

## Staff Report

Finance and IT Services

Report To:	Committee of the Whole
Meeting Date:	March 10, 2020
<b>Report Number:</b>	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.

Committee of the Whole FAF.20.001

#### 2020

<u>1<sup>st</sup> Quarter</u>

- Finalize Facilities
- Fleet
- 3<sup>rd</sup> Quarter
  - Roads
  - Bridges
  - Sidewalks

4<sup>th</sup> Quarter

- Water
- Wastewater

2021

<u>1<sup>st</sup> Quarter</u>

- Parks
- Trails

2<sup>nd</sup> 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 ExcellenceObjective #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	Т	Current Transfers	Facility Require- ments		Fleet Require- ments		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 <u>finance@thebluemountains.ca</u>.

#### 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: Sam Dinsmore <u>finance@thebluemountains.ca</u> 519-599-3131 extension 274



## Town of The Blue Mountains Facility Asset Management Plan March 2020

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## **Executive Summary**

During the spring and summer months of 2018 the Town of The Blue Mountains worked with Facility Science specialists and reviewed all Town facilities. Each facility was given a rating using the Facility Condition Index (Deferred Maintenance / Replacement Cost). This index gives a quick understanding of what condition that facility is in, and is best practice among municipalities and other government agencies.

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 an array of facilities, from Town Hall to Treatment Plants down to seasonal public washroom facilities. Overall the Town owns 41 facilities. The average age of the facilities is 35 years old with a replacement cost (2019 dollars) of \$48,797,000. The facilities are considered to be in *Good* condition with the average FCI being 0.97%. Overall this is an enviable place to be in but the assessments come with required works of \$5,365,400 over the next ten year period.

This plan looks at what the Town will spend if the current level of service is continued and how the Town can fund the required work. In addition this plan maximizes the funding to its fullest to ensure that the facilities stay in good condition and continue to provide services to the citizens, businesses, and visitors to the Town.

### Introduction

In the spring and summer months of 2018 the Town contracted out the Facility Condition Assessments (FCAs) for all 41 facilities owned and operated by the Town. The purpose of the assessments was to gather the condition ratings for each facility using the Facility Condition Index (FCI). This index is a widely used rating system for government owned facilities. This index is calculated by dividing the amount of deferred maintenance into the replacement cost of the facility.

The FCAs outline the recommended works over a 25 year period, for the basic components of a facility: Roof, Structure, Windows and Doors, Fire Suppression System, HVAC, Plumbing, Electrical, Interior Finishes and Parking Lots. The equipment inside of the facilities was not included in this assignment. These works were assigned a year ranging from Year 1 to Year 25, a Priority Rating, a Condition Rating, and a budget. In addition each facility was given a replacement cost, this replacement cost represents what it would cost the Town today (2019) to rebuild that structure for its current use. By taking the data collected through these FCAs the Town can create an Asset Management Plan for the facilities in accordance with O.Reg 588/17.

The FCAs also calculated a best practice useful life for the various components of the facilities. Table 1 outlines the components and the useful lives.

#### Table 1 Useful Lives by Facility Component

Component	Useful Life (Years)
Structure	60 years
Roof	10 to 25 years
Windows and Doors	10 to 20 years
Interior Finishes	10 to 30 years
Fire Suppression Systems	10 to 50 years
Plumbing	15 to 25 years
HVAC	15 to 25 years
Electrical	15 to 40 years
Parking Lots	30 years

Each one of the required works was then assigned a Priority Rating and a Condition Rating. Table 2 outlines the ratings used.

#### Table 2 Priority and Condition Ratings

Priority Ratings	Condition Ratings
1 – Critical	1 – Very Poor
2 – Potentially Critical	2 – Poor
3 – Not Yet Critical	3 – Fair
4 – Recommended	4 – Good
5 - Desired	5 – Very Good

Using this information each facility can then be given a Facility Condition Index rating between 0 and 100 percent, Table 3 outlines FCI Ratings.

#### Table 3 Facility Condition Index Ratings

Ratings	Metric
1 – Very Poor	30% +
2 – Poor	11% to 29%
3 – Fair	6% to 10%
4 – Good	0% to 5%

Now that the initial condition assessments have been completed they are being utilized by staff through the annual operating and capital budgets. Staff recommend that this process be done every three to five years to keep the data updated which will keep the Town up to date on the legislation.

