



Staff Report

Finance and IT Services

Report To: Special Committee of the Whole
Meeting Date: November 15, 2019
Report Number: FAF.19.209
Subject: Facilities Asset Management Plan
Prepared by: Sam Dinsmore, Deputy Treasurer/Manager of Accounting and Budgets

A. Recommendations

THAT Council receive Staff Report FAF.19.209 entitled “Facilities Asset Management Plan”;

AND THAT Council approves the Facility Asset Management Plan as included as Attachment #1;

AND THAT Council endorse the inclusion of a Manager of Facility and Fleet as an addition to the 2020 budget for Council’s consideration.

B. Overview

This report is seeking Council endorsement of a Facility 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

D. Analysis

The Town owns and operates tangible capital assets with a book value of over \$250,000,000, these assets range from a SUV to large scale facilities to linear piping. Given the amount of assets and the range of different types, staff have begun writing individual asset management plans for each major asset type all in accordance with O.Reg. 588/17. Once all plans have been presented to Council, a final overarching plan will be completed to meet the July 1, 2021 deadline. It is staff's intent to present a plan that covers all assets by this time and not just the mandatory core assets. The following list is the asset management plans that will be presented to Council before the July 1, 2021 deadline:

- 1) Fleet
- 2) Roads
- 3) Bridges
- 4) Sidewalks
- 5) Water
- 6) Wastewater
- 7) Trails
- 8) Parks

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.

The Plan is constructed in a way that exceeds the July 1, 2021 requirements for municipal asset management planning. The Plan contains the following major sections:

- 1) State of the Infrastructure – this section addresses what facilities the Town owns and what condition they are in. These conditions are based on assessments done in 2018 rather than relying on age and estimated useful lives.
- 2) Current Level of Service – this section addresses what level of service the Town is currently offering the facilities. These have been done using more than one variable and includes quality and quantity variables.
- 3) Lifecycle Costs – this section answers the question of what does it cost to operate these facilities each year. Two types of costs have been used, annual expenses (heat, hydro, etc.) and repairs and maintenance
- 4) Population and Economic Activity – this section is looking at what the Town will need in facilities as the population changes. Staff used the Development Charges Background Study to look at what facilities are being proposed as growth continues to happen in the Town.
- 5) Potential Levels of Service – this section is not required until the July 1, 2024 plan however staff thought it would be a good illustration of what types of service changes the Town could examine. Any changes to levels of service will start with a public commenting period.

Staff are requesting that Council approve the attached Facility Asset Management Plan. The reason for this request is to provide staff direction on capital spending at the facilities as well as required changes to annual reserve and reserve fund contributions. By approving this plan, any grant applications that require an asset management plan, would have the Facility Asset Management Plan attached if for a facility.

The second request from staff is an endorsement from Council to include the request for an additional management position. The Manager of Facility and Fleet (Attachment #2) would take over responsible for all facilities and fleet when it comes to annual preventative maintenance and capital replacement program. Currently facilities are managed by the responsible person of that department, for instance the water and wastewater facilities fall under the Manager of Water and Wastewater, and the Fire Halls fall under the Fire Chief.

By centralizing the management of the facilities, efficiencies will be gained as this employee will be looking at the needs on a corporate level rather than just on a department level. The Town also will have the ability to bring in an employee with specific facility experience, knowledge and education.

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

The two recommendations each come with a financial impact on the Town.

The first impact would be seen in taxation and Harbour fees. If Council approves the plan the Facility Asset Replacement Reserve Fund annual transfer needs to be increased from the current \$80,000 to \$171,000, which is an increase of \$91,000. The Harbour would need to establish a transfer for the facilities of \$18,300 annually. If the plan is approved both of these transfers will be built into the annual budget starting in 2020.

The Manager position will have an impact on Taxation, Harbour, Water, and Wastewater as all benefiting departments will fund a portion of this position and the operating costs. At this time staff are only looking for an endorsement to include this position as an Addition to the Budget in 2020. The financial impact will be outlined at that time and will allow Council to see the full budget impact.

H. In consultation with

Senior Management Team
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. Manager of Facility and Fleet Job Description

Respectfully Submitted,

Sam Dinsmore
Deputy Treasurer/Manager of Accounting and Budgets

Ruth Prince
Director of Finance and IT Services

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Town of The Blue Mountains Facility Asset Management Plan

November 2019

Table of Contents

Executive Summary.....	2
Introduction	3
Plan Structure	5
State of the Infrastructure	6
Current Level of Service	11
Lifecycle Costs	15
Lifecycle Costs – Financing.....	15
Population and Economic Activity	18
Potential Level of Service	19
Option #1 Increased Level of Service.....	19
Option #2 Decreased Level of Service	22
Option #3 Tiered System.....	24

Executive Summary

During the spring and summer months of 2018 the Town of The Blue Mountains worked with a 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;
4. Population and Economic Activity; and
5. Potential Levels of Service.

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 costs 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;
4. Population and Economic Activity; and
5. Potential Levels of Service.

