The Corporation of the Township of Tay

Asset Management Plan

September 2018

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EXECUTIVE SUMMARY:

Like most Canadian municipalities Tay struggles to maintain existing infrastructure under current tax and rate levels. Tay continues to deal with downloaded responsibilities and, at the same time, face growing needs to maintain and renew aged and decaying infrastructure.

The Township has compiled information on our infrastructure and is committed to developing and updating an asset management plan in order to better understand the current state of our infrastructure, expected levels of service and to development an asset management strategy including funding requirements.

Emphasis is now being placed on not only knowing the true cost of providing services to the public today, but also understanding what will be required to maintain the services virtually in perpetuity, through the use of life-cycle costing. In other words, we are moving towards Sustainable Asset Management.

This Financial data found within this Plan considers the full replacement of the assets that the Township currently owns. This replacement was based on a modeled period of one hundred years in order to ensure that each asset had at least one full replacement. Future versions of this plan will also consider adding rehabilitation and maintenance costs in order to achieve full life-cycle costing on our assets.

The overall rating assigned to our infrastructure included in this plan is a C-.

With over $200 million in assets under the management of the Township, the efficient use of infrastructure and other assets is of critical concern.

The information contained in this plan shows that based on current age, replacement costing data and condition rating methods, Tay's infrastructure requires an average annual investment of $2.8 million for tax supported infrastructure in comparison to $2.1 million of current spending and $2.8 million for rate supported infrastructure in comparison to $1.8 million of current spending. This does not include the infrastructure gap created by historical levels of funding being below the necessary investment required.

Recommendations contained in the financing strategy section of the plan are intended to close this gap in funding over the next 10 years.
Recommendations have also been included to assist with the gap created by historical levels of funding being less than adequate.

WHAT IS ASSET MANAGEMENT?

In its most simplistic form, Asset Management is a process of managing assets in the most cost effective way. The key objective is to maximize benefits and manage risks while providing services to the public in the most sustainable way. It is important that your plan clearly define asset management and the benefits of asset management to your organization. Some benefits of asset management:

- Informed and traceable decisions;
- Risks are managed where necessary and in advance so the Township has the opportunity to coordinate accordingly;
- Higher customer satisfaction;
- Documents funding plan and strategy to manage infrastructure; and
- Demonstrated compliance with regulation and legislation

TIMEFRAMES FOR REVIEW AND UPDATES

Asset Management Framework	Timeframe
Asset Management Policy	5 Years
Asset Management Plan	5 Years
Capital Budget	Annually
Asset Register and Data	Annually
Condition Assessment Reviews and Revisions	At Least Every 5 Years

INTRODUCTION AND METHODOLGY:

This Asset Management Plan meets all provincial requirements as outlined within the Ontario Building Together Guide for Municipal Asset Management Plans. As such, the following key sections and content are included:

1. Executive Summary and Introduction
2. State of the Current Infrastructure
3. Desired Levels of Service
4. Asset Management Strategy
5. Financial Strategy

The following asset classes are addressed in this plan: **Those that are bolded have been updated or included in this revision to the plan.**

1. Roads including sidewalks: Urban and rural
2. Structures: Bridges and large culverts with a span greater than 3m
3. Water: Water mains, water treatment plants & distribution including equipment
4. Wastewater: Sanitary sewer mains, wastewater treatment plants and collection including equipment
5. Storm: Storm sewer mains
6. Vehicles (all departments) and equipment for Public Works and Fire
7. **Municipal Buildings**

Other asset categories will be added to the plan as time permits. At this time we anticipate the next revision of this plan to include remaining office equipment that is funded Municipal Equipment Reserve and Land Improvements associated with Parks and Recreation.

This asset management plan will serve as a strategic, tactical, and financial document ensuring the management of the municipal infrastructure follows sound asset management practices and principles, while optimizing available resources and establishing desired levels of service.

At a strategic level, within the State of the Current Infrastructure section, it will identify current and future challenges that should be addressed in order to maintain sustainable infrastructure services on a long-term basis.

At a tactical level, within the Asset Management Strategy section, it will develop an implementation process to be applied to the needs-identification

and prioritization of renewal, rehabilitation, and maintenance activities, resulting in a 10 year plan that will include growth projections.

At a financial level, within the Financial Strategy section, a strategy will be developed that fully integrates with other sections of this asset management plan, to ensure delivery and optimization of the 10 year infrastructure budget.

All data, analysis, life cycle projections, and budget models have been provided using software products. The software and plan will evolve together, and therefore allow for ease of updates, and annual reporting of performance measures and overall results.

It is recommended that the plan be revisited and updated on an annual basis as part of the long-term plan exercise and as more detailed information becomes available.

Importance of Infrastructure

Public infrastructure is critical to economic competitiveness and the quality of life every person enjoys. Well-functioning infrastructure boosts productivity and supports economic growth through lowering business costs.

Since the significant shift in ownership and management of public infrastructure to the municipal sector, municipalities find themselves searching for the proper tools to manage their infrastructure; such as debt, reserves, property taxes, user fees and development charges. In the past municipalities have underinvested and are now seeing their infrastructure nearing the end of its useful service life, which has contributed to the growing infrastructure needs.

AMP- Relationship to other Plans, Policies and By-laws

An asset management plan is a key component of the municipality's planning process linking with multiple other corporate plans and documents. For example:

- The Official Plan – The AMP should be considered and influence the land use policy directions, for long-term growth and development as provided through the Official Plan.

- Long Term Financial Plan – The AMP should both utilize and conversely influence the financial forecasts within the long-term financial plan.

- Capital Budget – The decision framework and infrastructure needs identified in the AMP form the basis on which future capital budgets are prepared.

- Infrastructure Master Plans – The AMP will utilize goals and projections from infrastructure master plans and in turn will influence future master plan recommendations.

- By-Laws, standards, and policies – The AMP will influence and utilize policies and by-laws related to infrastructure management practices and standards.

- Regulations – The AMP must recognize and abide by industry and senior government regulations.

- Strategic Plan – The AMP will influence corporate priorities, objectives and actions due to the growing economic and political significance of infrastructure. The AMP will become a central component of updated future Strategic Plans.

Factors Critical to Success
Three factors that are critical to the success of an Asset Management Plan are:

1. Corporate culture and working:
A municipality with a culture that supports effective corporate working and a willingness to embrace and implement change will see fewer challenges when implementing and managing an asset management plan and financial plan.

2. Buy-in at a senior officer and elected member level:
The commitment, enthusiasm and skills of officers in all municipal service areas are important. However, unless there is a buy-in to the implementation of a more corporate and strategic approach to asset management and financial planning amongst both senior officers and elected officials progress is likely to be limited. Any future direction on asset management and financial planning needs to target these senior players.

3. Leadership:
Effective leadership at all levels in the municipality must be present in order to implement the required changes. In particular, strong leadership from Council, the Chief Administrative Officer along with other members of senior management is vital if the required momentum of change in relation to asset management and financial planning is to be achieved and maintained

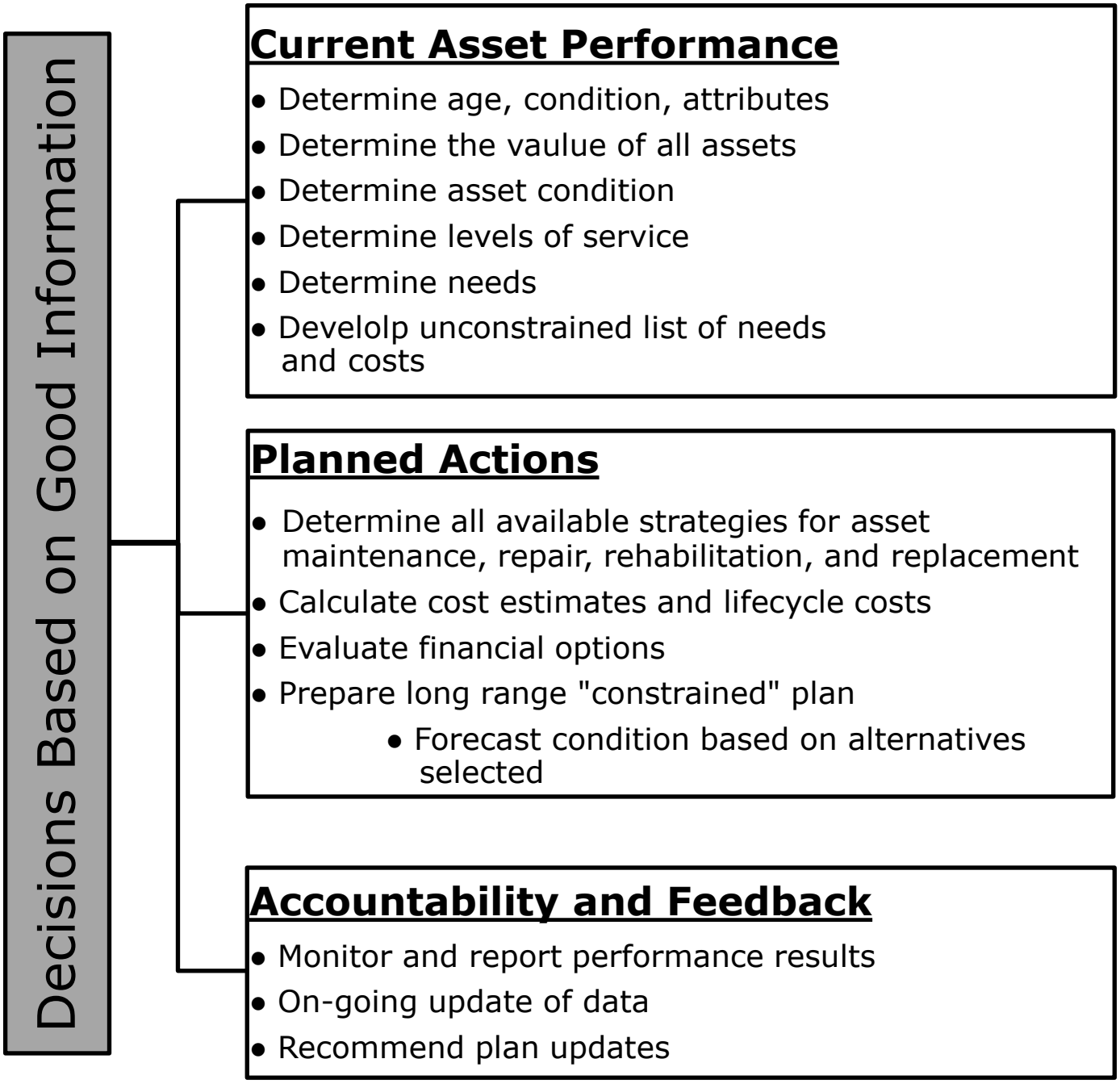
Purpose

- Infrastructure will be managed to ensure that it is capable of providing the levels of service needed to support the municipality's goals

- Provide an Asset Management process that is effective, achievable and efficient

- To enable the collection, coordination, sharing and communication of information

- To make decisions based on good information and manage the assets in a sustainable manner


Decisions Based on Good Information
Current Asset Performance
• Determine age, condition, attributes
• Determine the vaulue of all assets
• Determine asset condition
• Determine levels of service
• Determine needs
• Develolp unconstrained list of needs and costs
Planned Actions
• Determine all available strategies for asset maintenance, repair, rehabilitation, and replacement
• Calculate cost estimates and lifecycle costs
• Evaluate financial options
• Prepare long range "constrained" plan
• Forecast condition based on alternatives selected
Accountability and Feedback
• Monitor and report performance results
• On-going update of data
• Recommend plan updates

Approach

Objective: To identify the state of the municipality's infrastructure today and the projected state in the future if current funding levels and management practices remain status quo.

The analysis and subsequent communication tools will outline future asset requirements, will start the development of tactical implementation plans, and ultimately assist the organization to provide cost effective sustainable services to the current and future community.

Scope: Within this State of the Infrastructure report a high level review will be undertaken.

Base Data

In order to understand the full inventory of infrastructure assets within Tay Township, all tangible capital asset data, as collected to meet the PSAB 3150 accounting standard, was loaded into the CityWide Tangible Asset software module. This data base now provides a detailed and summarized inventory of assets as used throughout the analysis within this report and the entire Asset Management Plan.

Asset Condition Review

Detailed condition assessment information is not available for the entire asset network within the various asset categories. The condition review relied on the straight line amortization schedule approach, provided from the accounting data, where additional condition information is not available at this time. Where additional condition information has been used it is noted under that particular asset class section in this plan (i.e. bridge condition derived from bi-annual bridge inspections).

Replacement Costs

Replacement Costs were calculated as follows:

- Costs per square meter taken from recent construction projects for roads, estimates provided from an engineering firm (2013) for water and wastewater mains
- Historical costs inflated using CPI tables within the Citywide software for water and wastewater treatment plants, storm sewer mains, and equipment.
- Costs obtained from engineers estimates done in conjunction with the bi-annual bridge condition report.
- Expected cost of vehicle replacement based on tendered prices on recent purchases and best estimates made by staff.
- Costs per square foot for based on industry standards for municipal buildings

Roles and Responsibilities

Each department is responsible for the management of their respective infrastructure assets in terms of maintenance, repair, rehabilitation and replacement.

Each department is responsible to provide information regarding the financial resources required to maintain, repair, rehabilitate and replace infrastructure assets at a defined level of service while minimizing the life cycle costs within the context of a long term strategy rather than the next year's operating or capital budget.

The Treasurer is responsible to provide information regarding financial resources available to support the various infrastructure assets and to provide information on long term financial strategies that consider the service lives of the assets.

In order to make informed decisions about the allocation of resources, the Treasurer and ultimately Council, need information related to when maintenance, repair, rehabilitation and replacement of infrastructure assets will be required, as well as the associated costs. This information is critical for estimating future revenue requirements relative to the community's ability to pay for and sustain such systems, the objective being to minimize the life cycle costs of these assets while delivering the desired level of service.

STATE OF LOCAL INFRASTRUCTURE:

INFRASTRUCTURE REPORT CARD THE CORPORATION OF THE TOWNSHIP OF TAY		
C-	OVERALL RATING	
1. Each asset category was related to two key, equally weighed (50/50) dimension: Condition vs Performance, and Needs vs Funding.		
2. See the "What condition is it in?" section for each asset category for its condition rating on the Condition vs Performance dimension.		
3. See the "How do we reach sustainability?" section for each asset category for its star rating on the Needs vs Funding dimension.		
4. The assigned rating for each asset category is the average of the two star ratings converted to letter grades.		
5. The Overall Infrastructure Rating is the average across all categories.		
ASSET CATEGORY	RATING	COMMENTS
WATER NETWORK	**B**	Water infrastructure is currently 90% funded and can be fully funded in 2022 when debt expires.
VEHICLE & EQUIPMENT INVENTORY	**B**	Inventory is currently 93% funded and can be fully funded by 2019 if the annual contribution to reserves continues to increase as outlined in the LTP.
ROAD NETWORK	**C**	While a significant portion of the Township's road network is in Good condition, nearly 25% is in poor or critical condition. Further, the road network is substantially underfunded.
BRIDGES & CULVERTS	**C**	Nearly 93% of the Township's bridges and culverts are in fair to good condition according to the BCI. The Duck Bay Bridge is rated as critical and requires a portion to be debt financed.
WASTEWATER NETWORK	**D**	Wastewater infrastructure is currently only 38% funded. Additional debt is required to complete the plant upgrades at the Victoria Harbour Wastewater Treatment Plant.
STORM SEWER NETWORK	**D**	No funding is currently provided for Storm Sewer replacement.
MUNICIPAL BUILDINGS	**D**	In 2018 a separate reserve for Municipal Buildings was established. The annual transfer for Municipal Buildings is on a phase-in, and is not expected to meet funding requirements for approximately 25 years.

The above overall grade assigned to each asset category found within the Infrastructure Report Card is based on the blended rating assigned from each of the tables below.

Grading Scale: Condition vs Performance Describes the condition and performance of the asset.	
Letter Grade	**Description**
A	Excellent: No noticeable defects
B	Good: Minor deterioration
C	Fair: Deterioration evident, function is affected.
D	Poor: Serious deterioration. Function is inadequate.
F	Critical: No longer functional. General or complete failure.

Grading Scale: Funding vs Need Based on the actual investment requirements to ensure replacement of the asset at the right time, versus current spending levels for each asste group.	
Letter Grade	**Description**
A	Excellent: 91 to 100% of need
B	Good: 76 to 90% of need
C	Fair: 61 to 75% of need
D	Poor: 46 to 60% of need
F	Critical: under 45% of need

BRIDGE & CULVERT INFRASTRUCTURE

What do we own?

As shown in the summary table below the Township owns 6 Road Bridges, 5 Road Culverts, 3 Trail Bridges and 1 Trail Culvert with a span greater than 3m.

BRIDGES and CULVERT INVENTORY						
	2014				2015	
Classification	Quantity	Historical Cost	Accumulated Amortization	Closing Net Book Value	Replacement Cost	Average Annual Requirement (EUL)
Road & Trail Bridges	9	$ 1,329,262	$ 922,438	$ 406,824	$ 5,835,925	
Road & Trail Culverts	6	$ 398,022	$ 292,011	$ 106,011	$ 2,097,500	
Bridges Total	**15**	**$ 1,727,284**	**$ 1,214,449**	**$ 512,835**	**$7,933,425**	**$ 108,613**

What is it worth?

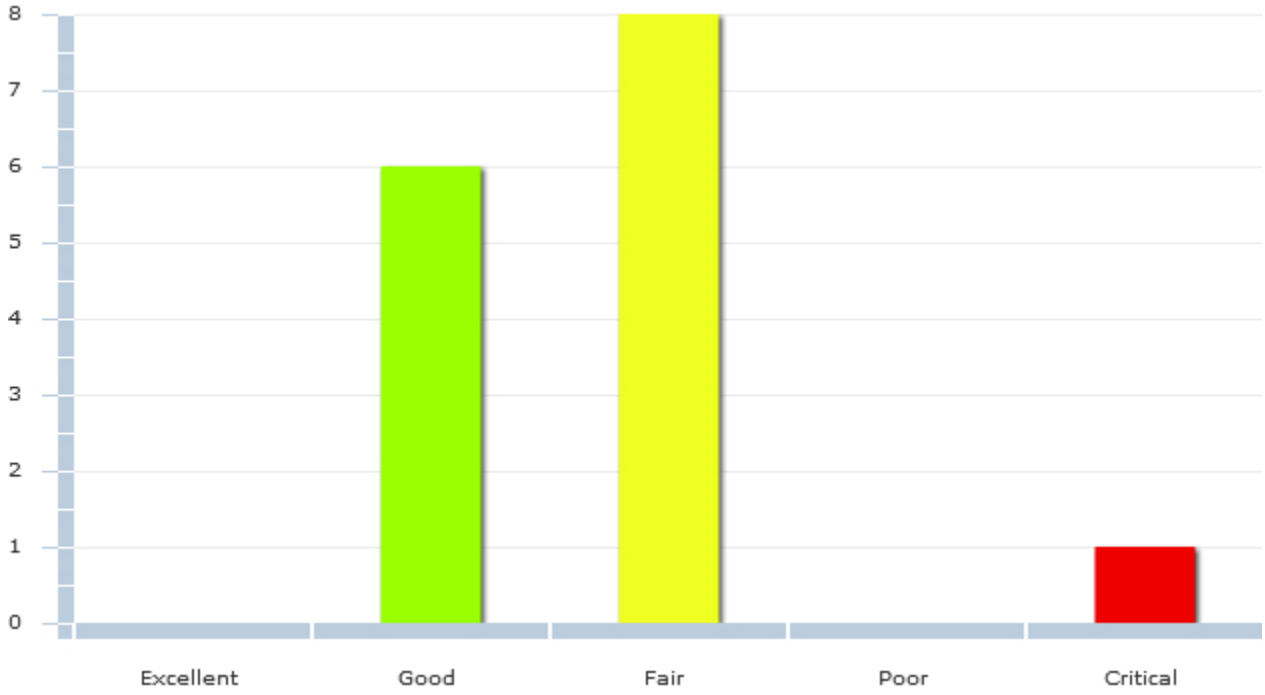
The estimated replacement value of the road bridge and culvert infrastructure, in 2015 dollars is $7,933,425. This translates into an average annual requirement **of $108,613** when the planned replacement date is factored into the analysis.

It is important to note that the trail bridges and trail culvert are not planned for replacement in this update to the AMP. These assets were previously not included in our inventory records due to their age (built in 1900). Historical cost information will be added for these Trail Bridges as work is completed, such as the work completed in 2013 on the Wye River Trail Bridge (Trail bridge #1) and the 2014 work completed on the Sturgeon Bay Trail Bridge (Trail Bridge #3). At this time only minor rehabilitation work has been recommended for these assets, as outlined in the 2014 Municipal Bridge Inspection Report.

What condition is it in?

According to the graph below 40% of the municipality's bridge and culvert infrastructure is in good condition and 53% is in fair condition. There is one bridge identified as critical (Duck Bay Bridge). The last BCI rating received on this bridge was a 34.75, which has placed the bridge in the critical category. Work is being performed on this bridge this year, with the expectation that the BCI will be increased to 80+. As such, the municipality received a Condition vs. Performance rating of **B** on its Bridges and Culverts inventory.

Bridges & Culverts Condition (by Quantity)



The above condition graph is based on the following criteria as set out in the 2014 Municipal Bridge Inspection Report:

Bridge Condition Index (BCI)

BCI Range 70-100 - **GOOD**

BCI Range 50-70 – **FAIR**

BCI Less than 50 -**POOR**

BCI Less than 40 – **CRITICAL**

It should be noted that the rating scale used for this revision to the plan is different than the scale used in the original AMP. As such, bridges that fall within the FAIR category today would have shown as poor if the previous BCI criteria was continued to be used. This change in the criteria is also reflected in the Asset Management Strategy section of this plan.

Within the report, the BCI has been used not only to rank structures in terms of condition need, but also to provide more specific recommendations with respect to timelines for various works, in order to help with asset management planning.

What do we need to do?

There are generally four distinct phases in an asset's life cycle. These are presented at a high level for the bridge and culvert structures below. Further detail is provided in the "Asset Management Strategy" section of this AMP.

When do we need to do it?

Addressing Asset Needs		
Phase	**Lifecycle Activity**	**Asset Life Stage**
Minor Maintenance	Inspections, monitoring, sweeping, winter control, etc	1st Qtr
Major Maintenance	Repairing cracked or spalled concrete, damaged expansion joints, bent or damaged railings, etc	2nd Qtr
Rehabilitation	Structural reinforcement of structural elements, deck replacement, etc.	3rd Qtr
Replacement	Full structure reconstruction	4th QTR

The "Theoretical Replacement Year" is based on the Bridge Code theoretical lifespan for structure type. With proper maintenance, the anticipated service life of a Bridge is 75 years and a Multi-plate culvert is between 35-50 years. **We have assumed a 75 year life for Bridges and a 50 year life for Culverts**. This lifespan agrees to our accounting data, which was adjusted in 2014 to reflect this information.

For the purposes of this plan, the "Replacement Year if Rehab Completed" was determined based on the current condition of the structure and includes the work that was proposed as part of the 2014 OSIM Bridge Inspection Report. For Bridges 3, 4, 6 and 7, rehabilitation is assumed to be undertaken based on the timeline suggested in the report. Rehabilitation work has also been included for Road Culvert 4 – McMann Side Road, which coincides with the Township's 2015 Capital budget. There is no rehabilitation option for the remaining multi-plate culverts, as soil-steel structures typically do not allow for rehabilitations in the same manner as concrete structures. As mentioned above, at this time only minor rehabilitation work has been recommended for the trail assets.

The data in the table below was provided by R.J. Burnside and Associates in July 2013 and has been updated to reflect the current age of each structure, the 2014 assigned BCI value and the number of estimated years to arrive at a BCI of 40 (which generates the need for replacement).

It should be noted, that there is a significant change in the BCI's for Road Bridge 5 (60.6 to 52.6) and Road Culvert 4 (73.1 to 51.7) since the last OSIM report. Public Works is in the process of reviewing this document, and will be taking their recommendations to Council on the proposed works.

Road Bridge 2, known as the Duck Bay Bridge was not included in the table below. The current work being performed on the piers has been included, as well as the replacement of the superstructure (single lane), which is expected to take place this fall. At this time, the total project cost is expected to be $1.7 million, with an estimated service life of 50 plus years. Due to the simplicity of the annual requirement calculation and the graphs produced by CityWide, this bridge shows a replacement date of 2085, which based on a 75 year life. It is also important to note that no additional rehabilitation work on this bridge has been included in this plan.

TOWNSHIP OF TAY - Replacement Timeframe											
Structure Name	**Road Name**	**Structure Type**	**Year of Construction (assumed)**	**Approximate Current Age of Structure (Years)**	**Theoretical Lifespan (Years)**	**Theoretical Replacement Year**	**2014 BCI Value**	**Years to BCI of 40**	**BCI Based Replacement Year**	**Timeframe for Rehab**	**Replacement Year if Rehab Completed**
Road Bridge 3	Hearth Stone Road	Concrete Slab on Girder	1983	32	75	2058	72.6	15.1	2030	6-10 years	**2058**
Road Bridge 4	Rosemont Road	Concrete T-Beam	1945	70	75	2020	67.5	12.2	2027	1-5 years	**2037**
Road Bridge 5	**Rosemont Road**	**Concrete T-Beam**	**1945**	**70**	**75**	**2020**	**52.6**	**6.0**	**2021**	n/a	n/a
Road Bridge 6	Granny White Sideroad	Concrete Rigid Frame	1955	60	75	2030	65.1	11.3	2026	1-5 years	**2036**
Road Bridge 7	Reeves Road	Concrete Rigid Frame	1970	45	75	2045	72.9	14.7	2030	6-10 years	**2058**
Road Culvert 1	Rumney Road	Twin Multiplate Arch Culverts	1970	45	50	2020	70.9	14.7	**2030**	n/a	n/a
Road Culvert 2	Hogg Valley Road	Twin Multiplate Arch Culverts	1980	35	50	2030	72.9	15.0	**2030**	n/a	n/a
Road Culvert 3	Ron Jones Road	Multiplate Arch Culvert	1970	45	50	2020	71.9	14.4	**2029**	n/a	n/a
Road Culvert 4	**McMann Side Road**	**Multiplate Arch Culvert**	**1980**	**35**	**50**	**2030**	**51.7**	**14.6**	**2030**	**n/a**	**n/a**
Road Culvert 5	Wood Road	Round Pipe Culvert	1980	35	50	2030	74.2	14.5	**2030**	n/a	n/a
Trail Bridge 1	Tay Shore Trail	Timber	1900	115	75	1975	69.3	unknown	n/a	within 1 year	n/a
Trail Bridge 2	Tay Shore Trail	Steel I Beams	1900	115	75	1975	58.5	unknown	n/a	within 1 year	n/a
Trail Bridge 3	Tay Shore Trail	Steel I Beams	1945	70	75	2020	62.3	unknown	n/a	n/a	n/a
Trail Culvert 1	Tay Shore Trail	Steel I Beams	1900	115	50	1950	50.6	unknown	n/a	1-5 years	n/a

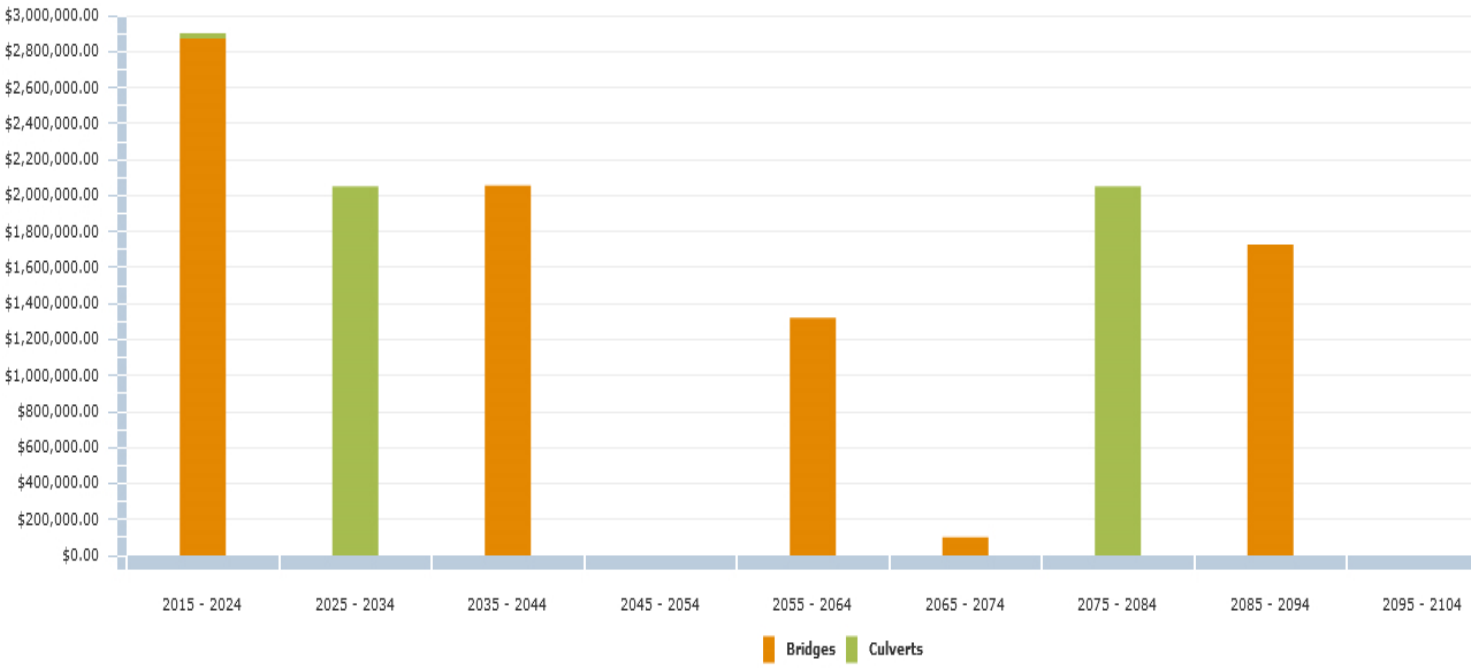
TOWNSHIP OF TAY - Replacement Costs								
Structure Name	**Road Name**	**Structure Type**	**Existing Structure Width (m)**	**Existing Structure Span (m)**	**Existing Deck Area (m2)**	**Replacement Structure Width (m)**	**Replacement Structure Span (m)**	**2015 Replacement Costs**
Road Bridge 3	Hearth Stone Road	Concrete Slab on Steel Beam	6.8	11.0	81.6	10.0	15.0	$ 700,000
Road Bridge 4	**Rosemont Road**	**Concrete T-Beam**	**5.7**	**7.6**	**43.3**	**10.0**	**12.0**	**$ 910,000**
Road Bridge 5	Rosemont Road	Concrete T-Beam	6.0	6.1	36.6	10.0	8.5	$ 580,000
Road Bridge 6	**Granny White Sideroad**	**Concrete Rigid Frame**	**8.3**	**10.4**	**86.3**	**10.0**	**12.5**	**$ 780,000**
Road Bridge 7	Reeves Road	Concrete Rigid Frame	9.8	6.2	60.8	10.0	8.0	$ 520,000
Road Culvert 1	Rumney Road	Twin Multiplate Arch Culverts	20.7	8.4	173.9	21.0	8.4	$ 600,000
Road Culvert 2	Hogg Valley Road	Twin Multiplate Arch Culverts	21.7	8.4	182.3	22.0	8.4	$ 600,000
Road Culvert 3	Old Fort Road	Multiplate Arch Culvert	14.0	3.4	47.6	20.0	4.5	$ 250,000
Road Culvert 4	McMann Side Road	Multiplate Arch Culvert	19.7	4.0	78.8	25.0	4.5	$ 300,000
Road Culvert 5	Wood Road	Round Pipe Culvert	19.7	3.0	59.1	28.0	3.5	$ 300,000
Trail Bridge 1	Tay Shore Trail	Timber	4.1	70.0	287.0	4.5	70.0	$ -
Trail Bridge 2	Tay Shore Trail	Steel I Beams	4.1	12.1	49.0	4.5	15.0	$ -
Trail Bridge 3	Tay Shore Trail	Steel I Beams	4.0	11.5	45.8	4.5	15.0	$ -
Trail Culvert 1	Tay Shore Trail	Steel I Beams	3.9	5.9	23.0	4.5	7.5	$ -
* Note: Costs do not include any costs for engineering, property acquisition costs, roadworks beyond the wingwalls, and HST.								$ 5,540,000

Description of Work	Event Type	Asset	Event Trigger	Event Time (Years)	Cost
Expansion joint seals - RB3	Rehabilitate	Road Bridge 3	Time	6	$ 15,000
Concrete repairs - RB3	Rehabilitate	Road Bridge 3	Time	6	$ 12,500
Miscellaneous Items & Contingencies - RB3	Rehabilitate	Road Bridge 3	Time	6	$ 23,250
Approaches -RB3	Rehabilitate	Road Bridge 3	Time	6	$ 50,000
		Road Bridge 3 Total			$ 100,750
Decking & Drainage - RB4	Rehabilitate	Road Bridge 4	Time	4	$ 28,000
Concrete repairs - RB4	Rehabilitate	Road Bridge 4	Time	4	$ 50,000
Miscellaneous Items & Contingencies -RB4	Rehabilitate	Road Bridge 4	Time	4	$ 29,600
Waterproof & pave - RB4	Rehabilitate	Road Bridge 4	Time	4	$ 20,000
Approaches -RB4	Rehabilitate	Road Bridge 4	Time	4	$ 50,000
		Road Bridge 4 Total			$ 177,600
Barriers - RB6	Rehabilitate	Road Bridge 6	Time	3	$ 40,000
Concrete repairs -RB6	Rehabilitate	Road Bridge 6	Time	3	$ 32,500
Miscellaneous Items & Contingencies - RB6	Rehabilitate	Road Bridge 6	Time	3	$ 31,100
Waterproof & pave - RB6	Rehabilitate	Road Bridge 6	Time	3	$ 25,000
install deck drains - RB6	Rehabilitate	Road Bridge 6	Time	3	$ 8,000
Approaches - RB6	Rehabilitate	Road Bridge 6	Time	3	$ 50,000
		Road Bridge 6 Total			$ 186,600
Barriers - RB7	Rehabilitate	Road Bridge 7	Time	7	$ 40,000
Concrete repairs - RB7	Rehabilitate	Road Bridge 7	Time	7	$ 12,000
Miscellaneous Items & Contingencies -RB7	Rehabilitate	Road Bridge 7	Time	7	$ 23,100
Waterproof & pave - RB7	Rehabilitate	Road Bridge 7	Time	7	$ 25,000
		Road Bridge 7 Total			$ 100,100
culvert barrel - RC4	Rehabilitate	Road Culvert 4	time	0	$ 25,000
Miscellaneous Items & Contingencies - RC4	Rehabilitate	Road Culvert 4	time	0	$ 4,500
		Road Culvert 4 Total			$ 29,500
Abutment wall - TB1	Rehabilitate	Trail Bridge 1	Time	1	$ 20,000
Miscellaneous Items & Contingencies - TB1	Rehabilitate	Trail Bridge 1	Time	1	$ 4,000
		Trail Bridge 1 Total			$ 24,000
concrete repairs, ballast walls, wing walls - TB2	Rehabilitate	Trail Bridge 2	Time	1	$ 25,000
Miscellaneous Items & Contingencies - TB2	Rehabilitate	Trail Bridge 2	Time	1	$ 5,000
		Trail Bridge 2 Total			$ 30,000
Abutment wall -TC1	Rehabilitate	Trail Culvert 1	Time	2	$ 15,000
Miscellaneous Items & Contingencies - TC1	Rehabilitate	Trail Culvert 1	Time	2	$ 3,000
		Trail Culvert 1 Total			$ 18,000
		Grand Total			**$ 666,550**

As new condition information becomes available through bi-annual inspections, this data will be updated in the AMP to increase the accuracy of current asset condition and, therefore, that of future replacement requirements.

The following graph shows the projection of bridge and culvert replacement costs based on the current condition of the asset.

Bridges and Culvert Infrastructure Replacement Profile (today's $)



How much money do we need?

The analysis completed to determine capital revenue requirements was based on the following constraints and assumptions:

1. All values are presented in 2015 dollars
2. The analysis was run for a 100 year period to ensure all assets went through at least one iteration of replacement, therefore providing a sustainable projection.

How do we reach sustainability?

Based upon the above parameters, the average annual requirement to sustain Tay's bridge & culvert infrastructure is **$108,613**. With Tay's current annual funding of $50,000, today there is an annual deficit of **$58,613**. Given this plan, the municipality received a Need vs. Funding rating of **'D'.**

In conclusion, based on the current condition data available, the bridge and culvert infrastructure is in fair to good condition, with the exception of the Duck Bay Bridge.

This update to the AMP includes a significant increase to the average annual requirement ($89,069 to $108,613). This is partially due to the fact that the previous requirement calculated included only the replacement of the assets, whereas this version now includes rehabilitation work as outlined in the 2014 OSIM Report. Also, there were significant cost increases noted from the 2013 estimates provided, to those contained in the 2014 report. As these costs are subject to change, significant increases or decreases to the annual calculated requirement will be realized in future iterations of this plan.

Recommendations

The municipality received an overall rating of '**C'** for its bridge and culvert infrastructure, calculated from the Condition vs. Performance and the Needs vs. Funding ratings. Accordingly, we recommend the following:

- The deficit is expected to be reduced to $0 by 2027 if Council continues to increase the infrastructure reserve by $5,000 each year (in today's dollars) as set out in Tay's Long Term Plan.

- An appropriate percentage of asset replacement value should be used for operations and maintenance activities on an annual basis. This should be determined through a detailed analysis of operating and maintenance activities and added to future AMP reporting.

ROADS NETWORK

What do we own?

