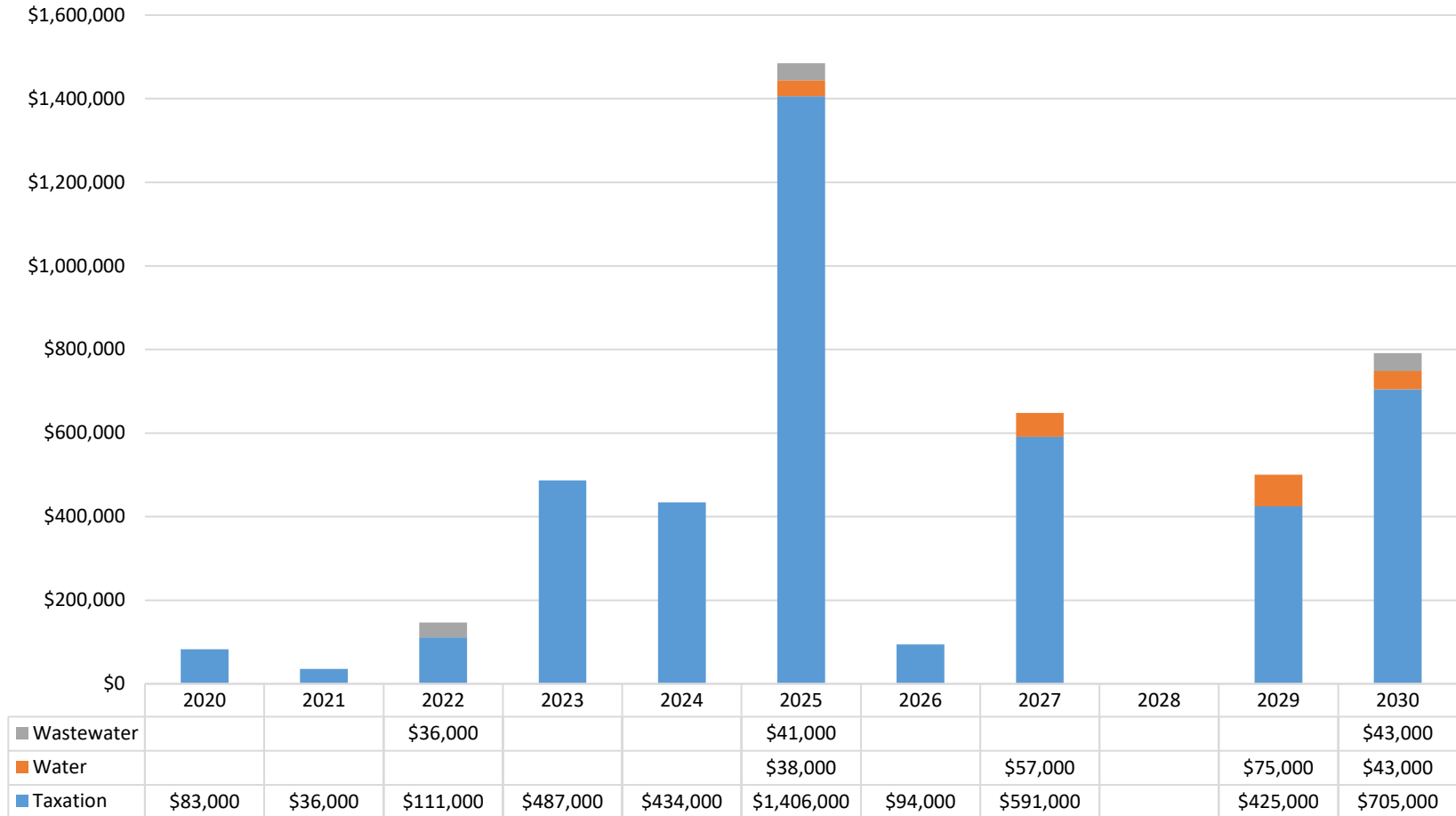


Chart 4 is taking the same information as Chart 3 and classifying each vehicle by funding type. Certain funding types, Harbour, Building and Development Engineering do not have a fleet replacement cost over the next 10 year period.

Current Level of Service

As per O.Reg 588/17 this asset management plan is built using the current level of service that the Town is offering for this asset class. The regulation does not speak to any mandatory metrics that the Town must report, so staff have compiled relevant metrics for the Fleet asset class.