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 Cost	Age	FCI	Funding Stream
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
Craigeith Community Centre	\$ 355,000	155	12.39%	Taxation
Craigeith 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	Replacement Cost	Age	FCI	Funding Stream
Fire Hall #1 – Thornbury	\$ 2,949,000	18	0.07%	Taxation
Fire Hall #2 – Craigeith	\$ 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 Cost	Age	FCI	Funding Stream
Operations Centre	\$ 259,000	12	0.77%	Taxation
Scale House	\$ 55,000	16	17.27%	Taxation

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

Wastewater	Replacement Cost	Age	FCI	Funding Stream
Craighleith Main Sewage Lift Station	\$ 364,000	33	2.20%	Wastewater
Craighleith 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	Replacement Cost	Age	FCI	Funding Stream
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 outliers 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

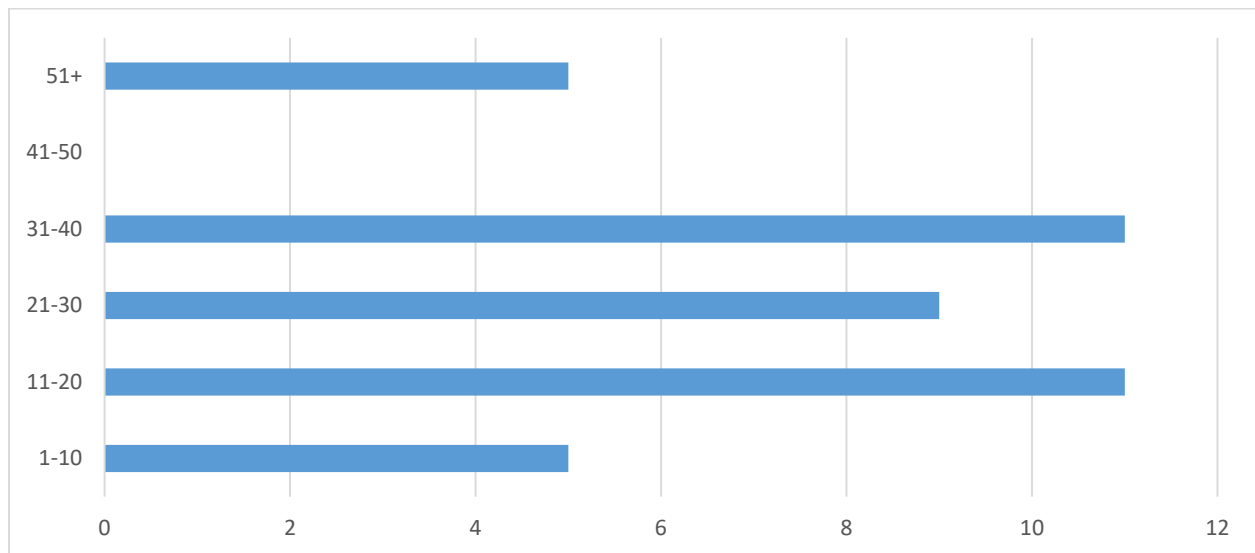
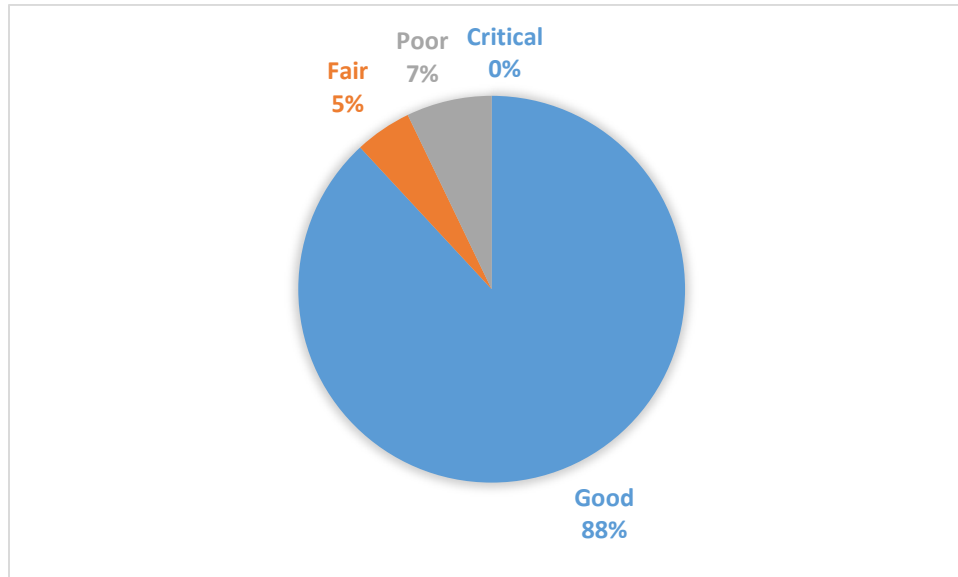


Chart 2 looks at the number of facilities within each Facility Condition Rating Category.

Chart 2

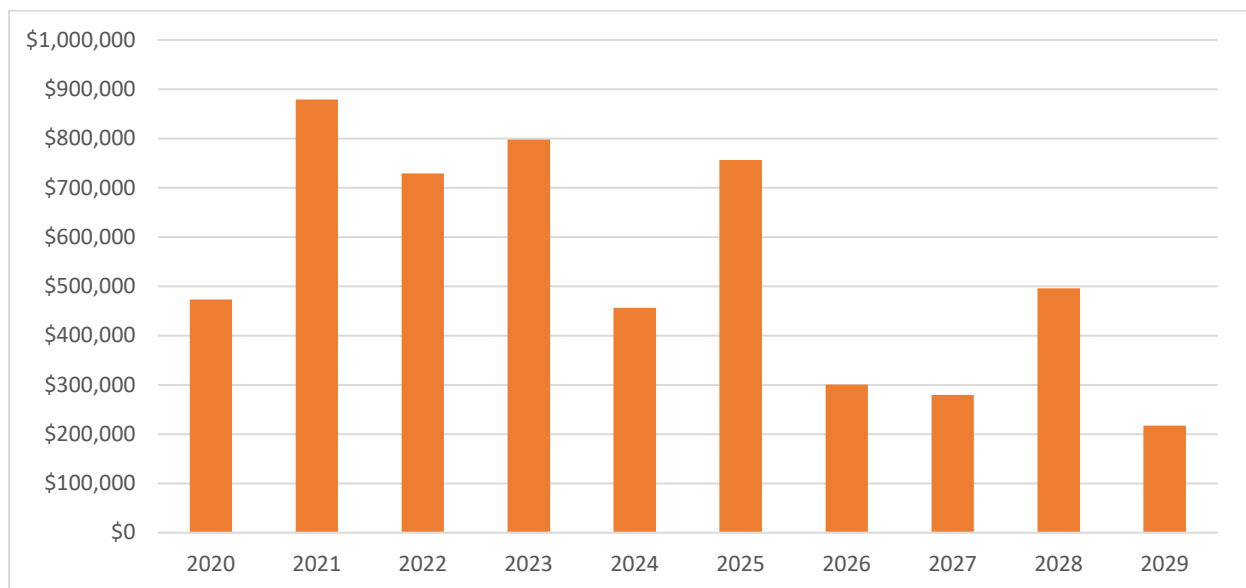
Facilities by Facility Condition Index



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.