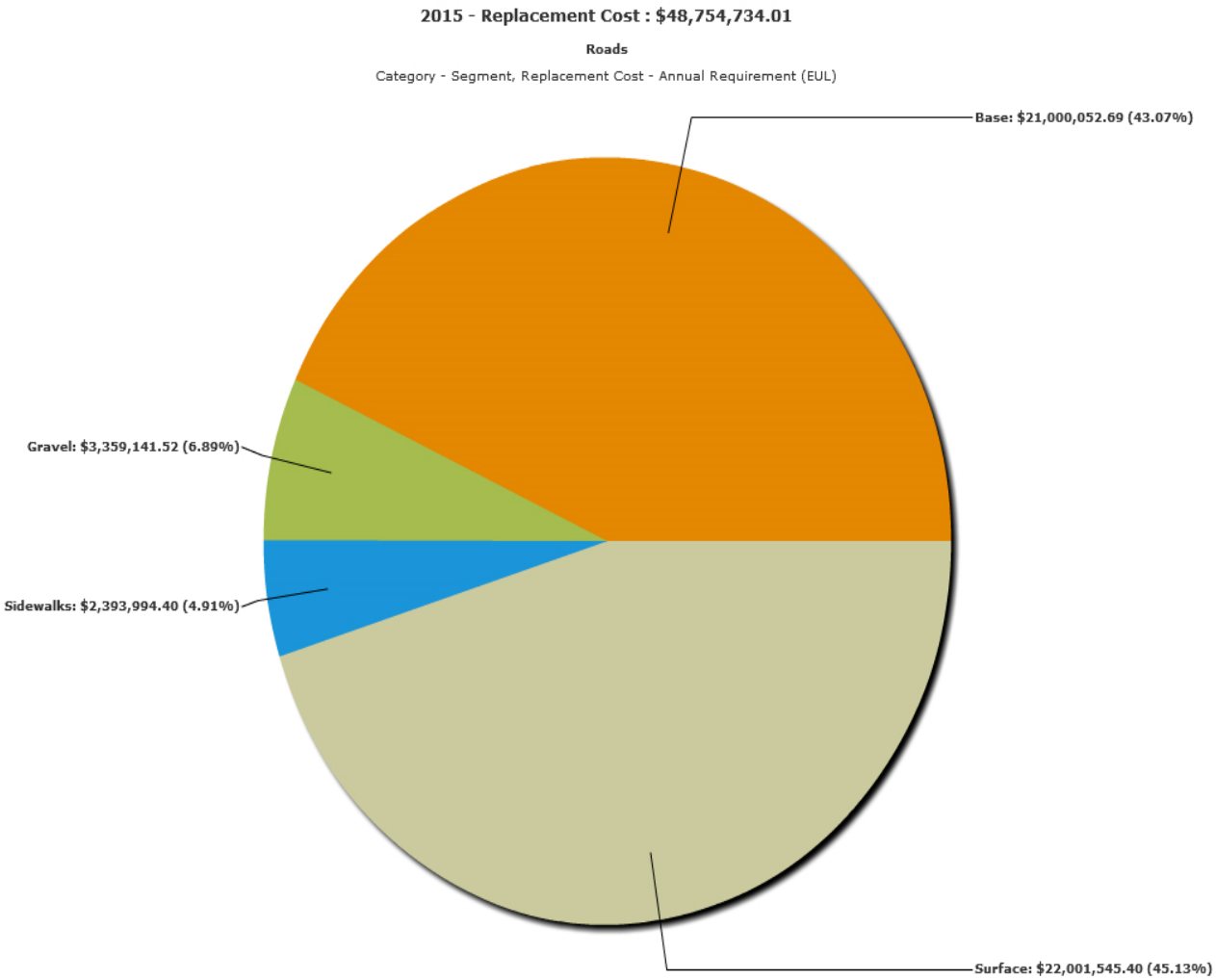
The road network is comprised of approximately 386 lane kilometers.

ROADS INVENTORY					
	2014			2015	
Classification	Historical Cost	Accumulated Amortization	Closing Net Book Value	Replacement Cost	Average Annual Requirement
Base	$ 15,663,901	$ 7,390,540	$ 8,273,362	$ 21,000,053	
Gravel	$ 2,460,064	$ 1,886,120	$ 573,944	$ 3,359,142	
Sidewalks	$ 1,759,443	$ 421,437	$ 1,338,006	$ 2,393,994	
Surface	$ 10,996,698	$ 3,550,973	$ 7,445,725	$ 22,001,545	
Roads Total	**$ 30,880,105**	**$ 13,249,069**	**$ 17,631,037**	**$ 48,754,734**	**$ 1,677,271**

What is it worth?

The estimated replacement value of the road network, in 2015 dollars is $48,754,734. This translates into an average annual requirement of **$1,677,271** when the planned replacement date is factored into the analysis. This requirement is approximately $100,000 less than the requirement calculated in 2014. This change is the result of updates to our annual inventory, which triggers the need for new replacement costs. Also, in 2014, we moved several assets that were previously included in the gravel segment to the paved segment, resulting in changes to the useful life, replacement costs and thus the annual requirement.

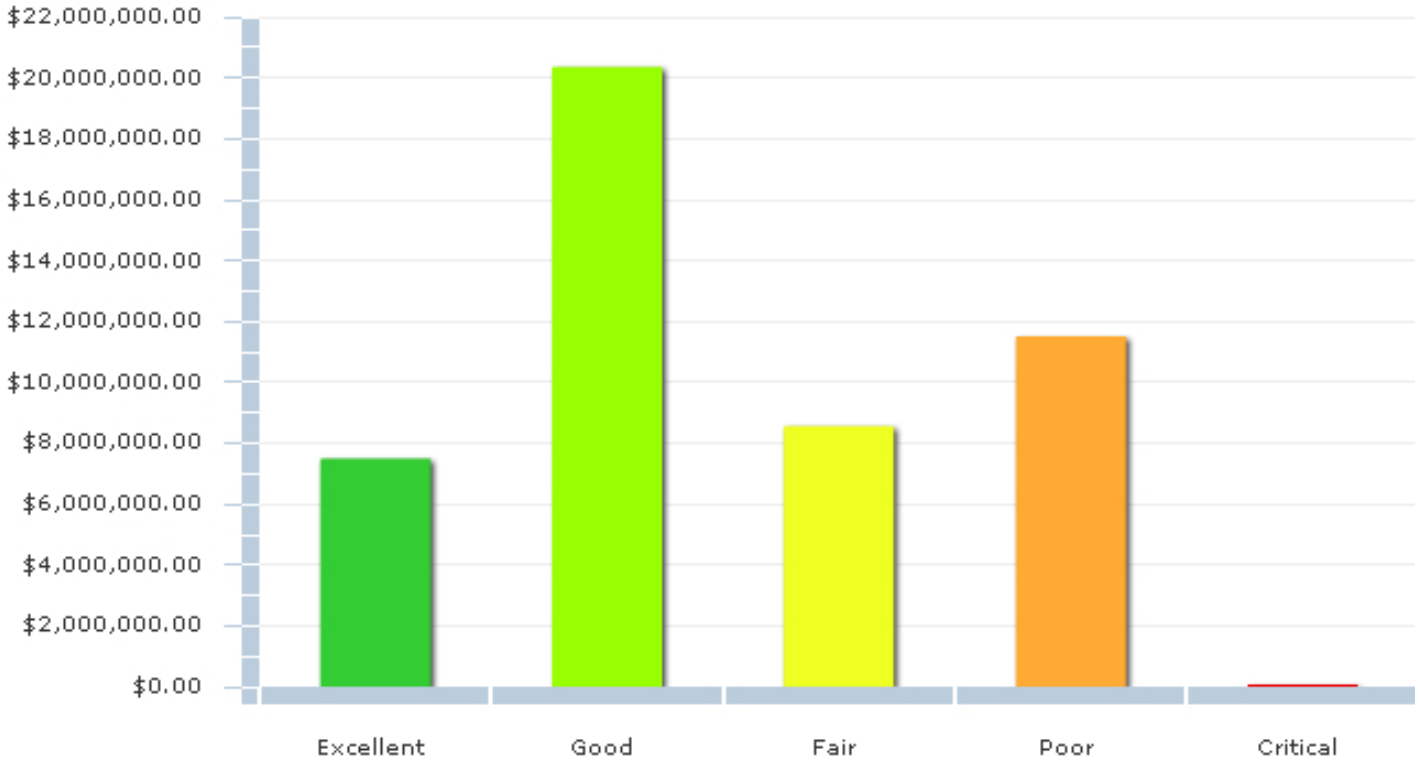
The pie chart below provides a breakdown of each of the network components to the overall value.



What condition is it in?

According to the graph below 24% of the municipality's road network is in poor to critical condition, with the majority of the network falling under the good category. As such, the municipality received a Condition vs. Performance rating of **C**.

2013 Road Network Condition by Replacement Cost



The above graph is based on the following criteria:

Ride Comfort Rating (RCR)						
Point Values	***Condition***	***Point Rating***	***Occurrence***		***Description***	***Notes***
			by area	**by severity**		
100	**Excellent**	10	>90%		The section must afford a fully adequate level of service, with no annoyance or discomfort.	New
80	**Good**	9	80 to 90%	Slight	It is possible to maintain the legal speed limit with only a noticeable amount of annoyance to the driver due to sway, vibration or steering effort, but with no noticeable feeling of hazard.	
		8	70 to 79%			
		7	60 to 69%			
50	**Fair**	6	50 to 59%	Slight to Moderate	Maintaining the legal speed limit results in either a "tug of war" with a too-steep or uneven crown, or a feeling that the car is taking undue punishment.	
		5	40 to 49%			
		4	30 to 39%			
30	**Poor**	3	20 to 29%	Moderate to Severe	Surface irregularities are so severe that a driver will tend to reduce speed considerably, possibly even steering an irregular course, or if the crown is so steep as to be hazardous in winter.	Needs work soon (within 5 years)
25 20		2	10 to 19%			
15 10	**Critical**	1	<10%			

What do we need to do?

There are generally four distinct phases in an asset's life cycle. These are presented at a high level for the roads network below. Further detail is provided in the "Asset Management Strategy" section of this AMP.

Addressing Asset Needs		
Phase	**Lifecycle Activity**	**Asset Life Stage**
Minor Maintenance	Inspections, monitoring, sweeping, winter control, etc	1st Qtr
Major Maintenance	Repairing pot holes, grinding out roadway ruting, and patching sections of road.	2nd Qtr
Rehabilitation	Asphalt overlays, mill and paves, etc	3rd Qtr
Replacement	Full road reconstruction	4th Qtr

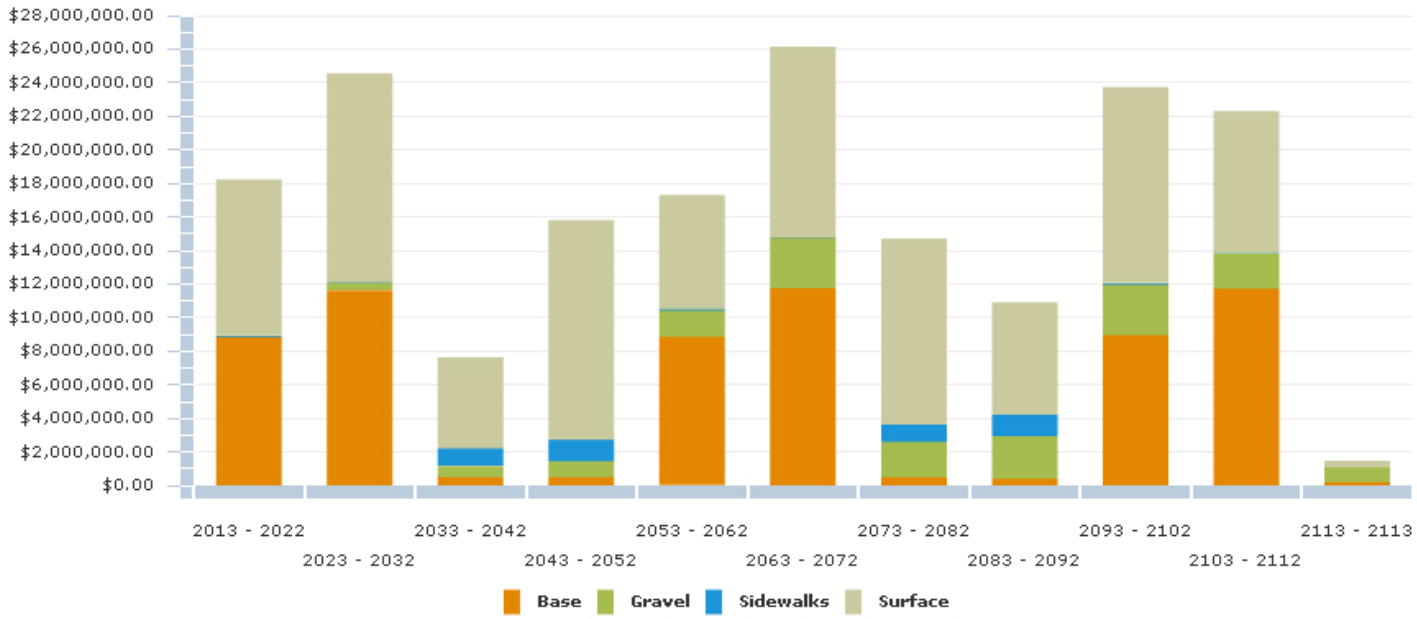
When do we need to do it?

For the purpose of this report, useful life data for each asset class was obtained from the accounting data. When reviewing this data, it was determined that the useful life of the gravel segment needed to be increased from 15 years to 60 years to reflect today's best estimates. The 2014 accounting data reflects this adjustment. This useful life was used to determine the planned replacement needs for the Gravel segment and the Sidewalk segment, whose useful life remains unchanged at 40 years.
The planned replacement of the Paved Road segments was determined based on a combination of age and visual inspection of the road network as part of the municipality's regular road patrol. Lacking any other data for the complete road network, this can be seen as a good method and will assist greatly with the overall management of the road network.

Asset Useful Life in Years		
Asset Type	**Asset Component**	**Useful Life**
Roads	Gravel	60
	HCB - Paved	25
	LCB - Paved	20
	Road Base	40
Sidewalks		40

As new condition information becomes available, the data will be updated in the AMP to increase the accuracy of current asset condition and, therefore, that of future replacement requirements. It is recommended that the next revision to this plan contains an update to the condition of the assets and of the replacement costs to ensure that accurate and up to date information in contained within this plan. It is also recommended that rehabilitation costs be included, such as those identified in the Asset Management Strategy section of this plan.

The following graph shows the projection of road network replacement costs based on the 2013 asset condition.



How much money do we need?

The analysis completed to determine capital revenue requirements was based on the following constraints and assumptions:

1. All values are presented in 2015 dollars
2. The analysis was run for a 100 year period to ensure all assets went through at least one iteration of replacement, therefore providing a sustainable projection.

How do we reach sustainability?

Based upon the above parameters, the average annual requirement to sustain Tay's road network is $1,677,271. Based on Tay's current annual funding of $1,351,675, today there is an annual deficit of $325,596. Given this deficit, the municipality received a Needs vs. Funding rating of **'C'.**

In conclusion, based on the current condition data available, the road network is in fair to good condition. However, there are considerable

needs within the road network that must be addressed totaling approximately $16.5 million in the next ten years. Continuing the visual inspection program will aid in prioritizing overall needs for rehabilitation and replacement and will assist with optimizing the long and short term budgets. Further details are outlined within the "Asset Management Strategy" section of this AMP.

Recommendations

The municipality received an overall rating of **'C'** for its road network, calculated from the Condition vs. Performance and the Needs vs. Funding ratings. Accordingly, we recommend the following:

- The Township establishes a pavement condition program for the entire road network to gain a better understanding of current condition and performance.
- As approximately 8% of the Township's road network is gravel roads, a detailed analysis should be done to assess the overall maintenance costs of gravel roads and whether there is a benefit to converting some gravel roads to paved, thereby reducing future costs.
- An appropriate percentage of asset replacement value should be used for operations and maintenance activities on an annual basis. This should be determined through a detailed analysis of operating and maintenance activities and be added to future AMP reporting.

WATER INFRASTRUCTURE

What do we own?

As shown in the summary table below, Tay is responsible for the following asset inventory.

WATER INFRASTRUCTURE				Replacement Cost	Average Annual Requirement
	2014			2015	
Classification	Historical Cost	Accumulated Amortization	Closing Net Book Value		
Water Distribution	$ 4,943,122	$ 1,169,363	$ 3,773,759	$ 8,541,356	$ 168,064
Water Treatment	$ 11,597,494	$ 4,954,229	$ 6,643,265	$ 10,764,210	$ 284,762
Watermains	$ 27,632,407	$ 4,935,285	$ 22,697,122	$ 70,424,690	730,230
WIP - Tay Area Water Plant	$ 4,080,287	$ -	$ 4,080,287		
Water Total	$ 48,253,310	$ 11,058,878	$ 37,194,432	$ 89,730,256	**$ 1,183,057**

What is it worth?

The estimated replacement value of the water distribution and treatment network, in 2015 dollars, is approximately $89.7 million. This translates into an average annual requirement of **$1,183,057** when planned replacement date or EOL date is factored into the analysis.

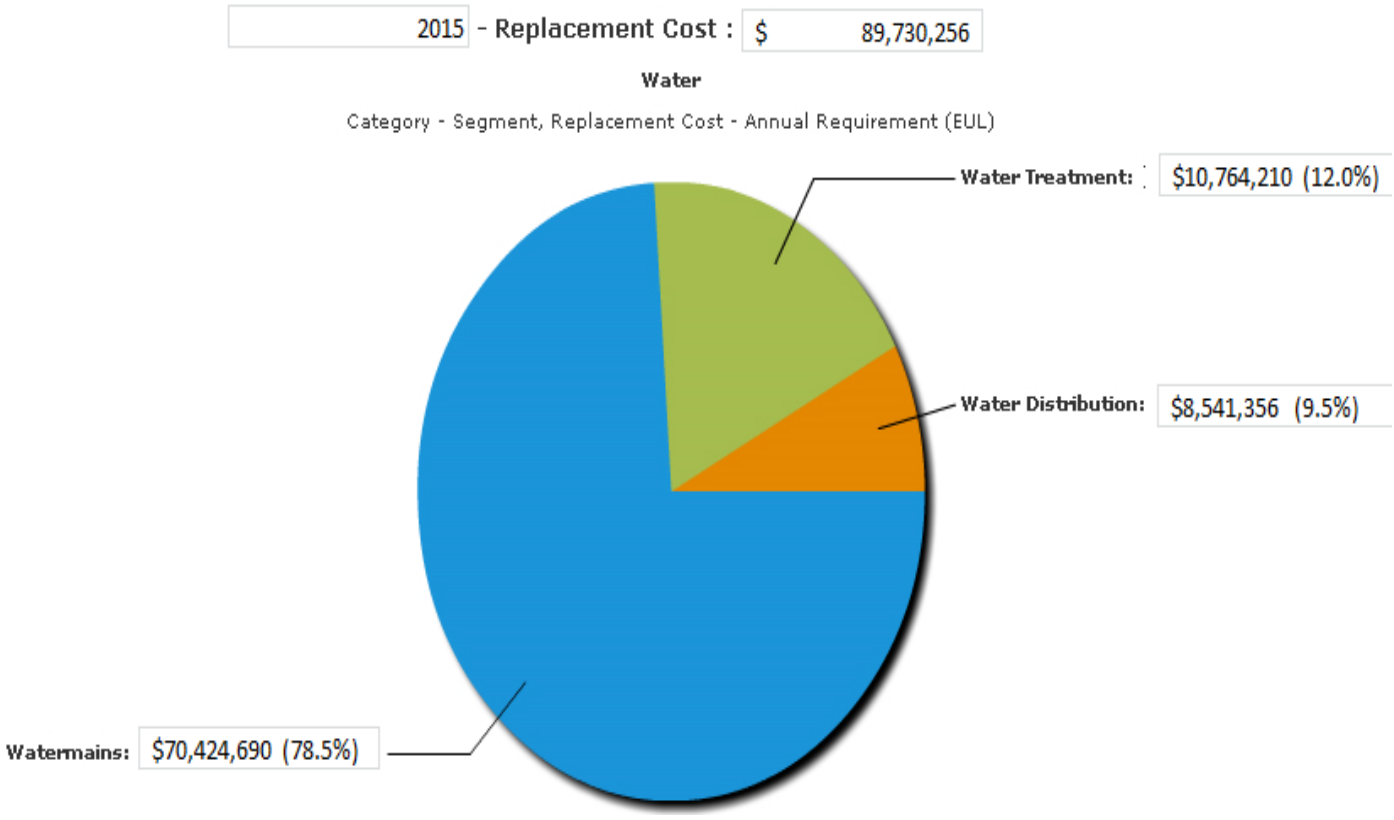
The replacement costs included or the water distribution and treatment plants are based on the historical cost inflated by the CPI tables found within the CityWide software. This revision of the plan also includes the equipment used in the distribution and treatment systems, which has also been included using the CPI tables. Further, the replacement value for the upgrade to the Tay Area Water Treatment Plant has been updated with a value of $5,800,000. A further upgrade to the plant has been included in 2024 for $1.1 million, as identified in the Township's 2015-2024 Long Term Plan.

The replacement cost for the water mains is based on costs obtained from C.C. Tatham & Associates in July 2013 and are included in the table below:

WATER REPLACEMENT VALUE				
WATER MAINS				
Diameter mm (existing pipe)	Diameter mm (replacement pipe - PVC)	Total Unit Price	Eng/EA/Des/ Super	Total Unit Price (2013)
25	150	$ 584	1.27	$ 742
38	150	$ 584	1.27	$ 742
50	150	$ 584	1.27	$ 742
75	150	$ 584	1.27	$ 742
100	150	$ 584	1.27	$ 742
150	150	$ 584	1.27	$ 742
200	200	$ 617	1.27	$ 783
250	250	$ 648	1.27	$ 823
300	300	$ 686	1.27	$ 871
350	350	$ 785	1.27	$ 997
400	400	$ 847	1.27	$ 1,076
450	450	$ 923	1.27	$ 1,172
500	450	$ 923	1.27	$ 1,172
600	450	$ 923	1.27	$ 1,172
750	450	$ 923	1.27	$ 1,172

Note: Costs for Road base and sub-base and asphalt have not been included.

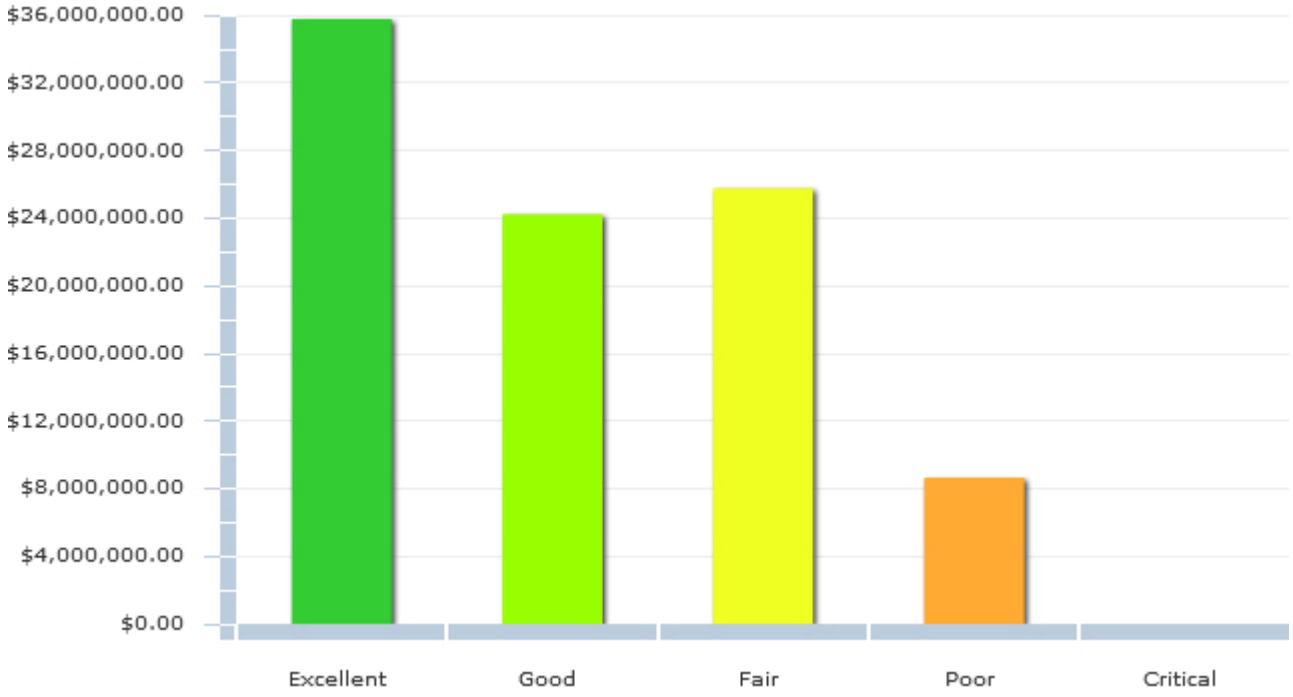
The pie chart below provides a breakdown of each of the network components to the overall system value. In Tay's case, almost 79% of the network is accounted for by the water mains.



What condition is it in?

Based on the age alone, more than 60% of the water infrastructure is in good to excellent condition. As such, the municipality received a Condition vs. Performance rating of '**C**'.

2013 Water Network Adjusted Age Based Condition by Replacement Cost



It should be noted, that for the purposes of this plan, the Tay Area Water Treatment Plant has a condition rating of FAIR.

What do we need to do?

There are generally four distinct phases in an asset's life cycle. These are presented at a high level for the water distribution network below. Further detail is provided in the "Asset Management Strategy" section of this AMP.

Addressing Asset Needs		
Phase	**Lifecycle Activity**	**Asset Life Stage**
Minor Maintenance	Inspections, monitoring, cleaning and flushing, hydrand flushing, pressure tests, etc	1st Qtr
Major Maintenance	Repairing water main breaks, repairing valves, replacing individual small sections of pipe, etc.	2nd Qtr
Rehabilitation	Structural lining of pipes and a cathodic protection program to slow the rate of pipe deterioration	3rd Qtr
Replacement	Pipe replacement	4th Qtr

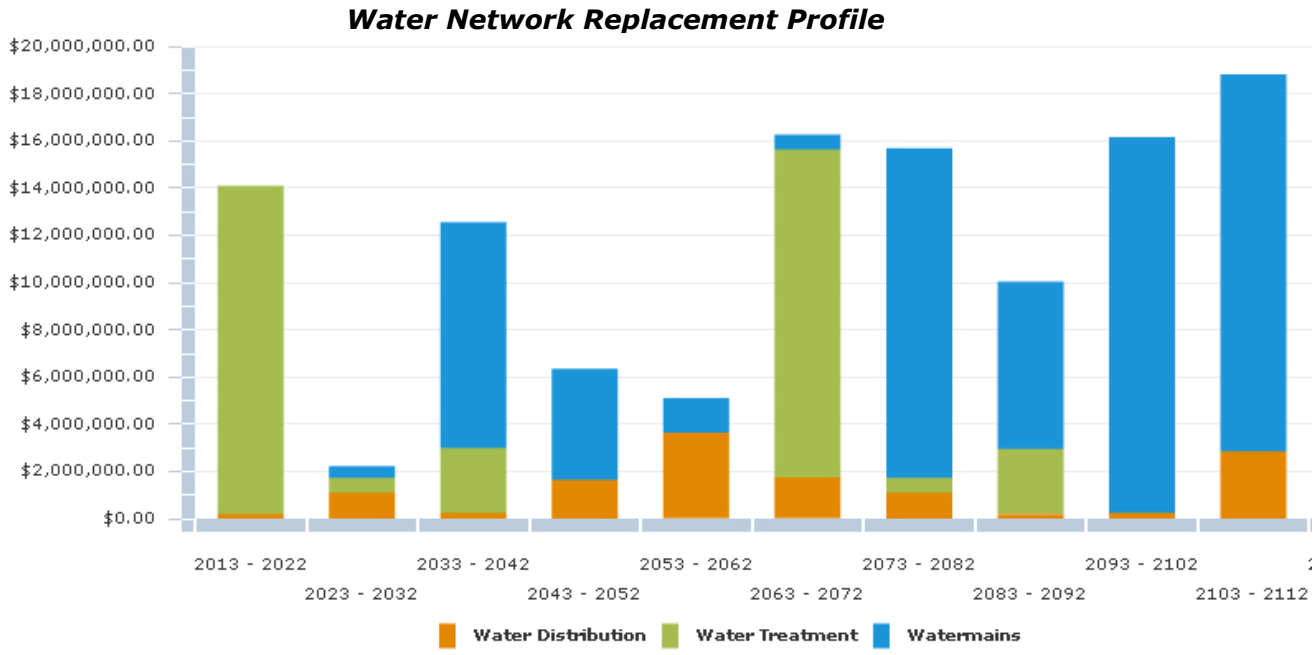
When do we need to do it?

For the purpose of this report "useful life" data for each asset class was obtained from the accounting data. The useful life for water mains has been adjusted, based on the type of material and the size of pipe that was used at the time of construction. This adjusted useful life was used to determine replacement needs of individual assets, which are calculated as part of the overall financial requirements.

WATER MAIN USEFUL LIFE IN YEARS			
Correction Factor was applied for material used and size of pipe used in construction			
Material/Pipe Size	**Accounting Useful Life**	**Correction Factor**	**Projected Life**
Asbestos Cement < 150 mm diameter	100	25	75
Cast Iron < 150 mm diameter	100	35	65
Ductile < 150 mm diameter	100	25	75
Galvanized < 150 mm diameter	100	50	50
Polyethylene (PE)	100	0	100

As field condition information becomes available in time, the data should be loaded into the database in order to increasingly have a more accurate picture of current asset age and condition, therefore, future replacement requirements.

The following graph shows the projection of the water network replacement costs based on the adjusted age based condition of the asset.



How much money do we need?

The analysis completed to determine capital revenue requirements was based on the following constraints and assumptions:

1. All values are presented in 2015 dollars
2. The analysis was run for a 100 year period to ensure all assets went through at least one iteration of replacement, therefore providing a sustainable projection.

How do we reach sustainability?

Based upon the above parameters, the average annual requirement to sustain Tay's water infrastructure is $ 1,183,057. With Tay's current annual funding of $1,225,500, today there is an annual surplus of $42,443. Given this surplus, the municipality received a Needs vs. Funding rating today of '**A**'. **This surplus can be increased by $494,000 in 2022 when the 2007 Tay Area Water System improvements debt expires.** When reviewing this possible surplus, it is important to note that this plan considers the full replacement of assets that the Township currently owns, and therefore, **does not include new assets**, such as those expected to come from the Master Servicing Study (new standpipe etc.).

In conclusion, Tay's water distribution network is in good condition based on the adjusted age data only. It should be noted, however, that over the next two decades a significant portion of the water main inventory will move from a state of good condition to fair condition. An increase in funds will be required to address network rehabilitation needs at this point; however, there is time to plan for this transition which will also be discussed further is the 'Asset Management Strategy' section of this AMP.

Recommendations

The municipality received an overall rating of **'B'** for its water infrastructure, calculated from the Condition vs. Performance and the Needs vs. Funding ratings. Accordingly, we recommend the following:

- Methods to define the current condition of the water network should be researched and implemented to improve the data in this plan.

- Once the above is complete, a new performance age should be applied to each water main and an updated "current state of the infrastructure" analysis should be generated.

- An appropriate percentage of asset replacement value should be used for operations and maintenance activities on an annual basis. This should be determined through a detailed analysis of operating and maintenance activities and be added to future AMP reporting.

WASTEWATER INFRASTRUCTURE

What do we own?

The inventory components of the Wastewater Collection and Treatment System are outlined in the table below.

WASTEWATER INFRASTRUCTURE				Replacement Cost	Average Annual Requirement
	2014			2015	
Classification	Historical Cost	Accumulated Amortization	Closing Net Book Value		
Sewer Mains	$ 9,129,616	$ 3,381,344	$ 5,748,272	$ 39,405,284	527,143
Wastewater Collection	$ 2,920,708	$ 1,745,876	$ 1,174,832	$ 9,554,464	194,819
Wastewater Treatment	$ 17,323,977	$ 8,031,707	$ 9,292,270	$ 20,367,658	872,270
Wastewater Total	**$ 29,374,300**	**$ 13,158,927**	**$ 16,215,373**	**$ 69,327,406**	**$ 1,594,232**

What is it worth?

The estimated replacement value of the wastewater collection and treatment network, in 2015 dollars, is approximately $69.3 million. This translates into an average annual requirement of **$1,594,232** when planned replacement date or EOL date is factored into the analysis.

The replacement costs for the wastewater collection and treatment plants are based on the historical cost inflated by the CPI tables found within the CityWide software. The replacement value for the current upgrade to the Victoria Harbour Waste Water Treatment Plant has been included at a cost of $10,800,000. A second phase to this upgrade has also been included at a cost of $9,000,000 in 2023 in order to reflect the information contained in the 2015-2024 Long Term Plan.

As a result of the plant upgrade and the addition of equipment replacements which are now included in this plan, a substantial increase to the annual requirement is noted from the 2014 AMP. This increase of approximately $500,000 is subject to change as the requirements to the system change. For example, the inclusion of equipment alone has changed the annual requirement by $330,000 due to the expected useful life on the membranes used at the Port McNicoll Wastewater Plant. Should the life of these membranes be extended beyond 10 years, or should the need to replace all membranes be reduced through

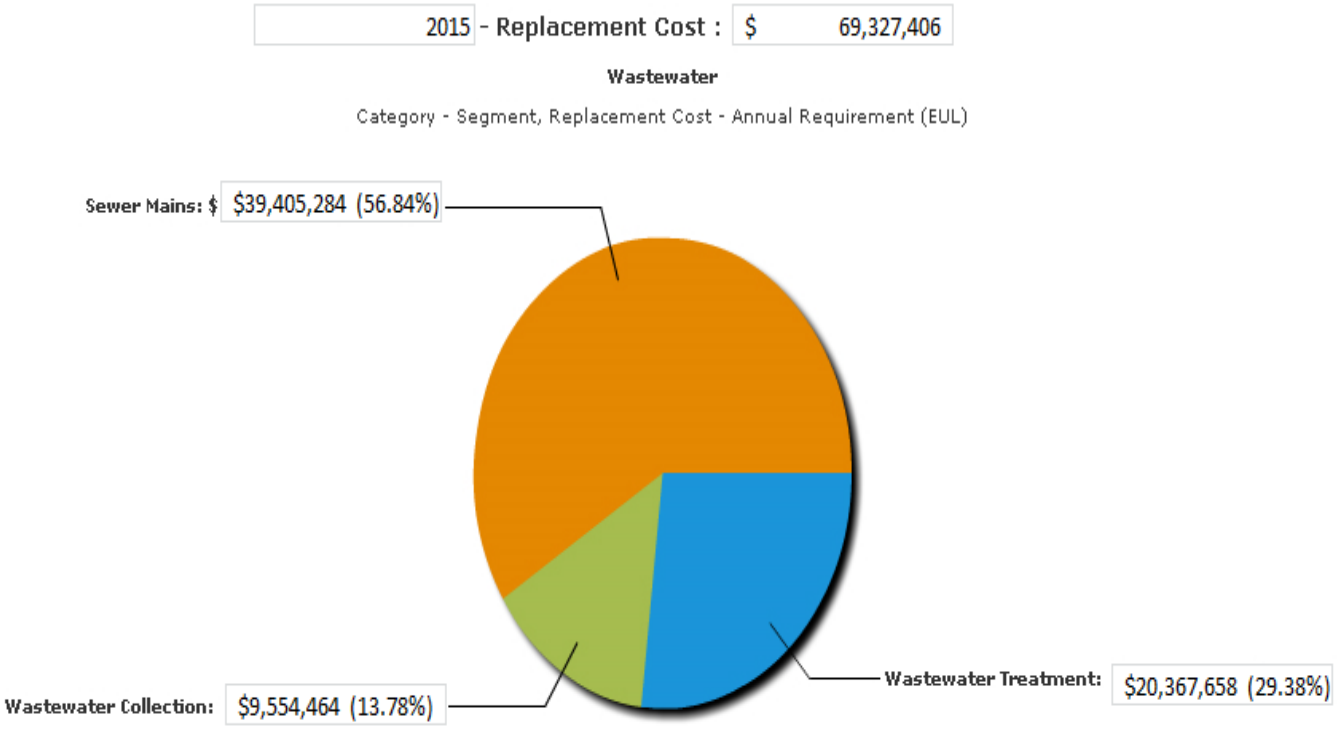
technological advancements, the picture presented in this version of the AMP can change drastically. Therefore, it is important to use this document as a planning tool, knowing that the assumptions made can have a significant effect on the result produced. For this reason it is recommended that the replacement costs for the wastewater system be reviewed in detail before the next revision to this plan.

The replacement cost for the sewer mains is based on costs obtained from C.C. Tatham & Associates in July 2013 and are included in the table below:

Unit Price List - SANITARY SEWER REPLACEMENT/RETROFITTING				
			Eng/EA/Des/CS/CA 2013	
Diameter mm	**Diameter mm**	**Total Unit Price**		**Total Unit Price**
(existing pipe)	(replacement pipe- PVC)		1.27	
100	200	$ 682	1.27	$ 866
150	200	$ 682	1.27	$ 866
200	200	$ 682	1.27	$ 866
250	250	$ 691	1.27	$ 878
300	300	$ 710	1.27	$ 902
375	375	$ 751	1.27	$ 954
450	450	$ 832	1.27	$ 1,056
525	525	$ 967	1.27	$ 1,228
600	600	$ 1,052	1.27	$ 1,336

Note: Costs for asphalt have not been included.

The pie chart below provides a breakdown of each of the network components to the overall system value.

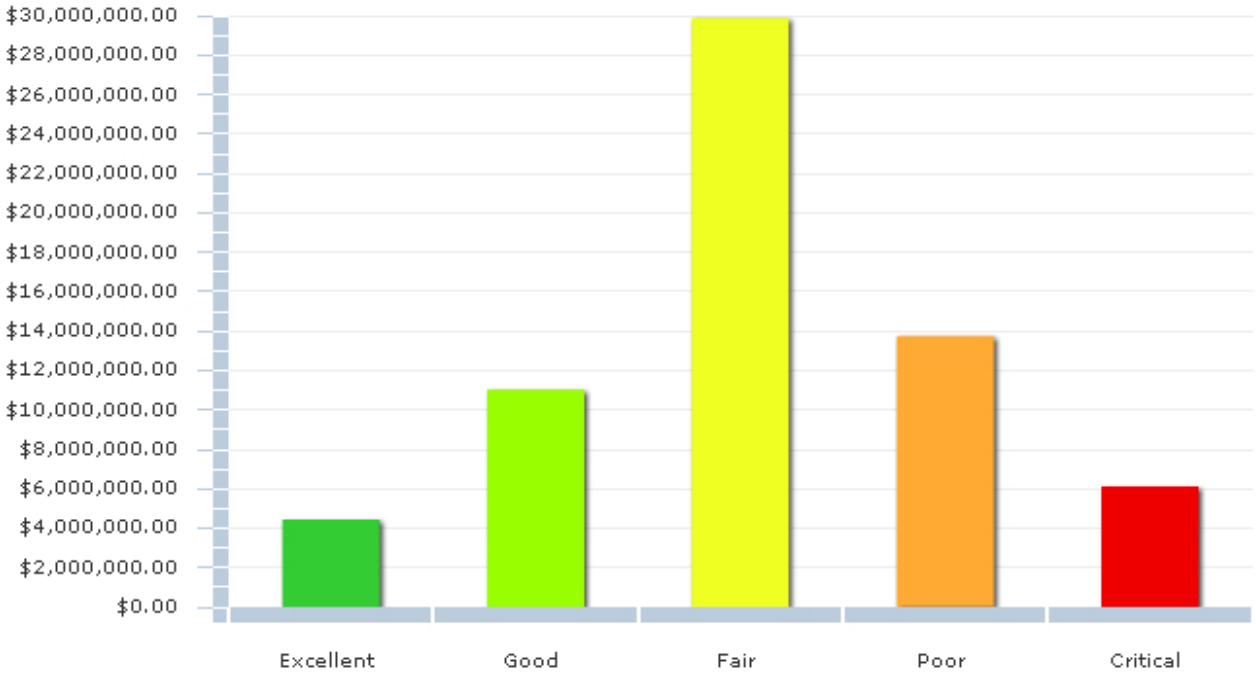


What condition is it in?

With nearly 30% of the wastewater infrastructure in poor to critical condition, the municipality received a Condition vs. Performance rating of **'C'.**

In general, it can be seen that Tay's wastewater network is in fair condition based on age data only.

