



MUNICIPALITY OF FRENCH RIVER

ASSET MANAGEMENT PLAN

DECEMBER 2013

PREPARED BY



PROJECT No. 13-2042

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1.0 EXECUTIVE SUMMARY

As with most Municipalities across Ontario, The Municipality of French River has undertaken the development of an Asset Management Plan in response to the Ontario Government's provincial capital funding requirements. The purpose of this Asset Management Plan is to assist with prioritizing needs over wants to ensure that infrastructure funding, whether generated through local or senior levels of government, be applied to projects with the higher needs. This Asset Management Plan has been structured to adhere to the requirement described in the Ontario Ministry of Infrastructure's Building Together, Guide for Municipal Asset Management Plans.

As the following Asset Management Plan will outline, the Municipality's existing infrastructure is aging and deteriorating while demand grows for better infrastructure facilities. This demand is in response to higher standards of safety, accessibility, health, environmental protection, and regulations. The solution to this issue is to examine the way the Municipality plans, designs and manages infrastructure to meet changing demands. This Asset Management Plan is expected to assist:

- Council in making service level and investment decisions;
- Staff with the planning and management of the assets;
- Taxpayers by sustaining value for the services provided.

As presented in this Asset Management Plan, the total replacement cost of the Municipality's assets was calculated to be approximately \$105.5 million (2013 Dollars), for assets providing sewer, drainage, transportation, recycling, waste disposal, and recreation. The Municipality is not required to budget for the full replacement value of all these assets simultaneously, as portions of assets only require an initial investment followed by further re-investment to maintain acceptable levels of service.

With that in mind, it was calculated that the annual reinvestment should be an average of \$ 2.90 million per year into various assets as they reach their maximum potential useful lives, in order to sustain existing services at an appropriate level of service. A further reserve investment of \$ 2.18 million is recommended to save for long-term replacement of assets. The actual investment value will vary from year to year depending on the scope and size of the planned capital works. Projects will need to be shuffled from year to year based on the availability of funding.

This plan addresses the replacement and planned expansion priorities of the Municipality, however it is imperative that current maintenance activities be continued and expanded as recommended. The ability for the Municipality to leverage its knowledge of infrastructure and by applying the best Asset

Management practices at the time will result in very positive improvements in infrastructure. A brief summary of the sections contained within this report is presented as follows.

Section Two of the Municipality's Asset Management Plan provides an introduction to the assets included in the plan as well as how the plan was developed and the goals of the Asset Management Plan. The Third section will summarize the asset types and quantities as well as their characteristics, condition and replacement values which were quantified by the Municipality's current asset inventory and for some assets, supplemented with visual inspections.

Section Four will outline the expected levels of service for each asset, and provides an indication of the minimum acceptable standards for an asset. Service levels were developed through consideration of industry standards, generally accepted levels of operation and safety, as well as evaluating the risk associated with achieving the targets levels established. Additionally, policy recommendations for condition rating updates for each asset are presented.

The asset management strategy for each asset type is presented in Section Five along with potential procurement methods to finance the strategy. The strategy and scheduling of asset renewal activities has been laid out by establishing planned actions through options analysis and risk assessment to maximize lifespan and minimize cost in a sustainable way. In addition, the priority assets for each category are presented within this section.

The final section of the plan consists of the financial plan required to support the asset management strategy by summarizing the cost per year, per asset to ensure sustainability of the asset. Comparisons are made to past expenditures and funding sources to identify the funding gaps in the proposed plan.

Although this comprehensive Asset Management Plan has been created beginning in 2014, it is expected to be a living document that is updated regularly as priority's shift or as work is completed. In addition, improvements to the methodologies of data collection for developing more accurate inventory information and evaluation will only serve to bolster the content of the plan. An Asset Management Plan that is not adhered to or not updated will quickly become obsolete and be of absolutely no benefit to the Municipality.

2.0 INTRODUCTION

This Asset Management Plan (AMP) was prepared by Tulloch Engineering Inc. (Tulloch) in cooperation with the Municipality of French River (Municipality) to meet the requirements of a Municipal Asset Management Plan as presented by the Ontario Ministry of Infrastructure in their publication “Building Together – Guide for Municipal Asset Management Plans” (2012)

The intention of the AMP is to provide answers and guidelines to the following questions.

- 1) What do you have and where is it?
- 2) What is it worth? (Current and Estimated Replacement Costs)
- 3) What is its condition and expected remaining service life?
- 4) What is the level of service expectation?
- 5) When do you need to do it?
- 6) How do you ensure long-term affordability?

Asset management planning is meant to aid municipalities in making cost effective decisions with regards to operating, maintaining, renewing, replacing and disposing of their infrastructure assets. The decisions and directions laid out in the asset management planning process are intended to ensure that the Municipality will be capable of providing the levels of service needed to meet their desired plans, goals and objectives.

The assets considered within this AMP are the following municipal assets:

- Roads
- Streetlights
- Bridges & Culverts
- Storm Sewers and Municipal Drains
- Wastewater Treatment and Collection
- Buildings
- Parks & Facilities
- Vehicles
- Machinery, Equipment, Furniture and Fixtures;

Each asset was divided into its respective category based type and was assessed for current state, financial accounting valuation and replacement cost valuation. The condition of each of the assets was assessed using sound and accepted methods.

This AMP has been developed to cover a ten (10) year window but is intended to be updated on a regular basis as operating conditions and municipal goals change. A key aspect of this plan is the ongoing evaluation of asset performance and value that will be required in future years. The development of this plan involved continued communication between Tulloch and Municipal Staff. The

policies and strategies presented are based upon discussions with Municipal representatives and accepted practices for the management of infrastructure assets.

This Asset Management Plan is a tool to help ensure that measures are taken to maintain an acceptable performance level for years to come. The quality and condition of infrastructure assets are of great importance as they help to support economic activity and improve general quality of life. This plan is not intended to change the municipalities existing processes and procedures with regards to their infrastructure assets but rather improve the decision making process by using long range vision to dictate resource allocation and use performance based analyses to determine if desired goals and objectives are being met.

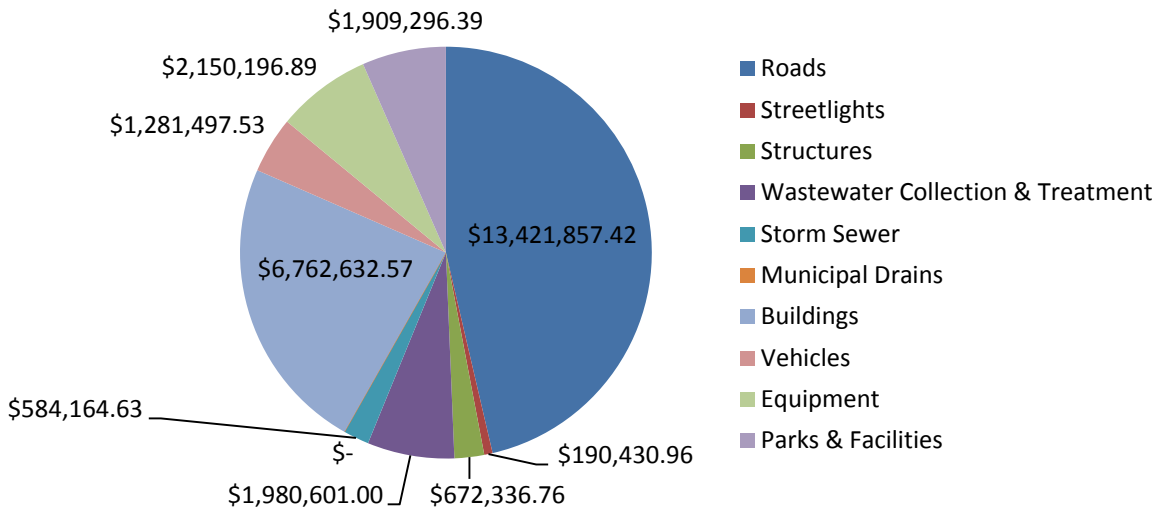
The Municipality's Capital Asset Summary information presents the inventory, current and projected condition ratings, as well as known or projected replacement/rehabilitation costs on a per asset type basis in a digital format.

This Asset Management Plan is based on capital improvements and with the exception of Municipal Drains does not account for maintenance activities that are currently undertaken by the Municipality. The plan is not intended to replace maintenance procedures and any reports prepared or practices undertaken should be continued to be followed.

3.0 STATE OF LOCAL INFRASTRUCTURE

This Section of the report outlines the quantity and quality of assets owned and managed by the Municipality. In addition, the current age, condition, financial valuation and replacement cost valuation of the assets included is presented.

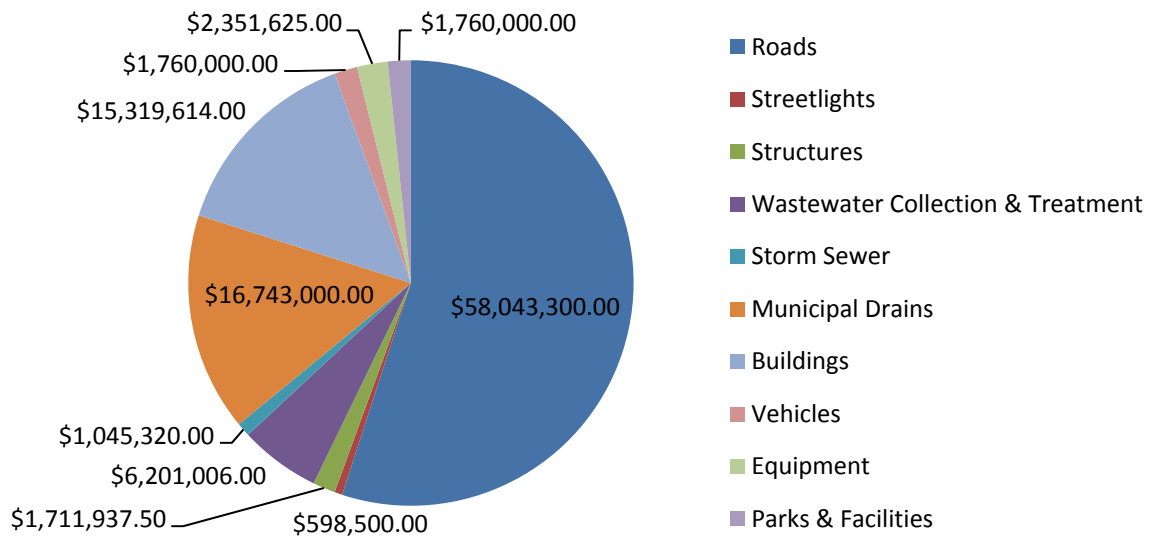
The two following figures provide a comparison of the Municipality’s capital assets based on 2013 Public Sector Accounting Board (PSAB) values and 2013 replacement values. The PSAB values are based on currently accepted historical costs and depreciation values, which were extracted from the current Municipal inventory presented as the Tangible Capital Asset Continuity Schedule (PSAB Inventory). The 2013 replacement values were generated based on the assets physical characteristics and benchmark costs established from recent construction projects. The benchmark costs per asset type are presented in the corresponding asset management spreadsheets in the Capital Asset Summary.



• NOTE: Municipal Drain Values were not tracked under PSAB - Equipment denotes Machinery, Equipment, Furniture & Fixtures

Asset Group	Net Asset Value
Roads	\$ 13,421,857.42
Streetlights	\$ 190,430.96
Structures	\$ 672,336.76
Wastewater Collection & Treatment	\$ 1,980,601.00
Storm Sewer	\$ 584,164.63
Municipal Drains	\$ -
Buildings	\$ 6,762,632.57
Vehicles	\$ 1,281,497.53
Equipment	\$ 2,150,196.89
Parks & Facilities	\$ 1,909,296.39
TOTAL	\$ 28,953,014.14

Figure 1 – Capital Asset PSAB 2013 Values (\$28.9M)



- NOTE: Streetlights have not been accounted for in this AMP
Equipment denotes Machinery, Equipment, Furniture & Fixtures

Asset Group	Net Asset Value
Roads	\$ 58,043,300.00
Streetlights	\$ 598,500.00
Structures	\$ 1,711,937.50
Wastewater Collection & Treatment	\$ 6,201,006.00
Storm Sewer	\$ 1,045,320.00
Municipal Drains	\$ 16,743,000.00
Buildings	\$ 15,319,614.00
Vehicles	\$ 1,760,000.00
Equipment	\$ 2,351,625.00
Parks & Facilities	\$ 1,760,000.00
TOTAL	\$ 105,534,302.50

Figure 2 – 2013 Asset Replacement Costs (\$105.5M)

3.1 ROADS

The Municipality's road network consists of approximately 189.9km roads (2013 Road Management Plan), of which 172.4km are year-round maintained roads and 17.5km are seasonally maintained roads. The roadway inventory and condition ratings were based on an extension of the 2013 Road Management Plan as completed by Exp. Services Inc. The chart below provides a breakdown of the total replacement cost of road infrastructure.

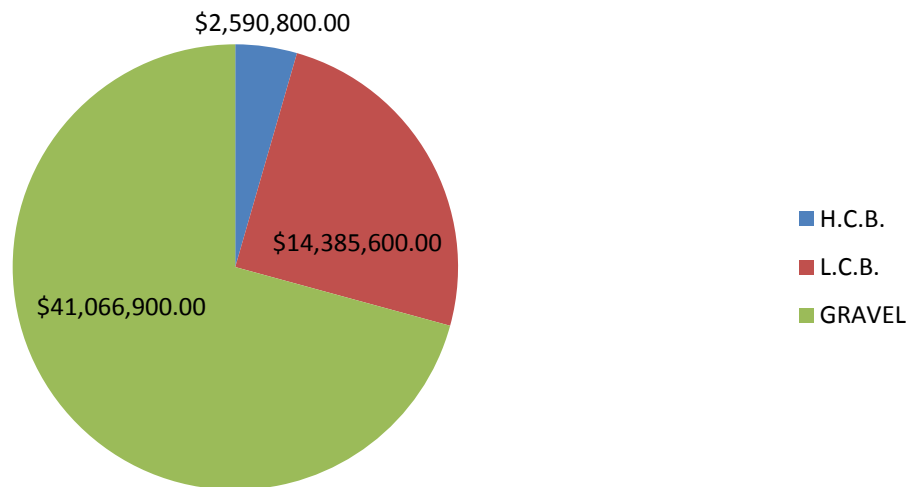


Figure 3 – Road Infrastructure Replacement Costs (2013 Dollars)

3.1.1 METHOD OF CONDITION EVALUATION

Appraisal of the Municipality's local road system was carried out in the spring of 2013, in accordance with procedures outlined in the MTO Methods and Inventory Manual by Exp. Services Inc. The system was divided into 118 road sections and a standard MTO Road Appraisal Sheet was completed for each section. Each road section was identified and assigned a number, and then its location, length, geometrics, roadside environment, and surface type were noted. Traffic volumes were also estimated. The condition of each road section was assessed and improvement needs and associated costs were then identified.

Each road section was given a subjective condition rating from 1 to 10 based on current surface condition, surface type and drainage conditions. Condition ratings greater than 5 are considered acceptable and are expected to require only normal maintenance. A condition rating less than 5 is considered unacceptable and a road improvement is to be evaluated for cost. The road condition for

each section is projected over ten years to allow review of road deterioration and forecasting of required future work. This method of evaluating road surface deterioration relies on estimating the life cycle of various road surfaces.

For the purpose of this AMP, the life cycle for gravel roads was assumed as ten years, resulting in a decrease in rating of 0.5 per year, although severe spring breakup may affect the condition rating. Surface treated roads typically have a seven year life cycle before their condition rating drops below 5 and asphalt roads have a twenty year life cycle. These life cycles are dependent on their use, the structural condition of the road and routine maintenance. Assuming seven year and twenty year life cycles for surface treated and asphalt roads respectively results in the condition rating for each section typically decreasing 0.7 and 0.25 per year. These values were used to determine the year in which the condition rating will drop below 5 and the road will require resurfacing.

For the purposes of this study, the following assumptions were made for road deterioration rates:

- *Loose Top Roads → Condition rating reduced by 0.5 per year until it drops below 5.0*
Note: this is a modification from the 2013 Road Management Plan
- *Low Class Bituminous Roads → Condition rating reduced by 0.7 per year until it drops to 5.0*
- *High Class Bituminous Roads → Condition rating reduced by 0.25 per year until it drops to 5.0*
Note: this is a modification from the 2013 Road Management Plan

The following is a measure of the condition of the existing road system as outlined in the Methods and Inventory Manual:

<u>Condition Rating</u>	<u>System Condition</u>
8 to 10	good structural condition; some local improvement may be needed
5 to 7	average structural condition; continued improvement needed
Less than 5	poor structural condition; substantial improvement needed throughout total road system

The following table describes the current state of the roads compared with the projected conditions over the next ten years.

Road Classification	Now	Target	2018	2023
Gravel	6.9	7.0	7.9	7.9
0-49	6.7	7.0	8.1	8.1
50-199	6.8	7.0	8.2	8.2
200-399	6.5	7.0	6.0	6.0
400-999	8.6	7.0	7.4	7.4
Low Class Bituminous	6.8	7.0	6.7	6.7
0-49	8.4	7.0	8.1	8.1
50-199	7.6	7.0	9.0	9.0
200-399	6.7	7.0	7.5	7.5
400-999	6.0	7.0	3.9	3.9
High Class Bituminous	7.4	7.0	8.3	8.3
200-399	9.0	7.0	7.8	7.8
400-999	7.1	7.0	8.4	8.4
Weighted Averaged	6.9	7.0	7.6	7.6

Further detail on how the future ratings are achieved can be found in the Municipal Road Inventory spreadsheets completed as part of this planning exercise.

3.1.2 INVENTORY

A summary of the Municipality's road system inventory is presented in the following figures and is based on the Municipality's Tangible Capital Asset Summary, supplemented with Road Management Plan information. The complete inventory is presented in the Capital Asset Summary, including all assumptions used to arise at the given ratings and projected costs. It should be noted that L.C.B. denotes surface treatment and H.C.B. denotes asphalt surface. In addition, a weighted condition rating per surface type based on length was generated to accurately reflect the average condition of the respective surface type.