## 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 Facilities;
- 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 facility and the basic information collected through the Facility Condition Assessment and done in accordance with O.Reg 588/17:

- i. Facility;
- ii. Replacement Cost (2019 dollars);
- iii. Age of the Facility;
- iv. Initial Facility Condition Index; and
- v. Funding Stream.

#### Facilities included in this Asset Management Plan

Community Services	Replacement		Age	FCI	Funding Stream
		Cost			
Bayview Park Washroom	\$	44,000	16	0.00%	Taxation
Beaver Valley Arena	\$	6,205,000	26	0.20%	Taxation
Beaver Valley Community Centre	\$	2,294,000	32	0.37%	Taxation
Cedar Grove Storage Building	\$	215,000	59	8.95%	Taxation
Cedar Grove Washrooms	\$	122,000	27	0.00%	Taxation
Craigleith Community Centre	\$	355,000	155	12.39%	Taxation
Craigleith Heritage Depot	\$	254,000	139	9.84%	Taxation
LE Shore Memorial Library	\$	2,701,000	24	0.52%	Taxation
Little River Washrooms	\$	107,000	27	0.00%	Taxation
Nipissing Ridge Park Washroom	\$	60,000	6	0.00%	Taxation
OPP Detachment	\$	858,000	10	0.00%	Taxation
Ravenna Hall	\$	695,000	147	0.00%	Taxation
Tomahawk Golf Course Shop	\$	132,000	8	0.00%	Taxation
Tomahawk Operations Centre	\$	496,000	9	0.00%	Taxation
Town Hall	\$	14,476,000	8	0.34%	Taxation
Union Cemetery Chapel	\$	35,000	85	11.43%	Taxation

Fire	Re	eplacement	Age	FCI	Funding Stream
		Cost			
Fire Hall #1 –Thornbury	\$	2,949,000	18	0.07%	Taxation
Fire Hall #2 – Craigleith	\$	1,898,000	29	0.00%	Taxation

Roads and Drainage	Replacement Cost		Age	FCI	Funding Stream
Road Department Works North Shop	\$	466,000	34	0.54%	Taxation
Road Department Works South Shop	\$	360,000	59	2.78%	Taxation

Solid Waste	Replacement		Age	FCI	Funding Stream
		Cost			
Operations Centre	\$	259,000	12	0.77%	Taxation
Scale House	\$	55,000	16	17.27%	Taxation

Harbour	Replacement		Age	FCI	Funding Stream
		Cost			
Harbour Office	\$	304,000	28	0.00%	Harbour
Harbour Shower Building	\$	438,000	28	4.22%	Harbour

Wastewater	R	eplacement	Age	FCI	Funding Stream
		Cost			
Craigleith Main Sewage Lift Station	\$	364,000	33	2.20%	Wastewater
Craigleith Wastewater Treatment Plant	\$	5,070,000	33	0.59%	Wastewater
Delphi Sewage Lift Station	\$	109,000	13	0.00%	Wastewater
Elgin Sewage Lift Station	\$	54,000	40	0.00%	Wastewater
Lake Shore Sewage Lift Station	\$	272,000	13	0.00%	Wastewater
Mill Street Sewage Lift Station	\$	305,000	27	0.00%	Wastewater
Moore Sewage Lift Station	\$	52,000	40	0.00%	Wastewater
Sunset Sewage Lift Station	\$	168,000	11	0.00%	Wastewater
Thornbury Wastewater Treatment Plant	\$	1,441,000	25	1.80%	Wastewater

Water	R	eplacement	Age	FCI	Funding Stream
		Cost			
10th Line Booster Pump Station	\$	333,000	12	0.00%	Water
Arrowhead Road Booster Pump Station	\$	218,000	36	0.00%	Water
Camperdown Court Booster Pump Station	\$	55,000	39	0.00%	Water
Camperdown Road Booster Pump Station	\$	363,000	12	0.83%	Water
Happy Valley Road Booster Pump Station	\$	118,000	14	0.00%	Water
Thornbury Reservoir & Booster Station	\$	423,000	12	0.00%	Water
Water Treatment Plant	\$	2,985,000	40	3.18%	Water
Wards Road Booster Pump Station	\$	54,000	31	3.70%	Water
Water Operations Centre	\$	635,000	32	0.00%	Water

Total of All Facilities	\$	48,797,000
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The average age of Town owned facilities is 35 years old, this number is skewed because of the four historical facilities that are still in use today: Ravenna Hall, Craigleith Heritage Depot, Craigleith Community Centre, and the Union Cemetery Chapel. If you remove those outliners the average age comes down to 25 years old, which is relatively new for facilities. The average FCI of these facilities is 0.97%. Chart 1 looks at the number of facilities in ten year age brackets.