2013 Wastewater Network Age based Condition by Replacement Cost



It should be noted, that for the purposes of this plan, the Victoria Harbour Waste Water Treatment Plant has a condition rating of FAIR.

What do we need to do?

There are generally four distinct phases in an asset's life cycle. These are presented at a high level for the water distribution network below. Further detail is provided in the "Asset Management Strategy" section of this AMP.

Addressing Asset Needs		
Phase	**Lifecycle Activity**	**Asset Life Stage**
Minor Maintenance	Inspections, monitoring, cleaning and flushing, zoom camera and CCTV inspections, etc	1st Qtr
Major Maintenance	Repairing manholes and replaceing small sections of pipe.	2nd Qtr
Rehabilitation	Structural lining of pipes are cost effective and may extend useful life up to 75 or more years.	3rd Qtr
Replacement	Pipe replacement	4th QTR

When do we need to do it?

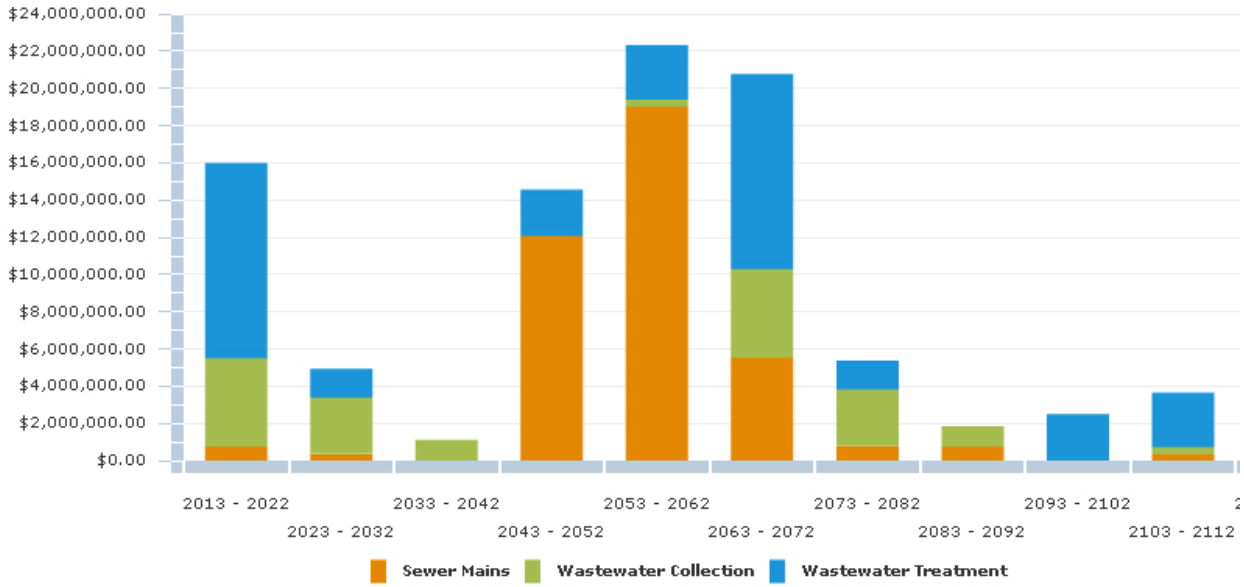
For the purpose of this report "useful life" data for each asset class was obtained from the accounting data. This useful life for the sewer mains has been adjusted for the AMP, based on the size of the pipe that was used at the time of construction. This adjusted useful life was used to determine replacement needs of individual assets, which are calculated in the system as part of the overall financial requirements.

SEWER MAIN USEFUL LIFE IN YEARS			
Correction Factor was applied for size of pipe used in construction			
Material/Pipe Size	**Accounting Useful Life**	**Correction Factor**	**Projected Life**
Concrete < 150 mm diameter	75	50	25
Asbestos Cement < 150 mm diameter	75	50	25
Polyvinyl Chloride (PVC)	75	0	75

As field condition information becomes available in time, the data should be loaded into the database in order to increasingly have a more accurate picture of current asset age and condition, therefore, future replacement requirements.

The following graph shows the projection of the wastewater network replacement costs based on the adjusted age based condition of the asset.

2013 Wastewater Network Replacement Profile



How much money do we need?

The analysis completed to determine capital revenue requirements was based on the following constraints and assumptions:

1. All values are presented in 2015 dollars
2. The analysis was run for a 100 year period to ensure all assets went through at least one iteration of replacement, therefore providing a sustainable projection.

How do we reach sustainability?

Based upon the above parameters, the average annual requirement to sustain Tay's wastewater infrastructure is $1,594,232. Based on Tay's current annual funding of $600,000 today there is an annual deficit of $994,232. Given this deficit, the municipality received a Need vs. Funding rating of '**F'**.

In conclusion, Tay's wastewater network is in fair condition based on the adjusted age data only. It should be noted, however, that over the next two decades a significant portion of the sewer main inventory will move from a state of fair condition to poor, even critical condition. An increase in funds will be required to address network rehabilitation needs at this point; however, there is time to plan for this transition which will also be discussed further is the 'Asset Management Strategy' section of this AMP.

Recommendations

The municipality received an overall rating of '**D**' for its wastewater infrastructure, calculated from the Condition vs. Performance and the Needs vs. Funding ratings. Accordingly, we recommend the following:

- Methods to define the current condition of the wastewater network should be researched including annual video recording of mains and implemented to improve the data in this plan.

- Once the above is complete, a new performance age should be applied to each sewer main and an updated "current state of the infrastructure" analysis should be generated.

- Once the costs of the Victoria Harbour Waste Water Treatment Plant are finalized, they should be incorporated into this plan.

- An appropriate percentage of asset replacement value should be used for operations and maintenance activities on an annual basis. This should be determined through a detailed analysis of operating and maintenance activities and be added to future AMP reporting.

STORM SEWER INFRASTRUCTURE

What do we own?

The inventory components of the Storm Sewer Collection system are outlined in the table below.

STORM SEWER INFRASTRUCTURE				Replacement Cost	Average Annual Requirement
	2014			2015	
Classification	Historical Cost	Accumulated Amortization	Closing Net Book Value		
Storm Mains	$ 2,720,404	$ 1,141,871	$ 1,578,534	$ 4,930,588	**$ 65,741**

What is it worth?

The estimated replacement value of the storm sewer collection system, in 2015 dollars, is approximately $4.9 million. This translates into an average annual requirement of **$65,741** based on an end of life (EOL) replacement date.

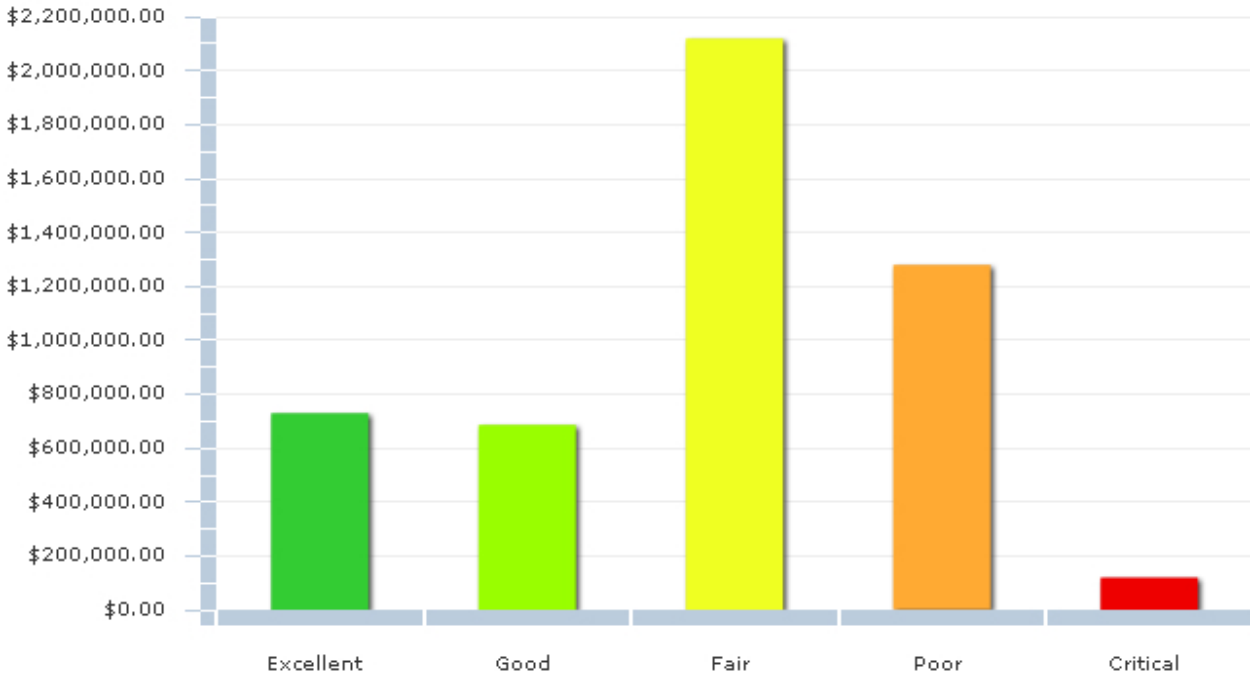
The replacement cost for the storm sewer inventory is based on the historical cost inflated by the CPI tables found within the CityWide software and includes no changes from the AMP produced in 2014.

What condition is it in?

With nearly 30% of the storm sewer infrastructure in poor to critical condition, the municipality received a Condition vs. Performance rating of **'C'.**

In general, it can be seen that Tay's sewer network is in fair condition based on age data only.

2013 Storm Sewer Network Age Based Condition by Replacement Cost



What do we need to do?

There are generally four distinct phases in an asset's life cycle. These are presented at a high level for the water distribution network below. Further detail is provided in the "Asset Management Strategy" section of this AMP.

Addressing Asset Needs		
Phase	**Lifecycle Activity**	**Asset Life Stage**
Minor Maintenance	Inspections, monitoring, cleaning and flushing, zoom camera and CCTV inspections, etc	1st Qtr
Major Maintenance	Repairing manholes and replaceing small sections of pipe.	2nd Qtr
Rehabilitation	Structural lining of pipes are cost effective and may extend useful life up to 75 or more years.	3rd Qtr
Replacement	Pipe replacement	4th QTR

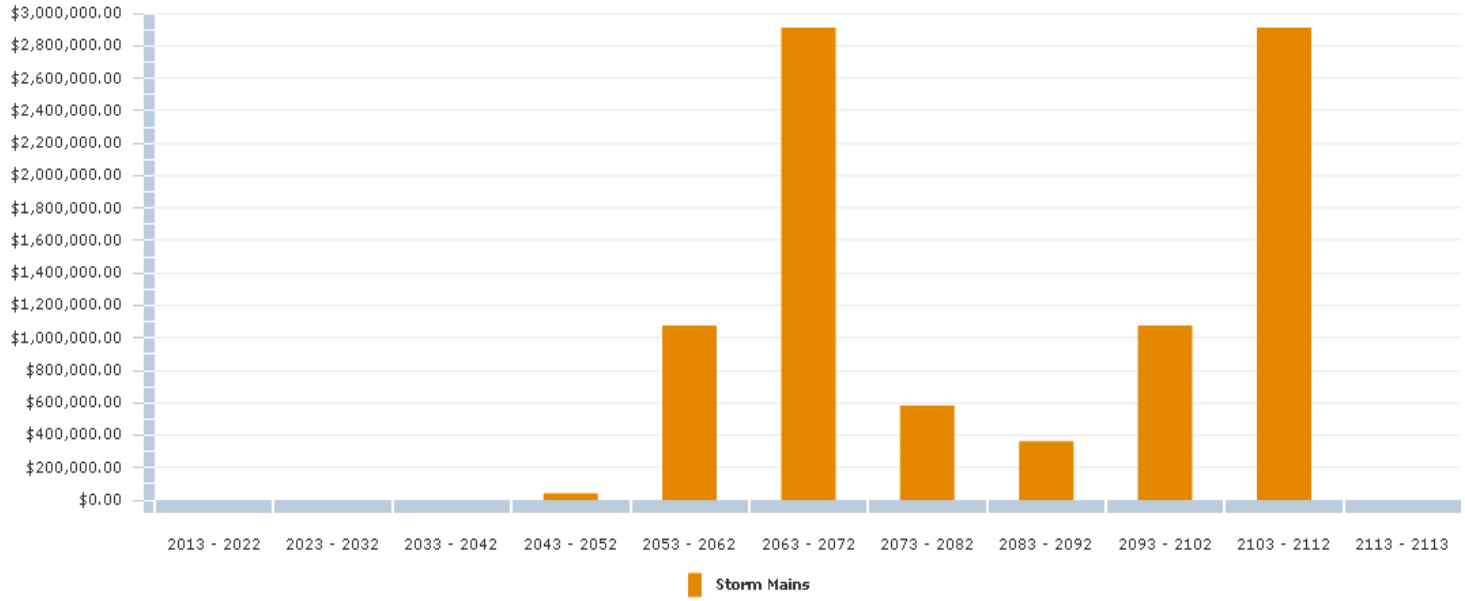
When do we need to do it?

For the purpose of this report "useful life" data for each asset class was obtained from the accounting data. When reviewing this data, it was determined that the useful life of the storm sewer mains needed to be increased from 40 years to 75 years to reflect today's best estimates. The 2014 accounting data reflects this adjustment. This useful life was used to determine the planned replacement needs.

As field condition information becomes available in time, the data should be loaded into the database in order to increasingly have a more accurate picture of current asset age and condition, therefore, future replacement requirements.

The following graph shows the projection of the storm sewer network replacement costs based on the age based condition of the asset.

2013 Storm Sewer Network Replacement Profile



How much money do we need?

The analysis completed to determine capital revenue requirements was based on the following constraints and assumptions:

1. All values are presented in 2015 dollars
2. The analysis was run for a 100 year period to ensure all assets went through at least one iteration of replacement, therefore providing a sustainable projection.

How do we reach sustainability?

Based upon the above parameters, the average annual requirement to sustain Tay's storm sewer infrastructure is $65,741. Based on Tay's current annual funding of $0, today there is an annual deficit of **$65,741**. Given this deficit, the municipality received a Needs vs. Funding rating **of 'F'.**

In conclusion, Tay's storm sewer network is in fair condition based on the adjusted age data only. It should be noted, however, that over the next two decades a significant portion of the storm sewer main inventory will move from a state of fair condition to critical condition. An increase in funds will be required to address network rehabilitation needs at this point; however, there is time to plan for this transition which will also be discussed further is the 'Asset Management Strategy' section of this AMP.

Recommendations

The municipality received an overall rating of **'D'** for its storm sewer infrastructure, calculated from the Condition vs. Performance and the Needs vs. Funding ratings. Accordingly, we recommend the following:

- A more detailed study to define the current condition of the storm sewer network should be undertaken as described further within the 'Asset Management Strategy' section of this AMP.

- Once the above study is complete, a new performance age should be applied to each storm sewer main and an updated "current state of the infrastructure" analysis should be generated.

- An appropriate percentage of asset replacement value should be used for operations and maintenance activities on an annual basis. This should be determined through a detailed analysis of operating and maintenance activities and be added to future AMP reporting.

VEHICLES & EQUIPMENT

What do we own?

A summary of the Township's vehicle and equipment inventory is outlined in the table below. It is important to note that only equipment that is currently funded from the Equipment & Vehicles Reserves held by the Township has been included in the section of the plan (i.e. Public Works equipment and Fire equipment). All other equipment is funded by a combined Building & Equipment Reserve, and therefore, this equipment will be included in a future version of this plan.

VEHICLES & EQUIPMENT INVENTORY					
	2014			2015	
Classification	Historical Cost	Accumulated Amortization	Closing Net Book Value	Replacement Cost	Average Annual Requirement
Vehicles	3,946,044	1,954,299	1,991,746	$ 5,393,000	$ 368,738
Equipment	906,197	374,653	531,544	$ 976,092	$ 82,548
Total	**4,852,241**	**2,328,952**	**2,523,290**	**$ 6,369,092**	**$ 451,286**

What is it worth?

The estimated replacement value of our vehicle and equipment inventory, in 2015 dollars, is approximately $6.4 million. This translates into an average annual requirement of **$451,286** based on an end of life (EOL) replacement date.

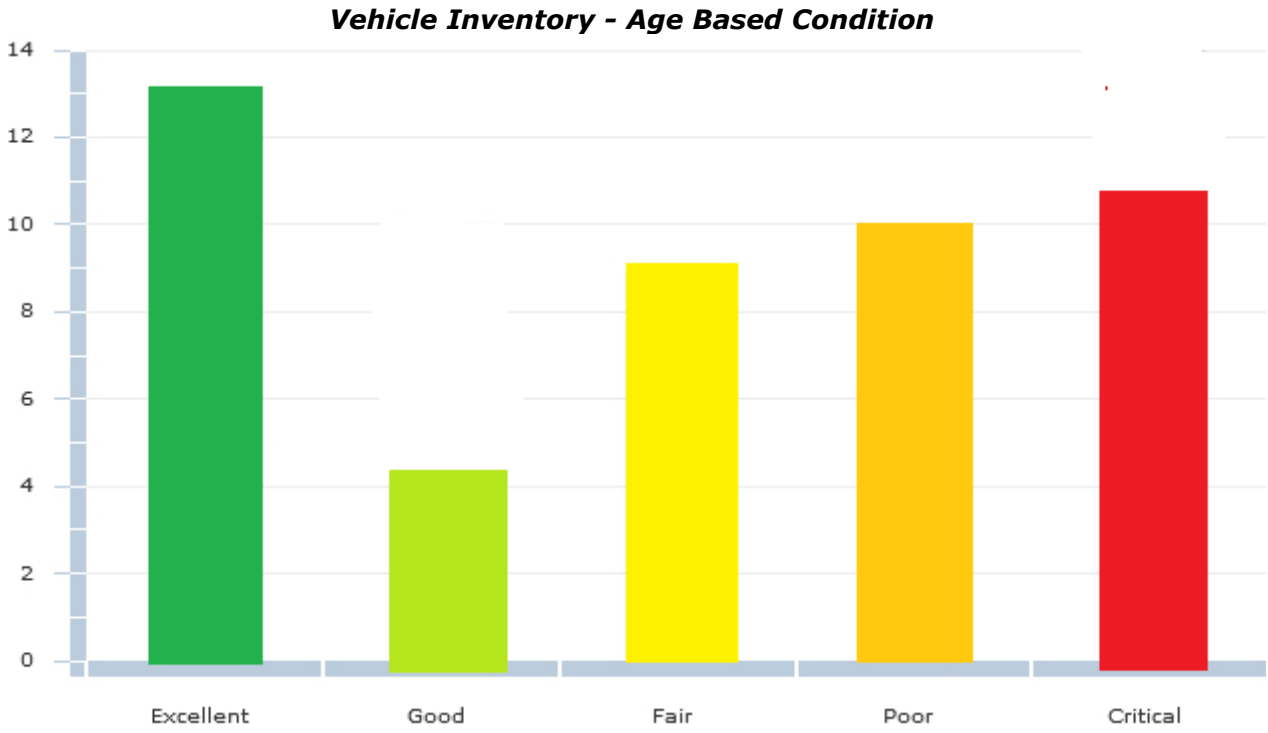
The replacement cost for the equipment inventory is based on the historical cost inflated by the CPI tables found within the CityWide software, whereas the replacement cost of vehicles has been taken from the Township's 2015-2024 Long Term Plan.

What condition is it in?

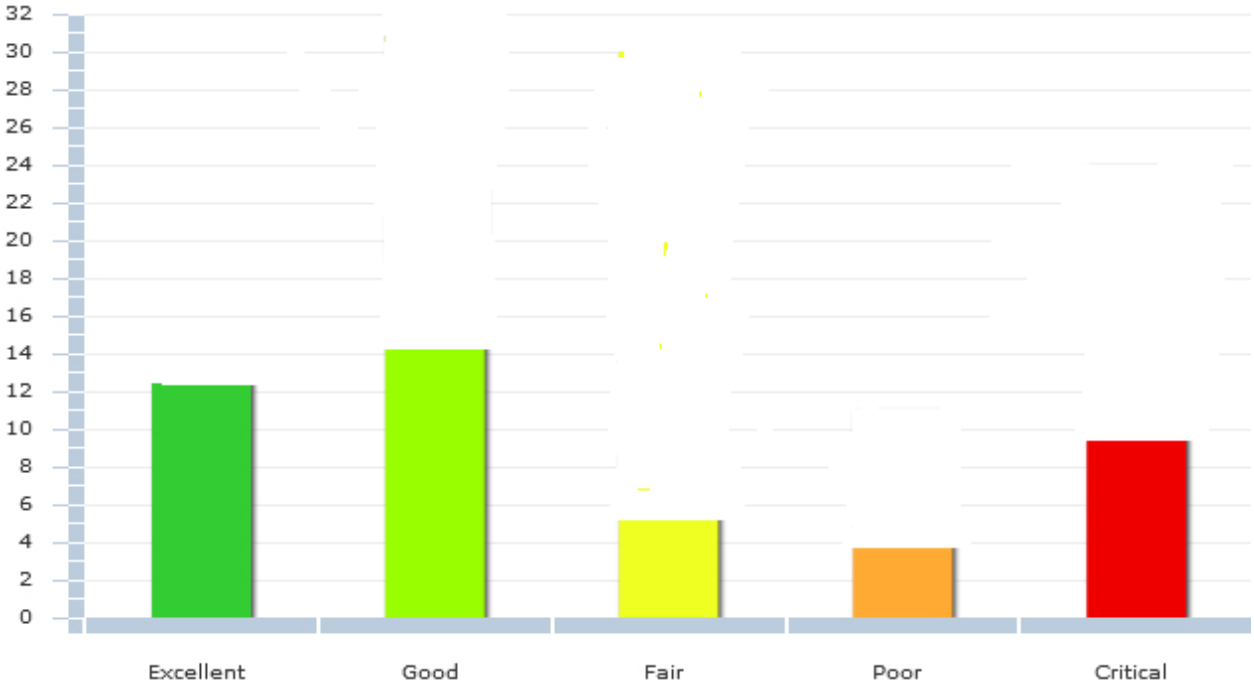
With nearly 44% of the vehicle inventory in poor to critical condition, the municipality received a Condition vs. Performance rating of `**C'.** A rating of poor indicates that the vehicle is approaching the end of its useful life, whereas a critical rating implies that the vehicle has reached its useful life or has exceeded its useful life. Several of the vehicles identified as critical are scheduled for replacement this year and next as per the Township's Long Term Plan. Many of the equipment assets falling in the critical category are

past their useful life (age-based) or are pooled, where a deemed disposal needs to be completed in our inventory system. Other items shown as critical have been flagged as not scheduled for replacement, such as in the case of old mowers held by the Parks Department.

In general, it can be seen that Tay's inventory is in fair condition based on age data only.



Equipment Inventory - Age Based Condition



What do we need to do?

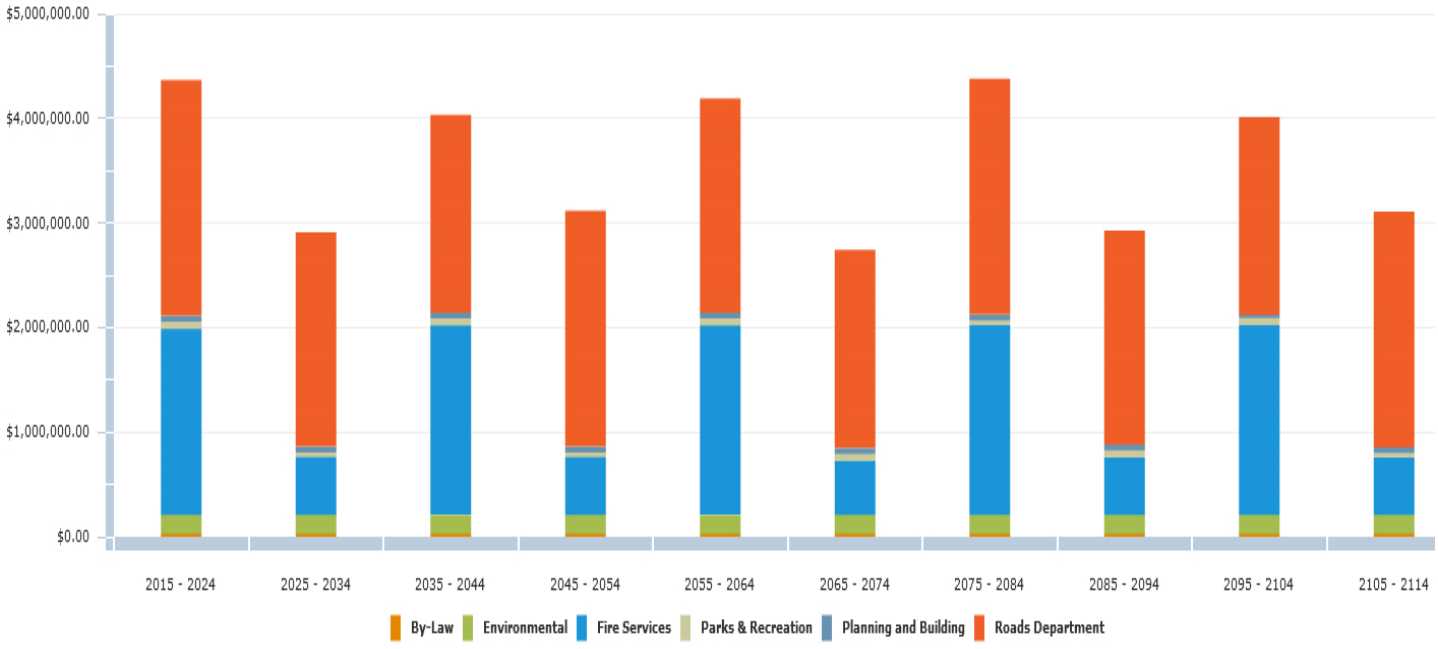
In order for our vehicles and equipment to reach their useful life it is important to perform preventive maintenance. Routine maintenance is performed on all emergency vehicles, along with biennial inspections. Vehicles that are used by the Fire Chief and Deputy Chief are maintained more frequently (based on mileage driven). In 2013, the Public Works Department implemented a preventive maintenance program for all commercial vehicles, putting these vehicles on a monthly, semi-annual and annual inspection schedule. This year, utility vehicles (pick-up trucks etc.) have been added and are currently on a quarterly inspection rotation. Equipment is currently on a semi-annual rotation, and is subject to review for suitability. These practices are consistent with the asset renewal philosophy of doing the right thing, to the right asset at the right time. A formal written maintenance strategy has not yet been developed, and therefore the Asset Management Strategy of this plan does not include Vehicles and Equipment at this time.

When do we need to do it?

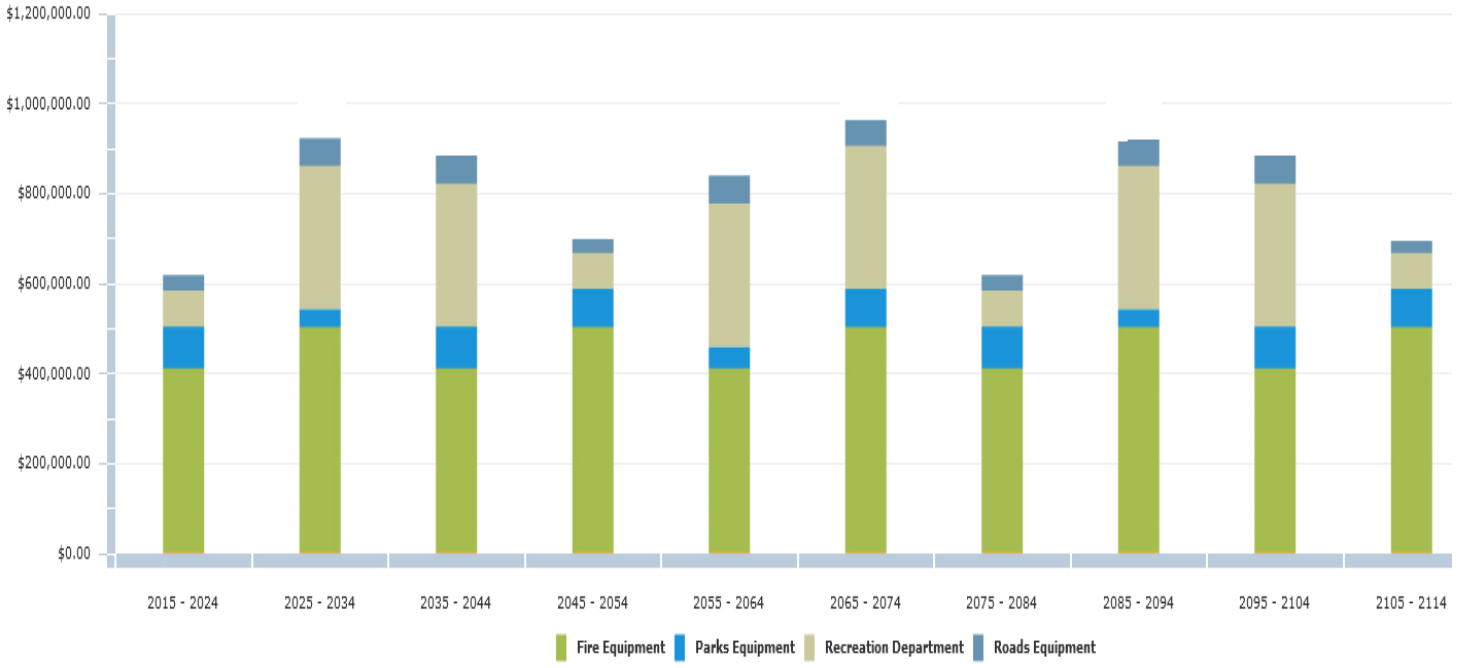
For the purpose of this report "useful life" data for each asset class was obtained from the accounting data. When reviewing this data, it was determined that the useful life of some of the vehicles and equipment need to be adjusted in order to coincide with the actual expected life of the assets and thus the Township's Long Term Plan. Due to time constraints, not all of the required changes have been included in this version of the plan. It is unlikely that their exclusion will have a significant impact on the results produced in this version of the plan (low materiality). Overall, the vehicle & equipment data contained in this plan provides a sound basis for the Township to use when planning for the continuous renewal of these assets over the modeled period (100 years).

The following graphs shows the projection of the vehicle and equipment replacement costs based on the age based condition of the asset.

Vehicle Inventory Replacement Profile



Equipment Inventory Replacement Profile



How much money do we need?

The analysis completed to determine revenue requirements was based on the following constraints and assumptions:

1. All values are presented in 2015 dollars
2. The analysis was run for a 100 year period to ensure all assets went through at least one iteration of replacement, therefore providing a sustainable projection.

How do we reach sustainability?

Based upon the above parameters, the average annual requirement to sustain Tay's vehicle and equipment inventory is $451,286. Based on Tay's current annual funding of $421,500, today there is an annual deficit of **$30,000**. This deficit is expected to decrease over the next few years, as the Township is currently in the process of phasing in an annual increase to its vehicle and equipment reserve, particularly in the areas of Public Works and Fire. Given this shrinking deficit, the municipality received a Needs vs. Funding rating **of 'A'.**

In conclusion, Tay's vehicle and equipment inventory is in fair condition based on the adjusted age data only. This assumption is consistent with the needs identified in the Township's current Long Term Plan.

Recommendations

The municipality received an overall rating of **'B**' for its vehicle and equipment inventory, calculated from the Condition vs. Performance and the Needs vs. Funding ratings. Accordingly, we recommend the following:

- An appropriate percentage of asset replacement value should be used for operations and maintenance activities on an annual basis. This should be determined through a detailed analysis of operating and maintenance activities and should be added to future AMP reporting. This work would be especially beneficial to the Public Works Department, given the increasing costs realized in 2013 & 2014 for vehicle & equipment repairs and maintenance.

MUNICPAL BUILDINGS

What do we own?

As seen in the table below, the Township owns a total of 22 municipal buildings. Buildings used for water and wastewater operation have been excluded from this total, as these buildings are included under Water and Wastewater Network.

MUNICIPAL BUILDINGS INVENTORY							
2017						2018	
Classification	Quantity	Historical Cost	Total m2	Accumulated Amortization	closing Net Book Value	Replacement Cost	Average Annual Requirement (EUL)
Fire Halls	4	$1,904,902	2,225	$347,437	$1,557,465	$4,810,000	
Community Spaces	5	$3,188,923	4,206	$1,251,266	$1,937,657	$5,650,000	
Administration	1	$3,179,450	1,120	$842,740	$2,336,710	$2,500,000	
Public Works	2	$993,353	1,517	$520,585	$472,768	$3,575,000	
Washrooms/Changerooms	7	$519,080	270	$34,372	$484,708	$813,600	
Libraries	2	$604,700	781	$321,736	$282,965	$1,306,800	
Other (Albert Street Mini-Mall)	1	$472,913	324	$112,669	$360,244	$1,067,000	
Total:	**22**	**$10,863,322**	**$10,443**	**$3,430,805**	**$7,432,516**	**$19,722,400**	**$479,381**

What is it Worth?

The total replacement cost of the building inventory was calculated to be $19,722,400. Considering the year of replacement expected for each building, this total replacement cost figure translates to an average annual requirement of $479,861 from the township. While these buildings may never be completely torn down and rebuilt, it is important to recognize that significant costs will be incurred throughout the buildings useful life, with the assumption that major upgrades to these buildings will need to conform to both accessibility standards and building code requirements.

What Condition is it in?

The overall Facility Condition Index (FCI) of each building was determined by considering both the remaining expected useful life of the building, and the physical condition of the building and related components noted during inspection by the Township's Facility Maintenance Coordinator using the parameters outlined in the table below.

Facility Condition Index (FCI)					
Rating	**FCI Levels**	**Impact to Building and Components**	**Examples of Component Issues**	**Resident Complaints and Feedback**	**Maintenance Staff Impact**
1	Excellent	- Facilities will look clean and functional. - Limited and manageable component and equipment failure may occur.	- Repairs and replacement of more of an aesthetic or general nature, such as wall painting, carpet replacement, roof repair, window caulking.	- Resident complaints will be low and manageable. - Resident feedback will be positive and evident.	- Facilities staff time will be devoted to regular scheduled maintenance.
2	Good	- Facilities are beginning to show sings of wear. - More frequent component and equipment failure will occur.	- Repairs and replacement of specific systems, i.e. boiler, window replacements, interior renovations.	- Resident complaints will occur with higher level of frequency. - Positive Resident feedback may decline.	- Facilities staff time may at times be diverted from regular scheduled maintenance.
3	Fair	- Facilities will look worn with apparent and increasing deterioration. - Frequent component and equipment failure may occur. Occasional building shut down will occur.	- Replacement of specific major systems required, such as heating and plumbing systems, complete interior renovations, building envelope restoration. - Shut down may affect some units (i.e. roof of pipe leakage)	- Resident complaints will be high with increased level of frequency. - Concern about negative resident feedback will be raised and become evident.	- Facilities staff time will likely be diverted from regular scheduled maintenance and forced to "reactive" mode.
4	Poor	- Facilities will look worn with apparent and increasing deterioration. - Frequent component and equipment failure may occur. Occasional building shut down will occur.	- Replacement of specific major systems required, such as heating and plumbing systems, complete interior renovations, building envelope restoration. - Shut down may affect some units (i.e. roof or pipe leakage).	- Resident complaints will be high with increased level of frequency. - Increased Concern about negative resident feedback will be raised and become evident.	- Facilities staff time will likely be diverted from regular scheduled maintenance and forced to "reactive" mode.
5	Critical	- Facilities are worn with obvious and rapidly increasing deterioration. - Certain component and equipment failure. Increased building shut down to occur.	- Replacement of major and minor systems required, such as heating and plumbing systems, complete interior renovations, building envelope restoration.	- Resident complaints will be constant.	- Facilities staff time will be spent on repairing and replacing components full time with no time for regular scheduled maintenance.

The graph below shows the distribution of our municipal buildings based on the FCI assigned. The majority of our building costs are within the "good" (59%) and "fair" (31%) categories. There is $50,000 worth of replacement costs in the "poor" column. These costs are related to the portable at Bridgeview Park. With the majority of our municipal buildings in good to fair condition, the municipality received a Condition vs. Performance rating of '**B**'.

It should also be noted that the old Victoria Harbour Fire Hall, is considered in critical condition. This building has not been included, as for the purpose of asset management, this building is not planned for replacement.

Municipal Buildings Condition (By Replacement Cost)

What do we need to do?

There are generally four distinct phases in an asset's life cycle. These are presented at a high level for the municipal buildings below. Further details are provided in the "Asset Management Strategy".

When do we need to do it?

Addressing Asset Needs		
Phase	**Lifecycle Activity**	**Asset Age**
Minor Maintenance	Planned activities such as inspections, monitoring, etc.	1st Qtr of Life
Major Maintenance	Maintenance and repair activities, generally unplanned, however, anticipated activities that are included in the annual operating budget.	2nd Qtr of Life
Rehabilitation	Major activities such as the upgrade or replacement of smaller individual facility components (e.g. windows)	3rd Qtr of Life
Replacement	Complete replacement of asset components or a facility itself.	4th Qtr of Life

How much money do we need?

The analysis completed to determine capital revenue requirements was based on the following constraints and assumptions:

1. All values are presented in 2018 dollars
2. The analysis was run for a 100 year period to ensure all assets went through at least one iteration of replacement, therefore providing a sustainable projection.

How do we reach Sustainability?

The average annual requirement to sustain Tay's Municipal Buildings is $479,861. Based on Tay's 2018 funding of $81,000, today there is an annual deficit of $398,861. Because of this deficit, the municipality received a need vs. funding rating of **"F".**

Below is a table that shows the breakdown of need vs. funding for municipal buildings by facility type.

Municipal Building Funding Availability				
Facility Type	Average Annual Transfer Required	Annual Transfer (2018)	Percentage of funding	Funding Vs. Need Grade Scale
Fire Halls	$113,769	$10,000	8.79%	F
Community Spaces	$159,750	$13,361	8.36%	F
Pubic Works	$77,300	$21,135	27.34%	F
Washrooms/ Change rooms	$19,600	$1,639	8.36%	F
Libraries	$40,442	$16,000	39.56%	F
Administration	$69,000	$18,865	27.34%	F

It should be noted that the municipality currently has debt servicing costs of $44,000 embedded in the annual operating budget related to the construction of the Tay Community Rink. This debt will expire in 2022. It is recommended that this funding remain in the annual budget and be put towards the Municipal Buildings Reserve for future replacement/rehabilitation needs.

The construction of the new Old Fort Fire Hall was financed by debt and as such $107,000 in debt servicing costs is embedded in the annual operating budget. It is recommended that when this debt expires in 2042, that a transfer to the Municipal Buildings Reserve be set up the following year for this amount.

Recommendations

Continuing to fund new buildings or full reconstruction of existing buildings using debt financing with an amortization period of half of the assets useful life, along with a continued annual increase of our transfer to the Municipal Building Reserve will allow these assets to become sustainable within the next 25 years.

It is also recommended that a portion of the Township's annual surplus be directed to the Municipal Buildings Reserve in order to help reach sustainability.

DESIRED LEVELS OF SERVICE:

The level of service for the Township of Tay's infrastructure has a major impact on the economy and quality of life for Tay's residents. The objective of the Public Works Department will be to provide the best maintenance and replacement program given the resources available. It is understood that the quality of the maintenance and capital program on any road, sewer or water main is dependent on the following factors: number of repairs, age of the infrastructure, materials, traffic volumes and maintenance demand on the asset and visual inspection where applicable. Various current regulations govern the water system and wastewater system along with the minimum maintenance standards (MMS) for roads.