- Fleet Condition per fleet asset
- Fire Pumper and Tanker Age Replacement
- Average spending on annual repairs and maintenance

The Fleet Condition Index as calculated by staff using the age of the asset and the number of kilometers driven, the condition rating is included in the tables in the State of the Infrastructure section of this plan. The Index ranges from 0.00% (brand new vehicles) to 102.15%. The one vehicle currently over 100% is scheduled for replacement in 2020. The average Condition index is 38.39% which would put the average fleet asset in the *Fair* category.

The Town replaces all Fire Pumper and Tankers within the NFPA guideline of 20 years. These fleet assets are replaced at that age no matter the number of kilometers or hours on the equipment. The condition rates are also included in the tables in the State of the Infrastructure section of this plan. The average rating is 40% which puts this sub-category of assets in the *Fair* category.

The Town has been tracking costs by fleet asset over the past few years, including work done by an external mechanic and by internal Town staff. Entering this information into the Town's asset management software is a work in progress and not all divisions have been doing it for the full three years. Over the past few years the Town, on average, has spent \$140,000 on annual repairs and maintenance for the Fleet assets.

Using a straight average this equals \$2,600 per year per fleet asset for repairs and maintenance. However, digging deeper into the data a more appropriate average is \$5,400 for Fire Fleet assets, \$4,400 for Snow Plows and \$1,800 for the remaining Fleet Assets.

Lifecycle Costs

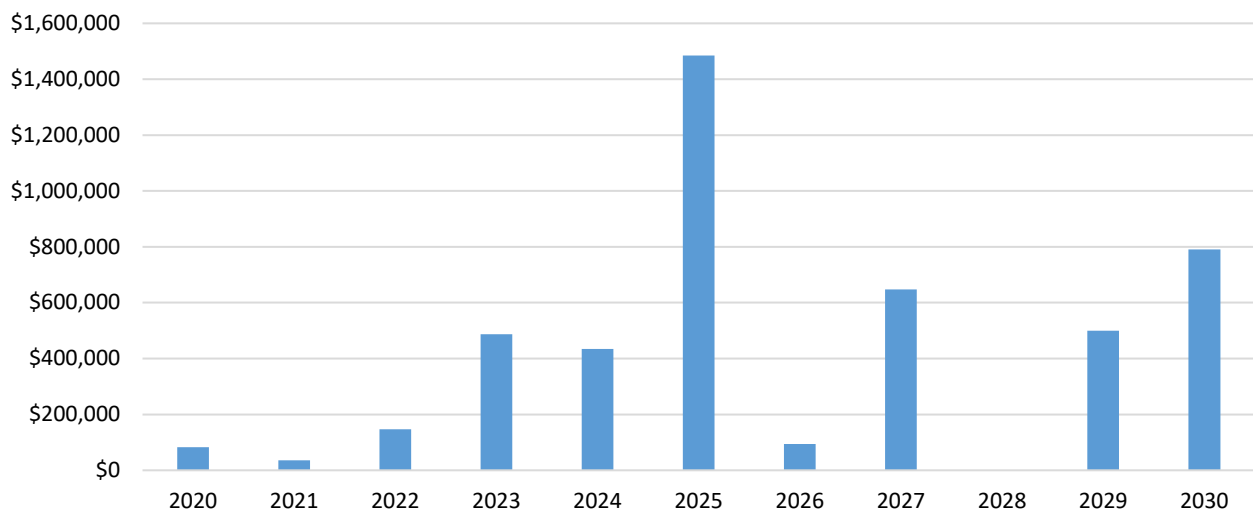
As per O.Reg 588/17 a ten year lifecycle cost must be calculated for the asset category to maintain the current level of service that has already been established. Similar to the Facilities there are two expense streams for the Fleet Assets. The Annual Costs include fuel, licensing, insurance and repairs and maintenance. The second stream is the annual transfer to the reserve fund to fund the replacement cost of the Fleet asset. The Town uses reserve funds and annual transfers to fund capital purchases rather than trying to fund those purchases in the given year.

For the Annual Costs, 2019 has been used as the base year and an inflation factor has been used to calculate the 10 year costs. For the annual transfer a degradation curve has been built for each Fleet asset to determine the useful life of that vehicle and then an annual transfer can be calculated.