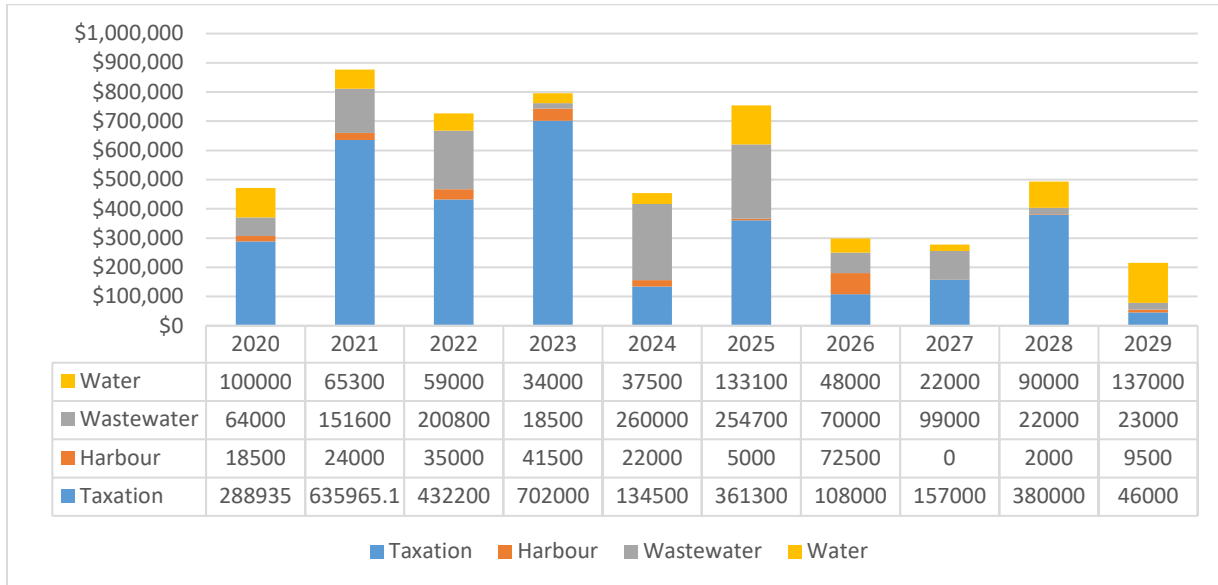
Chart 3

Recommended Costs by Year



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:
 - Community Centre
 - Town Hall
 - Fire Hall
 - Police Station
 - Library

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.

Number of Very Poor Conditions 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
Craigeleith Community Centre	5
Craigeleith Heritage Depot	2
LE Shore Memorial Library	4
Little River Washrooms	0
Nipissing Ridge Park Washroom	0
OPP Detachment	0
Ravenna Hall	0
Tomahawk Golf Course Shop	0

Community Services	Number of Very Poor Items
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
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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.

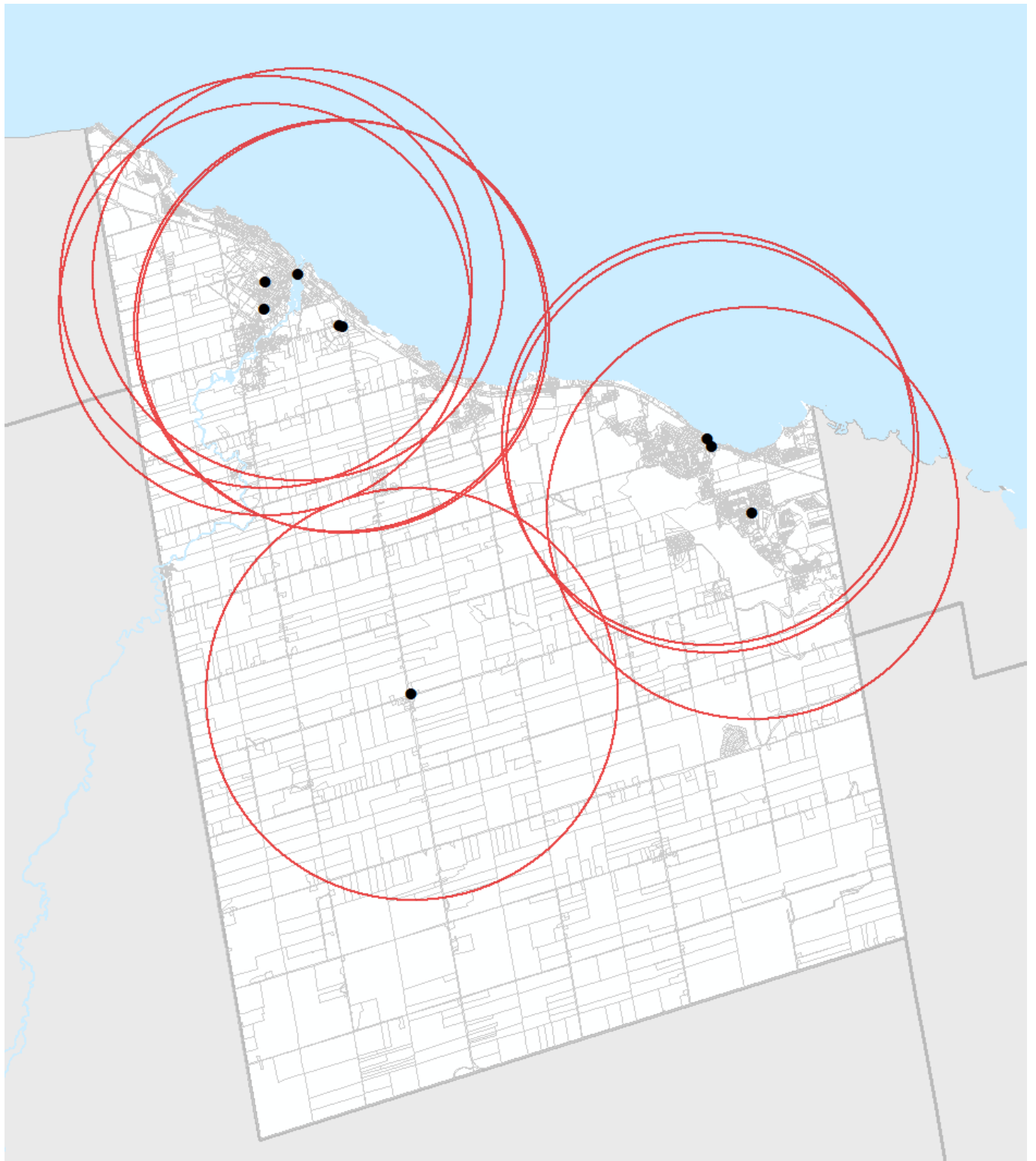
The last metric is to establish the Town's current level of service is the percentage of the properties that are within a 5km radius of community hubs. Table 6 contains this information. Map 1 shows the facilities and 5km radius.

