



Asset Management Plan Report Version 2.0

Municipality of Tweed
County of Hastings, Ontario

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Report Versions

Revision No.	Date	Report Version	Description
0	December 06, 2019	1.0	AMP including core assets roads, bridges/large culverts, water, wastewater asset groups
1	June 28, 2021	1.1	AMP update, including core asset group, stormwater assets
2	August 31, 2021	1.2	AMP update, including water and stormwater asset updates
3	January 31, 2023	2.0	AMP updates, including core assets and inclusion of municipal building and facility asset study (Phase 1) as of December 31, 2021

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1.0 Introduction

1.1 Municipal Information

The Municipality of Tweed (Municipality) is an amalgamated municipality in southern and central Hastings County, Ontario, comprised of the former geographic Township of Grimsthorpe, Township of Elzevir, Township of Hungerford, and the Village of Tweed.

Based on 2021 Census data (Statistics Canada, 2021), the Municipality had a population of 6,067 (Table 1). Per 2021 Census data (Statistics Canada, 2021), the land area of the Municipality was approximately 919 square kilometres (km²); however, based on mapping data provided by the County of Hastings (2019), the land area of the Municipality, including the geographic Township of Grimsthorpe, Elzevir, and Hungerford (and the Village of Tweed) was approximately 975 km². For the purposes of this study, the approximate land area of 975 km² has been used. The Municipality's population density per km² is reportedly 6.6, based on Statistics Canada's reported land area, and 6.2 based on the County of Hastings reported land area. As of 2021, there were reportedly 3,042 private dwellings within the municipality, with 2,591 dwellings occupied by usual residents.

The Municipality's operating budget in 2021 was approximately \$8,601,870.

This Asset Management Plan Report (AMP) has been prepared in general accordance with the requirements of Ontario Regulation (O.Reg.) 588/17 – *Asset Management Planning for Municipal Infrastructure*, as amended by O.Reg. 193/21 (Appendix A).

1.2 Purpose & Scope

This AMP is intended to be a resource tool for the Municipality in decision-making processes with respect to the quantification, management, maintenance, upgrade, and replacement of municipal infrastructure and assets, to assess how assets are managed in a way that continues to provide the current level of service expected by the Municipality and its ratepayers in future, and provide a financial assessment of municipal assets with a focus on the five (5) and ten (10) year planning horizon, and with consideration of a thirty (30) year and total life expectancy planning period. This AMP Report is a tool to be reviewed concurrently with municipal budgets, financial reports, financial information returns, audited tangible capital asset reports, and any other reports or documents relevant to municipal asset management and infrastructure project planning.

The purpose of this AMP is to summarize the work completed by the Municipality to the end of 2021 with respect to asset management planning with a specific focus on meeting (or exceeding) the requirements of O.Reg. 588/17 (Appendix A), as well as to introduce asset studies associated with "other" assets of the Municipality mainly building and facility assets.

The Province of Ontario's requirements for an AMP were first published in the document entitled *Building Together – Guide for Municipal Asset Management Plans* (Guide; Ministry of Infrastructure, 2012), and this AMP Report has been prepared with consideration of the requirements of the Guide, in addition to O.Reg. 588/17.

The scope of this AMP is consistent with the requirements of the Guide (Ministry of Infrastructure, 2012), and the selected core asset categories as prescribed by the Municipality for this project. With respect to the requirements of O.Reg. 588/17, this AMP includes a general review of all core municipal assets, plus inclusion of an initial phase of an other municipal asset group, buildings and facilities.

The scope of this AMP includes the following applicable core asset categories:

1. Roads.
2. Bridges and Large Culverts.
3. Water Supply Services
4. Wastewater Services.
5. Stormwater Assets.

6. Building & Facility Assets (Partial).

2.0 State of Local Infrastructure

The following sections are intended to provide a summary of the detailed review of municipal core assets including:

1. Table Summary.
2. Definitions.
3. Proposed Data Verification and Condition Assessment Policy.
4. Roads.
5. Bridges and Large Culverts.
6. Water Supply Services.
7. Wastewater Services.
8. Stormwater Assets.
9. Building & Facility Assets (Phase 1 of 2).

2.1 Asset Table Summary

In years 2019, 2020, and 2021, Greenview Environmental Management Limited (Greenview) completed a detailed reviews/studies of all core assets, including roads, bridges and large culverts, water supply services, wastewater services, and stormwater assets for the Municipality. Reviews of related documents and data sources were completed by Greenview and have been appropriately documented in the respective study reports.

The focus of much of the work related to the AMP Report (Version 1.0; Greenview, 2019d) concentrated on Tables 4a to 4d (Detailed Summary of Municipal Assets) and on Tables 5a to 5d (Financial Assessment and Projections), while the focus of AMP Report (Version 1.1) was to integrate new information on stormwater assets into the AMP (Tables 4e, 5e, etc.). AMP Report Version 1.2 (Greenview 2020) provides specific updates applied to water supply services and related tables.

Moving to other assets of the Municipality commencing in 2021, this update (Version 2.0) incorporates an initial phase (Phase 1) of municipal building and facility assets into the overall AMP (Version 2.0).

The following sub-sections describe each of the relevant Table sets of this AMP Report.

2.1.1 Table 1 – Municipal Study Area Characteristics

Table 1 – Municipal Study Area Characteristics summarizes specific municipal characteristics available from Statistics Canada and from the County of Hastings, including current population, households, land area, and population density. This table was included in the AMP Report in order to provide additional context to the Municipality's core assets.

2.1.2 Tables 2a/2b/2c/2d/2e/2f – Asset Summary Tables

Tables 2a, 2b, 2c, 2d, and 2e are core asset summary tables that have been prepared in order to easily identify pertinent asset management planning details for the Municipality, including data that specifically is reported in order to satisfy Community Level of Service (qualitative descriptions) and/or Technical Levels of Service (technical metrics) requirements of O.Reg. 588/17.

2.1.3 Table 3a – General Summary of Municipal Assets

Table 3a – General Summary of Municipal Assets is a summary of the financial assessment and projections from Tables 5a to 5e for the core assets of the Municipality.

Table 3a includes the dollars available from current municipal reserve accounts recommended to be applied to pertinent assets (in column "2019"), and recommendations for municipal dollars to be saved in applicable reserve

accounts in Years 2 through 10, in order to replace/upgrade assets in specific asset categories at the end of their useful lifespan.

Table 3a also includes columns that sum the municipal reserve dollars required to replace/upgrade assets in each asset category for a Total – 10 Year, Total – 30 year, and Total Required Reserve (Replacement Cost) perspective.

Additionally, the Estimated Borrowing Cost and the Difference between borrowing money to replace/upgrade assets and saving municipal reserve dollars for the replacement/upgrade of assets has also been calculated, based on Infrastructure Ontario's lending rates.

2.1.4 Tables 3b and 3c – Municipal Reserves

Tables 3b and 3c are tables that are specific to the Municipality's reserve accounts.

As part of the AMP Report (Version 1.0; Greenview, 2019d), Tables 3b (Municipal Reserves and Allocation Summary) and 3c (Detailed Municipal Reserves Allocation Calculations) were created in an effort to correlate current Municipal reserves that would apply to each asset category. Current reserves were divided into reserves that are applicable to the AMP and to reserves that are not applicable to the AMP. Reserves that were applicable to the AMP, whether directly to specific assets categories, operating departments, or specific assets, or generally to asset categories, were used to reduce the Projected Contributions to Reserves in Tables 5a to 5d. As part of Version 1.1 of the AMP, stormwater assets were added to Tables 3b and 3c; however, no specific funds were included to stormwater related assets as no known funds were understood to be allocated within municipal reserves specific to stormwater assets. Minor changes were applied to Tables 3b and 3c as part of Version 1.2 of the AMP with respect to the specific changes to select asset item updates.

On Table 3b – Municipal Reserves and Allocation Summary, current reserves are apportioned to municipal asset categories, either specifically if the reserve account is specific to a particular asset type or non-specifically if the reserve account is related to a general asset category. For example, the Municipality has a reserve account named "Public Works – Bridges" and the funds in that account have been divided between the Municipality's bridges and large culverts based on the total replacement/upgrade cost of both asset types.

Table 3c – Detailed Municipal Reserves Allocation Calculations is related to Table 3b, such that it describes in detail exactly how Municipal reserves have been, or not been, applied to Municipal core assets. It details a Summary of Reserves Applicable to Core Assets and a Summary of Reserves Not Applicable to Core Assets.

The intent of Table 3c is to provide the reader of the AMP Report with more detailed information about the allocation of Municipal reserves as well as providing context and direct linkages between the AMP Report and the Municipality's annual Continuity of Reserves and Reserve Funds and the annual Consolidated Financial Statements, as prepared by the Municipality's auditors.

2.1.5 Tables 4a/4b/4c/4d/4e/4f – Detailed Summary of Municipal Assets

Tables 4a (Roads), 4b (Bridges and Large Culverts), 4c (Water Supply Services), 4d (Wastewater Services), 4e (Stormwater Assets), and 4f (Buildings & Facilities) have been prepared in general accordance with O.Reg. 588/17, as amended.

Asset-specific information is included based on the asset category in question; however, Tables 4a/4b/4c/4d/4e/4f all include general asset information like Asset ID, Asset Name, Year in Service, Asset Life Expectancy, Projected Replacement or Upgrade Year, details from the Municipality's Tangible Capital Asset Report (as applicable and as available), Replacement and/or Maintenance Cost (or equivalent), Condition Rating, and Current Level of Service.

2.1.6 Tables 5a/5b/5c/5d/5e/5f – Financial Assessment and Projections

Tables 5a (Roads), 5b (Bridges and Large Culverts), 5c (Water Supply Services), 5d (Wastewater Services), 5e (Stormwater Assets), and 5f (Buildings & Facilities) have been prepared in general accordance with O.Reg. 588/17.

Tables 5a/b/c/d/e/f have been provided in order to itemize the amount of money required to be put into reserves on an annual basis for each asset in order to replace/upgrade each asset at the end of their remaining useful life. Updates to the AMP tables and report related to more recent Tangible Capital Asset Reports and related municipal reserves were beyond the scope of past versions of the AMP Report, which was focused on core assets. Future AMP updates would consider overall updates of this nature.

Additionally, the “Total Reserve (30 Year)” and “Total Required Reserve” have been reported for each specific asset, as well as a column that indicates the “Estimated Borrowing Cost” for replacement of each asset based on current lending rates from Infrastructure Ontario (IO), as of July 8, 2019. The lending rate as of June 23, 2021 was also included for Table 5e. The difference in cost between borrowing and saving sufficient monies for asset replacement is indicated in the column “Difference (Borrowing – Savings)”.

Given the significant cost of many of the core assets from a replacement or upgrade perspective, it is unlikely that all of the noted assets with a Projected Replacement or Upgrade Year of 2021 (or previous), or a poor condition rating, can be replaced/ upgraded at the time of the noted Upgrade Year. It is recommended that the Municipality determine the priority status of replacement or upgrade for each of the noted assets based on the condition rating, current level of service, available funding options, and capital budgets. Consideration of alternative maintenance options that could extend the asset life expectancy or improve the condition rating of each asset, and/or alternative funding opportunities are recommended to be investigated, in particular for the very high-value assets.

2.1.7 Tables 6a/6b/6c/6d/6e/6f – Priority Assets Recommended for Further Review

Tables 6a/6b/6c/6d/6e/6f have been prepared to provide a summary reference for any assets that have been recommended as priorities for further review, upgrade, or replacement by the Municipality as part of their asset management planning initiatives.

Details on assets recommended for further review are included in Section 6.0 – Priorities and Recommendations.

2.2 Definitions

The following is a select list of definitions which explain some elements of the Detailed Summary of Municipal Assets Tables, for review considerations. In cases where the definition of a specific element was understood to be self-evident, they were not included below.