Table 4
10 Year Lifecycle Costs

Department	Annual Costs	Annual Transfer	Total
Community Services	\$ 600,800	\$ 312,000	\$ 912,800
Building	\$ 142,500	\$ 80,000	\$ 222,500
By-Law	\$ 209,100	\$ 126,000	\$ 335,100
Development Engineering	\$ 39,800	\$ 27,000	\$ 66,800
Operations	\$ 36,500	\$ 35,000	\$ 71,500
Fire	\$ 746,100	\$ 2,877,000	\$ 3,623,100
Roads and Drainage	\$ 1,463,800	\$ 2,113,000	\$ 3,576,800
Solid Waste	\$ 40,200	\$ 27,000	\$ 67,200
Harbour	\$ 56,800	\$ 30,000	\$ 86,800
Wastewater	\$ 217,200	\$ 147,000	\$ 364,200
Water	\$ 437,400	\$ 258,000	\$ 695,400
Total	\$ 3,990,200	\$ 6,032,000	\$ 10,022,200

Chart 5
10 Year Capital Costs



The costs included in Table 4 are funded through the annual operating budget, more details are included below. The annual transfers are built in a way so that long-term debt will not be required, however some of the larger vehicles (snow plows and fire pumpers/tankers) are scheduled for replacement before a sufficient balance can be saved. The capital purchases are then funded from the reserve funds. If the reserve fund has an insufficient balance then long-term debt will be required.

Lifecycle Costs – Financing

The expenses included in Table 4 for the Annual Costs and Transfers are funded through the annual operating budgets of the appropriate departments.

For the Harbour the \$86,800 is funded using annual mooring fees which equates to just over a \$1.25 per foot per year. For Wastewater the \$364,200 is funded through annual consumption user-fees billed bi-monthly to the properties connected to the Town's wastewater system. This equates to roughly \$6 per connected user per year. For Water the \$695,400 is funded the same way, through bi-monthly consumption billings to the connected users of the system. This equates to roughly \$10 per connected user per year.

Building and Development Engineering are hard calculations to make as the base of their annual activities (permits and agreements) vary each year. For 2019 the Building Department charged \$16m² for building permits, \$0.31 of that charge covers the annual costs for the three vehicles used by the inspectors. Development Engineering revenues are a percentage of the development infrastructure costs, that percentage covers the fleet costs of \$66,800.

Using the same type of logic used for the user-fees staff have done a deeper look into the taxation funded departments that also collect fees and charges for the services that they offer. These departments include the Landfill, Tomahawk, and By-law. Using the 2019 Approved Budget as the base, a funding split was calculated for each department and then applied to the fleet costs to determine how much is covered by taxation and how much by fees and charges.

Landfill – Funding Split 54% Taxation and 46% Fees and Charges therefore the \$67,200 is funded \$36,300 by taxation and \$30,900 by Landfill Tipping Fees.

Tomahawk – Funding Split 65% Taxation and 35% Fees and Charges therefore the \$70,300 is funded \$45,700 by taxation and \$24,600 by Golf Course Revenues.

By-Law – Funding Split 85% Taxation and 15% Fines and Fees therefore the \$335,100 is funded \$284,800 by taxation and \$50,300 Fines and Fees.