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



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.

Table 7
10 Year Lifecycle Costs

Department	Annual 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

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. The remaining departments, Community Services, Fire, Roads and Drainage and Solid Waste are all taxation funded departments. These Annual costs of \$3,627,000 are funded through the annual taxation levy and equate to roughly \$46 per household 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.

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.

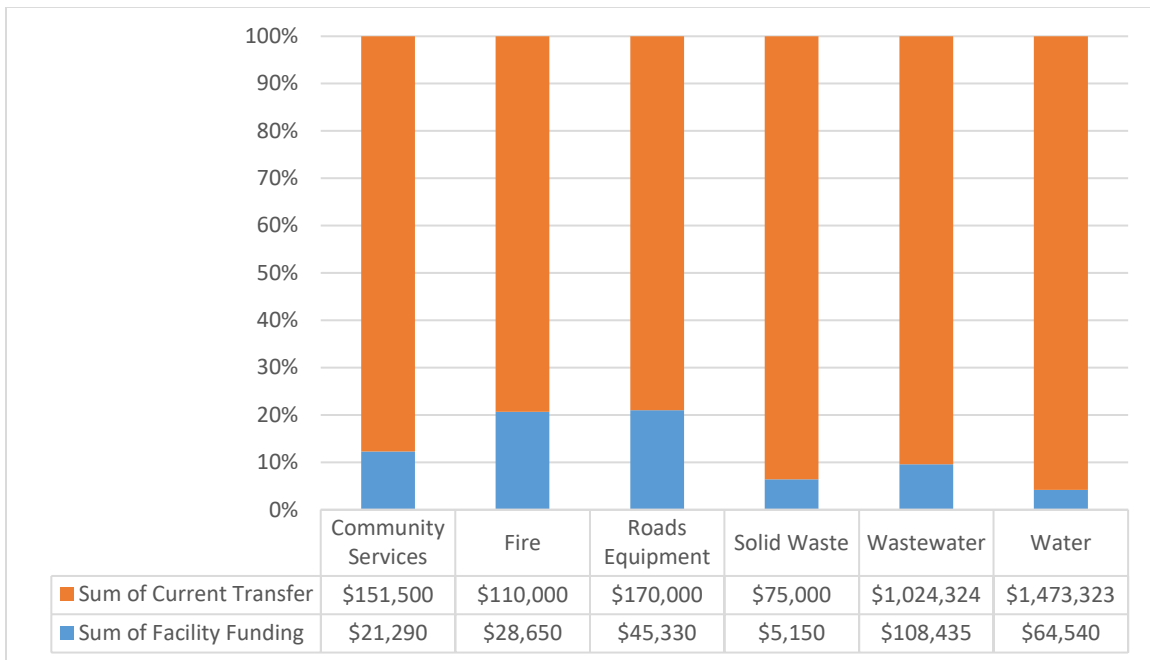
Table 8
Reserve and Reserve Fund

Name	2018 YE 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 built 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 Harbour Long-Term Financial Plan which is scheduled to be presented to Council in Fall of 2019.

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 non-residential 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 ft² for the Blue Mountains Public Library;
- 4000 ft² for Fire Services;
- Indoor Recreation Space (multiple partners);
- 1000 ft² for Parks and Recreation Services;
- 11,400 ft² for Roads and Drainage;
- 3000 ft² for a Roads and Drainage satellite office; and
- 100 ft² 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 Annual Cost
Blue Mountains Public Library	\$ 22,960	\$ 18,000	\$ 40,960
Fire Services	\$ 7,300	\$ 5,900	\$ 13,200
Indoor Recreation Space ¹	\$ 101,310	\$ 60,200	\$ 161,510
Parks and Recreation Services	\$ 2,370	\$ 800	\$ 3,170
Roads and Drainage	\$ 74,480	\$ 45,500	\$ 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

¹The 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.

Potential Level of Service

O.Reg 588/17 talks about introducing potential levels of service for the July 1, 2024 deadline. This section looks at three levels of service that Council will consider closer to that deadline. These have been included with this asset management plan for illustration purposes only. Before any permanent changes are made to levels of service staff are recommending that a rigorous public consultation campaign be done.