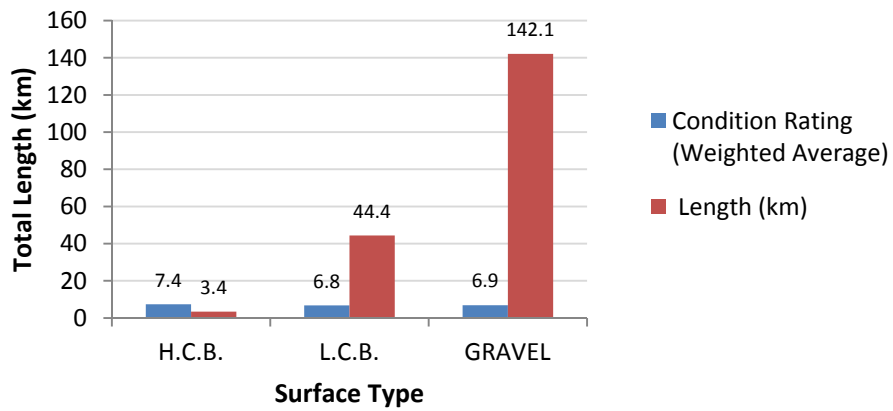


Figure 4 – Road Length by Surface Type

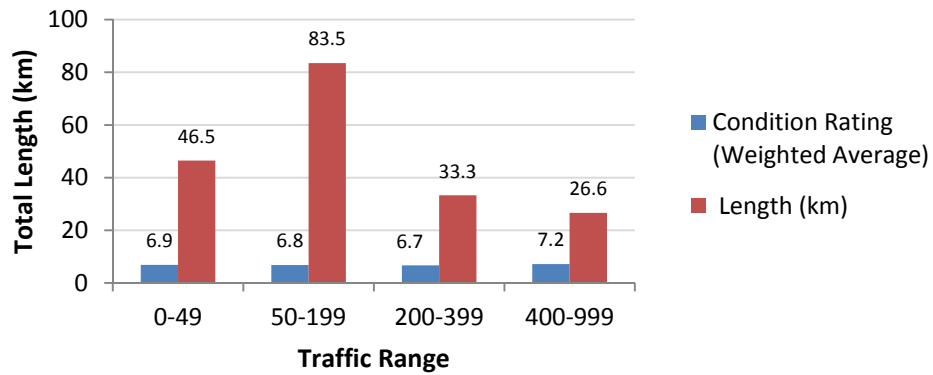


Figure 5 – Road Length by Traffic Volume

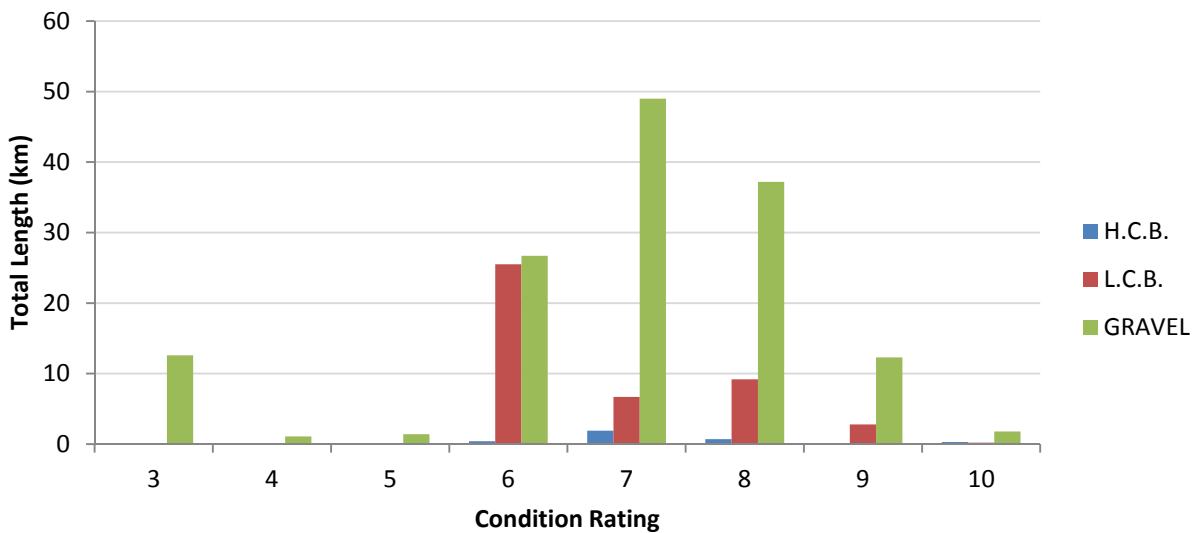


Figure 6 – Condition Rating Summary by Surface Type

3.1.3 POLICIES

In accordance with the Guide, it is recommended that a data verification policy and condition assessment policy be established to outline when and how the Road Asset state of infrastructure be updated. It is recommended that an annual cycle be established to update condition ratings and cost projections in accordance with the procedures outlined in the MTO Methods and Inventory Manual.

3.2 STREETLIGHTS

The Municipality's street light inventory currently consists of 156 poles and fixtures. The structure inventory and condition ratings are estimated based on the records provided by the Municipality. The chart below provides a breakdown of the total replacement cost of streetlight infrastructure.

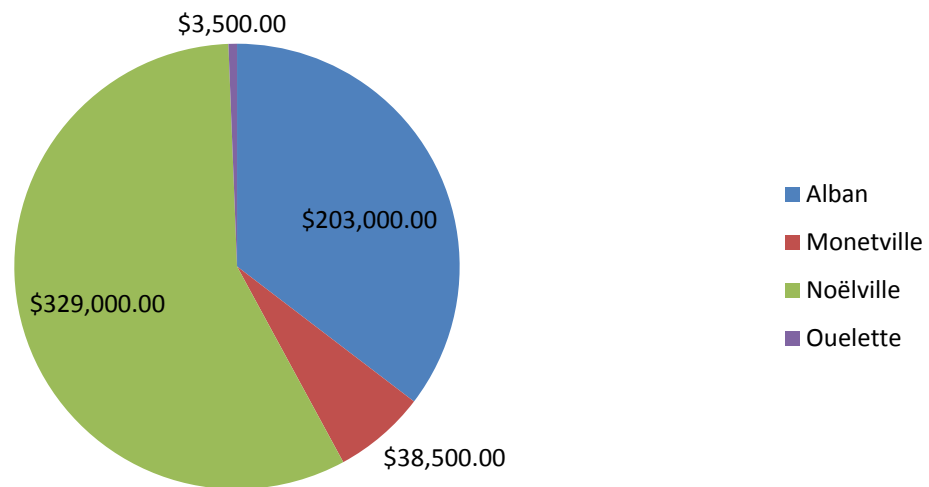


Figure 7 – Streetlight Infrastructure Replacement Costs (2013 Dollars)

3.2.1 METHOD OF CONDITION EVALUATION

The Municipality's street light infrastructure was evaluated based on the inventory and information provided. Each street light component was given a subjective rating of Excellent, Good, Fair or Poor, based on the current overall condition of the asset. A condition rating greater than Poor is considered acceptable and is expected to require continued maintenance. A condition rating less than Poor is considered unacceptable and an improvement or replacement is to be evaluated for cost. For the purposes of forecasting, all poles were estimated to have a lifespan of 50 years, and all appurtenances were estimated to have a lifespan of 20 years, with an average condition rating assigned based on age as follows:

<u>Rating</u>	<u>Age</u>
Excellent	Less than 5 years old
Good	Between 5 years old and 50% of its life expectancy
Fair	Between 50% and 75% of its life expectancy
Poor	Between 75% and 100% of its life expectancy
Replace	Beyond its life expectancy

3.2.2 INVENTORY

The estimated replacement value of the municipal street light inventory is approximately \$ 546,000.00. Each of the 156 locations was divided into two components; poles, and appurtenances. Each asset was assigned a number, and then its location, and year of installation were noted. The information available outlines that the majority of the infrastructure was installed in 1988, as can be seen in the figure below.

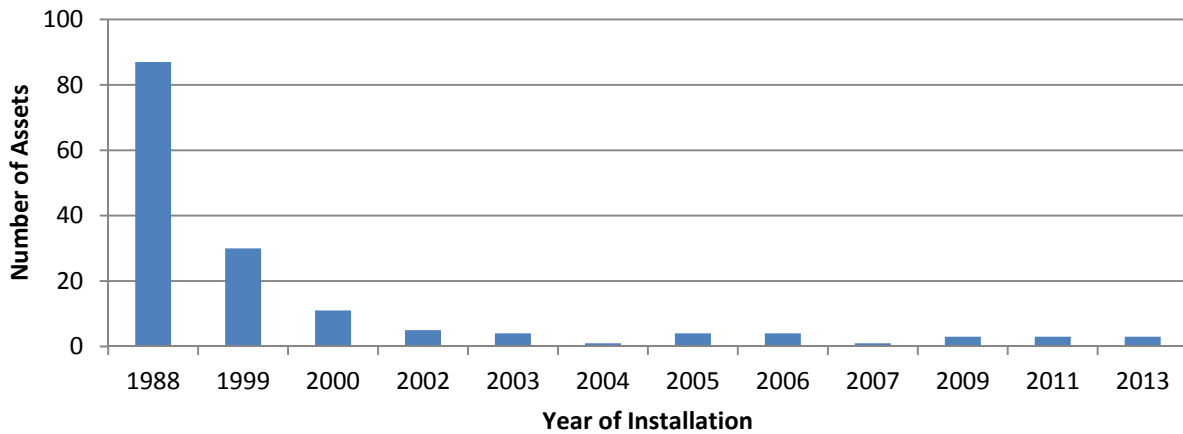


Figure 8 – Street light Infrastructure Age

3.2.3 POLICIES

In accordance with the Guide, it is recommended that a data verification policy and condition assessment policy be established to outline when and how the street light infrastructure information is updated. It is recommended that the poles and fixtures are reviewed on a biennial basis.

3.3 STRUCTURES

The Municipality's structure inventory consists of three bridges and three structural culverts, for which a structural culvert is defined as having a span greater than 3m. The structure inventory and condition ratings are based on the latest Inspection Forms, as completed by Exp. Services Inc. in 2012. The chart below provides a breakdown of the total replacement cost of bridge and culvert infrastructure.

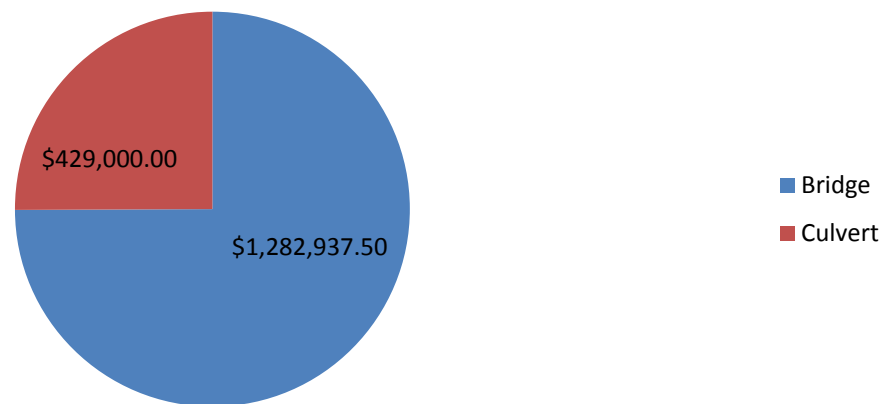


Figure 9 – Structure Replacement Costs (2013 Dollars)

3.3.1 METHOD OF CONDITION EVALUATION

Appraisal of the Municipality's Structures was carried out in September of 2012, in accordance with procedures outlined in the Ontario Structure Inspection Manual (OSIM) by Exp. Services Inc. The structures were identified and assigned a number, and then its location, span, rise, roadside environment, and surface type were noted. In addition, the structure was divided into the representative components with the dimensions and general condition of each component identified. For components in need of improvement, the needs and associated timing were also reported.

Each structure has been given a subjective rating of Excellent, Good, Fair or Poor, based on the current overall condition of the structure. A condition rating greater than Poor is considered acceptable and is expected to require only normal maintenance, with the exception of specific component improvements as may be identified. A condition rating less than Poor is considered unacceptable and an improvement or replacement is to be evaluated for cost. For the purpose of forecasting, structures were estimated to have a lifespan of 75 years with an average condition rating assigned based on age as follows:

<u>Rating</u>	<u>Age</u>
Excellent	Less than 5 years old
Good	Between 5 years old and 50% of its life expectancy
Fair	Between 50% and 75% of its life expectancy
Poor	Between 75% and 100% of its life expectancy
Replace	Beyond its life expectancy

3.3.2 INVENTORY

A summary of the Municipality’s structure inventory is presented in the following figures outlining the age and overall condition ratings. The inventory is based on the Municipality’s Tangible Capital Asset Summary, supplemented with Road Management Plan information. The complete inventory is presented in the Capital Asset Summary, including all structure components and assumptions used to arise at the given ratings and projected costs.

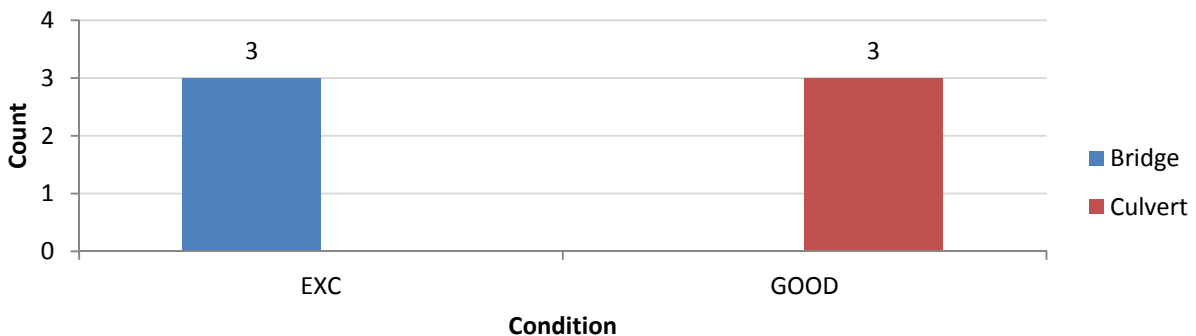


Figure 10 – Condition Rating Summary by Structure Type

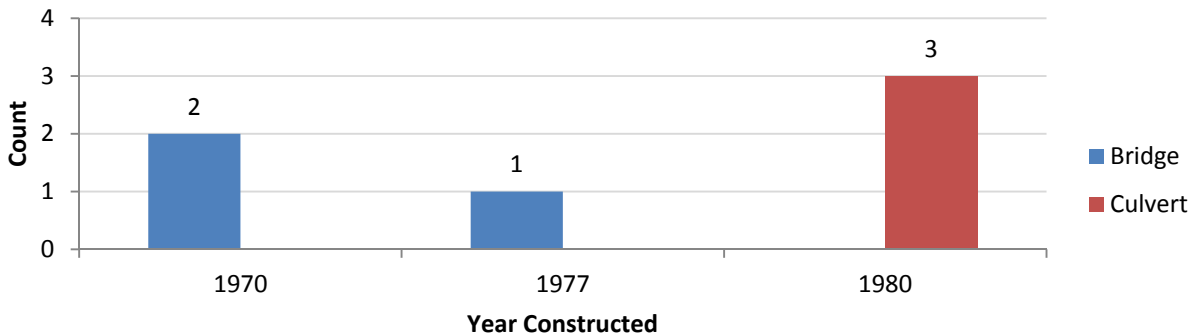


Figure 11 – Year of Construction by Structure Type

3.3.3 POLICIES

In accordance with the Guide, it is recommended that a data verification policy and condition assessment policy be established to outline when and how the structure infrastructure information is updated. As the OSIM Inspection frequency is currently legislated as once every two calendar years, it is recommended that the legislated frequency, as may be amended, be followed. In addition, it is recommended that the inspections be completed with the currently utilized OSIM Inspection Forms to permit equal comparison of subsequent inspection reports.

3.4 WASTEWATER COLLECTION & TREATMENT

The Municipality provides wastewater collection and treatment services to the Town of Noelville through a combined gravity and forcemain system discharging to a two cell lagoon. The sanitary sewer gravity collection system is managed and maintained by Municipal Staff, whereas the pumping and treatment systems are overseen and operated by the Ontario Clean Water Agency (OCWA). The chart below provides a breakdown of the total replacement cost of the Municipality's wastewater infrastructure.

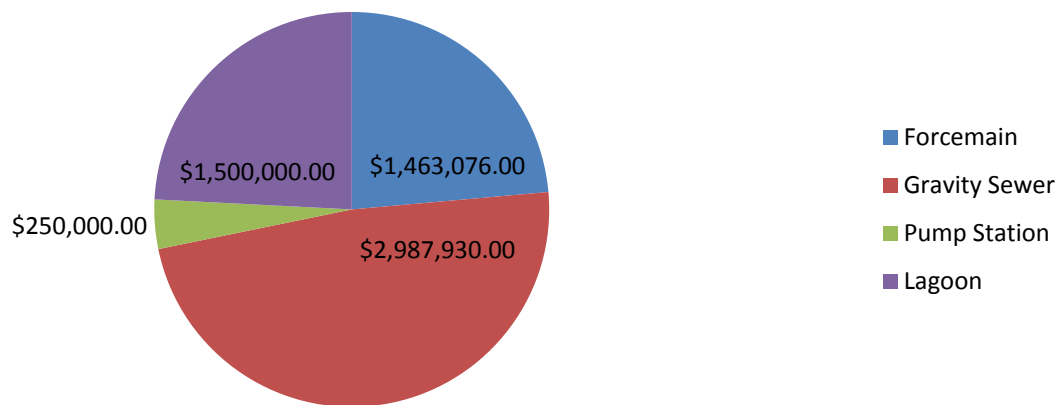


Figure 12 – Wastewater Collection & Treatment Infrastructure Replacement Costs (2013 Dollars)

3.4.1 METHOD OF CONDITION EVALUATION

The Municipality's sanitary sewer collection and treatment system was evaluated based on the inventory and information provided by OCWA. The system was divided into twenty gravity sewer sections, three forcemain sections, one pump station and lagoon. Each asset was assigned a number, and then its location, length, diameter and year of construction were noted. The information available outlines that the whole of the sanitary sewer system was installed in 1977.

