



Asset Management Plan

Municipality of Dysart et al



Watson & Associates Economists Ltd. 905-272-3600 info@watsonecon.ca

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List of Acronyms and Abbreviations

CL	Centreline
BCI	Bridge Condition Index
CSP	Corrugated Steel Pipe
GPS	Global Positioning System
G/S	Gravel
НСВ	High-Class Bituminous
HVAC	Heating, Ventilation, and Air Conditioning
IJPA	Infrastructure for Jobs and Prosperity Act
LCB	Low-Class Bituminous
MMS	Minimum Maintenance Standards
OCIF	Ontario Community Infrastructure Fund
OSIM	Ontario Structure Inspection Manual
PCI	Pavement Condition Index
PSAB	Public Sector Accounting Board
UL%	Percentage of Useful Life



Report



Chapter 1 Introduction



1. Introduction

1.1 Overview

The main objective of an asset management plan is to use a municipality's best available information to develop a comprehensive long-term plan for capital assets. In addition, the plan should provide a sufficiently documented framework that will enable continuous improvement and updates of the plan, to ensure its relevancy over the long term.

The Municipality of Dysart et al (Municipality) retained Watson & Associates Economists Ltd. (Watson) to prepare a comprehensive asset management plan. Watson completed the asset management plan in partnership with Dillon Consulting Limited (Dillon), who completed a visual assessment of the functional and physical conditions of the Municipality's facilities. One of the objectives of this plan is to move the Municipality's asset management practices into compliance with Ontario Regulation (O. Reg.) 588/17. It is intended to be a tool for municipal staff and Council to use during various decisionmaking processes, including the annual budgeting process and future capital grant application processes.

This is a comprehensive asset management plan covering all the Municipality's capital assets. These assets and their replacement costs are shown in Table 1-1.

Asset Class	Replacement Cost
Roads and Related	\$105,217,967
Bridges and Structural Culverts	\$12,081,726
Facilities	\$26,522,351
Wastewater	\$40,689,644
Stormwater	\$4,171,347
Fleet	\$3,938,501
Equipment and Land Improvements	\$4,584,738
Total	\$197,206,274

Table 1-1Asset Classes and Replacement Cost



The Municipality's goals and objectives with respect to asset management are identified in the Municipality's Strategic Asset Management Policy. A major theme within that policy is for the Municipality's physical assets to be managed in a manner that will support the sustainable provision of municipal services to residents. Through the implementation of the asset management plan, the Municipality's practice should evolve to provide services at levels proposed within this document. Moreover, infrastructure and other capital assets should be maintained at condition levels that provide a safe and functional environment for the Municipality's residents. Therefore, the asset management plan and the progress with respect to its implementation will be evaluated based on the Municipality's ability to meet these goals and objectives.

1.2 Legislative Context for the Asset Management Plan

Asset management planning in Ontario has evolved significantly over the past decade.

Before 2009, capital assets were recorded by municipalities as expenditures in the year of acquisition or construction. The long-term issue with this approach was the lack of a capital asset inventory, both in the municipality's accounting system and financial statements. As a result of revisions to section 3150 of the Public Sector Accounting Board (PSAB) handbook, effective for the 2009 fiscal year, municipalities were required to capitalize tangible capital assets, thus creating an inventory of assets.

In 2012, the Province launched the municipal Infrastructure Strategy. As part of that initiative, municipalities and local service boards seeking provincial funding were required to demonstrate how any proposed project fits within a detailed asset management plan. In addition, asset management plans encompassing all municipal assets needed to be prepared by the end of 2016 to meet Federal Gas Tax agreement requirements. To help define the components of an asset management plan, the Province produced a document entitled Building Together: Guide for Municipal Asset Management Plans. This guide documented the components, information, and analysis that were required to be included in municipal asset management plans under this initiative.

The Province's *Infrastructure for Jobs and Prosperity Act, 2015* (IJPA) was proclaimed on May 1, 2016. This legislation detailed principles for evidence-based and sustainable long-term infrastructure planning. IJPA also gave the Province the authority to guide municipal asset management planning by way of regulation. In late 2017, the Province



introduced O. Reg. 588/17 under IJPA. The intent of O. Reg. 588/17 is to establish standard content for municipal asset management plans. Specifically, the regulations require that asset management plans be developed that define the current and proposed levels of service, identify the lifecycle activities that would be undertaken to achieve these levels of service, and provide a financial strategy to support the levels of service and lifecycle activities.

This plan has been developed to fully address the requirements of O. Reg. 588/17. It utilizes the best information available to the Municipality at this time.

1.3 Asset Management Plan Development

This asset management plan was developed using an approach that leverages the Municipality's asset management principles as identified within its strategic asset management policy, capital asset database information, and staff input.

The development of the Municipality's asset management plan is based on the steps summarized below:

- Compile available information pertaining to the Municipality's capital assets to be included in the plan, including attributes such as size, material type, useful life, age, accounting valuation and current valuation. Update the current valuation, where required, using benchmark costing data or applicable inflationary indices.
- 2. Define and assess current asset conditions, based on a combination of field work performed by Dillon, municipal staff input, existing asset reports, and an asset age-based condition analysis.
- 3. Define and document current levels of service based on analysis of available data and consideration of various background reports.
- 4. Set proposed levels of service that the Municipality believes are achievable and affordable based on current information.
- 5. Develop lifecycle management strategies that identify the activities required to sustain the levels of service discussed above. The outputs of these strategies are summarized in the forecast of annual capital and operating expenditures required to achieve these level of service outcomes.



- 6. Develop a financing strategy to support the lifecycle management strategy. The financing plan informs how the capital and operating expenses arising from the asset management strategy will be funded over the forecast period.
- 7. Document the comprehensive asset management plan in a formal report to inform future decision-making and to communicate planning to municipal stakeholders.

1.4 Maintaining and Integrating the Asset Management Plan

The asset management plan should be updated as the strategic priorities and capital needs of the Municipality change. This can be accomplished in conjunction with specific legislative requirements (i.e., five-year review of the asset management plan under IJPA), as well as the Municipality's annual budget process. Further integration into other municipal financial and planning documents would assist in ensuring the ongoing accuracy of the asset management plan, as well as the integrated financial and planning documents. The asset management plan has been developed to allow linkages to several strategic documents, as identified in the Municipality's Strategic Asset Management Policy.

When updating the asset management plan, it should be noted that the state of local infrastructure, lifecycle management strategy and financing strategy are integrated and impact each other. For example, the financing strategy outlines how the lifecycle management strategy will be funded. The lifecycle management strategy identifies the lifecycle activities that need to be planned for in order to enable the Municipality to maintain or achieve proposed levels of service, and the associated costs.

The asset management plan is a snapshot in time and is based on a number of assumptions regarding expected lifecycles and future performance of assets, lifecycle intervention costs, among others. The Municipality will need to establish processes for reviewing and updating these assumptions on a regular basis to keep the plan relevant.



Chapter 2 State of Local Infrastructure and Levels of Service



2. State of Local Infrastructure and Levels of Service

2.1 Introduction

This chapter provides an analysis of the Municipality's assets and the current service levels provided by those assets.

O. Reg. 588/17 requires that for each asset category included in the asset management plan, the following information must be identified:

- Summary of the assets;
- Replacement cost of the assets;
- Average age of the assets (it is noted that the regulation specifically requires average age to be determined by assessing the age of asset components);
- Information available on condition of assets; and
- Approach to condition assessments (based on recognized and generally accepted good engineering practices where appropriate).

Asset management plans must identify the current levels of service being provided for each asset category. For core municipal infrastructure assets, both the qualitative descriptions pertaining to community levels of service and metrics pertaining to technical levels of service are prescribed by O. Reg. 588/17. For all other infrastructure assets, each municipality needs to establish its own measures for levels of service.

Asset management plans must also include proposed levels of service for each asset category. The proposed levels of service will be defined using the qualitative descriptions and technical metrics that the municipality uses to define current levels of service.

The rest of this chapter addresses the requirements identified above, with each section focusing on an individual asset category.



2.2 Roads and Related

2.2.1 State of Local Infrastructure

Roads and related assets are used by residents and visitors for a variety of purposes. For vehicle traffic, the Municipality's road network provides connectivity between properties, local amenities, and regional and provincial roads. These assets also support recreational activities such as walking and cycling. Roads and related assets include roads, sidewalks, streetlights, guiderails, and signs. The total replacement cost of these assets is \$105.2 million.^[1]

The road network consists of roads with various surface types, including high-class bituminous (HCB), low-class bituminous (LCB), gravel (G/S), and earth. The estimated replacement cost of the road network is \$101.2 million, 96% of roads and related assets. The average age of the roads is 34.9 years.^[2] Table 2-1 and 2-2 provide a breakdown of the road network by surface type and roadside environment, respectively, while

^[1] The cost of guiderails is currently not included because asset inventory data is not available.

^[2] Age is based on acquisition dates in the Municipality's PSAB data.



Figure 2-1 and Figure 2-2 illustrate these breakdowns as a proportion of the total.

Almost two-thirds of the road network length is LCB – 62%. The next most common surface type is gravel – 35% of the total road network length. Roads with HCB surface represent 3% of the total road network length. There is a short section of earth road that accounts for less than 1% of the network length. In the context of roadside environment, almost the entire network is comprised of rural roads – 98% of the total road network length.

Figure 2-2 provides a spatial illustration of the Municipality's road network and its extent.

Surface Type	Centreline Kilometres	Replacement Cost (2020\$)
НСВ	8.7	\$10,431,803
LCB	195.7	\$65,519,520
Gravel	109.9	\$25,150,904
Earth	1.2	\$129,852
Total	315.6	\$101,232,079

Table 2-1 Road Network – Surface Type

Table 2-2 Road Network – Roadside Environment

Roadside Environment	Centreline Kilometres	Replacement Cost (2020\$)
Urban	3.0	\$3,545,525
Semi-Urban	2.2	\$862,430
Rural	310.4	\$96,824,124
Total	315.6	\$101,232,079





Figure 2-1 Road Network Distribution – Surface Type Based on Centreline-Kilometres







Figure 2-3 Map – Roads



Along with roads, the Municipality has the roads related assets shown in Table 2-3. The total replacement cost of these related assets is \$4.0 million. Figure 2-4 and Figure 2-5 show the locations of sidewalks and streetlights, respectively. Average age is not being reported for these assets because age data is missing for many of them. The Municipality has been recording dates of replacements for the past several years.



Average age will be reported in future updates to the plan once the age data is complete enough to provide reliable estimates of average age.

Asset Class	Quantity	Unit Cost	Replacement Cost (\$2020)
Sidewalks	11,386 sq.m	\$240/sq.m	\$2,732,633
Streetlights	369	\$3,056 each	\$1,127,480
Guiderails ^[1]	N/A	N/A	N/A
Signs	559	\$225 each	\$125,775
Total	\$3,985,888		

Table 2-3 Summary of Roads-related Assets

^[1] Asset inventory data on guiderails is not currently available. This data will be collected in the future. "N/A" is used throughout the plan to indicate data that is not currently available but will be collected in the future.



Figure 2-4 Map – Sidewalks





Figure 2-5 Map – Streetlights



2.2.2 Condition

The Municipality assessed the condition of its roads and sidewalks in 2019 and the condition of signs in 2020. Roads and sidewalks were assessed on a scale from 0 to 100, with 100 being an asset in as-new condition and 0 being a failed asset. Signs were assessed for overall physical condition and retroreflectivity performance and were



given condition ratings of either Good or Poor. No condition data is currently available for streetlights and guiderails.

Going forward, it will be important for the Municipality to keep the condition data up to date so that it can be used to accurately plan asset interventions. To this end, the Municipality plans to re-assess road condition every two years. In between formal re-assessments, condition data will be adjusted based on deterioration models built into the Municipality's asset management software. The Pavement Condition Index (PCI) is assessed using the methodology in the Ontario Ministry of Transportation's Manual for Condition Rating of Flexible Pavements MTO SP024. Sidewalks and signs will continue to be assessed annually by a third-party vendor. Streetlights and guiderails will have an age-based condition estimate in future updates of the asset management plan.

To better communicate the condition of the road network, the numeric condition ratings for roads have been segmented into qualitative condition states. Moreover, descriptions of these condition states are provided to better communicate the condition to the reader. In the future, the Municipality will add pictures of roads in the various condition states. Table 2-4 summarizes the various physical condition ratings and the condition state they represent for road assets.



Table 2-4
Road Condition States Defined with Respect to Pavement Condition Index

Pavement Condition Index (PCI) Range	Condition State	Description
80 < PCI ≤ 100	Excellent	The pavement is generally smooth with only slight distortions and perhaps a few slightly rough or uneven sections. There may be infrequent slight cracks in the surface.
65 < PCI ≤ 80	Good	There are intermittent rough or uneven sections. The surface may have slight cracking, distortion or alligatoring.
50 < PCI ≤ 65	Fair	The surface is rough and uneven and has intermittent moderate cracking and frequent slight cracking. There is also intermittent moderate alligatoring and distortion.
0 ≤ PCI ≤ 50	Poor	The surface is very rough and uneven. There is frequent alligatoring and extensive moderate-to-severe cracking and distortion.

Table 2-5 presents the average condition of the road network by surface type, which is weighted based on centreline-kilometres.

As illustrated in Table 2-5, HCB and gravel roads are in a Good condition state, while LCB roads are in a Fair condition state, on average. Assessed across the entire road network, the average condition index rating is 66.2, indicating an overall Good condition state. Figure 2-6 shows the overall distribution of road condition for the Municipality.



Table 2-5 Road Condition Analysis

Road Surface	Centreline Kilometres	Pavement Condition Index (Weighted Average)	Average Condition State
НСВ	8.7	75.5	Good
LCB	195.7	64.7	Fair
Gravel	109.9	68.1	Good
Earth	1.2	19	Poor
TOTAL	315.6	66.2	Good





The average condition of sidewalks, weighted by surface area, is 63.2. Using the qualitative condition state ranges as defined in Table 2-4 for roads, this is categorized as Fair. Figure 2-7 shows the distribution of sidewalk surface area by condition state.



Figure 2-7 Distribution Sidewalk Surface Area by Condition State



Of 559 signs, 359 are in a good condition state. The remaining 200 are in a Poor condition state. Figure 2-8 shows the distribution of signs by condition state.



Figure 2-8 Distribution of Signs by Condition State



2.2.3 Current and Proposed Levels of Service

The levels of service currently provided by the Municipality's transportation system are, in part, a result of the state of local infrastructure identified above. A levels of service analysis defines the current levels of service, establishes targets, and enables the Municipality to periodically evaluate these service level objectives.

There are prescribed levels of service reporting requirements under O. Reg. 588/17 for some transportation assets (i.e., roads, bridges and culverts). Table 2-6 and Table 2-7 include the prescribed technical levels of service along with additional levels of service developed by the Municipality. The level of service measures were developed through identification of service aspects that are of interest to the users of roads and related assets. The following broad service aspects were identified through workshops with the Municipality's staff, based on comments commonly received from the public and their own observations:

- Ride quality;
- Brush encroaching on the roadway, limiting visibility and room for pedestrians; and
- Gravel roads having issues with dust, loose gravel, and support for non-vehicular uses such as dog walking and cycling.

Some of these concerns are addressed through ongoing operations and hence are not covered in the performance measures in Table 2-7. The tables are structured as follows:

- The Service Attribute headings and columns indicate the high-level attribute being addressed;
- The Community Levels of Service column in Table 2-6 explains the Municipality's intent in plain language;
- The Performance Measure column in Table 2-7 describes a performance measure connected to the identified service attribute;
- The Current Performance column in Table 2-7 reports current performance for the performance measure; and
- The Proposed Performance column in Table 2-7 reports the long-term performance that the Municipality intends to deliver for the performance measure.



Table 2-6Community Levels of Service – Roads

Service Attribute	Community Levels of Service
Scope	The road network provides connection within the Municipality and to regional roads. Figure 2-3 depicts the extent of the Municipality's road network.
Quality	Roads support comfortable passage of vehicles. Descriptions of roads in different condition states are provided in Table 2-4.
Reliability	Roads are available year-round.