Developing an asset management plan is the time to consider alternatives for service delivery, improved program planning, improved quality of service and improved timeframes for delivering service.

Levels of Service (LOS) are statements of service performance delivery. LOS are established based on Council direction, the needs or wants of the community as well as legislative and regulatory requirements.

In order for a municipality to establish a desired level of service, it will be important to review the key factors involved in the delivery of that service. In addition, it will be important to establish some key performance metrics and track them over an annual cycle to gain a better understanding of the current level of service supplied.

Performance measures or key performance indicators (KPIs) that track levels of service should be specific, measurable, achievable, relevant, and time bound (SMART).

In establishing measures, a good rule of thumb to remember is that maintenance activities ensure the performance of an asset and prevent premature aging, whereas rehab activities extend the life of an asset. Replacement activities, by definition, renew the life of an asset. In addition, these activities are constrained by resource availability (in particular finances) and strategic plan objectives. Therefore, performance measures should not just be established for operating and maintenance activities, but also for the strategic and financial levels of the asset management program. This will assist all levels of program delivery to review their performance as part of the overall level of service provided.

As a note, a caution should be raised over developing too many performance indicators that may result in data overload and lack of clarity. It is better to develop a select few that focus in on the targets of the asset management plan.

Outlined below for each infrastructure category are suggested performance indicators. These should be reviewed and updated in each iteration of the Asset Management Plan.

KEY PERFORMANCE INDICATORS - Bridges & Culverts		
Objective	**Performance Indicator**	**How measured**
Quality	Condition	% of structures in good to very good condition (MPMP)
	Bridge Condition Index	The results of an Ontario Structure Inspection Manual compliant inspection of a bridge expressed as a % of the current equivalent value divided by the total equivalent value
Customer	Restrictions	Number of structures with a posted load restriction
	Detour Length	Length in kilometres of detour required should the bridge be closed to traffic
Management	Capital Reinvestment in Structures	Total annual capital expenditure for bridges divided by replacement cost expressed as a %
Financial	Structure Maintenance Cost	Total $ per m2 for bridges and culverts >= 3m span (MPMP)

KEY PERFORMANCE INDICATORS - ROADS		
Objective	**Performance Indicator**	**How measured**
Quality	Condition	% of roads in good to very good condition (MPMP)
	Ride Comfort	A drive over a road section at posted speed. Measured on a scale of 1 to 10 where 10 is very good and 1 is very poor
	Collision Rating	Number of collisions per hundred vehicle kilometers
	Pavement Condition Index	Sum of the severity and density of surface distresses
Customer	System Usage	Measured as the number of annual vehicle kilometers per lane kilometre.
	Temporary Load Restrictions	Percent of total road system with a spring load restriction
	Permanent Load Restrictions	Percent of total road system with a year round truck restriction
Management	Capital Reinvestment in Structures	Total annual capital expenditure for roads divided by replacement cost expressed as a %
Financial	Cost per person per day	Total daily cost for roads operating and capital divided by total population, which includes unpaved and paved maintenance costs, traffic management costs, roadside maintenance costs, storm water management costs and winter maintenance costs.
	Paved Road Maintenance Cost	Paved maintenance includes frost heave/base/utility cut repair, cold mix patching, hot mix patching, shoulder maintenance, surface maintenance, surface sweeping and surface flushing. Surface maintenance activities include crack sealing, spray patching, micro surfacing and slurry seal. Includes direct overhead (MPMP)
	Unpaved Road Maintenance Cost	Unpaved maintenance includes dust suppression, loose top grading, loose top gravelling, spot base repair and wash-out repair. Includes direct overhead (MPMP)
	Winter Road Maintenance Cost	The measure for winter control is based on the functional definition for winter control: continuous and spot snowplowing, ice control, combination plowing/salting/sanding, winging back snow. Ice blading, salting, sanding including spot sanding, snowfencing, snow removal, spring clean-up, winter standby, other. Include direct overhead (MPMP).

KEY PERFORMANCE INDICATORS - WATER MAINS		
Objective	**Performance Indicator**	**How measured**
Quality	Condition	Swabbing Program - Beginning in 2015 an annual program will be put in place so that all mains are swabbed on a 20 year cycle, with approximately 4kms of mains done per year. At this time the estimated cost of this program is $30,000/year.
		Maintenance Program - Hydrants and Valves are replaced every 50 years.
Customer	Service Call-outs	* 24/7 on call coverage
Management	Capital Reinvestment in Structures	Total annual capital expenditure for water mains divided by replacement cost expressed as a %
	Water main breaks	Number of water main breaks in a year divided by Total kilometres of water distribution/transmission pipe divided by 100
	Boil Water Advisories	Summation of: Number of boil water days times the number of connections affected divided by Total connections in the service area

KEY PERFORMANCE INDICATORS - SEWER MAINS		
Objective	**Performance Indicator**	**How measured**
Quality	Condition	Video Inspection Program - Beginning in 2015 an annual video inspection of 4 km of the 43 km of the sanitary sewer system will be performed.
		Sewer Main Flushing *Annual flushing of 5km of sanitary sewer *Every 3 months flush 1 km of sewer mains with high plug risk *Every 6 months flush 2 km of sewer mains with moderate plug risk
Customer	Service Call-outs	*24/7 on call coverage
Management	Capital Reinvestment in Structures	Total annual capital expenditure for sewer mains divided by replacement cost expressed as a %
	Wastewater Main Backups: Number of wastewater main backups per 100 kilometres of wastewater main in a year	Total number of backed up wastewater mains divided by Total kilometres of waterwater mains divided by 100
	Wastewater Bypasses Treatment: Percentage of wastewater estimated to have by-passed treatment	Estimated megalitres of untreated wastewater divided by Total megalitres of treated wastewater plus estimated megalitres of untreated wastewater.

Key Performance Indicators - Buidings			
Perspectives	**Objective**	**Performance Indicator**	**How Measured**
Quality	Achieve a high standard of quality with our buildings overall	Facility Condition	Number of buildings that are rated a 3 and lower (out of 5) on the Facility Condition Index.
Customer	Customer Satisfaction (if applicable to the facility)	Accessibility	Percentage of township buildings that reach the standard for accessibility requirements in the design of public spaces.
		Safety	Percentage of township buildings that are found to be hazard free following the monthly inspection done by the Health and Safety Comittee; with additional verification by a workplace inspection checklist pertaining to the certain building type.
Management	Sufficient administrative planning in preparation for future facility needs.	Capital reinvestment in the facilities	Total annual capital exenditure for buildings divided by replacement cost expressed as a percentage.
Financial	To ensure service needs are met with regards to general maintanence, with appropriate funding to do so	Structure Maintanence Costs	Surplus or deficit of the cost of maintanence needed versus the amount actually spent on maintanence. Annual maintanence amount will be budgetted as 2% of the building value per year.

Key Performance Indicators (KPI's) for our Storm Sewer infrastructure and our Vehicle & Equipment inventory will be presented in the next version of this AMP.

ASSET MANAGEMENT STRATEGY

Objective

To outline and establish a set of planned actions, based on best practice, that will enable the assets to provide a desired and sustainable level of service, while managing risk, at the lowest life cycle cost.

Planned actions can include:

- Non-infrastructure solutions – actions or policies that can lower costs or extend asset life
- Maintenance activities
- Renewal/rehabilitation activities
- Replacement activities – activities that are expected to occur once an asset has reached the end of its useful life and renewal/rehabilitation is no longer an option
- Disposal activities
- Expansion activities – planned activities required to extend services to previously not serviced areas or expand services to meet growth demands.

Life Cycle Cost Analysis

Full lifecycle cost of assets must be considered in determining the most cost-effective approach to asset management. In this section Asset Management Strategies are provided for each class of asset.

ASSET MANAGEMENT STRATEGY	
ASSET:	**Bridges & Culverts**
INVENTORY:	6 Road Bridges, 5 Road Culverts. These structures are all over a span of 3.0 meters.
ANTICIPATED ASSET LIFE CYCLE	Bridges consist of various components such as bridge decking, asphalt surface, deck waterproofing etc. . For the purposes of this plan the Bridges and Culverts have not been broken down into individual components, the expected useful life for road bridges has been set at 75 years, and the useful life for culverts has been set at 50 years.
INTEGRATED:	May be integrated with road resurfacing or road widening projects however generally not integrated with other infrastructure.
REHAB & REPLACEMENT CRITERIA:	Criteria for prioritizing include level of service, traffic volumes, safety and the preservance of existing infrastructure. Bi-annual visual inspection of bridges by Engineering field staff and detailed bridge condition surveys are required. These detailed element by element visual assessments of each bridge/culvert are done in order to identify any material defects, performance deficiencies and maintenance needs on a structure by structure basis. An overall Bridge Condition Index (BCI) for each structure has been determined based on the MTO methodology. The result is organized into ranges from 0 to 100.

ASSET MANAGEMENT STRATEGY

REHAB & REPLACEMENT STATEGIES:	Bridge Rehabilitation is based on BCI. **BCI Range 70-100 - GOOD** . For a bridge with a BCI greater than 70, maintenance work is not usually required within the next five years. **BCI Range 50-70 - FAIR**. For a bridge with a BCI between 50 and 70 the maintenance work is usually scheduled within the next five years. This is the ideal time to schedule major bridge repairs from an economic perspective. **BCI Less than 50 - POOR.** For a bridge with a BCI rating of less than 50, maintenance work is usually scheduled within approximately one year. However given the cost to repair the structure it may be more feasible to schedule the structure for replacement in 6 to 10 years. The "BCI Bridge Replacement Year" is based on the 2014 BCI value, and the deterioration values developed by the MTO. Typically after 30 years the BCI of a bridge decreases by 2 points per year and once a bridge the bridge reaches a BCI limit of 40 after 2 rehabiliation cycles, it is determined that the bridge should be replaced.
LIFE CYCLE :	The life cycle cost of a bridge or culvert is the total investment, which consists of the initial construction cost, repair & rehabilitation costs and all maintenance costs throughout the life of the asset. Once the lifecycle has come to an end, component life cycles will be reduced, level of service is lowered and safety is compromised.
CHARTS/TABLES:	Asset Condition Chart - Identifies the state of the infrastructure based on the BCI rating. Infrastructure Gap Chart - Relates the investment need to the capital funding currently available. Both the need and the funding have been inflated by a conservative 2% per year.
PREVIOUS CORPORATE REPORT ON SUBJECT:	2014 Asset Management Plan
OTHER INFORMATION OR REFERENCE MATERIALS:	Township of Tay 2012 Municipal Bridge Inspections Report - November 2012, Prepared By: R.J. Burnside & Associates Limited. Tay Township Replacement Bridge Costs (033938), July 2013, Prepared By: R.J. Burnside & Associates Limited. Township of Tay 2014 Municipal Bridge Inspections Report - January, 2015 , Prepared By: R.J. Burnside & Associates Limited.

30/03/2015

ASSET MANAGEMENT STRATEGY	
ASSET:	**Roads**
INVENTORY:	326 lane km of HCB/LCB Surface Roads 60 lane km of Gravel Roads
ANTICIPATED ASSET LIFE CYCLE	HCB Surface roads are assumed to have a useful life of 25 years. LCB Surface roads are assumed to have a useful life of 20 years. Gravel roads are assumed to have a useful life of 60 years, but require rehabilitation every 15 years to maintain the surface gravel.
INTEGRATED:	When possible will be integrated with watermain replacements
REHAB & REPLACEMENT CRITERIA:	The longer a high-class bituminous (HCB) surface can be kept in good condition, the larger the fuel savings and lower the carbon emissions per each kilometre of road.
REHAB & REPLACEMENT STRATEGIES:	HCB - Preventative maintenance to be done at year 10 (ie. crack sealing) HCB - Rehabilitation to be done at year 15 (asphalt overlay) LCB - Rehabilitation to be done at year 7.5 (Slurry Seal) LCB/HCB - Full reconstruction to take place in years 20-25. Full replacement of base (400 mm) and surface (150 mm) will be required every 60 years. Otherwise, only rehabilitation needs to be performed every 15 years. Rehabilitation consists of adding 150mm of gravel to the road.

ASSET MANAGEMENT STRATEGY	
ASSET:	**Roads**
LIFE CYCLE CONSEQUENCES:	The life cycle cost is the total investment, which consists of the initial construction cost, repair & rehabilitation costs and all maintenance costs throughout the life of the asset. Once the lifecycle has come to an end, component life cycles will be reduced, level of service is lowered and safety is compromised.
INTEGRATED ASSET PRIORITIES:	
CHARTS/TABLES:	
OTHER INFORMATION OR REFERENCE MATERIALS:	Roads Needs Study, Prepared by McCormick Rankin Corporation, June 2003

ASSET MANAGEMENT STRATEGY	
ASSET:	**Watermains**
INVENTORY:	87.2 km of watermains
ANTICIPATED ASSET LIFE CYCLE	The anticipated asset life cycle depends on the material type used in construction. Asbestos Cement (AC) pipe - useful life has been set at 75 years. Cast Iron has a useful life of 65 years where the diameter of the pipe is <=150 mm. Ductile pipe has a useful life of 75 years where the diameter of the pipe is <=150mm. Galvanized pipe has a useful life of 50 years where the diameter of the pipe is <=150 mm. Cast Iron and Ductile pipe have a useful life of 100 years where the diameter of the pipe is > = 200 mm (assumes relining of pipe at year 30) Polyethylene (PE) pipe and Polyvinyl chloride (PVC) pipe have a useful life of 100 years.
INTEGRATED:	May be integrated with road resurfacing or road widening projects however generally not integrated with other infrastructure. It may also be a stand alone replacement with a trench cut and repair or trenchless construction.
REHAB & REPLACEMENT CRITERIA:	1. Undersized pipes - with few exceptions 100mm diameter pipes are undersized for our system. This will also be the case for much of the 150mm pipe as well. These pipes are also among the oldest in the system, cast iron and ductile and have significant tuberculation. Other undersized pipes will be identified through system modelling.

ASSET MANAGEMENT STRATEGY	
ASSET:	**Watermains**
REHAB & REPLACEMENT CRITERIA CON'T:	2. Critical pipes - these are pipes that must be maintained at a higher level to ensure a low risk of failure because a failure of one of these sections would have a significant impact. This includes pipes where a failure would be hard to detect (water crossings), would cause an extended loss of service to a great number of customers (trunk failures, long single feeds or un-valved sections) or would cause significant damage or disruption (trunk failures, highway crossings). These pipes should be replaced/maintained at a higher standard than the rest of the system and will be identified as a separate schedule. 3. High failure rate pipes - typically these pipes are identified by repeated leaks. Usually this is related to aggressive soil conditions. This remains a minor problem in our system and proactive replacement of likely-to-fail pipes does not appear to be warranted. 4. Aging pipes - while this is a moving target and depends on the material type, it appears that the oldest pipes in the system (cast iron and ductile) do have a limited life span and become more susceptible to failure with age, in addition to needing periodic cleaning and relining (cement or other). An achievable target is to have no pipes in the system greater then 100 years old (that have not had a structural relining). Rehabilitation (structural relining) should take place at age 50, given that the pipe diameter is sufficient. Assuming roads are rebuilt on a 30 year cycle this would suggest watermains older than 60 years should be replaced with reconstruction projects. Otherwise, age driven replacement could address pipes older than 80 years.

ASSET MANAGEMENT STRATEGY	
ASSET:	**Watermains**
REHAB & REPLACEMENT STRATEGIES:	It is difficult to determine the condition of the pipe since it is buried. For this reason, the replacement strategy relies on the break history, age/size and material type of pipe plus keeping up with current road projects. There are numerous methods of rehabilitation for watermains such as complete replacement, cleaning and cement mortar lining, cured in place pipe (CIPP), slip lining and pipe busting. Cathodic Protection helps prolong the life expectancy of the cast iron and ductile pipe.
LIFE CYCLE CONSEQUENCES:	The results will be catastrophic failures at undetermined and unexpected times. Some pipe materials with 75 year life expectancies are in need of replacement sooner (due to pipe diameter) whereas some 100 year old pipe can be simply maintained or rehabilitated to gain 50 years plus of additional service life.
INTEGRATED ASSET PRIORITIES:	A deteriorated watermain is replaced because of the level of risk that can be absorbed. Some problem areas are less of a priority and disruption to service and repairing the mains is tolerable. Replacement is a high priority where fire protection, water quality and disrupted service can result in water loss and collateral damage. Often road rehab projects help accelerate the project priority.
CHARTS/TABLES:	Asset Condition
OTHER INFORMATION OR REFERENCE MATERIALS:	Township of Tay Water and Wastewater Rate Study. Watson & Associates Economists Ltd. October 31, 2007.

ASSET MANAGEMENT STRATEGY

ASSET:	**Sewermains**
INVENTORY:	43.3 km of sewermains
ANTICIPATED ASSET LIFE CYCLE	The anticipated asset life cycle has been set at 75 years for each material type used in construction. The types of materials used in our current sewermain system is Asbestos Cement (AC), Concrete and Polyvinyl chloride (PVC) pipe . This useful has been adjusted by 50 years for pipes with a diameter of less than 150 mm.
INTEGRATED:	May be integrated with road resurfacing or road widening projects however generally not integrated with other infrastructure. It may also be a stand alone replacement with access via manholes.
REHAB & REPLACEMENT CRITERIA:	1. Undersized pipes - 100mm & 150 mm diameter pipes are undersized for our system. At present we hope to have nearly all of the 100mm & 150 mm pipe replaced by 2030. In order to accelerate the replacement of these undersized pipes an adjustment factor of 50 years has been applied. 2. Critical pipes - these are pipes that must be maintained at a higher level to ensure a low risk of failure because a failure of one of these sections would have a significant impact. These pipes should be replaced/maintained at a higher standard than the rest of the system and will be identified as a separate schedule. 3. High failure rate pipes - typically these pipes are identified by repeated blockages. 4. Pipe Condition (structural and inflow & infiltration) - This should be assessed through an ongoing video inspection program. Older pipes and pipes with known concerns should be videoed more frequently. An achievable target is to have no pipes in the system greater then 75 years old (that have not had a structural relining). Rehabilitation (structural relining) should take place at age 30, given that the pipe diameter is sufficient. Assuming roads are rebuilt on a 30 year cycle this would suggest sewermains older than 30 years should be considered for rehabilition with road reconstruction projects. Otherwise, age driven replacement could address pipes older than 60 years.

ASSET MANAGEMENT STRATEGY	
ASSET:	**Sewermains**
REHAB & REPLACEMENT STRATEGIES:	Sewermain rehabilitation is based on the current condition of the pipe. There are numerous methods of rehabilitation for sewermains such as complete replacement, slip lining, spot repairs and pipe busting.
LIFE CYCLE CONSEQUENCES:	The results will be catastrophic failures at undetermined and unexpected times. Some pipe materials with 75 year life expectancies are in need of replacement after 30 years (due to pipe diameter) whereas some 75 year old pipe can be simply maintained or rehabilitated to gain 50 years plus of additional service life.
INTEGRATED ASSET PRIORITIES:	A deteriorated sewermain is replaced because of the level of risk that can be absorbed. Some problem areas are less of a priority and disruption to service and repairing the mains is tolerable.
CHARTS/TABLES:	Asset Condition
OTHER INFORMATION OR REFERENCE MATERIALS:	Township of Tay Water and Wastewater Rate Study. Watson & Associates Economists Ltd. October 31, 2007.

ASSET MANAGEMENT STRATEGY	
Asset:	**Municipal Buildings**
Inventory:	Our inventory of buildings includes 4 fire halls, 4 community spaces, 2 administration buildings, 2 public works buildings, 7 washrooms or change-rooms, and 3 libraries for a total of 22 buildings.
Anticipated Asset Life Cycle:	The expected life of a newly renovated facility is assumed to be 50 years, regardless of the size of the building.
Integrated:	Not generally integrated with other infrastructure.
Rehab Replacement Criteria:	The criteria for replacement of facilities are a combination of the current condition of the building, determined by monthly inspections done by the maintenance coordinator, and the consideration of where the asset is in its theoretical life span (Theoretical Age Condition Rating). The current condition of the building is more heavily weighed in the analysis; although a building being passed its useful life should be a factor in replacement needs.
Rehab and Replacement Strategies:	The strategy to coordinate rehab and replacement of the facilities would begin with an inspection by the Maintenance Coordinator. Any deficiencies would then be documented and brought to the attention of the Township and maintenance, or replacement, of the facility would then be arranged. The key aspect of this strategy is the consistency of the condition inspection; ensuring defects are not left long enough to compromise safety or value of the facility. When constructing new or redeveloping public spaces regulated under the Design of Public Spaces standard, the Township will use the GAATES Illustrated Technical Guide to the Accessibility Standard for the Design of Public Spaces.

Life Cycle:	The lifecycle cost is the total investment, which consists of the initial construction cost, repair and rehabilitation costs and all maintenance costs throughout the life of the asset. Once the lifecycle has come to an end, component life cycles will be reduced, level of service is lowered and safety is compromised.
Charts/Tables:	The Facilities Condition Index - helps to identify state of the facility with a description of what rating the building should receive (1-5, 5 being critical) under certain categories. Facility Service Impact - If the facility were to fail, this is the impact it would have on the general operations of the Township. (1-5, 5 being the most severe impact.) Risk Matrix - Relation between the facilities overall condition rating and its service impact, displaying its relevance in the event of failure.
Other Information on Reference Material:	County of Simcoe Asset Management Plan

Other Infrastructure Strategies

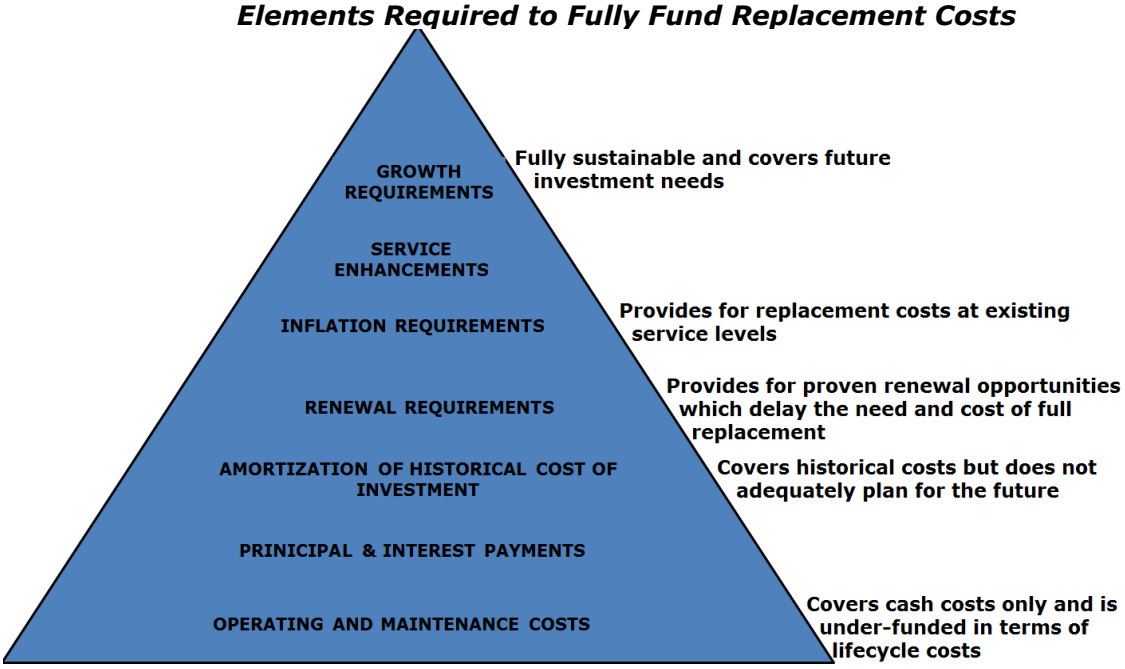
The Asset Management Strategy for our Storm Sewer infrastructure, Water and Wastewater plants and Vehicles and Equipment will be presented in the next version of this AMP.

FINANCING STRATEGY:

This section of the Plan is intended to provide a framework for the Township to integrate asset management with annual budgeting and long-term financial planning. The development of a comprehensive financial plan will allow Tay to identify the financial resources required for sustainable asset management based on existing asset inventories, desired levels of service and projected growth requirements.

The following pyramid depicts the various cost elements and resulting funding levels that should be incorporated into AMP's that are based on best practices.

Elements Required to Fully Fund Replacement Costs



Available Funding Tools

The following section discusses, at a high level, the range of tools available to the Township for funding capital expenditures.

Federal and Provincial Grants

Historically, the Township has had limited success in securing grant funding from higher orders of government to assist in funding capital projects. However, the Township will continue to seek financial assistance from upper levels of government to fund non-development-related capital works. At the time of preparing this document, the Township has not secured any government funds to assist in financing future capital works.

Development Charges

Development charges may be imposed to pay for increased capital costs required because of increased needs for services arising from development. Historically, the Township has used development charges to the extent possible to fund "development-related" capital costs. It is noted that capital costs of new infrastructure that benefit existing Township residents cannot be funded from development charges. Furthermore, 10% of all development-related capital costs for certain services must be funded from non-development charge sources (typically property taxes).

Utility Rates

Following the 2007 Water and Wastewater Rate Study, the Township implemented significant increases to utility rates in a move towards full life cycle costing.

Property Taxes

The use of property taxes to fund municipal services is the most secure source of funding for the Township. A 1% increase to the tax rate provides approx. $70,000 in additional revenue.

User Fees

User fees are collected for the use of buildings, ball diamonds, etc. but are not currently sufficient to cover the operating costs of these facilities and therefore do not contain a capital replacement component. User fees have been reviewed in the last two years to adequately charge for services provided to individuals that are not part of the services generally provided to the taxpayers. Additional revenue provided from

user fees allows taxation funds currently used in operating budgets, to be redirected to capital infrastructure projects.

Financing and Financial Management Practices

This section discusses, at a high level, the means by which capital revenue can be raised or secured.

Debt (as a financing tool)

Debt financing is a viable tool available to fund infrastructure projects. Planned debt is a responsible way to spread the costs of a project over the life of an asset to ensure the ratepayers who benefit from the asset share the cost. Therefore, the burden of capital is distributed equally between the current taxpayer and future rate payers. In the past, the Township has exercised the ability to fund capital works through the issuance of debt, particular in the water and waste water categories.

The amount of debt a municipality can carry is set by provincial regulations to ensure municipalities continue to operate in a fiscally sound environment. The Township's total allowable annual debt costs equates to $3,292,963 (based on 2013 Financial Information Return). Tay currently operates well below the debt threshold with $659,095 in annual debt payments (principal and interest combined). As a safe practice, the Township should continue debt financing capital related works consistent with current practice, in that, any potential debt will not be financed for a period longer than the average useful life of the asset. This will continue to ensure the Township is not paying for an asset beyond its' useful life.

Reserves

Reserves are used to cope with high capital investment periods by spreading the cost over a number of years, usually the estimated life of the asset. This practice smooth's annual capital expenditures and ensures the municipality can complete the required capital works. In addition, many municipalities use annual surpluses, should one arise, to increase reserves.

Current Infrastructure Deficit and Future Funding Gaps

To implement sustainable asset management practices the Township needs to have an understanding of the current "infrastructure deficit".

The table below shows today's infrastructure deficit for roads, bridges/culverts, storm sewers, vehicles & equipment and municipal buildings. These infrastructure categories are currently funded at 75% of their long-term requirements.

Table 1. Overview of Revenue Requirements for Full Funding

Asset Category: Tax Funded	Annual Investment Required	2018 Annual Sustainable Funding Available					Annual Deficit	Tax Rate Increase Required for Full Funding
		Tax/Rate	Gas Tax	Development Charges	Hydro Dividend	Total		
Roads	1,677,271	966,132	310,101	125,670	101,000	1,502,903	174,368	
Bridges & Culverts	108,613	65,000				65,000	43,613	
Storm Sewers	65,741					-	65,741	
Vehicles & Equipment	451,286	426,500				426,500	24,786	
Municipal Buildings	479,861	81,000	-	-	-	81,000	398,861	
Total	2,782,771	1,538,632	310,101	125,670	101,000	2,075,403	707,368	8.84%

Note: Annual Investment Requirement for Roads, Bridges & Culverts, Storm Sewers and Vehicles & Equipment has not been indexed, and are as presented in the 2015 AMP.

As illustrated, full funding would require a combined tax rate increase of 8.84% (based on 1% equating to a $80,000 increase)

Recommendations – Tax Rate Funded Assets

The Long Term Plan currently includes an annual increase of $5,000 each year up to 2023 to the transfer to infrastructure reserve for bridge replacement. It is recommended that this increase be maintained until 2027. Additionally; it is recommended that the transfer to reserve for bridge infrastructure be inflated by CPI each year.

It is recommended that the contribution from operating for roads capital work be increased by an amount equal to ½% increase in taxation ($35,000 in 2014) and that the entire contribution be inflated by CPI.

It is recommended that a transfer to reserve be initiated for storm sewer infrastructure starting at $6,500 and increased annually to reach $65,000 by 2023.

It is recommended that the transfer to our vehicles and equipment reserve continues to be phased in as set in the Township's Long Term Plan. This phase in approach will allow the Township to reach sustainability of its current vehicle and equipment inventory by the year 2019 (in today's $).

It is recommended that the transfer to our Municipal Buildings Reserve continues to be phased in as set in the Township's Long Term Plan. This phase in approach will allow the Township to reach sustainability of its current municipal building inventory within the next 25 years. It is also recommended that a portion of the Township's annual surplus be directed to the Municipal Buildings Reserve in order to help reach sustainability.

Current funding position – Rate funded assets

The below table outlines by asset category, Tay's average annual asset investment requirements, current funding positions and funding increases required to achieve full funding.

Table 1. Summary of Infrastructure requirements & Current Funding Available

Asset Category: Tax Funded	Annual Investment Required	2014 Annual Funding Available					Annual (Surplus)/ Deficit	Utility Rate Increase Required for Full Funding
		Utility Rate	Gas Tax	Reserves	Hydro Interest	Total		
Water	1,183,057	1,130,000		-	95,500	1,225,500	$ (42,443)	-1.61%
Wastewater	1,594,232	600,000				600,000	994,232	53.83%
							-	
Total	2,777,288	1,730,000	-	-	95,500	1,825,500	951,788	21.20%

Notes:
The wastewater deficiency will be reduced by $124,000 in 2027 when the Port McNicoll Wastewater Treatment Plant debt expires. However, additional debt of $3.4 million is projected for the 2015 upgrade to the VHWWTP, resulting in annual debt payments of approximately $193,000 based on a 25 year - 3% interest loan. This figure does not include the Development Charge portion of the upgrade, which will also need to be debt financed.

The Water surplus will be increased by $494,250 when the Tay Area Water Debt expires in 2022.

As illustrated, full funding would require a combined utility rate increase of 21.20% over 2014.

However, consideration must be given to current debt that will be expiring and new debt that is anticipated over the planning period. Given that the deficiency today can be reduced with the expiring debt, the sustainability of these assets should be reviewed again with the next iteration of this plan.

Recommendations - Rate funded assets

For this AMP, rate funded user fees are applicable to water and wastewater infrastructure. Despite Provincial pressure to develop rates that fully sustain this infrastructure, there remains substantial variation in rate setting methodologies among Ontario municipalities.

The Township undertook a Water and Wastewater Rate Study in 2007 and implemented significant increases to utility rates at that time. An update to the rate study was done in 2017. This study will not only include the replacement of existing assets (has shown in this plan), but also include new assets that are required in order to ensure that existing and planned development can be served.

It is recommended that the infrastructure deficit shown for wastewater be revisited once the costs for the Victoria Harbour Wastewater Treatment Plant upgrade scheduled for 2015 are confirmed.

Infrastructure Deficit and Future Funding Gap Created From Past Underfunding of Infrastructure

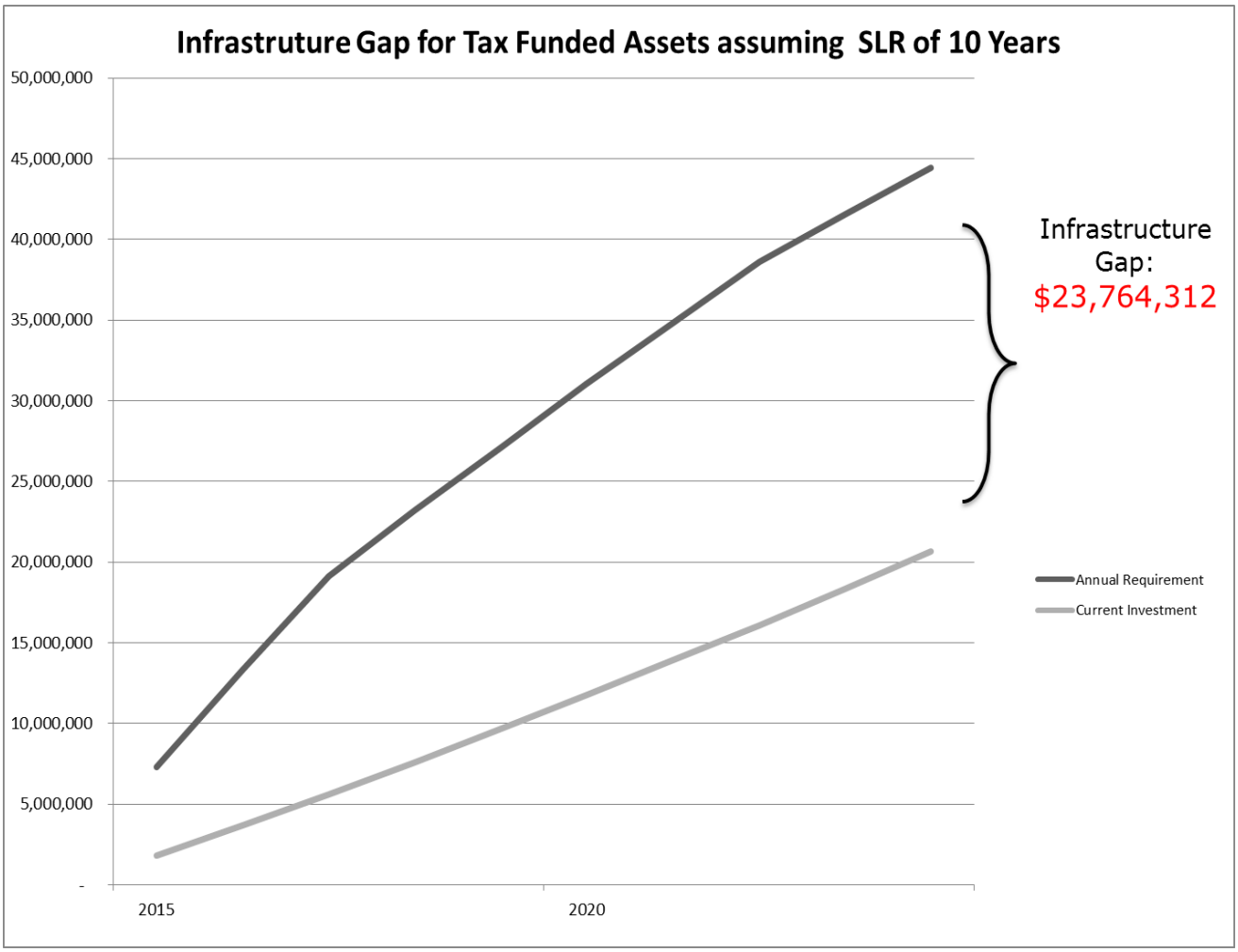
The deficits calculated in this plan assume that we have a full life cycle to plan for the replacement of our assets. In actuality, we know that we have not been putting away enough funds to replace our assets. This is particularly true for our tax rate funded assets. This has created a backlog of work that is not reflected in this plan. In order to address this backlog over the next 10 years, we would need to consider the service life remaining of each of our assets.

The Average Annual Investment Requirement shown in the below table assumes that we have done nothing to plan for asset replacement. For example, if an asset is set to be replaced in 10 years, then the replacement cost of that asset would be spread over the 10 years, instead of the asset's full useful life.

Table 1. Summary of Infrastructure requirements based on service life remaining (SLR)

Asset Category:	2015 Replacement Cost	Average Annual Investment Required (based on 100 years)	Average Annual Investment Required (based on 10 years)
Roads	$ 48,754,734	$ 1,841,400	$ 3,334,976
Bridges & Culverts	$ 7,933,425	$ 151,816	$ 357,123
Storm Sewers	$ 4,930,588	$ 77,164	$ 88,927
Water	$ 89,730,256	$ 1,196,822	$ 1,733,789
Wastewater	$ 69,327,406	$ 1,185,174	$ 2,294,304
Vehicles & Equipment	$ 6,369,092	$ 459,086	$ 660,831
Total	**$ 227,045,501**	**$ 4,911,462**	**$ 8,469,949**

If we use the Annual Investment Required over 10 years and compare that to our current level of funding plus the funding increases recommended in this plan, we still arrive at an **infrastructure gap of $23,764,312** for the tax rate funded assets included in this plan.



Recommendations

Use of debt

To assist with closing this infrastructure gap, the Township could undertake debt financing in any given year to address this backlog.

For reference purposes, the below table outlines the premium paid on a project if financed by debt. For example, a $1M project financed at 3% over 15 years would result in a 26% premium or $260,000 of increases costs due to interest payments. For simplicity, the table does not take into account the time value of money or the effect of inflation on delayed projects.

It should be noted that current interest rates are near all-time lows. Sustainable funding models that include debt need to incorporate the risk of rising interest rates.

Total Interest Paid as a % of Project Costs						
	Number Of Years Financed					
	5	10	15	20	25	30
7.0%	22%	42%	65%	89%	115%	142%
6.5%	20%	39%	60%	82%	105%	130%
6.0%	19%	36%	54%	74%	96%	118%
5.5%	17%	33%	49%	67%	86%	106%
5.0%	15%	30%	45%	60%	77%	95%
4.5%	14%	26%	40%	54%	69%	84%
4.0%	12%	23%	35%	47%	60%	73%
3.5%	11%	20%	30%	41%	52%	63%
3.0%	9%	17%	26%	34%	44%	53%
2.5%	8%	14%	21%	28%	36%	43%
2.0%	6%	11%	17%	22%	28%	34%
1.5%	5%	8%	12%	16%	21%	25%
1.0%	3%	6%	8%	11%	14%	16%
0.5%	2%	3%	4%	5%	7%	8%
0.0%	0%	0%	0%	0%	0%	0%

Use of Annual Surplus

It is recommended that Council continue to allocate our annual surplus to capital infrastructure projects to help close this identified gap.

Extending the life of Infrastructure

Research and implement a rehabilitation program to extend the useful life of our infrastructure until sustainability can be reached.

Bridging this funding gap will require prioritizing capital projects to fit the resulting annual funding envelopes but it does provide financial sustainability over the period modelled (to 2114).

TOWNSHIP OF TAY

ASSET MANAGEMENT PLAN

APPENDIX

2019 – 2028

LONG TERM PLAN

2017.01

FIR2017: Tay Tp

Asmt Code: 4353

MAH Code: 70625

Schedule 81

ANNUAL DEBT REPAYMENT LIMIT

based on the information reported for the year ended December 31, 2017

NOTE: THE ESTIMATED ANNUAL REPAYMENT LIMIT IS EFFECTIVE JANUARY 01, 2019

Please note that fees and revenues for Homes for the Aged are not reflected in this estimate.