Each sewer asset was given a subjective rating of Excellent, Good, Fair or Poor, based on the current overall condition of the asset. A condition rating greater than Poor is considered acceptable and is expected to require continued maintenance. A condition rating less than Poor is considered unacceptable and an improvement or replacement is to be evaluated for cost. For the purposes of forecasting, all sewer assets were estimated to have a lifespan of 50 years with an average condition rating assigned based on age as follows:

<u>Rating</u>	<u>Age</u>
Excellent	Less than 5 years old
Good	Between 5 years old and 50% of its life expectancy
Fair	Between 50% and 75% of its life expectancy
Poor	Between 75% and 100% of its life expectancy
Replace	Beyond its life expectancy

3.4.2 INVENTORY

A summary of the Municipality’s sewer inventory is presented in the following figures outlining the age and overall condition ratings. The inventory is based on the Municipality’s Tangible Capital Asset Summary and supplemented with OCWA’s Equipment Inventory Summary as well as the Amended Certificate of Approval for Sewer Works. The complete inventory is presented in the Capital Asset Summary, including all sewer components and assumptions used to arise at the given ratings and projected costs.

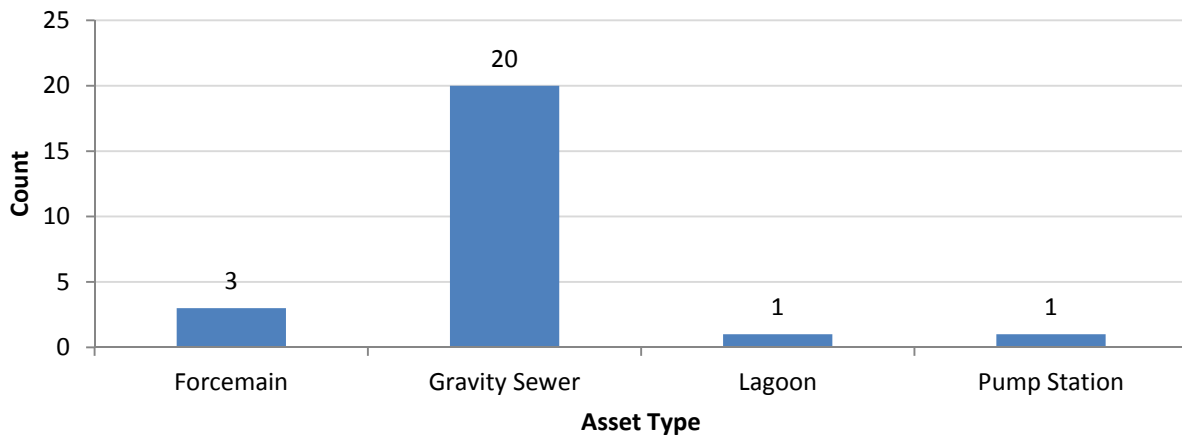


Figure 13 – Wastewater Collection & Treatment Infrastructure Summary

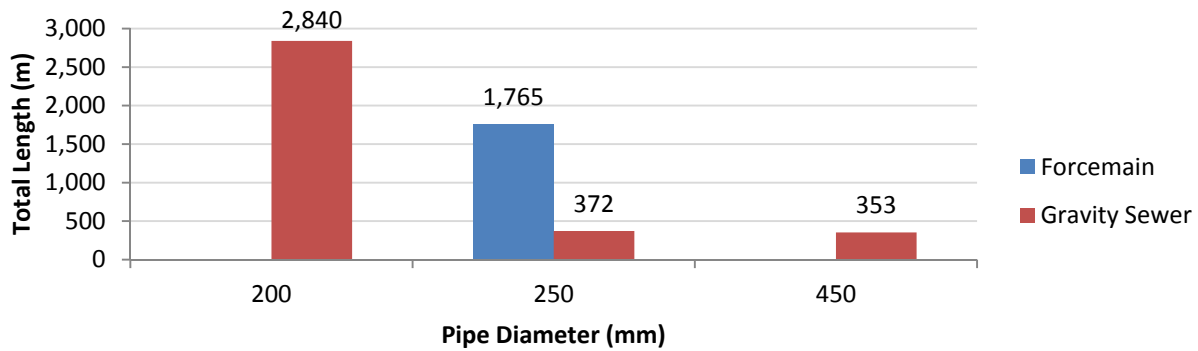


Figure 14 – Sewer Length by Diameter

3.4.3 POLICIES

In accordance with the Guide, it is recommended that a data verification policy and condition assessment policy be established to outline when and how the sanitary sewer infrastructure information is updated. As there is currently no up to date information available on the condition of the sanitary sewer collection assets, it is recommended that a camera inspection program be initiated to provide more accurate condition ratings and anticipated lifespan. Depending on maintenance budget available, it would be beneficial to initiate a cycle of inspections such that each section of pipe is visually reviewed every ten years. In addition, the current OCWA programs should be continued to ensure ongoing compliance with regulatory agencies.

3.5 STORM SEWERS AND MUNICIPAL DRAINS

The Municipality provides storm sewer collection services to the Town of Noelville through a subsurface gravity system, as well as surface flow management through Municipal Drains. Both systems are managed and maintained by Municipal Staff.



Figure 15 – Storm Drainage Infrastructure Replacement Costs (2013 Dollars)

3.5.1 METHOD OF CONDITION EVALUATION

The Municipality's storm sewer collection system was evaluated based on the inventory and information provided by the Municipality within the Tangible Capital Asset Continuity Schedule. The system was divided into twenty-three gravity storm sewer sections with each section being assigned an identification number, and then its location, length, diameter and year of construction were noted. The information available outlines that the whole of the storm sewer system was installed in 1977.

Each storm sewer asset was given a subjective rating of Excellent, Good, Fair or Poor, based on the current overall condition of the asset. A condition rating greater than Poor is considered acceptable and is expected to require continued maintenance. A condition rating less than Poor is considered unacceptable and an improvement or replacement is to be evaluated for cost. For the purposes of forecasting, all sewer assets were estimated to have a lifespan of 40 years with an average condition rating assigned based on age as follows:

<u>Rating</u>	<u>Age</u>
Excellent	Less than 5 years old
Good	Between 5 years old and 50% of its life expectancy
Fair	Between 50% and 75% of its life expectancy
Poor	Between 75% and 100% of its life expectancy
Replace	Beyond its life expectancy

As the installation was referenced as 1977 for each asset, the 40 year lifespan results in all of the assets being identified as poor with replacement scheduled for 2018.

The Municipal Drain system was evaluated based on the inventory and information provided by the Municipality within the Tangible Capital Asset Continuity Schedule and supplemented with the Municipal Drains Report, 2013 prepared by K. Smart Associates. The Municipal Drain system is comprised of 158 drain sections, with each being assigned an identification number, and then its length and year of construction were noted.

Each drain asset was initially given a subjective rating of Excellent, Good, Fair or Poor, based on the current age of the asset as detailed in the report prepared by K. Smart Associates. A condition rating greater than Poor is considered acceptable and is expected to require continued maintenance. A condition rating less than Poor is considered unacceptable and an maintenance item is to be evaluated for cost. For the purposes of forecasting, all drain assets were estimated to have a lifespan of 25 years with an average condition rating initially assigned based on age as follows:

<u>Rating</u>	<u>Age</u>
Excellent	Less than 5 years old
Good	Between 5 years old and 50% of its life expectancy
Fair	Between 50% and 75% of its life expectancy
Poor	Between 75% and 100% of its life expectancy
Replace	Beyond its life expectancy

Based on the review of the current condition information provided in the report prepared by K. Smart Associates, the initial ratings were updated to reflect the actual (not age based) condition, which resulted in all drains being in the Fair to Poor categories.

3.5.2 INVENTORY

A summary of the Municipality’s storm sewer and municipal drain inventory is presented in the following figures outlining a summary of the quantity of each. The inventory is based on the Municipality’s Tangible Capital Asset Summary and supplemented with the Municipal Drain Report. The complete inventory is presented in the Capital Asset Summary, including all sewer and drain components as well as assumptions used to arise at the given ratings and projected costs.

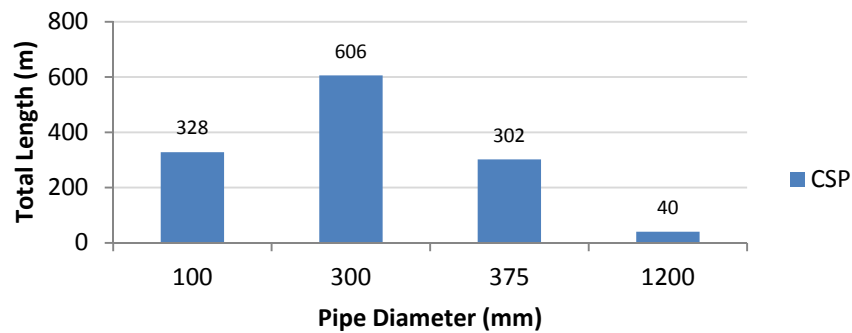


Figure 16 – Storm Sewer Length by Diameter

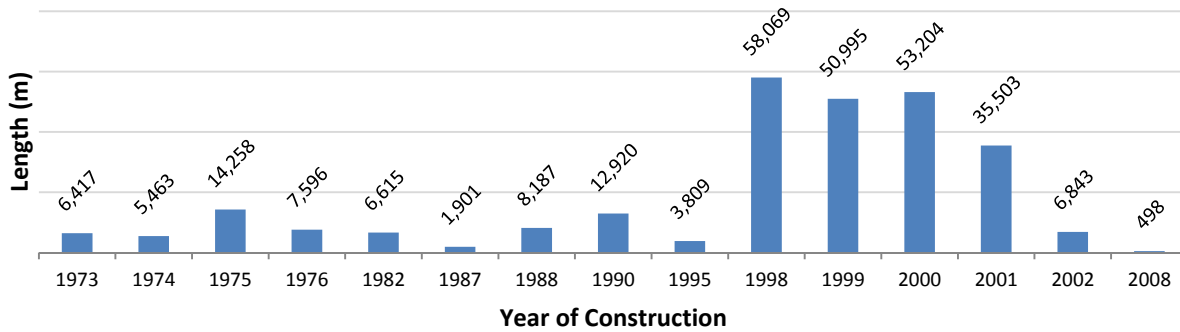


Figure 17 – Municipal Drain Length by Year of Construction

3.5.3 POLICIES

In accordance with the Guide, it is recommended that a data verification policy and condition assessment policy is established to outline when and how the storm sewer infrastructure information is updated. As there is currently no up to date information available on the condition of the storm sewer collection assets, it is recommended that a camera inspection program be initiated to provide more accurate condition ratings and anticipated lifespan. Depending on maintenance budget available, it would be beneficial to initiate a cycle of inspections such that each section of pipe is visually reviewed every ten years. In addition, the current Drain Review program should be continued on a suggested five year schedule.

3.6 BUILDINGS

The Municipality owns and operates a total of thirteen buildings located throughout the Municipality which serve a variety of purposes. The table below provides a summary of the replacement costs.

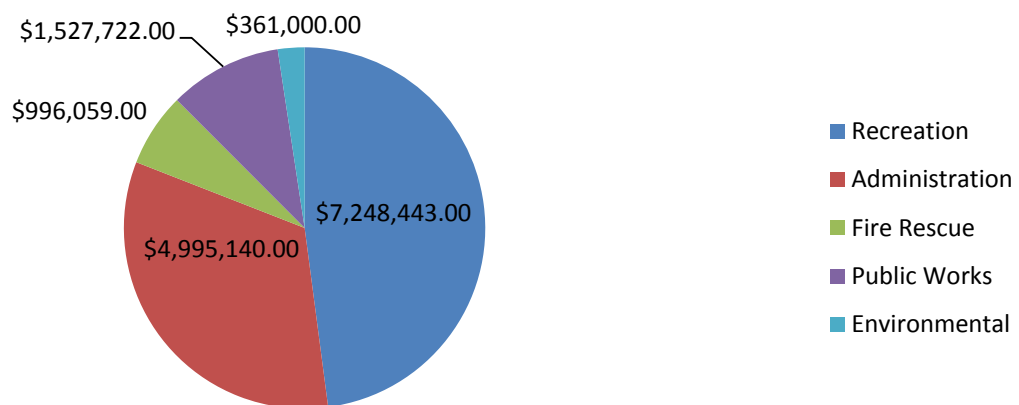


Figure 18 – Building Infrastructure Replacement Cost (2013 Dollars)

3.6.1 METHOD OF CONDITION EVALUATION

The Municipality's buildings were evaluated based on the inventory and information provided by the Municipality within the Tangible Capital Asset Continuity Schedule. Each of the thirteen buildings were reviewed by Tulloch and Municipal Staff and assigned an identification number, along with location, dimensions and year of construction being noted. In addition, the buildings were divided into the representative components with the dimensions and general condition of each component identified. For components in need of improvement, the needs and associated timing were also reported.

Each building asset was given a subjective rating of Excellent, Good, Fair or Poor, based on the current overall condition of the asset. A condition rating greater than Poor is considered acceptable and is expected to require continued maintenance. A condition rating less than Poor is considered unacceptable and an improvement or replacement is to be evaluated for cost. For the purpose of forecasting, all building assets were estimated to have an overall lifespan of 75 years with an average condition rating assigned based on age as follows.

Individual building components were subject to varying lifespans which can be reviewed in detail as presented in the Capital Asset Summary.

<u>Rating</u>	<u>Age</u>
Excellent	Less than 5 years old
Good	Between 5 years old and 50% of its life expectancy
Fair	Between 50% and 75% of its life expectancy
Poor	Between 75% and 100% of its life expectancy
Replace	Beyond its life expectancy

3.6.2 INVENTORY

A summary of the Municipality's building inventory is presented in the following figures outlining year of construction and condition ratings. The inventory is based on the Municipality's Tangible Capital Asset Summary and supplemented with the inspection forms completed by Tulloch. The complete inventory is presented in the Capital Asset Summary, including all building components as well as assumptions used to arise at the given ratings and projected costs.



Figure 19 – Building Count by Year of Construction

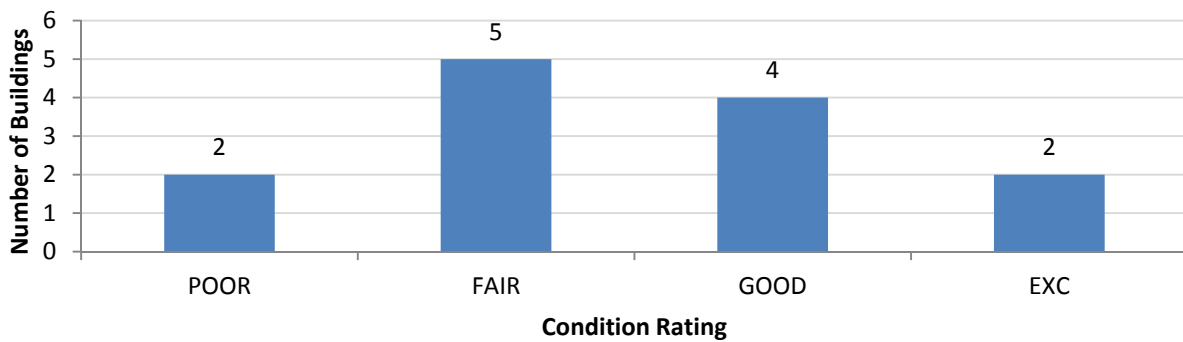


Figure 20 – Building Count by Condition Rating

3.6.3 POLICIES

In accordance with the Guide, it is recommended that a data verification policy and condition assessment policy be established to outline when and how the building infrastructure be updated. It is recommended that a 2 year cycle be established to update condition ratings and cost projections in accordance with the current inventory forms, as well as to recommend further investigations where warranted. Problematic buildings or those over 50 years in age should be reviewed on a more frequent basis.

3.7 PARKS & FACILITIES

The Municipality's parks and facilities asset category is comprised of eight parks and four facility's located throughout the Municipality and serve a variety of purposes. The table below provides a summary of the replacement costs.

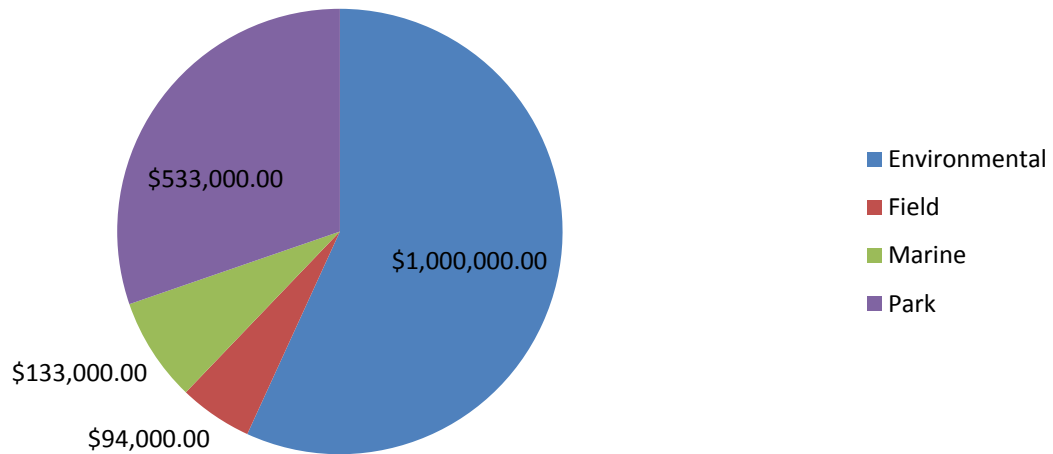


Figure 21 – Parks and Facilities Infrastructure Replacement Cost (2013 Dollars)

3.7.1 METHOD OF CONDITION EVALUATION

The Municipality's parks and facilities were evaluated based on the inventory and information provided by the Municipality within the Tangible Capital Asset Continuity Schedule. Each of the twelve assets were reviewed by Tulloch and Municipal Staff and assigned an identification number, along with location, dimensions and year of construction being noted. In addition, the assets were divided into the representative components with the dimensions and general condition of each component identified. For components in need of improvement, the needs and associated timing were also reported.

Each asset was been given a subjective rating of Excellent, Good, Fair or Poor, based on the current overall condition of the asset. A condition rating greater than Poor is considered acceptable and is expected to require continued maintenance. A condition rating less than Poor is considered unacceptable and an improvement or replacement is to be evaluated for cost. Individual asset components were subject to varying lifespans which can be reviewed in detail as presented in the Capital Asset Summary.