Table 2-7Technical Levels of Service – Roads

Service Attribute: Scope

Performance Measure	Current Performance	Proposed Performance
Number of lane kilometres of arterial roads as a proportion of square kilometres of land area of the Municipality	0	0
Number of lane kilometres of collector roads as a proportion of square kilometres of land area of the Municipality	0.0063	0.0063
Number of lane kilometres of local roads as a proportion of square kilometres of land area of the Municipality	0.42	0.42



Service Attribute: Quality

Performance Measure	Current Performance	Proposed Performance
For paved roads in the Municipality, the average pavement condition index value	64.0	> 65
For paved roads in the Municipality, the average ride comfort index value	6.2	> 5
Number of centreline kilometres of paved roads with a condition index < 50	28.5 km	0
Number of centreline kilometres of paved roads with a ride comfort index < 5	11.0 km	0
For unpaved roads in the Municipality, the average surface condition	65.3	> 65
For unpaved roads in the Municipality, the average ride comfort index value	6.1	> 5
Number of centreline kilometres of unpaved roads with condition index < 50	1.0 km	0
Number of centreline kilometres of unpaved roads with ride comfort index < 5	18.5 km	0
Number of sidewalk deficiencies rated Severe in most recent sidewalk condition assessment.	20	0
Percentage of guiderail with a condition rating of Fair or better	N/A	100%
Percentage of signs with a rating of Good	64%	100%

Service Attribute: Reliability

Performance Measure	Current Performance	Proposed Performance
Centreline-kilometre-days of unplanned road closures	N/A	0



2.3 Bridges and Structural Culverts

2.3.1 State of Local Infrastructure

Bridges and structural culverts are part of the transportation network allowing passage of vehicle and other traffic over water barriers. They serve the same users as roads and related assets (i.e., vehicle traffic, pedestrians and cyclists). The Municipality currently owns and manages fifteen vehicle bridges, two culverts with a diameter greater than 3 metres, and two footbridges. Based on the Municipality's 2020 OSIM report, the 2020 replacement cost of these structures is approximately \$12.1 million. Table 2-8 provides a summary of the number, age, and replacement cost for the current bridge and culvert inventory.

Туре	Quantity	Average Age	Replacement Cost (2020\$)
Vehicle Bridges	15	42.0	\$10,379,095
Culverts	2	22.8	\$1,090,699
Footbridges	2	80.8	\$611,932
TOTAL	19	42.3	\$12,081,726

Table 2-8 Bridge and Culvert Infrastructure Summary

2.3.2 Condition

The Municipality's 2020 Ontario Structure Inspection Manual (OSIM) report assessed the condition of the bridge and culvert inventory, assigning a bridge condition index (BCI) to each asset. A BCI score is provided on a numeric scale from 0 to 100 and is a measure of the overall condition of the structure based on an evaluation of individual components.

Similar to road assets, to better communicate the condition of the bridge and culvert inventory, the numeric condition ratings have been segmented into qualitative condition states as summarized in Table 2-9.



Table 2-9
Bridge and Culvert Condition States Defined with Respect to BC

Bridge Condition Index (BCI)	Condition State	Bridges	Culverts
90 ≤ BCI ≤ 100	Excellent	No Examples in Municipality	No Examples in Municipality
70 ≤ BCI < 90	Good		No Examples in Municipality
60 ≤ BCI < 70	Fair		No Examples in Municipality
BCI < 60	Poor		

Table 2-10 examines the average condition state of the bridge and culvert inventory.

As summarized in Table 2-10, on average vehicle bridges are in a Fair condition state, and culverts and footbridges are in a Poor condition state. The overall average BCI for the entire bridge and culvert inventory is 60.5, representing a Fair condition state. Seven of fifteen bridges, both culverts and both footbridges are in a Poor condition state, meaning their BCIs are less than 60. The OSIM report has recommendations for rehabilitation or replacement projects for all these structures.



Table 2-10
Bridge and Culvert Condition Analysis

Туре	Quantity	Average BCI	Number in Poor Condition	Average Condition State
Vehicle Bridges	15	63.0	7	Fair
Culverts	2	55.0	2	Poor
Footbridges	2	28.8	2	Poor
TOTAL	19	60.5	11	Fair

Figure 2-9 provides a spatial illustration of the condition states and extent of the Municipality's bridge and culvert infrastructure.



Figure 2-9 Map – Bridges and Culverts



2.3.3 Current and Proposed Levels of Service

The level of service currently provided by the Municipality's bridge and culvert inventory is, in part, a result of the state of local infrastructure identified above. A levels of service analysis defines the current levels of service, establishes targets, and enables the Municipality to periodically evaluate these service level objectives.



Bridge and culvert assets have prescribed levels of service reporting requirements under O. Reg. 588/17. These requirements include levels of service reporting at two levels, i.e., community levels of service and technical levels of service. Community levels of service objectives describe service levels in terms that customers understand, and reflect customers' expectations with respect to the scope and quality of the bridge and culvert inventory. Technical levels of service describe the scope and quality of the Municipality's bridges and culverts through performance measures that can be guantified and evaluated. These performance measures can be used to assess how effectively a municipality is achieving its established targets. Table 2-11 and Table 2-12 present the current and proposed levels of service for bridges and culverts. They include the requirements mandated by O. Reg. 588/17 and one additional performance measure. The additional performance measure is the number of structures with a BCI < 40. The main concerns about bridges and structural culverts from the perspective of users are similar to those for roads and related assets because they are part of the same network. The level of service for bridges and structural culverts is primarily measured through the BCI, since the main objective is to maintain these assets in an adequate condition to allow safe passage of road users.

The Municipality is taking a measured approach to choosing proposed levels of service for bridges and culverts. The Municipality plans to address the identified renewal needs over time, gradually increasing the overall condition of the inventory. The Municipality proposes targeting an average BCI that is no lower than 70, the bottom of the Good rating, and no structures having a BCI < 40. Neither of these targets are currently being met. In order to meet these targets, the average BCI would need to be increased by 9.5 points. The two structures with BCI < 40 need to be brought into alignment with the proposed level of service. Given that there is a significant amount of work needed to reach this proposed level of service, the Municipality proposes to work towards achieving these targets over the next ten years by following the recommendations in OSIM reports.



Table 2-11^[1]Community Levels of Service – Bridges and Culverts

Service Attribute	Community Levels of Service
Scope	Bridges and culverts are utilized by passenger vehicles, emergency vehicles, pedestrians, cyclists, and heavy transport vehicles.
Quality	Table 2-9 details how BCI is segregated into qualitative condition states.

Table 2-12 Technical Levels of Service – Bridges and Culverts

Service Attribute: Scope

Performance Measure	Current Performance ^[2]	Proposed Levels of Service
Percentage of bridges in the Municipality with loading or dimensional restrictions	7%	0

Service Attribute: Quality

Performance Measure	Current Performance ^[2]	Proposed Levels of Service
For bridges in the Municipality, the average bridge condition index value	63	> 70
For structural culverts in the Municipality, the average bridge condition index value	55	> 70
Number of structures with BCI < 40	2	0

^[1] The structure of these tables is the same as Table 2-6 and Table 2-7. There is a detailed explanation of the structure in the text above those tables. ^[2] Data is for the 2020 calendar year.



2.4 Facilities

2.4.1 State of Local Infrastructure

The Municipality's facilities are used by a variety of users, including municipal staff, residents, visitors, and cultural organizations. The Municipality currently manages 42 facilities^[1] with a combined replacement cost of \$26.5 million. Facility assets range in cost from over \$3.9 million for the medical centre to assets with replacement costs of a few thousand dollars such as the skateboard park shelter. A breakdown of facility asset numbers and replacement costs by department is provided in Table 2-13. A detailed list is provided in Appendix B.

Department	Number of Facilities	Replacement Cost
Administration	2	\$3,301,658
Fire	1	\$911,913
Health	4	\$4,249,872
Public Works	3	\$1,626,797
Solid Waste	6	\$736,788
Recreation and Culture	26	\$15,695,324
Total	42	\$26,522,351

 Table 2-13

 Number of Facilities and Replacement Costs by Category

2.4.2 Condition

In 2020, Dillon performed detailed condition assessments for all facilities. Condition has been assessed using the five-point rating scales shown in Table 2-14. The different component types have different condition descriptors. Despite these differences, the

^[1] Wastewater facilities are not included in this total because they are captured in the wastewater section of this asset management plan. The group home is not included because it is in the final stages of being sold.



overall flavour of the condition rating scales is comparable. This allows averages to be meaningfully calculated and presented.

Grade	Architectural/Site Works	Mechanical	Electrical
1	Asset is physically sound and performing as intended. Secure weatherproof structure or building, which is well maintained. Good access and secure safe site.	Equipment is physically sound and performing as intended.	No abnormalities and resembles as new.
2	Asset is physically sound and performing as intended. Minor deterioration of surfaces/ cladding. Some spalling but no corrosion staining. Some maintenance needed to prevent initial stages of decay or dereliction commencing. Needs to be re-inspected in the medium term.	Minor signs of equipment deterioration such as increased vibration, looseness, misalignment, slight leaks. Protective coating still evident. Efficiency undiminished. Minor oil leaks and gland wear becoming more evident.	Minor signs of equipment deterioration. Requires little if any repairs, but these are generally not affecting safety and/or its ability to perform its intended function.
3	Showing deterioration, with some components physically deficient. Structure/building functionally sound, but appearance affected by minor cracking, staining, peeling paintwork, minor leakage or overgrown vegetation. Early stages of decay or dereliction are becoming evident.	Showing signs of equipment deterioration. All components functioning acceptably but showing significant wear and tear. Efficiency diminished. Minor failures with increasing corrosion of metal components, bearings and or gland wear (vibration) becoming more evident.	Showing signs of equipment deterioration. Functionally sound, but showing some wear, tear and deterioration. Deterioration beginning to affect the safety, efficiency and operation of the system.

Table 2-14Facilities Condition Assessment Rating Scale



Facilities	Condition	Assessment	Rating	Scale ((Cont'd))
i domaoo	Condition	/ 0000001110110	i tating	ocuro ,		1

Grade	Architectural/Site Works	Mechanical	Electrical
4	Major portion of asset is physically deficient. Structure is functioning but with problems due to significant leakage, cracking, spalling, loss of stability or deformation, corrosion substantially reducing size of structural member. Building not functioning properly due to leakage; rising damp; rotting woodwork; decayed brickwork; inadequate security.	Significant leaks, vibration, looseness, misalignment or out of balance. Parts and components function but require significant maintenance to remain operational.	The condition of the equipment is impacting on performance, serviceability and affecting the process. System is functioning, but with problems due to serious defects that require significant maintenance to remain operational.
5	Physically unsound. High probability of failure. Serious structural problems having a detrimental effect on the performance of the structure/building. Access extremely poor or hazardous. Site safety at risk.	Unreliable with frequent breakdowns and adverse impact on performance. Effective life exceeded and equipment now incurring excessive maintenance costs compared to replacement costs.	A high risk of breakdown with a serious impact on the systems safety, efficiency and operation. System's effective life exceeded, and excessive maintenance is required.

To align this scale with the four-point scale used for other asset classes, the five-point condition Grade scale Dillon used has been mapped to the four condition state categories used in the rest of the asset management plan, as shown in Table 2-15.



Table 2-15	
Mapping of Dillion Condition Scale to Reporting Condition Sta	ate

Dillon Condition Grade	Condition State
1	1 - Excellent
2	2 - Good
3	3 - Fair
4	4 - Poor
5	4 - Poor

The overall condition state of a building, or group of buildings, is based on the average of the condition states of the assessed components, weighted by the component replacement costs. Across all facilities, the average condition state is 2.55, which is Fair.^[1] Table 2-16 shows the average condition states by department. For all departments, except Health, the average condition state of facility assets is Fair. Health department facilities have an average condition state of Good.

Category	Average Condition	Condition State
Administration	2.61	Fair
Fire	2.54	Fair
Health	2.36	Good
Public Works	3.10	Fair
Recreation and Culture	2.50	Fair
Solid Waste	3.01	Fair
All	2.55	Fair

Table 2-16 Average Facility Condition by Category

^[1] Average numeric condition state for a group of components is rounded to nearest integer to identify a condition state for the group.


While facility assets in each category are on average in a Good or Fair condition state, some individual components are in a Poor condition state. The total replacement cost of components in a Poor condition state is approximately \$1.1 million.

To better understand the potential service impact of elements being in a Poor condition state, three service attributes were identified. They are defined in Table 2-17. In the detailed condition assessment data, each component in a Poor condition state is evaluated against these service attributes to help prioritize work.

Service Attribute	Definition
User experience	Poor condition of the component affects the pleasantness of using the facility. For example, if carpet is in a Poor condition state, it looks worn and gives the user a sense of the facility being in a state of disrepair.
Risk of closure	If failure of a component could lead to the closure of the facility, it needs to be reliable. If a key component is in a Poor condition state, this indicates that it is near the end of its useful life and there is an increasing risk of failure. For example, if a furnace fails in winter, a facility may need to be closed until the furnace is replaced.
Minimize lifecycle cost	Some components are replaced to avoid the risk of more costly repairs being needed in the future. For example, if a roof starts leaking, repairing the resulting water damage can be costly.

Table 2-17 Levels of Service – Facility components

Table 2-18 identifies components that are in a Poor condition state by facility and identifies their replacement costs and the levels of service affected by at least one of the identified components. The reported cost estimates are from Dillon and are based on the experience of the staff doing the assessments and industry cost guides.



Table 2-18List of Components in a Poor Condition State

Facility	Components Rated Poor	Replacement Cost	Potential to Affect User Experience	Potential to Affect Risk of Closure	Potential to Affect Lifecycle Cost
14a - Equipment Shelter at Landfill	Ventilation systems, main building service, interior lighting, floor drain, lighting	\$21,000	х	х	х
14b - Office Trailer for Haliburton Landfill	Asphalt road surface, metal gate	\$11,500	х		
15 - Town Hall	Furnace, wood shake shingles on roof, catch basin, CIP concrete walkway, CIP concrete retaining wall	\$49,507	х	х	х
18 - Canoe Radio Station/ CTY Library AdminHVAC systems, built-up bituminous roof, roof flashing, vinyl composition tile flooring, CIP concrete walkway, gravel roadway\$3		\$31,960	х	х	х
19 - Medical Centre	19 - Medical Centre Asphalt road		Х		
20b - Cemetery Storage	Distribution panels, lighting, interior fixed partitions		Х	Х	
21 - Fire Hall	Ventilation systems, parking lot pavement markings, emergency generator, catch basin	\$25,500	х	х	х
22 - Glebe Park Privies	Gravel walkway	\$400	Х		
23a - Rotary Beach Washrooms	Main building service, lighting	\$12,500	х	х	
23c - Privies at Head Lake Park	Exterior wood louvers	\$400	х		
24a - Parks Storage	Vinyl composition tile flooring, gypsum board ceiling, post-formed P. Lam. counters, asphalt road, ventilation systems	\$43,226	Х		
24c - Dysart Community Centre/Arena	Distribution panels, ventilation systems, CIP concrete retaining wall, swale	\$102,000	Х	Х	Х



Facility	Components Rated Poor	Replacement Cost	Potential to Affect User Experience	Potential to Affect Risk of Closure	Potential to Affect Lifecycle Cost
25 - Curling Club, Metal Clad	Ventilation fan, exterior aluminum louvers, squash court wall finishes	\$17,080	х		
26 - Drag - 4C's	Ventilation systems, ceramic tile flooring, sidewalk concrete pavers	\$57,850	х		
27 - West Guilford Community Centre	Asphalt shingle roof	\$16,330	х		х
28 - Old Dysart Library, Masonry (OPP & Incubator Office Building)	/sart Library, DPP & Incubator Exterior windows ding)		Х	x	х
29 - Dysart Library & Administrative Centre	Vinyl composition tile flooring, metal and concrete fill bollards	\$63,452	х		
30a - Museum	Furnaces, exterior face bricks, stone and wood retaining wall	\$62,559	х	х	х
30d - Museum Building - Log Cabin, with Kitchen Addition	Exterior face bricks	\$992	х		х
30e - Museum Building - Blacksmith's	Exterior face bricks	\$496	х		х
30f – Reid House	Exterior face bricks, exterior wood door, exterior windows	\$14,746	х		х
31 - Rails End Gallery, Frame	Exterior face bricks, wood shake shingles on roof, wood stair construction	\$55,049	х		х
32a - Main Roads Garage Building, Concrete Block	Exterior windows, asphalt roadway, CIP concrete walkway, CIP concrete site development	\$198,000	х		х
32b - Outbuilding - Storage Shed 15' x 20', Wood Frame Metal Exterior	Distribution panels, lighting, exterior wall - other, exterior wood door, profiled metal roof	\$90,170	Х		Х



Facility	Components Rated Poor	Replacement Cost	Potential to Affect User Experience	Potential to Affect Risk of Closure	Potential to Affect Lifecycle Cost
32c - Large Outbuilding - Light House	Exterior doors, floor construction, metal roofing, roof flashing	\$7,700	Х		Х
33c - Harcourt Community Centre - Rebuild	Chain link fence, gravel walkway	\$23,000	х		
33d - Harcourt Snack Bar, Block Building, 20' x 40'	Exterior lighting	\$3,000	Х		
36 - West Guilford Landfill	Floor construction, vinyl siding, joint sealers, exterior hollow metal doors, exterior windows, asphalt shingle roof, roof flashing, roof flashing, stair construction, resilient flooring, wood veneer wall panelling, gypsum board ceiling, lighting	\$18,099	Х		х
37 - Kennisis Lake Landfill Office	Lighting	\$1,000	х		
38 - West Bay Landfill	Propane heater, asphalt roadway	\$70,000	Х	Х	
39 - Harcourt Landfill	Foundation, exterior doors, exterior windows, resilient flooring, ceiling finishes	\$11,974	Х	х	х
Total		\$1,097,006			



The costs of addressing all the issues affecting each service attribute are shown in Table 2-19. The costs sum to more than \$1,097,006, the total cost of all components in a Poor condition state, because some components affect more than one service attribute and hence are counted more than once. The Venn diagram in Figure 2-10 shows that \$130,795 of the replacement cost of components in a Poor condition state are for components affecting both user experience and minimize lifecycle cost service attributes.