The three options for Council's consideration are:

- 1) Complete all works in the year they are recommended –*Increased Level of Service*;
- 2) Keep facilities at a *Fair* condition- *Decreased Level of Service*; and
- 3) Create a Facility Tier System and treat facilities based on those tiers -*Tiered System*.

Option #1 Increased Level of Service

Under this option the same Annual Costs have been used for each facility, as listed in Table 7, however the Repairs and Maintenance budget will be increased to fund all recommended works in the year they are suggested. For all facilities they will end each year with a Facility Condition Index of 0.00% with no outstanding works. Table 10 outlines the newly calculated costs.

Table 10
Option #1 Ten Year Lifecycle Costs

Department	Annual Costs	Repairs & Maintenance	Total
Community Services	\$ 2,809,000	\$ 2,352,600	\$ 5,161,600
Fire	\$ 303,000	\$ 352,500	\$ 655,500
Roads and Drainage	\$ 426,000	\$ 473,800	\$ 899,800
Solid Waste	\$ 89,000	\$ 62,000	\$ 151,000
Harbour	\$ 56,000	\$ 235,000	\$ 291,000
Wastewater	\$ 6,504,000	\$ 1,163,600	\$ 7,667,600
Water	\$ 3,700,000	\$ 725,900	\$ 4,425,900
Total	\$ 13,887,000	\$ 5,365,400	\$ 19,252,400

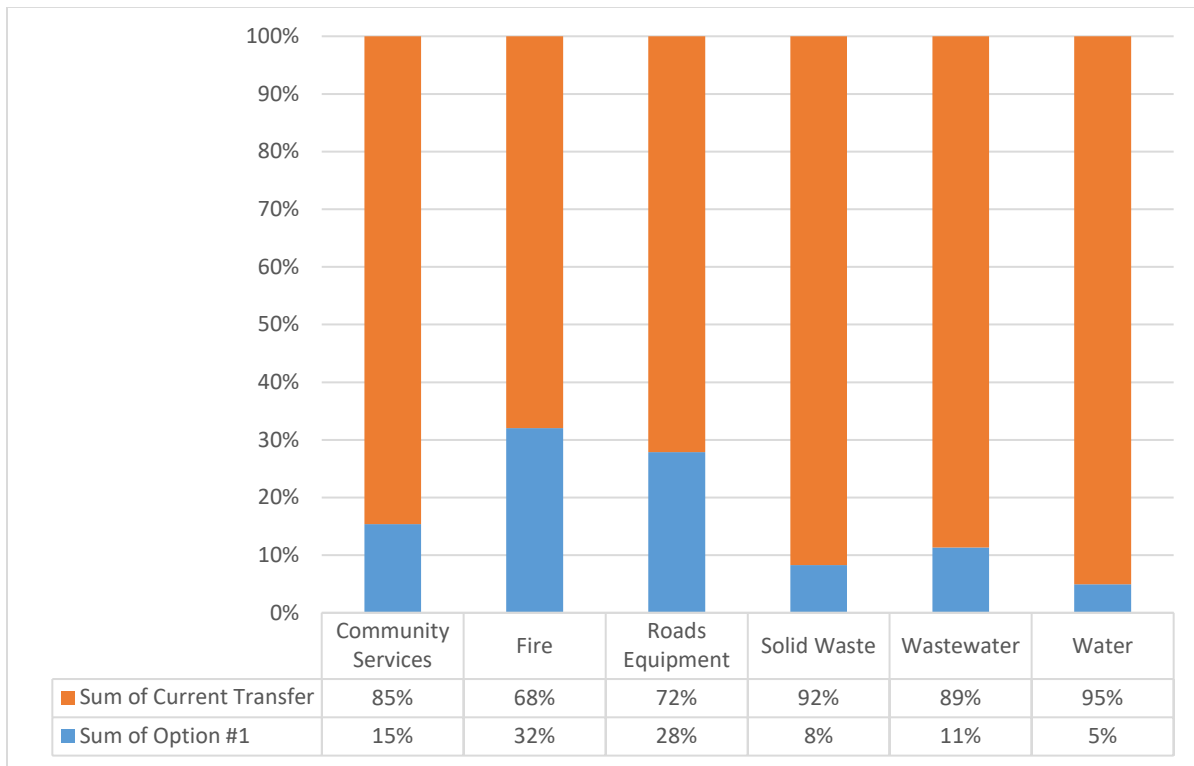
This option comes with a bottom-line increase of \$709,500 or 15% above the current level of service. After the potential level of service changes have been calculated some ending comparison tables and graphs will be included. Table 11 looks at the current reserve and reserve fund transfers and compares them to the newly calculated Repairs and Maintenance requirements. This is then followed by Chart 6 which looks at the percentage of the annual transfers that would be earmarked for facilities.

Table 11
Transfers and Option #1

Name	Annual Transfer	Requirements
Community Services Asset Replacement Reserve Fund	\$ 151,500	\$ 23,270
Facility Maintenance Asset Replacement Reserve Fund	\$ 80,000	\$ 211,990
Fire Asset Replacement Reserve Fund	\$ 110,000	\$ 35,250
Roads Equipment Asset Replacement Reserve Fund	\$ 170,000	\$ 47,380
Solid Waste Asset Replacement Reserve Fund	\$ 75,000	\$ 6,200
Harbour Reserve	No built in transfer	\$ 23,500
Wastewater Asset Replacement Reserve Fund	\$ 1,024,324	\$ 116,360
Water Asset Replacement Reserve Fund	\$ 1,473,323	\$ 72,590
Total	\$ 3,084,147	\$ 536,540

Similar to the current level of service 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 a third 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 \$131,900 (0.83% over the 2019 tax levy) would be needed to fund the next 10 year period. Chart 6 outlines what portion of the annual transfer is for facility repairs and maintenance. For the Harbour an annual transfer will be established through the Harbour Long-Term Financial Plan which is scheduled to be presented to Council in Fall of 2019, this transfer will be based on the current level of service.