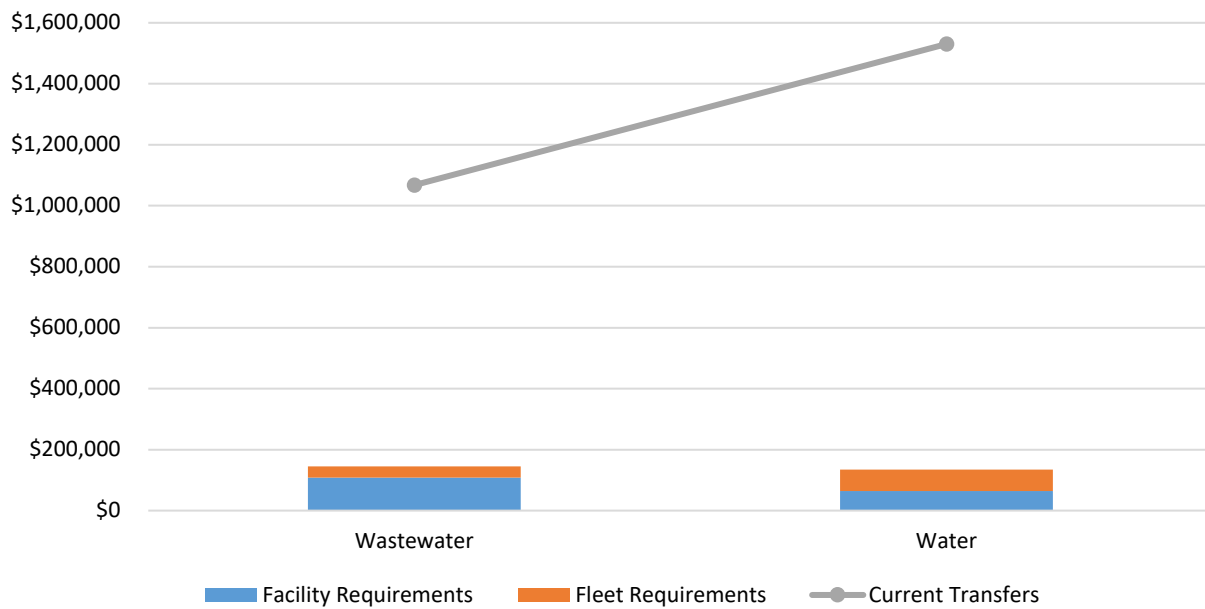
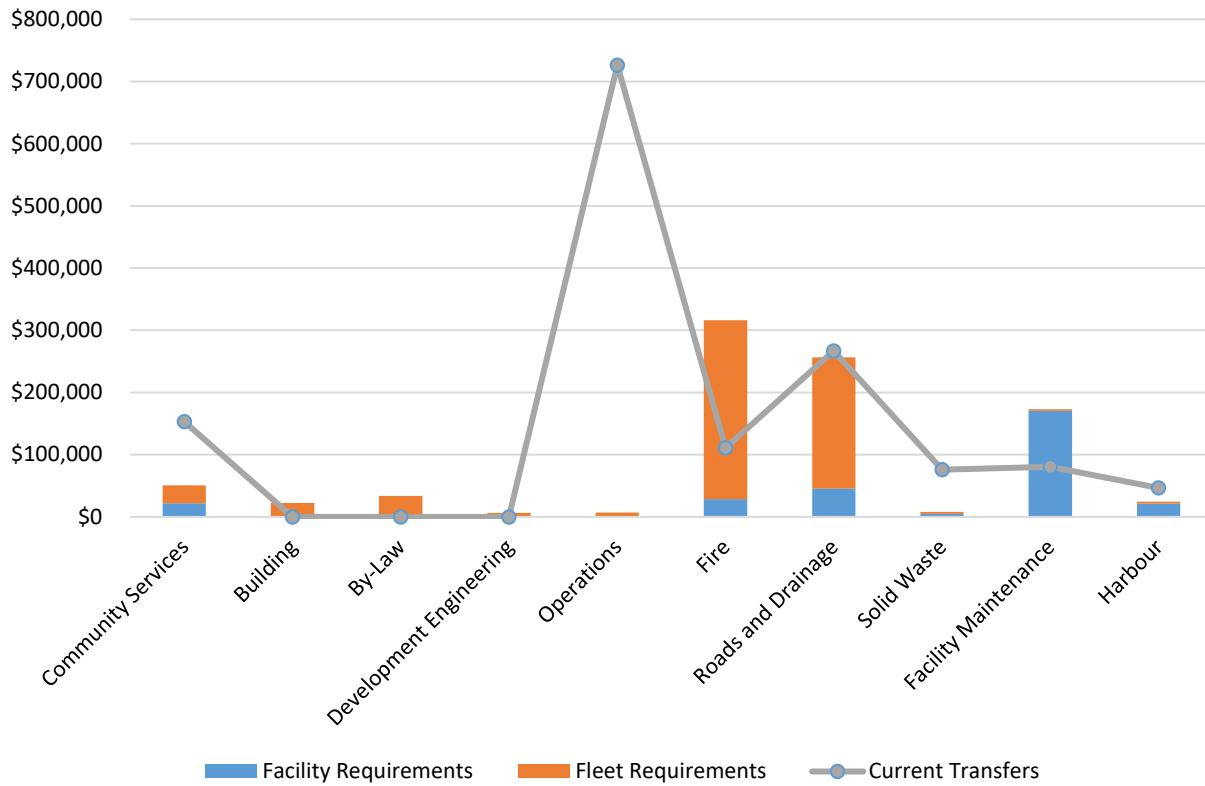
Before the capital can be funded the current transfers that are included in the 2020 Draft Budget need to be compared to what is included in the Facility Asset Management Plan and this Plan. Any recommended adjustments will be done through the 2021 budget.