Chart 1

Facilities by Age

Chart 2 looks at the number of facilities within each Facility Condition Rating Category.

#### Chart 2



#### **Facilities by Facility Condition Index**

Overall Town facilities are in *Good* shape with only five facilities being in either the *Fair* or *Poor* category with no facilities considered *Critical*. This is good news however through the FCAs a number of recommended works were identified. Chart 3 looks at the cost of all of the recommended works over the next ten year period. Over that period the Town is looking at over \$5M on more than 400 recommended actions in repairs and maintenance to the facilities.



#### **Recommended Costs by Year**

Chart 3

Another way to look at this information is by funding stream. The majority of the facilities fall under Taxation however the Water, Wastewater and Harbour users are responsible for the facilities that provide those services. Chart 4 looks at the same costs but by funding source.



Chart 4

#### **Recommended Costs by Funding Stream**

Part of the requirements under O.Reg 588/17 is that the Town outline what criteria was used to establish the conditions for the different asset classes. For the Facility Condition Assessments the Town required the contract to use the following generally accepted practices:

- Ontario Building Code;
- Occupational Health and Safety Act;
- ANSI/ASHRAE/IES 90.1-2013;
- ASTM E2018-08 Standard Guide for Property Condition audits; and
- ASTM E1557-09 Standard Classification for Building Elements and related Siteworks (Uniformat II).

## Current Level of Service

The first asset management plan as dictated by the O.Reg 588/17 starts with the current level of service that the Town is offering for this asset class. For facilities the regulation does not speak to mandatory metrics, as it does with linear infrastructure, so the Town must compile a set of metrics for this asset class. Staff have compiled the following metrics. Some of these are Town specific while others are industry suggested.

- Facility Condition Index per facility
- Average Facility Condition Index
- Number of Very Poor components identified over the next 10 years
- Number of Outdoor Recreation spots with a permanent public washroom structure
- Portion of the properties that are within a 5km radius from:
  - o Community Centre
  - o Town Hall
  - o Fire Hall
  - Police Station
  - o Library
- Closure of the Facility

The Facility Condition Index by facility is included in Table 4 and then illustrated in Chart 2. Of the 41 facilities, 36 (or 88%) are considered in *Good* condition with 2 (or 5%) being in *Fair* condition and the final 3 (or 7%) being in *Poor* condition.

Looking at the facilities as one asset class the Facility Condition Index is 0.97% (\$471,435/\$48,797,000). This puts the overall condition rating in the *Good* category. Relying on the Facility Condition Index to set the level of service offered by the Town for its facilities, the current level of service is to keep the 41 facilities in *Good* condition, or an FCI of 0.00% to 5.99%.

In addition to using the FCI another metric is the number of components in Very *Poor* condition identified over the next 10 years for each facility. The reason for including this metric is for the larger facilities with expensive replacement costs as it can take a number of smaller works to reach the 6% FCI (or *Fair* category). The Town does not want to have a facility that is considered *Good* but has some components that are in desperate need of works. The following tables identify the number of Critical works by facility.

Community Services	Number of Very Poor Items
Bayview Park Washroom	0
Beaver Valley Arena	2
Beaver Valley Community Centre	3
Cedar Grove Storage Building	7
Cedar Grove Washrooms	1
Craigleith Community Centre	5
Craigleith Heritage Depot	2
LE Shore Memorial Library	4
Little River Washrooms	0
Nipissing Ridge Park Washroom	0
OPP Detachment	0
Ravenna Hall	0

#### Number of Very Poor Conditions by Facility

Community Services	Number of Very Poor Items
Tomahawk Golf Course Shop	0
Tomahawk Operations Centre	0
Town Hall	4
Union Cemetery Chapel	0

Fire	Number of Very Poor Items
Fire Hall #1 – Thornbury	1
Fire Hall #2 – Craigleith	0

Roads and Drainage	Number of Very Poor Items
Road Department Works North Shop	1
Road Department Works South Shop	8