Chart 6
Annual Transfers Option #1



Under this option at the end of the 10 year period the Town would have facilities with an FCI rating of 0.00% or Excellent.

Option #2 Decreased Level of Service

Under this option staff have re-calculated the Repair and Maintenance costs for each facility but allowed conditions to fall a category from *Good* to *Fair* and also allow 3 components to be considered *Very Poor* before doing any work. Table 12 outlines the revised Lifecycle costs for Option #2.

Table 12
Option #2 Ten Year Lifecycle Costs

Department	Annual Costs	Repairs & Maintenance	Total
Community Services	\$ 2,809,000	\$ 627,400	\$ 3,436,400
Fire	\$ 303,000	\$ 0	\$ 303,000
Roads and Drainage	\$ 426,000	\$ 391,300	\$ 817,300
Solid Waste	\$ 89,000	\$ 35,500	\$ 124,500
Harbour	\$ 56,000	\$ 151,500	\$ 207,500
Wastewater	\$ 6,504,000	\$ 430,750	\$ 6,934,750
Water	\$ 3,700,000	\$ 362,900	\$ 4,062,900
Total	\$ 13,887,000	\$ 1,999,350	\$ 15,886,350

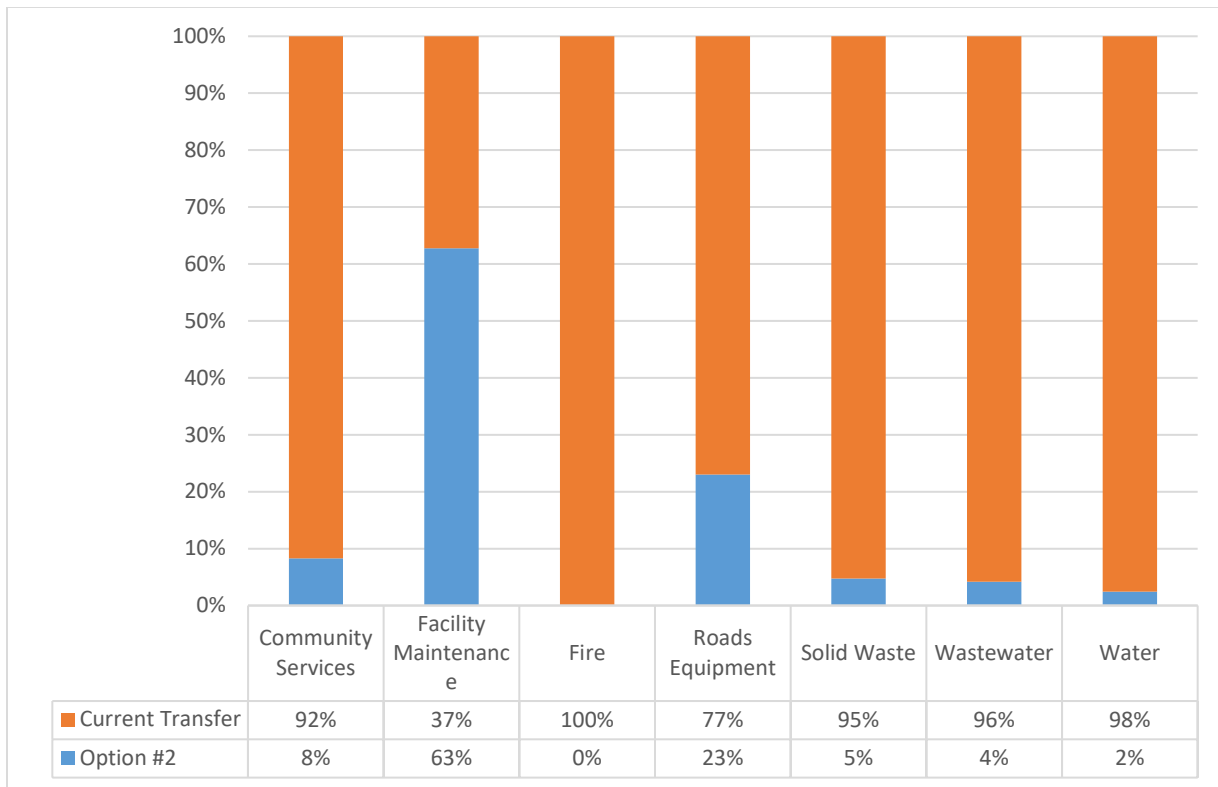
Option #2 represents a 57% decrease over the current level of service or \$2,656,500 in repair and maintenance fees. Similar tables and charts have been completed as Option #1 to show additional details around the current reserve fund transfers (Table 13).

Table 13
Transfers and Option #2

Name	Annual Transfer	Requirements
Community Services Asset Replacement Reserve Fund	\$ 151,500	\$ 12,540
Facility Maintenance Asset Replacement Reserve Fund	\$ 80,000	\$ 50,200
Fire Asset Replacement Reserve Fund	\$ 110,000	\$ 0
Roads Equipment Asset Replacement Reserve Fund	\$ 170,000	\$ 39,130
Solid Waste Asset Replacement Reserve Fund	\$ 75,000	\$ 3,550
Harbour Reserve	No built in transfer	\$ 15,150
Wastewater Asset Replacement Reserve Fund	\$ 1,024,324	\$ 43,075
Water Asset Replacement Reserve Fund	\$ 1,473,323	\$ 36,290
Total	\$ 3,084,147	\$ 199,935

Option #2 is the only option that comes in under the current transfer established for the Facility Maintenance Asset Replacement Reserve Fund. All other options would require an immediate increase to this annual transfer. The Harbour would still be looking to establish an annual transfer. Chart 7 shows what the portion of the current transfers would be dedicated to Facility repairs and maintenance.