Item	Definition	Example
Asset ID	An Asset ID tag was assigned to each asset to allow for easier reference and sorting purposes. The year the Asset ID was created is included in the naming convention.	<ul style="list-style-type: none"> Roads = R19-01 Stormwater Assets = STW20-06
Detailed Asset Description	Used to describe assets that share similar characteristics with each other. Detailed Asset Descriptions vary dependent on asset groups.	<ul style="list-style-type: none"> LCB (low class bituminous pavement) Bridge
Geographic Township	Used to define the location of the asset in the Municipality.	<ul style="list-style-type: none"> Hungerford, Elzevir, Grimsthorpe
Year in Service / or Last Upgrade Year	Age of the asset, year asset was purchased, the year the asset was put into service, or the year the asset was last upgraded. Year in Service is always a “year”.	<ul style="list-style-type: none"> 2015

<p>Asset Life Expectancy</p>	<p>The number of years the asset is anticipated to be useful/functional.</p>	<ul style="list-style-type: none"> • Bridges = based on OSIM reports • Roads = based on estimates and PCI values • Water/Wastewater/Stormwater assets - based on estimates of the Municipality, information from OCWA, and/or industry standards
<p>Projected Replacement or Upgrade Year</p>	<p>The year an asset should be replaced and or upgraded. Estimated based on the sum of the current year and Asset Life Expectancy.</p>	<ul style="list-style-type: none"> • Alexander Street <ul style="list-style-type: none"> - Current Year = 2021 - Asset Life Expectancy = 11 years - Projected Replacement or Upgrade Year = (2021 + 11) = 2032
<p>Tangible Capital Asset Report Financials</p>	<p>Based on information prepared by Municipal auditors in a Tangible Capital Assets Report, and applied to assets directly or shared amongst assets on a per unit basis (i.e. in the case of linear assets). Includes Original Value (Starting Balance), Accumulated Amortization, Additions and Betterments, and Ending Value (Net Book Value).</p>	<ul style="list-style-type: none"> • Net Book Value = (Original Value – Accumulated Amortization + Additions and Betterments)
<p>Replacement and/or Upgrade Cost</p>	<p>Anticipated total cost of replacement/upgrade/maintenance of an asset (as applicable). For roads, “Replacement and/or Upgrade Cost” replaced with “Reconstructions / Rehabilitation Cost”. For bridges, “Replacement and/or Upgrade Cost” replaced with “Total Upgrade Cost”.</p>	<ul style="list-style-type: none"> • New road, bridge, water asset, wastewater asset, building
<p>Condition Rating</p>	<p>A scale which identifies the current condition of a given asset. Roads = Condition Rating based on established Pavement Condition Index (PCI), with Good = PCI > 75, Fair = PCI < 75 and > 50, and Poor = PCI < 50. Bridges = Condition Rating based on Bridge Condition Index (BCI), with Good = BCI >70, Fair = BCI < 70 and > 60, and Poor = BCI < 60. Other assets = Scale using Good, Fair, or Poor rating, based on observations from Municipal Staff and/or consultants.</p>	<ul style="list-style-type: none"> • Alexander Street <ul style="list-style-type: none"> - PCI = 88 - Condition Rating = Good
<p>Current Level of Service</p>	<p>Defined as the level of service required for the asset to be maintained to meet the service requirements of the Municipality and its ratepayers. Includes consideration of social, political, environmental, and economic outcomes that the Municipality delivers. The scale is from one (1) to five (5), where one (1) is very low priority and five (5) is very high priority.</p>	<ul style="list-style-type: none"> • High Class Bituminous (HCB) roads with a Municipal Class of 2 (5 = very high priority) • Gravel roads with a Municipal Class of 6 with no exit (1 – very low priority) • Buildings that serve the community for public/community safety (5 – Fire Hall)

2.3 Proposed Data Verification and Condition Assessment Policy

In accordance with Section 7 of O.Reg. 588/17 (as amended), this AMP Report should be re-evaluated at a minimum of every five (5) years; however, it is recommended that this AMP Report be reviewed annually as part of the Municipality’s budgeting process, in order to incorporate priority items and actions, and update information relevant to this AMP Report (i.e. current Condition Ratings, new studies, new assets, etc.).

Other studies (and/or updates to studies) to establish qualitative descriptions and technical metrics for core assets and/or all assets should be completed by a municipality every two (2) years, in accordance with

Section 5 (2) of O.Reg. 588/17.

Tangible Capital Asset Report information for each asset could be updated annually, based on the results of each year's audited Tangible Capital Assets Report by the Municipality's auditors.

Asset Life Expectancies could be updated following completion of significant maintenance/upgrade activities, in order to note the anticipated extended life of the asset and prolong the Projected Replacement or Upgrade Year.

Replacement and/or Upgrade Costs could be updated as new/more current information becomes available, as applicable.

Condition Ratings could be updated by the Municipality on an as-needed basis, based on municipal review/observations and/or by third-party investigations (i.e. consultant reviews). The ideal case would be to update Condition Ratings annually, and at a minimum every two (2) years.

2.4 Roads

The following information in this section is based on Table 4a – Detailed Summary of Municipal Assets (Roads), which was prepared using information from the Road Needs Study (Greenview, 2019a), municipal asset register (2021), and other relevant information provided by the Municipality. This information is reported in order to meet with the requirements of O.Reg. 588/17. This information can be found directly on Table 2a – 2021 Road Network Summary.

Based on the 2019 Road Needs Study (Greenview, 2019a) and information provided by the Municipality, the Municipality maintains a road network with a total road length of approximately 410 km. The respective road surface types and total lengths are as follows:

Road Type	No. of Road Sections	Total Length in Kilometres (km)	No. of Lane Kilometres (km)	Percentage of Total Road Network
Gravel	165	253.68	507.36	61.81%
High Class Bituminous (HCB)	112	36.43	72.87	7.45%
Low Class Bituminous (LCB)	98	120.63	241.26	30.74%
TOTAL	375	410.74	821.48	100.00%

Road information by Geographic Township is summarized as follows:

Road Type	Grimsthorpe Township	Elzevir Township	Hungerford Township (& Village of Tweed)	Multi-Township Road Sections (Hungerford & Elzevir)	TOTAL
	Total Length in Kilometres (km)				
Gravel	0.00	55.96	189.58	8.36	253.89
High Class Bituminous (HCB)	0.00	0.28	30.32	0.00	30.60
Low Class Bituminous (LCB)	0.26	25.80	100.19	0.00	126.25
<i>Percentage of Total Road Network</i>	<i>0.06%</i>	<i>19.97%</i>	<i>77.93%</i>	<i>2.03%</i>	<i>100.00%</i>
TOTAL	0.26	82.04	320.09	8.36	410.74

Road information by Municipal Road Class is summarized as follows:

Municipal Road Class	Total Length in Kilometres (km)	Percentage of Total Road Network (%)
Class 2	0.58	0.14%
Class 3	16.22	3.95%
Class 4	75.12	18.29%
Class 5	15.89	3.87%
Class 6	302.94	73.75%
TOTAL	410.74	100.00%

Road Information by Municipal Road Class Description is summarized as follows:

Municipal Road Class Description	Total Length in Kilometres (km)	No. of Lane Kilometres (km)	Percentage of Total Road Network (%)	Land Area – Municipality of Tweed (km ²)	Road Density (km/km ²)
Arterial	0.58	1.15	0.14%	975	0.0012
Major Collector	27.36	54.73	6.66%		0.056
Minor Collector	62.74	125.48	15.27%		0.129
Local	319.81	639.61	77.86%		0.656
Partially Maintained	0.26	0.51	0.06%		0.00053
TOTAL	410.74	821.48	100.00%	975	0.421

Road information by Pavement Condition Index (PCI) is summarized as follows:

Road Type	Average PCI	Average Condition Rating (good / fair / poor)	% PCI 75-100	% PCI 50-75	% PCI <50
			<i>Good</i>	<i>Fair</i>	<i>Poor</i>
Gravel	73.13	Fair	22.40%	21.07%	0.53%
High Class Bituminous (HCB)	83.71	Good	22.13%	7.47%	0.27%
Low Class Bituminous (LCB)	71.76	Fair	10.40%	15.47%	0.27%
TOTAL	75.93	Good	54.93%	44.00%	1.07%

The anticipated total required maintenance cost (gravel roads) and/or replacement cost (LCB/HCB roads) for each road surface type, based on industry standards and information supplied by the Municipality are:

Road Surface Type	Anticipated Total Replacement and/or Maintenance Cost (30-Year)
Gravel	\$ 7,500,000
High Class Bituminous (HCB)	\$ 6,557,113
Low Class Bituminous (LCB)	\$ 15,423,027
TOTAL	\$ 29,480,139

In accordance with the requirements of Section 5 (2) of O.Reg. 588/17 regarding the average age of each road surface type, the following average ages of road sections within the Municipality by pavement type are as follows:

Road Surface Type	Average Road Section Age
Gravel	Zero (0) years
High Class Bituminous (HCB)	17 years
Low Class Bituminous (LCB)	9 years

With respect to gravel road sections, maintenance operations are completed annually (and on-going), and therefore the average age of gravel road sections may be described as zero (0) years. The age of various road sections is not interpreted to represent a best practice for managing road assets. It is recommended that the Municipality utilize more quantitative measures for managing road assets, like Pavement Condition Index (PCI) to plan for road asset improvements. Available information on the average age of each road asset category are included on Table 4a.

The above noted summaries of road data are included in the 2019 Road Needs Study (Greenview, 2019a), and has been included here to satisfy the requirements of O.Reg. 588/17. Detailed mapping completed in order to satisfy the requirements of O.Reg. 588/17 with respect to community levels of service (qualitative descriptions), with a focus on the connectivity of roads, pavement types, and current condition rating are included in the 2019 Road Needs Study (Greenview, 2019a). Assumptions and notes related to roads are included on Table 4a – Detailed Summary of Municipal Assets (Roads).

The financial strategy for the upgrade and/or replacement of municipal roads are discussed in Section 5.0 of this report and in Table 5a.

2.5 Bridges and Large Culverts

The following information in this section is based on Table 4b – Detailed Summary of Municipal Assets (Bridges and Large Culverts), which was prepared using information from the 2020 OSIM Bridge Inspection Submission (Jewell Engineering, 2020), the Municipality's Assets Report, and information provided by the Municipality. This information can be found directly on Table 2b – 2019 Bridges and Large Culvert Summary.

Based on the 2020 OSIM Bridge Inspection Submission (Jewell Engineering, 2020), the Municipality maintains a total of fifty-two (52) bridges and/or large culverts (> 3.0 metres) that are inspected every two (2) years, at a minimum. The following details are provided as a summary of the bridge and large culvert assets for the Municipality (Table 4b):

Structure Type	Quantity	Average Age (years)	Replacement and/or Upgrade Cost
Bridges	45	29	\$ 73,112,500
Culverts	7	7	\$ 4,545,000
TOTAL	52	16	\$77,657,500

In accordance with the requirements of O.Reg. 588/17, the community levels of service (qualitative descriptions) for the bridges and large culverts in the Municipality include provision for traffic from motor vehicles, heavy transport vehicles, emergency vehicles, pedestrians, and cyclists. With respect to technical levels of service (technical metrics), the following is a summary of the % Load Restrictions and % Dimensional Restrictions of the Municipality's bridges and large culvert, as noted on Table 2b.

Structure Type	Quantity	% Loading Restrictions	% Dimensional Restriction
Bridges	45	44%	58%
Culverts	7	0%	14%
TOTAL	52	38%	52%

Additional details on the Municipality's bridges and large culverts can be found in the 2020 OSIM Bridge Inspection Submission (Jewell Engineering, 2020) and on Table 4b.

Assumptions and notes related to bridges and large culverts are included on Table 4b – Detailed Summary of Municipal Assets (Bridges & Large Culverts).

The financial strategy for the upgrade and/or replacement of Municipal bridges and large culverts is discussed in Section 5.0 of this report and in Table 5b.

2.6 Water Supply Services

The following information in this section is based on Table 4c – Detailed Summary of Municipal Assets (Water Supply Services), which was prepared using information from applicable water supply services-related documentation (as included as appendices in the Water Asset Study, Greenview, 2019b), the Municipality's 2021 Tangible Capital Assets Report, and information provided by the Municipality. This information can be found directly on Table 2c – 2021 Water Supply Services Summary.

Asset Description & Class		Construction Material	Quantity	Units	Average Age (years)	Replacement and/or Maintenance Cost
Building	Distribution		1	#	24	\$3,000,000
Building	Treatment		1	#	23	\$1,000,000
Equipment	Distribution		5	#	8	\$2,085,000
Water Main	Distribution	Cast Iron	7,570	m	84	\$7,257,190
Water Main	Distribution	PVC	8,002	m	19	\$6,801,887
Equipment	Hydrant		97	#	22	\$970,000
Equipment	Treatment		8	#	15	\$275,000
TOTAL		-	-	-	35	\$21,389,077

With respect to technical levels of service (technical metrics), the following is a summary of the requirements of O.Reg. 588/17 for water supply services assets:

Percentage of Properties Connected to Municipal Water System	Percentage of Properties where Fire Flow is Available	No. of Connection Days per Year where a Boil Water Advisory Notice is in Place Compared to the Total Number of Properties Connected to the Municipal Water System	No. of Connection-Days per Year Due to Water Main Breaks Compared to the Total Number of Properties Connected to the Municipal Water System
= (730 / 4,695)	= (730 / 4,695)	= (730 x 2) / 730	= (10 x 2) / 730
= 15.5%	= 15.5%	= 2	= 0.027

Detailed mapping completed in order to satisfy the requirements of O.Reg. 588/17 with respect to community levels of service (qualitative descriptions), with a focus on the areas of the Municipality that are connected to the municipal water system and have fire flow, are included in the Water Asset Study (Greenview, 2019b). Assumptions and notes related to water supply services are included on Table 4c – Detailed Summary of Municipal Assets (Water Supply Services).

The financial strategy for the upgrade and/or replacement of the Municipality's water supply services assets are discussed in Section 5.0 of this report and in Table 5c.

2.7 Wastewater Services

The following information in this section is based on Table 4d – Detailed Summary of Municipal Assets (Wastewater Services), which was prepared using information from applicable wastewater services-related

documentation (as included as appendices in the Wastewater Asset Study, Greenview, 2019c), the Municipality's 2021 Tangible Capital Assets Report, and information provided by the Municipality. This information can be found directly on Table 2d – 2021 Wastewater Services Summary.

Asset Description and Class		Sewer Type	Quantity	Units	Average Age (years)	Replacement and/or Maintenance Cost
Facility	Distribution		2	#	46	\$450,000
Equipment	Distribution		5	#	7	\$98,000
Equipment	Treatment		3	#	16	\$155,000
Land	Treatment		2	#	46	\$200,000
Sewer	Distribution	PVC	6,982	m	18	\$3,490,965
Sewer	Distribution	Asbestos Cement	6,146	m	83	\$3,072,868
Sewer	Distribution	Forcemain	1,570	m	46	\$785,000
TOTAL		-	-	-	47	\$8,251,833

With respect to technical levels of service (technical metrics), the following is a summary of the requirements of O.Reg. 588/17 for wastewater services assets:

Percentage of Properties Connected to the Municipal Wastewater System	No. of Events per Year Where Combined Sewer Flow in the Municipal Wastewater System Exceeds System Capacity Compared to the Total Number of Properties Connected to the Municipal Wastewater System	No. of Connection-Days per Year Due to Wastewater Backups Compared to the Total Number of Properties Connected to the Municipal Wastewater System	No. of Effluent Violations per Year Due to Wastewater Discharge Compared to the Total Number of Properties Connected to the Municipal Wastewater System
= (730 / 4,695)	The municipal wastewater system does not have combined sewers.	No connection-days occur when a wastewater service issue arises, as there are no interruptions in service as bypassing and/or discharges are undertaken to avoid backups.	= (3 / 730)
= 15.5%			= 0.004

Detailed mapping (and related information) completed in order to satisfy the requirements of O.Reg. 588/17 with respect to community levels of service (qualitative descriptions), with a focus on the areas of the Municipality that are connected to the municipal wastewater system, are included in the Wastewater Asset Study (Greenview, 2019c). Assumptions and notes related to wastewater services are included on Table 4d – Detailed Summary of Municipal Assets (Wastewater Services).