Table 2-19
Cost to Address All Components Affecting Each Level of Service Area

Level of Service	Cost
User experience	\$870,028
Risk of closure	\$121,000
Minimize lifecycle cost	\$236,773







2.4.3 Current and Proposed Levels of Service

The levels of service currently provided by the Municipality's facilities are, in part, a result of the state of local infrastructure identified above. A levels of service analysis defines the current levels of service, establishes targets, and enables the Municipality to periodically evaluate these service level objectives. Table 2-20 and Table 2-21 present the levels of service developed by the Municipality. The level of service measures were developed through identification of service aspects that are of interest to the users of facilities. The following broad service aspects were identified through workshops with the Municipality's staff, based on comments commonly received from the public and their own observations:

- Accessibility;
- Capacity;
- Energy efficiency; and
- User experience/aesthetics.

Table 2-20 ^[1]
Community Levels of Service - Facilities

Service Attribute	Community Levels of Service
Accessibility	Where possible, facilities are accessible.
Capacity	Facilities have sufficient capacity for their intended use.
Cost Minimization	Facilities are managed to deliver the desired levels of service while minimizing lifecycle costs.
User Experience	Facilities are managed to provide a reasonable user experience.
Risk of Closure	Facilities are available for use when needed.

^[1] The structure of these tables is the same as Table 2-6 and Table 2-7. There is a detailed explanation of the structure in the text above those tables.



Table 2-21 Technical Levels of Service – Facilities

Service Attribute: Accessibility

Performance Measure	Current Performance	Proposed Levels of Service
Percentage of facilities that are accessible	95% ^[1]	95%

Service Attribute: Capacity

Performance Measure	Current Performance	Proposed Levels of Service
Percentage of facilities with adequate capacity	98% ^[2]	100%

Service Attribute: Cost Minimization^[3]

Performance Measure	Current Performance	Proposed Levels of Service
Volume of propane used per year	81,107 litres	Minimize
Volume of heating oil used per year	24,825 litres	Minimize
KWh of electricity used per year	1,784,613 KWh	Minimize
Dollar value of components in a poor condition state that might lead to increased lifecycle costs	\$236,773	0

^[1] The Dysart Community Centre is on the second floor and is only accessible by stairs. Reid House is only accessible by stairs and has a second floor that is only accessible by stairs.

^[2] The Main Roads Garage is overcapacity in terms of staff using the facility. ^[3] Utility usage data is from 2018 calendar year.



Service Attribute: User Experience

Performance Measure	Current Performance	Proposed Levels of Service
Dollar value of components in a poor condition state that are expected to affect user experience	\$870,028	Minimize

Service Attribute: Risk of Closure

Performance Measure	Current Performance	Proposed Levels of Service
Dollar value of components in a poor condition state that affect closure risk	\$121,000	0

2.5 Wastewater

2.5.1 State of Local Infrastructure

The Municipality's wastewater system primarily serves the Village of Haliburton and nearby properties. The wastewater collection and treatment system is comprised of one treatment facility, twelve pumping stations, and 21.8 km of mains. The 2020 replacement cost of the system is approximately \$40.7 million. Table 2-22 provides a summary of the useful life consumed (UL%) and replacement cost of the system.

Replacement Quantity Average Age Туре Cost (2020\$) 1 facility Treatment facility \$10,971,794 23 years Pumping stations 12 stations 23 years \$3,717,111 Mains 21.8 km 29 years \$26,000,739 \$40,689,644 Total 27 years

Table 2-22
Wastewater System Infrastructure Summary



Figure 2-11 provides a spatial illustration of the Municipality's wastewater mains, showing the extent of the area that is serviced.







2.5.2 Condition

The condition of the Municipality's wastewater infrastructure has not been formally evaluated through an expert condition assessment. The exception to this is the building components of the wastewater treatment facility and pumping stations. These were assessed by Dillon. The Municipality may undertake a formal condition assessment of the entire wastewater system in the future as part of an ongoing effort to continually improve the asset management plan. For the purposes of this asset management plan, asset age has been used as a proxy for the condition state of the Municipality's wastewater mains and internal components of the treatment plant and pumping stations. The measure used is the UL% based on each asset's age and the average life expectancy for the asset, based on industry best practices and discussions with the Municipality's staff. A brand-new asset would have a UL% of 0%, indicating that zero percent of the asset's life expectancy has been utilized. On the other hand, an asset that has reached its life expectancy would have a UL% of 100%. It is possible for assets to have a UL% greater than 100, which occurs if an asset has exceeded its typical life expectancy but continues to be in service. This is not necessarily a cause for concern; however, it must be recognized that assets that are near or beyond their typical life expectancy are expected to require replacement or rehabilitation in the near term.

To better communicate the condition of the network, the UL% ratings have been segmented into qualitative condition states as summarized in Table 2-23. The scale is set to show that if assets are replaced around the expected useful life, they would have a rating of Fair. The rating of Fair extends to 140% of expected useful life. Beyond 140% of useful life, the probability of failure is assumed to have increased to a point where performance would be characterized as Poor.



Table 2-23Wastewater Asset Condition States Defined with Respect to UL%

UL%	Condition State
% ≤ UL% ≤ 45%	Excellent
% < UL% ≤ 90%	Good
% < UL% ≤ 140%	Fair
140% < UL%	Poor

Average condition states for the various components of the wastewater system are presented below in Table 2-24.^[1] The table shows that, on average, wastewater facilities are in a Good condition state and wastewater mains are in an Excellent condition state.

Table 2-24 Wastewater Asset Condition Analysis – Age Based

Туре	Quantity	Average UL%	Average Condition State
Treatment facility	1 facility	53%	Good
Pumping stations	12 stations	59%	Good
Mains	21.8 km	36%	Excellent

Dillon's direct assessment of the condition of the building components of the treatment facility and pumping stations showed them to be in a Fair condition state overall based on the criteria in Table 2-14. The average condition state of the treatment facility building components was Fair. For the building portions of the pumping stations, six pumping stations had an average condition state of Good and six had an average condition state of Fair. Table 2-25 lists the building components that were identified as being in a Poor condition state.

^[1] While Dillon assessed the condition of building shells for the wastewater treatment plant and pumping stations as part of the facility condition assessment work, these are reported separately to avoid mixing data sources (i.e., age-based condition and assessed condition) in the averages.



Table 2-25	
List of Components in a Poor Condition S	state

Facility	Poor	Replacement Cost
Treatment facility	Site lighting, 150 mm CSP culvert, epoxy floor finishes, wall paint	\$60,173
Pumping station no. 1	Electrical panel pad	\$1,500
Pumping station no. 2	Exterior lighting	\$1,000
Pumping station no. 12	Electrical panel wood access decking	\$1,200

2.5.3 Current and Proposed Levels of Service

The levels of service currently provided by the Municipality's wastewater system are, in part, a result of the state of local infrastructure identified above. A levels of service analysis defines the current levels of service, establishes targets, and enables the Municipality to periodically evaluate these service level objectives.

Wastewater assets have prescribed levels of service reporting requirements under O. Reg. 588/17. These requirements include levels of service reporting at two different levels, i.e., community levels of service and technical levels of service. Community levels of service objectives describe service levels in terms that customers understand and reflect customers' expectations with respect to the scope and quality of the wastewater system. Technical levels of service describe the scope and quality of the Municipality's wastewater system through performance measures that can be quantified and evaluated. These performance measures can be used to assess how effectively a municipality is achieving its established targets.

Table 2-26 and Table 2-27 present the current and proposed levels of service for wastewater. They include the requirements mandated by O. Reg. 588/17 and two additional performance measures of interest to the Municipality. The additional performance measures help the Municipality ensure that the wastewater system has sufficient capacity and is reliable.



Table 2-26 ^[1]
Community Levels of Service - Wastewater

Service Attribute	Community Levels of Service
Scope	Figure 2-11 shows the areas of the Municipality that have wastewater service.
	The Municipality does not have combined wastewater and stormwater mains. Stormwater can get into wastewater mains either through infiltration through the mains themselves or directly from properties if downspouts or sump pumps are connected to the wastewater system. Routine maintenance, such as replacing rubber gaskets on manhole covers, is performed on an as-needed basis to manage infiltration.
Reliability	Regulation 588/17 requires municipalities to include in the community levels of service section a description of the effluent that is discharged from sewage treatment plants in the municipal wastewater system. This information is provided in detail in the Municipality's reporting to the Ministry of Environment, Conservation and Parks. The data is available at: https://data.ontario.ca/dataset/municipal-treated-wastewater-effluent

^[1] The structure of these tables is the same as Table 2-6 and Table 2-7. There is a detailed explanation of the structure in the text above those tables.



Table 2-27Technical Levels of Service^[1] – Wastewater

Service Attribute: Scope

Performance Measure	Current Performance	Proposed Levels of Service
Percentage of properties connected to the municipal wastewater system	6.1%	No change
The ratio of peak daily flow to average daily flow	2.64	Decrease
Average daily flow as a percentage of rated capacity	58.6%	Decrease

Service Attribute: Quality

Performance Measure	Current Performance	Proposed Levels of Service
The number of connection- days per year with service disruptions due to wastewater backups compared to the total number of properties connected to the municipal wastewater system	0	0
The number of effluent violations per year due to wastewater discharge compared to the total number of properties connected to the municipal wastewater system	0	0
Percentage of gravity mains inspected with CCTV in past seven years	100%	100%

^[1] Technical levels of service pertaining to combined sewers in O. Reg. 588/17 are not reported because the Municipality does not have combined sanitary and stormwater sewers.



2.6 Stormwater

2.6.1 State of Local Infrastructure

The Municipality's stormwater system serves the downtown core of the Village of Haliburton. The stormwater system is comprised of 3,346 metres of mains and two oil and grit separators. The average age of the stormwater mains is 42.8 years. The 2020 replacement cost of the stormwater system is approximately \$4.2 million. Table 2-28 provides a summary of the replacement cost and average age for the system.

Туре	Quantity	Average Age	Replacement Cost (2020\$)
Mains	3,346 m	42.8	\$4,001,347
Oil grit separators	2	N/A	\$170,000
Total		42.8	\$4,171,347

Table 2-28Stormwater System Infrastructure Summary

Figure 2-12 provides a spatial illustration of the Municipality's stormwater mains.



Figure 2-12 Map – Stormwater Mains



2.6.2 Condition

The condition of the Municipality's stormwater assets is currently evaluated based on age in the same way wastewater assets are, utilizing the qualitative condition states as summarized in Table 2-23 in the wastewater section. Table 2-29 reports the average condition states of the stormwater assets. It shows that stormwater mains are, on



average, in a Good condition state. The oil grit separators do not have an average UL% or age-based condition because the acquisition dates are not available.

Туре	Quantity	Average UL%	Average Condition State
Mains	3,346 m	53%	Good
Oil grit separators	2	N/A	N/A

Table 2-29 Stormwater Asset Condition Analysis

2.6.3 Current and Proposed Levels of Service

The levels of service currently provided by the Municipality's stormwater system are, in part, a result of the state of local infrastructure identified above. A levels of service analysis defines the current levels of service and enables the Municipality to periodically evaluate these service level objectives.

Stormwater assets have prescribed levels of service reporting requirements under O. Reg. 588/17. These requirements include levels of service reporting at two different levels, i.e., community levels of service and technical levels of service. Community levels of service objectives describe service levels in terms that customers understand and reflect the scope of the stormwater system. Technical levels of service describe the scope of the Municipality's stormwater system through performance measures that can be quantified, evaluated, and detail how effectively a municipality provides services.

Table 2-30 and Table 2-31 present the current and proposed levels of service for stormwater. They include the requirements mandated by O. Reg. 588/17 and three additional performance measures. The additional performance measures focus on maintenance activities that support reliability.



Table 2-30^[1]Community Levels of Service – Stormwater

Service Attribute	Performance Measure
Scope	Figure 2-12 shows the areas that have stormwater service.

Table 2-31
Fechnical Levels of Service – Stormwater

Service Attribute: Scope^[2]

Performance Measure	Current Performance	Proposed Levels of Service
Percentage of properties in municipality resilient to a 100- year storm	N/A	N/A
Percentage of the municipal stormwater management system resilient to a five-year storm	N/A	N/A

^[1] The structure of these tables is the same as Table 2-6 and Table 2-7. There is a detailed explanation of the structure in the text above those tables.

^[2] In 2017, the Municipality had a heavy rainstorm of unknown intensity that was likely a 100-year storm. It caused considerable damage to properties. Further work needs to be done to report on these mandatory performance measures for the scope service attribute.



Service Attribute: Reliability

Performance Measure	Current Performance	Proposed Levels of Service
Percentage of system inspected with CCTV in past seven years	0%	100%
Percentage of oil grit separators inspected annually	100%	100%
Percentage of catch basins cleaned annually	100%	100%

2.7 Fleet

2.7.1 State of Local Infrastructure

Fleet assets are used by the Municipality's staff to support delivery of a variety of services: transportation, recreation and culture, fire, and health. The Municipality currently maintains a fleet of 35 vehicles. The vehicles range from a tandem-axle truck with a current replacement cost of about \$282,000 to a Yamaha 4x4 with a replacement cost of \$9,855. The total replacement cost of the Municipality's vehicles fleet is \$3.9 million. The vehicles are divided between four departments, Public Works, Fire, Recreation and Culture, and Health. Table 2-32 shows number of vehicles and replacement costs broken down by department.



Department	Number of Vehicles	Replacement Cost
Public Works	18	\$2,658,952
Fire	13	\$1,070,429
Recreation and Culture	3	\$103,832
Health	1	\$105,287
Total	35	\$3,938,501

Table 2-32 Number of Vehicles and Replacement Costs for Fleet Assets

2.7.2 Condition

The condition of fleet assets is evaluated based on age relative to the expected useful life (i.e., based on the UL% consumed). The age-based condition assessment methodology is described in detail in subsection 2.5.2. The qualitative condition states that are used for reporting are summarized in Table 2-23 in the wastewater section. For fleet assets, the age-based conditions were reviewed (and adjusted where needed), by the Municipality's staff to ensure that they are reflective of the physical condition and remaining service life of the assets.