	DETERMINATION OF ANNUAL DEBT REPAYMENT LIMIT	1
	Debt Charges for the Current Year	$
0210	Principal (SLC 74 3099 01)	592,342
0220	Interest (SLC 74 3099 02)	329,955
0299	**Subtotal**	**922,297**
0610	Payments for Long Term Commitments and Liabilities financed from the consolidated statement of operations (SLC 42 6010 01)	0
9910	**Total Debt Charges**	922,297

		1
	Excluded Debt Charges	$
1010	Electricity - Principal (SLC 74 3030 01)	0
1020	Electricity - Interest (SLC 74 3030 02)	0
1030	Gas - Principal (SLC 74 3040 01)	0
1040	Gas - Interest (SLC 74 3040 02)	0
1050	Telephone - Principal (SLC 74 3050 01)	0
1060	Telephone - Interest (SLC 74 3050 02)	0
1099	**Subtotal**	**0**
1410	Debt Charges for Tile Drainage/Shoreline Assistance (SLC 74 3015 01+SLC 74 3015 02)	15,925
1411	Provincial Grant funding for repayment of long term debt (SLC 74 3120 01+SLC 74 3120 02)	0
1412	Lump sum (balloon) repayments of long term debt (SLC 74 3110 01+SLC 74 3110 02)	0
1420	**Total Debt Charges to be Excluded**	**15,925**
9920	**Net Debt Charges**	**906,372**

		1
		$
1610	Total Revenues (* Sale of Hydro Utilities Removed) (SLC 10 9910 01)	21,074,617
	Excluded Revenue Amounts	
2010	Fees for Tile Drainage / Shoreline Assistance (SLC 12 1850 04)	3,895
2210	Ontario Grants, including Grants for Tangible Capital Assets (SLC 10 0699 01+SLC 10 0810 01+SLC10 0815 01)	3,638,083
2220	Canada Grants, including Grants for Tangible Capital Assets (SLC 10 0820 01+SLC 10 0825 01)	0
2225	Deferred revenue earned (Provincial Gas Tax) (SLC 10 0830 01)	0
2226	Deferred revenue earned (Canada Gas Tax) (SLC 10 0831 01)	0
2230	Revenue from other municipalities, including Revenue for Tangible Capital Assets (SLC 10 1099 01+SLC 10 1098 01)	156,487
2240	Gain/Loss on sale of land & capital assets (SLC 10 1811 01)	574,216
2250	Deferred revenue earned (Development Charges) (SLC 10 1812 01)	159,886
2251	Deferred revenue earned (Recreation Land (The Planning Act)) (SLC 10 1813 01)	0
2253	Other Deferred revenue earned (SLC 10 1814 01)	0
2252	Donated Tangible Capital Assets (SLC 53 0610 01)	2,042,755
2254	Increase / Decrease in Government Business Enterprise equity (SLC 10 1905 01)	54,383
2299	**Subtotal**	**6,625,810**
2410	Fees and Revenue for Joint Local Boards for Homes for the Aged	
2610	**Net Revenues**	**14,444,912**
2620	**25% of Net Revenues**	**3,611,228**
9930	**ESTIMATED ANNUAL REPAYMENT LIMIT**	**2,704,856**

For Illustration Purposes Only

Annual Interest Rate		Term		
0.06	@	25	years =	34,577,138

TOWNSHIP OF TAY

SUMMARY - LONG TERM PLAN

	Approved Budget	Forecast			
	2018	**2019**	**2020**	**2021**	**2022**
General Government	256,510	140,300	80,500	102,000	73,250
Protection to Persons and Property	1,056,124	94,200	361,200	21,200	664,200
Public Works	21,375,723	3,007,067	5,507,210	6,777,604	8,988,889
Culture and Recreation	551,912	294,000	366,500	564,200	335,500
Planning and Dev. Operating	27,000	-	-	-	27,000
TOTAL LONG TERM PLAN	**23,267,269**	**3,535,567**	**6,315,410**	**7,465,004**	**10,088,839**
SOURCES OF FINANCING:					
Tax Rate	1,038,832	1,122,957	1,196,985	1,252,993	1,323,042
Grants	11,013,618	1,202,939	857,061	89,350	30,000
Sale of Fixed Asset	-	-	-	-	-
Reserves - Municipal	3,071,854	502,800	1,197,439	569,000	1,248,250
Reserves - Contingency	-	40,000	-	-	-
Reserves - Utility	370,504	(340,039)	977,990	2,379,000	2,072,950
Debt	-	-	73,000	1,500,000	3,000,000
Utility User Rate	-	-	-	-	-
Developer Contributions (DCA)	204,270	386,310	1,494,334	1,070,427	2,024,094
Grants/Benefitting Property Owners	4,007,747	-	-	-	-
Federal Gas Tax	310,101	310,101	310,101	310,101	310,101
Deferred Revenue	2,700,000	100,000	-	-	-
Donations	27,500	-	-	-	-
Library Reserve	41,700	14,000	12,000	69,350	10,000
Hydro Dividend/Interest	196,500	196,500	196,500	196,500	196,500
Roads Capital (Surplus)/Deficit	**0**	**(0)**	**0**	**28,282**	**(126,098)**
Prior Year Capital Surplus	284,643	-	-	-	-
TOTAL FINANCING	**23,267,269**	**3,535,567**	**6,315,410**	**7,465,004**	**10,088,839**

Impact of Projects and Reserve Transfers on Annual Tax Levy					
	2018	**2019**	**2020**	**2021**	**2022**
Capital Projects	1,038,832	1,122,957	1,196,985	1,252,993	1,323,042
Transfer to Reserves	661,500	698,500	735,500	772,500	809,500
TOTAL IMPACT	**1,700,332**	**1,821,457**	**1,932,485**	**2,025,493**	**2,132,542**
Total Capital Budget increase funded by tax levy		**7.1%**	**6.1%**	4.8%	5.3%
Total tax levy % increase required		**1.5%**	**1.4%**	1.2%	1.3%

TOWNSHIP OF TAY

SUMMARY - LONG TERM PLAN

	Forecast					
	2023	**2024**	**2025**	**2026**	**2027**	**2028**
General Government	152,400	257,500	204,000	118,660	85,000	60,000
Protection to Persons and Property	619,200	40,200	19,200	449,200	289,200	516,200
Public Works	3,135,435	8,531,204	2,746,739	2,567,335	2,431,804	2,040,439
Culture and Recreation	363,000	200,000	720,000	212,000	377,000	155,000
Planning and Dev. Operating	30,000	-	-	-	27,000	137,000
TOTAL LONG TERM PLAN	**4,300,035**	**9,028,904**	**3,689,939**	**3,347,195**	**3,210,004**	**2,908,639**
SOURCES OF FINANCING:						
Tax Rate	1,403,192	1,488,507	1,544,051	1,622,892	1,704,098	1,787,740
Grants	30,000	30,000	30,000	30,000	30,000	30,000
Sale of Fixed Asset	-	-	-	-	-	-
Reserves - Municipal	1,657,300	1,015,500	1,008,000	987,160	952,000	762,400
Reserves - Contingency	40,000	-	-	-	40,000	-
Reserves - Utility	382,200	5,043,900	610,300	444,100	339,500	224,500
Debt	-	-	195,000	-	-	-
Utility User Rate	-	-	-	-	-	-
Developer Contributions (DCA)	167,840	1,216,570	156,090	162,806	169,723	221,948
Grants/Benefitting Property Owners	-	-	-	-	-	-
Federal Gas Tax	310,101	310,101	310,101	310,101	310,101	310,101
Deferred Revenue	-	-	-	-	-	-
Donations	-	-	-	-	-	-
Library Reserve	31,000	-	50,000	-	-	4,000
Hydro Dividend/Interest	196,500	196,500	196,500	196,500	196,500	196,500
Roads Capital (Surplus)/Deficit	**81,902**	**(268,674)**	**(410,104)**	**(406,364)**	**(505,418)**	**(628,550)**
Prior Year Capital Surplus	-	(3,500)	-	-	(26,500)	-
TOTAL FINANCING	**4,300,035**	**9,028,904**	**3,689,939**	**3,347,195**	**3,210,004**	**2,908,639**

Impact of Projects and Reserve Transfers on Annual Tax Levy						
	2023	2024	2025	2026	2027	2028
Capital Projects	1,403,192	1,488,507	1,544,051	1,622,892	1,704,098	1,787,740
Transfer to Reserves	891,000	928,000	963,000	995,000	1,012,000	1,029,000
TOTAL IMPACT	**2,294,192**	**2,416,507**	**2,507,051**	**2,617,892**	**2,716,098**	**2,816,740**
Total Capital Budget increase funded by tax levy	7.6%	5.3%	3.7%	8.3%	8.3%	7.6%
Total tax levy % increase required	2.0%	1.5%	1.1%	1.4%	1.2%	1.3%

Projected Reserve Balances December 31						
	Actual	Forecast				
	2017	2018	2019	2020	2021	2022
General Working/Operating Funds						
Contingency	369,134	334,134	359,134	384,134	369,134	334,134
Working Funds	1,785,043	1,785,043	1,785,043	1,785,043	1,785,043	1,785,043
Total General Working/Operating Funds	**2,154,177**	**2,119,177**	**2,144,177**	**2,169,177**	**2,154,177**	**2,119,177**
Municipal Fleet & Equipment Reserves						
General Government - Administrative Equipment (computers, software etc.)	$ 286,816	$ 99,401	$ 96,101	$ 103,601	$ 156,601	$ 141,351
Fire Capital	616,804	(242,120)	(118,120)	(220,120)	(12,120)	(262,120)
Fire Off Road Vehicle	10,011	9,011	8,011	7,011	6,011	5,011
By Law Enforcement Vehicle	19,130	20,630	22,130	23,630	25,130	26,630
Public Works Fleet	798,982	(287,018)	(147,018)	29,482	204,482	389,482
Water & Wastewater Vehicles	79,706	101,706	116,706	135,706	157,706	179,706
Building Vehicles	21,313	17,313	22,313	27,313	32,313	10,313
Total Muncipal Fleet and Equipment Reserve	**1,832,762**	**(281,077)**	**123**	**106,623**	**570,123**	**490,373**
Infrastructure Reserves						
Infrastructure/Bridges	279,306	344,306	393,306	(115,133)	(150,133)	(285,133)
Future Capital Reserve	-	-	-	-	-	-
Streetlighting	47,829	47,829	15,829	(13,171)	(39,171)	(61,671)
Parks & Recreation - Trail/Docks	122,782	165,782	213,782	236,782	294,782	357,782
Municipal Buildings	-	63,955	104,955	141,955	95,605	45,605
Total Infrastructure Reserves	**449,917**	**621,872**	**727,872**	**250,433**	**201,083**	**56,583**
Other Special Purpose Reserves						
Planning Studies and Hearings	152,818	160,418	170,418	180,418	190,418	200,418
Library General Reserve	144,269	72,769	57,117	52,467	7,367	23,717
Policing	411,238	293,730	273,730	253,730	233,730	233,730
Parks & Recreation	556,587	295,375	273,875	252,875	215,875	80,875
Recreation Special Events	20,000	20,000	20,000	20,000	20,000	20,000
Total Other Special Purpose Reserves	**1,284,911**	**842,291**	**795,139**	**759,489**	**667,389**	**558,739**
Municipal Reserves - Sub Total	**$5,721,768**	**$3,302,263**	**$ 3,667,311**	**$ 3,285,722**	**$ 3,592,772**	**$ 3,224,872**
Water and Wastewater						
Water	$ 2,328,931	$ 3,543,167	$ 5,185,429	$ 4,341,630	$ 5,402,476	$ 5,868,672
Wastewater	1,288,366	1,826,743	2,487,452	3,180,960	968,703	604,023
STP Outfall Pipe Reserve	321,000	321,000	321,000	321,000	321,000	321,000
Utility Reserves - Sub Total	**$3,938,297**	**$5,690,910**	**$ 7,993,881**	**$ 7,843,590**	**$ 6,692,179**	**$ 6,793,695**
Total Reserves	**$9,660,065**	**$8,993,174**	**$11,661,193**	**$11,129,313**	**$10,284,952**	**$10,018,568**

Projected Reserve Balances December 31

	Forecast					
	2023	**2024**	**2025**	**2026**	**2027**	**2028**
General Working/Operating Funds						
Contingency	319,134	344,134	369,134	394,134	419,134	444,134
Working Funds	1,785,043	1,185,043	1,185,043	1,185,043	1,185,044	1,185,044
Total General Working/Operating Funds	**2,104,177**	**1,529,177**	**1,554,177**	**1,579,177**	**1,604,178**	**1,629,178**
Municipal Fleet & Equipment Reserves						
General Government - Administrative Equipment (computers, software etc.)	$ 133,351	$ (52,649)	$ (20,649)	$ (7,899)	$ 45,101	$ 98,101
Fire Capital	(624,120)	(386,120)	(138,120)	(280,120)	(182,120)	(376,120)
Fire Off Road Vehicle	4,011	3,011	2,011	1,011	11	(989)
By Law Enforcement Vehicle	28,130	29,630	31,130	2,630	4,130	5,630
Public Works Fleet	(101,518)	(459,518)	(459,518)	(559,518)	(639,518)	(475,518)
Water & Wastewater Vehicles	176,706	173,706	45,706	29,706	51,706	73,706
Building Vehicles	15,313	20,313	25,313	30,313	8,313	13,313
Total Muncipal Fleet and Equipment Reserve	**(368,127)**	**(671,627)**	**(514,127)**	**(783,877)**	**(712,377)**	**(661,877)**
Infrastructure Reserves						
Infrastructure/Bridges	(340,133)	(285,133)	(524,633)	(419,633)	(314,633)	(209,633)
Future Capital Reserve	-	-	-	-	-	-
Streetlighting	(29,171)	3,329	35,829	68,329	100,829	133,329
Parks & Recreation - Trail/Docks	395,782	468,782	544,782	620,782	696,782	772,782
Municipal Buildings	183,705	369,705	406,205	562,295	656,795	816,295
Total Infrastructure Reserves	**210,183**	**556,683**	**462,183**	**831,773**	**1,139,773**	**1,512,773**
Other Special Purpose Reserves						
Planning Studies and Hearings	205,018	215,018	225,018	235,018	245,018	190,118
Library General Reserve	22,717	28,067	(3,683)	29,667	66,917	102,167
Policing	233,730	233,730	233,730	233,730	233,731	233,731
Parks & Recreation	24,375	27,875	(50,625)	(124,125)	(97,625)	(99,125)
Recreation Special Events	20,000	20,000	20,000	20,000	20,000	20,000
Total Other Special Purpose Reserves	**505,839**	**524,689**	**424,439**	**394,289**	**468,040**	**446,890**
Municipal Reserves - Sub Total	**$ 2,452,072**	**$ 1,938,922**	**$ 1,926,672**	**$ 2,021,362**	**$ 2,499,614**	**$ 2,926,964**
Water and Wastewater						
Water	$ 7,060,573	$ 2,520,774	$ 3,529,575	$ 4,652,576	$ 5,822,177	$ 7,086,778
Wastewater	1,379,275	2,272,934	3,221,593	4,207,072	5,274,371	6,391,670
STP Outfall Pipe Reserve	321,000	321,000	321,000	321,000	321,001	321,001
Utility Reserves - Sub Total	**$ 8,760,848**	**$ 5,114,708**	**$ 7,072,168**	**$ 9,180,648**	**$11,417,549**	**$ 13,799,449**
Total Reserves	**$11,212,921**	**$ 7,053,631**	**$ 8,998,841**	**$11,202,011**	**$13,917,164**	**$ 16,726,414**

Notes – Annual Reserve Transfers

General Government

No change is recommended to the amount of the transfer to reserves for equipment in General Government. The total reserve transfer remains at **$58,000.**

Protection to Persons and Property

The Fire Chief has reviewed the vehicles and equipment list and has adjusted the replacement cost of rescue vehicles since the adoption of the last Long Term Plan. As a result, the required annual transfer to reserves has increased from **$221,000 to $243,500**. This transfer has been on a phase in process for a number of years and is currently at $178,000. Over the next 10 years, this reserve is significantly underfunded, as a number of vehicles are due for replacement. With the continued phased in increase the reserve does rebound in later years and even supports the partial purchase (39% development charges) of an aerial truck in 2034. It is proposed that the transfer to reserves for Municipal Fleet and Equipment (Fire Capital) be increased from $178,000 to **$188,000** in 2019, followed by increases each year after until it reaches $243,500.

The transfer for By-law vehicles of **$1,500** remains the same. Due to the balance currently in the reserve it is anticipated that an annual transfer of $1,500 will provide enough funds to purchase the next vehicle scheduled for 2026.

Roads, Parks, Water and Wastewater Vehicles and Equipment

Staff in the Public Works Department have performed a review of their vehicles and equipment and have made only minor changes for this draft of the Long Term Plan.

The Parks Vehicle was increased to reflect the 2018 purchase of ¾ Ton diesel van. This increase results in a required reserve contribution of $35,200 annually, compared to $34,400 in 2018.

The transfer to reserves of $220,000 for the roads and parks municipal fleet was not increased in 2018, nor is an increase recommended at this time. The Municipal Fleet and Equipment Reserve does go into a deficit position and remains in a deficit position throughout the forecast period, as replacements for plough trucks and heavy equipment are scheduled. At this time there is no foreseeable funding issue for fleet replacements as the Roads Department continues to charge the Water/Wastewater Department for use of equipment (vacuum truck, backhoe etc.). This funding is not included in the current reserve schedule, as it does fluctuate from year to year. Further, any temporary deficit in this reserve can be funded from the Township's other reserves tagged for capital replacements.

Bridges and Culverts

The Asset Management Plan shows a 2015 replacement value of $7.9 million in the Bridges and Culverts category with an annual requirement for replacement of $108,613. It is recommended that the reserve transfer be increased $5,000 per year until an adequate level is reached.

Culture and Recreation

In 2012 a reserve transfer was established in recreation for the Tay Shore Trail resurfacing of $10,000 with a proposal to increase it by $5,000 each year until it reaches an adequate level. At that time the estimated cost to resurface the trail was $500,000. Public Works staff has estimated that smaller repairs can be made to extend the life of the trail with larger projects consisting of 6 km each being required in 2029, 2031 and 2033 at a cost of $462,000 each. Additional funding will be required to complete these projects. The annual $5,000 increase continues in the long term plan until 2025.

Planning & Development

The required annual transfer to reserves is $11,700 based on estimated pricing and timing of the update to the Official Plan. The total reserve transfer remains at $10,000**.**

There have been no changes to the vehicle schedule for the Building Department and therefore the reserve transfer remains at $5,000.

Operating Budget Reserve Transfers

Currently, through the operating budget, $15,000 is transferred annually to the contingency reserve as a method of distributing the cost of the election over 4 years and $10,000 is transferred annually as a method of distributing the cost of revisiting the strategic plan over 4 years. It is anticipated that the strategic plan exercise will be held at the start of each Council term. The net proceeds on lands sold by the Township are typically transferred to either the Parks and Recreation Reserve (if park lands) or the Contingency Reserve (other).

Muncipal Buildings

It is recommended that the Muncipal Building Reserve funding be increased each year by $5,000 in each respective department.

General Government - $45,000 vs. $40,000 in 2018
Public Works (Parks & Recreation) - $20,000 vs. $15,000 in 2018
Protection to Persons & Property (Fire) - $15,000 vs. $10,000 in 2018

TOWNSHIP OF TAY - LONG TERM PLAN												
GENERAL GOVERNMENT	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**Council/TBD**
ADMINISTRATION												
Strategic Plan		40,000				40,000				40,000		
Community Sign Boards - LED Conversion	3,000											
Office Equipment and Printers												
Photocopier - Admin (colour)			16,000						16,000			
Printer/fax/copier Public Works	7,000							7,000				
Plans Plotter									13,500			
Laser Printers		4,500	4,500						4,500			
Color Laser Printers	6,000					6,000						
Telephone System		35,000										
Financial laser printer						5,000						
Postage Machine	7,500											
Mini Mailer/Stuffer	16,000											
Total Office Equipment and Printers	**36,500**	**39,500**	**20,500**	**0**	**0**	**11,000**	**0**	**7,000**	**34,000**	**0**	**0**	**0**
Computer Hardware												
PC/Monitor Replacement	65,506	20,000	5,000	5,000	5,000	5,000	85,000	5,000	5,000	5,000	5,000	
Office Server	23,254	1,800		0			25,000					
Council Laptops	6,250				6,250				6,250			
Financial Server	25,000						25,000	0				
Office Network Switches (MDF)(IDF)							4,000	4,000				
VPN Router/Firewall	5,000						5,000					
NAS Unit for Backup Storage			10,000					10,000				
Total Computer Hardware	**125,010**	**21,800**	**15,000**	**5,000**	**11,250**	**5,000**	**144,000**	**19,000**	**11,250**	**5,000**	**5,000**	**0**
Computer Software												
Financial Software							100,000					
Agenda Management Software			15,000									
File Mgt Software						50,000						
Work Order System	9,000				50,000							
Website Software												
Land Manager Upgrade	9,000											
Backup Tape Drive & Software					12,000							
Total Computer Software	**18,000**	**0**	**15,000**	**0**	**62,000**	**50,000**	**100,000**	**0**	**0**	**0**	**0**	**0**

TOWNSHIP OF TAY - LONG TERM PLAN												
GENERAL GOVERNMENT	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**Council/TBD**
Buildings												
Administration Building												
HVACs (York -3)	30,000											
Walkway into Administration Building	7,000											
Roof (partial)						30,000						
Generator											45,000	
Meeting room tables		8,000						8,000				
Paint & Shelving				42,000								
Automatic door opener						7,000						
Carpet Replacement								70,000				
Chairs & Desks (Council members)							13,500					
Chairs (Council observers)						9,400						
Curtains & Blinds (including blackout curtains)		7,000							42,500			
Stucco									24,000			
Shelving & Cabinetry		5,000							6,910			
Cedar Facia			20,000									
Albert Street Mini-mall												
Flooring & Lighting (Harbour Shores Community Room)			10,000									
HVAC (Harbour Shores Community Room)				10,000								
Residential Furnace (Canada Post)											10,000	
HVAC (Accountant's Office)		9,000										
Works Garage												
Roof (Garage - existing tar roof)				45,000								
HVAC - Garage (2 residential furnaces)		10,000										
Radiant Heaters										40,000		
Diesel pump & tanks								100,000				
Total Buildings/Works Garage	**37,000**	**39,000**	**30,000**	**97,000**	**-**	**46,400**	**13,500**	**178,000**	**73,410**	**40,000**	**55,000**	**-**

TOWNSHIP OF TAY - LONG TERM PLAN												
GENERAL GOVERNMENT	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**Council/TBD**
TOTAL CAPITAL	**219,510**	**140,300**	**80,500**	**102,000**	**73,250**	**152,400**	**257,500**	**204,000**	**118,660**	**85,000**	**60,000**	**0**
Operating												
Accessibility Retrofits - Reception Counter	37,000											
TOTAL OPERATING	**37,000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**
TOTAL LONG TERM PLAN	**256,510**	**140,300**	**80,500**	**102,000**	**73,250**	**152,400**	**257,500**	**204,000**	**118,660**	**85,000**	**60,000**	**0**
SOURCES OF FINANCING												
Prior year surplus	10,550											
Grants	18,500	-	-									
Reserves - Municipal Equipment	168,510	61,300	50,500	5,000	73,250	66,000	244,000	26,000	45,250	5,000	5,000	-
Reserves - Municipal Buildings	49,950	39,000	30,000	97,000	-	46,400	13,500	178,000	73,410	40,000	55,000	-
Reserves - Building vehicle	9,000											
Reserves - Contingency		40,000				40,000				40,000		
TOTAL FINANCING	**256,510**	**140,300**	**80,500**	**102,000**	**73,250**	**152,400**	**257,500**	**204,000**	**118,660**	**85,000**	**60,000**	**0**

TOWNSHIP OF TAY - LONG TERM PLAN RESERVE TRANSFERS NECESSARY TO PROVIDE FOR EQUIPMENT REPLACEMENT					
GENERAL GOVERNMENT	**Year of Acquisition**	**Replacement Cost**	**Total**	**Estimated Life**	**Transfer Required**
EQUIPMENT					
Furniture, Office Equipment					
Postage Machine	2006	7,500			
Photocopier (Admin)	2013	13,000			
Colour Printer-PW	2017	6,000	26,500	6	4,417
Printer/Copier/Fax, PW(3yr NBD Warranty)	2017	7,000			
Laser Printer - Admin	2015	4,500			
Laser Printer, Financials	2015	5,000			
Laser Printer - Planning	2004	4,500	21,000	8	2,625
Plotter (Plans)	2017	13,500			
Telephone System	2008	35,000			
Mini-mailer (Inserter/Stuffer)	2018	14,000	62,500	10	6,250
COMPUTER HARDWARE					
Council laptops, software	2014	6,250		4	1,563
Backup NAS VTL	2015	10,000			
PC's (39) - includes MS Office	2010	85,000			
Back up equipment & software	2010	12,000			
server - financial	2016	25,000			
server - office automation	2016	25,000	157,000	5	31,400
VPN Router/Firewall	2005	5,000			
Office MDF Switch	2016/2017	4,000			
Office IDF Switch	2016/2017	4,000	13,000	5	2,600
LED Signboards (4-single, 2-double)	2017/2018	40,000	40,000	10	4,000
COMPUTER SOFTWARE					
Website software		25,000			
Financial, Work Order, File Managements		200,000	225,000	10	22,500
Total Equipment Reserve					**75,354**
Total Reserve Transfer Required					**75,354**
TOTAL ANNUAL TRANSFER TO RESERVE FOR 2019					**58,000**

TOWNSHIP OF TAY - LONG TERM PLAN
RESERVE TRANSFERS NECESSARY TO PROVIDE FOR BUILDING REPLACEMENT

GENERAL GOVERNMENT	Replacement Year	Replacement Cost	Other Funding	Municipal Reserves	Average Life	Annual Transfer
Administration Building	2054	2,500,000	-	2,500,000	45	$ 55,000
Public Works Garage	2041	3,100,000	-	3,100,000	46	$ 67,800
Public Works Sand Dome	2045	475,000	-	475,000	50	$ 9,500
Albert Street Mini-Mall (excluding Library portion of building)	2051	600,000	-	600,000	43	$ 14,000
Old Victoria Harbour Fire Hall (Public Works Storage)	N/A	N/A	-	N/A	N/A	N/A
Annual Building Transfer Required						**$ 146,300**
2019 Annual Building Transfer Set At						**$ 45,000**

TOWNSHIP OF TAY - LONG TERM PLAN											
	Approved Budget	FORECASTED BUDGET									
PROTECTION TO PERSONS AND PROPERTY	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
FIRE DEPARTMENT											
Fire Master Plan							25,000				
Rescue Vehicles											
Fire Pick-Up Truck & Skid Unit											
Fire Chief Crew Cab		42,000									
Deputy Chief Vehicle					38,000						
Waubaushene (Hall #1) - Tanker	293,374										
Old Fort (Hall #2)- Tanker			300,000								
Victoria Harbour (Hall #5)- New Tanker/Pumper (Addition to Fleet)											
Waubaushene (Hall #1) - Pumper	435,830										
Port McNicoll (Hall #4) - Pumper						430,000					
Victoria Harbour (Hall #5)- Pumper											430,000
Old Fort (Hall #2) - Pumper					430,000						
Ariel Truck (will replace a pumper truck)											
Waubaushene (Hall #1) - Rescue Vehicle	175,720										
Port McNicoll (Hall #4) - Rescue Vehicle										160,000	
Victoria Harbour (Hall #5) - Rescue Vehicle						160,000					
Buildings											
Port McNicoll (Hall #4) - Radiant Heat, Bay Doors										70,000	
Port McNicoll (Hall #4) - Roof										10,000	
Port McNicoll (Hall #4) - Hygenie Upgrade			8,000		175,000						
Victoria Harbour (Hall #5) - Generator (EOC)											45,000
Waubaushene (Hall #1) - Radiant Heating			20,000								
Waubaushene (Hall #1) - Oil Interceptor										30,000	
Old Fort Hall #2, New Hall											
Equipment											
Auto Ex	50,000										
SCBA Fill Station											
SCBA									400,000		
Bunker Gear (Pooled)	15,200	37,200	15,200	15,200	15,200	15,200	15,200	15,200	15,200	15,200	37,200
Ice Water Rescue Suits (Pooled)	4,000	4,000	4,000					4,000	4,000	4,000	4,000
Digital Radios	82,000										
Thermal Imaging Camera			14,000			14,000					
Porta Tanks											
PPV Fans - battery operated c/w mister		6,000		6,000	6,000						
Dry Hydrants (operating)		5,000									
Total Long Term Plan	**1,056,124**	**94,200**	**361,200**	**21,200**	**664,200**	**619,200**	**40,200**	**19,200**	**419,200**	**289,200**	**516,200**

TOWNSHIP OF TAY - LONG TERM PLAN											
	Approved Budget	FORECASTED BUDGET									
PROTECTION TO PERSONS AND PROPERTY	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
SOURCES OF FINANCING:											
Tax Rate - Capital	**19,200**	**25,200**	**33,200**	**21,200**	**21,200**	**29,200**	**15,200**	**19,200**	**19,200**	**19,200**	**19,200**
Tax Rate - Operating	**-**	**5,000**	**-**	**-**	**-**	**-**	**25,000**	**-**	**-**	**-**	**-**
Reserves - Fire Capital	1,036,924	64,000	300,000	-	468,000	590,000	-	-	400,000	160,000	452,000
Reserves - Municipal Buildings	-	-	28,000	-	175,000	-	-	-	-	110,000	45,000
Reserve Funds											
Debt											
Prior Years Surplus / Capital Reserve											
TOTAL FINANCING	**1,056,124**	**94,200**	**361,200**	**21,200**	**664,200**	**619,200**	**40,200**	**19,200**	**419,200**	**289,200**	**516,200**

TOWNSHIP OF TAY - LONG TERM PLAN											
	Approved Budget	FORECAST									
BYLAW DEPARTMENT	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
By-law Enforcement Vehicle (2016 Van)									**30,000**		
SOURCES OF FINANCING:											
Sale of Fixed Asset											
Reserves - Municipal				**-**	**-**	**-**	**-**	**-**	**30,000**		
TOTAL FINANCING	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**30,000**		

TOWNSHIP OF TAY - LONG TERM PLAN
RESERVE TRANSFERS NECESSARY TO PROVIDE FOR EQUIPMENT & BUILDING REPLACEMENT

PROTECTION TO PERSONS AND PROPERTY EQUIPMENT		REPLACEMENT YEAR	Replacement COST	Other Funding Trade/DCA	FUNDED BY Municipal Reserves	Total Municipal Reserves	Average Life	Annual Transfer
PUMPERS								
Waubaushene	(1997 Frlner) - Pump 1	2018/2019	430,000		430,000			
Old Fort	(2003 Filner) - P21	2022/2023	430,000		430,000			
Port McNicoll	(2004 Frlner) - P41	2023/2024	430,000		430,000			
Victoria Harbour	(2009 Frlner) - P51	2028/2029	430,000		430,000	1,720,000	20	86,000
TANKERS								
Waubaushene	Est. 2001 - Tank 1	2018/2019	300,000	0	300,000			
Old Fort	(2001 International)bought in 2007 - Tank 22	2020/2021	300,000	0	300,000			
New Tanker/Pumper	Tank 52	2034/2035	430,000	0	430,000	1,030,000	20	51,500
RESCUE VANS					0			
Waubaushene	(2000 Ford) - Rescue 1	2018/2019	260,000	0	260,000			
Port McNicoll	(2011 Ford) - R43	2027	160,000	0	160,000			
Victoria Harbour	(2007 Ford Econo) - Rescue 3	2023	160,000	0	160,000	580,000	16	36,250
VEHICLES								
Fire Chief Crew Cab Truck(3GCEK13339G205641, 2009)		2019	42,000		42,000			
Deputy Fire Chief Truck (2012)		2022	38,000		38,000	80,000	10	8,000
Ariel Truck (will replace a pumper truck)		2034	300,000	117,540	182,460	182,460	20	9,123
TOTAL FIRE VEHICLES								**190,873**
EQUIPMENT								
Pagers - have been removed from the schedule			42,000		42,000		5	0
SCBA(50) + bottles		2026	400,000		400,000	400,000	10	40,000
SCBA Air Fill Station - Joint Purchase (Tay's share)		2030	60,000	40,000	20,000	20,000	15	1,333
Thermal Imaging Cameras		2017	56,000		56,000	56,000	7	8,000
Auto Extraction		2018	50,000		50,000	50,000	15	3,333
TOTAL EQUIPMENT								**52,667**
ANNUAL EQUIPMENT TRANSFER REQUIRED								**243,540**
2019 ANNUAL EQUIPMENT TRANSFER TO RESERVE SET AT								**188,000**
PROTECTION TO PERSONS AND PROPERTY BUILDINGS		**REPLACEMENT YEAR**	**Replacement COST**	**Other Funding Trade/DCA**	**FUNDED BY Municipal Reserves**	**Total Municipal Reserves**	**Average Life**	**Annual Transfer**
Waubaushene		2035	910,000	-	910,000	910,000	45	20,120
Old Fort		2055	1,795,000	-	1,795,000	1,795,000	38	47,245
Port McNicoll		2028	660,000	-	660,000	660,000	45	14,622
Victoria Harbour		2040	1,445,000	-	1,445,000	1,445,000	45	31,782
ANNUAL BUILDING TRANSFER REQUIRED								**113,769**
2019 ANNUAL BUILDING TRANSFER TO RESERVE SET AT								**15,000**

TOWNSHIP OF TAY - LONG TERM PLAN

RESERVE TRANSFERS NECESSARY TO PROVIDE FOR EQUIPMENT REPLACEMENT

By-Law Enforcement									
Vehicle #403	**COST**	**Trade-in**	**Other Net Cost**	**Municipal DCA**	**Average Res-Fund**	**Annual Reserves**	**Life**	**Transfer**	Reduced Transfer
2016 Van	30,000		30,000			30,000	10	**3,000**	**1,500**

Note: Transfer has been reduced from $3,000 to $1,500 to reflect the surplus funds in the By-Law vehicle reserve.