Chart 7
Annual Transfers Option #2



Although this option has a significant amount of savings, in taxation and user-fees, it is effectively delaying over \$2.5M dollars in required work. The average FCI at that point would now be 6.90% which would put the facilities into the *Fair* category as compared to the *Good* category that the current level of service offers.

Option #3 Tiered System

This options looks at creating a three tier system for Facilities using the three levels of service already calculated in this document:

- 1) Emergency Facilities – Use Option #1, do all work in the year required;
- 2) Major Facilities – Use the Current Level of Service; and
- 3) Minor/Seasonal Facilities – Use Option #2, keep facilities in the *Fair* category.

The following table puts each facility in the three categories. The first category is Emergency facilities which include the facilities that have been given designations through the Town’s Emergency Plan as well as the three facilities responsible for housing the major emergency personnel and equipment (fire and police).

The second category is for the major facilities operated by the Town, these include treatment plants, operation centres and the large pumping and booster stations. For the most part these facilities have staff working at these locations permanently.

The third category is for smaller facilities with no permanent staff and facilities that are only operated on a seasonal basis.

Emergency Facility	Major Facility	Minor/Seasonal Facility
Fire Hall #1 –Thornbury	Tomahawk Operations Centre	Bayview Park Washroom
Fire Hall #2 – Craigleith	Craigleith Heritage Depot	Cedar Grove Storage Building
OPP Detachment	Road Department Works North Shop	Cedar Grove Washrooms
Beaver Valley Arena	Road Department Works South Shop	Craigleith Community Centre
Beaver Valley Community Centre	Landfill Operations Centre	Little River Washrooms
LE Shore Memorial Library	Craigleith Wastewater Treatment Plant	Nipissing Ridge Park Washroom
Town Hall	Thornbury Wastewater Treatment Plant	Ravenna Hall
	Water Treatment Plant	Tomahawk Golf Course Shop
	Water Operations Centre	Union Cemetery Chapel
	Craigleith Main Sewage Lift Station	Scale House
	10th Line Booster Pump Station	Harbour Office
		Harbour Shower Building
		Delphi Sewage Lift Station
		Elgin Sewage Lift Station
		Lake Shore Sewage Lift Station
		Mill Street Sewage Lift Station
		Moore Sewage Lift Station
		Sunset Sewage Lift Station
		Arrowhead Road Booster Pump Station
		Camperdown Court Booster Pump Station
		Camperdown Road Booster Pump Station
		Happy Valley Road Booster Pump Station
		Thornbury Reservoir & Booster Station
		Wards Road Booster Pump Station

Table 15 re-calculates the ten year operating costs for the Town owned facilities.

Table 15
Option #3 Ten Year Lifecycle Costs

Department	Annual Costs	Repairs & Maintenance	Total
Community Services	\$ 2,809,000	\$ 2,159,800	\$ 4,968,800
Fire	\$ 303,000	\$ 352,500	\$ 655,500
Roads and Drainage	\$ 426,000	\$ 453,300	\$ 879,300
Solid Waste	\$ 89,000	\$ 49,500	\$ 138,500
Harbour	\$ 56,000	\$ 151,500	\$ 207,500
Wastewater	\$ 6,504,000	\$ 1,057,350	\$ 7,561,350
Water	\$ 3,700,000	\$ 604,900	\$ 4,304,900
Total	\$ 13,887,000	\$ 4,828,850	\$ 18,715,850

By creating a tier system the overall cost goes up as compared to the current level of service by \$173,000 or 0.04% however Water, Wastewater, Harbour, and Solid Waste all see decreases ranging from \$2,000 up to \$62,500. Table 16 looks at the current transfers to reserve funds and what would be required under this new option.