Solid Waste	Number of Very Poor Items
Operations Centre	0
Scale House	1

Harbour	Number of Very Poor Items
Harbour Office	1
Harbour Shower Building	1

Wastewater	Number of Very Poor Items
Craigleith Main Sewage Lift Station	0
Craigleith Wastewater Treatment Plant	1
Delphi Sewage Lift Station	0
Elgin Sewage Lift Station	0
Lake Shore Sewage Lift Station	0
Mill Street Sewage Lift Station	0
Moore Sewage Lift Station	0
Sunset Sewage Lift Station	0
Thornbury Wastewater Treatment Plant	1

Water	Number of Very Poor Items
10th Line Booster Pump Station	0
Arrowhead Road Booster Pump Station	0
Camperdown Court Booster Pump Station	0
Camperdown Road Booster Pump Station	0
Happy Valley Road Booster Pump Station	0
Thornbury Reservoir & Booster Station	0
Water Treatment Plant	0
Wards Road Booster Pump Station	0
Water Operations Centre	0

Total of All Facilities	43

The top three facilities with the highest number of items that are deemed *Very Poor* are Road Department Works South Shop with 8, Cedar Grove Storage Building with 7 and Craigleith Heritage Depot with 5. The average for the Town is 1 outstanding work item that is deemed *Very Poor*. Again this is indicating that as a whole the Town keeps all facilities in *Good* condition.

A few qualitative metrics for the Town to measure facilities are the number of permanent public washrooms servicing outdoor recreation areas as well as the percentage of properties within a 5km radius of different community hubs.

The Town owns 26 outdoor recreation areas, these include passive open space, athletic fields, developed parks and waterfront properties. Of these 26 properties, eight (30%) of them are serviced with a permanent washroom facility while the remaining 18 (70%) either have portable washrooms or are not serviced at all. Through the 2018 Approved Capital Budget, an additional permanent washroom facility is being added at the Moreau Park location. This changes to split from 30/70 to 35/65. The Town's Leisure Activity Plan did not include any additional permanent washroom facilities.

The last metric is to establish the Town's current level of service is the percentage of the properties that are within a 5km radius of community hubs. Table 6 contains this information. Map 1 shows the facilities and 5km radius.

#### Table 6 Properties within 5kms

Facility	Number of Properties	Percentage of Total Properties
Town Hall	2,688	26%
Beaver Valley Community Centre	2,713	27%
Ravenna Hall	283	3%
Craigleith Community Centre	3,595	35%
LE Shore Memorial Library	2,707	27%
Craigleith Heritage Depot	3,595	35%
OPP Detachment	2,647	26%
Fire Hall #1	2,638	26%
Fire Hall #2	3,481	34%

By establishing the Current Level of Service offered by the Town for the condition and number of facilities the Lifecycle cost of each facility can be determined.

#### Map 1

Properties within 5kms



#### **Closure of a Facility**

A final qualitative criteria is if a facility has to be closed due to the failure of a facility asset, roof leaking etc., then that facility will automatically be considered *Critical* and staff will bring forward a report to Council outlining options to get the facility opened and the service restored.

## 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. For the purposes of the Facilities two expense streams have been created. The first expense stream is for the Annual expenses such as Hydro, Water, Gas and Insurance. The second is for the repairs and maintenance as per the Facility Condition Assessments and to maintain the level of service.

For the utility expenses 2019 was used as a base year and then an inflation factor was used to calculate the ten year cost. For the repairs and maintenance, works were costed to keep the facility in *Good* condition with either none or one *Very Poor* component requiring works. Table 7 shows the 10 year lifecycle costs by department.

Department	Ann	ual Costs	Repairs &	Maintenance	Total		
Community Services	\$	2,809,000	\$	1,920,800	\$	4,729,800	
Fire	\$	303,000	\$	286,500	\$	589,500	
Roads and Drainage	\$	426,000	\$	453,300	\$	879,300	
Solid Waste	\$	89,000	\$	51,500	\$	140,500	
Harbour	\$	56,000	\$	214,000	\$	270,000	
Wastewater	\$	6,504,000	\$	1,084,350	\$	7,588,350	
Water	\$	3,700,000	\$	645,400	\$	4,345,400	
Total	\$	13,887,000	\$	4,655,850	\$	18,542,850	

#### Table 7 10 Year Lifecycle Costs

Hydro expenses make up 75% of the Annual costs and of the Hydro expenses, Water and Wastewater make up a further 80%. The main driver behind these costs are the required equipment to treat water and wastewater. It is near impossible to carve out what Hydro costs are related to the operations of the facility versus operating the equipment, so for the Facility asset category the full costs are included.