The financial strategy for the upgrade and/or replacement of the Municipality's wastewater services assets are discussed in Section 5.0 of this report and in Table 5d.

2.8 Stormwater Assets

The following information in this section is based on Table 4e – Detailed Summary of Municipal Assets (Stormwater Assets), which was prepared using information from applicable stormwater services-related documentation (as included as appendices in the Stormwater Asset Study, Greenview, 2021a), the Municipality's 2021 Tangible Capital Assets Report, and information provided by the Municipality. This information can be found directly on Table 2e – 2021 Stormwater Asset Summary.

Based on information presented in the Stormwater Asset Study (Greenview, 2021a), seven (7) catchment areas were identified within the Village of Tweed, and five (5) catchment areas in the Municipality's hamlets, including Actinolite, Marlbank, Queensborough, Stoco, and Thomasburg. The catchment area in Actinolite was not reviewed in detail, as it is understood that there are no known stormwater assets located within the hamlet.

Asset Description	Number of Catchment Areas	Total Hectares (ha)	Total Inlet Structures (#)	Total Outlet Structures (#)	Total Properties At Risk to Flooding to 100-year Storm (#)	Total Systems Not Resilient to a 5-year Storm (#)	Average Age (years)	Replacement and/or Maintenance Cost
Catchment Area (Small)	7	8	20	6	61	2	26	\$ 160,000
Catchment Area (Medium)	2	12	49	2	5	0	33	\$ 490,000
Catchment Area (Large)	2	110	226	3	0	0	38	\$ 1,960,000
Catchment Area (Multi)	1	30	61	individual outlets	10	-	38	\$ 610,000
TOTAL	12	160	356	11	76	2	36	\$ 3,220,000

Detailed mapping (and related information) completed in order to satisfy the requirements of O.Reg. 588/17 with respect to community levels of service (qualitative descriptions), with a focus on stormwater catchment areas of the Municipality, are included in the Stormwater Asset Study (Greenview, 2021a). Assumptions and notes related to stormwater assets are included on Table 4e – Detailed Summary of Municipal Assets (Stormwater Assets).

With the exception of the stormwater assets in the hamlet of Stoco (approximately 10 years old), the exact ages of stormwater assets within the Municipality are not well defined, as their various installation dates are understood to predate current senior staff's experience at the Municipality. For this reason, a review of the known asset ages for wastewater assets in the vicinity of the stormwater catchment areas was completed, with estimated installation dates ranges for stormwater-related assets established as likely between 1983 and 1988. If additional information on the various ages of stormwater assets within the Municipality becomes available, the Year in Service for assets within the catchment areas could be updated accordingly in future.

With respect to technical levels of service (technical metrics), the following is a summary of the requirements of O.Reg. 588/17 for stormwater assets:

Percentage of Properties in Municipality that are Resilient to 100-year Storm	Percentage of Municipal Stormwater Management System Resilient to a 5-year Storm
$= (4,870 \text{ Total Properties in Municipality}) - (76 \text{ Properties At Risk to 100-year Storm}) \div (4,870 \text{ Total Properties in Municipality}) \times 100\%$	$= (\text{Total Number of Inlet Structures} - \text{Inlet Structures in Tweed East}) \div (\text{Total Number of Inlet Structures}) \times 100\%$
= 98.44%	92.42%

The financial strategy for the upgrade and/or replacement of the Municipality's stormwater assets are discussed in Section 5.0 of this report and in Table 5e.

2.9 Building & Facility Assets

The following information in this section is based on Table 4f – Detailed Summary of Municipal Assets (Building & Facility Assets), which was prepared using information from applicable stormwater services-related documentation (as included as appendices in the Stormwater Asset Study, Greenview, 2021a), the Municipality's

2021 Tangible Capital Assets Report, and information provided by the Municipality. This information can be found directly on Table 2f – 2021 Building & Facility Asset Summary.

Based on information presented in the Preliminary Building & Facility Assessment Report (Greenview, 2023), an initial set of eighteen (18) of the Municipality's buildings we selected for review by the Municipality, with key findings reported, based on set review criteria, and applicable building code compliance.

3.0 Current Levels of Service

For the purposes of this AMP Report, level of service is defined as the level of service required for an asset to be maintained to meet the service requirements of the Municipality and its ratepayers. Determination of current level of service includes consideration of social, political, environmental, and economic outcomes that the Municipality delivers. For the purposes of this AMP update and associated tables, the scale is from one (1) to five (5), where one (1) is very low priority and five (5) is very high priority.

Generally, the current and desired level of service for service issues for each asset category are understood to be relatively consistent. At this time, it is understood that the Municipality does not have the resources (i.e. budget) to increase the level of service for its assets in the short-term, and it is the Municipality’s objective to maintain their existing asset base in the best and most effective way possible, given their existing resources. Current levels of service as established by the Municipality as part of this update are included in Tables 4a to 4e in columns labeled “Current Level of Service”.

As part of any re-evaluation of this AMP Report (as described in Section 2.3 of this AMP Report), levels of service should be concurrently reviewed.

The following are descriptions of the current level of service and performance measures review for each of the asset categories included in this AMP update.

3.1 Roads

Gravel roads are currently understood to have the following service issues: grading, resurfacing, calcium treatment, brushing, ditching, winter plowing, winter sanding/salting, washout repairs, and shoulder maintenance.

Similarly, paved roads (including HCB and LCB) are currently understood to have the following service issues: sweeping, patching/potholes, shoulder maintenance, resurfacing/sealant, brushing, winter plowing, winter sanding/salting, ditching, and washout repairs.

Current levels of service for the Municipality’s roads were reported as part of this AMP Report in Table 4a, and were dependent on pavement type (HCB, LCB, or gravel) and the Municipal Classes identified in the Municipality’s *Level of Service Policy – Minimum Maintenance Standards* (Municipality of Tweed, 2018) and in general accordance with O.Reg. 239/02 – Minimum Maintenance Standards for Municipal Highways.

For the purposes of this AMP Report, the following Levels or Service have been designated to specific road sections as follows:

Municipal Road Class	Level of Service (1 = very low, 5 = very high)
Road Class 2 (Arterial)	5
Road Class 3 (Major Collector)	4
Road Class 4 (Minor Collector)	3
Road Class 5 (Local)	2
Road Class 6 (Local or Partially-Maintained)	1

In a general sense, HCB and LCB roads within the Municipality were determined to have the highest level of service (generally values of 5, 4, or 3), whereas gravel roads were determined to have lower levels of service (generally between 2 and 1). The lowest levels of service for road sections in the Municipality were determined to be gravel road sections that do not connect with other roads (i.e. dead-ends).

Table 4a identifies all road sections evaluated as part of this AMP Report and their respective Current Levels of Service.

3.2 Bridges and Large Culverts

Bridges and large culverts are currently understood to have the following service issues: sweeping, blockages, damage (i.e. guide rails), supports (bridges only), winter plowing, winter sanding/salting, surface, and failure. Service issues should be noted in biennial (every 2 years) OSIM reports, as prepared by a Professional Engineer.

Levels of Service for each bridge and large culvert within the Municipality have been reported based on the road on which the bridge or large culvert is located and the Level of Service for that road section, as noted above in Section 3.1 of this AMP Report.

Table 4b identifies all bridges and large culverts evaluated as part of this AMP Report and their respective Current Levels of Service.

3.3 Water Supply Services

All water supply services assets connected to the Municipality's water services system are considered critical to public health and safety and any issues, whether minor or major, should be addressed equally. This applies to assets related to the process or chemical feed system, mechanical and electrical systems, wells, water mains, hydrants, service connections, pumps, valves and related equipment.

Levels of Service for all elements of the Municipality's water supply services are understood to be very high (Level of Service = 5), given their importance to public health and safety (i.e. safe drinking water, fire servicing, etc.).

Table 4c identifies all water supply services assets evaluated as part of this AMP Report and their respective Current Levels of Service.

3.4 Wastewater Services

All wastewater services assets connected to the Municipality's wastewater services are considered critical to public health and safety and any issues, whether minor or major, should be addressed equally. This applies to assets related to the sanitary sewers, process and chemical feed system, mechanical and electrical systems, service connections, pumps, valves and related equipment.

Levels of Service for all elements of the Municipality's wastewater services are understood to be very high (Level of Service = 5), given their importance to public health and safety (i.e. protection from contamination, safe drinking water, etc.).

Table 4d identifies all wastewater services assets evaluated as part of this AMP Report and their respective Current Levels of Service.

3.5 Stormwater Assets

Stormwater assets connected to the Municipality's stormwater catchment areas were reviewed by the Municipality as part of the asset assessment activities, and stormwater assets in catchment areas located within the Village of Tweed were generally designated with higher Levels of Service than stormwater assets in catchment areas associated with the hamlets located in the Municipality (as stormwater assets in the Municipality's hamlets were generally less complex than those located within the Village of Tweed). This applies to assets related to catchbasins, piping, headwalls, outlets, and related assets.

Levels of Service for elements of the Municipality's stormwater assets within the Village of Tweed were understood to be medium to very high (Levels of Service = 3 to 5), while within the Municipality's hamlets they were understood to be low (Level of Service = 2 or less).

Table 4e identifies all stormwater assets evaluated as part of this AMP Report and their respective Current Levels of Service.

3.6 Building & Facility Assets

An initial set of municipal building assets, and associated facilities where applicable were reviewed as part of the asset assessment activities, and are considered to be Phase 1 (of 2 study phases). The Phase 1 building list was primarily those buildings with a role in public safety (fire hall) or public and/or higher usage. Buildings with public safety usage or that the public/ratepayers would regularly use were considered to have a higher level of service (fire halls, municipal office, etc., Level of Service = 4 to 5); whereas, community centre buildings, and other non-safety related facilities were considered to have a lower level of service (Level of Service = 3 or less).

Table 4f identifies Phase 1 set of building assets evaluated as part of this AMP Report and their respective Current Levels of Service.

Asset Description	Quantity	Area		Average Age (years)
Buildings (Administration)	1	585	m ²	54
Buildings (Public Works)	5	1455	m ²	31
Buildings (Parks & Recreation)	7	4197	m ²	100
Buildings (Fire)	1	610	m ²	51
Buildings (Tourism & Promotion)	1	35	m ²	121
Buildings (Library)	1	565	m ²	11
Buildings (Waste)	2	225	m ²	11
TOTAL	18	7,087	m²	379

4.0 Procurement and Options Analysis

The following sections discuss procurement methods and options analysis for the Municipality's assets reviewed as part of this AMP Report.

4.1 Procurement Methods

Procurement of new or replacement assets should be completed in accordance with any applicable Municipality procurement bylaws.

Due to the rural nature of many parts of the Municipality and the distance of the Municipality from large urban centres, challenges with regards to procurement of services or products are anticipated, as there are generally fewer available service providers in the vicinity of the Municipality than in more densely populated areas. Depending on the circumstances, the rural nature of the Municipality can have positive and negative impacts on the cost of procurement of products and services. In cases where local service providers are available, the cost for services are generally expected to be less than city prices; however, where no local service providers are available, then the cost for services are generally expected to be elevated as distance-related factors emerge (i.e. elevated mobilization costs, etc.).

Multi-municipal cooperation in new or replacement projects for assets and services could be considered as part of the Municipality's procurement methods. Multi-municipal cooperation as part of procurement methods can have a positive effect from an economies of scale perspective, with the potential of financial benefits to all parties involved.

If any amendments to the Municipality's procurement bylaw are required to enter into multi-municipal agreements or partnerships, they should be considered by the Municipality on a per project basis.

As part of the budgeting of future projects, the Municipality should consider the design-build-finance-maintain model for budgeting purposes (i.e. AFP model), in order to apply due consideration to the total lifecycle costs of asset-related projects.

4.2 Options Analysis Review

Options analysis could be considered when the Municipality is reviewing maintenance, upgrade, or replacement of assets. This can help the Municipality to provide the needed level of service for its assets to its ratepayers.

Options analysis generally involves the following process of establishing project alternatives:

1. Option identification.
2. Feasibility analysis.
3. Option selection.

Financial assessment and projections for each asset category are included Tables 5a to 5f of this AMP Report, and discussed in Section 5.0. Financial projections were developed in straight-line amortizations. If necessary, for any future asset replacement activities, more detailed reviews of replacement costs could be developed, and this AMP Report should be updated accordingly with any new or updated information.

Direct benefits and costs for an asset upgrade or replacement project should be considered on a per asset basis as part of an options analysis process, with specific consideration of the following (as may be applicable):

- Efficiencies and network effects.
 - O.Reg. 507/18 – *Broader Public Sector: Energy Reporting and Conservation and Demand Management Plans*.
 - Labour and vehicle operating cost savings.
 - Multi-municipal cooperation.