<u>Rating</u>	<u>Age</u>
Excellent	Less than 5 years old
Good	Between 5 years old and 50% of its life expectancy
Fair	Between 50% and 75% of its life expectancy
Poor	Between 75% and 100% of its life expectancy
Replace	Beyond its life expectancy

3.7.2 INVENTORY

A summary of the Municipality’s parks and facilities inventory is presented in the following figures outlining year of construction and condition ratings. The inventory is based on the Municipality’s Tangible Capital Asset Summary and supplemented with the inspection forms completed by Tulloch. The complete inventory is presented in the Capital Asset Summary, including all asset components as well as assumptions used to arise at the given ratings and projected costs.

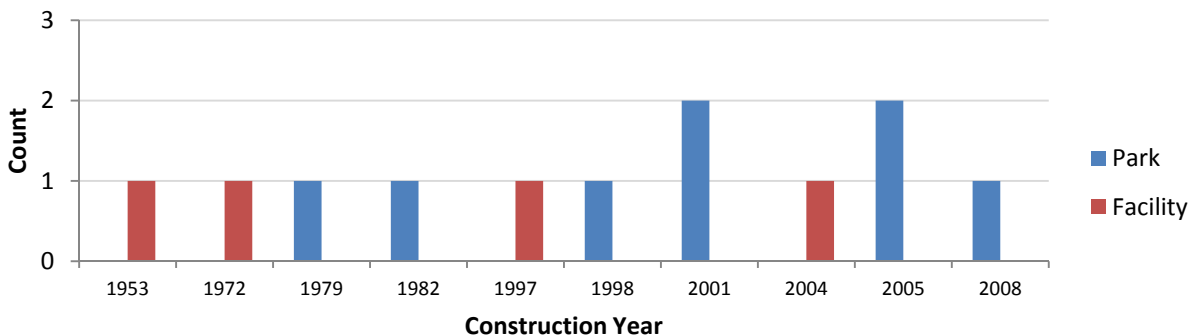


Figure 22 – Parks & Facilities Count by Construction Year

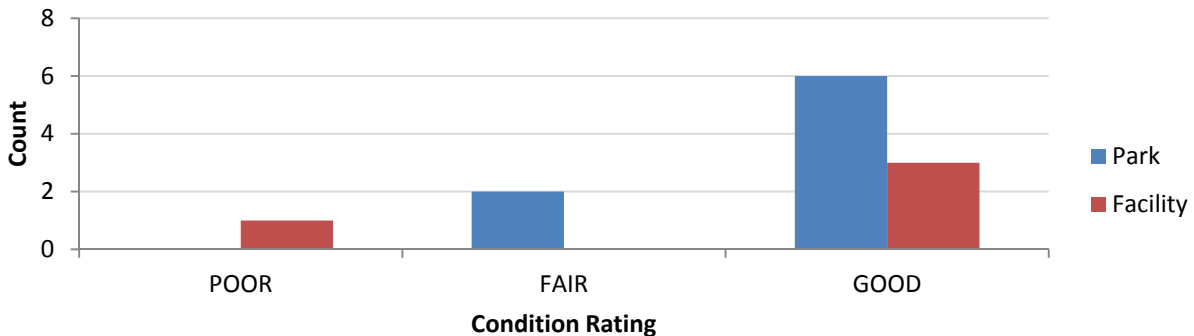


Figure 23 – Parks & Facilities Count by Condition Rating

3.7.3 POLICIES

In accordance with the guide, it is recommended that a data verification policy and condition assessment policy be established to outline when and how the infrastructure information is updated. Park and facility assets should be reviewed on a 2 year cycle to update condition ratings and cost projections in accordance with the current inventory forms, as well as to recommend further investigations where warranted.

3.8 VEHICLES

The Municipality's vehicle assets are comprised of seventeen vehicles allocated to four departments and are located throughout the Municipality to serve a variety of purposes. The chart below summarizes the total cost of all municipally owned vehicles by department.

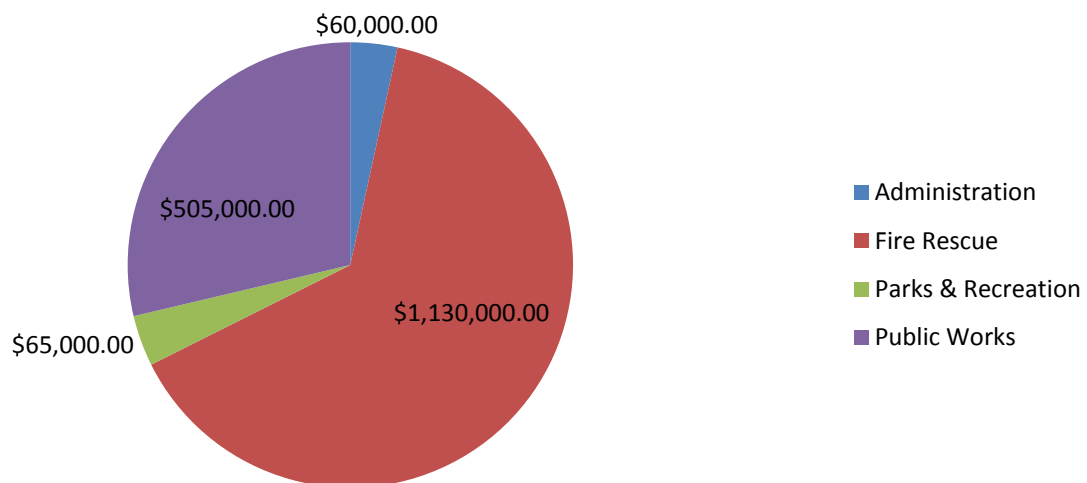


Figure 24 – Vehicle Replacement Costs (2013 Dollars)

3.8.1 METHOD OF CONDITION EVALUATION

The Municipality's vehicle assets were evaluated based on the inventory and information provided by the Municipality within the Tangible Capital Asset Continuity Schedule. Each of the seventeen assets was assigned an identification number, along with department, use and year of purchase being noted.

Each asset has been given a subjective rating of Excellent, Good, Fair or Poor, based on the lifespan of the asset. A condition rating greater than Poor is considered acceptable and is expected to require continued maintenance. A condition rating less than Poor is considered unacceptable and an improvement or replacement is to be evaluated for cost. Assets were subject to varying lifespans which can be reviewed in detail as presented in the Capital Asset Summary.

<u>Rating</u>	<u>Age</u>
Excellent	Less than 5 years old
Good	Between 5 years old and 50% of its life expectancy
Fair	Between 50% and 75% of its life expectancy
Poor	Between 75% and 100% of its life expectancy
Replace	Beyond its life expectancy

3.8.2 INVENTORY

A summary of the Municipality’s vehicle inventory is presented in the following figures outlining a summary of the count and conditions of vehicles by department. The inventory is based on the Municipality’s Tangible Capital Asset Summary and supplemented with Municipal Staff input. The complete inventory is presented in the Capital Asset Summary, including all assumptions used to arise at the given ratings and projected costs.

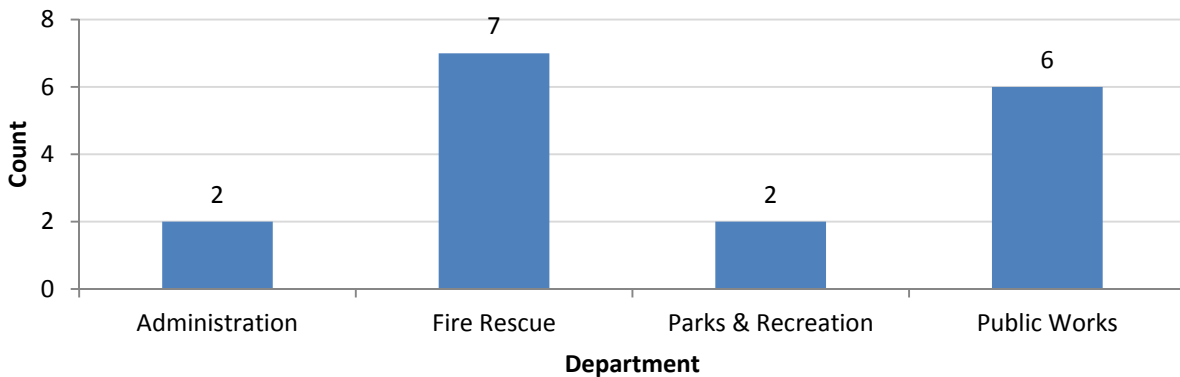


Figure 25 – Vehicle Summary by Department

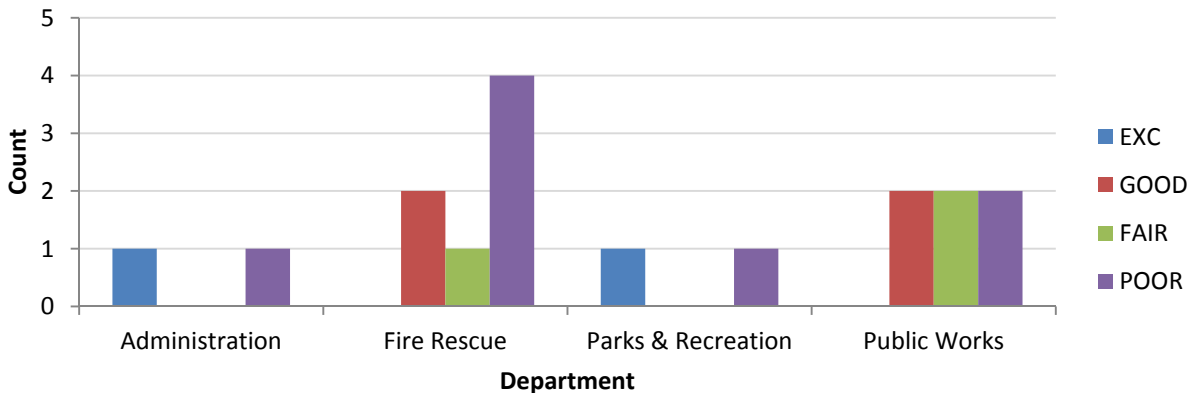


Figure 26 – Vehicle Summary by Condition Rating

3.8.3 POLICIES

In accordance with the Guide, it is recommended that a data verification policy and condition assessment policy be established to outline when and how the vehicle information is updated. For the vehicle assets, it is recommended that a 2 year cycle is established to update condition ratings and cost projections in accordance with MTO vehicular safety standards.

3.9 MACHINERY, EQUIPMENT, FURNITURE & FIXTURES

The Municipality’s machinery, equipment, furniture & fixture assets are comprised of seventy-seven assets allocated to seven classes and are located throughout the Municipality to serve a variety of purposes. The chart below provides a summary of the replacement value of all municipally owned machinery, equipment, furniture & fixtures.

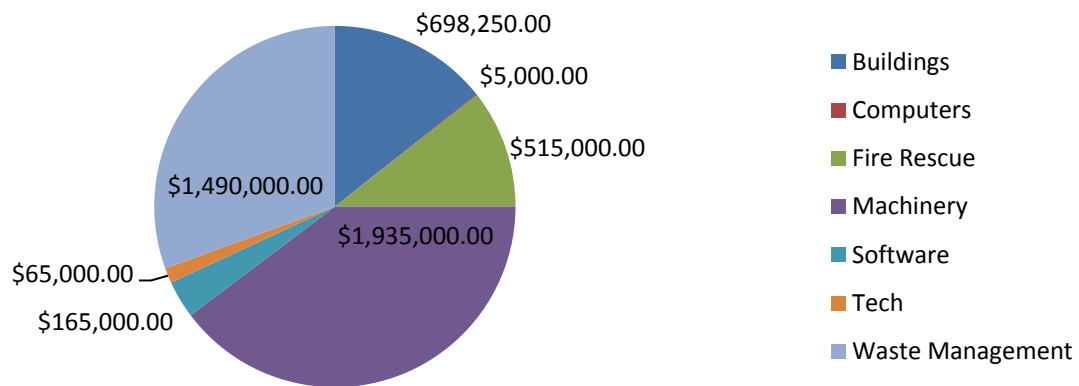


Figure 27 – Machinery, Equipment, Furniture & Fixture Replacement Costs (2013 Dollars)

3.9.1 METHOD OF CONDITION EVALUATION

The Municipality’s machinery, equipment, furniture & fixture assets were evaluated based on the inventory and information provided by the Municipality within the Tangible Capital Asset Continuity Schedule. Each of the seventy-seven assets was assigned an identification number, along with location, use and year of construction being noted.

Each asset was given a subjective rating of Excellent, Good, Fair or Poor, based on the lifespan of the asset. A condition rating greater than Poor is considered acceptable and is expected to require continued maintenance. A condition rating less than Poor is considered unacceptable and an improvement or replacement is to be evaluated for cost. Assets were subject to varying lifespans which can be reviewed in detail as presented in the Capital Asset Summary.

<u>Rating</u>	<u>Age</u>
Excellent	Less than 5 years old
Good	Between 5 years old and 50% of its life expectancy
Fair	Between 50% and 75% of its life expectancy
Poor	Between 75% and 100% of its life expectancy
Replace	Beyond its life expectancy

3.9.2 INVENTORY

A summary of the Municipality’s machinery, equipment, furniture & fixture inventory is presented in the following figures outlining a summary of the count by class. The inventory is based on the Municipality’s Tangible Capital Asset Continuity Schedule and supplemented with Municipal Staff input. The complete inventory is presented in the Capital Asset Summary, including all assumptions used to arise at the given ratings and projected costs.

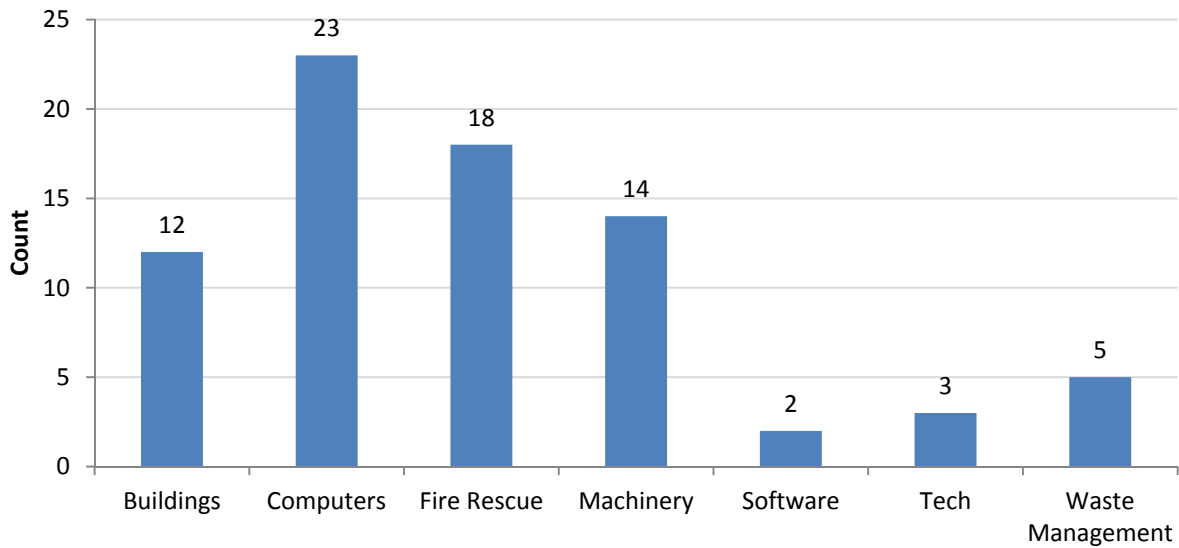


Figure 28 – Asset Summary by Class

3.9.3 POLICIES

In accordance with the Guide, it is recommended that a data verification policy and condition assessment policy is established to outline when and how the machinery, equipment, furniture & fixture information is updated. For each of the assets, it is recommended that a 2 year cycle is established to update condition ratings and cost projections in accordance with applicable safety standards.

4.0 EXPECTED LEVELS OF SERVICE

Levels of Service are statements of performance criteria which provide an indication of the minimum acceptable standard for an asset.

Desired levels of service within the Municipality were developed in consultation with the Municipal staff and through consideration of a number of documents and industry recognized standards to meet generally accepted levels of operation and safety. The target levels of service should be reviewed on a regular basis to determine if they are appropriate, and achievable. Consideration should be given to risk, and cost in the development of target levels of service.

4.1 RISK ASSESSMENT

All assets carry a level of risk for their users. Generally when conducting a risk assessment, two key factors that come into consideration are frequency of use and cost of improvement. Acceptable levels of risk may vary depending on the frequency of use. For example, if a rarely used asset and a frequently used asset do not meet today's minimum standards, the risk is higher for the frequently used asset and therefore, rehabilitation of this asset should be prioritized ahead of a rarely used substandard asset.

It is desirable to limit risk by replacing/improving the condition of all assets to meet today's minimum standards; however, the cost of doing so is not always feasible. The Municipality attempts to achieve a manageable level of risk by completion of condition reviews and prioritization of replacement/improvement projects.

4.2 PERFORMANCE MEASUREMENT

To optimize an Asset Management Plan and ensure target levels of service are appropriate, performance measures or indicators are established and should be reviewed on a regular basis. Performance measurement of the assets will provide an indication as to whether the rehabilitation and replacement strategies are effective or whether changes need to be made. Performance benchmarks for the various asset groups are described in the following sections.

4.3 ROADS

The Municipality has established a target level of service for roads by classifying road segments based on their surface type and estimated traffic volume. The municipal road network has been evaluated by exp Services Inc. through completion of the 2013 Roads Management Plan. In this plan, all road segments have been rated using the MTO Road Appraisal forms. The rating system utilized consists of a number 1

through 10 (where 10 represents a road in excellent or new condition, and a rating of 5 or less corresponding to poor condition).

The desired level of service for Municipal roads is to maintain an average weighted condition rating of 7.0 for the entire road network. The goal of this level of service is to develop and maintain uniformity for users of the road network and to ensure that roads meet the minimum standards across the municipality.

The following strategies have been extracted from the 2013 Roads Management Plan to achieve the target, however, as a general rule, when a roadway reaches a condition rating of 5 or less it is scheduled for improvement.