Table 5
Current and Required Transfers

Department	Current Transfers	Facility Requirements	Fleet Requirements	Total	Difference
Community Services	\$ 153,000	\$ 21,900	\$ 28,700	\$ 50,600	\$ 102,400
Building	\$ 0	\$ 0	\$ 22,250	\$ 22,500	\$ (22,250)
By-Law	\$ 0	\$ 0	\$ 33,510	\$ 33,510	\$ (33,510)
Development Engineering	\$ 0	\$ 0	\$ 6,680	\$ 6,680	\$ (6,680)
Operations	\$ 726,500	\$ 0	\$ 7,150	\$ 7,150	\$ 719,350
Fire	\$ 111,100	\$ 28,650	\$ 287,700	\$ 316,350	\$ (205,250)
Roads and Drainage	\$ 266,700	\$ 45,330	\$ 211,300	\$ 256,630	\$ 10,070
Solid Waste	\$ 75,800	\$ 5,150	\$ 2,700	\$ 7,850	\$ 67,950
Facility Maintenance	\$ 80,800	\$ 170,790	\$ 2,500	\$ 173,290	\$ (92,490)
Harbour	\$ 46,795	\$ 21,400	\$ 3,000	\$ 24,400	\$ 22,395
Wastewater	\$ 1,067,630	\$ 108,435	\$ 36,420	\$ 144,855	\$ 922,775
Water	\$ 1,530,424	\$ 64,540	\$ 69,540	\$ 134,080	\$ 1,396,344
Total	\$ 4,058,749	\$ 466,195	\$ 711,450	\$ 1,177,645	

Having completed the Facility and Fleet Asset Management Plans some of the transfers are completely calculated as they are not required to fund other assets types. The transfers include Building, By-law, Development Engineering, Fire, and Facility Maintenance. The Town can now set these annual transfers as per the Asset Management Plans.

Staff will included these revised transfers in the 2021 Proposed Budget for Council consideration. Taking into account By-law, Fire and Facility Maintenance the Town will see an increase to the transfers of \$331,250 which is an increase of 2.00% over the 2020 Draft Budget.



The above two graphs look at Table 5 showing the cost of the facilities (blue) plus the cost of fleet (orange) against what the current transfers are (grey line). Some of the departments are well below the current transfer (water, wastewater and operations) this is due to the large number of linear assets owned and operated by those departments. Other departments (fire and facility maintenance) will need to see an increase to their annual transfers as they are falling short of the requirements.

Population and Economic Activity

Looking at the Town's 2019 Development Charge Background Study there are some additional fleet assets to be purchased to handle the Town's continued growth. The current population (as of 2018) was 6,897 which is projected to increase to 9,777 by the year 2028. In addition, employee square meters is expected to increase by 17,408 or 348 employees in that same time period.

- Parks and Recreation – two additional pick-up trucks
- Public Works – two additional pick-up trucks and two additional snow plows
- Parking and By-law - two additional pick-up trucks

Using the values calculated in the Lifecycle section of this plan a cost per area for both the Annual Costs and Annual Transfer has been calculated for illustrative purposes for a 10 year period. The values will be added to the annual operating budget in the year that the fleet asset is purchased.

Fleet	Annual Cost	Transfers Increase	Total Annual Cost
Parks and Recreation (2)	\$ 116,000	\$ 58,000	\$ 174,000
Public Works (2 Pick-ups)	\$ 159,400	\$ 93,000	\$ 252,400
Public Works (2 Snow Plows)	\$ 394,200	\$ 732,000	\$ 1,126,200
Parking and By-law	\$ 139,400	\$ 84,000	\$ 223,400
Total	\$ 809,000	\$ 967,000	\$ 1,776,000



Staff Report

Finance and IT Services

Report To: Committee of the Whole
Meeting Date: March 10, 2020
Report Number: FAF.20.001
Subject: Facility and Fleet Asset Management Plan Follow-up
Prepared by: Sam Dinsmore, Deputy Treasurer/Manager of Accounting and Budgets

A. Recommendations

THAT Council receive Staff Report FAF.20.001 entitled "Facility and Fleet Asset Management Plan Follow-up";

AND THAT Council approve the Facility Asset Management Plan as attached;

AND THAT Council approve the Fleet Asset Management Plan as attached.

B. Overview

This report is seeking Council endorsement of a Facility and Fleet Asset Management Plan that staff have written in accordance with the Infrastructure for Jobs and Prosperity Act, 2015 (Act) and the Asset Management Planning for Municipal Infrastructure, Ontario Regulation 588/17 (O.Reg 588/17).