- Performance improvements.
- Investment scheduling and waste minimization.
 - Delay projects that could be impacted by any expansion activities (i.e. roads).
 - Coordinate multiple asset upgrades/replacements (i.e. roads, water supply services, wastewater services, stormwater assets).
- Health and Safety.
 - Accident reduction.
 - Property damage reduction.
 - Injury reduction.
- Environmental Impacts.
 - Greenhouse gas emissions.
 - Nutrient loading.
 - Groundwater and surface water impacts.
 - Drainage impacts/improvements.
 - Climate change.

Indirect benefits and costs for an asset upgrade or replacement project should be considered on a per asset basis, with specific consideration of the following (as may be applicable):

- Municipal well-being and health.
- Amenity values.
 - Public facilities (i.e. washrooms, parks, etc.).
- Culturally/historically significant assets.
 - Historical buildings.
 - Parks and land improvements.
- Municipal image.

As this AMP Report is designed to be an asset planning tool for the Municipality, an assessment of the risks associated with all potential asset maintenance, upgrade, or replacement should be considered using an approach that allows for comparative analysis of the options available. Risks associated with each option could be based on quantitative data (if available). In instances when quantitative data is not available as part of the comparative analysis review, qualitative measures could be utilized with the intent of determining the probability of the occurrence of risk events.

Due to the fact that the Municipality is a small, rural municipality with limited resources, additional study focused on quantitative data gathering with respect to specific risk assessments could be reviewed in future as part of updates to this AMP Report, if deemed valuable by the Municipality (Section 5.5 of this AMP Report).

For any review of this AMP Report, any opportunities to save resources by coordinating solutions to multiple problems concurrently should be explored. Specifically, and as part of any decision-making process, the following opportunities should be considered:

1. Multi-municipal cooperation and contract negotiation.
2. Joint service boards.
3. Shared and/or uploading of services to the upper tier (i.e. County of Hastings).

5.0 Financial Strategy

The following sections discuss the financial strategy for the Municipality's assets reviewed as part of this AMP Report.

5.1 Summary and Definitions

The financial strategy for the Municipality was developed with the assistance of Municipal staff and Greenview and is considered the critical component of this AMP Report. The financial strategy is designed to employ fundamentals and assumptions, such that the Municipality could amend and/or update this AMP Report in future years as information and data becomes available.

Tables 5a to 5e – Financial Assessment and Projections describe the core municipal assets included in this AMP Report by asset category including:

- Table 5a - Financial Assessment and Projections – Roads
- Table 5b - Financial Assessment and Projections – Bridges & Large Culverts
- Table 5c - Financial Assessment and Projections – Water Supply Services
- Table 5d - Financial Assessment and Projections – Wastewater Services
- Table 5e - Financial Assessment and Projections – Stormwater Assets
- Table 5f - Financial Assessment and Projections – Building & Facility Assets

Based on the scope of this AMP Report, Tables 5a to 5f account for an all-inclusive review of the replacement (or upgrade) costs for each asset, and consideration has been given by the Municipality relative to non-infrastructure solutions, maintenance activities, renewal/rehabilitation activities, replacement activities, disposal activities, and expansion activities associated with the replacement costs identified.

A practical and detailed review was completed by the Municipality and Greenview in the determination of replacement costs, including, but not limited to, actual expenditures on similar assets and/or research completed by the Municipality or Greenview on actual costs of replacement within the last two (2) to three (3) years (where possible).

A summary of the financial assessment and projections of Tables 5a to 5f is included in Table 3a – General Summary of Municipal Assets. As noted in Section 2.0 of this AMP Report, Tables 3b (Municipal Reserves and Allocation Summary) and 3c (Detailed Municipal Reserves Allocation Calculations) were created in an effort to correlate current Municipality reserves that would apply to each asset category. Current reserves were divided into reserves that are applicable to this AMP Report and to reserves that are not applicable to this AMP Report. Reserves that are applicable to this AMP Report, whether directly to specific assets categories, operating departments, or specific assets, or generally to asset categories, were used to reduce the Projected Contributions to Reserves in Table 5a to 5f. As noted in Section 2.0, the Municipality should complete a detailed review on their current reserve funds to determine if any other reserve funds (or portions of reserve funds) could be applied against any core asset categories in this AMP Report.

Tables 5a to 5f incorporate pertinent information required from Tables 4a to 4e, as well as detailing the proposed annual contributions to reserves required to upgrade/replace each municipal asset over its remaining useful life. In the event that an asset has already reached its projected replacement or upgrade year, then the proposed annual contribution to reserves is determined to be equal to the replacement cost of the asset; however, if the asset has not reached the projected replacement or upgrade year, then the value included for Year 1 is equal to the amount of available reserves calculated for the given asset, and the cost of upgrade/replacement (replacement cost) is divided over the remaining useful life years.

Proposed annual contributions to reserves are determined with focus on the five (5) and ten (10) year planning horizon, and with consideration of the thirty (30) year and total life expectancy planning perspective. The

proposed annual contributions to reserves (for each year) are the recommended total monies to be saved per year by the Municipality in order to replace/upgrade each asset at the end of its useful life.

For comparison purposes, the estimated borrowing cost is calculated based on the cost for the Municipality to borrow the required monies from Infrastructure Ontario to upgrade/replace each asset, consistent with recent lending rates. Lending rates can be updated on Tables 5a to 5f at any time, to reflect the most recent rates available when this AMP Report is under review by the Municipality. The term of the loan is assumed to be generally equal to asset life expectancy, rounded up to the nearest five (5) years, to a maximum of a thirty (30) year lending term. Additionally, the difference in cost to the Municipality between borrowing or saving the required funds to upgrade/replace each asset is calculated and identified as difference (borrowing – savings). This calculation is designed to illustrate the monetary benefits to the Municipality of saving money (as part of their reserves) in advance of asset upgrade/replacement, in comparison to the high costs of borrowing; however, in some cases, borrowing money to upgrade and/or replace a municipal asset may be the appropriate action (as may be applicable).

The proposed annual contributions to reserves and associated replacement costs assume the Municipality will need to obtain all funds required to upgrade/replace each asset without the assistance of Federal or Provincial funding, grants, or any other assistance.

Assumptions and notes associated with Tables 5a to 5f are included on each individual table.

5.2 Integration with Municipal Budgets

The financial strategy was developed with a cost-based approach, using real-life upgrade/replacement costs for assets, as currently understood by the Municipality. This AMP Report is not directly integrated with municipal budgets and is designed to be an independent, third-party review of the actual assets owned and managed by the Municipality.

This AMP Report should be reviewed, updated, and utilized with consideration of future municipal budgets, existing municipal reserves, Financial Information Returns (FIR), audited Financial Reports, audited Tangible Capital Asset Reports, and any other pertinent financial or planning documents of the Municipality.

On an annual basis, or at least every two (2) years, it is recommended that any new municipal assets not represented in this AMP Report be included for future planning purposes.

5.3 Maintenance Versus Upgrade/Replacement of Assets

As the upgrade and/or replacement costs of each asset are understood to be generally costly to the Municipality, particularly in years where multiple assets require at least some level of upgrade or replacement, maintenance activities on assets should be strongly considered as a viable alternative.

Maintenance activities can be used to prolong the asset life expectancy, improve the condition rating of the asset, and in some cases revise the year in service of the asset where maintenance activities improved the condition of the asset to a like-new state.

The benefits of an appropriate maintenance schedule for municipal assets include, but may not be limited to, the following:

- Increasing available funds to be used in other maintenance, upgrades, or replacement of assets.
- Prolonging asset life expectancies beyond accounting-based estimates/pre-determined values.
- Allowing for additional years for the Municipality to save/budget for replacement assets.

5.4 Assumptions on Future Changes in Population and Economic Activity

Given the small, rural nature of the Municipality, significant changes in population and economic activity are not expected within the next 10-year and 30-year planning horizons. Conditions are anticipated to remain generally

consistent with current Statistics Canada data (Table 1). Per Statistics Canada, the population percent change in the Municipality between 2016 to 2021 was +0.4%, which was interpreted to represent a generally steady-state for the Municipality's population.

Based on the above, the following is interpreted to be pertinent to lifecycle activities for municipal assets:

1. Maintaining levels of service at current levels for municipal assets is interpreted to be possible, based on the current tax base.
2. Lifecycle activities for specific core municipal assets should be considered on a case-by-case basis by Municipal Staff and/or consultants, but in general, lifecycle activities for similar assets (i.e. roads, bridges, etc.) should be conducted in a consistent manner, and be based on appropriate studies/reviews and technical metrics.
3. As part of the determination of lifecycle activities that differ from replacement/upgrade (or similar), the Municipality should also consider if risk elements are subsequently increased as it pertains to level of service on a case-by-case basis for any municipal asset.
4. Decision-making processes with respect to level of service and risk should be completed with consideration of the lowest cost alternative, whilst maintaining the desired level of service for its ratepayers over the short and long-term planning horizons.

5.5 Detailed Risk Assessments and Asset Management Planning Activities

A detailed risk assessment for the core assets of the Municipality was not part of the scope of the AMP Report (Version 1.2). However, in future it may be desirable for the Municipality to consider analysing their core assets from a risk management perspective. Risk may be defined in various way; however, the following two (2) examples of the definition of risk are interpreted to be useful for establishing context:

1. Federation of Canadian Municipalities (FCM) Definition:
 - The product of the likelihood and consequence of an undesirable event or circumstance (i.e. Risk = [Likelihood X Consequence]).
2. ISO 55000:2014 – Asset Management Definition:
 - The effect of uncertainty on objectives (or result to be achieved). An effect is a deviation from the expected – either positive or negative.

Risk management involves a focus on identifying and assessing risk and determining methods to mitigate the risk from multiple potential risk elements: Examples of risk elements include:

1. Deteriorating or aging assets.
2. Threats to public health and safety.
3. Natural disasters.
4. Climate change.
5. Downgrading Level of Service of assets.

As part of risk assessment activities, there are many tools that can be utilized including the Bowtie model, Risk Matrix model, and Decision Tree model, among others. The appropriate model to utilize should be examined at the time of implementation of detailed risk assessments for municipal assets.

5.6 Determination of Priority Assets for Replacement/Upgrade

The determination of priority assets for replacement or upgrade should be considered based upon multiple factors, rather than on a singular element (i.e. Projected Replacement or Upgrade Year). It is recommended that

the determination of a priority asset for replacement or upgrade should, at a minimum, consider the following aspects, as indicated in Tables 4a to 4e:

1. Year in Service.
2. Asset Life Expectancy.
3. Projected Replacement or Upgrade Year.
4. Condition Rating (or PCI/BCI, in case of road or bridge assets).
5. Current Level of Service.

Determination of priority assets for replacement or upgrade should also consider available municipal budget monies, available municipal reserves, or any Federal or Provincial funding or grants available at that time. Any special projects, as determined by the Municipality prior to the development of this AMP Report, should also be considered for priority asset status (as may be applicable).

6.0 Priorities and Recommendations

Based on the data presented in Tables 4a to 4f, and Tables 5a to 5f, the following is a summary of the priority assets, by category, that should be considered for replacement and/or upgrade (or additional review) by the Municipality as part of this AMP Report.

6.1 Roads

Based on the details presented in Table 4a – Detailed Summary of Municipal Assets (Roads) and related field investigations of the Municipality’s roads in the 2019 Road Needs Study (Greenview, 2019a), the following priority road sections are recommended to be investigated further as part of future road reconstruction/rehabilitation, and/or maintenance opportunities. The priority road sections for further investigation were determined by the following procedure:

1. Sorting the data for all road sections by pavement type, based on the PCI (lowest to highest).
2. Sorting the top ranked road sections with the lowest PCI by Current Level of Service (highest level of service = 5, lowest level of service = 1), and then by PCI value.

The top road sections with the lowest PCI values were then selected and included the sections below. In cases where road sections in the top 10 had identical PCI values and Current Levels of Service, then they were included, in order to not preferentially select road sections based on alphabetical order. For this reason, both Sections 6.1.1 (HCB Road Sections) and 6.1.3 (Gravel Road Section) have road sections identified below, and Section 6.1.2 (LCB Road Sections) has the road sections identified in their respective table.

It is recommended that the Municipality consider population density and traffic volumes (i.e. established through traffic studies) in order to further review the above noted list of potential priority road sections for reconstruction, rehabilitation and/or maintenance.

Priority road assets recommended for further review are summarized in Table 6a of this AMP Report.

6.1.1 HCB Road Sections

The following HCB road sections have been identified as assets that should be considered for additional review as part of asset management planning initiatives in the Municipality.

Asset ID	Asset Name	Road Location From	Road Location To	Section Length (m)	Asset Life Expectancy	PCI (0-100)	Current Level of Service	Reconstruction / Rehabilitation Cost
R19-286	Quinns Lane	Victoria Street	Colborne Street	95	4	46	2	\$ 15,131
R19-149	James Street North	Jamieson Street	Hannah Street	100	5	56	2	\$ 21,959
R19-268	Pomeroy Court	College Street	End	52	5	56	2	\$ 6,370
R19-156	Jane Street East	Victoria Street	End	85	5	57	2	\$ 13,012
R19-37	Brooklyn Road	St. Joseph Street	End	76	5	58	2	\$ 15,082
R19-214	Matilda Street	Queen Street	Franklin Street	100	5	58	2	\$ 17,041

6.1.2 LCB Road Sections

The following LCB road sections have been identified as assets that should be considered for additional review as part of asset management planning initiatives in the Municipality.