To continue offering the same level of service but at a reduced cost would require significant capital works to the equipment to install more efficient assets. Included in the 2018 budget was a Corporate Wide Energy Plan and then 2019 a more specific plan for Water and Wastewater. If reliable more efficient equipment can be installed, these facilities would see a decrease in the Annual costs.

#### Lifecycle Costs – Financing

The financing of the ten year lifecycle costs can be split into two categories; operating (Annual costs) and capital (repairs and maintenance). With these two categories comes different funding sources, the Annual costs are funded from annual revenues whereas capital is funded through reserve and reserve funds.

For the Harbour the \$56,000 is funded using annual mooring fees which equates to roughly \$1 per foot per year. For Wastewater the \$6,504,000 is funded through annual consumption user-fees billed bi-Annual to the properties connected to the Town's wastewater system. This equates to roughly \$112 per connected user per year. For Water the \$3,700,000 is funded the same way, through bi-monthly consumption billings to the connected users of the system. This equates to roughly \$53 per connected user per year. As staff continue to roll out the Corporate Energy Plan and the Water and Wastewater Energy Efficiency capital program as these costs change the increase or decrease is reflected in the annual budget. Using the same type of logic used for the user-fees staff have taken a deeper look into the taxation funded facilities that also collect fees and charges for the services that they offer. These facilities include the Landfill Operations Building and Scale House, the Tomahawk Golf Operations Building, Beaver Valley Community Centre, Ravenna Hall, and the Craigleith Community Centre. Using the 2019 Approved Budget as the base a funding split was calculated for each department and then applied to the facility annual 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 \$89,000 is funded \$48,200 by taxation and \$40,800 by Landfill Tipping Fees.

Tomahawk – Funding Split 65% Taxation and 35% Fees and Charges therefore the \$8,000 is funded \$5,200 by taxation and \$2,800 by Golf Course Revenues.

Beaver Valley Community Centre – Funding Split 64% Taxation and 36% Fees and Charges therefore the \$1,244,000 is funded \$800,000 by taxation and \$444,000 by Ice and Hall Rentals.

Ravenna Hall – Funding Split 76% Taxation and 24% Fees and Charges therefore the \$97,000 is funded \$73,300 by taxation and \$23,700 by Hall Rentals.

Craigleith Community Centre – Funding Split 63% Taxation and 37% Fees and Charges therefore the \$34,000 is funded \$21,400 by taxation and \$12,600 by Hall Rentals.

Factoring in the Fees and Charges collected by the various departments' taxation pays the remaining \$3,115,700 or \$39 annually per household.

The next piece to fund is capital which is funded by the respective reserve and reserve funds. Table 8 shows each reserve and reserve fund 2018 year-end audited balances and annual transfers to that reserve or reserve fund that has been built into the annual operating budget.

## Table 8

#### **Reserve and Reserve Fund**

Name	2018	/E Balance	Annual Transfer		
Community Services Asset Replacement Reserve Fund	\$	436,542	\$	151,500	
Facility Maintenance Asset Replacement Reserve Fund	\$	608,490	\$	80,000	
Fire Asset Replacement Reserve Fund	\$	128,928	\$	110,000	
Roads Equipment Asset Replacement Reserve Fund	\$	886,883	\$	170,000	
Solid Waste Asset Replacement Reserve Fund	\$	177,877	\$	75,000	
Harbour Reserve	\$	263,542	No bui	lt in transfer	
Wastewater Asset Replacement Reserve Fund	\$	16,685,926	\$	1,473,323	
Water Asset Replacement Reserve Fund	\$	10,482,490	\$	1,024,324	

Funding capital expenditures through a reserve fund model is the simplest approach as it allows the annual transfer to remain consistent even while the capital program being funded can see large swings. This model helps keep budgeting simpler and does not see large swings in annual user-fees/taxation to fund a highly volatile capital program. The Town is fortunate as each department that is responsible for a facility has a reserve fund already established and all but one have an annual transfer already established.

The current transfers coupled with the balances of the reserve and reserve fund are providing sufficient funding to cover the facility requirements over the next ten year period, except for one. The Facility Maintenance annual transfer is less than 50% of what is required. Some of the Town's major facilities

are funded from this reserve. This includes the small halls, the Beaver Valley Community Centre and Town Hall. These facilities are all facing a number of large expenses over the 10 year period. An increased annual transfer of \$90,790 (0.57% over the 2019 tax levy) will be included in the Town's 2020 Budget for Council consideration. Chart 5 outlines what portion of the annual transfer is for facility repairs and maintenance. For the Harbour an annual transfer will be established through the 2020 Budget as per the Long-Term Financial Plan which was presented to Council in early 2020.