1. Improvements to Poor condition roads (condition rating of 5 or less) with AADT of 50 vehicles per day or more;
2. Hard-top surfacing of loose-top rural high traffic volume roads and of loose-top roads in urban and semi-urban environments;
3. Widening of critically substandard width roads;
4. Improvements to roads with other critical needs (eg. Grade raise of road in flood plain);
5. Remaining improvements generally prioritized on the basis of condition rating;

These improvements and repairs are incorporated into the road condition inventory spreadsheets which project the condition of road segments over the next 10 years. As was outlined in the 2013 Roads Management Plan, *a roads condition will degrade with time; the rate of degradation is a function of the adequacy of the roads design, the quality of construction, the traffic volume it serves, the maintenance effort it receives and its surface type.*

The performance of the road network should be evaluated by completing condition assessments on an annual basis; the actual condition ratings collected in 2018 should be compared to the projected ratings to determine whether or not the target level of service is being achieved. Adjustments to the plan should be made as necessary either by increasing the annual budget for road improvements, or by revising the target level of service.

4.4 STREETLIGHTS

Levels of service for the street light infrastructure are defined through the use of various performance measures that have been established as part of this comprehensive asset management plan.

At this time, the Municipal street light system services the immediate areas of Noelville, Alban, Monetville, and Ouelette. The Municipality will continue to maintain the existing infrastructure and has plans to expand throughout the municipal limits to improve roadside safety and visibility.

The primary focus of the Municipality is to maintain an adequate level of service for existing system. This will be accomplished by continually monitoring the performance of the system using measures such as recording the number of light failures over a specified period of time. The desired target is to have no bulb failures – indicating that the system is operating and being maintained effectively however it is not realistic to replace infrastructure ahead of failures. The primary goal is to replace light failures in a timely manner by use of regular maintenance checks. These can be completed in conjunction with the required road patrols for the Municipality.

4.5 STRUCTURES

Bridges and structural culverts consist of many different components with varying life expectancies. The overall condition of a bridge is evaluated by completing mandatory biennial (every 2 years) OSIM inspections which provide detailed condition ratings of all the components of each structure. The condition of the various components is described by one of four ratings, being Excellent, Good, Fair or Poor.

In general, components of a bridge are recommended for rehabilitation or repair once a large percentage reaches a condition of 'Poor'. If a number of components are rated poor, the structure is typically recommended for a major rehabilitation or replacement within a specified timeframe.

The desired level of service for municipal bridges has been established through review of the current OSIM inspection data. The target level of service for Municipal bridges is to maintain all bridges such that they do not require a load limit posting, and that the structure capacity matches associated road traffic volume. This should be achieved by continuing to complete rehabilitation and repair recommendations outlined in the OSIM inspection within the suggested timeframes.

Condition ratings over the next ten (10) years have been projected by making the following assumptions;

- Excellent → Component age is less than 5 years old;
- Good → Component age is less than half of its life expectancy;
- Fair → Component age is greater than $\frac{1}{2}$ of its life expectancy;
- Poor → Component age is greater than $\frac{3}{4}$ of its life expectancy;
- Replace → Component age is beyond its life expectancy;

It should be noted that the results of the biennial inspections should be compared with the forecasted condition of the structure and should supersede the forecasted condition in all cases.

Currently there are two structural culverts within the Municipality's jurisdiction that require repairs to maintain their integrity. These repairs have been scheduled for completion in 2014. All rehabilitations and repairs shall be completed in accordance with the current Canadian Highway Bridge Design Code.

4.6 WASTEWATER COLLECTION & TREATMENT

Levels of service for the wastewater collection systems are defined through the use of various performance measures that have been established as part of this comprehensive asset management plan.

At this time, the Municipal wastewater collection system services the immediate area of Noelville. The Municipality will continue to maintain the system with the allowance of connecting to the existing system from vacant properties. Due to the low population density outside the limits of Noelville, there are no plans in the immediate future to expand the system.

The primary focus of the Municipality is to maintain an adequate level of service for existing system. This will be accomplished by continually monitoring the performance of the system using measures such as recording the number of sewage back-ups and/or pipe failures over a specified period of time. The desired target is to have no sewage back-ups or pipe failures – indicating that the system is operating and being maintained effectively.

The municipality does not currently keep records of the number of back-ups however a policy should be implemented as part of the new asset management strategy. Confirming achievement of this level of service will require the Municipality to keep records and review them on an annual basis as a minimum.

Meeting the desired level of service for wastewater collection is achieved by regular maintenance of the systems, and replacement of damaged or failing infrastructure. These repairs and replacements shall be completed in accordance with the MOE Guidelines for Sewage Works.

Currently there are no plans to replace, and/or rehabilitate sections of the wastewater collection system.

4.7 STORM SEWERS AND MUNICIPAL DRAINS

The desired level of service for storm sewers and municipal drains is to provide adequate drainage of the intended catchment areas. Achievement of the levels of service for the storm sewers and municipal drains is easily determined by reviewing the performance of the existing infrastructure (is the sewer or drain serving its intended purpose of providing adequate drainage for the catchment area).

The performance of storms sewers and municipal drains can be linked to controllable factors such as frequency of proper maintenance, and timely replacement of failing pipes; however its performance can also be linked to the frequency and severity of precipitation events.

The primary focus of the Municipality is to maintain an adequate level of service for existing systems. Meeting the desired level of service for storm sewers and municipal drains is achieved by regular maintenance of the systems, and replacement of damaged or failing infrastructure.

The storm sewer system in the limits of Noelville is primarily constructed of corrugated steel pipes. The lifespan of corrugated steel pipes is relatively short, 40 years in comparison to plastic at 75 years. As a result it is anticipated that the storm sewer system will require major repairs over the next 10-years in order to maintain the desired level of service. These repairs and replacements shall be completed in accordance with the MOE Guidelines for Sewage Works.

The primary focus of the Municipality is to maintain an adequate level of service for existing system. This will be accomplished by continually monitoring the performance of the system using measures such as recording the number of storm sewer and municipal drain back-ups throughout the year. The desired target is to have no sewage back-ups – indicating that the systems are operating and being maintained effectively. This is currently the process applied in in the Financial Information Returns for Adequacy of Stormwater System.

The municipality does not currently keep records of the number of back-ups however a policy should be implemented as part of the new asset management strategy. Confirming achievement of this level of service will require the Municipality to keep records and review them on an annual basis as a minimum.

4.8 BUILDINGS

The overall condition of a building is evaluated by completing visual inspections which provide detailed condition ratings of all the components of each structure. The condition of the various components is described by one of four rating as being Excellent, Good, Fair or Poor.

In general, components of a building are recommended for rehabilitation or repair once a large percentage reaches a condition of 'Poor'. If a number of components are rated poor, the structure is typically recommended for a major rehabilitation or replacement.

The target level of service for Municipal buildings is to maintain all buildings such that they do not restrict access or intended use. This should be achieved by continuing to complete rehabilitation and repair recommendations outlined in during inspections within the suggested timeframes.

Achievement of the levels of service for the buildings can easily be determined by reviewing the performance of the existing infrastructure, i.e. is the building serving its intended purpose without restrictions? The municipality does not currently keep records of the number of building service interruptions; however a policy should be implemented as part of the new asset management strategy. Confirming achievement of this level of service will require the Municipality to keep records and review them on an biennial basis as a minimum.

4.9 PARKS & FACILITIES

Municipal Facilities support the recreational and leisure needs of both the residents of the Municipality and the large volume of tourists and seasonal residents. The desired level of service for the municipal facilities includes having a clean, safe space for all residents to make use of.

The most appropriate method of confirming the adequacy and user satisfaction/dissatisfaction with these facilities is through regular inspections. The inspections could be sent out user surveys for the residents of the Municipality on an annual basis. Results of the surveys can be reviewed and considered for future planning purposes. Alternatively, the number of complaints received could be monitored with a target set for the maximum permissible.

Achievement of the desired levels of service for the facilities can easily be determined by reviewing the performance of the existing infrastructure, (i.e. is the facility serving its intended purpose without major interruptions in service?) The municipality does not currently keep records of the number service interruptions; however a policy should be implemented as part of the new asset management strategy. Confirming achievement of this level of service will require the Municipality to keep records and review them on an annual basis as a minimum.

4.10 VEHICLES

The overall condition of a vehicle is based on its age and useful lifespan and was described by one of five rating as being Excellent, Good, Fair, Poor or Replace as defined below.

- Excellent → Component age is less than 5 years old;
- Good → Component age is less than half of its life expectancy;
- Fair → Component age is greater than $\frac{1}{2}$ of its life expectancy;
- Poor → Component age is greater than $\frac{3}{4}$ of its life expectancy;
- Replace → Component age is beyond its life expectancy;

The target level of service for Municipal vehicles is to maintain all vehicles such that they are in good repair with few breakdowns. This should be achieved by continuing to complete regular maintenance and repair recommendations as may be outlined during regular inspections completed during maintenance servicing. All vehicles with recommended maintenance schedules as part of the manufacturer's warranty service should follow the schedules as described.

Achievement of the levels of service for vehicles can easily be determined by reviewing the performance of the existing vehicle, i.e. is the vehicle operating for its intended purpose without interruption? The municipality does not currently keep records of the amount of down time for vehicles, however a policy should be implemented to do so including recording the scheduled maintenance intervals as part of the new asset management strategy. Confirming achievement of this level of service will require the Municipality to keep records and review them on an annual basis as a minimum.

4.11 MACHINERY, EQUIPMENT, FURNITURE & FIXTURES

The overall condition of a machinery, equipment, furniture & fixture assets is based on its age and useful lifespan and was described by one of five rating as being Excellent, Good, Fair, Poor or Replace as defined below.

- Excellent → Component age is less than 5 years old;
- Good → Component age is less than half of its life expectancy;
- Fair → Component age is greater than $\frac{1}{2}$ of its life expectancy;
- Poor → Component age is greater than $\frac{3}{4}$ of its life expectancy;
- Replace → Component age is beyond its life expectancy;

The target level of service for these assets is to maintain all assets such that they are in good repair with minimal breakdowns. This should be achieved by continuing to complete regular maintenance and repair recommendations as may be outlined during regular inspections completed during maintenance servicing. All assets with recommended maintenance schedules as part of the manufacturer's warranty service should follow the schedules as described.

Achievement of the levels of service for these assets can be determined by reviewing the performance of the asset, i.e. is the asset operating for its intended purpose without interruption? The municipality does not currently keep records of the amount of down time for these assets, however a policy should be implemented to do so including recording the scheduled maintenance intervals as part of the new asset management strategy. Confirming achievement of this level of service will require the Municipality to keep records and review them on an annual basis as a minimum.

5.0 ASSET MANAGEMENT STRATEGY

5.1 PLANNED ACTIONS & OPTION ANALYSIS

As referenced in the Guide, *“the asset strategy is the set of planned actions that will enable the assets to provide the desired levels of service in a sustainable way.”* All assets have a limited life expectancy and to some degree the rate of deterioration can be estimated. A decision made at any point in time in the lifecycle of an asset has an effect on the remaining life and may have operational implications and related costs.

The following sections will summarize the planned actions and option analysis for each asset type to maximize lifespan and minimize costs, in a sustainable way.

5.1.1 ROADS

Roads require regular roadside maintenance activities such as ditching and brushing to ensure adequate drainage of the road subgrade. Poor subgrade drainage will lead to premature deterioration of the road base which will directly impact the deterioration of the surface.

The following maintenance practices should be employed on a regular basis to help prolong the lifespan of roadway assets. The quantities provided are intended to be used as guideline:

- Crack Sealing of HCB Roads;
- Right-of-way brushing;
- 20000m Ditch Cleanout annually;
- Culvert cleanout/flushing;

The completion of capital projects will continue to follow the existing Roads Management Plan.

Integrated infrastructure planning was considered, as reflected in the Capital Asset Summary. The condition of the infrastructure beneath the road surface (sewers and structural culverts) was reviewed to ensure that a road was not resurfaced, without prior completion of any required improvements to the corresponding subsurface infrastructure.

5.1.2 STREETLIGHTS

Street light infrastructure is a relatively low maintenance asset and as a result it does not require significant effort from Municipal staff. It is recommended that street light infrastructure is reviewed in conjunction with the completion of municipal road patrols. Any deficiencies can be identified and typically can be rectified by the Municipality's own forces. In addition, the following maintenance practices should be employed on a regular basis to help prolong the lifespan of the assets.

- Repair damages to anchors and guy wires;
- Replace burnt out bulbs;

Replacement activities are generally considered once maintenance, renewal and rehabilitation activities are no longer feasible or economical to undertake. Capital projects should be incorporated with major road work where possible.

5.1.3 STRUCTURES

As with all assets, bridges and structural culverts require regular maintenance activities such as sweeping and pressure washing to clear winter sand buildup, painting, as well as debris removal to ensure proper flow hydraulics to minimize erosion and scouring potential.

Renewal and rehabilitation activities of bridge and structural culverts are carried out in accordance with the OSIM Inspections Forms, completed by or under the direction of a Professional Engineer on a biennial basis. These activities are typically evaluated by the Professional Engineer at the time to ensure the costs are economical.

In addition, the following maintenance practices should be employed on a regular basis to help prolong the lifespan of structure assets.

- Annual spring bridge cleaning (deck, deck drains, curbs, bearings);
- Monthly removal of debris from waterway;
- Removal of corrosion from exposed steel surfaces;
- Priming/painting/coating of steel;

Replacement activities are generally considered once maintenance, renewal and rehabilitation activities are no longer feasible or economical to undertake. As can be seen in the Capital Asset Summary – when replacement is considered, the replacement asset does not need to be identical to the existing asset,

such as replacing a single lane concrete bridge with a double lane structural culvert. An increase in level of service should always be considered at the time of replacement.

In addition, integrated infrastructure planning was considered, as reflected in the Capital Asset Summary. The rehabilitation of the two culverts on Montee Guerin Road has been scheduled at the same time as the resurfacing. The condition of the infrastructure beneath the road surface was reviewed to ensure that a road was not resurfaced, without prior completion of the culvert rehabilitations.

5.1.4 WASTEWATER COLLECTION & TREATMENT

Sanitary sewers require regular maintenance activities such as frequent flushing to ensure unimpeded flows, reducing the likelihood of backups and failures. Rehabilitation options for sanitary sewers are limited to relining. On occasion, sewer rehabilitation can be more cost effective than a full replacement however this strategy must be reviewed on a case by case basis. The strategy employed in this plan takes into account the full cost of replacement.

In addition, the following maintenance practices should be employed on a regular basis to help prolong the lifespan of buried assets.

- Suggested annual flushing of 500 metres of sanitary sewer mains;
- Suggested annual camera inspection of 500 metres of sanitary sewer mains;

Camera inspection of the sewers would assist in accurately detailing the condition of the asset and subsequent schedule for replacement. Integrated infrastructure planning was also considered, as reflected in the Capital Asset Summary with the subsurface assets being scheduled for replacement prior to road resurfacing. Completing the sewer replacement concurrently with the storm sewer, water main, and road resurfacing would result in overall costs being less than replacing separately.

5.1.5 STORM SEWER & MUNICIPAL DRAINS

Storm sewers, like sanitary sewers require regular maintenance activities such as frequent flushing to ensure unimpeded flows, reducing the likelihood of backups and failures. Rehabilitation options for storm sewers are limited to relining. On occasion, sewer rehabilitation can be more cost effective than a full replacement however this strategy must be reviewed on a case by case basis. The strategy employed in this plan takes into account the full cost of replacement.

In addition, the following maintenance practices should be employed on a regular basis to help prolong the lifespan of buried assets.

- Suggested annual flushing of 240 metres of storm sewer mains and leads;
- Suggested annual cleaning of associated storm sewer structures, catch basins, ditch inlets, and manholes;
- Suggested annual camera inspection of 240 metres of storm sewer mains and leads;

Camera inspection of the storm sewers would assist in accurately detailing the condition of the asset and subsequent schedule for replacement. Integrated infrastructure planning was also considered, as reflected in the Capital Asset Summary with the subsurface assets being scheduled for replacement prior to road resurfacing. Completing the storm sewer replacement concurrently with the sanitary sewer and road resurfacing would result in overall costs being less than replacing separately.

Maintenance and renewal activities for the municipal drains are limited to brushing, trimming, ditching and beaver dam removal to ensure unimpeded operation of the asset. Replacement of the asset is not considered due to the inherent nature of a drain, however rehabilitation activities could include infilling of over-excavated areas should such a condition be encountered. As seen in the Capital Asset Summary, the municipal drain assets are scheduled for a significant amount of maintenance activities over the course of this plan.

5.1.6 BUILDINGS

As with all assets, buildings require regular maintenance activities such as cleaning and landscaping to maintain proper functioning of the asset. Renewal and rehabilitation activities of buildings should be carried out in accordance with the inspection recommendations. These activities were evaluated against options and longevity such as brick facing against vinyl siding, or steel roofing against shingles.

Replacement activities are generally considered once maintenance, renewal and rehabilitation activities are no longer feasible or economical to undertake. As can be seen in the Capital Asset Summary, when replacement is considered, the replacement asset does not need to be identical to the existing asset, such as replacing windows and doors with more energy efficient ones. Increase in level of service should always be considered at time of replacement.

In addition, integrated infrastructure planning was considered, as reflected in the Capital Asset Summary. The replacement of windows and doors was scheduled for the same time, or in advance of

the siding replacement which would result in cost savings and greater flexibility in the assets selected for replacement.

5.1.7 PARKS & FACILITIES

Parks and facilities, like all other assets require regular maintenance activities such as trimming, cleaning and landscaping to maintain proper functioning of the asset. Renewal and rehabilitation activities of parks and facilities should be carried out in accordance with the inspection recommendations. These activities were evaluated against options and longevity.

Replacement activities are generally considered once maintenance, renewal and rehabilitation activities are no longer feasible or economical to undertake. As can be seen the Capital Asset Summary, when replacement is considered, the replacement asset does not need to be identical to the existing asset, such as replacing lighting with more energy efficient ones. Increase in serviceability should always be considered at time of replacement.

In addition, integrated infrastructure planning was considered, as reflected in the Capital Asset Summary. The replacement of an entire light, from service to pole to lamp was considered as one undertaking to gain magnitude of scale in the pricing as opposed to replacing the components separately. Scheduling component replacement concurrently would result in cost savings and greater flexibility in the assets selected for replacement.

5.1.8 VEHICLES

Vehicles require regular maintenance activities such as engine, transmission and break system servicing in accordance with the manufactures operating manuals to minimize potential for breakdowns. In addition, failing to complete these maintenance intervals could void the manufacturer warranty in the event there is a concern.

Major rehabilitation of most vehicles will not significantly extend the useful life. Due to the nature of the Municipal operations associated with the vehicles, the asset is treated similar to a rolling stock that is disposed of at the end of its useful lifecycle and replaced with a new asset. The replacement asset selected would likely be an upgrade to disposed asset as over the course of the disposed assets lifecycle, improvements in technology and efficiency would have been made.