Asset ID	Asset Name	Road Location From	Road Location To	Section Length (m)	Asset Life Expectancy	PCI (0-100)	Current Level of Service	Reconstruction / Rehabilitation Cost
R19-339	Sulphide Road	Lajoie Road	Greenwood Road	2,243	6	62	4	\$ 316,799
R19-338	Sulphide Road	Hollister Road	Lajoie Road	578	8	70	4	\$ 81,636
R19-279	Queensborough Road	2728 m NW of Highway 7	Bosley Road	2,029	5	59	3	\$ 269,354
R19-96	Flinton Road	Elzevir Road	Boundary	3,106	6	60	3	\$ 429,410
R19-357	Vanderwater Road	Highway 37	Esker Road	2,352	6	60	3	\$ 273,890
R19-98	Flinton Road	Robinson Road North	Elzevir Road	7,062	6	61	3	\$ 887,645
R19-235	Moneymore Road	Hogs Back Road	Old Hungerford Road	9,847	6	61	3	\$ 1,276,817

6.1.3 Gravel Road Sections

The Municipality upgrades all gravel road sections generally on an annual basis.

6.2 Bridges and Large Culverts

Based on a review of the 2020 OSIM Bridge Inspection Submission (Jewell Engineering, 2020), specific repair and rehabilitation requirements were noted for the Municipality's bridges and large culverts. Details regarding each bridge or large culvert are included on Table 4b – Detailed Summary of Municipal Assets (Bridges and Large Culverts).

Based on the details presented in Table 4b – Detailed Summary of Municipal Assets (Bridges and Large Culverts), and reported in the 2018 OSIM Bridge Inspection Submission (Jewell Engineering, 2019), the following priority bridges and large culverts are recommended to be investigated further as part of future repairs, reconstruction/rehabilitation, replacement and/or maintenance opportunities. The priority bridges and large culverts for further investigation were determined by the following procedure:

1. Sorting the data for all bridges and large culverts based on the Bridge Condition Index (BCI) from lowest BCI to highest BCI.
2. Sorting the top ten (10) bridges and large culverts with the lowest BCI by Current Level of Service (highest level of service = 5, lowest level of service = 1), and then by BCI value.

The top five (5) bridges and large culverts recommended for further review based on the above-noted process are as follows:

Asset ID	Asset Name	Detailed Asset Desc.	Asset Life Expectancy Remaining (years)	Condition Rating	BCI (0-100)	Current Level of Service	Replacement and/or Upgrade Cost
BC19-11	Downey Rapids South Structure (Bridge #27)	Bridge	1	Poor	36	1	\$ 1,405,000
BC19-04	Bradshaw Bridge (Bridge #36)	Bridge	1	Poor	47	3	\$ 1,095,000
BC19-18	Hawkins Bridge (Bridge #22)	Bridge	1	Poor	52	4	\$ 1,548,000
BC19-37	Queensborough Bridge (Bridge #42)	Bridge	1	Poor	53	3	\$ 845,000
BC19-44	Scotchwoman Bridge (Bridge #39)	Bridge	1	Poor	53	3	\$ 1,095,000
BC19-39	Reynolds Culvert (Bridge #38)	Culvert	6	Poor	54	3	\$ 530,000
BC19-48	Sulphide Creek Bridge (Bridge #23)	Bridge	1	Poor	55	4	\$ 1,160,000
BC19-50	Waterhouse Culvert (Bridge #1)	Culvert	6	Poor	57	3	\$ 315,000

Priority bridge and large culvert assets recommended for further review are summarized in Table 6b of this AMP Report.

6.3 Water Supply Services

Based on the details presented in Table 4c – Detailed Summary of Municipal Assets (Water Supply Services), and reported in the Water Asset Study (Greenview, 2019b), the following priority water supply services assets are recommended to be investigated further as part of future repairs, reconstruction/rehabilitation, replacement and/or maintenance opportunities. The priority water supply services assets for further investigation were determined by the following procedure:

1. Sorting the data for all water supply services assets based on the condition rating, from lowest (poor) to highest (good).

Given that the current level of service for all water supply services assets were understood to have the highest level of service (Level of Service = 5), further sorting by current level of service was not deemed to be significant, and an alternative method of priority sorting was required.

The following alternative priority sorting methodology was utilised:

1. Given that water supply services assets that were identified as having a “poor” condition rating were dominantly Fire Hydrants, all Fire Hydrant assets with a “poor” condition rating were then sorted by Year in Service (or Last Upgrade Year). The five (5) oldest Fire Hydrants with a “poor” condition rating were identified as follows:

Asset ID	Asset Name	Asset Class	Year in Service	Condition Rating	Replacement and/or Upgrade Cost
WS19-187	Fire Hydrant (No. 82)	Hydrant	1931	Poor	\$ 10,000
WS19-199	Fire Hydrant (No. 94)	Hydrant	1949	Poor	\$ 10,000
WS19-198	Fire Hydrant (No. 93)	Hydrant	1950	Poor	\$ 10,000
WS19-185	Fire Hydrant (No. 80)	Hydrant	1953	Poor	\$ 10,000
WS19-175	Fire Hydrant (No. 70)	Hydrant	1969	Poor	\$ 10,000

The replacement and/or upgrade costs of approximately \$10,000 per hydrant represent the cost to replace and install a full, new hydrant; however, based on observations of deficiencies in 2019 (i.e. during the fire flow testing completed by Lakeshore Hydrant Services Inc.), only two (2) of the five (5) hydrants noted above are understood to require replacement. It is recommended that as many of the Fire Hydrants identified on Table 4c as requiring maintenance only (not replacement) be considered as part of municipal budgeting in the short-term planning period. Ultimately, thirty-three (33) Fire Hydrants in the Village of Tweed were identified as being in “poor” condition, and require either maintenance or replacement (Table 4c).

As it pertains to other water supply services assets (excluding Fire Hydrants), the following sorting methodology was conducted in order to determine water supply services assets for further investigation:

1. Sorting the data for all water supply services assets based on the condition rating, from lowest (poor) to highest (good), followed by sorting on Year in Service (or Last Upgrade Year).

The sorting of water supply services assets (excluding Fire Hydrants) by this methodology resulted in an asset set of Water Mains of similar age and construction material:

Asset ID	Asset Name	Asset Class	Construction Material	Location		Length (m)	Year in Service	Condition Rating	Replacement and/or Upgrade Cost
				Location From	Location To				
WS21-67	Water Main	Distribution	Cast Iron	Moira River North Connection		91	1930	Poor	\$ 900,000
				Bridge Street East	Moira Street				
WS19-31	Water Main	Distribution	Cast Iron	Hungerford Road		291	1925	Fair	\$ 246,992
				Park Avenue	Metcalf Street				
WS19-33	Water Main	Distribution	Cast Iron	James Street North		112	1925	Fair	\$ 95,200
				Jamieson Street East	End (South-East)				
WS19-34	Water Main	Distribution	Cast Iron	James Street South		74	1925	Fair	\$ 62,900
				River Street East	End (North-West)				
WS19-35	Water Main	Distribution	Cast Iron	Jamieson Street East		95	1925	Fair	\$ 80,750
				Mary Street	Colborne Street				
WS19-36	Water Main	Distribution	Cast Iron	Jamieson Street East		97	1925	Fair	\$ 82,450
				Louisa Street	Mary Street				
WS19-37	Water Main	Distribution	Cast Iron	Jamieson Street East		94	1925	Fair	\$ 79,900
				James Street North	Louisa Street				
WS19-38	Water Main	Distribution	Cast Iron	Jamieson Street East		97	1925	Fair	\$ 82,450
				Colborne Street	Victoria Street North				

Priority water supply services assets recommended for further review are summarized in Table 6c of this AMP Report.

6.4 Wastewater Services

Based on the details presented in Table 4d – Detailed Summary of Municipal Assets (Wastewater Services), and reported in the Wastewater Asset Study (Greenview, 2019c), the following priority wastewater services assets are recommended to be investigated further as part of future repairs, reconstruction/rehabilitation, replacement and/or maintenance opportunities. The priority wastewater services assets for further investigation were determined by the following procedure:

1. Sorting the data for all wastewater services assets based on the condition rating, from lowest (poor) to highest (good), followed by sorting on Year in Service (or Last Upgrade Year).

The sorting of wastewater services assets by this methodology resulted in an asset set of Sewer Mains of generally similar age and construction material:

Asset ID	Asset Name	Asset Class	Construction Material	Location		Length (m)	Year in Service	Condition Rating	Replacement and/or Upgrade Cost
				Location From	Location To				
WW19-39	Sewer Mains	Distribution	Asbestos Cement	James Street South		128	1925	Fair	\$ 64,000
				River Street East	George Street				
WW19-41	Sewer Mains	Distribution	Asbestos Cement	Jamieson Street East		102	1925	Fair	\$ 51,000
				Colborne Street	Victoria Street North				
WW19-42	Sewer Mains	Distribution	Asbestos Cement	Jamieson Street East		96	1925	Fair	\$ 48,000
				Colborne Street	Mary Street				
WW19-43	Sewer Mains	Distribution	Asbestos Cement	Jamieson Street East		90	1925	Fair	\$ 45,000
				Louisa Street	James Street North				
WW19-44	Sewer Mains	Distribution	Asbestos Cement	Jamieson Street East		97	1925	Fair	\$ 48,500
				Mary Street	Louisa Street				
WW19-70	Sewer Mains	Distribution	Asbestos Cement	Moir Street		291	1930	Poor	\$ 145,500
				Highway 37	Old Bogart Road				
WW19-71	Sewer Mains	Distribution	Asbestos Cement	Moir Street		240	1930	Poor	\$ 120,000
				Old Bogart Road	Arthur Street				
WW19-14	Sewer Mains	Distribution	Asbestos Cement	Arthur Street		263	1931	Poor	\$ 131,500
				Brooklyn Road	Louisa Street				

In addition to the above noted Sewer Main sections that are recommended for further review, the Municipality has an immediate need to expand the capacity of their existing waste stabilization ponds. The existing two (2) waste stabilization ponds are understood to be in fair condition at this time; however, their volumetric capacity is understood to be insufficient for the volumes of wastewater requiring treatment, resulting in unplanned and planned wastewater discharges to the adjacent Stoco Lake. A new waste stabilization pond is required to address the deficiency in wastewater flow generated in the Village of Tweed. The planning, design, and approval process for the construction of a third pond was well underway as of 2021.

Priority wastewater services assets recommended for further review are summarized in Table 6d of this AMP Report.

6.5 Stormwater Assets

Based on the details presented in Table 4e – Detailed Summary of Municipal Assets (Stormwater Assets), and reported in the Stormwater Asset Study (Greenview, 2021a), the following priority stormwater assets are recommended to be investigated further as part of future repairs, reconstruction/rehabilitation, replacement and/or maintenance opportunities. The priority stormwater assets for further investigation were determined by the following procedure:

1. Sorting the data for all stormwater assets based on the current level of service, whether the catchment area systems were interpreted to be resilient to a 5-year storm, and condition rating, from lowest (poor) to highest (good).

The sorting of stormwater assets by this methodology resulted in an asset set recommended for further review as follows:

Asset ID	Asset Name	Detailed Asset Description (Catchment Area)	Catchment Area Type	Area (hectares; ha)	Inlet Structures (#)	Outlet Structures (#)	Number of Properties At Risk of Flooding to 100-year Storm	Systems Resilient to a 5-year Storm	Year in Service	Condition Rating	Level of Service	Replacement and/or Upgrade Cost
STW20-06	Tweed Centre	Catchment Area (Large)	CA01	60	172	1	0	No	1983	fair	5	\$ 1,720,000
STW20-09	Tweed East	Catchment Area (Medium)	CA04	6	27	1	0	No	1988	fair	4	\$ 270,000
STW20-12	Tweed North	Catchment Area (Multi)	CA00	30	61	individual outlets	10	Yes	1983	fair	4	\$ 610,000
STW20-01	Actinolite	Catchment Area (Small)	CA00	1	Unknown	Unknown	10	Unknown	Unknown	Unknown	Unknown	Unknown

With respect to further review of the above noted stormwater related assets, the following additional review activities are recommended:

1. Stormwater catchment areas of Tweed Centre (STW20-06) and Tweed East (STW20-09) are recommended to be reviewed in additional detail, in order to better establish whether there are any undetermined factors that influenced the calculations of whether the two (2) catchment area systems were resilient to a 5-year storm. Based on available information at the time of completion of the Stormwater Asset Study (Greenview, 2021a), the Estimated Inlet Flow rates for both Tweed Centre and Tweed East were larger than the Estimated Outlet Flow rates, resulting in both catchment area systems being identified as not resilient to a 5-year storm. Additional study is recommended to confirm or disprove these preliminary calculations.
2. Based on the review of the Tweed North catchment area (STW20-12), the stormwater systems in this catchment area were determined to be complex, with an unknown quantity of outlets identified as a data gap, with assumed discharge to the Moira River. Additional study is recommended in this area to further establish the quantity of outlets and better understand how stormwater is managed in the catchment area.
3. At the time of completion of the Stormwater Asset Study, it was understood that there were no known stormwater assets located within the small catchment area associated with the hamlet of Actinolite (STW20-01); however, if any stormwater assets are identified within the hamlet of Actinolite in the future, then additional study is recommended to be completed in the catchment area to establish specific locations of any/all inlet and outlet locations, and related components, and have them integrated into the Municipality's Asset Management Planning documents.

Priority stormwater assets recommended for further review are summarized in Table 6e of this AMP Report.

6.6 Building & Facility Assets

Based on the details presented in Table 4f – Detailed Summary of Municipal Assets (Buildings & Facilities), and reported in the Stormwater Asset Study (Greenview, 2021a), the following priority building and facility assets are recommended to be investigated further as part of future repairs, reconstruction/rehabilitation, replacement and/or maintenance opportunities. The priorities for further investigation are noted as follows:

Asset ID	Asset Name	Detailed Asset Description	Asset Use	Area		Year in Service	Condition Rating	Level of Service	Replacement and/or Upgrade Cost
				Value	Units				
BF22-02	Kiwanis Pavillion	Building	Community Hall	372	m2	1929	Unknown	3	Unknown
BF22-03	Lions Hungerford Hall & Administration Office	Building	Community Hall	250	m2	1877	Unknown	3	Unknown
BF22-09	Stoco Public Works Sand Dome (Old)	Building	Sand Storage	610	m2	1987	Unknown	5	\$ 1,000,000
BF22-11	Thomasburg Hall	Building	Community Hall	225	m2	1890	Fair	3	Unknown
BF22-13	Tweed Fire Station #1	Building	Fire Hall	610	m2	1970	Fair	5	Unknown

It is noted that only approximately 50% of the Municipality's buildings have been studied as of 2021. The balance of facilities are planned in the near future, and the results of the complete studies will update these priorities.