TOWNSHIP OF TAY - LONG TERM PLAN
PUBLIC WORKS SUMMARY

	Approved Budget	Forecast									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Roads & Parks Equipment	1,306,000	80,000	31,000	45,000	35,000	711,000	675,000	123,000	320,000	300,000	56,000
Mobile Radios			12,500								
Road Capital	2,268,008	1,830,067	3,102,220	1,818,804	1,925,439	1,946,735	1,676,804	1,917,939	1,707,735	1,696,804	1,664,439
Water & Wastewater											
Equipment/Vehicles	-	7,000	-	-	-	25,000	25,000	150,000	38,000	-	-
Mobile Radios			3,000								
Waste Water	14,845,000	675,000	110,000	4,510,000	6,020,000	90,000	50,000	30,000	80,000	50,000	20,000
Water	2,956,715	415,000	2,248,490	403,800	1,008,450	362,700	6,104,400	525,800	421,600	385,000	300,000
TOTAL CAPITAL PROJECTS	**21,375,723**	**3,007,067**	**5,507,210**	**6,777,604**	**8,988,889**	**3,135,435**	**8,531,204**	**2,746,739**	**2,567,335**	**2,431,804**	**2,040,439**
SOURCES OF FINANCING:											
Tax Rate	966,132	1,034,257	1,100,285	1,168,293	1,238,342	1,310,492	1,384,807	1,461,351	1,540,192	1,621,398	1,705,040
Federal/Provincial Grants	10,937,118	1,172,939	827,061	-	-	-	-	-	-	-	-
Federal Gas Tax	310,101	310,101	310,101	310,101	310,101	310,101	310,101	310,101	310,101	310,101	310,101
Investment Income (Hydro)	196,500	196,500	196,500	196,500	196,500	196,500	196,500	196,500	196,500	196,500	196,500
Reserves - Municipal	1,487,858	156,000	681,939	125,000	300,000	711,000	675,000	422,500	320,000	300,000	56,000
Reserves - Water & Wastewater	370,504	(340,039)	977,990	2,379,000	2,072,950	382,200	5,043,900	610,300	444,100	339,500	224,500
Developer Contribution (DCA)	125,670	377,310	1,413,334	1,070,427	1,997,094	143,240	1,189,570	156,090	162,806	169,723	176,848
Debt	-	-	-	1,500,000	3,000,000	-	-	-	-	-	-
Deferred Revenue (PB/GB Grant)	2,700,000	100,000	-	-	-	-	-	-	-	-	-
Prior Year Surplus	274,093	-	-	-	-	-	-	-	-	-	-
Unfinanced/(Capital Surplus)	**0**	**(0)**	**0**	**28,282**	**(126,098)**	**81,902**	**(268,674)**	**(410,104)**	**(406,364)**	**(505,418)**	**(628,550)**
Grants/Benefitting Property Owners	4,007,747	-	-	-	-	-	-	-	-	-	-
TOTAL FINANCING	**21,375,723**	**3,007,067**	**5,507,210**	**6,777,604**	**8,988,889**	**3,135,435**	**8,531,204**	**2,746,739**	**2,567,335**	**2,431,804**	**2,040,439**
	-	-	-	-	-	-	-	-	-	-	-
Impact of Projects and Reserve Transfers on Annual Tax Levy:											
Funded from Tax rate	966,132	1,034,257	1,100,285	1,168,293	1,238,342	1,310,492	1,384,807	1,461,351	1,540,192	1,621,398	1,705,040
Transfer to Reserves											
Roads/Parks Fleet	220,000	220,000	220,000	220,000	220,000	220,000	220,000	220,000	220,000	220,000	220,000
Bridge Replacement	65,000	70,000	75,000	80,000	85,000	90,000	95,000	100,000	105,000	105,000	105,000
Water & Wastewater Fleet (Rate funded)	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000
TOTAL IMPACT	**1,273,132**	**1,346,257**	**1,383,111**	**1,490,293**	**1,565,342**	**1,642,492**	**1,721,807**	**1,803,351**	**1,887,192**	**1,968,398**	**2,052,040**

TOWNSHIP OF TAY - LONG TERM PLAN											
PUBLIC WORKS	**Approved Budget**	**Forecast**									
	2018	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
ROADS CAPITAL											
Road Needs Study	5,000										
Road Improvements	2,018,988	1,229,060	1,391,985	1,484,000	1,405,000	1,697,000	1,343,000	1,388,000	1,391,000	1,394,000	1,409,000
Gravel Program	124,020	164,007	144,735	179,804	155,439	174,735	233,804	155,439	216,735	227,804	155,439
SIDEWALK IMPROVEMENTS											
Sidewalk Replacement	75,000	172,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
BRIDGE IMPROVEMENTS											
Bridge work - various locations	-	210,000	1,410,500	25,000	210,000	-	-	299,500	-	-	-
PUBLIC WORKS OTHER											
Cracked Sealing Program	25,000	0	25,000	0	25,000	0	25,000	0	25,000	0	25,000
STREET LIGHTS											
Street light replacement	20,000	55,000	55,000	55,000	55,000	-	-	-	-	-	-
TOTAL CAPITAL	**2,268,008**	**1,830,067**	**3,102,220**	**1,818,804**	**1,925,439**	**1,946,735**	**1,676,804**	**1,917,939**	**1,707,735**	**1,696,804**	**1,664,439**
SOURCES OF FINANCING:											
Tax Rate	966,132	1,034,257	1,100,285	1,168,293	1,238,342	1,310,492	1,384,807	1,461,351	1,540,192	1,621,398	1,705,040
Federal Gas Tax	310,101	310,101	310,101	310,101	310,101	310,101	310,101	310,101	310,101	310,101	310,101
Reserves - Capital Infrastructure	161,858										
Reserves - Bridge Infrastructure	-	21,000	583,439	25,000	210,000	-	-	299,500	-	-	-
Reserves - Street light Infrastructure	20,000	55,000	55,000	55,000	55,000	-	-	-	-	-	-
Reserve Funds	125,670	119,710	125,334	131,127	137,094	143,240	149,570	156,090	162,806	169,723	176,848
Debt				-							
Investment Income (Hydro)	101,000	101,000	101,000	101,000	101,000	101,000	101,000	101,000	101,000	101,000	101,000
Grants	309,154	189,000	827,061								
Prior Year Surplus	274,093										
TOTAL FINANCING	**2,268,008**	**1,830,068**	**3,102,220**	**1,790,521**	**2,051,537**	**1,864,833**	**1,945,478**	**2,328,042**	**2,114,099**	**2,202,222**	**2,292,988**
Unfinanced/(Surplus)	**0**	**(0)**	**0**	**28,282**	**(126,098)**	**81,902**	**(268,674)**	**(410,104)**	**(406,364)**	**(505,418)**	**(628,550)**

Name	From	To	Length (m)	Width (m)	Surface Type	Need	RNS Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Gloucester Grove	Gloucester Grove	Earldom Boulevard	100	5	Asphalt	Resurface	2018										
Silver Birch Crescent	Patterson Boulevard	Evergreen Avenue	200	6	Asphalt	Reconstruct	2018										
Gloucester Grove	Gloucester Grove	West Limit	0	3	Surface Treated	Rehabilitate	2018										
Silver Birch Crescent	Evergreen Avenue	Woodlands Avenue	200	6	Asphalt	Resurface	2018										
Evergreen Avenue	Woodlands Avenue	Silver Birch Crescent	200	6	Asphalt	Rehabilitate	2018										
Paradise Avenue	Patterson Drive	Dignard Avenue	300	4.7	Asphalt	Resurface	2018										
Grove Street	Waterside Drive	Earldom Boulevard	200		Surface Treated	Resurface	2018										
Poplar Avenue	Limestone Road	Paradise Avenue	200	5	Asphalt	Resurface	2018										
Waterside Drive	Gloucester Grove	Yeoger Drive	200	5	Surface Treated	Resurface	2018										
Oriole Street	Waterside Drive	Earldom Boulevard	200	5	Surface Treated	Resurface	2018										
Yeoger Drive	Beach Drive	Earldom Boulevard	200	5	Surface Treated	Resurface	2018										
Silver Birch Crescent	Patterson Boulevard	East Limit	300	6	Asphalt	Resurface	2018										
Dignard Avenue	Limestone Road	Evergreen Avenue	300	4.8	Asphalt	Rehabilitate	2018										
Kingfisher Avenue	Limestone Road	Paradise Avenue	200	4.8	Asphalt	Resurface	2018										
Beach Drive	Yeoger Drive	First Avenue	100	5	Surface Treated	Resurface	2018										
Silver Birch Crescent	Woodlands Avenue	Patterson Boulevard	200	6	Asphalt	Resurface	2018										
Woodlands Avenue	West Limit	Evergreen Avenue	400	6	Asphalt	Resurface	2018										
Earldom Boulevard	West Limit	First Avenue	400	5	Surface Treated	Resurface	2018										
Patterson Boulevard	Paradise Avenue	East Limit	500	6	Asphalt	Reconstruct	2018										
First Avenue	North Limit	Earldom Boulevard	300	7	Asphalt	Resurface	2018										
Patterson Boulevard	First Avenue	Paradise Avenue	400	6	Asphalt	Adequate	2018										
First Avenue	Earldom Boulevard	Woodlands Avenue	300	7	Asphalt	Reconstruct	2018										
Limestone Road	Patterson Boulevard	Woodlands Avenue	400	4.8	Asphalt	Resurface	2018										
Woodlands Avenue	West Limit	Evergreen Avenue	400	6	Asphalt	Resurface	2018										
Bannister Street	Vasey Road	South Limit	200	5.2	Surface Treated	Reconstruct	2018				$ 93,000						
Ron Jones Road	**Ebenezer Sideroad**	**Hogg Valley Road**	**1000**		**Surface Treated**	**Resurface**	**2018**	**$ 99,000**									
Traux Lane	Vasey Road	North Limit	200	5.2	Surface Treated	Reconstruct	2018				$ 93,000						
Hogg Valley Road	Ron Jones Road	Old Fort Road	1500	6.6	Surface Treated	Resurface	2018			$ 151,000							
Ron Jones Road	Hogg Valley Road	McMann	1000	6.6	Surface Treated	Resurface	2018			$ 100,000							
Gratrix Road	**0.5km N of Fesserton SR ROW**	**Vasey Road**	**3500**	**6.6**	**Asphalt**	**Resurface**	**2019**	**TBD**									
Unallocated								**$ 1,130,060**	**$ 649,985**								
Hogg Valley Road	Rumney Road	Old Fort Road	1300	6.7	Surface Treated	Resurface	2020		$ 128,000								
First Avenue	Woodlands Avenue	Arpin Street	900	7	Asphalt	Reconstruct	2020		$ 473,000								
Davidson Street	Fourth Avenue	Third Avenue	100	5.6	Asphalt	Resurface	2020		$ 13,000								
Duck Bay Road	**Meadows Avenue**	**North Limit**	**500**	**6.2**	**Surface Treated**	**Resurface**	**2020**		**$ 50,000**								
Wood Road	1350 m N of McMann SR	Ebenezer Sideroad	700	5.6	Surface Treated	Resurface	2020		$ 62,000								
Fifth Avenue	Arpin Street	Alberta Street	200	5.5	Asphalt	Rehabilitate	2020		$ 16,000								
Triple Bay Road	**North Limit**	**Comber Place**	**2000**	**6.5**	**Asphalt**	**Reconstruct**	**2021**			**$ 1,233,000**							
Hogg Valley Road	Gervais Road	Newton Street	1500	6.4	Surface Treated	Resurface	2020				$ 146,000						
Ebenezer Side Road	Old Penetanguishene Road	Wood Road	2300	6.8	Surface Treated	Resurface	2020				$ 234,000						
Osborne Street	94 Osborne Street	HCB/GS Transition	300	6.6	Asphalt	Adequate	2021				$ 51,000						
Quarry Road	Duck Bay Road	East Limit	800	6.5	Asphalt	Reconstruct	2022					$ 445,000					
O'Leary Lane	140m west of Vents Beach Road	Vents Beach Road	140	5.5	Asphalt	Rehabilitate	2022				$ 8,000						
Gervais Road	Neilson Street	Hogg Valley Road	1000	7.2	Surface Treated	Resurface	2022										
McDermitt Trail	Anderson Court	Anderson Crescent	500	6.8	Asphalt	Resurface	2022				$ 84,000						
Ninth Avenue	Assiniboia Street	Talbot Street	300	6.5	Asphalt	Rehabilitate	2022				$ 27,000						
Lumber Road	Ellen Street	Victoria Street	400	6.2	Asphalt	Rehabilitate	2022				$ 30,000						
Forgets Road	1.4 km East of Old Penetanguishene	0.3 m West of Wood Road	600	5.2	Gravel	Resurface	2022				$ 16,000						
Rumney Road	**Hogg Valley Road**	**Elliot Sideroad**	**3100**	**6.6**	**Surface Treated**	**Resurface**	**2022**				**$ 306,000**						
Seventh Avenue	Athabaska Street	Alberta Street	200	6.2	Asphalt	Rehabilitate	2022				$ 17,000						
West Service Road	Forest Harbour Parkway	Quarry Road	2600	6.6	Asphalt	Rehabilitate	2022				$ 286,000						

Name	From	To	Length (m)	Width (m)	Surface Type	Need	RNS Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Albert Street	**Richard Street**	**George Street**	**500**	**6.4**	**Asphalt**	**Reconstruct**	**2023**					**$ 251,000**					
West Service Road	North Limit	Gerhardt Road	700	6.6	Asphalt	Rehabilitate	2023					$ 73,000					
Elliot Side Road	Ron Jones Road	Old Fort Road	1500	6.4	Surface Treated	Rehabilitate	2023					$ 131,000					
Duck Bay Road	Coldwater Road	Quarry Road	1100	7	Asphalt	Rehabilitate	2023					$ 111,000					
Willow Street	Mountain Avenue	Coldwater Road	200	8	Asphalt	Resurface	2023					$ 37,000					
Alberta Street	Fifth Avenue	Second Avenue	300	7	Asphalt	Resurface	2023					$ 42,000					
Alberta Street	Second Avenue	First Avenue	200	7	Asphalt	Resurface	2023					$ 27,000					
Elm Street	Mountain Avenue	Coldwater Road	200	6.6	Asphalt	Resurface	2023					$ 30,000					
McMann Sideroad	Wood Road	Ron Jones Road	1000	6.4	Surface Treated	Resurface	2023					$ 100,000					
Wardell Street	Fourth Avenue	First Avenue	400	6	Asphalt	Resurface	2023					$ 50,000					
Elm Street	Pine Street	Mountain Avenue	400	6.3	Asphalt	Resurface	2023					$ 52,000					
Ninth Avenue	North Limit	Assiniboia Street	200	6.5	Asphalt	Resurface	2023					$ 22,000					
O'Leary Lane	Vents Beach Road	East Limit	130	6.3	Asphalt	Resurface	2023				$ 14,000						
Bell Street	First Avenue	West Limit	200	6.2	Asphalt	Resurface	2023					$ 24,000					
St. Mary's Crescent	Florence Street	West Limit	200	6.2	Asphalt	Resurface	2023					$ 21,000					
Barnes Avenue	Athabaska Street	Alberta Street	200	6	Asphalt	Resurface	2023					$ 28,000					
Barnes Avenue	Albert Street	Hayes Street	100	6	Asphalt	Resurface	2023					$ 14,000					
Mountain Avenue	Elm Street	Cherry Street	500	5.8	Asphalt	Resurface	2023					$ 60,000					
Gouett Street	Forest Harbour Parkway	West Limit	300	5.6	Surface Treated	Resurface	2023					$ 28,000					
Assiniboia Street	Ninth Avenue ROW	Seventh Avenue	300	6.4	Asphalt	Resurface	2023					$ 43,000					
Florence Street	St. Mary Crescent	Jephson Street	100	6.2	Asphalt	Resurface	2023					$ 15,000					
Athabaska Street	Seventh Avenue	East Limit	200	6.2	Asphalt	Resurface	2023					$ 25,000					
Bay Street	West Street	Alberta Street	200	6	Asphalt	Resurface	2023					$ 22,000					
Browns Line	North Limit	South Limit	300	5.3	Asphalt	Resurface	2023					$ 30,000					
Fourth Avenue	Alberta Street	Hayes Street	100	6.2	Asphalt	Resurface	2023					$ 16,000					
Percy Street	North Limit	Dodge Drive	300	5.8	Asphalt	Resurface	2024						$ 34,000				
Barnes Avenue	Arpin Street	Athabaska Street	200	6	Asphalt	Resurface	2024						$ 27,000				
Tanners Road	Lawson Lane	Highway 12	400	6.3	Surface Treated	Resurface	2024						$ 39,000				
Sallows Drive	Lumsden Street	Bernard Avenue	400	6.3	Surface Treated	Resurface	2024						$ 34,000				
Sallows Drive	Bernard Avenue	Caswell Drive	300	6.3	Surface Treated	Resurface	2024						$ 25,000				
Elliot Side Road	Old Fort Road	Rumney Road	1400	6.6	Surface Treated	Resurface	2024						$ 627,000				
Albert Street	John Dillingno Street	South Limit	200	6.6	Asphalt	Resurface	2024						$ 30,000				
Ash Street	Hazel Street	West Limit	200	5.5	Asphalt	Resurface	2024						$ 25,000				
Alcove Drive	Port Severn Road	Limit	500	6.8	Asphalt	Resurface	2024						$ 77,000				
Sandhill Road	Old Coach Road	Vasey Road	500	6.5	Asphalt	Resurface	2024						$ 75,000				
Rope Boulevard	West Service Road	Booth Road	300	6.4	Asphalt	Resurface	2024						$ 44,000				
Rope Boulevard	Booth Road	Oak Road	500	6.4	Asphalt	Resurface	2024						$ 64,000				
Seventh Avenue	Arpin Street	Athabaska Street	200	6.2	Asphalt	Resurface	2024						$ 28,000				
Percy Street	Dodge Drive	Sturgeon Bay Road	300	5.8	Asphalt	Resurface	2024						$ 34,000				
Neilson Road	Gervais Road	West Limit	400	6.4	Surface Treated	Resurface	2024						$ 40,000				
Old Penetanguishene Ro	Ebenezer Sideroad	Highway 93	400	6.3	Surface Treated	Resurface	2024						$ 41,000				
Ebenezer Side Road	Wood Road	Ron Jones Road	1000	6.7	Surface Treated	Resurface	2024						$ 99,000				

Name	From	To	Length (m)	Width (m)	Surface Type	Need	RNS Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Elliot Side Road	Wood Road	Ron Jones Road	1100	6.5	Surface Treated	Resurface	2025							$ 110,000			
Forest Harbour Parkway	West 91 FHP	Duck Bay Road	900	6.2	Surface Treated	Resurface	2025							$ 87,000			
Winfield Drive	William Street	North Limit	200	6.2	Asphalt	Resurface	2025							$ 30,000			
Glacier Trail	Hilltop Crescent	North Limit	400	6.5	Asphalt	Resurface	2025							$ 58,000			
Midland Avenue	North Limit	Talbot Street	100	6.4	Asphalt	Resurface	2025							$ 15,000			
Forgets Road	0.3 km West of Wood Road	Wood Road	300	6.4	Surface Treated	Resurface	2025							$ 30,000			
Forgets Road	Old Penetanguishene Road	1.4 km East of Old Peneta	1400	6.4	Surface Treated	Resurface	2025							$ 136,000			
Third Avenue	Assiniboia Street	Davidson Street	100	6.3	Asphalt	Resurface	2025							$ 14,000			
Port Severn Road	West Service Road	West Limit	100	6.6	Asphalt	Resurface	2025							$ 16,000			
Vents Beach Road	O'Leary Lane	Bourgeois Beach Road	100	6	Asphalt	Resurface	2025							$ 19,000			
Coldwater Road	Balsam Avenue	Willow Street	300	6.4	Asphalt	Resurface	2025							$ 36,000			
Palmer Street	Albin Street	Dodge Drive	300	5.5	Asphalt	Resurface	2025							$ 39,000			
Hogg Valley Road	Reeves Road	Hill at 4763 Hogg Valley Rd	900	6.6	Surface Treated	Resurface	2025							$ 86,000			
Bay Street	Albert Street	Park Street	500	6.4	Asphalt	Resurface	2025							$ 80,000			
Second Avenue	Bell Street	Talbot Street	600	6.3	Asphalt	Resurface	2025							$ 86,000			
Beckett's Sideroad	Rosemount Road	Gratrix Road	12000	6.3	Surface Treated	Resurface	2025							$ 116,000			
Bergie Crescent	Lighthouse Road	Juneau Road	300	5.8	Asphalt	Resurface	2025							$ 39,000			
John Dillingno Stree	**Trillium Street**	**Park Street**	**400**	**6.6**	**Asphalt**	**Resurface**	**2025**							**$ 60,000**			
Osborne Street	HCB/GS Transition	Robins Point Road	700	7	Surface Treated	Resurface	2025							$ 114,000			
Armstrong Street	Fifth Avenue	Third Avenue	200	6.6	Asphalt	Resurface	2025							$ 32,000			
Newton Street	Hogg Valley Road	CPR Abandoned	2300	6.5	Surface Treated	Resurface	2026								$ 230,000		
Albin Road	GS/HCB Transition	Pine Street	600	5.8	Asphalt	Resurface	2025							$ 78,000			
Albin Road	West Limit	GS/HCB Transition	800	5.8	Surface Treated	Resurface	2025							$ 80,000			
Ouida Street	Dodge Drive	Sturgeon Bay Road	300	5.6	Asphalt	Resurface	2026								$ 33,000		
Coldwater Road	Willow Street	Duck Bay Road	200	6.4	Asphalt	Resurface	2026								$ 29,000		
George Street	West Street	Park Street	700	6.4	Asphalt	Resurface	2026								$ 103,000		
Ouida Street	Albin Road	Dodge Drive	300	5.6	Asphalt	Resurface	2026								$ 39,000		
Newton Street	Granny White Sideroad	Highway 12	1500	7.4	Surface Treated	Resurface	2026								$ 248,000		
Bayway Road	Duck Bay Road	West Limit	500	6.2	Surface Treated	Resurface	2026								$ 69,000		
Gratrix Road	Highway 12	Old Coach Road	1000	7	Asphalt	Resurface	2026								$ 166,000		
West Service Road	Gerhardt Road	Forest Harbour Parkway	700	6.6	Asphalt	Resurface	2026								$ 110,000		
West Street	George Street	South Limit	400	6.4	Asphalt	Resurface	2026								$ 57,000		
King Road	Albin Street	Limit	700	5.4	Asphalt	Resurface	2026								$ 87,000		
Maskinonge Road	Caswell Drive	South Limit	700	6.2	Surface Treated	Resurface	2026								$ 97,000		
Ogdens Beach Road	North Limit	Bayview Avenue	300	6.5	Asphalt	Resurface	2026								$ 38,000		
Newton Street	CPR Abandoned	Granny White Sideroad	900	6.4	Surface Treated	Resurface	2026								$ 85,000		

Name	From	To	Length (m)	Width (m)	Surface Type	Need	RNS Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Juneau Road	Hoyt Avenue	Lighthouse Crescent	500	6.4	Asphalt	Resurface	2027									$ 64,000	
Triple Bay Road	**Comber Place**	**Talbot Street**	**700**	**6.5**	**Asphalt**	**Resurface**	**2027**									**$ 109,000**	
Veterans Lane	Albert Street	William Street	200	6.4	Asphalt	Resurface	2027									$ 30,000	
Caswell Street	Highway 12	Maskinonge Street	400	6.4	Surface Treated	Resurface	2027									$ 60,000	
John Dillingno Stree	**West Street**	**Trillium Street**	**300**	**6.6**	**Asphalt**	**Resurface**	**2027**									**$ 45,000**	
Rumney Road	Elliot Sideroad	Highway 12	1400	6.1	Asphalt	Resurface	2027									$ 205,000	
Reeves Road	Granny White Sideroad	CPR Abandoned	300	6.1	Asphalt	Resurface	2027									$ 35,000	
Ney Avenue	Talbot Street	Nottingham Street	400	6.5	Asphalt	Resurface	2027									$ 55,000	
Sturgeon Bay Road	Highway 12	Ouida Street	400	6.5	Asphalt	Resurface	2027									$ 56,000	
Anderson Crescent	Park Street	McDermitt Trail	700	6.2	Asphalt	Resurface	2027									$ 97,000	
Coldwater Road	Duck Bay Road	Pine Street	700	6.6	Asphalt	Resurface	2027									$ 105,000	
Sturgeon Bay Road	Ouida Street	Pine Street	300	6.5	Asphalt	Resurface	2027									$ 40,000	
Park Street	Anderson Court	Richard Street	300	7	Asphalt	Resurface	2027									$ 54,000	
Park Street	Richard Street	Industrial Road	300	6.8	Asphalt	Resurface	2027									$ 50,000	
Park Street	Industrial Road	John Dillingno Street	300	6.8	Asphalt	Resurface	2027									$ 46,000	
Park Street	John Dillingno Street	Todd Lane	400	6.8	Asphalt	Resurface	2027									$ 66,000	
Park Street	Todd Lane	Highway 12	300	6.8	Asphalt	Resurface	2027									$ 42,000	
Mountain Avenue	Hazel Street	Elm Street	200	5.8	Asphalt	Resurface	2027									$ 20,000	
Eighth Avenue	Margaret Street	Camillia Street	100	6.5	Asphalt	Resurface	2027									$ 16,000	
Assiniboia Street	Seventh Avenue	Fourth Avenue	300	6.8	Asphalt	Resurface	2027									$ 47,000	
Cherry Street	Elm Street	Mountain Avenue	200	5.6	Asphalt	Resurface	2027									$ 22,000	
Alberta Street	Seventh Ave.	Barnes Avenue	200	6.5	Asphalt	Resurface	2027									$ 23,000	
Elizabeth Street	Queen Street	South Limit	100	6.2	Asphalt	Resurface	2027									$ 14,000	
Dodge Drive	Browns Line	Ouida Street	300	5.6	Asphalt	Resurface	2027									$ 33,000	
Camilla Street	Eighth Avenue	Maraget Street	200	6.1	Asphalt	Resurface	2027									$ 30,000	
Amanda Street	Ouida Street	Pine Street	200	5.5	Asphalt	Resurface	2027									$ 30,000	
Third Avenue	Wardell Street	Assiniboia Street	200	5.6	Asphalt	Resurface	2028										$ 26,000
Jephson Street	West Limit	Alberta Street	200	6.4	Asphalt	Resurface	2028										$ 32,000
Davis Drive	Park Street	Bayside Avenue	500	6.2	Asphalt	Resurface	2028										$ 48,000
Palmer Street	Dodge Drive	Sturgeon Bay Road	300	5.6	Asphalt	Resurface	2028										$ 33,000
Hearthstone Drive	Duffy Drive	West Limit	200	5.7	Asphalt	Resurface	2028										$ 26,000
Newton street	Vasey Road	Hogg Valley Road	3100	6.5	Surface Treated	Resurface	2028										$ 310,000
Hogg Valley Road	Newton Street	Reeves Road	1300	6.6	Surface Treated	Resurface	2028										$ 128,000
Newton Street	Highway 12	William Street	600	6.7	Asphalt	Resurface	2028										$ 84,000
Gratrix Road	Old Coach Road	0.5 m North of Fessert	800	7	Asphalt	Resurface	2028										$ 125,000
Gervais Road	Hogg Valley Road	Vasey Road	3000	7.2	Surface Treated	Resurface	2028										$ 317,000
Bourgeois Beach Roa	100 m West of Vents Beach Road	Vents Beach Road	100	6.5	Surface Treated	Resurface	2028										$ 11,000
Duffy Drive	Hearthstone Drive	Highway 12	100	6	Asphalt	Resurface	2028										$ 14,000
Industrial Avenue	Park Street	East Limit	400	7	Asphalt	Resurface	2028										$ 55,000
Mitchell's Beach Road	South Limit	Reeves Road	800	7	Surface Treated	Resurface	2028										$ 116,000
Vents Beach Road	Bourgeois Beach Road	Highway 12	200	7	Asphalt	Resurface	2028							$ 27,000			
Armstrong Street	Midland Avenue	Fifth Avenue	300	6.6	Asphalt	Resurface	2028										$ 45,000
Martha Street	William Street	Jephson Street	200	8.3	Asphalt	Resurface	2028										$ 39,000
Total Expenditure								**$ 1,229,060**	**$ 1,391,985**	**$ 1,484,000**	**$ 1,405,000**	**$ 1,697,000**	**$ 1,343,000**	**$ 1,388,000**	**$ 1,391,000**	**$ 1,394,000**	**$ 1,409,000**

2019-2028 Gravel Program

Road Name	From	To	Width (m)	Length (m)	Square Meter (m^2)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Long Point Road	South Limit	North Limit	5.2	200	1040			2,595			2,595			2,595		
														12,000		
Connors Crt.	Rosemount Rd.	South Limit	4.8	300	1440			3,593			3,593			3,593		
Granny White SR.	Reeves Rd.	Newton St.	7	1400	9800			24,451			24,451			24,451		
Granny White SR.	Newton St.	GS/ HCB Transition	7	800	5600			13,972			13,972			13,972		
Arbour Trail	Bayway Rd	North Limit	5.1	700	3570			8,907			8,907			8,907		
Gerhardt Rd.	West Service Rd	South Limit	6.5	1000	6500			16,218			16,218			16,218		
														60,000		
Old Coach Rd.	Gratrix Rd.	South Limit	7	1400	9800				24,451			24,451			24,451	
												84,000				
Comber Place	Triple Bay Rd.	West Limit	4	200	800				1,996			1,996			1,996	
overnment Dock R	Willow St.	Coldwater Rd.	5.6	300	1680				4,192			4,192			4,192	
Hemlock Ave.	Balsam St.	East Limit	5.4	100	540				1,347			1,347			1,347	
French Rd.	End	Vasey Rd.	5.4	900	4860				12,126			12,126			12,126	
															54,000	
Fifth Ave.	North Limit	Arpin St.	5.4	200	1080	5,655			2,695			2,695			2,695	
Seventh Ave.	K.St.	Arpin St.	7	100	700	3,315			1,747			1,747			1,747	
Arthur Ave.	North Limit	Arpin St.	7	200	1400	4,388			3,493			3,493			3,493	
Barnes Ave.	North Limit	Arpin St.	5.5	200	1100	5,363			2,745			2,745			2,745	
David Ave.	North Limit	Arpin St.	5.2	200	1040	5,363			2,595			2,595			2,595	
K. St.	Seventh Ave.	Barnes Ave.	5.5	200	1100	4,388			2,745			2,745			2,745	
Thorpe Ave.	North Limit	Arpin St.	4.8	200	960	5,363			2,395			2,395			2,395	
Young Ave.	North Limit	Arpin St.	5.2	200	1040	4,973			2,595			2,595			2,595	
McMann SR.	Highway 93	Wood Rd.	6.5	2300	14950	85,215			37,300			37,300			37,300	
Rosemount Rd.	Trail (C.N.R)	Connors Crt.	6.3	600	3780		*18,000*			9,431			9,431			9,431
Rosemount Rd.	Connors Crt.	Vasey Rd.	6.3	3100	19530		48,727			48,727			48,727			48,727
Wood Rd.	McMann SR.	800m N of McMann SR.	7	800	5600		13,972			13,972			13,972			13,972
Wood Rd.	Ebinezer SR.	1092 Wood Rd.	7	3770	26390		65,843			65,843			65,843			65,843
Wood Rd.	2092 Wood Rd.	Elliot SR.	7	1000	7000		17,465			17,465			17,465			17,465
Ron Jones Rd.	McMann SR.	South Limit	5.5	500	2750			6,861			6,861			6,861		
											30,000					
Fesserton SR	250m W of Sandhill Rd	Highway 400	7	900	6300			15,719			15,719			15,719		
Sandhill Rd.	HCB/GS Transition	Fesserton SR.	6.5	1400	9100			22,705			22,705			22,705		
Sandhill Rd.	Fesserton SR.	Old Coach Rd.	6.5	500	3250			8,109			8,109			8,109		
Arpin St.	Simcoe Ave.	Seventh Ave.	7	200	1400			3,493			3,493			3,493		
Bass Bay Dr.	Tay Shore Trail	End	6.6	500	3300			8,234			8,234			8,234		
Donahue St.	Duckworth St.	Lily St. ROW	6.2	200	1240			3,094			3,094			3,094		
Duckworth St.	Donahue St.	50m N of Lumber Rd.	6.2	100	620			1,547			1,547			1,547		
Victoria St.	Lumber Rd.	Fowlie St.	7	300	2100			5,240			5,240			5,240		
Fowlie St.	South Limit	Victoria St.	7	100	700				1,747			1,747			1,747	
Todd Lane	Park St.	South Limit	6.6	800	5280				13,174			13,174			13,174	
Delta Dr.	Duffy Dr.	East Limit	4.6	200	920				2,295			2,295			2,295	
Duffy Dr.	Heartstone Dr.	Delta Dr.	6.1	300	1830				4,566			4,566			4,566	
Hearthstone Dr.	North Limit	South Limit	5.7	400	2280				5,689			5,689			5,689	
Neekaunis Dr.	Tanners Rd.	Highway 12	6.4	500	3200				7,984			7,984			7,984	
									30,000							
Playfair Dr.	Heartstone Dr.	North Limit	3.8	400	1520				3,792			3,792			3,792	
Rainbow Lane	Heartstone Dr.	West Limit	4.5	100	450				1,123			1,123			1,123	
Frazer Lane	Highway 12	Highway 12	6.6	400	2640				6,587			6,587			6,587	
															24,000	
Francis St.	Jephson Street	33 m South	5.2	33	171.6				428			428			428	
TOTAL						**124,023**	**164,007**	**144,735**	**179,804**	**155,439**	**174,735**	**233,804**	**155,439**	**216,735**	**227,804**	**155,439**

Bridges and Culverts													
Structure Name	**Structure Number**	**Location**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Duck Bay Bridge	RB002	North of Highway 400											
Hearthstone Drive Over Sturgeon River	RB003	North of highway 12								147,500			
Rosemount Road North Bridge	RB004	South of Highway 12			20,000		210,000						
Rosemount Road-South Bridge	RB005	North of Vasey Rd		210,000	1,150,000								
Granny White Side Road- Over Hogg Creek	RB006	East of Reeves Road			240,500								
Reeves Road- Over Hogg Creek	RB007	North of Hogg Valley Rd								152,000			
Rumney Road	RC001	North of Hogg Valley Rd				25,000							
Hogg Valley Road	RC002	West of Rumney Road											
Ron Jones Road	RC003	South of Hogg Valley Rd.											
McMann Side Road	RC004	East of Wood Road											
Wood Road	RC005	North-west of Vasey Road											
Wycliffe Cove	RC006	32 Wycliffe Cove											
Total Expenditure				**210,000**	**1,410,500**	**25,000**	**210,000**	**-**	**-**	**299,500**	**-**	**-**	**-**

PW Fleet/Equipment Long Term Replacement Plan

Equipment No.	Type	AcquisitionYear (Model)	Division	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
ROADS VEHICLES														
0316	Plow Truck	2003	ROADS	250,000										
0419	Plow Truck	2004	ROADS	250,000										
0615	Plow Truck	2006	ROADS	250,000										
0717	Plow Truck	2007 (2008)	ROADS							250,000				
1020	Plow Truck	2010	ROADS							250,000				
1221	Plow Truck	2012	ROADS									250,000		
1724	1/2 Ton Pickup	2017	ROADS										25,000	
1058	1/2 Ton Crewcab 4WD	2010	ROADS			25,000								
1307	1 Ton Crew Cab/Dump	2013	ROADS						70,000					
1370	1/2 Ton Pickup	2013 (2014)	ROADS						25,000					
1472	3/4 Ton Pickup 2WD	2014	ROADS							45,000				
1510	1 Ton Pickup	2015	ROADS								45,000			
ROADS VEHICLES SUBTOTAL				750,000	0	25,000	0	0	95,000	545,000	45,000	250,000	25,000	0
ROADS EQUIPMENT														
1822	Grader	2018	ROADS	450,000										
0928B	plough attachment	2018	ROADS	50,000										
1725	Loader/Backhoe	2017	ROADS										135,000	
0834	Sidewalk Tractor	2008	ROADS						156,000					
0849	VAC Truck	2008 (1997)	ROADS						300,000					
0928	Articulating Tractor	2009	ROADS							130,000				
0928A	Flail Mower/Broom	2012	ROADS										83,000	
1233	20 Ton Trailer	2012	ROADS								25,000			
1260	7 Ton Trailer	2012	ROADS								10,000			
1326	Loader/Backhoe	2013	ROADS						135,000					
1437	Steam Jenny	2014	ROADS											
1255	Retro-Reflectivity Gun	2012	ROADS										12,000	
0656	Bandit Wood Chipper	2006	ROADS				45,000							
	JD Baldor Generator	2012	ROADS											
ROADS EQUIPMENT SUBTOTAL				500,000	-	-	45,000	-	591,000	130,000	35,000	-	230,000	-
		ROADS TOTAL		1,250,000	-	25,000	45,000	-	686,000	675,000	80,000	250,000	255,000	-

Equipment No.	Type	AcquisitionYear (Model)	Life	Replacement Cost	Cost Per Year	Division
ROADS VEHICLES						
0316	Plow Truck	2003	15	250,000	16,667	ROADS
0419	Plow Truck	2004	15	250,000	16,667	ROADS
0615	Plow Truck	2006	15	250,000	16,667	ROADS
0717	Plow Truck	2007 (2008)	15	250,000	16,667	ROADS
1020	Plow Truck	2010	15	250,000	16,667	ROADS
1221	Plow Truck	2012	15	250,000	16,667	ROADS
1724	1/2 Ton Pickup	2017	10	25,000	2,500	ROADS
1058	1/2 Ton Crewcab 4WD	2010	10	25,000	2,500	ROADS
1307	1 Ton Crew Cab/Dump	2013	10	70,000	7,000	ROADS
1370	1/2 Ton Pickup	2013 (2014)	10	25,000	2,500	ROADS
1472	3/4 Ton Pickup 2WD	2014	10	45,000	4,500	ROADS
1510	1 Ton Pickup	2015	10	45,000	4,500	ROADS
ROADS VEHICLES SUBTOTAL				1,735,000	123,500	
ROADS EQUIPMENT						
1822	Grader	2018	20	450,000	22,500	ROADS
0928B	plough attachment	2018	10	50,000	5,000	ROADS
1725	Loader/Backhoe	2017	10	135,000	13,500	ROADS
0834	Sidewalk Tractor	2008	15	156,000	10,400	ROADS
0849	VAC Truck	2008 (1997)	15	300,000	20,000	ROADS
0928	Articulating Tractor	2009	15	130,000	8,667	ROADS
0928A	Flail Mower/Broom	2012	15	83,000	5,533	ROADS
1233	20 Ton Trailer	2012	15	25,000	1,667	ROADS
1260	7 Ton Trailer	2012	15	10,000	667	ROADS
1326	Loader/Backhoe	2013	10	135,000	13,500	ROADS
1437	Steam Jenny	2014	15	15,000	1,000	ROADS
1255	Retro-Reflectivity Gun	2012	15	12,000	800	ROADS
0656	Bandit Wood Chipper	2006	15	45,000	3,000	ROADS
	JD Baldor Generator	2012	20	30,000	1,500	ROADS
ROADS EQUIPMENT SUBTOTAL				1,576,000	107,733	
		ROADS TOTAL		3,311,000	231,233	

TOWNSHIP OF TAY - LONG TERM PLAN											
WATER SUMMARY											
	Approved Budget	**Forecast**									
	2018	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
PLANTS											
Tay Area Water Treatment Plant	0	360,000	1,450,000	0	0	50,000	0	80,000	50,000	80,000	0
Rope Water Treatment Plant	25,000	0	0	30,000	0	61,000	0	30,000	0	0	0
Total Plants	**25,000**	**360,000**	**1,450,000**	**30,000**	**0**	**111,000**	**0**	**110,000**	**50,000**	**80,000**	**0**
DISTRIBUTION											
Water Standpipes	0	5,000	0	10,000	200,000	0	4,005,000	240,000	5,000	5,000	0
Distribution Mains	2,931,715	50,000	798,490	363,800	808,450	251,700	599,400	175,800	366,600	300,000	300,000
Water Metering		0	0				1,500,000				
Paradise Point/Grandview Beach	0										
Total Distribution	**2,931,715**	**55,000**	**798,490**	**373,800**	**1,008,450**	**251,700**	**6,104,400**	**415,800**	**371,600**	**305,000**	**300,000**
VEHICLES & EQUIPMENT											
Vehicle Storage (60% of total cost)	60,000										
Equipment	0	0	0	0	0	0	0	0	0	0	0
Vehicles	0	0	0	0	0	25,000	25,000	125,000	0	0	0
Total Vehicles & Equipment	**60,000**	**0**	**0**	**0**	**0**	**25,000**	**25,000**	**125,000**	**0**	**0**	**0**
Total Long Term Plan	**3,016,715**	**415,000**	**2,248,490**	**403,800**	**1,008,450**	**387,700**	**6,129,400**	**650,800**	**421,600**	**385,000**	**300,000**

TOWNSHIP OF TAY - LONG TERM PLAN											
Water Treatment Plants											
	Approved Budget	Forecast									
Description of Work	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Tay Area Water Treatment Plant											
Low Lift Chemical Storage		80,000									
Equipment Replacement			50,000			50,000			50,000		
Membrane replacement								80,000		80,000	
Additional Modules (18)		80,000									
Increase Plant Capacity/Refurbish (Phase 2) - Engineering		200,000									
Increase Plant Capacity/Refurbish (Phase 2) - Construction			1,400,000								
Total	**-**	**360,000**	**1,450,000**	**-**	**-**	**50,000**	**-**	**80,000**	**50,000**	**80,000**	**-**
Rope Water Plant											
Replace Treatment Cassettes						61,000					
Equipment Replacement	25,000			30,000				30,000			
Total	**25,000**	**-**	**-**	**30,000**	**-**	**61,000**	**-**	**30,000**	**-**	**-**	**-**
Grand Total	**25,000**	**360,000**	**1,450,000**	**30,000**	**-**	**111,000**	**-**	**110,000**	**50,000**	**80,000**	**-**

TOWNSHIP OF TAY - LONG TERM PLAN

Water Distribution Systems

	Approved Budget	Forecast									
	2018	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
DISTRIBUTION											
Water Meters				-	-	-	1,500,000	-	-	-	-
Watermain replacement/refurbishment	2,931,715	50,000	798,490	363,800	808,450	251,700	599,400	175,800	366,600	300,000	300,000
Victoria Harbour Standpipe		5,000					5,000	120,000			
Waubaushene Standpipe				5,000	200,000			120,000		5,000	
Port McNicoll Standpipe				5,000					5,000		
New Standpipe	-	-	-	-	-	-	4,000,000	-	-	-	-
TOTAL DISTRIBUTION	**2,931,715**	**55,000**	**798,490**	**373,800**	**1,008,450**	**251,700**	**6,104,400**	**415,800**	**371,600**	**305,000**	**300,000**
VEHICLES & EQUIPMENT											
Vehicles	-	-	-	-	-	25,000	25,000	125,000	-	-	-
Equipment	-	-	-	-	-	-	-	-	-	-	-
Mobile Radio System											
TOTAL VEHICLES & EQUIPMENT	**-**	**-**	**-**	**-**	**-**	**25,000**	**25,000**	**125,000**	**-**	**-**	**-**
GRAND TOTAL	**2,931,715**	**55,000**	**798,490**	**373,800**	**1,008,450**	**276,700**	**6,129,400**	**540,800**	**371,600**	**305,000**	**300,000**