5.1.9 MACHINERY, EQUIPMENT, FURNITURE & FIXTURES

Machinery, equipment, furniture and fixture assets also require regular maintenance activities such as servicing in accordance with the manufactures operating manuals to minimize potential for breakdowns. In addition, failing to complete these maintenance intervals could void the manufacturer warranty in the event there is a concern.

Major rehabilitation of most machinery, equipment, furniture and fixtures will not significantly extend the useful life. Due to the nature of the Municipal operations associated with these assets, the asset is treated similar to a rolling stock that is disposed of at the end of its useful lifecycle and replaced with a new asset. The replacement asset selected would likely be an upgrade to disposed asset as over the course of the disposed assets lifecycle, improvements in technology and efficiency would have been made.

5.2 RISK ASSESSMENT

All assets carry a level of risk for the Municipality. The options above were not only evaluated based on the lifecycle costs and benefits, but also on the potential risks. Due to the uncertainty in assigning a reasonable estimate of probability and cost associated with a risk event, a qualitative approach was applied to the management plan of the assets.

The scheduling of asset improvements took into consideration the risk associated with the volume of use that the assets received. Acceptable levels of risk will vary depending on their frequency of use.

5.3 PROCUREMENT METHODS

The Municipality currently has procurement by-laws in place for use when considering various projects; however, additional investigations and discussions could be undertaken to pool resources with neighboring municipalities. The creation of an amalgamated tender would allow for a higher volume of service by a supplier, which would reduce the overall cost per municipality. This approach would be applicable to road resurfacing projects which are short duration and easily divisible by municipality.

5.4 SCHEDULE OF PRIORITIES

This Asset Management Plan identifies the schedule of projects based on asset type for the next ten years. Options were considered for each type of asset as outlined above, with the options being evaluated for risk and lifecycle costs.

The following is a schedule of priorities by asset type as presented in the Capital Asset Summary.

5.4.1 ROADS

<u>Asset ID</u>	<u>Asset Name</u>
FR-RD-6-008	Montee Guerin Road
FR-RD-6-007	Houle Road
FR-RD-6-008	Seguin Road
FR-RD-6-008	Viau Road
FR-RD-6-008	Pitre Road

** Note - These roads are considered as integrated assets with the structural culverts as part of the *Chartrand Corner Road Improvement Project*.

5.4.2 STREETLIGHTS

<u>Asset ID</u>	<u>Asset Name</u>
FR-SL-156	Labelle & Hwy 535
FR-SL-157	Harmony Point & Hwy 64
FR-SL-158	Sucker Creek & Hwy 64
FR-SL-159	Nattam & Hwy 64
FR-SL-160	Weeks & Hwy 64
FR-SL-161	Bouchard & Hwy 64
FR-SL-162	Shuswap & Hwy 64
FR-SL-163	Thackery & Hwy 64

5.4.3 STRUCTURES

<u>Asset ID</u>	<u>Asset Name</u>
FR-CVT-101	Montee Guerin Culvert No. 1
FR-CVT-101	Montee Guerin Culvert No. 1

** Note - These structural culverts are considered as integrated assets with the road surfacing as part of the *Chartrand Corner Road Improvement Project*.

5.4.4 SANITARY SEWERS

The entirety of the Noelville sanitary sewer system is approaching the end of its useful lifespan according to age, which is 2027, or four years beyond the current 10 year plan.

5.4.5 WASTEWATER COLLECTION & TREATMENT

<u>Asset ID</u>	<u>Asset Name</u>
FR-FAC-004A	Sewage Lagoon Expansion

5.4.6 STORM SEWERS

The entirety of the Noelville storm sewer systems are approaching the end of their useful lifespan according to age, with scheduled replacement beginning in 2018. As the 2018 year nears and more data is available on the condition rating (through camera inspections policies), the replacement could be delayed to correspond with the sanitary sewers and road surface.

5.4.7 MUNICIPAL DRAINS

<u>Asset ID</u>	<u>Asset Name</u>
FR-MD-003	Dupuis Drain – Drain A
FR-MD-004	Dupuis Drain – Drain B
FR-MD-005	Dupuis Drain – Drain C
FR-MD-006	Dupuis Drain – Drain D
FR-MD-007	Dupuis Drain – Drain E
FR-MD-008	Dupuis Drain – Drain F
FR-MD-009	Dupuis Drain – Drain G

5.4.8 BUILDINGS

<u>Asset ID</u>	<u>Asset Name</u>
FR-BLD-004	Municipal Complex (2014)
FR-BLD-005	37 St. Antoine
FR-BLD-006	Noelville Fire Hall
FR-BLD-003	Noelville Arena (2015)
FR-BLD-009	Public Works Quonset

5.4.9 PARKS & FACILITIES

<u>Asset ID</u>	<u>Asset Name</u>
FR-FAC-002	Sucker Creek Wharf
FR-PRK-004	Noelville Lower Field
FR-PRK-003	Noelville Upper Field
FR-PRK-001	Alban Ball Field

5.4.10 VEHICLES

All but one of the Municipality's vehicles is scheduled for replacement over the next 10 years to maintain lifespan level of service, with the top priority asset as scheduled for 2014 being the FR-VEH-008 Rescue Van 1106.

5.4.11 MACHINERY, EQUIPMENT, FURNITURE & FIXTURES

This category of asset types encompasses a variety of assets that have varying priorities based on condition, use and lifecycle analysis. Please refer to the listing as presented in the Capital Asset Summary for complete details.

6.0 FINANCING STRATEGY

Establishment of a financial plan is critical to the successful implementation of an asset management plan. The following section will summarize the Municipal expenditures over the past three years and will detail the financial commitment required in order to keep the Municipal infrastructure at acceptable levels of service.

In conjunction with developing the Asset Management Plan, the replacement cost of all the Municipality's assets was estimated. Replacement costs for linear assets were generated through use of local competitive bid construction costs for projects of similar scope and size. Replacement costs for non-linear assets such as buildings, bridges, parks, vehicles, and equipment were estimated using recent purchase prices and construction costs for major components (buildings and bridges).

As presented previously (Figure 2), the total replacement cost of the Municipality's assets was calculated to be approximately 101.5 million dollars (2013 Dollars). The Municipality is not required to budget for the full replacement value of all its assets, as portions of assets only require an initial investment followed by further re-investment to maintain acceptable levels of service.

It was also calculated that the annual reinvestment should be an average of \$ 2.90 million per year into various assets as they reach their maximum potential useful lives, in order to sustain existing services at an appropriate level of service. It is recommended that an additional \$ 2.18 million per year be put aside into a reserve fund for long term planning purposes, beyond the 10-year plan.

Historically, the Municipality has been investing approximately \$ 1.24 million per year. The table presented below describes the budgets over the past three years and details the source of the monies allocated to each.

Source	Reporting Year				
	2010	2011	2012	Now	Projected
Tax Base	\$ 827,532.00	\$ 578,516.00	\$ 517,327.00	\$ 405,870.00	\$ 927,277.00
Government Grants	\$ 667,863.00	\$ 216,588.00	\$ 163,130.00	\$ 600,130.00	\$ 308,616.00
Reserves	-	-	-	-	
User Fee's	\$ 299,051.00	\$ 366,422.00	\$ 9,793.00	-	
Loans & Debentures	-	\$ 261,900.00	\$ 122,358.00	-	
TOTAL	\$ 1,794,446.00	\$ 1,171,677.00	\$ 741,562.00	\$ 1,006,000.00	\$ 1,235,893.00

Using the historic data as a base model for future financial planning purposes, the table below outlines a forecast of the required annual expenditures into municipal infrastructure for the 10-year period of 2014 through 2023 as well as the anticipated shortfall in required spending for all infrastructures included in this plan.

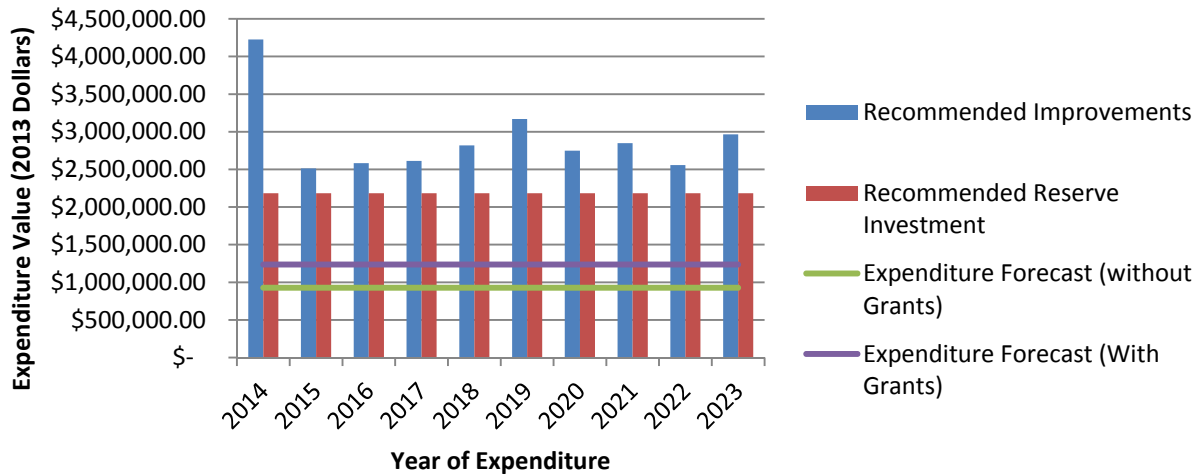


Figure 29 - Municipal Assets – 10 Year Capital Expenditures & Reserve Contributions

The figure above can be described as:

- *Expenditure Forecast Without Grants (2014) → \$ 927,277.00 / year*
 Projection of the average spent over the past three years, without accounting for government grants.
- *Expenditure Forecast With Grants (2014) → \$ 1.24 Million / year*
 Projection of the average spent over the past three years, including government grants.
- *Total Recommended Investment (2014) → \$ 6.41 Million / year*
- *Expected Shortfall (2014) → \$ 5.17 Million / year*

The intention of this section of the report is to highlight the recommended expenditures, as well as suggested methods of lessening the shortfall. Suggested ways of decreasing the magnitude of the annual shortfall are listed below, however whether they are implemented or not is a decision to be made by Council.

- Increasing municipal taxes;
- Implementing or increasing user fees;
- Financing projects; or
- Accepting decreased levels of service;

The expected funding shortfall is quite significant; however, the magnitude of this shortfall is exaggerated by the inclusion of the recommended reserve savings. Saving into a reserve fund is one method of financial planning however many Municipality's take the strategy of debentures and financing projects over their useful life. The actual finance strategy will not only vary from year to year but may vary from one asset project to another.

It should be noted that the values presented in this section of the report does not account for inflation rate over the next 10 years. The following sections present a more detailed breakdown of the required reinvestment for each of the asset groups included in this comprehensive asset management plan.

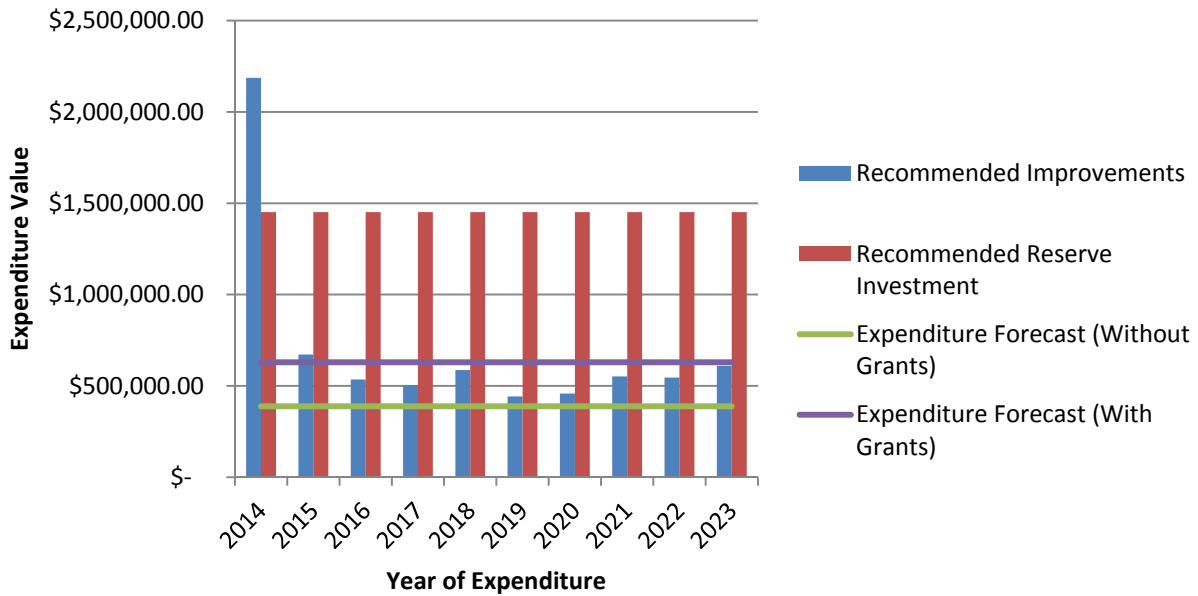
6.1 ROADS

Reinvestment in the municipality's roads is a required expenditure to maintain an acceptable average condition rating for the entire road network. Required reinvestment levels were calculated to be an average of \$ 709,000.00 per year to resurface and reconstruct road infrastructure. It is recommended that an additional \$ 1.45 million per year be put aside into a reserve fund for long term planning purposes, beyond the 10-year plan.

Over the past three years, the Municipality has invested approximately \$ 1.89 million into capital roads projects. The table presented below describes the budgets over the past three years and details the source of the monies allocated to each.

Source	2010	2011	2012	Now	Future
	Municipal Funds	\$ 241,067.00	\$ 59,113.00	\$ 414,078.00	\$ 155,870.00
Grants	\$ 667,863.00	\$ 163,130.00	\$ 163,130.00	\$ 450,130.00	\$ 240,796.00
User Fee's	\$ 147,142.00	\$ 21,699.00	\$ 9,793.00	-	-
Debentures	-	-	-	-	-
TOTAL	\$ 1,056,072.00	\$ 243,942.00	\$ 587,001.00	\$606,000.00	\$ 629,005.00

Using the historic data as a base model for future financial planning purposes, the table below outlines a forecast of the required annual expenditures into road infrastructure for the 10-year period of 2014 through 2023 as well as the anticipated shortfall in required spending for this asset type.



NOTE: *2014 includes 1.26million allocated to the Chartrand Corner Road Improvement Project.

Figure 30 – Road Infrastructure 10 Year Capital Expenditures

The figure above can be described as:

- *Expenditure Forecast Without Grants (2014) → \$ 388,209.00/year*
 Projection of the average spent over the past three years, without accounting for government grants.
- *Expenditure Forecast With Grants (2014) → \$ 629,005.00 Million/year*
 Projection of the average spent over the past three years, including government grants.
- Total Recommended Investment (2014) → \$ 2.16 Million/year
- Expected Shortfall (2014) → \$ 1.53 Million/year

A commitment by the Municipality to contribute the required reinvestment into road infrastructure projects will ensure that the road network remains at the established level of service. Failure to make an annual contribution will result in the road network quickly deteriorating below the acceptable level of service. In the unlikely event that the Municipality contributed no funds towards roadway capital projects, it would take only five years for the condition of the road network to deteriorate to an average condition of less than 5.0 (poor).

6.2 STREETLIGHTS

Reinvestment in the municipality’s street lighting is a required expenditure to maintain an acceptable level of service. Required reinvestment levels were calculated to be an average of \$ 2,800.00 per year to repair and replace streetlight infrastructure. It is recommended that an additional \$ 17,100.00 per year be put aside into a reserve fund for long term planning purposes, beyond the 10-year plan.

Over the past three years, the Municipality has invested \$ 20,847.00 into capital projects for the renewal and replacement of street light infrastructure. The table presented below describes the budgets over the past three years and details the source of the monies allocated to each.

Source					
	2010	2011	2012	Now	Future
Municipal Funds	-	\$ 19,287.00	\$ 1,560.00	\$ 30,000.00	\$ 6,949.00
Grants	-	-	-	-	-
User Fee’s	-	-	-	-	-
Debentures	-	-	-	-	-
TOTAL	-	\$ 19,287.00	\$ 1,560.00	\$ 30,000.00	\$ 6,949.00

Using the historic data as a base model for future financial planning purposes, the table below outlines a forecast of the required annual expenditures into streetlight infrastructure for the 10-year period of 2014 through 2023 as well as the anticipated shortfall in required spending for this asset type.

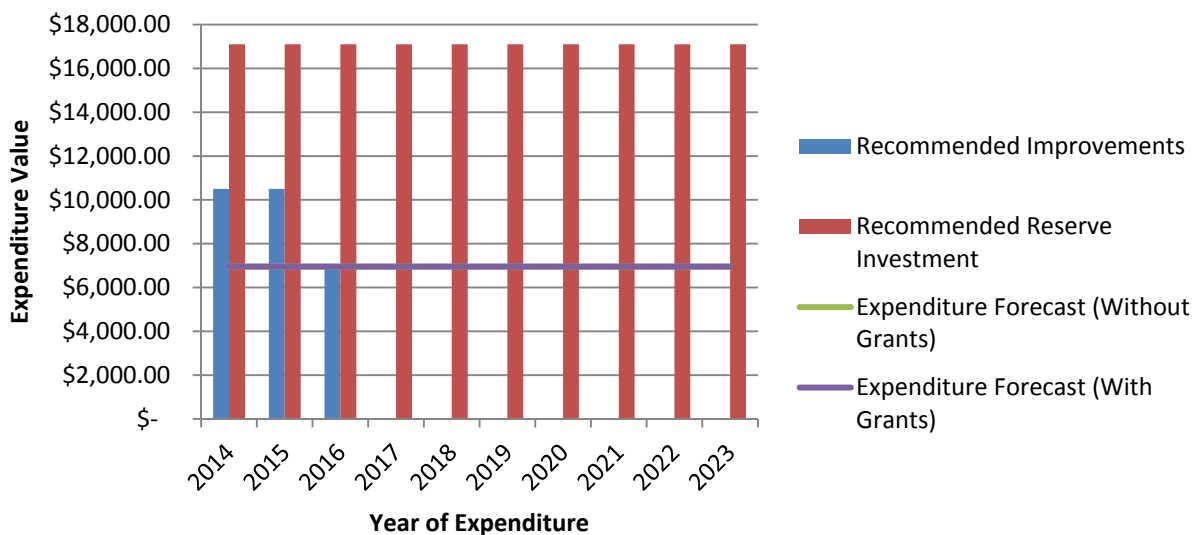


Figure 31 – Streetlight Infrastructure 10 Year Capital Expenditures

The figure above can be described as:

- *Expenditure Forecast Without Grants (2014) → \$ 6,949.00 / year*
 Projection of the average spent over the past three years, without accounting for government grants.
- *Expenditure Forecast With Grants (2014) → \$ 6,949.00 / year*
 Projection of the average spent over the past three years, including government grants.
- Total Recommended Investment (2014) → \$ 19,900.00 / year
- Expected Shortfall (2014) → \$ 12,951.00 / year

A commitment by the Municipality to contribute the required reinvestment into street light projects will ensure that the infrastructure remains at the established level of service.