Figure 2-13 presents the distribution of replacement cost by condition state for fleet assets. While most assets (80%) are in a condition state of Excellent or Good, there are also some older assets. Three vehicles are in a Fair condition state: a wheelchair bus, a Chevrolet Silverado Pickup, and a tandem-axel dump truck. The Municipality plans to replace the wheelchair bus in 2021. Three vehicles are in a Poor condition state: a Yamaha 4x4, a GMC C6V – tanker pumper, and a Sterling tandem axle dump truck. Vehicles in a Fair condition state have a combined replacement cost of \$411,000, 10% of total fleet replacement cost. The vehicles in a Poor condition state have a combined replacement cost.





Figure 2-13 Fleet Asset Condition State Distribution

2.7.3 Current and Proposed Levels of Service

The levels of service currently provided by the Municipality's fleet are, in part, a result of the state of local infrastructure identified above. A levels of service analysis defines the current levels of service, establishes targets, and enables the Municipality to periodically evaluate these service level objectives. Table 2-33 and Table 2-34 present the levels of service developed by the Municipality. The level of service measures were developed through identification of service aspects that are of interest to staff who use fleet assets. The following broad service aspects were identified through workshops with the Municipality's staff:

- Reliability;
- Ergonomics;
- Minimizing lifecycle cost; and
- Availability of parts.



Table 2-33^[1]Community Levels of Service – Fleet

Service Attribute	Community Levels of Service
Availability	Vehicles are not taken out of service for extended periods due to unplanned maintenance.
Efficiency	Vehicles are operated as efficiently as possible to minimize cost and greenhouse gas emissions.
Reliability	Vehicles function as expected when in use.

Table 2-34Technical Levels of Service – Fleet

Service Attribute: Availability

Performance Measure	Current Performance	Proposed Levels of Service
Number of service-days lost due to parts availability	N/A	Minimize

Service Attribute: Efficiency

Performance Measure ^[2]	Current Performance	Proposed Levels of Service
Litres of diesel fuel used	148,388	Minimize
Litres of gasoline used	70,581	Minimize
Litres of propane used	96,250	Minimize

^[1] The structure of these tables is the same as Table 2-6 and Table 2-7. There is a detailed explanation of the structure in the text above those tables. ^[2] From 2019.



Service Attribute: Reliability

Performance Measure	Current Performance	Proposed Levels of Service
Number of service-days lost due to unplanned repairs	N/A	Minimize
Current replacement cost of vehicles in a Poor condition state (age based)	\$362,497	Minimize

2.8 Equipment and Land Improvements

2.8.1 State of Local Infrastructure

Equipment is used by the Municipality's staff in all departments to support their work. Land improvements consist mainly of outdoor assets at parks that support recreational activities of residents and visitors. The Municipality has 144 equipment and land improvement assets. The assets range in value from \$445,000 for a set of traffic lights to items such as Global Positioning System (GPS) equipment and radios that cost a few thousand dollars. The total replacement value of these assets is \$4.58 million.

Figure 2-14 shows how the replacement cost of these assets is distributed across departments. The Public Works department has almost two-thirds of the assets (64%). The Recreation and Culture department has 24% of the assets. The other 12% of the assets are distributed amongst four departments: Solid Waste (7%), Fire (3%), Administration (1%), and Health Services (1%).



Figure 2-14 Distribution of Asset Replacement Cost by Department



2.8.2 Condition

The condition of equipment and land improvements is evaluated based on age in the same way wastewater assets are, utilizing the qualitative condition states as summarized in Table 2-23 in the wastewater section. The average UL% is 67.2%, which is categorized as Good. Figure 2-15 shows the distribution of replacement cost by condition state. Almost two-thirds of assets, 66%, are in an Excellent or Good condition state according to this age-based analysis. Further, 18% of assets are in a Fair condition state indicating that they are likely to require replacement in the near future, and 15% of assets are in a Poor condition state, indicating that they are well past their expected useful life and replacement is likely imminent.





Figure 2-15

2.8.3 Current and Proposed Levels of Service

24%

The levels of service currently provided by the Municipality's equipment and land improvements are, in part, a result of the state of local infrastructure identified above. A levels of service analysis defines the current levels of service and enables the Municipality to periodically evaluate these service level objectives. Table 2-35 and Table 2-36 present the levels of service developed by the Municipality. The main concern with equipment and land improvements is reliability. When these assets are used, they are expected to function as intended.

> Table 2-35^[1] Community Levels of Service - Equipment and Land Improvements

Service Attribute	Community Levels of Service
Reliability	Equipment and land improvements function as expected.

^[1] The structure of these tables is the same as Table 2-6 and Table 2-7. There is a detailed explanation of the structure in the text above those tables.



Table 2-36Technical Levels of Service – Equipment and Land Improvements

Service Attribute: Reliability

Performance Measure	Current Performance	Proposed Levels of Service
Current replacement cost of assets in a Poor condition State (Age based)	\$699,663	Minimize

2.9 Population and Employment Growth

As of the 2016 Census, the Municipality had a population of approximately 6,280. The Municipality's population is projected to reach 7,504 by 2036 (an increase of 1,224 people over 20 years), as identified in the Haliburton County Official Plan.

This population growth may result in incremental service demands that will impact levels of service. The Municipality plans to address these pressures through established planning processes such as development of master plans for specific services. If future master planning studies identify the need for new infrastructure and/or upgrades of existing infrastructure to accommodate future population growth, the Municipality should consider the option of imposing development charges. Utilizing development charges would ensure that the effects of future population growth do not increase the cost of maintaining levels of service for existing tax and rate payers.



Chapter 3 Lifecycle Management Strategy



3. Lifecycle Management Strategy

3.1 Introduction

This chapter details the lifecycle management strategies required to achieve the proposed levels of service presented in Chapter 2. A lifecycle management strategy identifies the recommended lifecycle activities required to achieve the levels of service discussed in the previous chapter. Within the context of this asset management plan, lifecycle activities are the specified actions that can be performed on an asset in order to ensure it is performing at an appropriate level, and/or to extend its service life.^[1] These actions can be carried out on a planned schedule in a prescriptive manner, or through a dynamic approach where the lifecycle activities are only carried out when specified conditions are met.

O. Reg. 588/17 requires that all potential lifecycle activity options be presented, with the aim of analyzing these options in search of identifying the set of lifecycle activities that can be undertaken at the lowest cost to maintain current levels of service or to provide proposed levels of service. Asset management plans must include a ten-year capital plan that forecasts the lifecycle activities resulting from the lifecycle management strategy.

What follows are the lifecycle management strategies for all assets contained within this asset management plan, with each section focusing on an individual asset class. Although a considerable amount of effort has been spent on developing lifecycle management strategies informed by observed asset conditions, there are still some assets for which the lifecycle management strategy is age based. The lifecycle management strategy for these age-based assets is presented in the last section of this chapter.

^[1] The full lifecycle of an asset includes activities such as initial planning and maintenance which are typically addressed through master planning studies and maintenance management, respectively.



3.2 Roads and Related

3.2.1 Managing Roads and Related

The Municipality's staff are taking a data-driven approach to managing road assets. They plan to assess the condition of roads every two years and to use this data to update the DOT software they use to schedule projects in the short and medium term. The details of the parameters and assumptions used by the DOT software are outside of the scope of this asset management plan. The Municipality's staff intend to work with their software provider to keep this information and modelling up to date. This datadriven approach helps the Municipality schedule the right lifecycle activity at the right time to minimize the overall lifecycle cost.

A high-level summary of lifecycle activities included in the Municipality's lifecycle management strategy for roads is provided in Table 3-1.

Road Class	Maintenance Treatment	Reconstruction Treatment
HCB – Minor Arterial HCB – Collector	Crack Seal Micro Surface Double Micro Surface	90mm Hot Mix Asphalt
LCB – Urban LCB – Semi Urban LCB – Rural Single Surface Treatment Double Surface Treatment		Full Depth Reclamation and Double Surface Treatment
Gravel, low volume	Routine Grading	50mm Granular 'A'
Gravel, high volume	Routine Grading	Upgrade to Surface Treatment

Table 3-1 Lifecycle Activities for Roads

The related assets – sidewalks, streetlights, guiderails, and signs – have a simple lifecycle. They are simply replaced if they are found not to be delivering the desired level of service.

3.2.2 Estimating Long-run Needs

The Municipality uses DOT software from Infrastructure Solutions to forecast future lifecycle needs for roads. Analysis in DOT has shown that the average PCI of the



Municipality's roads can be kept above 65 with an annual budget of \$1.5 million in 2020 dollars. For the purposes of estimating the replacement cost of roads, the costs in Table 3-2, were used.

Asset Class	Replacement Cost per sq.m (\$2020)	
НСВ	\$175	
LCB	\$50	
Gravel / Earth	\$40	

Table 3-2 Road Replacement Cost Per Square Metre

For sidewalks, streetlights, guiderails, and signs, the expected useful life determines long-run funding needs. Table 3-3 shows the lifespans assumed for each of these asset classes and the resultant average annual lifecycle cost. The total for these assets, except guiderails, is \$119,823 per year.

Table 3-3Useful Life of Related Assets Directly Supporting Roads Services

Asset Class	Useful Life (years)	Replacement Cost (\$2020)	Average Annual Lifecycle Cost (\$2020)
Sidewalks	37	\$2,732,633	\$73,855
Streetlights	30	\$1,127,480	\$37,583
Guiderails	N/A	N/A	N/A
Signs	15	\$125,775	\$8,385
Total		\$3,985,888	\$119,823

Adding the \$1.5 million needed annually for roads to the \$120,000 needed for sidewalks, streetlights, guiderails, and signs, results in average annual funding needs for roads and related assets of \$1.62 million. The profile of expenditures is not



expected to change over time because the renewal and replacement needs will be prioritized to fit within the \$1.62 million budget. The DOT software will prioritize road projects. Public Works staff will prioritize replacement of sidewalks, streetlights, guiderails, and signs to fit within the annual budget and funds available in reserves. Table 3-4 shows the annual expenditures expected for roads and related assets.

Table 3-4 Annual Cost for Roads and Related

Asset Class	Average Annual Lifecycle Cost (\$2020)	
Roads and Related	\$1.62 million	

3.3 Bridges and Structural Culverts

3.3.1 Managing Bridges and Culverts

O. Reg. 104/97 requires that structural bridges and culverts be inspected every two years by professional engineers. The Municipality plans to manage bridges and culverts by completing the work recommended in the inspection reports. By following the engineering recommendations, the Municipality believes it can continue to operate the bridges safely on an ongoing basis.

The most recent inspection was done in 2020. In the 2020 OSIM report, projects with a total cost of \$1,964,500 were identified that needed to be done over the next ten years. Table 3-5 shows the distribution of the costs of projects over the ten-year forecast period as recommended in the report.



Table 3-5 List of Repair and Rehabilitation Work Recommended in the 2020 OSIM Report

Timeframe	Total Cost
Urgent	\$176,000
<1 Year	\$286,000
Years 1 – 5	\$1,337,500
Years 6 - 10	\$165,000
Total	\$1,964,500

3.3.2 Estimating Long-run Needs

The current OSIM report has identified average annual funding needs for bridges and culverts of \$196,450 over the next ten years. The purpose of this section is to estimate long-term needs and identify potential peaks in investment demand at a decade timescale. To do this, a generalized model of bridge and culvert lifecycles is created and subsequently used to create a long-run projection of funding needs.

3.3.2.1 Lifecycle Activities

This section identifies a generalized lifecycle model for bridges and culverts. Minor rehabilitation, major rehabilitation, and reconstruction have been included in the generalized lifecycle model.

Table 3-6 provides estimated replacement cost. Table 3-7 details the costs for the rehabilitation lifecycle activities listed above. These costs are presented as a percentage of replacement cost, corresponding to the extent of rehabilitation work expected at different stages of an asset's lifecycle. The typical lifespan of all structures is assumed to be 75 years. Footbridges are assumed to have the same lifecycle activities as vehicle bridges.



Table 3-6Bridge and Culvert Replacement Costs per Unit

Structure Type	Replacement Cost per Unit
Bridge (vehicle)	\$5,395/sq.m (deck area)
Culvert	\$3,800/sq.m (deck area)
Footbridge	\$17,045/m (length)

Table 3-7 Bridge and Culvert Rehabilitation Treatment Cost and Timing

Bridge

Treatment	Percent of Replacement Cost	Estimated Timing (year)
Minor rehabilitation	15%	25
Major rehabilitation	35%	50
Replacement	100%	75

Culvert

Treatment	Percent of Replacement Cost	Estimated Timing (year)
Major rehabilitation	35%	40
Replacement	100%	75

3.3.2.2 Average Annual Lifecycle Cost

A forecast of cost of lifecycle activities can be made based on the information presented in the previous section. When the original construction date is available, the timing of rehabilitation and replacement lifecycle activities can be estimated. When the original construction date is not known, an average annual lifecycle amount is entered for every year. Figure 3-1 presents the long-range forecast of expenditures over the next 100 years, averaged for each decade. This forecast illustrates the annual expenditures without any consideration of budgetary constraints. The dotted orange line shows that,



over the next 100 years, the required average annual investment is approximately \$238,000 in 2020 dollars. The value for the first decade is based on the OSIM report and is coloured green to distinguish it from the estimates from the long-range forecast.

Figure 3-1 Bridge and Culvert Lifecycle Management Strategy – Average Annual Funding Requirements by Decade



3.4 Facilities

3.4.1 Lifecycle Model

Facilities are composite assets with individual components being replaced at the end of their useful life. For example, over time the shingles on a roof deteriorate. At some point, all the shingles are removed and replaced with new ones. The timing of this replacement is independent of the state of other facility components. To identify short-and medium-term component replacements, the Municipality had Dillon perform a detailed component-level assessment of its facilities. The assessment identified all components that are likely to need replacement over the next 20 years. The replacement timing identified for each component is based on the asset condition and the assessor's estimate of remaining useful life. The reliability of the estimate of remaining useful life decreases as the remaining useful life increases because of unavoidable uncertainty in future performance of components. This means that the accuracy of the timing of forecast replacements decreases in later years.



While the condition assessment is expected to inform short-term priorities, further testing and planning is needed to properly scope and cost projects further out in the forecast. The Municipality plans to update the condition assessment every five years to help ensure that problems do not go unidentified. Between formal condition assessments, staff will identify and address issues that develop.

3.4.2 Average Annual Lifecycle Funding Needs

Figure 3-2 presents the long-range forecast of expenditures over the next 100 years based on the condition assessment, averaged for each decade. This forecast illustrates the annual expenditures without any consideration of budgetary constraints. The dotted orange line shows the long-run average annual lifecycle funding needs of \$688,000 in 2020 dollars. This is calculated by dividing the replacement cost of each component by its expected useful life. This is higher than the average of the forecast lifecycle needs because components that are only replaced when a building is demolished and rebuilt are not included in the forecast. Examples of these components include building foundations and the internal structure of the walls and roof. These components are assumed to have an 80-year lifespan. If these components are excluded, the average annual lifecycle cost of maintaining existing buildings is \$562,000 per year.





3.5 Other Assets

The remainder of the Municipality's assets do not currently have an assessed condition, and as such will all be subject to the same age-based lifecycle management strategy. The following subsections will apply to the following asset classes:



- Wastewater;
- Stormwater;
- Fleet; and
- Equipment.

3.5.1 Lifecycle Activities

At present, the Municipality only performs replacement lifecycle activities in the management of its age-based assets. The costs to perform a replacement is therefore simply the currently evaluated replacement cost, as of 2020. These costs were estimated by inflating historical costs and were reviewed by the Municipality's staff for reasonableness. Similarly, the assumptions on expected useful lives were based on accounting useful life data and reviewed by the Municipality's staff.

3.5.2 Degradation Profile

For age-based assets, a decreasing degradation profile simply details what percentage of service life is left in light of an expected useful life. Figure 3-3 depicts the degradation profile that applies to all assets covered in this section (i.e., age-based assets).


Figure 3-3 Age-Based Asset Degradation Profile



3.5.3 Decision Criteria

For age-based assets, when an asset reaches the end of its service life a replacement is triggered, resulting in the reconstruction or acquisition of a new asset.