6.7 Coordination of Asset Replacements/Upgrades

Given the interconnection of surficial linear assets (i.e. roads, bridges and large culverts) and sub-surface linear assets (i.e. water mains, sewer mains, stormwater assets, etc.), the Municipality should consider combining asset replacements/upgrades where the upgrade/replacement of one (1) asset may impact other asset categories in the same area (i.e. if a water main requires replacement, also consider replacement of the sewer mains, stormwater assets, and road pavement surface in the same area). Similarly, the Municipality may consider extending a replacement schedule for a given asset in order to time its replacement with a planned replacement schedule for another related asset.

Financial benefits (i.e. cost savings) may be attained with this asset management approach.

6.8 Recommendations for Future Asset Management Planning Activities

It is recommended that, as part of any future development of this AMP Report, the Municipality should consider completing a detailed operational review of all assets, with a focus on the potential for decreasing the quantity of existing Municipal assets (i.e. buildings, vehicles, etc.) while at the same time maintaining the current level of service expected by its ratepayers. Inclusion of all Municipal asset categories in a future AMP is required by no later than July 1, 2024, per Section 5 (1) of O.Reg. 588/17 (as amended by O.Reg. 193/21, Appendix A).

Updates to studies related to Municipality assets should be completed in accordance with timelines outlined in O.Reg. 588/17 (as applicable), as a governing principle.

As noted in Section 5.5, it is recommended that the Municipality consider conducting a detailed risk analysis for municipal assets as part of future asset management planning activities to further assist in the decision-making process of establishing priority assets for additional review, upgrade and/or replacement.

7.0 Closing

Greenview has prepared this Asset Management Plan Report (Version 2.0) in order to meet with the requirements of O.Reg. 588/17 – Asset Management Planning for Municipal Infrastructure.

This report is governed by the attached statement of service conditions and limitations (Appendix B).

All respectfully submitted by,

Greenview Environmental Management Limited



Tyler H. Peters, P.Eng.

Project Director

8.0 Selected References

- Greenview, 2019a. 2019 Road Needs Study. Greenview Environmental Management Limited, August 30, 2019.
- Greenview, 2019b. Water Asset Study – Municipal Water System. Greenview Environmental Management Limited, August 30, 2019.
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- Jewell Engineering Inc., 2019. Municipality of Tweed – 2018 OSIM Bridge Inspection Report. Jewell Engineering Inc., January 24, 2019.
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- Ontario Ministry of Transportation (MTO), 2016. Manual for Condition Rating of Flexible Pavements – Distress Manifestations (SP-024). MTO Highway Standards Branch, 2016.
- Ontario Ministry of Transportation (MTO), 1989. Manual for Condition Rating of Surface-Treated Pavements – Distress Manifestations (SP-021). MTO Research and Development Branch, August 1989.
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- Ontario Regulation 232/02 – Minimum Maintenance Standards for Municipal Highways.
- Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure, as amended.
- Queen’s Printer for Ontario, 2012. Building Together – Guide for Municipal Asset Management Plans, Infrastructure Ontario. 2012.
- Quinte Conservation Authority Flood Mapping, 2009 & 1983.
- Statistics Canada, 2021. Census Profile, 2021 Census, Municipality of Tweed. [Profile table, Census Profile, 2021 Census of Population - Tweed, Municipality \(MU\) \[Census subdivision\], Ontario \(statcan.gc.ca\)](#).

Tables





Table 1
Municipal Study Area Characteristics
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Population ¹	6,067
Population Percent Change (2016 to 2021) ^{1,2}	0.4%
Total Households ¹	3,042
<i>Permenant Households</i> ¹	2,591
<i>Seasonal Households</i> ³	451
Land Area (square kilometres) ¹	919
Land Area (square kilometres) ⁴	975
Population Density (population per square kilometres) ¹	6.6
Population Density (population per square kilometres) ⁴	6.2

Notes:

1. Data from Statistics Canada (September 14, 2022).
2. Percentage (%).
3. Calculated from data from Statistics Canada.
4. Land area based on information provided by County of Hastings (2019).



Table 2a
Road Network Summary
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Road Network Summary

Road Type	No. of Road Sections	Total Length in Kilometres (km)	No. of Lane Kilometres (km)	Percentage of Total Road Network (%)	Replacement and/or Maintenance Cost
Gravel	165	253.68	507.36	61.76%	\$ 250,000
High Class Bituminous (HCB)	112	36.43	72.87	8.87%	\$ 8,316,539
Low Class Bituminous (LCB)	98	120.63	241.26	29.37%	\$ 15,516,027
TOTAL	375	410.74	821.48	100.00%	\$ 24,082,566

Road Information by Geographic Township

Road Type	Grimsthorpe Township	Elzevir Township	Hungerford Township (& Village of Tweed)	Multi-Township Road Sections (Hungerford/Elzevir)	TOTAL
	Total Length in Kilometres (km)				
Gravel	0.00	55.96	189.36	8.36	253.68
High Class Bituminous (HCB)	0.00	1.58	34.85	0.00	36.43
Low Class Bituminous (LCB)	0.26	24.49	95.88	0.00	120.63
Percentage of Total Road Network	0.06%	19.97%	77.93%	2.03%	100.00%
TOTAL	0.26	82.04	320.09	8.36	410.74

Road Information by Municipal Road Class

Municipal Road Class	Total Length in Kilometres (km)	Percentage of Total Road Network (%)
Class 2	0.58	0.14%
Class 3	16.22	3.95%
Class 4	75.12	18.29%
Class 5	15.89	3.87%
Class 6	302.94	73.75%
TOTAL	410.74	100.00%

Road Information by Municipal Road Class Description

Municipal Road Class Description	Total Length in Kilometres (km)	No. of Lane Kilometres (km)	Percentage of Total Road Network (%)	Municipal Land Area (km ²)	Road Density (km/km ²)
Arterial	0.58	1.15	0.14%	975	0.0012
Major Collector	27.36	54.73	6.66%		0.056
Minor Collector	62.74	125.48	15.27%		0.129
Local	319.81	639.61	77.86%		0.656
Partially Maintained	0.26	0.51	0.06%		0.00053
TOTAL	410.74	821.48	100.00%	-	0.421

Road Information by Pavement Condition Index (PCI)

Road Type	Average PCI	Average Condition Rating	% PCI 75-100	% PCI 50-75	% PCI <50
		(good / fair / poor)	Good	Fair	Poor
Gravel	73.13	Fair	22.40%	21.07%	0.53%
High Class Bituminous (HCB)	83.71	Good	22.13%	7.47%	0.27%
Low Class Bituminous (LCB)	71.76	Fair	10.40%	15.47%	0.27%
TOTAL	75.93	Good	54.93%	44.00%	1.07%



Table 2b
Bridges and Large Culvert Summary
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Bridge Summary

Structure Type	Quantity	% Loading Restrictions	% Dimensional Restriction	Average Age (years)	Rehabilitation Cost	Replacement Cost	Additional Investigations	Total Upgrade Cost
Bridges	45	44%	58%	29	\$ 1,701,500	\$ 71,240,000	\$ 171,000	\$ 73,112,500
Culverts	7	0%	14%	7	\$ -	\$ 4,530,000	\$ 15,000	\$ 4,545,000
TOTAL	52	38%	52%	16	\$ 1,701,500	\$ 75,770,000	\$ 186,000	\$ 77,657,500

Description of Traffic that is Supported by Municipal Bridges and Large Culverts
- Motor Vehicles
- Heavy Transport Vehicles
- Emergency Vehicles
- Pedestrians
- Cyclists



Table 2c
Water Supply Services Summary
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Water Supply Services Summary

Asset Description and Class		Construction Material (Cast Iron / PVC)	Quantity	Units	Average Age (years)	Replacement and/or Maintenance Cost
Building	Distribution		1	#	24	\$ 3,000,000
Building	Treatment		1	#	23	\$ 1,000,000
Equipment	Distribution		5	#	8	\$ 2,085,000
Water Main	Distribution	Cast Iron	7,570	m	84	\$ 7,257,190
Water Main	Distribution	PVC	8,002	m	19	\$ 6,801,887
Equipment	Hydrant		97	#	22	\$ 970,000
Equipment	Treatment		8	#	15	\$ 275,000
TOTAL					35	\$ 21,389,077

Percentage of Properties Connected to Municipal Water System	Percentage of Properties where Fire Flow is Available	No. of Connection Days per Year where a Boil Water Advisory Notice is in Place Compared to the Total Number of Properties Connected to the Municipal Water System	No. of Connection-Days per Year Due to Water Main Breaks Compared to the Total Number of Properties Connected to the Municipal Water System
= (730 / 4,695)	= (730 / 4,695)	= (730 x 2) / 730	= (10 x 2) / 730
= 15.5%	= 15.5%	= 2	= 0.027
-	-	-	-



**Table 2d
Wastewater Services Summary
Asset Management Planning (2021)
Municipality of Tweed
169.21.003**

Wastewater Services Summary

Asset Description and Class		Sewer Type (PVC / Asbestos Cement / Forcemain)	Quantity	Units	Average Age (years)	Replacement and/or Maintenance Cost
Facility	Distribution		2	#	46	\$ 450,000
Equipment	Distribution		5	#	7	\$ 98,000
Equipment	Treatment		3	#	16	\$ 155,000
Land	Treatment		2	#	46	\$ 200,000
Sewer	Distribution	PVC	6,982	m	18	\$ 3,490,965
Sewer	Distribution	Asbestos Cement	6,146	m	83	\$ 3,072,868
Sewer	Distribution	Forcemain	1,570	m	46	\$ 785,000
TOTAL		-	-	-	47	\$ 8,251,833

Percentage of Properties Connected to the Municipal Wastewater System	No. of Events per Year Where Combined Sewer Flow in the Municipal Wastewater System Exceeds System Capacity Compared to the Total Number of Properties Connected to the Municipal Wastewater System	No. of Connection-Days per Year Due to Wastewater Backups Compared to the Total Number of Properties Connected to the Municipal Wastewater System	No. of Effluent Violations per Year Due to Wastewater Discharge Compared to the Total Number of Properties Connected to the Municipal Wastewater System
= (730 / 4,695)	The municipal wastewater system does not have combined sewers.	No connection-days occur when a wastewater service issue arises, as there are no interruptions in service as bypassing and/or discharges are undertaken to avoid backups.	= (3 / 730)
= 15.5%			= 0.004
-	-	-	-



Table 2e
Stormwater Asset Summary
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Stormwater Assets Summary

Asset Description	Number of Catchment Areas	Total Hectares (ha)	Total Inlet Structures (#)	Total Outlet Structures (#)	Total Properties At Risk to Flooding to 100-year Storm (#)	Total Systems Not Resilient to a 5-year Storm (#)	Average Age (years)	Replacement and/or Maintenance Cost
Catchment Area (Small)	7	8	20	6	61	0	26	\$ 160,000
Catchment Area (Medium)	2	12	49	2	5	1	33	\$ 490,000
Catchment Area (Large)	2	110	226	3	0	1	38	\$ 1,960,000
Catchment Area (Multi)	1	30	61	individual outlets	10	0	38	\$ 610,000
TOTAL	12	160	356	11	76	2	36	\$ 3,220,000

Percentage of Properties in Municipality that are Resilient to 100-year Storm	Percentage of Municipal Stormwater Management System Resilient to a 5-year Storm
= (4,870 Total Properties in Municipality) - (76 Properties At Risk to 100-year Storm) ÷ (4,870 Total Properties in Municipality) x 100%	= (Total Number of Inlet Structures - Inlet Structures in Tweed East) ÷ (Total Number of Inlet Structures) x 100%
= 98.44%	92.42%



Table 2f
Building & Facility Assets
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Building & Facility Assets Detail Summary

Asset Description	Quantity	Area		Average Age (years)	Replacement and/or Upgrade Cost
Buildings (Administration)	1	585	m ²	54	\$ 150,000
Buildings (Public Works)	5	1455	m ²	31	\$ 2,500,000
Buildings (Parks & Recreation)	7	4197	m ²	100	Unknown
Buildings (Fire)	1	610	m ²	51	Unknown
Buildings (Tourism & Promotion)	1	35	m ²	121	\$ 20,000
Buildings (Library)	1	565	m ²	11	\$ 20,000
Buildings (Waste)	2	225	m ²	11	\$ 45,000
TOTAL	18	7,087	m²	379	\$ 2,735,000