Chart 5 Annual Transfers

The blue portion of the bar graph is the percentage of the annual transfer that will be earmarked for facilities for each of the services. The Harbour has not been included as there currently is no annual transfer, however one will be recommended through the Harbour Long-Term Financial Plan. Facility Maintenance has also not been included as the current transfer is insufficient to fully fund the required works. An increase to this annual transfer will be included in 2020 proposed budget.

The 2018 audited Financial Statements show that Facilities make-up roughly 10% of the corporate owned assets. Seeing the facility portion range from about 8% to 20% makes sense as no department is facility heavy when it comes to asset ownership.

## Population and Economic Activity

Included in the Town's newest Development Charges Background Study is a residential and nonresidential population growth forecast for the next ten year period. The current population (as of 2018) was 6,897 which is projected to increase to 9,777 by the year 2028. In addition the Town is projected to increase employee square meters by 17,408 or 348 employees in that same time period.

With this increase comes an increased demand on Town services, included in the background study is the following facility expansions to keep the level of service the same as the demand increases:

- 10,000 ft<sup>2</sup> for the Blue Mountains Public Library;
- 4000 ft<sup>2</sup> for Fire Services;
- Indoor Recreation Space (multiple partners);
- 1000 ft<sup>2</sup> for Parks and Recreation Services;
- 11,400 ft<sup>2</sup> for Roads and Drainage;
- 3000 ft<sup>2</sup> for a Roads and Drainage satellite office; and
- 100 ft<sup>2</sup> for an additional Scale House at the Landfill Site.

Using the values calculated in the Lifecycle section of this asset management plan a square foot cost including both Annual costs and repairs and maintenance cost has been calculated for each of the above proposed additional facilities or expansions. Table 9 outlines the expected annual costs and what the required annual transfer to reserve funds would be once these facilities are built and operating.

#### Table 9 Annual Lifecycle Costs

Facility	Annual Cost		Transfers Increase		Total Ar	nnual Cost
Blue Mountains Public Library	\$	22,960	\$	18,000	\$	40,960
Fire Services	\$	7,300	\$	5,900	\$	13,200
Indoor Recreation Space <sup>1</sup>	\$	101,310	\$	60,200	\$	161,510
Parks and Recreation Services	\$	2,370	\$	800	\$	3,170
Roads and Drainage	\$	74,480	\$	45 <i>,</i> 500	\$	119,980
Roads and Drainage satellite office	\$	3,140	\$	12,000	\$	15,140
Additional Scale House at the Landfill Site	\$	350	\$	1,700	\$	2,050
Total	\$	211,910	\$	144,100	\$	356,010

<sup>1</sup>The Indoor Recreation Space was calculated using the Beaver Valley Arena as the bases.

All of the services listed above are taxation funded and therefore the \$356,010 will be funded from the taxation levy or additional revenues as these facilities come on-line.



# 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.

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#### 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		Year	KMs	Condition	Funding
	Cost				Index	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		Year	KMs	Condition	Funding
		Cost			Index	Stream
Nissan Frontier	\$	38,000	2013	103,009	66.62%	Taxation
Chevy Silverado	\$	41,000	2017	56 <i>,</i> 085	27.27%	Taxation
Chevy Equinox	\$	34,000	2016	37,420	22.36%	Taxation

Community Services	Rep	Replacement Cost		KMs	Condition	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	Re	placement 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

<b>Operations – Snow Plows</b>	Replacement		Year	KMs	Condition	Funding
		Cost			Index	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		Year	KMs	Condition	Funding
		Cost			Index	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		Year	KMs	Condition	Funding	
		Cost			Index	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.

Department	Annı	al Costs	Ann	ual 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	

## Table 410 Year Lifecycle Costs

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 bimonthly 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 \$16m<sup>2</sup> 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.

Department	Current		Facility		Fleet		Total		Difference	
	Transfers		Requirements		Re	Requirements				
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 <i>,</i> 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 <i>,</i> 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		

Table 5Current and Required Transfers

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 purposed 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	Tra	nsfers Increase	Tot	al 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