3.5.4 Expected Lifecycle

Combining the lifecycle activities, degradation profiles, and decision criteria presented herein results in a complete lifecycle management strategy. Figure 3-4 presents an illustrative example of the expected lifecycle for age-based assets with an expected useful life of ten years. The dashed, vertical line represents the point in the representative asset's expected life where it is replaced. The lifecycle path of the asset is represented by the solid lines, following the degradation profile presented above.



Figure 3-4 Lifecycle Strategy – Age-Based Assets (Ten-year Lifecycle Example)



The age-based analysis provides an estimate of the average annual funding need and an indication of whether there are expected to be near-term funding pressures. While this is useful in helping staff identify aging assets that may require replacement or renewal, it is expected that this information will be used as a starting point by staff when developing capital budgets and forecasts. Other priorities may arise as a result of growth in the Municipality or specific performance issues with individual assets.

3.5.5 Average Annual Lifecycle Funding Needs

3.5.5.1 Wastewater

Figure 3-5 presents the long-range forecast of expenditures over the next 100 years, averaged for each decade. As noted earlier, the Municipality does not currently have an assessed condition for these assets, except for the building components of the wastewater facility and pumping stations. Therefore, the forecast is based primarily on the age profile and life expectancies of individual components of the wastewater system. This forecast illustrates the annual expenditures without any consideration of



budgetary constraints. The average annual lifecycle funding needs over the next 100 years are estimated to be approximately \$670,000, in 2020 dollars, as illustrated with the dotted horizontal line in Figure 3-5.





3.5.5.2 Stormwater

Figure 3-6 presents the long-range forecast of expenditures over the next 100 years, averaged for each decade. As noted earlier, the Municipality does not currently have an assessed condition for these assets. Therefore, the forecast is based on the age profile and life expectancies of individual components of the stormwater system. This forecast illustrates the annual expenditures without any consideration of budgetary constraints. The dotted orange line shows that the average annual lifecycle funding needs over the next 100 years are approximately \$53,000, in 2020 dollars.



Figure 3-6 Stormwater Asset Management Strategy – Average Annual Lifecycle Funding Needs (uninflated \$)



3.5.5.3 Fleet

Figure 3-7 presents the long-range forecast of expenditures over the next 100 years, averaged for each decade. As noted earlier, the Municipality does not currently have an assessed condition for these assets. Therefore, the forecast is based on the age profile and life expectancies of individual vehicles. This forecast illustrates the annual expenditures without any consideration of budgetary constraints. The dotted orange line shows that the average annual lifecycle funding needs over the next 100 years are approximately \$418,000, in 2020 dollars.



Figure 3-7 Fleet Asset Management Strategy – Average Annual Lifecycle Funding Needs (uninflated \$)



3.5.5.4 Equipment

Figure 3-8 presents the long-range forecast of expenditures over the next 100 years, averaged for each decade. As noted earlier, the Municipality does not currently have an assessed condition for these assets. Therefore, the forecast is based on the age profile and life expectancies of individual assets. This forecast illustrates the annual expenditures without any consideration of budgetary constraints. The dotted orange line shows that the average annual lifecycle funding needs over the next 100 years are approximately \$330,000, in 2020 dollars.



Figure 3-8 Equipment and Land Improvements Asset Management Strategy – Average Annual Lifecycle Funding Needs (uninflated \$)





Chapter 4 Financing Strategy



4. Financing Strategy

4.1 Introduction

This chapter outlines the financing strategy that would sustainably fund the lifecycle management strategies presented in Chapter 3. This financing strategy focuses on examining how the Municipality can fund the lifecycle activities required to maintain its assets at the proposed levels of service, as identified in Chapter 2. The strategy presented is a suggested approach which should be examined and re-evaluated during the annual budgeting processes to ensure the sustainability of the Municipality's financial position as it relates to its assets.

O. Reg. 588/17 requires at minimum a ten-year capital plan that forecasts the costs of implementing the lifecycle management strategy and the lifecycle activities required therein. The financing strategy in this asset management plan has been developed for a 20-year forecast period to enable the Municipality to evaluate the sustainability of its assets over a longer-term horizon.

Various financing options, including reserve funds, debt, and grants were considered during the process of developing the financing strategy and are described in more detail in section 4.4 below.

4.2 Annual Contribution and Lifecycle Funding Target

An annual lifecycle funding target describes the amount of funding that would be required annually to fully finance a lifecycle management strategy over the long term. By planning to achieve this annual funding level, the Municipality would theoretically be able to fully fund capital works as they arise. In practice, capital expenditures often fluctuate year-to-year based on the asset replacement and renewal/rehabilitation projects being undertaken in a particular year. By planning to achieve the lifecycle funding target over the long term, however, the periods of relatively low capital needs would allow for the building up of lifecycle reserve funds that could be drawn upon in times of relatively high capital needs.

Table 4-1 presents the Municipality's current annual contributions towards capitalrelated needs – as detailed in the Municipality's 2021 Operating Budget – as well as the



annual lifecycle funding target based on the lifecycle management strategies presented in Chapter 3.

Asset Class	Current Annual Contribution (2021)	Annual Lifecycle Funding Target
Bridges & Culverts		\$246,567
Roads & Related		\$1,676,516
Facilities		\$712,524
Stormwater		\$55,032
Fleet		\$433,139
Equipment		\$341,825
Total Tax-supported	\$3,239,633	\$3,465,604
Wastewater	\$64,895	\$693,710
Grand Total	\$3,304,528	\$4,159,314

Table 4-1
Contribution Towards Capital-related Needs and Lifecycle Target (2021\$)

The annual lifecycle funding target has been estimated to total approximately \$4.16 million.

In comparison, the Municipality budgeted to contribute approximately \$3.30 million towards capital-related needs in 2021. Included in this are budgeted contributions to capital-related reserve funds, reliable and long-term federal and provincial grants, capital lease payments, and the repayment of non-growth-related debentures. The sum of these components is the amount of funding the Municipality contributed in 2021 to the provision of capital-related needs.

The difference between the annual lifecycle funding target and current annual contribution is referred to as the lifecycle funding gap and indicates that the Municipality is currently underfunding its infrastructure by approximately \$854,800 annually.



4.3 Annual Costs

Table A-1 in Appendix A presents the capital expenditure forecast for each asset class over the 2021 to 2040 forecast period. This expenditure forecast is based on the Municipality's 2021 capital budget and the lifecycle activities identified in preceding sections of this plan for 2022 and onwards. Figure 4-1 presents the annual capital expenditures for tax-supported and wastewater assets over the entire forecast period.



Figure 4-1 Annual Capital Expenditures Inflated \$, in millions

The expenditure forecast includes a capital inflation factor of 3.5% annually, which aligns closely with the historical 20-year annual average rate of inflation as witnessed in Statistics Canada's Building Construction Price Index.



4.4 Funding

Table A-6 in Appendix A summarizes the recommended strategy to finance the asset lifecycle costs identified in Table A-1. This funding forecast was based on the funding sources identified in the Municipality's 2021 budget.

The lifecycle costs required to sustain established level of service targets are being recovered through several methods:

- Ontario Community Infrastructure Fund (OCIF) formula-based funding is identified for years in which the funding amount is known (2021). The 2021 level of OCIF funding is then maintained for the remaining years of the forecast, recognizing the OCIF as a stable and long-term funding source for capital projects.
- Gas Tax funding has been shown as a stable and long-term funding source for eligible capital projects. Annual funding estimates are based on the Municipality's 2021 funding level.
- The Municipality will be dependent upon maintaining healthy capital reserves/ reserve funds in order to provide the remainder of the required lifecycle funding over the forecast period. This will require the Municipality to proactively increase amounts being transferred to these capital reserves during the annual budget process.
- Debt financing is shown as required in years where significant capital needs are identified. Specifically, the forecast includes total debt financing of \$3.08 million for tax-supported services and \$1.59 million for wastewater services over the forecast period.

This financing strategy has been developed to be fully funded, and therefore no funding shortfall has been identified. This means, however, that if identified grants are not received at expected amounts then shortfalls may present themselves. In such an event, the difference could be made up through increases to the tax levy/user rates over-and-above those presented hereafter.

It is noted that this fully funded financing strategy phases in annual contributions towards capital such that the Municipality reaches full lifecycle funding levels by 2031.



4.5 Tax Levy Impact

As discussed in section 4.2, while the annual funding requirement may fluctuate, it is important for the Municipality to implement a consistent, yet increasing, annual investment in capital so that the excess annual funds can accrue in capital reserve funds. Table A-6 in Appendix A presents a summary of the impacts on the tax levy as a result of this financing strategy.

In order to fund the recommended asset lifecycle activities over the forecast period using the Municipality's own available funding sources (i.e., using taxation, Gas Tax funding, OCIF funding, and debentures), an increase in the Municipality's taxation levy would be required as follows:

- 3.0% increases annually for 2021 to 2031; and
- 2.6% increases annually for 2032 to 2040.

Consideration for cash flow and positive reserve fund balances has been included in setting the capital reserve transfer amounts. A detailed continuity schedule of all tax supported capital-related reserves can be viewed in Table A-4 in Appendix A.

Layering on assessment increases resulting from new assessment growth, assumed to be 1.30% annually, the impacts on individual property tax bills resultant from the financial strategy are estimated as follows:

- 1.7% increases annually for 2021 to 2031; and
- 1.3% increases annually for 2032 to 2040.

The taxation impacts identified above include inflationary adjustments to the Municipality's operating costs and revenues as identified in its 2021 budget (i.e., general operating inflation of 2% annually). If, however, other funding sources become available (as mentioned above), or if maintenance practices allow for the deferral of capital works, then the impact on the Municipality's taxation levy would potentially decrease.

Further detail on the Financing Strategy is presented in Appendix A.



4.6 Wastewater User Rates Impact

Just as for tax-supported services, it is important for the Municipality to implement a consistent, yet increasing, annual investment in wastewater capital so that the excess annual funds can accrue in capital reserve funds. Table A-6 in Appendix A presents a summary of the estimated impacts on wastewater billing revenues that would result from implementing this financing strategy.

In order to fund the recommended asset lifecycle activities over the forecast period using the Municipality's own available funding sources (i.e., using user rates, grant funding, and debentures), an increase in the Municipality's annual wastewater billing revenues would be required as follows:

- 8.1% increases annually for 2021 to 2031; and
- 2.7% to 2.8% increases annually for 2032 to 2040.

The figures presented above represent the annual wastewater billing revenue increases required to fully fund the lifecycle strategies presented in Chapter 3. It is noted that these increased revenue needs will be partially offset by additional revenue generated from new customers connecting to the wastewater system. Therefore, the net impact on customers' wastewater bills may be lower than percentage increases identified above. It is recommended that the Municipality conduct a wastewater rate review to determine the impacts to user rates that would result from adopting the lifecycle strategies and associated funding needs identified in this asset management plan.

Consideration for cash flow and positive reserve fund balances has been included in setting the capital reserve transfer amounts. A detailed continuity schedule of all capital-related wastewater reserves can be viewed in Table A-5 in Appendix A.

The revenue increases identified above include inflationary adjustments to the operating costs and revenues identified in the Municipality's 2021 budget (i.e., general operating inflation of 2% annually). If, however, other funding sources become available (as mentioned above), or if maintenance practices allow for the deferral of capital works, then the impact on the Municipality's wastewater billing revenue requirements would potentially decrease.

Further detail on the Financing Strategy is presented in Appendix A.



Appendices



Appendix A Financing Strategy Tables

Table A-1 Capital Budget Forecast (Inflated \$)

Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Capital Expenditures																				
Tax Supported																				
Bridges & Culverts	-	824,200	358,200	370,700	383,700	39,200	40,600	42,000	43,500	45,000	-	63,800	486,700	-	4,951,700	-	-	200,400	-	-
Roads & Related	1,742,400	1,676,500	1,735,200	1,795,900	1,858,800	1,923,800	1,991,200	2,060,900	2,133,000	2,207,700	2,284,900	2,364,900	2,447,700	2,533,300	2,622,000	2,713,800	2,808,700	2,907,100	3,008,800	3,114,100
Facilities	448,200	156,200	316,100	152,100	2,008,900	216,700	194,300	131,400	150,000	2,055,200	543,100	239,400	386,100	264,800	2,246,000	170,100	131,900	1,068,600	144,200	2,043,400
Stormwater	-	88,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fleet	100,000	1,067,100	673,500	14,600	356,600	253,100	1,210,300	190,100	1,206,600	320,600	1,253,900	-	596,700	211,700	1,422,100	87,500	872,200	496,300	1,329,900	234,900
Equipment	499,250	1,137,500	17,800	33,200	626,600	161,500	429,200	528,500	768,700	244,900	431,600	64,600	205,100	216,000	724,300	335,500	1,272,900	1,053,400	564,700	187,000
Total Tax Supported	2,789,850	4,949,500	3,100,800	2,366,500	5,234,600	2,594,300	3,865,600	2,952,900	4,301,800	4,873,400	4,513,500	2,732,700	4,122,300	3,225,800	11,966,100	3,306,900	5,085,700	5,725,800	5,047,600	5,579,400
Wastewater																				
Facilities	101,597	10,400	448,000	463,600	751,500	777,800	-	-	-	-	-	-	-	-	-	-	5,752,800	-	-	-
Mains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Wastewater	101,597	10,400	448,000	463,600	751,500	777,800	-	-	-	-	-	-	-	-	-	-	5,752,800	-	-	-
Total Expenditures	2,891,447	4,959,900	3,548,800	2,830,100	5,986,100	3,372,100	3,865,600	2,952,900	4,301,800	4,873,400	4,513,500	2,732,700	4,122,300	3,225,800	11,966,100	3,306,900	10,838,500	5,725,800	5,047,600	5,579,400
Capital Funding																				
Tax Supported																				
Debenture Issuance	-	-	-	-	957,478	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer from Operating	1,513,242	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer from Capital R.F.s	1,276,608	4,949,500	3,100,800	2,366,500	4,277,122	2,594,300	3,865,600	2,952,900	4,301,800	4,873,400	4,513,500	2,732,700	4,122,300	3,225,800	11,966,100	3,306,900	5,085,700	5,725,800	5,047,600	5,579,400
Total Tax Supported	2,789,850	4,949,500	3,100,800	2,366,500	5,234,600	2,594,300	3,865,600	2,952,900	4,301,800	4,873,400	4,513,500	2,732,700	4,122,300	3,225,800	11,966,100	3,306,900	5,085,700	5,725,800	5,047,600	5,579,400
Wastewater																				
Debenture Issuance	-	-	302,884	264,639	507,924	512,119	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer from Operating	42,299	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer from Capital R.F.s	59,298	10,400	145,116	198,961	243,576	265,681	-	-	-	-	-	-	-	-	-	-	5,752,800	-	-	-
Total Wastewater	101,597	10,400	448,000	463,600	751,500	777,800	-	-	-	-	-	-	-	-	-	-	5,752,800	-	-	-
Total Funding	2,891,447	4,959,900	3,548,800	2,830,100	5,986,100	3,372,100	3,865,600	2,952,900	4,301,800	4,873,400	4,513,500	2,732,700	4,122,300	3,225,800	11,966,100	3,306,900	10,838,500	5,725,800	5,047,600	5,579,400

Table A-2 Tax Supported Debenture Issuance

Year of Issuance	Principal	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2025	957,478	-	-	-	-	-	118,048	118,048	118,048	118,048	118,048	118,048	118,048	118,048	118,048	118,048	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	957,478	-	-	-	-	-	118,048	118,048	118,048	118,048	118,048	118,048	118,048	118,048	118,048	118,048	-	-	-	-	-



Table A-3 Wastewater Debenture Issuance

	loodantoo																				
Year of Issuance	Principal	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2023	302,884	-	-	-	37,343	37,343	37,343	37,343	37,343	37,343	37,343	37,343	37,343	37,343	-	-	-	-	-	-	-
2024	264,639	-	-	-	-	32,628	32,628	32,628	32,628	32,628	32,628	32,628	32,628	32,628	32,628	-	-	-	-	-	-
2025	507,924	-	-	-	-	-	62,622	62,622	62,622	62,622	62,622	62,622	62,622	62,622	62,622	62,622	-	-	-	-	-
2026	512,119	-	-	-	-	-	-	63,140	63,140	63,140	63,140	63,140	63,140	63,140	63,140	63,140	63,140	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	1,587,566	-	-	-	37,343	69,970	132,593	195,732	195,732	195,732	195,732	195,732	195,732	195,732	158,390	125,762	63,140	-	-	-	-