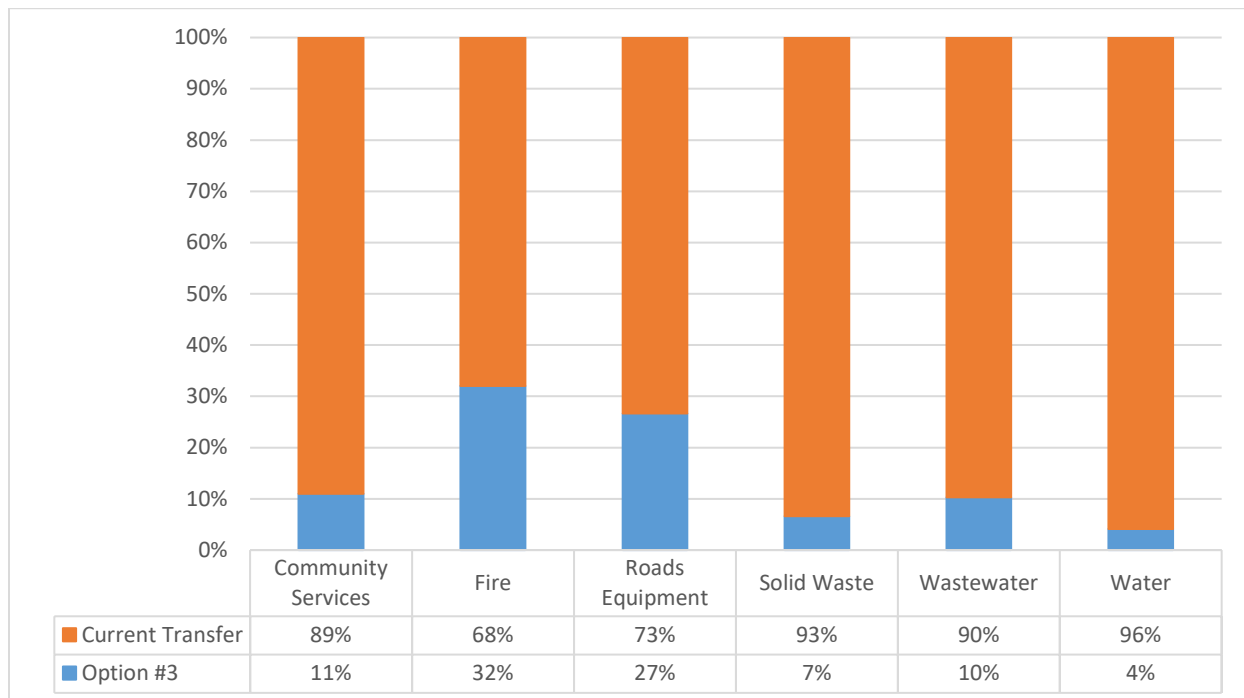
Table 16
Transfers and Option #3

Name	Annual Transfer	Requirements
Community Services Asset Replacement Reserve Fund	\$ 151,500	\$ 16,590
Facility Maintenance Asset Replacement Reserve Fund	\$ 80,000	\$ 199,390
Fire Asset Replacement Reserve Fund	\$ 110,000	\$ 35,250
Roads Equipment Asset Replacement Reserve Fund	\$ 170,000	\$ 45,330
Solid Waste Asset Replacement Reserve Fund	\$ 75,000	\$ 4,950
Harbour Reserve	No built in transfer	\$ 15,150
Wastewater Asset Replacement Reserve Fund	\$ 1,024,324	\$ 105,735
Water Asset Replacement Reserve Fund	\$ 1,473,323	\$ 60,490
Total	\$ 3,084,147	\$ 482,885

Once again Facility Maintenance finds itself well short of the annual requirements and for this option would need an increase of \$119,390 immediately. The reason behind this is Facility Maintenance is responsible for five of the seven facilities in the Emergency classification. Chart 8, similar to the previous options, shows the percentage of the current transfer that would be earmarked for facilities.

Chart 8

Annual Transfers Option #3





Job Description

Manager of Facility and Fleet

Department: Finance and IT
Reports To: Director of Finance and IT Services
Date Approved: Month 00, 2018
Job Grade: Grade 10 (To be rated)

Position Summary

- This position will be responsible for the safe and effective operations of all Town owned facilities and the annual capital replacement budgets. The position will also be responsible for the capital replacement and preventative maintenance schedule for the Town's fleet.

Key Duties and Responsibilities

- Work with and organize staff and contractors in order to maintain the Facilities in a safe and acceptable operating condition.
- Inspect facilities and fleet to determine what repairs and upkeep is required. Work with effected departments to develop schedules for the maintenance being undertaken.
- Assist in the preparation of grant and joint funding applications for projects and partnerships
- Develop and recommend service level standards and levels of service; developing policies, procedures and operating practices; act as an escalation and resolution point for complaints and problems related to all areas of Facility Services
- Negotiate and manage external contracts; ensuring legislated standards and municipal policies are adhered to and appropriate inventory control, purchasing, and records management measures are in place.
- Implement a system of quality assurance for all areas to comply with provincial guidelines
- Monitor capital project plans to ensure accuracy, completeness and on-budget. Responsible for overall performance of contractors, sub-trades and service providers to ensure quality of work and timeliness. Responsible for ensuring contractors, subs and other external service providers adhere to the Occupational Health & Safety Act.

Title
Department

Month 2018

- Develop and monitor annual budgets and prepare future operating budget and capital budget.
- Develop capital replacement plans with regards to lifecycle planning as per Asset Management regulations.
- Coordinate preventative maintenance programs for both facilities and fleet.
- Prepare or assist with preparation for Tenders, RFP's, quotations and contract administration for preventative maintenance or capital programs.
- Ensure that all necessary licenses, inspections and permits are duly noted, filed, and renewed in a timely matter.
- Promotes a high standard of customer service to the public as well as to all internal customers.
- Personally comply with all health and safety practices as it relates to the work, standard operating guidelines and the Occupational Health and Safety Act.
- Performs other duties as required.

Job Details

Hours of Work: 35
Direct Reports: 0
Overtime: As Required
Driver's License Required: Yes Class: G

Education and Experience:

- Requires a three year post-secondary Degree and/or Diploma in Architecture or Engineering Technology, (or combination of education/practical experience equivalent)
- Requires Certified Engineering Technologist (CET) designation
- Knowledge of accounting and economic principles and practices, financial accounting controls, business management concepts, and related Provincial and Municipal statutes.
- Computer literacy in a Windows environment utilizing Microsoft Office applications; advanced proficiency utilizing MS Excel; proficiency utilizing MS Word.
- Demonstrated analytical skills to problem solve, make recommendations and reports.
- Minimum 5 years' demonstrated progressive experience and responsibility in a multi-diverse municipal facility environment.

Title
Department

Month 2018

- Minimum 3 years' experience in a management/supervisory capacity.
- Thorough working knowledge of the Health Act, the Occupational Health & Safety Act, the Employment Standards Act, the Ontario Human Rights Code and special needs issues, the Accessibility Act, the Occupiers Liability Act, and other applicable safety-related legislation, regulations and guidelines.
- Strong communication (written, oral and interpersonal), organizational, public relations and customer service, flexibility, ingenuity, and time management skills.
- Ability to interact and deal effectively and courteously with all levels of staff, other levels of government, contractors, architects and/or consultants, community groups/stakeholders, volunteers and the general public in order to build co-operative and collaborative working relationships and internal and external alliances.
- Ability to maintain confidentiality, be tactful in all dealings, be self-motivated and work effectively alone or in a team environment.
- Experience with capital project management or construction beneficial.
- Budget experience including preparation and management of a budget, expenditure control is an asset.