6.3 STRUCTURES

Reinvestment in the municipality's bridges and culverts is a required expenditure to maintain their structural integrity for the future. It was determined that two large capital projects need to take place over the next ten years to replace bridge and culvert assets reach their maximum potential useful lives. Required reinvestment levels for scheduled improvements were calculated to be an average of \$ 8,000.00 per year. It is recommended that an additional \$ 22,825.00 per year be put aside into a reserve fund for long term planning purposes, beyond the 10-year plan.

Over the past three years, the Municipality has invested \$ 163,364.00 into capital projects for the renewal and replacement of bridge and culvert infrastructure. The table below details the source and value of all funds contributing to these capital projects.

Source					
	2010	2011	2012	Now	Future
Municipal Funds	-	\$ 163,364.00	-	-	-
Grants	-	-	-	-	-
User Fee's	-	-	-	-	-
Debentures	-	-	-	-	-
TOTAL	-	\$ 163,364.00	-	-	-

Using the historic data as a base model for future financial planning purposes, the table below outlines a forecast of the required annual expenditures into bridge and culvert infrastructure for the 10-year period of 2014 through 2023 as well as the anticipated shortfall in required spending for this asset type.

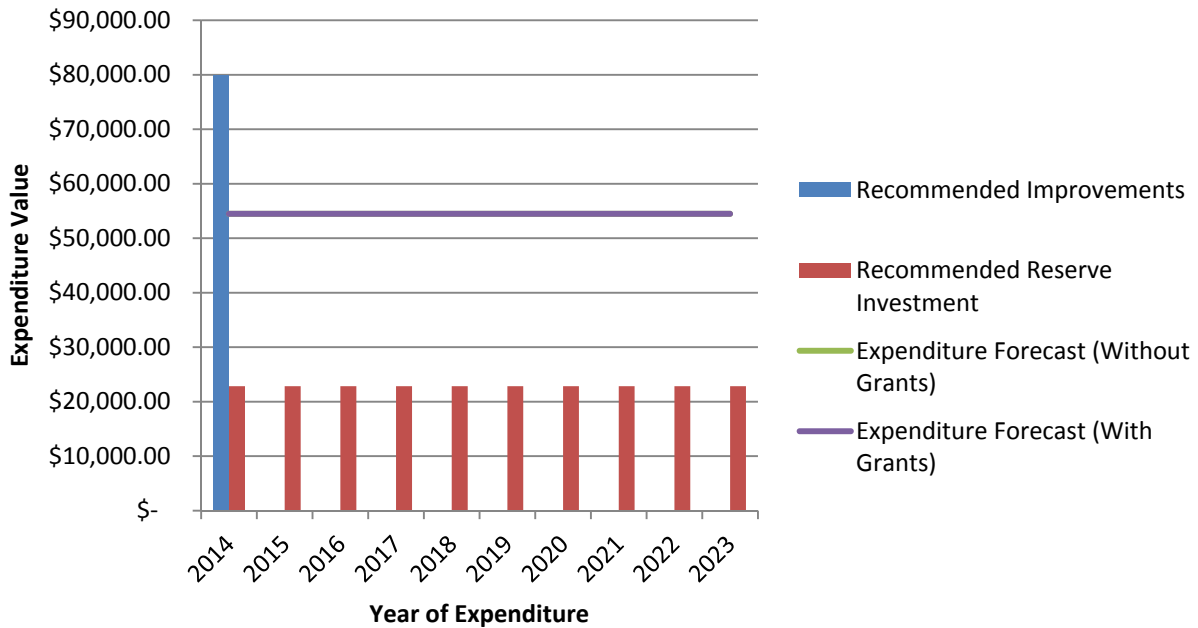


Figure 32 – Bridge and Culvert Infrastructure – 10 Year Capital Expenditures

The figure above can be described as:

- *Expenditure Forecast Without Grants (2014) → \$ 54,455.00 / year*
 Projection of the average spent over the past three years, without accounting for government grants.
- *Expenditure Forecast With Grants (2014) → \$ 54,455.00 / year*
 Projection of the average spent over the past three years, including government grants.
- Total Recommended Investment (2014) → \$ 30,825.00 / year
- No Expected Shortfall (2014)

6.4 WASTEWATER COLLECTION & TREATMENT

Reinvestment in the municipality’s sewage collection and treatment system is a required expenditure to maintain the services for connected properties. Required reinvestment levels for scheduled improvements were calculated to be an average of \$ 75,000.00 per year. It is recommended that an additional \$ 124,020.12 per year be put aside into a reserve fund for long term planning purposes, beyond the 10-year plan.

Over the past three years, the Municipality has invested approximately \$ 16,824.00 into capital wastewater infrastructure projects. The table below details the source and value of all funds contributing to these capital projects.

Source					
	2010	2011	2012	Now	Future
Municipal Funds	\$ 16,823.00	-	-	-	-
Grants	-	-	-	-	-
User Fee's	-	-	-	-	-
Debentures	-	-	-	-	-
TOTAL	\$ 16,823.00	-	-	-	-

Using the historic data as a base model for future financial planning purposes, the table below outlines a forecast of the required annual expenditures into wastewater collection and treatment infrastructure for the 10-year period of 2014 through 2023 as well as the anticipated shortfall in required spending for this asset type.

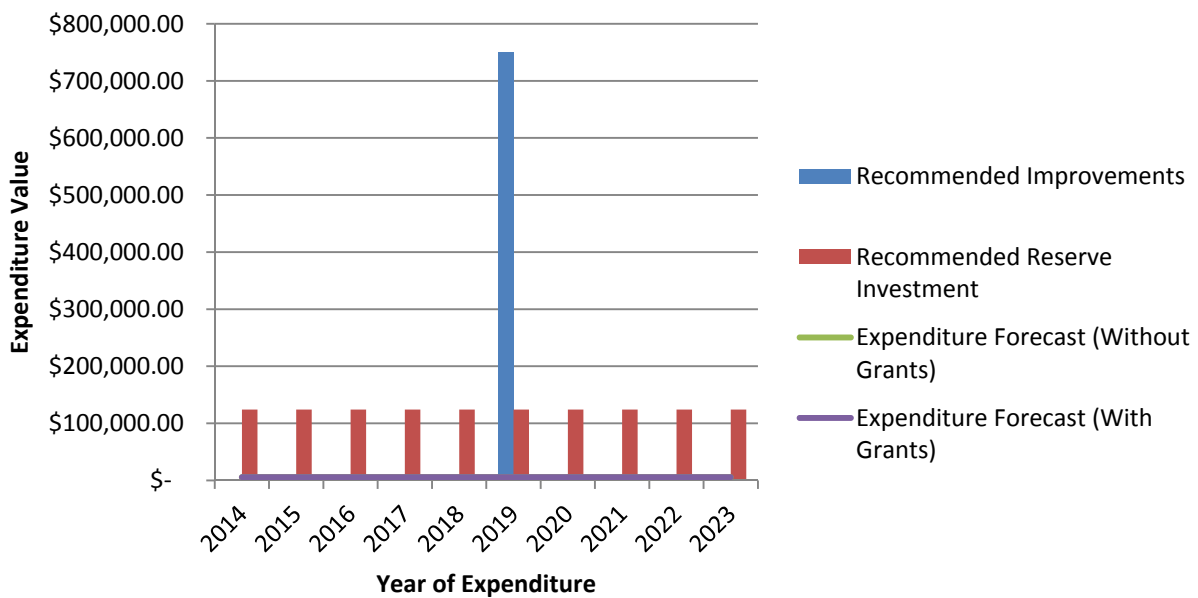


Figure 33 – Wastewater Infrastructure – 10 Year Capital Expenditures

The figure above can be described as:

- *Expenditure Forecast Without Grants (2014) → \$ 5,608.00/year*
 Projection of the average spent over the past three years, without accounting for government grants.
- *Expenditure Forecast With Grants (2014) → \$ 5,608.00/year*
 Projection of the average spent over the past three years, including government grants.
- Total Recommended Investment (2014) → \$ 199,020.12 / year
- Expected Shortfall (2014) → \$ 193,412.12 / year

6.5 STORM SEWERS

Reinvestment in the municipality’s storm sewer infrastructure is a required expenditure to maintain operation integrity for the future. It was determined that a large portion of the storm sewer system will require replacement in the next 10 years. Required reinvestment levels for scheduled improvements were calculated to be an average of \$ 104,532.00 per year. It is recommended that an additional \$ 26,133.00 per year be put aside into a reserve fund for long term planning purposes, beyond the 10-year plan.

Over the past three years, the Municipality has not invested into capital storm sewer infrastructure projects. The table below details the source and value of all funds contributing to these capital projects.

Source					
	2010	2011	2012	Now	Future
Municipal Funds	-	-	-	-	-
Grants	-	-	-	-	-
User Fee’s	-	-	-	-	-
Debentures	-	-	-	-	-
TOTAL	-	-	-	-	-

Using the historic data as a base model for future financial planning purposes, the table below outlines a forecast of the required annual expenditures into storm water collection infrastructure for the 10-year period of 2014 through 2023 as well as the anticipated shortfall in required spending for this asset type.

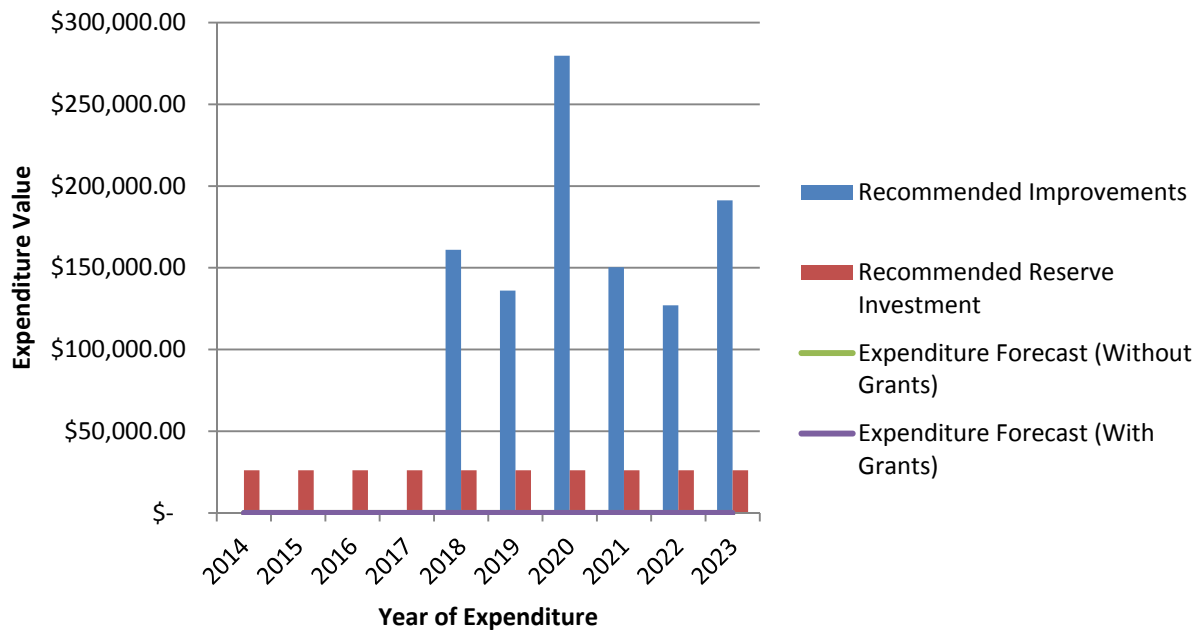


Figure 34 – Storm Sewer Infrastructure – 10 Year Capital Expenditures

The figure above can be described as:

- *Expenditure Forecast Without Grants (2014) → \$ 0.00 /year*
 Projection of the average spent over the past three years, without accounting for government grants.
- *Expenditure Forecast With Grants (2014) → \$ 0.00 /year*
 Projection of the average spent over the past three years, including government grants.
- Total Recommended Investment (2014) → \$ 130,665.00 /year
- Expected Shortfall (2014) → \$ 130,665.00 /year

6.6 MUNICIPAL DRAINS

Reinvestment in the municipal drainage systems is a required expenditure to maintain the drainage capacity of Municipal drains in a state that sufficiently provides drainage for connected properties. In a recent study completed by K. Smart Associates, it was calculated that the Municipality has a large maintenance backlogs on existing drains. In order to catch up on the backlog of maintenance requirements, the Municipality should be reinvesting just over an average of \$ 68,378 per year to rehabilitate, repair and replace storm sewer infrastructure. It is recommended that an additional \$ 27,351.34 per year be put aside into a reserve fund for long term planning purposes, beyond the 10-year plan.

Over the past three years, the Municipality has not invested into capital projects related to municipal drain infrastructure. The table below details the source of all funds contributing to these projects.

Source					
	2010	2011	2012	Now	Future
Municipal Funds	-	-	-	-	-
Grants	-	-	-	-	-
User Fee's	-	-	-	-	-
Debentures	-	-	-	-	-
TOTAL	-	-	-	-	-

Using the historic data as a base model for future financial planning purposes, the table below outlines a forecast of the required annual expenditures into Municipal Drain infrastructure for the 10-year period of 2014 through 2023 as well as the anticipated shortfall in required spending for this asset type.

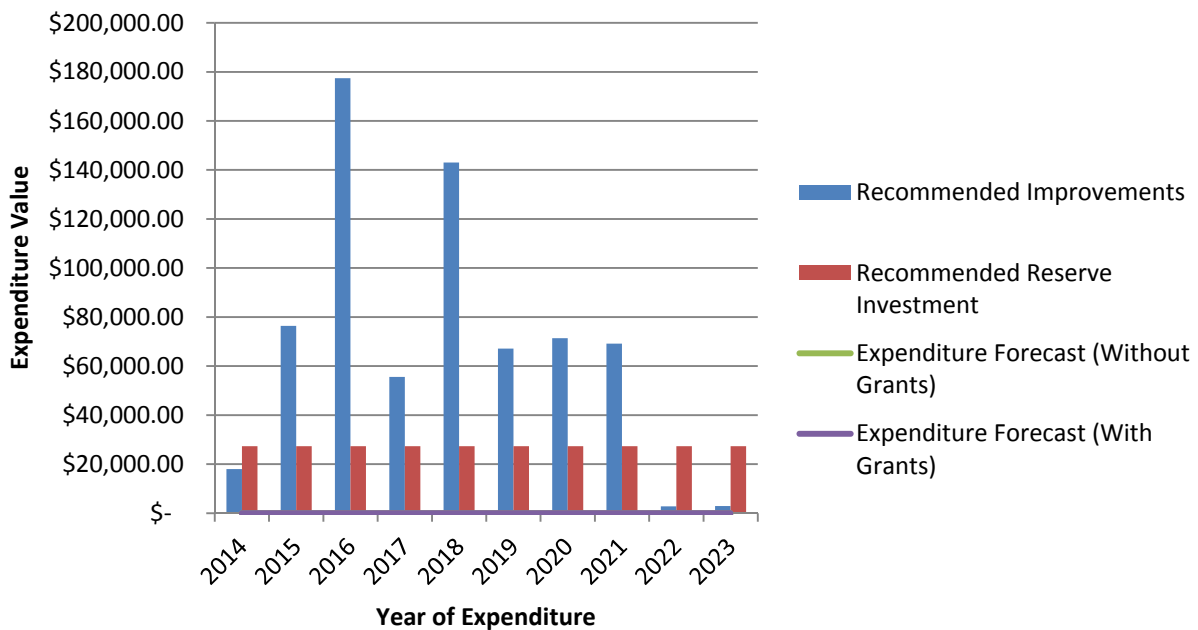


Figure 35 – Municipal Drain Infrastructure – 10 Year Capital Expenditures

The figure above can be described as:

- *Expenditure Forecast Without Grants (2014) → \$ 0.00 /year*
 Projection of the average spent over the past three years, without accounting for government grants.
- *Expenditure Forecast With Grants (2014) → \$ 0.00 /year*
 Projection of the average spent over the past three years, including government grants.
- Total Recommended Investment (2014) → \$ 95,749.00 /year
- Expected Shortfall (2014) → \$ 95,749.00 /year

6.7 BUILDINGS

Reinvestment in the municipality’s buildings is a required expenditure to maintain their structural integrity for the future as well as ensure the comfort of their users. Building assets support services such as recreation and culture, protection (fire) and also support many administrative functions that are required to provide all services the Municipality provides. It was calculated that the Municipality should be reinvesting an average of \$ 138,904.00 per year to rehabilitate, repair, and replace various building components. It is recommended that an additional \$ 204,261.52 per year be put aside into a reserve fund for long term planning purposes, beyond the 10-year plan.

Over the past three years, the Municipality has invested \$ 240,594.00 into capital projects related to building infrastructure. The table below details the source of all funds contributing to these projects.

Source					
	2010	2011	2012	Now	Future
Municipal Funds	\$ 111,453.00	\$ 125,517.00-	\$ 3,623.00	\$ 150,000.00	\$ 80,198.00
Grants	-	-	-	-	-
User Fee’s	-	-	-	-	-
Debentures	-	-	-	-	-
TOTAL	\$ 111,453.00	\$ 125,517.00	\$ 3,623.00	\$ 150,000.00	\$ 80,198.00

Using the historic data as a base model for future financial planning purposes, the table below outlines a forecast of the required annual expenditures into Building infrastructure for the 10-year period of 2014 through 2023 as well as the anticipated shortfall in required spending for this asset type.