Table A-4 Tax Supported Capital Reserve Funds¹

Tuble A + Tux Supported Suplar Reserve Tulk	45																			
Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Opening Balance	3,689,134	3,309,779	825,081	451,183	1,058,100	-	797,308	508,538	1,699,436	1,758,838	1,451,477	1,725,591	3,973,865	5,019,986	7,167,152	699,687	3,230,872	4,196,027	4,736,761	6,187,749
Transfer from Gas Tax	195,000	195,000	195,000	195,000	195,000	195,000	195,000	195,000	195,000	195,000	195,000	195,000	195,000	195,000	195,000	195,000	195,000	195,000	195,000	195,000
Transfer from Gas Tax (DYMO Bus)	14,458	14,458	14,458	14,458	14,458	14,458	14,458	14,458	14,458	14,458	14,458	14,458	14,458	14,458	14,458	14,458	14,458	14,458	14,458	14,458
Transfer from OCIF	159,429	159,429	159,429	159,429	159,429	159,429	159,429	159,429	159,429	159,429	159,429	159,429	159,429	159,429	159,429	159,429	159,429	159,429	159,429	159,429
Transfer from Wastewater (Internal Repayment)	22,596	22,596	22,596	22,596	22,596	22,596	22,596	22,596	22,595	-	-	-	-	-	-	-	-	-	-	-
Transfer from Operating	473,000	2,065,151	2,330,952	2,571,458	2,827,539	2,992,231	3,180,312	3,735,489	3,952,306	4,182,780	4,401,642	4,572,742	4,749,831	4,933,118	5,122,820	5,437,209	5,640,423	5,850,749	6,068,436	6,293,742
Transfer to Capital	1,276,608	4,949,500	3,100,800	2,366,500	4,277,122	2,594,300	3,865,600	2,952,900	4,301,800	4,873,400	4,513,500	2,732,700	4,122,300	3,225,800	11,966,100	3,306,900	5,085,700	5,725,800	5,047,600	5,579,400
Closing Balance	3,277,009	816,912	446,716	1,047,624	-	789,414	503,503	1,682,610	1,741,424	1,437,106	1,708,506	3,934,520	4,970,283	7,096,190	692,759	3,198,883	4,154,482	4,689,862	6,126,484	7,270,978
Interest	32,770	8,169	4,467	10,476	-	7,894	5,035	16,826	17,414	14,371	17,085	39,345	49,703	70,962	6,928	31,989	41,545	46,899	61,265	72,710

¹ Includes Gas Tax Reserve Funds

Table A-5 Wastewater Capital Reserve Funds

Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Opening Balance	48,693	(10,711)	80,357	101,000	101,000	101,000	101,000	399,240	802,926	1,322,752	1,992,947	2,803,519	3,656,787	4,554,391	5,535,741	6,598,212	7,774,251	3,256,577	4,546,576	5,893,485
Transfer from Operating	-	100,672	164,759	197,961	242,576	264,681	294,287	395,736	506,730	650,463	782,813	817,062	852,510	926,542	997,142	1,099,066	1,202,883	1,244,984	1,288,558	1,333,658
Transfer to Capital	59,298	10,400	145,116	198,961	243,576	265,681	-	-	-	-	-	-	-	-	-	-	5,752,800	-	-	-
Closing Balance	(10,605)	79,561	100,000	100,000	100,000	100,000	395,287	794,976	1,309,655	1,973,215	2,775,761	3,620,581	4,509,298	5,480,932	6,532,883	7,697,278	3,224,334	4,501,560	5,835,134	7,227,143
Interest	(106)	796	1,000	1,000	1,000	1,000	3,953	7,950	13,097	19,732	27,758	36,206	45,093	54,809	65,329	76,973	32,243	45,016	58,351	72,271