C. Background

In 2017 the provincial government passed the Act which made asset management planning a legislated requirement for Ontario municipalities. The follow-up regulation, O.Reg 588/17, had a phased in requirement for the Town to follow.

- 1) July 1, 2019 Asset Management Policy –this policy was approved by Council in early 2019
- 2) July 1, 2021 Asset Management Plan for Core (linear) Assets – this is a component of this requirement
- 3) July 1, 2023 Asset Management Plan for all Assets –this is a component of this requirement
- 4) July 1, 2024 Asset Management Plan for all Assets with Proposed Levels of Service – other levels of service are out lined in this asset management plan

Council wanted to see a quicker implementation of O.Reg 588/17 and adopt the following schedule as per staff report FAF.19.099.

2020

1st Quarter

- Finalize Facilities
- Fleet

3rd Quarter

- Roads
- Bridges
- Sidewalks

4th Quarter

- Water
- Wastewater

2021

1st Quarter

- Parks
- Trails

2nd Quarter

- Final Summary Plan

D. Analysis

Attachment #1 is the Town's proposed asset management plan for all Facilities. These facilities range from extensive water and wastewater treatment plants to seasonal park washrooms. This plan follows O.Reg 588/17 and sets a template for the remaining asset types.

Attachment #2 is the Town's proposed asset management plan for all Fleet. These assets range from SUVs to pick-up trucks, to large scale fire emergency equipment, and snow plows. This plan follows O.Reg 588/17 and uses the template established by the Facility plan.

E. The Blue Mountains Strategic Plan

The Blue Mountains Strategic Plan

Goal #4: Promote a Culture of Organizational and Operational Excellence

Objective #4: To Be a Financially Responsible Organization

F. Environmental Impacts

N/A

G. Financial Impact

As staff continue to write and present the asset management plans by asset type the financial impact will continue to change depending on whether the Town has been sufficiently funding operating and capital replacement projects. The chart below looks at the requirements as outlined in the two attached plans versus the current transfers to reserve and reserve funds that are included in the 2020 Draft Budget.

Department	Current Transfers	Facility Requirements	Fleet Requirements	Total	Difference
Community Services	\$ 153,000	\$ 21,900	\$ 28,700	\$ 50,600	\$ 102,400
Building	\$ 0	\$ 0	\$ 22,250	\$ 22,500	\$ (22,250)
By-Law	\$ 0	\$ 0	\$ 33,510	\$ 33,510	\$ (33,510)
Development Engineering	\$ 0	\$ 0	\$ 6,680	\$ 6,680	\$ (6,680)
Operations	\$ 726,500	\$ 0	\$ 7,150	\$ 7,150	\$ 719,350
Fire	\$ 111,100	\$ 28,650	\$ 287,700	\$ 316,350	\$ (205,250)
Roads and Drainage	\$ 266,700	\$ 45,330	\$ 211,300	\$ 256,630	\$ 10,070
Solid Waste	\$ 75,800	\$ 5,150	\$ 2,700	\$ 7,850	\$ 67,950
Facility Maintenance	\$ 80,800	\$ 170,790	\$ 2,500	\$ 173,290	\$ (92,490)
Harbour	\$ 46,795	\$ 21,400	\$ 3,000	\$ 24,400	\$ 22,395
Wastewater	\$ 1,067,630	\$ 108,435	\$ 36,420	\$ 144,855	\$ 922,775
Water	\$ 1,530,424	\$ 64,540	\$ 69,540	\$ 134,080	\$ 1,396,344
Total	\$ 4,058,749	\$ 466,195	\$ 711,450	\$ 1,177,645	

H. In consultation with

Ruth Prince, Director of Finance and IT Services
Katherine Dabrowa, Budget Analyst
Vicky Bouwman, Financial Analyst

I. Public Engagement

The topic of this Staff Report has not been subject to a Public Meeting and/or a Public Information Centre as neither a Public Meeting nor a Public Information Centre are required. Comments regarding this report should be submitted to Sam Dinsmore, Deputy Treasurer/Manager of Accounting and Budgets at finance@thebluemountains.ca.

J. Attached

1. Facility Asset Management Plan
2. Fleet Asset Management Plan

Respectfully Submitted,

Sam Dinsmore
Deputy Treasurer/Manager of Accounting and Budgets

Ruth Prince
Director of Finance and IT Services

For more information, please contact:
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