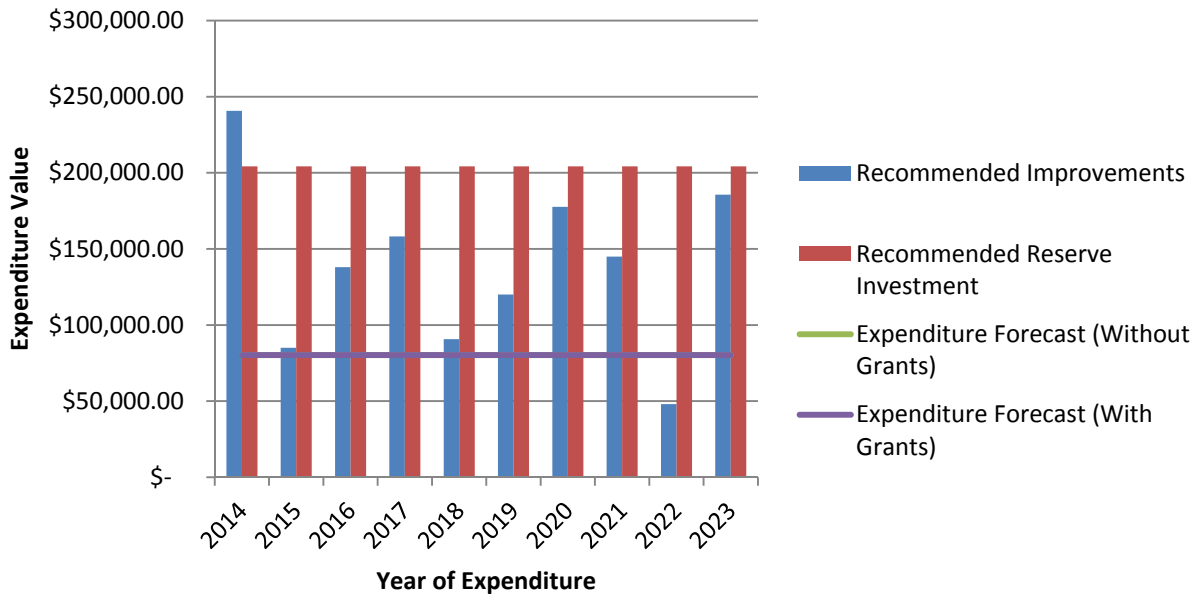


Figure 36 – Building Infrastructure 10 Year Capital Expenditures

The figure above can be described as:

- *Expenditure Forecast Without Grants (2014) → \$ 80,198.00 /year*
 Projection of the average spent over the past three years, without accounting for government grants.
- *Expenditure Forecast With Grants (2014) → \$ 80,198.00 /year*
 Projection of the average spent over the past three years, including government grants.
- Total Recommended Investment (2014) → \$ 445,001.00 /year
- Expected Shortfall (2014) → \$ 364,803.00 /year

6.8 PARKS AND FACILITIES

Reinvestment in the municipality's parks and facilities is a required expenditure to maintain appropriate service levels for users. It was calculated that the Municipality should be reinvesting an average of \$20,500 per year to renew, rehabilitate, repair, and replace various parks and facilities. It is recommended that an additional \$ 70,400.00 per year be put aside into a reserve fund for long term planning purposes, beyond the 10-year plan.

Over the past three years, the Municipality has invested \$ 648,369.00 into capital projects related to parks and facility infrastructure. The table below details the source of all funds contributing to these projects. It should be noted that the historic investment numbers are skewed by a large capital investment made towards the Municipal Landfill.

Source					
	2010	2011	2012	Now	Future
Municipal Funds	\$ 72,036.00 (\$ 231,118.00)	\$ 9,163.00 (\$ 9,163.00)	-	\$ 15,000.00 (\$ 15,000.00)	\$ 27,066.00 (\$ 216,123.00)
Grants	-	-	-	\$ 0.00 (\$ 150,000.00)	\$ 10,481.00 (\$ 50,000.00)
User Fee's	\$ 0.00 (\$ 151,909.00)	\$ 0.00 (\$ 344,723.00)	-	-	
Debentures	-	\$ 0.00 (\$ 230,460.00)	\$ 0.00 (\$ 122,358.00)	-	
TOTAL	\$ 72,036.00 (\$ 383,027.00)	\$ 9,163.00 (\$ 575,183.00)	\$ 0.00 (\$ 122,358.00)	\$ 15,000.00 (\$ 165,000.00)	\$ 37,547.00 (\$ 266,123.00)

- \$ XX,XXX.XX excludes Landfill (\$ XX,XXX.XX includes Landfill)

Using the historic data as a base model for future financial planning purposes, the table below outlines a forecast of the required annual expenditures into Park and Facility infrastructure for the 10-year period of 2014 through 2023 as well as the anticipated shortfall in required spending for this asset type.

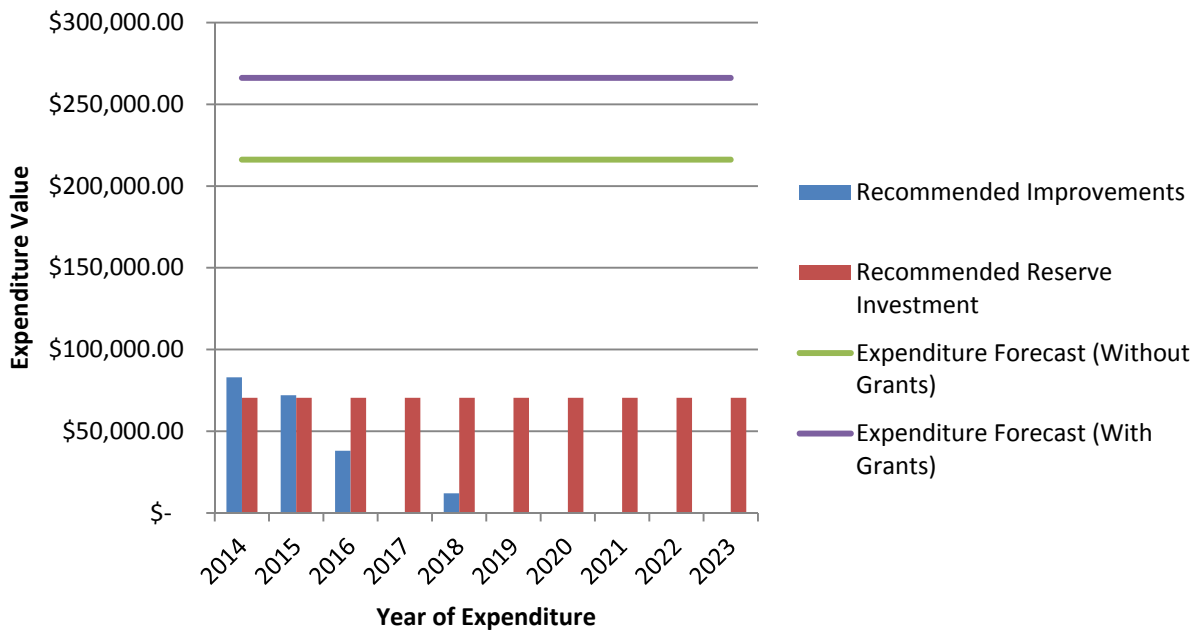


Figure 37 – Park and Facility Infrastructure 10 Year Capital Expenditures

The figure above can be described as:

- *Expenditure Forecast Without Grants (2014) → \$ 27,066.00 / year (\$ 216,123.00 / year)*
 Projection of the average spent over the past three years, without accounting for government grants.
- *Expenditure Forecast With Grants (2014) → \$ 37,547.00 / year (\$ 266,123.00 / year)*
 Projection of the average spent over the past three years, including government grants.
- Total Recommended Investment (2014) → \$ 50,900.00 / year (\$ 90,900.00 / year)
- Expected Shortfall (2014) → \$ 13,353.00 / year (No shortfall)

It should be noted that the investment numbers are skewed by a large capital investment made towards the Municipal Landfill in recent years.

A commitment by the Municipality to contribute the required reinvestment into existing parks and facilities will ensure that the existing infrastructure is kept in a satisfactory condition to adequately serve its intended use. Failure to make an annual contribution will result in the condition of the parks deteriorating below the acceptable standards whereby the users safety and enjoyment will be jeopardized.

6.9 MUNICIPAL VEHICLES

Reinvestment in the municipality’s fleet of vehicles is required to maintain an acceptable fleet average age. It was calculated that the Municipality should be reinvesting an average of \$156,000.00 per year to repair, and replace fleet vehicles. It is recommended that an additional \$ 126,071.43 per year be put aside into a reserve fund for long term planning purposes, beyond the 10-year plan.

Over the past three years, the Municipality has invested \$ 166,764.00 into municipal fleet vehicles. The table below details the source of all funds contributing to these purchases.

Source					
	2010	2011	2012	Now	Future
Municipal Funds	-	\$ 104,470.00	\$ 62,295.00	-	\$ 55,588.00
Grants	-	-	-	-	-
User Fee’s	-	-	-	-	-
Debentures	-	-	-	-	-
TOTAL	-	\$ 140,470.00	\$ 62,295.00	-	\$ 55,588.00

Using the historic data as a base model for future financial planning purposes, the table below outlines a forecast of the required annual expenditures into fleet vehicles for the 10-year period of 2014 through 2023 as well as the anticipated shortfall in required spending for this asset type.

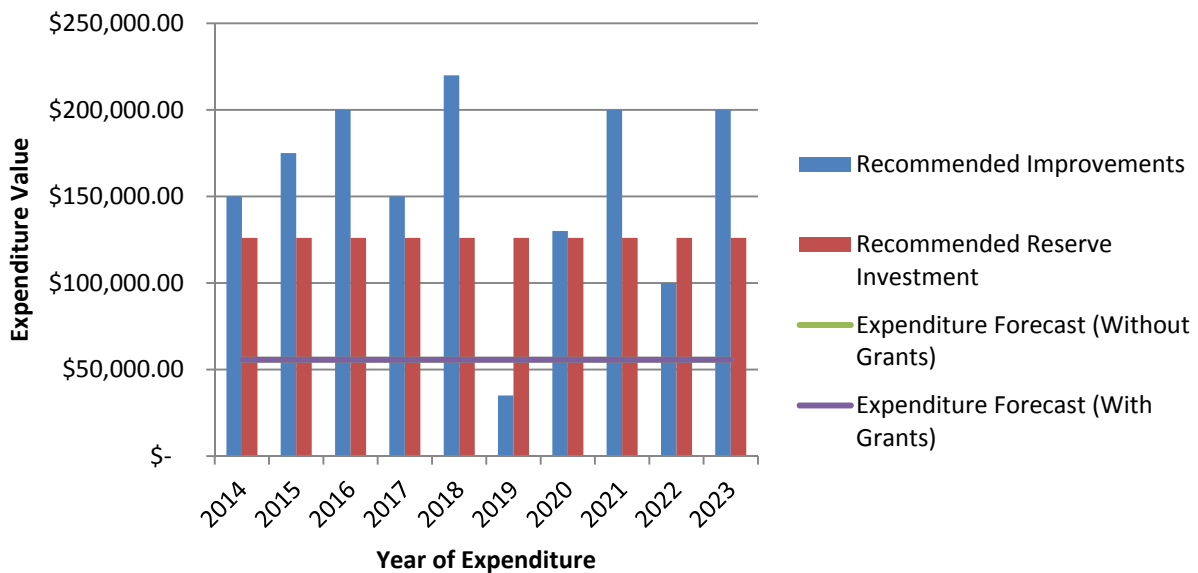


Figure 38 –Fleet Vehicles 10 Year Capital Expenditures

The figure above can be described as:

- *Expenditure Forecast Without Grants (2014) → \$ 55,588.00 / year*
 Projection of the average spent over the past three years, without accounting for government grants.
- *Expenditure Forecast With Grants (2014) → \$ 55,588.00 / year*
 Projection of the average spent over the past three years, including government grants.
- Total Recommended Investment (2014) → \$ 282,071.43 / year
- Expected Shortfall (2014) → \$ 226,483.43 / year

A commitment by the Municipality to contribute the required reinvestment into existing fleet of vehicles will ensure that the average age of the fleet remains above the established level of service. Failure to make an annual contribution will result in the condition of the fleet deteriorating, ultimately requiring expensive repairs and increased vehicle downtime.

6.10 MACHINERY, EQUIPMENT, FURNITURE AND FIXTURES

Reinvestment in the municipality's fleet of machinery, equipment, and furniture/fixture assets is required to maintain an acceptable service level. It was calculated that the Municipality should be reinvesting an average of \$52,334.34 per year to repair, and replace various assets. It is recommended that an additional \$ 114,322.92 per year be put aside into a reserve fund for long term planning purposes, beyond the 10-year plan.

Over the past three years, the Municipality has invested \$ 413,901.00 into machinery, equipment, furniture and fixtures. The table below details the source of all funds contributing to these purchases.

Source					
	2010	2011	2012	Now	Future
Municipal Funds	\$ 227,071.00	\$ 97,602.00	\$ 35,771.00	\$ 55,000.00	\$ 120,147.00
Grants	-	\$ 53,458.00	-	-	\$ 17,820.00
User Fee's	-	-	-	-	
Debentures	-	-	-	-	
TOTAL	\$ 227,071.00	\$ 151,060.00	\$ 35,771.00	\$ 55,000.00	\$ 137,967.00

Using the historic data as a base model for future financial planning purposes, the table below outlines a forecast of the required annual expenditures into machinery, equipment, furniture & fixtures for the 10-year period of 2014 through 2023 as well as the anticipated shortfall in required spending for this asset type.

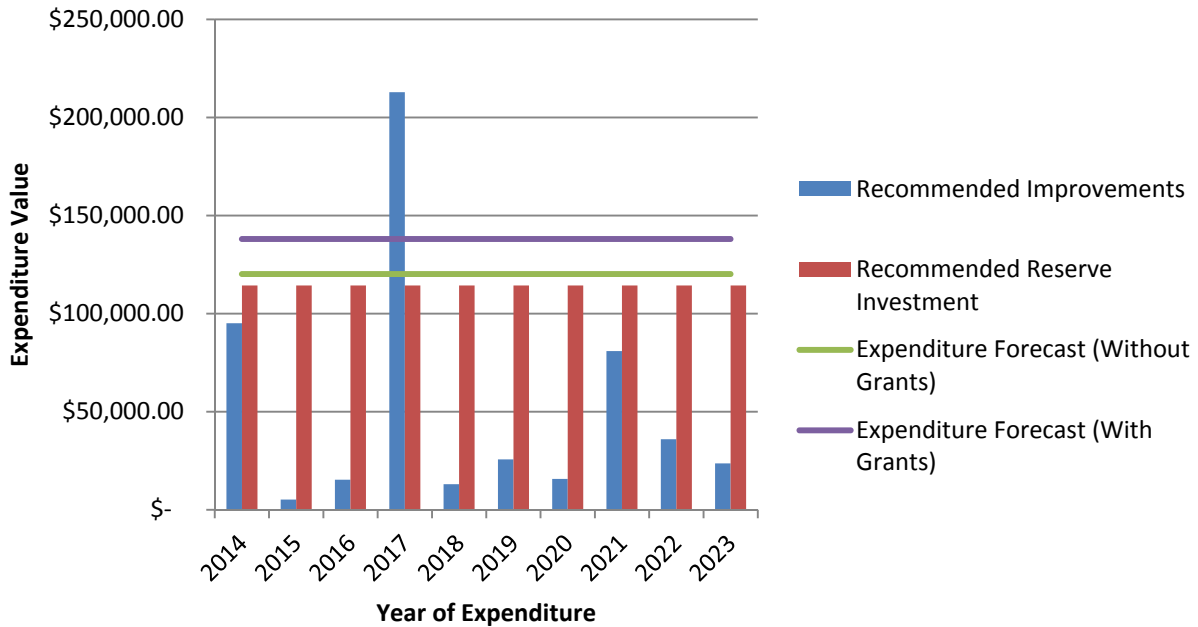


Figure 39 –Machinery, Equipment, Furniture & Fixtures 10 Year Capital Expenditures

The figure above can be described as:

- *Expenditure Forecast Without Grants (2014) → \$ 120,147.00 / year*
 Projection of the average spent over the past three years, without accounting for government grants.
- *Expenditure Forecast With Grants (2014) → \$ 137,967.00 / year*
 Projection of the average spent over the past three years, including government grants.
- *Total Recommended Investment (2014) → \$ 166,657.26 / year*
- *Expected Shortfall (2014) → \$ 28,690.26 / year*

7.0 CLOSURE

This comprehensive asset management plan will require on-going updates, and improvements to the methodologies of data collection for developing more accurate inventory information. The ability for the Municipality to leverage its knowledge of infrastructure and by applying the best Asset Management practices at the time will result in very positive improvements in municipal infrastructure. This document will also provide the means to effectively apply for external funding opportunities as they may become available.

The municipality has significant backlog of projects, the implementation of this plan will require the Municipality to find additional funds from various. Continued contribution of municipal funds, as well as contributions from Government grants into capital projects will help ensure the sustainability of the Municipality's infrastructure assets for years to come.

QUALIFICATIONS

This comprehensive asset management plan has been prepared for the exclusive use of the Municipality of French River by Tulloch Engineering Inc. This plan is intended to be a living document, updated on an annual basis to project future costs and expenditures on a planning basis only. This plan is not intended to establish annual budgets but rather act a guide to identify the priority projects. All cost projections presented in this report must be verified through detailed cost estimation at time of consideration for the works and subsequent budgeting.

ACKNOWLEDGEMENT OF SUPPORT

The Municipality of French River acknowledges the financial support of the Ontario Ministry of Agriculture, Food and Rural Affairs in the preparation of this comprehensive asset management plan. The views expressed in this plan are the views of the Municipality of French River and do not necessarily reflect those of Ontario Ministry of Agriculture, Food and Rural Affairs.

8.0 DEFINITIONS

AMP – Asset Management Plan

AADT – Average Annual Daily Traffic Count

Expenditure Forecast – Average Annual Historic Expenditure projected over 10 years with inflation;

Guide – Ministry of Infrastructure – *Building Together – Guide for Municipal Asset Management Plans*

HCB – High Class Bituminous Surface (Hot Mix Asphalt)

Historic Expenditure – Average of expenditures made over the past three years

LCB – Low Class Bituminous Surface (Surface Treatment)

OSIM – Ontario Structure Inspection Manual Bridge Inspections