Table A-6 Operating Budget Forecast (Inflated	d \$)																			
Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Expenditures																				
Operating Expenditures																				
Tax Supported																				
General Government	1.306.572	1.332.700	1.359.400	1.386.500	1.414.300	1.442.600	1.471.400	1.500.800	1.530.900	1.561.500	1.592.700	1.624.600	1.657.000	1.690.200	1.724.000	1.758.500	1.793.600	1.829.500	1.866.100	1.903.400
Health	115,899	118,200	120,600	123,000	125,500	128,000	130,500	133,100	135,800	138,500	141,300	144,100	147,000	149,900	152,900	156,000	159,100	162,300	165,500	168,800
Planning	459,320	468,500	477,900	487,400	497,200	507,100	517,300	527,600	538,200	548,900	559,900	571,100	582,500	594,200	606,100	618,200	630,500	643,200	656,000	669,100
Protection to Persons & Property	3,472,168	3,541,600	3,612,400	3,684,700	3,758,400	3,833,600	3,910,200	3,988,400	4,068,200	4,149,600	4,232,600	4,317,200	4,403,500	4,491,600	4,581,500	4,673,100	4,766,500	4,861,900	4,959,100	5,058,300
Recreation & Culture	1,640,887	1,673,700	1,707,200	1,741,300	1,776,100	1,811,700	1,847,900	1,884,900	1,922,600	1,961,000	2,000,200	2,040,200	2,081,000	2,122,700	2,165,100	2,208,400	2,252,600	2,297,600	2,343,600	2,390,500
Social & Family Services	19,966	20,400	20,800	21,200	21,600	22,000	22,500	22,900	23,400	23,900	24,300	24,800	25,300	25,800	26,300	26,900	27,400	28,000	28,500	29,100
Taxation	49,980	51,000	52,000	53,000	54,100	55,200	56,300	57,400	58,600	59,700	60,900	62,100	63,400	64,700	65,900	67,300	68,600	70,000	71,400	72,800
Transportation	3,155,917	3,219,000	3,283,400	3,349,100	3,416,100	3,484,400	3,554,100	3,625,200	3,697,700	3,771,600	3,847,000	3,924,000	4,002,500	4,082,500	4,164,200	4,247,400	4,332,400	4,419,000	4,507,400	4,597,600
Waste Disposal	2,273,338	2,318,800	2,365,200	2,412,500	2,460,700	2,509,900	2,560,100	2,611,400	2,663,600	2,716,800	2,771,200	2,826,600	2,883,100	2,940,800	2,999,600	3,059,600	3,120,800	3,183,200	3,246,900	3,311,800
Water	6,610	6,700	6,900	7,000	7,200	7,300	7,400	7,600	7,700	7,900	8,100	8,200	8,400	8,600	8,700	8,900	9,100	9,300	9,400	9,600
Less: Capital-related Share of Equip. Rental	(360,961)	(368,200)	(375,500)	(383,100)	(390,700)	(398,500)	(406,500)	(414,600)	(422,900)	(431,400)	(440,000)	(448,800)	(457,800)	(466,900)	(476,300)	(485,800)	(495,500)	(505,400)	(515,500)	(525,900)
Wastewater	864,341	881,600	899,300	917,200	935,600	954,300	973,400	992,900	1,012,700	1,033,000	1,053,600	1,074,700	1,096,200	1,118,100	1,140,500	1,163,300	1,186,600	1,210,300	1,234,500	1,259,200
Capital-related Expenditures																				
Tax Supported																				
Transfers to Capital Res./R.F.s	473,000	2,065,151	2,330,952	2,571,458	2,827,539	2,992,231	3,180,312	3,735,489	3,952,306	4,182,780	4,401,642	4,572,742	4,749,831	4,933,118	5,122,820	5,437,209	5,640,423	5,850,749	6,068,436	6,293,742
Transfer to Capital	1,513,242	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Existing Debenture & Lease Repayments	884,504	754,721	649,876	577,224	495,178	393,545	393,545	33,732	19,680	-	-	-	-	-	-	-	-	-	-	-
New Debenture Repayments	-	-	-	-	-	118,048	118,048	118,048	118,048	118,048	118,048	118,048	118,048	118,048	118,048	-	-	-	-	-
Wastewater																				
Transfers to Capital Res./R.F.s	-	100,672	164,759	197,961	242,576	264,681	294,287	395,736	506,730	650,463	782,813	817,062	852,510	926,542	997,142	1,099,066	1,202,883	1,244,984	1,288,558	1,333,658
Transfer to Capital	42,299	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Existing Debenture Repayments (Internal)	22,596	22,596	22,596	22,596	22,596	22,596	22,596	22,596	22,595	-	-	-	-	-	-	-	-	-	-	-
New Debenture Repayments	-	-	-	37,343	69,970	132,593	195,732	195,732	195,732	195,732	195,732	195,732	195,732	158,390	125,762	63,140	-	-	-	-
New Debenture Repayments Total Expenditures	- 15,939,678	- 16,207,140	- 16,697,783	37,343 17,206,381	69,970 17,733,959	132,593 18,281,294	195,732 18,849,121	195,732 19,438,934	195,732 20,051,592	195,732 20,688,024	195,732 21,350,036	195,732 21,872,385	195,732 22,408,222	158,390 22,958,297	125,762 23,522,272	63,140 24,101,215	- 24,695,005	25,304,632	25,929,894	26,571,700
New Debenture Repayments Total Expenditures Revenues	- 15,939,678	- 16,207,140	- 16,697,783	37,343 17,206,381	69,970 17,733,959	132,593 18,281,294	195,732 18,849,121	195,732 19,438,934	195,732 20,051,592	195,732 20,688,024	195,732 21,350,036	195,732 21,872,385	195,732 22,408,222	158,390 22,958,297	125,762 23,522,272	63,140 24,101,215	- 24,695,005	- 25,304,632	25,929,894	- 26,571,700
New Debenture Repayments Total Expenditures Revenues Tax Supported	- 15,939,678	- 16,207,140	- 16,697,783	37,343 17,206,381	69,970 17,733,959	132,593 18,281,294	195,732 18,849,121	195,732 19,438,934	195,732 20,051,592	195,732 20,688,024	195,732 21,350,036	195,732 21,872,385	195,732 22,408,222	158,390 22,958,297	125,762 23,522,272	63,140 24,101,215	24,695,005	25,304,632	25,929,894	- 26,571,700
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government	- 15,939,678 2,300,740	- 16,207,140 2,341,700	- 16,697,783 2,388,500	37,343 17,206,381 2,436,300	69,970 17,733,959 2,485,000	132,593 18,281,294 2,534,700	<u>195,732</u> 18,849,121 2,585,400	195,732 19,438,934 2,637,100	195,732 20,051,592 2,689,800	195,732 20,688,024 2,743,600	195,732 21,350,036 2,798,500	195,732 21,872,385 2,854,500	195,732 22,408,222 2,911,600	158,390 22,958,297 2,969,800	125,762 23,522,272 3,029,200	63,140 24,101,215 3,089,800	- 24,695,005 3,151,600	25,304,632 3,214,600	- 25,929,894 3,278,900	- 26,571,700 3,344,500
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health	- 15,939,678 2,300,740 137,000	- 16,207,140 2,341,700 113,200	- 16,697,783 2,388,500 115,500	37,343 17,206,381 2,436,300 117,800	69,970 17,733,959 2,485,000 120,100	132,593 18,281,294 2,534,700 122,600	195,732 18,849,121 2,585,400 125,000	195,732 19,438,934 2,637,100 127,500	195,732 20,051,592 2,689,800 130,100	195,732 20,688,024 2,743,600 132,700	195,732 21,350,036 2,798,500 135,300	195,732 21,872,385 2,854,500 138,000	195,732 22,408,222 2,911,600 140,800	158,390 22,958,297 2,969,800 143,600	125,762 23,522,272 3,029,200 146,500	63,140 24,101,215 3,089,800 149,400	- 24,695,005 3,151,600 152,400	- 25,304,632 3,214,600 155,400	- 25,929,894 3,278,900 158,500	- 26,571,700 3,344,500 161,700
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning	- 15,939,678 2,300,740 137,000 62,800	- 16,207,140 2,341,700 113,200 64,100	- 16,697,783 2,388,500 115,500 65,300	37,343 17,206,381 2,436,300 117,800 66,600	69,970 17,733,959 2,485,000 120,100 68,000	132,593 18,281,294 2,534,700 122,600 69,300	195,732 18,849,121 2,585,400 125,000 70,700	195,732 19,438,934 2,637,100 127,500 72,100	195,732 20,051,592 2,689,800 130,100 73,600	195,732 20,688,024 2,743,600 132,700 75,100	195,732 21,350,036 2,798,500 135,300 76,600	195,732 21,872,385 2,854,500 138,000 78,100	195,732 22,408,222 2,911,600 140,800 79,600	158,390 22,958,297 2,969,800 143,600 81,200	125,762 23,522,272 3,029,200 146,500 82,900	63,140 24,101,215 3,089,800 149,400 84,500	- 24,695,005 3,151,600 152,400 86,200	- 25,304,632 3,214,600 155,400 87,900	- 25,929,894 3,278,900 158,500 89,700	- 26,571,700 3,344,500 161,700 91,500
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property	15,939,678 2,300,740 137,000 62,800 788,500	- 16,207,140 2,341,700 113,200 64,100 804,300	- 16,697,783 2,388,500 115,500 65,300 820,400	37,343 17,206,381 2,436,300 117,800 66,600 836,800	69,970 17,733,959 2,485,000 120,100 68,000 853,500	132,593 18,281,294 2,534,700 122,600 69,300 870,600	195,732 18,849,121 2,585,400 125,000 70,700 888,000	195,732 19,438,934 2,637,100 127,500 72,100 905,700	195,732 20,051,592 2,689,800 130,100 73,600 923,900	195,732 20,688,024 2,743,600 132,700 75,100 942,300	195,732 21,350,036 2,798,500 135,300 76,600 961,200	195,732 21,872,385 2,854,500 138,000 78,100 980,400	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200	- 24,695,005 3,151,600 152,400 86,200 1,082,400	- 25,304,632 3,214,600 155,400 87,900 1,104,100	25,929,894 3,278,900 158,500 89,700 1,126,200	- 26,571,700 3,344,500 161,700 91,500 1,148,700
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture	15,939,678 2,300,740 137,000 62,800 788,500 362,033	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300	132,593 18,281,294 2,534,700 122,600 69,300 870,600 245,100	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100	- 26,571,700 3,344,500 161,700 91,500 1,148,700 323,500
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services	15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300	132,593 18,281,294 2,534,700 122,600 69,300 870,600 245,100 4,400	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000 4,600	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200 5,200	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700	- 26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services Taxation	15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000 10,368,339	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300	132,593 18,281,294 2,534,700 122,600 69,300 870,600 245,100 4,400	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000 4,600	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200 5,200	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700	- 26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services Taxation Transportation	15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000 10,368,339 192,880	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100 196,700	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200 200,700	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200 204,700	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300 208,800	132,593 18,281,294 2,534,700 122,600 69,300 870,600 245,100 4,400 213,000	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500 217,200	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000 4,600 221,600	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700 226,000	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800 230,500	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900 235,100	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000 239,800	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100 244,600	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200 5,200 249,500	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300 254,500	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400 259,600	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500 264,800	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600 270,100	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700 275,500	- 26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800 281,000
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services Taxation Transportation Waste Disposal	15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000 10,368,339 192,880 792,700	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100 196,700 772,600	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200 200,700 788,000	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200 204,700 803,800	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300 208,800 819,900	132,593 18,281,294 2,534,700 122,600 69,300 870,600 245,100 4,400 213,000 836,300	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500 217,200 853,000	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000 4,600 221,600 870,100	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700 226,000 887,500	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800 230,500 905,200	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900 235,100 923,300	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000 239,800 941,800	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100 244,600 960,600	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200 5,200 249,500 979,800	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300 254,500 999,400	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400 259,600 1,019,400	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500 264,800 1,039,800	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600 270,100 1,060,600	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700 275,500 1,081,800	26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800 281,000 1,103,400
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services Taxation Transportation Waste Disposal Water	15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000 10,368,339 192,880 792,700 1,450	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100 196,700 772,600 1,500	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200 200,700 788,000 1,500	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200 204,700 803,800 1,500	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300 4,300 208,800 819,900 1,600	132,593 18,281,294 2,534,700 122,600 69,300 870,600 245,100 4,400 213,000 836,300 1,600	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500 217,200 853,000 1,600	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000 4,600 221,600 870,100 1,700	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700 226,000 887,500 1,700	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800 230,500 905,200 1,700	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900 235,100 923,300 1,800	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000 239,800 941,800 1,800	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100 244,600 960,600 1,800	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200 5,200 249,500 979,800 1,900	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300 5,300 254,500 999,400 1,900	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400 259,600 1,019,400 2,000	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500 264,800 1,039,800 2,000	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600 270,100 1,060,600 2,000	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700 2,75,500 1,081,800 2,100	- 26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800 281,000 1,103,400 2,100
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services Taxation Transportation Waste Disposal Waste water	- 15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000 10,368,339 192,880 792,700 1,450 929,236	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100 196,700 772,600 1,500	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200 200,700 788,000 1,500	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200 204,700 803,800 1,500	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300 4,300 208,800 819,900 1,600	132,593 18,281,294 2,534,700 122,600 69,300 870,600 245,100 4,400 213,000 836,300 1,600	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500 217,200 853,000 1,600	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000 4,600 221,600 870,100 1,700	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700 226,000 887,500 1,700	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800 230,500 905,200 1,700	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900 235,100 923,300 1,800	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000 239,800 941,800 1,800	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100 244,600 960,600 1,800	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200 5,200 249,500 979,800 1,900	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300 5,300 254,500 999,400 1,900	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400 259,600 1,019,400 2,000	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500 264,800 1,039,800 2,000	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600 270,100 1,060,600 2,000	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700 275,500 1,081,800 2,100	- 26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800 281,000 1,103,400 2,100
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services Taxation Transportation Waste Disposal Water Wastewater Total Revenues	- 15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000 10,368,339 192,880 792,700 1,450 929,236 15,939,678	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100 196,700 772,600 1,500 4,524,700	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200 200,700 788,000 1,500 4,615,100	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200 204,700 803,800 1,500 4,707,300	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300 208,800 819,900 1,600 4,801,500	132,593 18,281,294 2,534,700 122,600 69,300 870,600 245,100 4,400 213,000 836,300 1,600 4,897,600	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500 217,200 853,000 1,600 4,995,400	195,732 19,438,934 2,637,100 127,500 72,100 905,700 905,700 255,000 4,600 221,600 870,100 1,700 5,095,400	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700 226,000 887,500 1,700 5,197,400	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800 230,500 905,200 1,700 5,301,200	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900 235,100 923,300 1,800 5,407,400	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000 239,800 941,800 1,800 5,515,500	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100 244,600 960,600 1,800 5,625,700	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200 5,200 249,500 979,800 1,900 5,738,200	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300 254,500 999,400 1,900 5,853,100	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400 259,600 1,019,400 2,000 5,970,100	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500 264,800 1,039,800 2,000 6,089,500	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600 270,100 1,060,600 2,000 6,211,200	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700 2,75,500 1,081,800 2,100 6,335,500	- 26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800 281,000 1,103,400 2,100 6,462,200
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services Taxation Transportation Waste Disposal Water Wastewater Total Revenues Tax Supported	15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000 10,368,339 192,880 792,700 1,450 929,236 15,939,678	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100 196,700 772,600 1,500 4,524,700	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200 200,700 788,000 1,500 4,615,100	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200 204,700 803,800 1,500 4,707,300	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300 208,800 819,900 1,600 4,801,500	132,593 18,281,294 2,534,700 122,600 69,300 870,600 245,100 4,400 213,000 836,300 1,600 4,897,600	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500 217,200 853,000 1,600 4,995,400	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000 4,600 221,600 870,100 1,700 5,095,400	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700 226,000 887,500 1,700 5,197,400	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800 230,500 905,200 1,700 5,301,200	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900 235,100 923,300 1,800 5,407,400	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000 239,800 941,800 1,800 5,515,500	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100 244,600 960,600 1,800 5,625,700	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200 5,200 249,500 979,800 1,900 5,738,200	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300 254,500 999,400 1,900 5,853,100	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400 259,600 1,019,400 2,000 5,970,100	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500 264,800 1,039,800 2,000 6,089,500	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600 270,100 1,060,600 2,000 6,211,200	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700 275,500 1,081,800 2,100 6,335,500	- 26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800 281,000 1,103,400 2,100 6,462,200
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services Taxation Transportation Waste Disposal Water Wastewater Total Revenues Tax Revenues Required	15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000 10,368,339 192,880 792,700 1,450 929,236 15,939,678	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100 196,700 772,600 1,500 4,524,700 10,677,572	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200 200,700 788,000 1,500 4,615,100 10,996,028	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200 204,700 803,800 1,500 4,707,300 11 ,323,982	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300 208,800 819,900 1,600 4,801,500 11,661,717	132,593 18,281,294 2,534,700 122,600 69,300 870,600 245,100 4,400 213,000 836,300 1,600 4,897,600 12,009,525	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500 217,200 853,000 1,600 4,995,400 12,367,706	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000 4,600 221,600 870,100 1,700 5,095,400 12,736,569	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700 226,000 887,500 1,700 5,197,400 13,116,434	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800 230,500 905,200 1,700 5,301,200 13,507,629	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900 235,100 923,300 1,800 5,407,400 13,910,490	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000 239,800 941,800 1,800 1,800 1,800 14,269,391	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100 244,600 960,600 1,800 5,625,700 14,638,079	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200 5,200 249,500 979,800 1,900 5,738,200 15,017,066	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300 254,500 999,400 1,900 5,853,100 15,405,768	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400 259,600 1,019,400 2,000 5,970,100 15,805,609	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500 264,800 1,039,800 2,000 6,089,500 16,216,023	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600 270,100 1,060,600 2,000 6,211,200 16,638,149	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700 275,500 1,081,800 2,100 6,335,500 17,071,336	- 26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800 281,000 1,103,400 2,100 6,462,200 17,516,642
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services Taxation Transportation Waste Disposal Water Wastewater Total Revenues Tax Supported Tax Revenues Required Prior Year Tax Levy	15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000 103,68,339 192,880 792,700 1,450 929,236 15,939,678	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100 196,700 772,600 1,500 4,524,700 10,677,572 10,368,339	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200 200,700 788,000 1,500 4,615,100 10,996,028 10,677,572	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200 204,700 803,800 1,500 4,707,300 11 ,323,982 10,996,028	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300 208,800 819,900 1,600 4,801,500 11 ,661,717 11,323,982	132,593 18,281,294 2,534,700 122,600 69,300 245,100 245,100 4,400 213,000 836,300 1,600 12,009,525 11,661,717	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500 217,200 853,000 1,600 4,995,400 12,367,706 12,009,525	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000 4,600 221,600 870,100 1,700 5,095,400 12,736,569 12,367,706	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700 226,000 887,500 1,700 5,197,400 13,116,434 12,736,569	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800 230,500 905,200 1,700 5,301,200 13,507,629 13,116,434	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900 235,100 923,300 1,800 5,407,400 13,910,490 13,507,629	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000 239,800 941,800 1,800 1,800 1,800 14,269,391 13,910,490	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100 244,600 960,600 1,800 5,625,700 14,638,079 14,269,391	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200 5,200 249,500 979,800 1,900 5,738,200 15,017,066 14,638,079	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300 254,500 999,400 1,900 5,853,100 15,405,768 15,405,768	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400 259,600 1,019,400 2,000 5,970,100 15,805,609 15,405,768	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500 264,800 1,039,800 2,000 6,089,500 16,216,023 15,805,609	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600 270,100 1,060,600 2,000 6,211,200 16,638,149 16,216,023	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700 1,081,800 2,100 6,335,500 17,071,336 16,638,149	- 26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800 281,000 1,103,400 2,100 6,462,200 17,516,642 17,071,336
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services Taxation Transportation Waste Disposal Water Wastewater Total Revenues Tax Revenues Required Prior Year Tax Levy Add: Tax Revenues from Incremental Assessr	15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000 10,368,339 192,880 792,700 1,450 929,236 15,939,678	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100 196,700 772,600 1,500 4,524,700 10,677,572 10,368,339 134,788	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200 200,700 788,000 1,500 4,615,100 10,996,028 10,677,572 138,808	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200 204,700 803,800 1,500 4,707,300 11 ,323,982 10,996,028 142,948	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300 208,800 819,900 1,600 11,661,717 11,323,982 147,212	132,593 18,281,294 2,534,700 122,600 69,300 245,100 4,400 213,000 836,300 1,600 4,897,600 12,009,525 11,661,717 151,602	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500 217,200 853,000 1,600 4,995,400 12,367,706 12,009,525 156,124	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000 4,600 221,600 870,100 1,700 5,095,400 12,736,569 12,367,706 160,780	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700 226,000 887,500 1,700 5,197,400 13,116,434 12,736,569 165,575	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800 230,500 905,200 1,700 5,301,200 13,507,629 13,116,434 170,514	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900 235,100 923,300 1,800 5,407,400 13,910,490 13,507,629 175,599	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000 239,800 941,800 1,800 1,800 1,800 14,269,391 13,910,490 180,836	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100 244,600 960,600 1,800 14,638,079 14,269,391 185,502	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200 5,200 249,500 979,800 1,900 5,738,200 15,017,066 14,638,079 190,295	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300 254,500 999,400 1,900 5,853,100 15,405,768 15,017,066 195,222	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400 259,600 1,019,400 2,000 5,970,100 15,805,609 15,405,768 200,275	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500 264,800 1,039,800 2,000 6,089,500 16,216,023 15,805,609 205,473	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600 270,100 1,060,600 2,000 6,211,200 16,638,149 16,216,023 210,808	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700 275,500 1,081,800 2,100 6,335,500 17,071,336 16,638,149 216,296	- 26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800 281,000 1,103,400 2,100 6,462,200 17,516,642 17,071,336 221,927
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services Taxation Transportation Waste Disposal Water Wastewater Total Revenues Tax Supported Tax Revenues Required Prior Year Tax Levy Add: Tax Revenues at 0% Tax Rate Increase	- 15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000 10,368,339 192,880 792,700 1,450 929,236 15,939,678	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100 196,700 772,600 1,500 4,524,700 10,677,572 10,368,339 134,788 10,503,127	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200 200,700 788,000 1,500 4,615,100 10,996,028 10,677,572 138,808 10,816,381	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200 204,700 803,800 1,500 4,707,300 11,323,982 10,996,028 142,948 11,138,976	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300 208,800 819,900 1,600 1 ,600 1 ,600 1 ,600 1 ,601,717 1 ,323,982 147,212 1 ,471,194	132,593 18,281,294 2,534,700 122,600 69,300 245,100 245,100 4,400 213,000 836,300 1,600 12,009,525 11,661,717 151,602 11,813,319	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500 217,200 853,000 1,600 4,995,400 12,367,706 12,009,525 156,124 12,165,648	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000 4,600 221,600 870,100 1,700 5,095,400 12,736,569 12,367,706 160,780 12,528,486	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700 226,000 887,500 1,700 5,197,400 13,116,434 12,736,569 165,575 12,902,145	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800 230,500 905,200 1,700 13,507,629 13,507,629 13,116,434 170,514 13,286,948	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900 235,100 923,300 1,800 13,910,490 13,910,490 13,507,629 175,599 13,683,228	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000 239,800 941,800 1,800 1,800 14,269,391 13,910,490 180,836 14,091,327	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100 244,600 960,600 1,800 14,638,079 14,638,079 14,269,391 185,502 14,454,893	158,390 22,958,297 2,969,800 143,600 81,200 2,900 287,200 5,200 249,500 979,800 1,900 5,738,200 15,017,066 14,638,079 190,295 14,828,374	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300 254,500 999,400 1,900 5,853,100 15,405,768 15,017,066 195,222 15,212,288	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400 259,600 1,019,400 2,000 5,970,100 15,805,609 15,405,768 200,275 15,606,043	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500 264,800 1,039,800 2,000 6,089,500 16,216,023 15,805,609 205,473 16,011,082	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600 270,100 1,060,600 2,000 6,211,200 6,211,200 16,638,149 16,216,023 210,808 16,426,831	- 25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700 275,500 1,081,800 2,100 6,335,500 17,071,336 16,638,149 216,296 16,854,444	- 26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800 281,000 1,103,400 2,100 6,462,200 17,516,642 17,071,336 221,927 17,293,263
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services Taxation Transportation Waste Disposal Water Wastewater Total Revenues Tax Supported Tax Revenues Required Prior Year Tax Levy Add: Tax Revenues at 0% Tax Rate Increase Additional Increase in Tax Levy	- 15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000 10,368,339 192,880 792,700 1,450 929,236 15,939,678	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100 196,700 772,600 1,500 4,524,700 10,677,572 10,368,339 134,788 10,503,127 174,445	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200 200,700 788,000 1,500 4,615,100 10,996,028 10,677,572 138,808 10,816,381 179,647	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200 204,700 803,800 1,500 4,707,300 11,323,982 10,996,028 142,948 11,138,976 185,005	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300 208,800 819,900 1,600 1 ,600 1 ,717 1 ,323,982 1 ,47,212 1 ,471,194 1 ,90,523	132,593 18,281,294 2,534,700 122,600 69,300 870,600 245,100 4,400 213,000 836,300 1,600 4,897,600 12,009,525 11,661,717 151,602 11,813,319 196,205	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500 217,200 853,000 1,600 4,995,400 12,367,706 12,009,525 156,124 12,165,648 202,057	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000 4,600 221,600 870,100 1,700 5,095,400 12,736,569 12,367,706 160,780 12,528,486 208,084	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700 226,000 887,500 1,700 5,197,400 13,116,434 12,736,569 165,575 12,902,145 214,290	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800 230,500 905,200 1,700 5,301,200 13,507,629 13,116,434 170,514 13,286,948 220,681	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900 235,100 923,300 1,800 13,910,490 13,910,490 13,507,629 175,599 13,683,228 227,262	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000 239,800 941,800 1,800 1,800 14,269,391 13,910,490 180,836 14,091,327 178,064	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100 244,600 960,600 1,800 5,625,700 14,638,079 14,269,391 185,502 14,454,893 183,187	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200 5,200 249,500 979,800 1,900 5,738,200 15,017,066 14,638,079 190,295 14,828,374 188,692	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300 254,500 999,400 1,900 5,853,100 15,405,768 15,017,066 195,222 15,212,288 193,480	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400 259,600 1,019,400 2,000 5,970,100 15,805,609 15,405,768 200,275 15,606,043 199,566	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500 264,800 1,039,800 2,000 6,089,500 16,216,023 15,805,609 205,473 16,011,082 204,940	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600 270,100 1,060,600 2,000 6,211,200 16,638,149 16,216,023 210,808 16,426,831 211,318	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700 275,500 1,081,800 2,100 6,335,500 17,071,336 16,638,149 216,296 16,854,444 216,891	- 26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800 281,000 1,103,400 2,100 6,462,200 17,516,642 17,071,336 221,927 17,293,263 223,379
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services Taxation Transportation Waste Disposal Water Wastewater Total Revenues Tax Revenues Required Prior Year Tax Levy Add: Tax Revenues at 0% Tax Rate Increase Additional Increase in Tax Levy Total Tax Revenues	- 15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000 10,368,339 192,880 792,700 1,450 929,236 15,939,678	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100 772,600 1,500 4,524,700 10,677,572 10,368,339 134,788 10,503,127 174,445 10,677,572	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200 200,700 788,000 1,500 10,996,028 10,677,572 138,808 10,816,381 179,647 10,996,028	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200 204,700 803,800 1,500 4,707,300 11,323,982 10,996,028 142,948 11,138,976 185,005 11,323,982	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300 208,800 819,900 1,600 4,801,500 11,661,717 11,323,982 147,212 11,471,194 190,523 11,661,717	132,593 18,281,294 2,534,700 122,600 69,300 870,600 245,100 4,400 213,000 836,300 1,600 4,897,600 12,009,525 11,661,717 151,602 11,813,319 196,205 12,009,525	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500 217,200 853,000 1,600 4,995,400 12,367,706 12,009,525 156,124 12,165,648 202,057 12,367,706	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000 4,600 221,600 870,100 1,700 5,095,400 12,736,569 12,367,706 160,780 12,528,486 208,084 12,736,569	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700 226,000 887,500 1,700 13,116,434 12,736,569 165,575 12,902,145 214,290 13,116,434	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800 230,500 905,200 1,700 13,507,629 13,116,434 170,514 13,286,948 220,681 13,507,629	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900 235,100 923,300 1,800 13,910,490 13,910,490 13,683,228 227,262 13,910,490	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000 239,800 941,800 1,800 1,800 14,269,391 13,910,490 180,836 14,091,327 178,064 14,269,391	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100 244,600 960,600 1,800 5,625,700 14,638,079 14,269,391 185,502 14,454,893 183,187 14,638,079	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200 5,200 249,500 979,800 1,900 5,738,200 15,017,066 14,638,079 190,295 14,828,374 188,692 15,017,066	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300 254,500 999,400 1,900 5,853,100 15,405,768 15,017,066 195,222 15,212,288 193,480 15,405,768	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400 259,600 1,019,400 2,000 5,970,100 15,805,609 15,405,768 200,275 15,606,043 199,566 15,805,609	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500 264,800 1,039,800 2,000 6,089,500 16,216,023 15,805,609 205,473 16,011,082 204,940 16,216,023	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600 270,100 1,060,600 2,000 6,211,200 16,638,149 16,216,023 210,808 16,426,831 211,318 16,638,149	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700 275,500 1,081,800 2,100 6,335,500 17,071,336 16,638,149 216,296 16,854,444 216,891 17,071,336	- 26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800 281,000 1,103,400 2,100 6,462,200 17,516,642 17,071,336 221,927 17,293,263 223,379 17,516,642
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services Taxation Transportation Waste Disposal Water Wastewater Total Revenues Tax Revenues Required Prior Year Tax Levy Add: Tax Revenues at 0% Tax Rate Increase Additional Increase in Tax Levy Total Tax Revenues Estimated Impact on Tax Bills	- 15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000 10,368,339 192,880 792,700 1,450 929,236 15,939,678	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100 772,600 1,500 4,524,700 10,677,572 10,368,339 134,788 10,503,127 174,445 10,677,572 1.7%	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200 200,700 788,000 1,500 10,996,028 10,677,572 138,808 10,816,381 179,647 10,996,028 1.7%	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200 204,700 803,800 1,500 4,707,300 11,323,982 10,996,028 142,948 11,138,976 185,005 11,323,982 1.7%	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300 208,800 819,900 1,600 4,801,500 11,661,717 11,323,982 147,212 11,471,194 190,523 11,661,717 1,7%	132,593 18,281,294 2,534,700 122,600 69,300 870,600 245,100 4,400 213,000 836,300 1,600 4,897,600 12,009,525 11,661,717 151,602 11,813,319 196,205 12,009,525 12,009,505 12,009,505 12,000 12,000 12	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500 217,200 853,000 1,600 4,995,400 12,367,706 12,009,525 156,124 12,165,648 202,057 12,367,706 1.7%	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000 4,600 221,600 870,100 1,700 5,095,400 12,736,569 12,367,706 160,780 12,528,486 208,084 12,736,569 1.7%	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700 226,000 887,500 1,700 13,116,434 12,736,569 165,575 12,902,145 214,290 13,116,434 1.7%	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800 230,500 905,200 1,700 13,507,629 13,116,434 170,514 13,286,948 220,681 13,507,629 1.7%	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900 235,100 923,300 1,800 13,910,490 13,507,629 13,683,228 227,262 13,910,490 1.7%	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000 239,800 941,800 1,800 14,269,391 13,910,490 180,836 14,091,327 178,064 14,269,391 1.3%	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100 244,600 960,600 1,800 5,625,700 14,638,079 14,269,391 185,502 14,454,893 183,187 14,638,079 1.3%	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200 5,200 249,500 979,800 1,900 5,738,200 15,017,066 14,638,079 190,295 14,828,374 188,692 15,017,066 1,3%	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300 254,500 999,400 1,900 5,853,100 15,405,768 15,017,066 195,222 15,212,288 193,480 15,405,768 1,3%	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400 259,600 1,019,400 2,000 5,970,100 15,805,609 15,805,609 15,606,043 199,566 15,805,609 1.3%	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500 264,800 1,039,800 2,000 6,089,500 16,216,023 15,805,609 205,473 16,011,082 204,940 16,216,023 1.3%	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600 270,100 1,060,600 2,000 6,211,200 16,638,149 16,216,023 210,808 16,426,831 211,318 16,638,149 1.3%	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700 275,500 1,081,800 2,100 6,335,500 17,071,336 16,638,149 216,296 16,854,444 216,891 17,071,336 1.3%	- 26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800 281,000 1,103,400 2,100 6,462,200 17,516,642 17,071,336 221,927 17,293,263 223,379 17,516,642 1.3%
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services Taxation Transportation Waste Disposal Water Wastewater Total Revenues Tax Revenues Required Prior Year Tax Levy Add: Tax Revenues from Incremental Assessr Tax Revenues at 0% Tax Rate Increase Additional Increase in Tax Levy Total Tax Revenues Estimated Impact on Tax Bills	T15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000 10,368,339 192,880 792,700 1,450 929,236 15,939,678 ment	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100 772,600 1,500 4,524,700 10,677,572 10,368,339 134,788 10,503,127 174,445 10,677,572 1.7%	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200 200,700 788,000 1,500 4,615,100 10,996,028 10,677,572 138,808 10,816,381 179,647 10,996,028 1.7%	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200 204,700 803,800 1,500 4,707,300 11,323,982 10,996,028 142,948 11,138,976 185,005 11,323,982 1.7%	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300 208,800 819,900 1,600 4,801,500 11,661,717 11,323,982 147,212 11,471,194 190,523 11,661,717 1.7%	132,593 18,281,294 2,534,700 122,600 69,300 870,600 245,100 4,400 213,000 836,300 1,600 4,897,600 12 ,009,525 11,661,717 151,602 11,813,319 196,205 12,009,525 1.7%	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500 217,200 853,000 1,600 4,995,400 12,367,706 12,009,525 156,124 12,165,648 202,057 12,367,706 1.7%	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000 4,600 221,600 870,100 1,700 12,736,569 12,367,706 160,780 12,528,486 208,084 12,736,569 1.7%	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700 226,000 887,500 1,700 13,116,434 12,736,569 165,575 12,902,145 214,290 13,116,434 1.7%	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800 230,500 905,200 1,700 13,507,629 13,116,434 170,514 13,286,948 220,681 13,507,629 1.7%	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900 235,100 923,300 1,800 13,910,490 13,507,629 13,683,228 227,262 13,910,490 1.7%	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000 239,800 941,800 14,269,391 13,910,490 180,836 14,091,327 178,064 14,269,391 1.3%	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100 244,600 960,600 1,800 14,638,079 14,638,079 14,269,391 185,502 14,454,893 183,187 14,638,079 1.3%	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200 5,200 249,500 979,800 1,900 15,017,066 14,638,079 190,295 14,828,374 188,692 15,017,066 1.3%	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300 254,500 999,400 1,900 5,853,100 15,405,768 15,017,066 195,222 15,212,288 193,480 15,405,768 1,3%	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400 1,019,400 2,000 5,970,100 15,805,609 15,805,609 15,606,043 199,566 15,805,609 1.3%	24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500 264,800 1,039,800 2,000 6,089,500 16,216,023 15,805,609 205,473 16,011,082 204,940 16,216,023 1.3%	25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600 270,100 1,060,600 2,000 6,211,200 16,638,149 16,216,023 210,808 16,426,831 211,318 16,638,149 1.3%	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700 275,500 1,081,800 2,100 6,335,500 17,071,336 16,638,149 216,296 16,854,444 216,891 17,071,336 1.3%	26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800 281,000 1,103,400 2,100 6,462,200 17,516,642 17,071,336 221,927 17,293,263 223,379 17,516,642 1.3%
New Debenture Repayments Total Expenditures Revenues Tax Supported General Government Health Planning Protection to Persons & Property Recreation & Culture Social & Family Services Taxation Transportation Waste Disposal Water Wastewater Total Revenues Tax Revenues Required Prior Year Tax Levy Add: Tax Revenues from Incremental Assessr Tax Revenues at 0% Tax Rate Increase Additional Increase in Tax Levy Total Tax Revenues Estimated Impact on Tax Bills Wastewater Required Revenues	- 15,939,678 2,300,740 137,000 62,800 788,500 362,033 4,000 10,368,339 192,880 792,700 1,450 929,236 15,939,678	- 16,207,140 2,341,700 113,200 64,100 804,300 226,500 4,100 196,700 772,600 1,500 4,524,700 10,677,572 10,368,339 134,788 10,503,127 174,445 10,677,572 1.7% 1,004,868	- 16,697,783 2,388,500 115,500 65,300 820,400 231,000 4,200 200,700 788,000 1,500 4,615,100 10,996,028 10,677,572 138,808 10,816,381 179,647 10,996,028 1.7% 1,086,655	37,343 17,206,381 2,436,300 117,800 66,600 836,800 235,600 4,200 204,700 803,800 1,500 4,707,300 11,323,982 10,996,028 142,948 11,138,976 185,005 11,323,982 1,7% 1,175,100	69,970 17,733,959 2,485,000 120,100 68,000 853,500 240,300 4,300 208,800 819,900 1,600 4,801,500 11,661,717 11,323,982 147,212 11,471,194 190,523 11,661,717 1,270,743	132,593 18,281,294 2,534,700 122,600 69,300 870,600 245,100 4,400 213,000 836,300 1,600 4,897,600 12,009,525 11,661,717 151,602 11,813,319 196,205 12,009,525 1.7% 1,374,170	195,732 18,849,121 2,585,400 125,000 70,700 888,000 250,000 4,500 217,200 853,000 1,600 4,995,400 12,367,706 12,009,525 156,124 12,165,648 202,057 12,367,706 1.7% 1,486,015	195,732 19,438,934 2,637,100 127,500 72,100 905,700 255,000 4,600 221,600 870,100 1,700 12,736,569 12,367,706 160,780 12,528,486 208,084 12,736,569 1,7% 1,606,964	195,732 20,051,592 2,689,800 130,100 73,600 923,900 260,100 4,700 226,000 887,500 1,700 13,116,434 12,736,569 165,575 12,902,145 214,290 13,116,434 1.7% 1,737,757	195,732 20,688,024 2,743,600 132,700 75,100 942,300 265,300 4,800 230,500 905,200 1,700 13,507,629 13,116,434 170,514 13,286,948 220,681 13,507,629 1.7% 1,879,196	195,732 21,350,036 2,798,500 135,300 76,600 961,200 270,700 4,900 235,100 923,300 1,800 13,910,490 13,507,629 175,599 13,683,228 227,262 13,910,490 1.7% 2,032,146	195,732 21,872,385 2,854,500 138,000 78,100 980,400 276,100 5,000 239,800 941,800 14,269,391 13,910,490 180,836 14,091,327 178,064 14,269,391 1.3% 2,087,495	195,732 22,408,222 2,911,600 140,800 79,600 1,000,000 281,600 5,100 244,600 960,600 1,800 14,638,079 14,269,391 14,638,079 14,269,391 185,502 14,454,893 183,187 14,638,079 1.3% 2,144,443	158,390 22,958,297 2,969,800 143,600 81,200 1,020,000 287,200 5,200 249,500 979,800 1,900 5,738,200 15,017,066 14,638,079 190,295 14,828,374 188,692 15,017,066 1.3% 2,203,031	125,762 23,522,272 3,029,200 146,500 82,900 1,040,400 293,000 5,300 254,500 999,400 1,900 5,853,100 15,405,768 15,017,066 195,222 15,212,288 193,480 15,405,768 133,480	63,140 24,101,215 3,089,800 149,400 84,500 1,061,200 298,800 5,400 259,600 1,019,400 2,000 5,970,100 15,805,609 15,405,768 200,275 15,606,043 199,566 15,805,609 1.3% 2,325,506	- 24,695,005 3,151,600 152,400 86,200 1,082,400 304,800 5,500 264,800 1,039,800 2,000 6,089,500 16,216,023 15,805,609 205,473 16,011,082 204,940 16,216,023 1.3% 2,389,483	- 25,304,632 3,214,600 155,400 87,900 1,104,100 310,900 5,600 270,100 1,060,600 2,000 6,211,200 16,638,149 16,216,023 210,808 16,426,831 211,318 16,638,149 1.3% 2,455,284	25,929,894 3,278,900 158,500 89,700 1,126,200 317,100 5,700 275,500 1,081,800 2,100 6,335,500 17,071,336 16,638,149 216,296 16,854,444 216,891 17,071,336 1.3% 2,523,058	- 26,571,700 3,344,500 161,700 91,500 1,148,700 323,500 5,800 281,000 1,103,400 2,100 6,462,200 17,516,642 17,071,336 221,927 17,293,263 223,379 17,516,642 1.3% 2,592,858