Table 3a
General Summary of Municipal Assets
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset Type	Detailed Asset Description			Projected Contributions to Reserves											TOTAL - 10 year (Replacement Cost)	TOTAL - 30 Year (Replacement Cost)	Total Required Reserve (Replacement Cost)	Estimated Borrowing Cost (Replacement Cost)	Difference (Borrowing - Savings)	Total 30 Year (Maintenance Cost - Gravel Roads)
				Years 1 to 5					Years 6 to 10											
				2021	2022	2023	2024	2025	2026	2027	2028	2029	2030							
Roads	High Class Bituminous (HCB)			\$ 212	\$ 669,181	\$ 669,181	\$ 669,181	\$ 669,181	\$ 642,226	\$ 597,507	\$ 560,555	\$ 475,649	\$ 420,493	\$ 5,373,368	\$ 6,557,113	\$ 8,316,328	\$ 10,179,255	\$ 1,862,927		
	Low Class Bituminous (LCB)			\$ -	\$ 2,140,261	\$ 2,140,261	\$ 2,140,261	\$ 2,140,261	\$ 2,130,774	\$ 1,975,541	\$ 1,266,579	\$ 885,539	\$ 347,963	\$ 15,167,440	\$ 15,423,027	\$ 15,516,027	\$ 18,991,747	\$ 3,475,721		
	Gravel			\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 2,500,000	\$ -	\$ -	\$ -	\$ -	\$ 7,500,000	
	SUB-TOTAL			\$ 250,212	\$ 3,059,443	\$ 3,059,443	\$ 3,059,443	\$ 3,059,443	\$ 3,022,999	\$ 2,823,049	\$ 2,077,134	\$ 1,611,188	\$ 1,018,456	\$ 23,040,808	\$ 21,980,139	\$ 23,832,354	\$ 29,171,003	\$ 5,338,648	\$ 7,500,000	
Bridges and Large Culverts	Bridges			\$ 230,204	\$ 29,270,397	\$ 28,747,250	\$ 27,984,658	\$ 27,984,658	\$ 1,908,522	\$ 1,908,522	\$ 1,908,522	\$ 1,908,522	\$ 1,908,522	\$ 123,759,777	\$ 123,759,777	\$ 73,112,500	\$ 110,175,556	\$ 37,063,056		
	Culverts			\$ 14,311	\$ 215,154	\$ 215,154	\$ 215,154	\$ 215,154	\$ 215,154	\$ 215,154	\$ 215,154	\$ 215,154	\$ 215,154	\$ 1,950,694	\$ 1,950,694	\$ 4,545,000	\$ 6,849,005	\$ 2,304,005		
	SUB-TOTAL			\$ 244,515	\$ 29,485,551	\$ 28,962,403	\$ 28,199,812	\$ 28,199,812	\$ 2,123,676	\$ 2,123,676	\$ 2,123,676	\$ 2,123,676	\$ 2,123,676	\$ 125,710,471	\$ 125,710,471	\$ 77,657,500	\$ 117,024,561	\$ 39,367,061		
Water Supply Services	Building	Distribution		\$ 99,995	\$ 38,158	\$ 38,158	\$ 38,158	\$ 38,158	\$ 38,158	\$ 38,158	\$ 38,158	\$ 38,158	\$ 38,158	\$ 443,417	\$ 1,206,576	\$ 3,000,000	\$ 4,520,796	\$ 1,520,796		
	Building	Treatment		\$ 33,332	\$ 18,590	\$ 18,590	\$ 18,590	\$ 18,590	\$ 18,590	\$ 18,590	\$ 18,590	\$ 18,590	\$ 18,590	\$ 200,640	\$ 572,435	\$ 1,000,000	\$ 1,506,932	\$ 506,932		
	Equipment	Distribution		\$ 69,497	\$ 71,931	\$ 71,931	\$ 71,931	\$ 71,931	\$ 71,931	\$ 44,543	\$ 44,543	\$ 44,543	\$ 44,543	\$ 607,324	\$ 1,498,175	\$ 2,085,000	\$ 3,141,953	\$ 1,056,953		
	Water Main	Distribution	Cast Iron	\$ 241,894	\$ 5,404,120	\$ 462,714	\$ 462,714	\$ 462,714	\$ 462,714	\$ 143,359	\$ 132,677	\$ 132,677	\$ 132,677	\$ 8,038,262	\$ 8,182,618	\$ 7,257,190	\$ 10,936,091	\$ 3,678,901		
	Water Main	Distribution	PVC	\$ 226,718	\$ 84,434	\$ 84,434	\$ 84,434	\$ 84,434	\$ 84,434	\$ 84,434	\$ 84,434	\$ 84,434	\$ 84,434	\$ 986,620	\$ 2,675,290	\$ 6,801,887	\$ 10,249,981	\$ 3,448,093		
	Equipment	Hydrant		\$ 32,332	\$ 213,488	\$ 163,168	\$ 163,168	\$ 124,501	\$ 94,120	\$ 84,454	\$ 74,787	\$ 74,787	\$ 74,787	\$ 1,099,593	\$ 2,186,654	\$ 970,000	\$ 1,461,724	\$ 491,724		
	Equipment	Treatment		\$ 9,166	\$ 41,932	\$ 41,932	\$ 41,932	\$ 41,932	\$ 20,182	\$ 20,182	\$ 20,182	\$ 20,182	\$ 20,182	\$ 277,803	\$ 358,864	\$ 275,000	\$ 386,652	\$ 111,652		
	SUB-TOTAL			\$ 712,934	\$ 5,872,653	\$ 880,927	\$ 880,927	\$ 842,260	\$ 790,129	\$ 433,718	\$ 413,370	\$ 413,370	\$ 413,370	\$ 11,653,658	\$ 16,680,613	\$ 21,389,077	\$ 32,204,128	\$ 10,815,050		
Wastewater Services	Facility	Distribution		\$ 38,879	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 107,399	\$ 259,666	\$ 308,000	\$ 678,119	\$ 228,119		
	Equipment	Distribution		\$ 8,467	\$ 13,353	\$ 6,044	\$ 6,044	\$ 6,044	\$ 6,044	\$ 6,044	\$ 6,044	\$ 6,044	\$ 6,044	\$ 70,170	\$ 111,915	\$ 98,000	\$ 128,837	\$ 30,837		
	Equipment	Treatment		\$ 13,392	\$ 21,370	\$ 21,370	\$ 21,370	\$ 21,370	\$ 21,370	\$ 21,370	\$ 4,240	\$ 4,240	\$ 4,240	\$ 154,328	\$ 197,739	\$ 155,000	\$ 218,193	\$ 63,193		
	Land	Treatment		\$ 17,279	\$ 45,680	\$ 45,680	\$ 45,680	\$ 45,680	\$ 45,680	\$ 45,680	\$ -	\$ -	\$ -	\$ 291,360	\$ 291,360	\$ 200,000	\$ 301,386	\$ 101,386		
	Sewer	Distribution	PVC	\$ 301,609	\$ 82,886	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 714,625	\$ 1,539,952	\$ 3,536,465	\$ 5,329,212	\$ 1,792,747		
	Sewer	Distribution	Asbestos Cement	\$ 265,487	\$ 1,805,124	\$ 223,644	\$ 223,644	\$ 223,644	\$ 223,644	\$ 76,440	\$ 76,440	\$ 76,440	\$ 76,440	\$ 3,270,945	\$ 3,462,922	\$ 3,027,368	\$ 4,562,037	\$ 1,534,669		
	Sewer	Distribution	Forcemain	\$ 67,822	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 290,394	\$ 785,000	\$ 785,000	\$ 1,182,942	\$ 397,942		
	SUB-TOTAL			\$ 712,934	\$ 2,000,756	\$ 370,348	\$ 370,348	\$ 370,348	\$ 370,348	\$ 223,143	\$ 160,333	\$ 160,333	\$ 160,333	\$ 4,899,222	\$ 6,648,554	\$ 8,251,833	\$ 12,400,727	\$ 4,148,893		
Stormwater Assets	Catchment Area (Small)			\$ -	\$ -	\$ -	\$ 2,399	\$ 2,399	\$ 2,399	\$ 2,399	\$ 2,399	\$ 2,399	\$ 2,399	\$ 16,795	\$ 69,580	\$ 160,000	\$ 240,482	\$ 80,482		
	Catchment Area (Medium)			\$ -	\$ -	\$ -	\$ 7,313	\$ 7,313	\$ 7,313	\$ 7,313	\$ 7,313	\$ 7,313	\$ 7,313	\$ 51,194	\$ 212,090	\$ 490,000	\$ 736,475	\$ 246,475		
	Catchment Area (Large)			\$ -	\$ -	\$ -	\$ 31,613	\$ 31,613	\$ 31,613	\$ 31,613	\$ 31,613	\$ 31,613	\$ 31,613	\$ 221,290	\$ 916,774	\$ 1,960,000	\$ 2,945,899	\$ 985,899		
	Catchment Area (Multi)			\$ -	\$ -	\$ -	\$ 9,839	\$ 9,839	\$ 9,839	\$ 9,839	\$ 9,839	\$ 9,839	\$ 9,839	\$ 68,871	\$ 285,323	\$ 610,000	\$ 916,836	\$ 306,836		
	SUB-TOTAL			\$ -	\$ -	\$ -	\$ 51,164	\$ 51,164	\$ 51,164	\$ 51,164	\$ 51,164	\$ 51,164	\$ 51,164	\$ 358,151	\$ 1,483,766	\$ 3,220,000	\$ 4,839,691	\$ 1,619,691		
Buildings & Facilities (Phase 1 Only)	Buildings (Administration)			\$ -	\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500	\$ 67,500	\$ 150,000	\$ 150,000	\$ 150,000	\$ -		
	Buildings (Public Works)			\$ -	\$ 310,000	\$ 310,000	\$ 310,000	\$ 310,000	\$ 310,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 1,830,000	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000	\$ -		
	Buildings (Parks & Recreation)			\$ -	\$ 120,500	\$ 120,500	\$ 120,500	\$ 120,500	\$ 120,500	\$ 80,500	\$ 80,500	\$ 80,500	\$ 80,500	\$ 924,500	\$ 1,370,000	\$ 1,370,000	\$ 1,370,000	\$ -		
	Buildings (Fire)			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	Buildings (Tourism & Promotion)			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	Buildings (Library)			\$ -	\$ 667	\$ 667	\$ 667	\$ 667	\$ 667	\$ 667	\$ 667	\$ 667	\$ 667	\$ 667	\$ 6,000	\$ 19,333	\$ 20,000	\$ 20,000	\$ -	
	Buildings (Waste)			\$ -	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 20,250	\$ 45,000	\$ 45,000	\$ 45,000	\$ -	



Table 3a
 General Summary of Municipal Assets
 Asset Management Planning (2021)
 Municipality of Tweed
 169.21.003

Asset Type	Detailed Asset Description	Projected Contributions to Reserves										TOTAL - 10 year (Replacement Cost)	TOTAL - 30 Year (Replacement Cost)	Total Required Reserve (Replacement Cost)	Estimated Borrowing Cost (Replacement Cost)	Difference (Borrowing - Savings)	Total 30 Year (Maintenance Cost - Gravel Roads)	
		Years 1 to 5					Years 6 to 10											
	SUB-TOTAL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	ALL ASSETS	TOTAL Projected Contributions to Reserves										TOTAL (10 year)	TOTAL (30 Year)	Total Required Reserve (Replacement Cost)	Estimated Borrowing Cost (Replacement Cost)	Difference (Borrowing - Savings)	Total 30 Year (Maintenance Cost - Gravel Roads)	
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030							
		\$ 1,920,595	\$ 40,418,402	\$ 33,273,120	\$ 32,561,694	\$ 32,523,027	\$ 6,358,316	\$ 5,654,750	\$ 4,825,677	\$ 4,359,731	\$ 3,766,999	\$ 165,662,309	\$ 172,503,544	\$ 134,350,765	\$ 195,640,108	\$ 61,289,343	\$ 7,500,000	

Notes:
 1. See Notes and Assumptions from Tables 4 and 5.



**Table 3b
Municipal Reserves and Allocation Summary
Asset Management Planning (2021)
Municipality of Tweed
169.21.003**

Summary of Reserves Applicable to Core Assets (from above)						
Asset Type	Detailed Asset Description			2021 Reserves (Non-Specific)	2021 Reserves (Specific)	2021 Reserves (Apportioned)
Roads	Gravel			\$ -	\$ 250,000	\$ 250,000
	High Class Bituminous (HCB)			\$ -	\$ -	\$ -
	Low Class Bituminous (LCB)			\$ -	\$ -	\$ -
	SUB-TOTAL			\$ -	\$ 250,000	\$ 250,000
Bridges & Large Culverts	Bridges			\$ 230,204	\$ -	\$ 230,204
	Culverts			\$ 14,311	\$ -	\$ 14,311
	SUB-TOTAL			\$ 244,515	\$ -	\$ 244,515
Water Supply Services	Building	Distribution		\$ 99,995	\$ -	\$ 99,995
	Building	Treatment		\$ 33,332	\$ -	\$ 33,332
	Equipment	Distribution		\$ 69,497	\$ -	\$ 69,497
	Water Main	Distribution	Cast Iron	\$ 241,894	\$ -	\$ 241,894
	Water Main	Distribution	PVC	\$ 226,718	\$ -	\$ 226,718
	Equipment	Hydrant		\$ 32,332	\$ -	\$ 32,332
	Equipment	Treatment		\$ 9,166	\$ -	\$ 9,166
SUB-TOTAL			\$ 712,934	\$ -	\$ 712,934	
Wastewater Services	Facility	Distribution		\$ 38,879	\$ -	\$ 38,879
	Equipment	Distribution		\$ 8,467	\$ -	\$ 8,467
	Equipment	Treatment		\$ 13,392	\$ -	\$ 13,392
	Land	Treatment		\$ 17,279	\$ -	\$ 17,279
	Sewer	Distribution	PVC	\$ 301,609	\$ -	\$ 301,609
	Sewer	Distribution	Asbestos Cement	\$ 265,487	\$ -	\$ 265,487
	Sewer	Distribution	Forcemain	\$ 67,822	\$ -	\$ 67,822
SUB-TOTAL			\$ 712,934	\$ -	\$ 712,934	
Stormwater Assets	Stormwater Assets			\$ -	\$ -	\$ -
	SUB-TOTAL			\$ -	\$ -	\$ -
TOTAL						\$ 1,920,383