TOWNSHIP OF TAY - LONG TERM PLAN
WATER MAIN REPLACEMENT/REFURBISHMENT DETAILS

		APPROVED BUDGET	Forecast									
Location	**meters**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Distribution System - 2018												
Alberta St - Simcoe to Barnes Ave	158	47,806										
Paradise Point/Grandview Beach		2,883,909										
Total	**158**	**2,931,715**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Distribution System - 2019												
Water/Road Design for 2019			50,000									
Total		**-**	**50,000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Distribution System - 2020												
Ninth Ave - Talbot to Manitoba St	468			285,480								
Fifth Ave - Hayes to Arpin St	484			295,240								
Bell St - First to Second Ave	153			93,330								
Second Ave - Bell to Alberta St	108			65,880								
Second Ave - Bell to Wardell St	96			58,560								
Total	**1,309**	**-**		**798,490**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Distribution System - 2021												
Water/Road Design for 2021					50,000							
Industrial Road - Park St to end	586				175,800							
Juneau Rd - Hoyt to Lighthouse	460				138,000							
Total	**1046**	**-**	**-**	**-**	**363,800**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Distribution System - 2022												
Barnes Ave - Arpin to Hayes St	440					268,400						
Franklin Dr - Seventh to Barnes	156					95,160						
McPhee Blvd - Seventh to Barnes	156					95,160						
Alberta St - Fifth to Keewatin	353					215,330						
Seventh Ave - Alberta to McPhee	294					88,200						
Athabaska St - Seventh to Barnes	154					46,200						
Total	**1553**	**-**	**-**			**808,450**	**-**	**-**	**-**	**-**	**-**	**-**
Distribution System - 2023												
Hoyt Ave - Ellen to Park St	839						251,700					
Total	**839**					**-**	**251,700**					
Distribution System - 2024												
Richard St - Albert to Queen St	473							141,900				
Midland Bay Woods - Georgian Ln	200							122,000				
Bayberry Estates - Easton Ave Prop #6 to #60	550							335,500				
Total	**1223**						**-**	**599,400**				
Distribution System - 2025												
William St - Alberta to Cul-de-sac	1361								175,800			
Total	**1361**							**-**	**175,800**			
Distribution System - 2026												
Dodge St - Pine to Percy St	360									219,600		
Pine St - Amanda to B Station	490									147,000		
Total	**850**								**-**	**366,600**	**-**	**-**
Distribution System - 2027												
TBD											300,000	
										-	**300,000**	**-**
Distribution System - 2028												
TBD												300,000
										-	**-**	**300,000**
Grand Total	**9905**	**2,931,715**	**50,000**	**798,490**	**363,800**	**808,450**	**251,700**	**599,400**	**175,800**	**366,600**	**300,000**	**300,000**
NOTES												
Midland Bay Woods - Line size Upgrade for Future to be Determined												
Re-line												

TOWNSHIP OF TAY - LONG TERM PLAN

WASTEWATER SUMMARY

	Approved Budget	Forecast								
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
PLANTS											
Port McNicoll Wastewater Plant	105,000	0	30,000	1,000,000	0	30,000	0	0	30,000	0	0
Victoria Harbour Wastewater Plant	40,000	520,000	0	3,030,000	6,000,000	0	30,000	0	0	30,000	0
Total Plants	**145,000**	**520,000**	**30,000**	**4,030,000**	**6,000,000**	**30,000**	**30,000**	**0**	**30,000**	**30,000**	**0**
COLLECTION SYSTEM											
Mains & Lift Stations	60,000	155,000	80,000	480,000	20,000	60,000	20,000	30,000	50,000	20,000	20,000
Paradise Point/Grandview Beach	14,600,000										
Total Collection System	**14,660,000**	**155,000**	**80,000**	**480,000**	**20,000**	**60,000**	**20,000**	**30,000**	**50,000**	**20,000**	**20,000**
VEHICLES & EQUIPMENT											
Vehicle Storage (40% of total cost)	40,000										
Equipment		15,000	-	-	-	-	-	-	-	-	-
Vehicles	0	0	0	0	0	0	0	25,000	38,000	0	0
Total Vehicles & Equipment	**40,000**	**15,000**	**0**	**0**	**0**	**0**	**0**	**25,000**	**38,000**	**0**	**0**
Total Long Term Plan	**14,845,000**	**690,000**	**110,000**	**4,510,000**	**6,020,000**	**90,000**	**50,000**	**55,000**	**118,000**	**50,000**	**20,000**

TOWNSHIP OF TAY - LONG TERM PLAN

WASTEWATER SUMMARY

	Approved Budget	Forecast									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
SOURCES OF FINANCING											
Grants	10,353,127	509,013									
Benefitting Property Owners	3,880,000										
Sale of Fixed Assets											
Water & Wastewater Fleet Reserve		15,000	-	-	-	-	-	25,000	38,000	-	-
Wastewater Reserve	111,873	65,987	110,000	2,070,700	1,160,000	90,000	50,000	30,000	80,000	50,000	20,000
DCA (Debt)			0	939,300	1,860,000	0					
Debt		0		1,500,000	3,000,000		0				
Deferred Revenue - PB/GB Grant	500,000	100,000									
Benefitting Property Owners											
Total Financing	**14,845,000**	**690,000**	**110,000**	**4,510,000**	**6,020,000**	**90,000**	**50,000**	**55,000**	**118,000**	**50,000**	**20,000**

TOWNSHIP OF TAY - LONG TERM PLAN

Wastewater Treatment Plants

Description of Work	Approved Budget	Forecast									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Port McNicoll Wastewater Plant											
Equipment replacement		22,000	8,000			30,000			30,000		
SCADA Upgrade	35,000	10,000									
Septage Receiving	70,000	180,000									
Replace Treatment Cassettes				1,000,000			1,000,000				
Port McNicoll Wastewater Plant Total	**105,000**	**212,000**	**8,000**	**1,000,000**	**0**	**30,000**	**1,000,000**	**0**	**30,000**	**0**	
Victoria Harbour Wastewater Plant											
Equipment replacement	40,000	20,000		30,000			30,000			30,000	
Increase Plant Capacity											
- Phase 2 Design		500,000									
- Construction				3,000,000	6,000,000						
Victoria Harbour Wastewater Plant Total	**40,000**	**520,000**	**0**	**3,030,000**	**6,000,000**	**0**	**30,000**	**0**	**0**	**30,000**	
GRAND TOTAL	**145,000**	**732,000**	**8,000**	**4,030,000**	**6,000,000**	**30,000**	**1,030,000**	**0**	**30,000**	**30,000**	

TOWNSHIP OF TAY - LONG TERM PLAN											
Wastewater Collection											
Description of Work	**Approved Budget**	**Forecast**									
	2018	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
VEHICLES & EQUIPMENT											
Vehicles	0	0	0	0	0	0	0	25,000	38,000	0	0
Hoist and Utility Box		15,000									
TOTAL VEHICLES & EQUIPMENT	**0**	**15,000**	**-**	**-**	**-**	**-**	**-**	**25,000**	**38,000**		
COLLECTION SYSTEMS											
Lift Station Fuel Storage Inspection & Upgrade		15,000									
Contingency Allowance	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Equipment Replacement			30,000			30,000			30,000		
Televising Sewers		20,000		10,000		10,000		10,000			
First Avenue Sewage Lift Station	40,000		30,000	450,000							
Paradise Point & Grandview Beach	14,600,000										
Paradise Point & Grandview Beach - Hydrogeological Study		100,000									
TOTAL COLLECTION SYSTEMS	**14,660,000**	**155,000**	**80,000**	**480,000**	**20,000**	**60,000**	**20,000**	**30,000**	**50,000**	**20,000**	**20,000**
GRAND TOTAL	**14,660,000**	**170,000**	**80,000**	**480,000**	**20,000**	**60,000**	**20,000**	**55,000**	**88,000**		

Equipment No.	Type	AcquisitionYear (Model)	Division	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
W/WW VEHICLES														
1301	1/2 Ton Pickup	2013	WATER						25,000					
1412	1/2 Ton Pickup	2014	WATER							25,000				
1504	1 Ton Pickup	2015	WATER								45,000			
1506	1/2 Ton Pickup	2015	WASTEWATER								25,000			
1636	3/4 Ton Van	2016	WASTEWATER									38,000		
W/WW VEHICLES SUBTOTAL				0	0	0	0	0	25,000	25,000	70,000	38,000	0	0
W/WW EQUIPMENT														
	Genco Generator	2013	WASTEWATER											
1052	Valve Trailer	2010	WATER								80,000			
W/WW EQUIPMENT SUBTOTAL				0	0	0	0	0	0	0	80,000	0	0	0
		WATER TOTAL		-	-	-	-	-	25,000	25,000	125,000		-	-
		WASTEWATER TOTAL									25,000	38,000		

Equipment No.	Type	AcquisitionYear (Model)	Life	Replacement Cost	Cost Per Year	Division
W/WW VEHICLES						
1301	1/2 Ton Pickup	2013	10	25,000	2,500	WATER
1412	1/2 Ton Pickup	2014	10	25,000	3,000	WATER
1504	1 Ton Pickup	2015	10	45,000	4,500	WATER
1506	1/2 Ton Pickup	2015	10	25,000	2,500	WASTEWATER
1636	3/4 Ton Van	2016	10	38,000	3,800	WASTEWATER
W/WW VEHICLES SUBTOTAL				158,000	16,300	
W/WW EQUIPMENT						
	Genco Generator	2013	20	30,000	1,500	WASTEWATER
1052	Valve Trailer	2010	15	80,000	5,333	WATER
W/WW EQUIPMENT SUBTOTAL				110,000	6,833	
		WATER TOTAL		175,000	15,333	
		WASTEWATER TOTAL		93,000	7,800	

	Approved Budget	Forecast										
PARKS CAPITAL	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**Council/ TBD**
Recreation Master Plan			35,000									
Port McNicoll 100th Anniversary												
Downtown Seasonal Decorations	28,000										28,000	
Port McNicoll Harbour Park												
Detailed Design												50,000
Sheppard Park												
Play Structure									30,000			
Cargill Pier Point Park												
Patterson Park												
Pavillion	5,000											
Power and Accessibility Connection for Pavillion		1,500	20,000									
Accessibility Washroom Upgrade								150,000				
Play Structures Replacement				30,000				30,000				
Picinic Shelter	-											
Oakwood Community Centre (Building only)												
Partial Roof (over centre of gym)		20,000										
Floor Scrubber		9,000										
Tables and Chairs		18,000	10,000									
Garage Doors & Windows										40,000		
Kitchen Refurbishment			10,000									
Front HVAC Unit		20,000										
Port McNicoll Community Centre												
Water refill stations												
Roof												
HVAC Unit												
Pave Parking Lot	30,000											
Exterior Painting		8,500										
Tables and Chairs		7,500	10,000									
Lighting Retro-fit						7,000						
Play Structure									30,000			
Tay Community Rink												
Penalty Boxes	15,000	15,000										
Lighting Upgrade		7,000										
Chiller										225,000		
Compressors					35,000			35,000				

	Approved Budget	Forecast										
PARKS CAPITAL	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**Council/ TBD**
Talbot Park												
Lighting Upgrade			7,000									
New Driveway Entrance off Talbot												170,000
Ball Diamonds Refurbishment (Double Field)		10,000	10,000									
Port McNicoll Youth Centre												
Roof				30,000								
Waverley Park												
Ball Diamond Refurbishment	10,000											
Lighting Upgrade				7,000								
Play Structure Replacement						30,000						
Snack Shack Roof								8,000				
'Rink Surface							20,000					
'Rink Boards							20,000					
MacKenzie Park												
Park Improvements (Pavillion, Play Structure, Parking, Pathaways)	110,000											
Play Structure Replacement					30,000							
Accessibility Washroom Upgrade				150,000								
Oakwood Park												
Change Room/Washroom (fasciam soffit, trim, rubber melt etc.)			10,000									
Ball Diamond - Lighting Retro Fit	5,000											
Hard Surface Rink and Refurb Boards, Lighting					100,000							
Ball Diamond Refurbishment	3,500											
Additional Parking Lot		10,000	90,000									
Right Field Netting					5,000							
Pathway to new Affordable Housing Units								75,000				
Outdoor water refill station		3,500										
Sunset Park												
Ball Diamond Refurbishment							10,000					
Waubaushene Pier Park (Pine Street)												
Parking		5,000										
Bridgeview Park												
Replace Portable (Options/Design)					20,000							
Ball Diamond Refurbishment (double field)			10,000	10,000								
Lighting Upgrade					7,000							
Play Structure Replacement						30,000						
Rink Boards									20,000			
Albert St Park												
New Washroom Building	146,500											
Anderson Crescent Park												
Play Structure									20,000			
Veteran's Memorial Park												
Play Structure					30,000							

	Approved Budget	Forecast										
PARKS CAPITAL	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**Council/ TBD**
Government Dock (Waubaushene)												
Concrete Refurb - Waubaushene				20,000								
Magnus Park												
Eplett Park												
Tay Shore Trail												
Pave First Ave. Trail	90,000	60,000		60,000								
Trail extention - Trestle Trail along Ney into Port McNicoll					60,000		60,000					
Trail Bridge Work - Sturgeon River (deck)							40,000					
Trail Bridge Work - Hogg River (deck)								40,000				
Trail Bridge Work - East of Triple Bay Road				90,000								
Trail Bridge Work - St. Marie					10,000	145,000						
Spot repairs to Asphalt			60,000			60,000						
Upgrade to Barriers									60,000			
Signage Upgrade						60,000						
Pave trail head parking								60,000				
Work to be determined (TBD)										60,000	60,000	
Tay Township Public Library												
Building Renovations												
Waubaushene Branch Library - Lighting		2,000										
Waubaushene Branch Library - Entrance (ADOA)				118,700								
Waubaushene Branch Library - Paint & Carpet			10,000									
Waubaushene Branch Library - Furnance											4,000	
Victoria Harbour Branch Library - Expansion into Harbour Shores	39,000											
Victoria Harbour Branch Library - Lighting			2,000									
Victoria Harbour Branch Library - Expansion into Accountant's Office			73,000									
Victoria Harbour Branch Library - HVAC unit				10,000								
Port McNicoll Branch Library - Ramp & Lip at Back Door	2,700											
Port McNicoll Branch Library - Furnance		4,000										
Port McNicoll Branch Library - Lighting		2,000										
Port McNicoll Branch Library - Front Door/Drop Box		6,000										
Port McNicoll Branch Library - Community Room & Washroom (AODA)					10,000			245,000				
Port McNicoll Branch Library - Roof						31,000						

	Approved Budget	Forecast										
PARKS CAPITAL	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**Council/ TBD**
Vehicles & Equipment	56,000	80,000	6,000	35,000	25,000	-	43,000	70,000	45,000	45,000	56,000	-
Water refill stations (2019 - Oakwood Park)	3,500		3,500	3,500	3,500							
Energy Use Upgrades (TBD)							7,000	7,000	7,000	7,000	7,000	
Tree Replacement Program - Emerald Ash Borer	5,000	5,000										
Recreation Software	2,712											
TOTAL LONG TERM PLAN	**551,912**	**294,000**	**366,500**	**564,200**	**335,500**	**363,000**	**200,000**	**720,000**	**212,000**	**377,000**	**155,000**	**220,000**
SOURCES OF FINANCING												
Tax Rate	53,500	58,500	63,500	63,500	63,500	63,500	63,500	63,500	63,500	63,500	63,500	63,500
Grants - County of Simcoe	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	-
Grants - Province	28,000	-		59,350			-					
Municipal Reserves - Municipal Fleet	56,000	80,000	6,000	35,000	25,000	-	43,000	70,000	45,000	45,000	56,000	-
Municipal Reserves - Parks & Recreation	261,212	21,500	21,000	37,000	135,000	56,500	-	78,500	73,500	-	1,500	-
Municipal Reserves - Recreation & Special Event												
Municipal Reserves - Infrastructure/Bridges	-	-	-	90,000	10,000	145,000	40,000	40,000	-	-	-	-
Municipal Reserves - Buildings		81,000	50,000	180,000	35,000	7,000		193,000		265,000	-	-
Municipal Reserve - Tay Shore Trail/Albert Street Docks			30,000			30,000						
Municipal Reserves - Library	41,700	14,000	12,000	69,350	10,000	31,000	-	50,000	-		4,000	
Reserve Funds	54,000	9,000	81,000	-	27,000	-	27,000		-	-	-	-
Donations	27,500											
Debt			73,000					195,000				156,500
Capital Surplus Carried Forward							- 3,500			- 26,500		
TOTAL FINANCING	**551,912**	**294,000**	**366,500**	**564,200**	**335,500**	**363,000**	**200,000**	**720,000**	**212,000**	**377,000**	**155,000**	**220,000**

Township of Tay RESERVE TRANSFER NECESSARY TO PROVIDE FOR PAVING THE TAYSHORE TRAIL Updated Reserve Projection for the 2018 Long Term Plan					
Culture and Recreation		Replacement Cost		Estimated Life	Transfer to Reserve Required
	18 Kilometer Paved Trail	1,455,000		20	72,750
Recommended for 2018 - Increase to be phased in over 9 year period					**40,000**
***Note: Long Term Plan includes repair of three 100 meter sections at a cost of $23,000 each followed by three 6km sections at an estimated cost of $462,000 in 2029, 2031 and 2033. Additional funding will be required beyond what the reserve can afford in 2033.**					
RESERVE TRANSFER REPLACEMENT OF ALBERT ST BOAT LAUNCH DOCKS					
Culture and Recreation		Replacement Cost		Estimated Life	Transfer to Reserve Required
		45,000		15	3,000
Recommended					**3,000**

TOWNSHIP OF TAY - LONG TERM PLAN
RESERVE TRANSFERS NECESSARY TO PROVIDE FOR BUILDING REPLACEMENT

PARKS & RECREATION	Replacement Year	Replacement Cost	Other Funding	Municipal Reserves	Total Municipal Reserves	Average Life	Annual Transfer
Community Centres /Rink/Portable							
Oakwood Community Centre	2040	2,200,000	-	2,200,000	2,200,000	45	$ 48,500
Port McNicoll Community Centre	2031	1,000,000	-	1,000,000	1,000,000	42	$ 23,700
Port McNicoll Youth Centre	2019	400,000	-	400,000	400,000	45	$ 8,800
Tay Community Rink *	2038	2,000,000	-	2,000,000	2,000,000	26	$ 77,100
Bridgeview Park Portable	2022	50,000	-	50,000	50,000	30	$ 1,650
Washrooms/Change Rooms & Snack Shacks							
Patterson Park	2042	100,000	-	100,000	100,000	42	$ 2,400
MacKenzie Park	2046	100,000	-	100,000	100,000	42	$ 2,400
Sunset Park	2028	110,000	-	110,000	110,000	38	$ 2,900
Talbot Park	2048	100,000		100,000	100,000	42	$ 2,400
Oakwood Park	2037	178,600	-	178,600	178,600	42	$ 4,300
Bridgeview Park	2032	100,000		100,000	100,000	42	$ 2,400
Waverly Park	2055	125,000	-	125,000	125,000	45	$ 2,800
Annual Building Transfer Required							**$ 179,350**
2019 Annual Building Transfer Set At							**$ 20,000**
Branch Libraries							
Port McNicoll	2027	934,400	-	934,400	934,400	44	$ 21,064
Victoria Harbour	2051	467,000	-	467,000	467,000	43	$ 10,860
Waubaushene	2036	372,400	-	372,400	372,400	44	$ 8,518
Annual Building Transfer Required							**$ 40,442**
2019 Annual Building Transfer Set At							**$ 18,000**

* The annual debt payment on the Tay Community Rink is $44,851. In 2023 in amount would be available to contribute to the Building Reserve to fund the future replacement of this asset.

PW Fleet/Equipment Long Term Replacement Plan														
Equipment No.	Type	AcquisitionYear (Model)	Division	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
PARKS VEHICLES														
1805	3/4 Ton Van	2018	PARKS	38,000										38,000
1609	1 Ton Dump	2016	PARKS									70,000		
1708	3/4 Ton	2017	PARKS										45,000	
1502	1/2 Ton Pickup	2015	PARKS								25,000			
PARKS VEHICLES SUBTOTAL				38,000	0	0	0	0	0	0	25,000	70,000	45,000	38,000
PARKS - EQUIPMENT														
0718	Narrow Tractor	2007	PARKS					15,000						
0831	Subcompact Tractor	2008	PARKS						25,000					
1832	Kubota Riding Mower	2018	PARKS	18,000										18,000
1232	Kubota Riding Mower	2012	PARKS					20,000						
1532	Kubota Riding Mower	2015	PARKS								18,000			
1550A	Canada Trailer	2015	PARKS											
1550B	Canada Trailer	2015	PARKS											
1159	Ice Resurfacer	2011 (1990)	PARKS		80,000									
	Horticultural Apparatus	2010	PARKS			6,000								
PARKS EQUIPMENT SUBTOTAL				18,000	80,000	6,000	0	35,000	25,000	0	18,000	0	0	18,000
		PARKS TOTAL		56,000	80,000	6,000	-	35,000	25,000	-	43,000	70,000	45,000	56,000

Equipment No.	Type	AcquisitionYear (Model)	Life	Replacement Cost	Cost Per Year	Division
PARKS VEHICLES						
1805	3/4 Ton Van	2018	10	38,000	3,800	PARKS
1609	1 Ton Dump	2016	10	70,000	7,000	PARKS
1708	3/4 Ton	2017	10	45,000	4,500	PARKS
1502	1/2 Ton Pickup	2015	10	25,000	2,500	PARKS
PARKS VEHICLES SUBTOTAL				178,000	17,800	
PARKS - EQUIPMENT						
0718	Narrow Tractor	2007	15	15,000	1,000	PARKS
0831	Subcompact Tractor	2008	15	25,000	1,667	PARKS
1832	Kubota Riding Mower	2018	10	18,000	1,800	PARKS
1232	Kubota Riding Mower	2012	10	20,000	2,000	PARKS
1532	Kubota Riding Mower	2015	10	18,000	1,800	PARKS
1550A	Canada Trailer	2015	15	4,000	267	PARKS
1550B	Canada Trailer	2015	15	4,000	267	PARKS
1159	Ice Resurfacer	2011 (1990)	10	80,000	8,000	PARKS
	Horticultural Apparatus	2010	10	6,000	600	PARKS
PARKS EQUIPMENT SUBTOTAL				190,000	17,400	
		PARKS TOTAL		368,000	35,200	

TOWNSHIP OF TAY

LONG TERM PLAN

PLANNING AND DEVELOPMENT	Approved Budget	Forecast									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Studies (Operating)											
Official Plan Review/Zoning By-Law											110,000
Growth & Settlement Plan											
Development Charge Review	27,000					30,000					
Total Studies	**27,000**	**-**	**-**	**-**	**-**	**30,000**	**-**	**-**	**-**	**-**	**110,000**
Building Services											
2017 Vehicle										27,000	27,000
2012 Ford Escape					27,000						
	-	**-**	**-**	**-**	**27,000**	**-**	**-**	**-**	**-**	**27,000**	**27,000**
TOTAL CAPITAL	**27,000**	**-**	**-**	**-**	**27,000**	**30,000**	**-**	**-**	**-**	**27,000**	**137,000**
Sources of Financing:											
Tax Rate											
Reserves - Studies & Hearings	2,400		-	-	-	5,400	-	-	-	-	64,900
Reserves - Vehicles					27,000					27,000	27,000
Grants											
Reserve Funds	24,600			-	-	24,600					45,100
Capital Surplus											
Other											
	27,000	**0**	**0**	**0**	**27,000**	**30,000**	**0**	**0**	**0**	**27,000**	**137,000**

TOWNSHIP OF TAY - LONG TERM PLAN

RESERVE TRANSFERS NECESSARY TO PROVIDE FOR EQUIPMENT REPLACEMENT

PLANNING AND DEVELOPMENT			FUNDED BY		Total		
	YEAR	Net Cost	DCA	Municipal Reserves	Municipal Reserves	Average Life	Annual Transfer
STUDIES							
Official Plan Review/Zoning	2016/2017	$110,000	$45,100	$ 64,900		10	$ 6,490
Development Charge Review	2014	$ 30,000	$24,600	$ 5,400		5	$ 1,080
Growth & Settlement Plan	2003	$ 35,000	$14,350	$ 20,650		5	$ 4,130
							$ 11,700
TOTAL ANNUAL TRANSFER TO RESERVE							**$ 10,000**

BUILDING SERVICES			FUNDED BY		Total			
	YEAR	Net Cost	DCA	Municipal Reserves	Municipal Reserves	Average Life	Annual Transfer	Annual Reduced Transfer
VEHICLES								
2007 Pontiac G5	2007	$ 27,000		$ 27,000				
2012 Ford Escape	2012	$ 27,000		$ 27,000	$ 54,000	10	$ 5,400	
TOTAL ANNUAL TRANSFER TO RESERVE							**$ 5,500**	**5,000**

Note: Annual transfer has been reduced from $5,500 to $5,000 to reflect the surplus in the Building Services Vehicle reserve

APPENDIX A

BUDGET REQUESTS

2019-2028

GENERAL GOVERNMENT

Tay Township
2019 Budget Request

Strategic Plan				
Budget Type	Capital			
Department	General Government			
Division	Administration			
Prepared by	Robert Lamb			
Approved by	Robert Lamb			
Department Priority	A			
Request Summary	A community based strategic planning exercise was completed in 2015 and it is anticipated that an updated strategic planning exercise will be undertaken with each new term of council. Funding is currently being provided by an annual transfer to the contingency reserve.			
Service Level Impact	Improve			
Expected Useful Life	4 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants	40,000	Reserve	-40,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	40,000	Total	-40,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2018 Budget Request

Printer/fax/copier Public Works				
Budget Type	Capital			
Department	General Government			
Division	Administration			
Prepared by	Daryl C. W. O'Shea			
Approved by				
Department Priority	A			
Request Summary	Budget for one replacement departmental printer per year in the event of printer failure. The most expensive printer is carried each year (currently the public works multifunction) and is used for any of the four departmental printers that may fail. If no printers fail, no funds are spent and funds are carried forward to the next year.			
Service Level Impact	Maintain			
Expected Useful Life	8			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-7,000
	Equipment	7,000	Development	
	Legal		Utility	
	Other		Other	
	Total	7,000	Total	-7,000
	2018 Tax Levy Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019-2020 Budget Request

Replace Laser Printers				
Budget Type	Capital			
Department	General Government			
Division	Administration			
Prepared by	Daryl C. W. O'Shea			
Approved by				
Department Priority	A			
Request Summary	Budget for color laser printer replacement in the event of printer failure. If printer does not fail, no funds are spent and funds are carried forward to the next year.			
Service Level Impact	Maintain			
Expected Useful Life	8 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-4,500
	Equipment	4,500	Development	
	Legal		Utility	
	Other		Other	
	Total	4,500	Total	-4,500
	Tax Levy / Rate Impact			$0
Future Year Budget	2020 - $4,500			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Upgrade Telephone System				
Budget Type	Capital			
Department	General Government			
Division	Administration			
Prepared by	Daryl C. W. O'Shea			
Approved by				
Department Priority	A			
Request Summary	On an annual basis, the Township receives an average of an incoming call every 3.75 minutes during regular operating hours. During the summer season the Township receives more than a call every other minute. Outbound calls are in addition to this. A reliable telephone system is a critical component of the Township's operations. The current phone system was installed in 2007 and will need expansion and/or replacement to continue to meet the needs of residents and staff.			
Service Level Impact	Improve			
Expected Useful Life	10 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-35,000
	Equipment	35,000	Development	
	Legal		Utility	
	Other		Other	
	Total	35,000	Total	-35,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations	Hardware availability for the current system has an uncertain future. Planning for a substantial upgrade if necessary in the near term is prudent.			
Administrative Recommendation				

Tay Township
2019 Budget Request

PC/Monitor Replacement				
Budget Type	Capital			
Department	General Government			
Division	Administration			
Prepared by	Daryl C. W. O'Shea			
Approved by				
Department Priority	A			
Request Summary	Budget for PC/Monitor replacement for municipal office computers. Includes hardware and software licenses (Microsoft Office, Windows/SQL/Exchange Client Access Licenses). We budget for a 5 year replacement cycle but try to stretch their life to 6-8 years. Current computers were purchased in 2010. Current displays in 2009.			
Service Level Impact	Maintain			
Expected Useful Life	5			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-85,000
	Equipment	85,000	Development	
	Legal		Utility	
	Other		Other	
	Total	85,000	Total	-85,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations	Funding amount increased to reflect an increase in computers required due to increases in staffing levels, a move to more portable computing for more users and an increase in costs due to Canadian dollar decline since the last replacement cycle in 2010.			
Administrative Recommendation				

Tay Township
2018 Budget Request

Office Server				
Budget Type	Capital			
Department	General Government			
Division	Administration			
Prepared by	Daryl C. W. O'Shea			
Approved by				
Department Priority	A			
Request Summary	Budget for Replacement of the "Office Productivity Server". Historically this was a physical single server. As of 2010 all servers have been virtualized and this remains as the representative budget for the "office productivity features" of the virtualized server infrastucture -- including virtualization host servers, storage servers and Microsoft Server, SQL and Exchange licensing.			
Service Level Impact	Maintain			
Expected Useful Life	5			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-25,000
	Equipment	25,000	Development	
	Legal		Utility	
	Other		Other	
	Total	25,000	Total	-25,000
	2018 Tax Levy Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2018 Budget Request

Financial Server				
Budget Type	Capital			
Department	General Government			
Division	Administration			
Prepared by	Daryl C. W. O'Shea			
Approved by				
Department Priority	A			
Request Summary	Budget for Replacement of the "Financial Server". Historically this was a physical single server. As of 2010 all servers have been virtualized and this remains as the representative budget for the "financial server features" of the virtualized server infrastucture -- including virtualization host servers, storage servers and Microsoft Server, SQL and Exchange licensing.			
Service Level Impact	Maintain			
Expected Useful Life	5			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-25,000
	Equipment	25,000	Development	
	Legal		Utility	
	Other		Other	
	Total	25,000	Total	-25,000
	2018 Tax Levy Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2018 Budget Request

VPN Router & Firewall				
Budget Type	Capital			
Department	General Government			
Division	Administration			
Prepared by	Daryl C. W. O'Shea			
Approved by				
Department Priority	A			
Request Summary	Budget for replacement of network firewall/security appliance and VPN endpoint for remote connectivity (for senior management, water/wastewater staff and vendors).			
Service Level Impact	Maintain			
Expected Useful Life	8			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-5,000
	Equipment	5,000	Development	
	Legal		Utility	
	Other		Other	
	Total	5,000	Total	-5,000
	2018 Tax Levy Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations	Network security is critical to protecting the Township's digital assets, ratepayer information and reputation.			
Administrative Recommendation				

Tay Township
2020 Budget Request

Agenda Management Software	
Budget Type	Capital
Department	General Government
Division	Administration
Prepared by	Alison Gray
Approved by	
Department Priority	B
Request Summary	Implementation of an agenda management software that will help with the automation of motions, minutes, agendas, and post meeting action items. This software would be used for all Committees and Council meetings providing for increased efficiencies with the Clerks Department (i.e. COAC, Heritage, Grants, Audit, Accessibility, etc.).
Service Level Impact	Improve
Expected Useful Life	

Current Year Budget

Expenses		**Revenue**	
Materials		Grants	
Consultants	15,000	Reserve	-15,000
Equipment		Development	
Legal		Utility	
Other		Other	
Total	15,000	Total	-15,000
2020 Tax Levy Impact			$0

Future Year Budget	
Cost-Benefit Analysis and Other Financial Considerations	The Township has had electronic PDF agendas since 2008 with positive results; however, the assembly of the agenda, motions, minutes, and post council actioning of items has not been automated and takes considerable staff time. Through the automation of these processes, agenda and meeting management will be streamlined and more efficient reducing the amount of time required by staff to prepare, plan, and manage meetings.

Administrative Recommendation

Tay Township
2023 Budget Request

Laserfiche Integration with Great Plains				
Budget Type	Capital			
Department	General Government			
Division	Administration			
Prepared by	Alison Gray			
Approved by				
Department Priority	B			
Request Summary	Implementation of the next phase of Laserfiche will be the integration of the system with the Township's financial software, Great Plains. An example of this integration may be found with the Township of Springwater which allows for invoices to be scanned, coded, approved and processed digitally resulting in reduced staff time across all departments.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants	50,000	Reserve	-50,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	50,000	Total	-50,000
	2023 Tax Levy Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations	When Laserfiche was acquired and implemented one of the system requirements was for it to be able to expand to work with other Township software systems. The integration with Great Plans will provide efficiencies across departments with targetted efficiencies in Finance with the automation of certain processes.			
Administrative Recommendation				

Tay Township
2018 Budget Request

Work Order Software				
Budget Type	Capital			
Department	Public Works			
Division	Roads and related			
Prepared by	Daryl C. W. O'Shea			
Approved by				
Department Priority	B			
Request Summary	Budget for completion of work order software implementation. This has been carried over a few times. We hope to have this completed in 2018.			
Service Level Impact	Maintain			
Expected Useful Life	10			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants	9,000	Reserve	-4,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	-5,000
	Total	9,000	Total	-9,000
	2018 Tax Levy Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2018 Budget Request

Land Manager Upgrade				
Budget Type	Capital			
Department	Planning and Development			
Division	Building			
Prepared by	Daryl C. W. O'Shea			
Approved by				
Department Priority	A			
Request Summary	Budget for Land Manager building software upgrade. This has been carried over a few times. We hope to have this completed in 2018.			
Service Level Impact	Maintain			
Expected Useful Life	10			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants	4,500	Reserve	-9,000
	Equipment		Development	
	Legal		Utility	
	Other	4,500	Other	
	Total	9,000	Total	-9,000
	2018 Tax Levy Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations	Land Manager is used to track and issue building permits, by-law issue and planning applications.			
Administrative Recommendation				

Tay Township
2019 Budget Request

Replace Furniture in the Vic Kelly Meeting Room				
Budget Type	Capital			
Department	General Government			
Division	Administration			
Prepared by	Peter Dance			
Approved by				
Department Priority	A			
Request Summary	The table in the Vic Kelly Meeting Room is in need of replacement.			
Service Level Impact	Maintain			
Expected Useful Life	20 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-8,000
	Equipment	8,000	Development	
	Legal		Utility	
	Other		Other	
	Total	8,000	Total	-8,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Replace Fire Retardant Curtains in Council Chambers				
Budget Type	Capital			
Department	General Government			
Division	Administration			
Prepared by	Brian Thomas			
Approved by	Brian Thomas			
Department Priority	A			
Request Summary	Due to the age and fading of the existing Council curtains, along with the deterioration of the fire retardant in the curtains, it is time to replace the curtains.			
Service Level Impact	Improve			
Expected Useful Life	10 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials	7,000	Grants	
	Consultants		Reserve	-7,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	7,000	Total	-7,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Add Wall Cabinets for Planning Department				
Budget Type	Operating			
Department	General Government			
Division	Administration			
Prepared by	Daryl C. W. O'Shea			
Approved by				
Department Priority	B			
Request Summary	Purchase and installation of wall hung cabinets and shelves around the reception/building area for storage or departmental materials.			
Service Level Impact	Improve			
Expected Useful Life	6 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials	5,000	Grants	
	Consultants		Reserve	-5,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	5,000	Total	-5,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Replace Heating System - Albert Street Mini-mall (Accountant's Office)				
Budget Type	Capital			
Department	General Government			
Division	Administration			
Prepared by				
Approved by				
Department Priority	A			
Request Summary	The Accountant's Office currently has electrical heat that is in poor condition. Ventilation is by a fan through a partially decommissioned roof top HVAC unit. It is recommended that a roof top unit for heat and air conditioning be installed in 2019 at a cost of approximately $9,000.			
Service Level Impact	Improve			
Expected Useful Life	10 to 15 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-9,000
	Equipment	9,000	Development	
	Legal		Utility	
	Other		Other	
	Total	9,000	Total	-9,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Replace Residential Furnances (2) in Public Works Garage				
Budget Type	Capital			
Department	General Government			
Division	Administration			
Prepared by	Peter Dance			
Approved by				
Department Priority	A			
Request Summary	There are two residential type funaces in the Public Works Garage for the office and lunchroom areas. They are at the end of their useful life and should be replaced. They were installed in 1994 and 1995.			
Service Level Impact	Maintain			
Expected Useful Life	10 to 15 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-10,000
	Equipment	10,000	Development	
	Legal		Utility	
	Other		Other	
	Total	10,000	Total	-10,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Accessibility Reception Workspace/Counter Retrofit				
Budget Type	Capital			
Department	General Government			
Division	Administration			
Prepared by	Alison Gray			
Approved by				
Department Priority				
Request Summary	In early 2017, the Township received an accessibility complaint from a ratepayer attempting to submit a building permit application due to the height of the counter. The Public Works and Finance counter spaces have accessible service counters; however, the current reception desk does not. The grant funds remain available until March 31, 2019.			
Service Level Impact	Improve			
Expected Useful Life	25+			
Current Year Budget	**Expenses**		**Revenue**	
	Materials	22,000	Grants	-18,500
	Consultants		Reserve	-18,500
	Equipment		Development	
	Legal		Utility	
	Other	15,000	Other	
	Total	37,000	Total	-37,000
	2019 Tax Levy Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations	The Township submitted an application under the Enabling Accessibility Fund for part funding for the project. The grant was successful and funding has been received in the amount of $18,500.			
Administrative Recommendation				

Tay Township

2019 Budget Request

Accessibility Reception/Lobby Renovation

Budget Type	Capital
Department	General Government
Division	Administration
Prepared by	Alison Gray
Approved by	
Department Priority	
Request Summary	In early 2017, the Township received an accessibility complaint from a ratepayer attempting to submit a building permit application due to the height of the counter. The Public Works and Finance counter spaces have accessible service counters; however, the current reception desk does not. The expanded renovation was approved by Council in May 2018 with a budget of $90,000 and the project was put out for RFP in the summer of 2018; however, the lowest bid exceeded the approved budget and was referred back to the Long Term Plan for reconsideration.
Service Level Impact	Improve
Expected Useful Life	25+

Current Year Budget

Expenses		**Revenue**	
Materials	120,000	Grants	
Consultants		Reserve	-120,000
Equipment		Development	
Legal		Utility	
Other		Other	
Total	120,000	Total	-120,000
2019 Tax Levy Impact			$0

Future Year Budget	
Cost-Benefit Analysis and Other Financial Considerations	The Township was successful in obtaining accessibility grant funding in the amount of $18,500. Staff would need to confirm with the grant authority if the project would meet the eligibility requirements for the grant funding to be used given that the expanded project was not included in the original application.