Appendix B Facilities List



Table B-1 Facilities List

Department	Building Description (Site Reference - Name)	Estimated Replacement Value
Administration	15 - Town Hall	\$2,498,253
Administration	18 - Canoe Radio Station/CTY Library Admin	\$803,405
Fire	21 - Fire Hall	\$911,913
Health	19 - Medical Centre	\$3,941,107
Health	20a - Cemetery Vault	\$200,704
Health	20b - Cemetery Storage	\$56,443
Health	20c - 96 Niche Columbarium- 4 sided Granite	\$51,619
Public Works	32a - Main Roads Garage Building, concrete block	\$1,440,895
Public Works	32b - Outbuilding - Storage Shed 15' x 20', wood frame metal exterior	\$145,725
Public Works	32c - Large Outbuilding - Light House	\$40,177
Recreation and Culture	22 - Glebe Park Privys	\$24,346
Recreation and Culture	23a - Rotary Beach Washrooms	\$214,056
Recreation and Culture	23b - Bandshell at Head Lake	\$90,779
Recreation and Culture	23c - Privies at Head Lake Park	\$51,224
Recreation and Culture	24a - Parks Storage	\$495,187
Recreation and Culture	24b - Skateboard Park Shelter	\$7,693
Recreation and Culture	24c - Dysart Community Centre/Arena	\$3,598,979
Recreation and Culture	25 - Curling Club, metal clad	\$1,963,092
Recreation and Culture	26 - Drag - 4C's	\$843,583
Recreation and Culture	27 - West Guilford Community Centre	\$1,963,704
Recreation and Culture	28 - Old Dysart Library, masonry	\$597,930
Recreation and Culture	29 - Dysart Library & Administrative Centre	\$1,097,562
Recreation and Culture	30a - Museum	\$815,223
Recreation and Culture	30b - Museum - Barn	\$72,791
Recreation and Culture	30c - Museum - Artifact Bldg.	\$61,745
Recreation and Culture	30d - Museum Building - Log Cabin, with kitchen addition	\$105,668
Recreation and Culture	30e - Museum Building - Blacksmith's	\$21,328
Recreation and Culture	30f - Reid House	\$155,278



Department	Building Description (Site Reference - Name)	Estimated Replacement Value
Recreation and Culture	31 - Rails End Gallery, frame	\$2,421,528
Recreation and Culture	33a - Parks Pavillion	\$51,075
Recreation and Culture	33b - Concession Stand	\$124,447
Recreation and Culture	33c - Harcourt Community Centre - Rebuild	\$740,654
Recreation and Culture	33d - Harcourt Snack Bar, block building, 20'x40'	\$50,908
Recreation and Culture	34 - South Bay Park, Shelter	\$63,896
Recreation and Culture	35a - Eagle Lake Park, Shelter	\$38,187
Recreation and Culture	35b - Eagle Lake Park, Privies	\$24,463
Solid Waste	14a - Equipment Shelter at Landfill	\$247,460
Solid Waste	14b - Office trailer for Haliburton Landfill	\$98,744
Solid Waste	36 - West Guilford Landfill	\$82,582
Solid Waste	37 - Kennisis Landfill Office	\$66,481
Solid Waste	38 - West Bay Landfill	\$143,341
Solid Waste	39 - Harcourt Landfill	\$98,180
Total		\$26,522,351