Administrative Recommendation

PROTECTION TO PERSONS AND PROPERTY

Tay Township
2019 Budget Request

Fire Chief Crew Cab				
Budget Type	Capital			
Department	Protection to Persons and Property			
Division	Fire			
Prepared by	Brian Thomas			
Approved by				
Department Priority	A			
Request Summary	Replacement Vehicle for Fire Chief. Current vehicle has over 250,000 kms. In 2017 there was a considerable amount of repairs done to the vehicle. Currently the vehicle has an engine knock and a transmission shift problem. We are anticipating that the vehicle will make it to 2019 without any major repairs. With the new vehicle we are planning on installing a truck cap which should protect all the equipment in the truck box better than the current vinyl cover.			
Service Level Impact	Maintain			
Expected Useful Life	10 Years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-42,000
	Equipment	42,000	Development	
	Legal		Utility	
	Other		Other	
	Total	42,000	Total	-42,000
	2019 Tax Levy Impact			$0
Future Year Budget	2029			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2018 Budget Request

Hall 1 Tanker				
Budget Type	Capital			
Department	Protection to Persons and Property			
Division	Fire			
Prepared by	Brian Thomas			
Approved by				
Department Priority	A			
Request Summary	Tank 1 replacement will occur in 2019, Tender process will begin in 2018. This is a used truck purchased by the Township and rebuilt to become a Tanker Truck. This truck has high milage and is in tired shape. The transmission is a standard which limits as to which personnel can drive it.			
Service Level Impact	Maintain			
Expected Useful Life	20 Years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-293,374
	Equipment	293,374	Development	
	Legal		Utility	
	Other		Other	
	Total	293,374	Total	-293,374
	2018 Tax Levy Impact			$0
Future Year Budget	2038			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2020 Budget Request

Hall 2 - Tanker				
Budget Type	Capital			
Department	Protection to Persons and Property			
Division	Fire			
Prepared by	Brian Thomas			
Approved by				
Department Priority	B			
Request Summary	Hall 2 - Tanker tendering would begin in 2020 with final purchase in 2021. This is a used Bread Truck purchased and rebuilt to become a Water Tanker. High miles, weak springs and a standard transmission limit the number of staff that can drive this vehicle, and its useful life.			
Service Level Impact	Maintain			
Expected Useful Life	20 Years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-250,000
	Equipment	250,000	Development	
	Legal		Utility	
	Other		Other	
	Total	250,000	Total	-250,000
	2020 Tax Levy Impact			$0
Future Year Budget	2040			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2020/2022 Budget Request

Hall 4 - Drawings for Addition/Upgrades				
Budget Type	Capital			
Department	Protection to Persons and Property			
Division	Fire			
Prepared by	Brian Thomas			
Approved by	Brian Thomas			
Department Priority	B			
Request Summary	Hall 4 drawings and costing for hall upgrades for potential health and safety legislation changes.			
Service Level Impact	Improve			
Expected Useful Life	15 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants	8,000	Reserve	-8,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	8,000	Total	-8,000
	2020 Tax Levy Impact			$0
Future Year Budget	2021 - upgrades estimated at $175,000			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				
Information from new owners of former Skyline project may change needs.				

Tay Township
2019 Budget Request

Replacement of Bunker Gear				
Budget Type	Capital			
Department	Protection to Persons and Property			
Division	Fire			
Prepared by	Brian Thomas			
Approved by	Brian Thomas			
Department Priority	A			
Request Summary	Bunker gear and accessories (Helmets, Boots) will continue to be replaced at the mandated 10 year intervals. Additional purchases are required in 2019 in order to cycle out gear and ensure our firefighters are properly outfitted.			
Service Level Impact	Maintain			
Expected Useful Life	10 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-22,000
	Equipment	37,200	Development	
	Legal		Utility	
	Other		Other	
	Total	37,200	Total	-22,000
	Tax Levy / Rate Impact			$15,200
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Replacement of Ice Water Suits				
Budget Type	Capital			
Department	Protection to Persons and Property			
Division	Fire			
Prepared by	Brian Thomas			
Approved by	Brian Thomas			
Department Priority	A			
Request Summary	The continued replacement of deteriorated Ice Water suits is required in 2019 and 2020. The annual purchase amount is $4,000.			
Service Level Impact	Maintain			
Expected Useful Life	8 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials	4,000	Grants	
	Consultants		Reserve	
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	4,000	Total	0
	Tax Levy / Rate Impact			$4,000
Future Year Budget	2020 -$4,000 2025-2028 - $4,000 per year.			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2020 Budget Request

Thermal Imaging Camera				
Budget Type	Capital			
Department	Protection to Persons and Property			
Division	Fire			
Prepared by	Brian Thomas			
Approved by				
Department Priority	B			
Request Summary	Thermal Imaging Camera, exposure to high heat, and being handled in extremely poor conditions, ensures a short lifespan of this piece of equipment.			
Service Level Impact	Maintain			
Expected Useful Life	7 Years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	
	Equipment	14,000	Development	
	Legal		Utility	
	Other		Other	
	Total	14,000	Total	0
	2020 Tax Levy Impact			$14,000
Future Year Budget	2027			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Positive Pressure Ventilation Fans				
Budget Type	Capital			
Department	Protection to Persons and Property			
Division	Fire			
Prepared by	Brian Thomas			
Approved by	Brian Thomas			
Department Priority	A			
Request Summary	Two of the more important aspects of firefighting are ventilating a home and proper rehabilitation for the firefighters while fighting a fire. Each hall is in need of one of these fans. In 2018 we purchased one, and now require three more for the department. It is recommended that we purchase one each year for the next three years. The Department has applied for a grant to offset some of the cost.			
Service Level Impact	Maintain			
Expected Useful Life	10 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	
	Equipment	6,000	Development	
	Legal		Utility	
	Other		Other	
	Total	6,000	Total	0
	Tax Levy / Rate Impact			$6,000
Future Year Budget	2020 $6000, 2021 $6000			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Dry Hydrants				
Budget Type	Operating			
Department	Protection to Persons and Property			
Division	Fire			
Prepared by	Brian Thomas			
Approved by				
Department Priority	A			
Request Summary	Water supply is always a problem in rural areas. We have worked with neighbouring municipalities with joint installations, and now it is time to approach residents that have existing ponds or waterways on their property and try to share costs to ensure better access to water across our Township.			
Service Level Impact	Improve			
Expected Useful Life	12 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	
	Equipment	5,000	Development	
	Legal		Utility	
	Other		Other	
	Total	5,000	Total	0
	2019 Tax Levy Impact			$5,000
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

PUBLIC WORKS

ROADS

Tay Township

2019 - 2028 Budget Request

Road Improvement Program	
Budget Type	Capital
Department	Public Works
Division	Roads
Prepared by	Peter Dance
Approved by	Peter Dance
Department Priority	A
Request Summary	C.C. Tatham and Associates Ltd. were retained by Tay Township to complete the 2017 Road Needs Study (RNS) for the Township's road network. The ten year plan has been developed to include the report's recommendations as closely as possible regarding hard surface roads including asphalt and surface treated (Appendix H). This program will be revised annually and presented as part of the Long Term Plan (LTP). In the future costs for the immediate years will be evaluated on a case by case basis. At present, the RNS costs have been included. Roads in the Now category include 2019 to the fourth road in 2023. From there to half of the 2028 roads are in the 1 to 5 Years category. The remainder of the 2028 roads are in the 6 to 10 Years category. There are additional roads in the 6 to 10 Years category that fall beyond 2028 in the RNS. Roads highlighted in the LTP are provided with individual budget sheets. The following roads have been removed or amended as noted: 1. Bannister and Truax were included in the RNS for 2018. To provide room in the budget they have been moved to 2022; 2. Sections of Hogg Valley and Ron Jones (RNS for 2018) have short segments that are now in gravel. These sections have been deferred to 2021. It is noted that the RNS included Ron Jones from McMann to the south limit. That will remain as gravel and the LTP includes an amended distance (1000m rather than 1500m) and price from what the RNS had. 3. The 2020 to 2022 projects on Hogg Valley, Ebenezer, Osborne and Quarry have been deferred by one or two years to provide budget room; 4. The old sections of O'Leary were shown in 2022 and 2023 in the RNS. They both appear in 2022 in the LTP, the description and lengths have been corrected from 100m each but the costing has not been adjusted; 5. In 2022 the RNS program had included Gerhardt (in gravel program and upgraded after data collection) and a section of Rosemount (will remain in gravel and is included in the gravel program). These are not included the hard surface LTP; 6. The gravel section of Forgets is included in 2022. It is intended that this be returned to surface treatment which will be at a higher cost than is currently included; 7. Sections of Alberta, Assiniboia and Simcoe appeared in the RNS in 2023, 2025 and 2027. Since these were resurface in 2017 and 2018 they have not been included in the LTP; 8. The two sections of Vents Beach Road had been shown in 2025 and 2028. They both appear in 2025 in the LTP.
Service Level Impact	Maintain
Expected Useful Life	
Current Year Budget	**Expenses** / **Revenue** Materials / Grants Consultants / Reserve Equipment / Development Legal / Utility Other / Other Total 0 / Total 0
	Tax Levy / Rate Impact $0
Future Year Budget	
Cost-Benefit Analysis and Other Financial Considerations	
Administrative Recommendation	

Tay Township
2019 Budget Request

Ron Jones Road - Ebenezer to Hogg Valley			
Budget Type	Capital		
Department	Public Works		
Division	Roads		
Prepared by	Peter Dance		
Approved by	Peter Dance		
Department Priority	A		
Request Summary	The RNS had included the full 1000m length of this section as surface treatment, to be resurfaced at a cost of $99,000. From north to south it is surface treatment (400m), asphalt hill (400m) and surface treatment (200m). The asphalt section appears to be in good condition. The two surface treatment sections require work. We had tendered the 400m section, down the other side of the hill, with an earlier asphalt tender but did not have the funds to complete the work. It is recommended that the surface treatment sections be resurfaced with asphalt. As such, the budget should remain at $99,000. Prior to the 2019 budget staff will review the scope of work in detail.		
Service Level Impact	Maintain		
Expected Useful Life			
Current Year Budget	**Expenses**	**Revenue**	
	Materials	Grants	
	Consultants	Reserve	
	Equipment	Development	
	Legal	Utility	
	Other 99,000	Other	
	Total 99,000	Total	0
	Tax Levy / Rate Impact		$99,000
Future Year Budget			
Cost-Benefit Analysis and Other Financial Considerations			
Administrative Recommendation			

Tay Township
2019 - 2020 Budget Request

Gratrix - Vasey to 0.5km N of the Fesserton SR ROW				
Budget Type	Capital			
Department	Public Works			
Division	Roads			
Prepared by	Peter Dance			
Approved by	Peter Dance			
Department Priority	A			
Request Summary	The RNS had omitted 500m of Gratrix that is surface treatment. The LTP has added this to the other surface treatment section and amended the limits description and the distance (now 3500m). The asphalt description from the RNS is incorrect. The RNS recommendation of Asphalt Reconstruction of 3000m had a cost of $1,849,000. The magnitude of the request turns this into a two year project. Asphalt reconstruction would be appropriate if this road section is to service the pits without load restriction. However if the pit traffic is to go to Highway 12, staff do not feel that full reconstruction is needed. In addition, surface treatment would be a suitable surface. The RNS notes that a gravel surface would be tolerable. Some parts could be resurfaced while others would need rehabilitation (to include spot base repair and drainage). As such a project cost is likely significantly overstated. Prior to the 2019 budget submission staff would review the scope and costing for this project in detail.			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	
	Equipment		Development	
	Legal		Utility	
	Other	1,149,000	Other	
	Total	1,149,000	Total	0
	Tax Levy / Rate Impact			$1,149,000
Future Year Budget	2020 -700,000			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2020 Budget Request

Duck Bay Road				
Budget Type	Capital			
Department	Public Works			
Division	Roads			
Prepared by	Peter Dance			
Approved by	Peter Dance			
Department Priority	A			
Request Summary	The RNS had included this section as a resurface project in 2020. This is retained in the LTP. Council received a deputation on this road section.			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	
	Equipment		Development	
	Legal		Utility	
	Other	50,000	Other	
	Total	50,000	Total	0
	Tax Levy / Rate Impact			$50,000
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2021 and 2027 Budget Request

Triple Bay Road - Talbot to North Limit				
Budget Type	Capital			
Department	Public Works			
Division	Roads			
Prepared by	Peter Dance			
Approved by	Peter Dance			
Department Priority	A			
Request Summary	The RNS and LTP have this road in two sections. The section north of Comber Place is proposed as a asphalt reconstruction project in 2021. The section from Talbot to Comber Place is scheduled as an asphalt resurface in 2027. This road has been brought to the attention of Council by concerned members of the public			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	
	Equipment		Development	
	Legal		Utility	
	Other	1,233,000	Other	
	Total	1,233,000	Total	0
	Tax Levy / Rate Impact			$1,233,000
Future Year Budget	2027 - $109,000			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2022 Budget Request

Rumney Road - Hogg Valley to Elliot				
Budget Type	Capital			
Department	Public Works			
Division	Roads			
Prepared by	Peter Dance			
Approved by	Peter Dance			
Department Priority	A			
Request Summary	This section is in the RNS and LTP as a 2022 project as a resurface project for the existing surface treatment. It is noted that the hill is currently paved with asphalt. The proposed work does not include the hill. This road section was the subject of a presentation to Council.			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	
	Equipment		Development	
	Legal		Utility	
	Other	306,000	Other	
	Total	306,000	Total	0
	Tax Levy / Rate Impact			$306,000
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2023 Budget Request

Albert Street - Richard to George				
Budget Type	Capital			
Department	Public Works			
Division	Roads			
Prepared by	Peter Dance			
Approved by	Peter Dance			
Department Priority	A			
Request Summary	The RNS and LTP have this included as an asphalt rehabilitate project. There are sections that will require reconstruction, as well as the potential to just resurface some parts. There is design work almost completed for the section from Jephson to Maple.			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	
	Equipment		Development	
	Legal		Utility	
	Other	251,000	Other	
	Total	251,000	Total	0
	Tax Levy / Rate Impact			$251,000
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2025 and 2027 Budget Request

John Dillingno - West To Park				
Budget Type	Capital			
Department	Public Works			
Division	Roads			
Prepared by	Peter Dance			
Approved by	Peter Dance			
Department Priority	A			
Request Summary	The RNS and LTP show the section from Park to Trillium in 2025 and the section from Trillium to West in 2027. Both are listed as asphalt resurface. There has been some design completed on these sections. That work was premised on conversion to an urban cross section to address drainage issues. A simple resurface is not recommended. There should at least be some rehabilitation work.			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	
	Equipment		Development	
	Legal		Utility	
	Other	60,000	Other	
	Total	60,000	Total	0
	Tax Levy / Rate Impact			$60,000
Future Year Budget	2027 $45,000			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 to 2028 Budget Request

Gravel Program				
Budget Type	Capital			
Department	Public Works			
Division	Roads			
Prepared by	Peter Dance			
Approved by	Peter Dance			
Department Priority	A			
Request Summary	C.C. Tatham and Associates Ltd. (CCTA) were retained by Tay Township to complete the 2017 Road Needs Study for the Township's road network. The following ten year plan has been developed to include the report's recommendations in regards to gravel road maintenance, resurfacing of gravel roads and drainage. This program will be revised annually and presented as part of the Long Term Plan. As suggested by CCTA, the gravel road maintenance program commence in 2019. It is recommended that each gravel road receive 50mm of gravel every three years. To develop an efficient and cost affective approach to this, the gravel roads located in Tay are grouped together depending on their location, size, and cost. CCTA identified multiple roads with poor drainage that need to be fixed now. The deficiencies include lack of ditch, ditch maintenance, and culvert problems. Drainage repair has been scheduled to coincide with the roads maintenance over the next nine years to distribute the cost. These roads and amounts are indicated in bold in the program in addition the gravel amount.				
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	164,007	Grants	
	Consultants		Reserve	
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	164,007	Total	0
	Tax Levy / Rate Impact			$164,007
Future Year Budget	Program occurs annually. 2020 - $144,735 2021-$179,804			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Seventh Avenue Sidewalk / Sidewalk Program	
Budget Type	Capital
Department	Public Works
Division	Roads
Prepared by	Peter Dance
Approved by	Peter Dance
Department Priority	A
Request Summary	The 2018 Capital Budget included $75,000 to install a new sidewalk along the west side of Seventh Avenue from the existing sidewalk to Alberta Street. 2018 Tender results were $52,000 over the approved budget, and as such the contract was not awarded, and the project was referred to the Long Term Plan to explore options for reducing costs or to acquire additional funding.
Service Level Impact	Improve
Expected Useful Life	
Current Year Budget	**Expenses** / **Revenue** Materials 127,000 / Grants Consultants / Reserve Equipment / Development Legal / Utility Other / Other Total 127,000 / Total 0 Tax Levy / Rate Impact $127,000
Future Year Budget	A sidewalk allowance of $75,000 has been included for the balance of the plan; however, the program details are yet to be developed.
Cost-Benefit Analysis and Other Financial Considerations	
Administrative Recommendation	

Tay Township
2019 Budget Request

Talbot Sidewalk - Fifth to Seventh				
Budget Type	Capital			
Department	Public Works			
Division	Roads			
Prepared by	Peter Dance			
Approved by	Peter Dance			
Department Priority	A			
Request Summary	This project is to replace the retaining wall and sidewalk in this area. It is a priority due to the steep grades and deteriorated condition.			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	
	Equipment		Development	
	Legal		Utility	
	Other	120,000	Other	
	Total	120,000	Total	0
	Tax Levy / Rate Impact			$120,000
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019-2020 Budget Request

Replacement of Rosemount Bridge				
Budget Type	Capital			
Department	Public Works			
Division	Bridges			
Prepared by	Peter Dance			
Approved by	Peter Dance			
Department Priority	A			
Request Summary	Council approved option 4 of report PW-2017-83 for the design in 2019 and construction in 2021 of a new two lane structure in the current location. As the result of a funding application recently submitted to the Ontario Community Infrastructure Fund , the timeline for construction has been advanced to 2020. Should the application for funding not be successful, construction will likely occur in 2021 and be debt financed.			
Service Level Impact	Improve			
Expected Useful Life	75 Years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	-189,000
	Consultants	210,000	Reserve	-21,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	210,000	Total	-210,000
	Tax Levy / Rate Impact			$0
Future Year Budget	2020 - Construction value of this project is estimated at $1,150,000. Up to 72% of this amount may be funded by the Ontario Community Infrastructure Fund - Top Up (if successful).			
Cost-Benefit Analysis and Other Financial Considerations	Report PW-2017-63 had a detailed cost analysis . Of the 6 options considered, option 4 was selected, as this option has the lowest lifecycle cost ($18,133 for 75 years)			
Administrative Recommendation				

Tay Township
2019 Budget Request

Crack Sealing Program	
Budget Type	Capital
Department	Public Works
Division	Roads
Prepared by	Peter Dance
Approved by	Peter Dance
Department Priority	A
Request Summary	In order to maintain asphalt roads successfully, sealing of cracks is recommended to occur every five years. The first round of crack sealing should be done within the first five years after paving. The CCTA study addressed the life cycle of asphalt maintenance by quality of the base. This includes provision of crack sealing and asphalt overlay. If a good base exists then crack sealing is not required in year 30 as an overlay is anticipated, for a moderate base, crack sealing is not required in years 20 or 40, and for a poor base crack sealing is required every five years. Crack sealing may not be worthwhile as road approaches end of life and the cracks become too numerous. The proposed program includes asphalt roads in Tay that were paved within the last five years. These are the roads that would benefit from the program, since asphalt roads over five years old may have exceeded the ability to be maintained through crack-sealing. The roads are grouped according to location, size and price, and rotated every five years. To develop the cost projection for crack-sealing, the length and width of each road was taken into consideration. Also, the assumption that there are approximately 150 cracks per kilometre on the road and the unit cost to fix each crack is $3 per metre (CCTA). The actual price in 2018 was $3.15 excluding taxes. Crack sealing program is an important program in order to maintain Tay's asphalt roads and ensure that a full life cycle will be acquired from each road. Recently, a $25,000 allowance for crack sealing has been provided on in alternate years. A detailed program will be developed prior to the Long Term Plan next year.
Service Level Impact	Maintain
Expected Useful Life	
Current Year Budget	**Revenue** Materials 25,000 Grants Consultants Reserve Equipment Development Legal Utility Other Other Total 25,000 Total 0 Tax Levy / Rate Impact $25,000
Future Year Budget	Program is Biennial
Cost-Benefit Analysis and Other Financial Considerations	
Administrative Recommendation	

Tay Township
2019-2022 Budget Request

Streetlights - HPS to LED Conversion Program	
Budget Type	Capital
Department	Public Works
Division	Street Lighting
Prepared by	Peter Dance
Approved by	Peter Dance
Department Priority	A
Request Summary	There are 826 streetlights in our system. We have been converting from High Pressure Sodium (HPS) to Light Emitting Diode (LED) with an annual budget $20,000 (net, i.e. after rebates). It appears that we will take about 11 years' to complete the conversion at that rate. It is recommended that the conversion be completed over a four year span with a budget of $55,000 (net). This will avoid the need for mass relamping of the old fixtures, improve 'light on the ground' and save considerable energy costs (LED 54 watts, HPS 100 watts plus ballast etc. 124 watts).
Service Level Impact	Improve
Expected Useful Life	
Current Year Budget	**Expenses** / **Revenue** Materials 55,000 — Grants Consultants — Reserve -55,000 Equipment — Development Legal — Utility Other — Other Total 55,000 — Total -55,000 Tax Levy / Rate Impact $0
Future Year Budget	2020, 2021, 2022 - $55,000 per year
Cost-Benefit Analysis and Other Financial Considerations	
Administrative Recommendation	

WATER

Tay Township
2019 Budget Request

Low Lift Chemical Storage				
Budget Type	Capital			
Department	Public Works			
Division	Water and Wastewater			
Prepared by	Peter Dance			
Approved by				
Department Priority	A			
Request Summary	Provide a enclosed containment area for additional chemical storage to allow delivery of full truck loads rather than purchasing in barrels or totes. Increase storage from 4,000 litres with the addition of two 10,000 litre tanks and associated works. Estimate $20,000 for tanks, $35,000 for containment and building, $10,000 equipment and mechanical, $15,000 engineering and contingency. This will improve reliability of water production through lower risk of supply interruption and reduce the staff time to manage the supply.			
Service Level Impact	Improve			
Expected Useful Life	Tanks 25 years, building 50 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-80,000
	Equipment	80,000	Development	
	Legal		Utility	
	Other		Other	
	Total	80,000	Total	-80,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations	Significant cost saving on chemical should result an pay back period of two to three years.			
Administrative Recommendation				

Tay Township
2019 Budget Request

Tay Area Water Treatment Plant - Additional Modules for Membrane Treatment System				
Budget Type	Capital			
Department	Public Works			
Division	Water and Wastewater			
Prepared by	Peter Dance			
Approved by				
Department Priority	A			
Request Summary	This is to purchase 18 additional treatment modules. At present the three treatment racks have 40 spaces with only 34 modules installed in each. The additional modules will significantly improve treatment reliability. This will not result in a re-rating of the treatment plant.			
Service Level Impact	Improve			
Expected Useful Life	10 to 20 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-6,400
	Equipment	80,000	Development	-73,600
	Legal		Utility	
	Other		Other	
	Total	80,000	Total	-80,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019-2020 Budget Request

Tay Area Water Treatment Plant Upgrade - Phase 2				
Budget Type	Capital			
Department	Public Works			
Division	Water and Wastewater			
Prepared by	Peter Dance			
Approved by				
Department Priority	A			
Request Summary	The phase one upgrade of the Tay Area Water Treatment Plant was completed in 2015. The second phase should be designed in 2019 with construction to follow in 2020. In the 2018 Long Term Plan construction was noted in 2022. This reflects the surge in development interest that has occurred recently, as well as, concern that the remaining Ecodyne treatment unit is not a reliable source of peak capacity. Work includes the removal of the old Ecodyne, installation of a new treatment rack (40 modules), addition of UV/oxidation for taste and odour treatment and revision of the discharge header arrangement to separate the filtration and UV unit processes.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants	200,000	Reserve	-16,000
	Equipment		Development	-184,000
	Legal		Utility	
	Other		Other	
	Total	200,000	Total	-200,000
	Tax Levy / Rate Impact			$0
Future Year Budget	2020 - construction/equipment upgrade estimated to cost $1,400,000			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019-2020 Budget Request

Distribution System - Watermain Replacement				
Budget Type	Capital			
Department	Public Works			
Division	Water and Wastewater			
Prepared by				
Approved by				
Department Priority	A			
Request Summary	Design for the 2020 watermain replacement program. This work had occurred in a two year cycle. This has been deferred with the completion of the Grandview Beach and Paradise Point watermain replacement/upgrade.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants	50,000	Reserve	-50,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	50,000	Total	-50,000
	Tax Levy / Rate Impact			$0
Future Year Budget	2020 - construction			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Distribution System - Victoria Harbour Standpipe Inspection				
Budget Type	Capital			
Department	Public Works			
Division	Water and Wastewater			
Prepared by	Peter Dance			
Approved by				
Department Priority	A			
Request Summary	The Long Term Plan shows a recurring $5,000 expense for each standpipe for internal inspection. Internal refurbishment is estimated at $200,000 and external refurbishment is estimated $120,000.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants	5,000	Reserve	-5,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	5,000	Total	-5,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

WASTEWATER

Tay Township
2019 Budget Request

Port McNicoll Wastewater Treatment Plant - Equipment Replacement				
Budget Type	Capital			
Department	Public Works			
Division	Water and Wastewater			
Prepared by	Peter Dance			
Approved by				
Department Priority	A			
Request Summary	An allowance of $30,000 is carried every three years in the long term plan, with the detailed items being identified as needed. This project includes replacement of a vacuum pump ($7,000) and two dissolved oxygen probes for the anoxic zone of the treatment tanks (2 x $7,500 = $15,000).			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-22,000
	Equipment	22,000	Development	
	Legal		Utility	
	Other		Other	
	Total	22,000	Total	-22,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

SCADA Upgrade				
Budget Type	Capital			
Department	Public Works			
Division	Water and Wastewater			
Prepared by	Peter Dance			
Approved by				
Department Priority	A			
Request Summary	This project will be rolled over from 2018 and an additional $10,000 has been added to the budget. The original $35,000 budget will not be enough to complete the required upgrades. The work is being completed over 2018 and 2019.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-45,000
	Equipment	45,000	Development	
	Legal		Utility	
	Other		Other	
	Total	45,000	Total	-45,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Septage Receiving				
Budget Type	Capital			
Department	Public Works			
Division	Water and Wastewater			
Prepared by	Peter Dance			
Approved by				
Department Priority	A			
Request Summary	At present the Township does not have the ability to receive septage. A 2017 budget allocation was provided to upgrade the septage receiving capacity at the Port McNicoll Wastewater Treatment Plant so that if can function without damage to the downstream plant equipment. In addition, it will reduce travel time for septage haulers in the Township. This work will be rolled over to 2019 with a total budget allocation of $250,000.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-250,000
	Equipment	250,000	Development	
	Legal		Utility	
	Other		Other	
	Total	250,000	Total	-250,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Victoria Harbour Wastewater Treatment Plant - Equipment Replacement				
Budget Type	Capital			
Department	Public Works			
Division	Water and Wastewater			
Prepared by				
Approved by				
Department Priority	A			
Request Summary	An allowance of $30,000 is carried every three years in the long term plan, with the detailed items being identified as needed. This project includes blower room air handling upgrades to protect equipment from overheating.			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-20,000
	Equipment	20,000	Development	
	Legal		Utility	
	Other		Other	
	Total	20,000	Total	-20,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Victoria Harbour Wastewater Treatment Plant Upgrades - Phase 2				
Budget Type	Capital			
Department	Public Works			
Division	Water and Wastewater			
Prepared by	Peter Dance			
Approved by				
Department Priority	A			
Request Summary	Phase 1 of the plant upgrade is complete. The project addressed operational issues, compliance with tighter effluent limits and future demands for the headworks, tertiary filters, disinfection and standby power systems. The second phase will address the aeration (biological treatment) section of the plant. The timing for the second phase will depend on the need for capacity expansion. Given the recent surge in development interest this has been advance by one year from last year's plan.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants	500,000	Reserve	-500,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	500,000	Total	-500,000
	Tax Levy / Rate Impact			$0
Future Year Budget	Construction is anticipated to take place in 2021/2022 with an estimated cost of $9,000,000.			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Add Hoist and Utility Box				
Budget Type	Capital			
Department	Public Works			
Division	Water and Wastewater			
Prepared by	Peter Dance			
Approved by				
Department Priority	A			
Request Summary	This will equip an existing pick-up with a used hoist and required changes to the box to enable us to pull pumps from lift stations without calling a contractor.			
Service Level Impact	Maintain			
Expected Useful Life	10 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials	15,000	Grants	
	Consultants		Reserve	-15,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	15,000	Total	-15,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations	Allow staff to easily complete pump removals without calling contractor. Pay back within a couple of years.			
Administrative Recommendation				

Tay Township
2019 Budget Request

Lift Station Fuel Storage Inspection & Upgrade				
Budget Type	Capital			
Department	Public Works			
Division	Water and Wastewater			
Prepared by	Peter Dance			
Approved by				
Department Priority	A			
Request Summary	The stand-by power fuel tanks at some of our facilities cannot be filled by our fuel supplier due to code deficiencies. This will inspect and upgrade these tanks. If there are big items they may be the subject of a future year request.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	15,000	Grants	
	Consultants		Reserve	-15,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	15,000	Total	-15,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Equipment Replacement - Contingency Allowance				
Budget Type	Capital			
Department	Public Works			
Division	Water and Wastewater			
Prepared by	Peter Dance			
Approved by				
Department Priority	A			
Request Summary	A capital contingency amount has been carried in recent budgets to cover unexpected failures of larger equipment.			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-20,000
	Equipment	20,000	Development	
	Legal		Utility	
	Other		Other	
	Total	20,000	Total	-20,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Televising Program				
Budget Type	Capital			
Department	Public Works			
Division	Water and Wastewater			
Prepared by	Peter Dance			
Approved by				
Department Priority	A			
Request Summary	Our objective is to establish a complete inventory of televised inspections for our sewers. In addition, any sewers for road sections on the upcoming programs are televised to confirm that major repairs are not needed. Generally, only minor repairs are required which are carried out with no-dig (trenchless) construction methods. As such, we do not have a schedule of sanitary sewer replacements. If pipes with major problems are discovered it is likely that a trenchless relining could be completed. Following completion of the televising of Port McNicoll sanitary sewers in 2016, Victoria Harbour will be the continued focus of the 2019 program.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-20,000
	Equipment	20,000	Development	
	Legal		Utility	
	Other		Other	
	Total	20,000	Total	-20,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Paradise Point and Grandview Beach Hydrological Study				
Budget Type	Capital			
Department	Public Works			
Division	Water and Wastewater			
Prepared by	Peter Dance			
Approved by				
Department Priority	A			
Request Summary	The Environmental Assessment that was completed for the area identified the preferred solution of providing full sewer and water servicing. Failing that, there were interim steps that could be followed. Further to the Staff Report PW-2017-75 Council approved 'that the septic re-inspection and monitoring based septic assessment be scheduled for 2019'. This is essential to understand environmental and possible human health impacts of the current situation and to understand if there is potential for continuation or expansion of the septic system approach for wastewater.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	-100,000
	Consultants	100,000	Reserve	
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	100,000	Total	-100,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

PARKS AND RECREATION

Tay Township
2019-2020 Budget Request

Patterson Park - Power and Accessibility Connection for Pavilion				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	A			
Request Summary	This request includes $1,500 for provision of power to the pavilion from the washroom building. In addition, there is an allowance for a walkway the following year.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	1,500	Grants	
	Consultants		Reserve	-1,500
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	1,500	Total	-1,500
	Tax Levy / Rate Impact			$0
Future Year Budget	2020 - $20,000 for Accessibility Connection			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Oakwood Community Centre - Partial Roof				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	A			
Request Summary	This is to address the centre section of roof that currently has leaks. Further investigation will be completed to assess whether a proper repair can be competed with a ridge replacement and connection refurbishment. In addition, eavestrough should be added in a few locations.			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	20,000	Grants	
	Consultants		Reserve	-20,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	20,000	Total	-20,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Oakwood Community Centre - Floor Scrubber				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	A			
Request Summary	This request is for a new floor scrubber for Oakwood. The current Oakwood floor scrubber is not at the end of its life. However, a new, larger unit will be more effective. In addition, to improve on the manual cleaning that is done at the Port McNicoll Community Centre the existing scrubber will be move there.			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-9,000
	Equipment	9,000	Development	
	Legal		Utility	
	Other		Other	
	Total	9,000	Total	-9,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019-2020 Budget Request

Oakwood Community Centre - Tables & Chairs				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	A			
Request Summary	This budget request is to replace the tables at the Oakwood Community Centre. Currently there are 20 8ft tables, 10 6ft tables and 20 round tables. Current tables that are in good condition will be moved to the HSCR or PMCC.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	18,000	Grants	
	Consultants		Reserve	-18,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	18,000	Total	-18,000
	Tax Levy / Rate Impact			$0
Future Year Budget	2020- $10,000 for Chairs			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Oakwood Community Centre - Front HVAC Unit				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	A			
Request Summary	This will replace the HVAC unit for the front entrance area for the Oakwood Community Centre. The current unit is a 1995 Lennox. Regular life expectancy is 10-15 years.			
Service Level Impact	Maintain			
Expected Useful Life	20 years			
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-20,000
	Equipment	20,000	Development	
	Legal		Utility	
	Other		Other	
	Total	20,000	Total	-20,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019-2020 Budget Request

Port McNicoll Community Centre - Replace Tables and Chairs				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	A			
Request Summary	This budget provides for the replacement of the chairs at the Port McNicoll Community Centre. Currently there are approximately 150 chairs.			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	7,500	Grants	
	Consultants		Reserve	-7,500
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	7,500	Total	-7,500
	Tax Levy / Rate Impact			$0
Future Year Budget	2020 - $10,000 for tables			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Tay Community Rink - Add Penalty Boxes				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	B			
Request Summary	The addition of penalty boxes at the Tay Community Rink is the final piece of completing the Rink in order to make it potentially suitable for games. An allowance of $15,000 was provided in 2018, however, the actual cost will be $30,000 based on the bids received.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	30,000	Grants	
	Consultants		Reserve	-30,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	30,000	Total	-30,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Tay Community Rink - Lighting Upgrade				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	A			
Request Summary	Recently, one major lighting upgrade has been completed each year. With the high daily usage when the ice is in lighting for this facility is a major cost.			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	7,000	Grants	
	Consultants		Reserve	
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	7,000	Total	0
	Tax Levy / Rate Impact			$7,000
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019-2020 Budget Request

Talbot Park - Ball Diamond Refurbishment				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	A			
Request Summary	New infield material, fence improvements, dugout improvements, turf improvements, base peg improvements.			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	10,000	Grants	
	Consultants		Reserve	
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	10,000	Total	0
	Tax Levy / Rate Impact			$10,000
Future Year Budget	2020 - $10,000 (2nd field)			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2021 Budget Request

MacKenzie Park - Accessibility Washroom Upgrade				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	B			
Request Summary	The scope and cost for this project will be reviewed. The current estimate reflects a new two stall washroom.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	150,000	Grants	
	Consultants		Reserve	-150,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	150,000	Total	-150,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2021 Budget Request

Oakwood Park - Hard Surface Rink, Refurbish Boards and Lighting Upgrade				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	B			
Request Summary	The scope and cost for this project will be refined prior to the 2020 Long Term Plan			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	100,000	Grants	
	Consultants		Reserve	-100,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	100,000	Total	-100,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019-2020 Budget Request

Oakwood Community Centre/Park - Additional Parking				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	A			
Request Summary	There is a regular need for additional parking at Oakwood. In particular, on a regular basis there are four teams at the field at the time of transition from one game to the next. In addition, this parking must serve the Community Centre and there are concerns about congestion around the fire hall. In 2019 options will be reviewed and this allowance is for design to proceed in advance of a 2020 construction.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants	10,000	Reserve	-1,000
	Equipment		Development	-9,000
	Legal		Utility	
	Other		Other	
	Total	10,000	Total	-10,000
	Tax Levy / Rate Impact			$0
Future Year Budget	2020 - $90,000 construction. Currently funded 90% by Development Charges.			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Oakwood Park - Outdoor Water Refill Station				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	A			
Request Summary	The Township has been providing one additional water refill station each year.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	
	Equipment	3,500	Development	
	Legal		Utility	
	Other		Other	
	Total	3,500	Total	0
	Tax Levy / Rate Impact			$3,500
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Waubaushene Pier Park - Parking				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	A			
Request Summary				
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	5,000	Grants	
	Consultants		Reserve	
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	5,000	Total	0
	Tax Levy / Rate Impact			$5,000
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019/2021 Budget Request

Pave First Avenue Trail				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	A			
Request Summary	This project would be the second phase of the work to pave the section of gravel trail along First Avenue in Port McNicoll. Work would start at the south and work north over three phases to maximize the County contribution.			
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	60,000	Grants	-30,000
	Consultants		Reserve	
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	60,000	Total	-30,000
	Tax Levy / Rate Impact			$30,000
Future Year Budget	2021 - $60,000 to pave balance of the existing trail			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2022/2024 Budget Request

Trail Extension - Trestle Trail along Ney into Port McNicoll				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	B			
Request Summary				
Service Level Impact	Improve			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	60,000	Grants	-30,000
	Consultants		Reserve	
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	60,000	Total	-30,000
	Tax Levy / Rate Impact			$30,000
Future Year Budget	2024 - $60,000			
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Waubaushene Branch Library - Lighting Upgrade				
Budget Type	Capital			
Department	Boards and Committees			
Division	Library			
Prepared by				
Approved by				
Department Priority	A			
Request Summary				
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	2,000	Grants	
	Consultants		Reserve	-2,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	2,000	Total	-2,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Port McNicoll Branch Library - Replace Furnance				
Budget Type	Capital			
Department	Boards and Committees			
Division	Library			
Prepared by				
Approved by				
Department Priority	A			
Request Summary				
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-4,000
	Equipment	4,000	Development	
	Legal		Utility	
	Other		Other	
	Total	4,000	Total	-4,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Port McNicoll Branch Library - Lighting Upgrade				
Budget Type	Capital			
Department	Boards and Committees			
Division	Library			
Prepared by				
Approved by				
Department Priority	A			
Request Summary				
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	2,000	Grants	
	Consultants		Reserve	-2,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	2,000	Total	-2,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Tree Replacement Program - Emerald Ash Borer				
Budget Type	Capital			
Department	Public Works			
Division	Parks and Recreation			
Prepared by				
Approved by				
Department Priority	A			
Request Summary	In anticipation of a significant die off of ash trees in the next five to ten years, an allowance has been made to plant other species in areas that have a large concentration of ash trees. In addition, there may be extraordinary operating expense to deal with dead trees (roads and parks).			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials	5,000	Grants	
	Consultants		Reserve	
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	5,000	Total	0
	Tax Levy / Rate Impact			$5,000
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

Tay Township
2019 Budget Request

Ice Resurfacer				
Budget Type	Capital			
Department	Public Works			
Division	Roads			
Prepared by	Bryan Anderson			
Approved by	Peter Dance			
Department Priority	A			
Request Summary	The current unit which services the Tay Community Rink is a 1990 Olympia 2500 Series propane fuelled machine with 5895 hours. The optimal replacement for traditional ice resurfacer is approximately 4000 hours.			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget	**Expenses**		**Revenue**	
	Materials		Grants	
	Consultants		Reserve	-80,000
	Equipment	80,000	Development	
	Legal		Utility	
	Other		Other	
	Total	80,000	Total	-80,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				

PLANNING AND DEVELOPMENT

Tay Township
2028 Budget Request

Official Plan / Growth Management Strategy				
Budget Type	Operating			
Department	Planning and Development			
Division	Planning			
Prepared by	Steve Farquharson			
Approved by	Steve Farquharson			
Department Priority	B			
Request Summary	Depending on when the new Official Plan is fully approved, a new Plan should be included 10 years from approval. We should continue to set funds aside for a Growth Management Strategy, which could be done before the completion of the County MCR or at the same time as the updates to the County OP. The study would be used to justify growth allocations to support the MCR process at the County level. Staff will be continuing to work with the County on this to determine when the appropriate time would be to have the Growth Management Study completed.			
Service Level Impact	Maintain			
Expected Useful Life				
Current Year Budget			**Revenue**	
	Materials		Grants	
	Consultants	110,000	Reserve	-110,000
	Equipment		Development	
	Legal		Utility	
	Other		Other	
	Total	110,000	Total	-110,000
	Tax Levy / Rate Impact			$0
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				