Summary of Reserves Not Applicable to Core Assets	
Municipal Reserve Fund	2021 Reserves
Working Capital	\$ 531,167
Public Works	\$ 398,656
Public Works - Winter Maintenance	\$ 100,000
Public Works - Overtime Overage	\$ 15,000
Public Works - Contingencies	\$ 15,000
Community Improvement Plan	\$ 41,989
Arena	\$ 114,221
Fire Equipment (New Capital)	\$ 227,639
Fire Hall	\$ 23,202
Fire - Equipment Maintenance	\$ 20,000
Firefighter Wage Overage	\$ 15,000
Municipal Building	\$ 364,611
Heritage	\$ 31,806
Hamlets	\$ 72,846
Parks	\$ 109,254
Aggregate	\$ 208,239
Waste Site	\$ 1,188,988
TOTAL	\$ 3,477,618

TOTAL 2021 Reserves (from Consolidated Financial Statements)	
Applicable 2021 Reserves	\$ 1,920,383
Not Applicable 2021 Reserves	\$ 3,477,618
TOTAL	\$ 5,398,001



Table 3c
Detailed Municipal Reserves Allocation Calculations
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Reserves Applicable to Core Assets	2021 Reserves	Asset Type	Table No.	Detailed Asset Description	Specific Asset	% of Reserves Applied to Assets	Portion of Reserve Based on %
Annual Gravel Budget (Average)	\$ 250,000	Roads	4a	Gravel	Gravel Roads Only (annual maintenance)	100%	\$ 250,000
Public Works - Bridges	\$ 244,515	Bridges & Large Culverts	4b	Bridges		94%	\$ 230,204
		Bridges & Large Culverts	4b	Culverts		6%	\$ 14,311
Water and Sewer	\$ 1,257,313	Water Supply Services	4c	Water Supply Services		50%	\$ 628,656
		Wastewater Services	4d	Wastewater Services		50%	\$ 628,656
Village Infrastructure	\$ 168,556	Water Supply Services	4c	Water Supply Services		50%	\$ 84,278
		Wastewater Services	4d	Wastewater Services		50%	\$ 84,278
SUBTOTAL	\$ 1,920,383					SUBTOTAL	\$ 1,920,383

Summary of Reserves Applicable to Core Assets (from above)	
Asset Type	Reserve Total
Roads	\$ 250,000
Bridges & Large Culverts	\$ 244,515
Water Supply Services	\$ 712,934
Wastewater Services	\$ 712,934
Stormwater Assets	\$ -
Total Reserves Applicable to Core Assets	\$ 1,920,383

Summary of Reserves Not Applicable to Core Assets	
Asset Type	Reserve Total
Working Capital	\$ 531,167
Public Works	\$ 398,656
Public Works - Winter Maintenance	\$ 100,000
Public Works - Overtime Overage	\$ 15,000
Public Works - Contingencies	\$ 15,000
Community Improvement Plan	\$ 41,989
Arena	\$ 114,221
Fire Equipment (New Capital)	\$ 227,639
Fire Hall	\$ 23,202
Fire - Equipment Maintenance	\$ 20,000
Firefighter Wage Overage	\$ 15,000
Municipal Building	\$ 364,611
Heritage	\$ 31,806
Hamlets	\$ 72,846
Parks	\$ 109,254
Aggregate	\$ 208,239
Waste Site	\$ 1,188,988
Total Reserves Not Applicable to Core Assets	\$ 3,477,618
Total Reserves (as of December 31, 2021)	\$ 5,398,001

Notes: Reserve values per the 2021 Reserve Summary as provided by Municipality



Table 4a
Detailed Summary of Municipal Assets (Roads)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Gravel / LCB / HCB) ^{1,2}	Road Class		Geographic Township START ^{2,3}	Geographic Township END ^{2,3}	Road Location From ²	Road Location To ²	Section Length (m) ²	Road Width (m)	Shoulder Width (m)	Year in Service / or Last Upgrade Year ¹	Asset Life Expectancy (years) ¹	Projected Replacement or Upgrade Year	Pavement Condition Index (PCI; 0 - 100)	Condition Rating (good / fair / poor)	Current Level of Service (5 = high / 1 = low) ⁴
			Description	Municipal Class													
R19-01	Alexander Street	HCB	Local	5	Hungerford	Hungerford	Elvis Lane	Lakeview Lane	320	6.6	0.5	2010	11	2032	88	Good	2
R19-02	Alexander Street	HCB	Local	5	Hungerford	Hungerford	Elvis Lane	Louisa Street	136	6.6	0.5	2010	11	2032	86	Good	2
R19-03	Allore Court	Gravel	Local	6	Hungerford	Hungerford	Allore Road	End	560	5.00	n/a	2019	n/a	Annually	70	Fair	1
R19-04	Allore Road	Gravel	Local	6	Hungerford	Hungerford	Courneya Road	East Hungerford Road	1,493	7.00	n/a	2019	n/a	Annually	74	Fair	1
R19-05	Allore Road	Gravel	Local	6	Hungerford	Hungerford	Otter Creek Road	Courneya Road	1,480	6.20	n/a	2019	n/a	Annually	75	Good	1
R19-06	Allore Road	Gravel	Local	6	Hungerford	Hungerford	Stoco Road	Bogart Road	1,748	6.4	n/a	2019	n/a	Annually	75	Good	1
R19-07	Ann Street	HCB	Local	5	Hungerford	Hungerford	Queen Street	End	161	4.0	0.5	1993	7	2028	65	Fair	2
R19-08	Arthur Street	HCB	Local	5	Hungerford	Hungerford	Louisa Street	Brooklyn Road	268	8.0	0.5	1996	9	2030	77	Good	2
R19-09	Asselstine Road	Gravel	Local	6	Hungerford	Hungerford	Luffman Road	Marlbank Road	2,600	5.50	n/a	2019	n/a	Annually	77	Good	1
R19-10	Barry Road	LCB	Local	6	Elzevir	Elzevir	Queensborough Road	Boundary	1,215	5.5	1.5	2018	10	2031	81	Good	1
R19-11	Bethel Road	Gravel	Local	6	Hungerford	Hungerford	Carss Road	Uens Road	1,223	7.00	n/a	2019	n/a	Annually	76	Good	1
R19-12	Bethel Road	Gravel	Local	6	Hungerford	Hungerford	Marlbank Road	Mulrone Lane	336	5.00	n/a	2019	n/a	Annually	80	Good	1
R19-13	Bethel Road	LCB	Local	6	Hungerford	Hungerford	Marlbank Road	St. Edmunds Road	310	5.0	0.5		8	2029	70	Fair	1
R19-14	Bethel Road	Gravel	Local	6	Hungerford	Hungerford	Mulrone Lane	End	80	3.00	n/a	2019	n/a	Annually	48	Poor	1
R19-15	Bethel Road	Gravel	Local	6	Hungerford	Hungerford	St. Edmunds Road	Trillium Road	1,286	6.00	n/a	2019	n/a	Annually	78	Good	1
R19-16	Bethel Road	Gravel	Local	6	Hungerford	Hungerford	Trillium Road	Carss Road	896	7.00	n/a	2019	n/a	Annually	80	Good	1



Table 4a
Detailed Summary of Municipal Assets (Roads)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Gravel / LCB / HCB) ^{1,2}	Road Class		Geographic Township START ^{2,3}	Geographic Township END ^{2,3}	Road Location From ²	Road Location To ²	Section Length (m) ²	Road Width (m)	Shoulder Width (m)	Year in Service / or Last Upgrade Year ¹	Asset Life Expectancy (years) ¹	Projected Replacement or Upgrade Year	Pavement Condition Index (PCI; 0 - 100)	Condition Rating (good / fair / poor)	Current Level of Service (5 = high / 1 = low) ⁴
			Description	Municipal Class													
R19-17	Bethel Road	Gravel	Local	6	Hungerford	Hungerford	Uens Road	Highway 37	788	7.00	n/a	2019	n/a	Annually	82	Good	1
R19-18	Black River Road	Gravel	Local	6	Elzevir	Elzevir	Highway 7	Black River Lane	1,660	5.8	n/a	2019	n/a	Annually	69	Fair	1
R19-19	Black River Road	Gravel	Local	6	Elzevir	Elzevir	Highway 7	Kehoe Lane	1,563	6.0	n/a	2019	n/a	Annually	75	Good	1
R19-20	Black River Road	Gravel	Local	6	Elzevir	Elzevir	Highway 7	Kehoe Road	284	6.0	n/a	2019	n/a	Annually	75	Good	1
R19-21	Bogart Road	Gravel	Local	6	Hungerford	Hungerford	Allore Road	Sulphide Road	920	6.4	n/a	2019	n/a	Annually	78	Good	1
R19-22	Bogart Road	Gravel	Local	6	Hungerford	Hungerford	Stoco Road	Allore Road	785	6.5	n/a	2019	n/a	Annually	80	Good	1
R19-23	Bosley Road	LCB	Local	6	Elzevir	Elzevir	1002 m SE of Queensborough Road	Queensborough Road	1,002	5.0	0.6	2018	10	2031	80	Good	1
R19-24	Bosley Road	Gravel	Local	6	Elzevir	Elzevir	Croft Road	Ramsay Road	166	5.5	n/a	2019	n/a	Annually	73	Fair	1
R19-25	Bosley Road	Gravel	Local	6	Elzevir	Elzevir	Queensborough Road	Croft Road	1,804	6.0	n/a	2019	n/a	Annually	75	Good	1
R19-26	Bosley Road	Gravel	Local	6	Elzevir	Elzevir	Ramsay Road	1002 m S of Queensborough Road	1,275	5.0	n/a	2019	n/a	Annually	70	Fair	1
R19-27	Bridge Street East	HCB	Local	5	Hungerford	Hungerford	Victoria Street	Colborne Street	80	9.5	1.0	1992	6	2027	64	Fair	2
R19-28	Bridge Street West	HCB	Local	5	Hungerford	Hungerford	Metcalf Street	Victoria Street	99	9.5	0.5	1992	9	2030	78	Good	2
R19-29	Bridgewater Road	LCB	Local	6	Hungerford	Hungerford	563 m NW of Ekblad Road	Quarry Street	145	6.0	1.0	2016	7	2028	68	Fair	1
R19-30	Bridgewater Road	Gravel	Local	6	Elzevir	Elzevir	Ekblad Road	563 m NW of Ekblad Road	563	6.00	n/a	2019	n/a	Annually	72	Fair	1
R19-31	Bridgewater Road	Gravel	Local	6	Hungerford	Elzevir	Labarge Road	Ekblad Road	2,415	6.00	n/a	2019	n/a	Annually	70	Fair	1
R19-32	Bridgewater Road	Gravel	Local	6	Hungerford	Hungerford	Labarge Road	Potter Settlement Road	480	6.00	n/a	2019	n/a	Annually	75	Good	1



Table 4a
Detailed Summary of Municipal Assets (Roads)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Gravel / LCB / HCB) ^{1,2}	Road Class		Geographic Township START ^{2,3}	Geographic Township END ^{2,3}	Road Location From ²	Road Location To ²	Section Length (m) ²	Road Width (m)	Shoulder Width (m)	Year in Service / or Last Upgrade Year ¹	Asset Life Expectancy (years) ¹	Projected Replacement or Upgrade Year	Pavement Condition Index (PCI; 0 - 100)	Condition Rating (good / fair / poor)	Current Level of Service (5 = high / 1 = low) ⁴
			Description	Municipal Class													
R19-33	Bridgewater Road	LCB	Local	6	Hungerford	Hungerford	Quarry Street	Highway 37	124	6.0	1.0	2016	9	2030	78	Good	1
R19-34	Brinson Road	Gravel	Local	6	Hungerford	Hungerford	Rapids Road	End	845	5.00	n/a	2019	n/a	Annually	75	Good	1
R19-35	Brooklyn Road	HCB	Local	5	Hungerford	Hungerford	Arthur Street	Minnie Avenue	66	8.5	0.0	1997	8	2029	73	Fair	2
R19-36	Brooklyn Road	HCB	Local	5	Hungerford	Hungerford	Arthur Street	Moir Street	30	8.5	1.0	1997	8	2029	70	Fair	2
R19-37	Brooklyn Road	HCB	Local	5	Hungerford	Hungerford	St. Joseph Street	End	76	6.0	1.0	1997	5	2026	58	Fair	2
R19-38	Brooklyn Road	HCB	Local	5	Hungerford	Hungerford	St. Joseph Street	Minnie Avenue	31	7.5	0.5	1997	7	2028	68	Fair	2
R19-39	Brooks Road	Gravel	Local	6	Hungerford	Hungerford	Courneya Road	Stoco Road	900	5.50	n/a	2019	n/a	Annually	80	Good	1
R19-40	Camp Road	Gravel	Local	6	Hungerford	Hungerford	Quin-Mo-Lac Road	Franks Road	1,578	6.00	n/a	2019	n/a	Annually	64	Fair	1
R19-41	Carss Road	Gravel	Local	6	Hungerford	Hungerford	Lost Channel Road	Bethel Road	1,445	7.00	n/a	2019	n/a	Annually	75	Good	1
R19-42	Carter Street	LCB	Local	6	Hungerford	Hungerford	Highway 37	Rapids Road	465	6.0	0.5	2014	10	2031	82	Good	1
R19-43	Cary Road	Gravel	Local	6	Hungerford	Hungerford	East Hungerford Road	Marlbank Road	2,780	5.80	n/a	2019	n/a	Annually	78	Good	1
R19-44	Centre Street	HCB	Local	5	Elzevir	Elzevir	Highway 37	Hungerford Street	134	6.0	0.5	2021	15	2036	85	Good	2
R19-45	Chapman Road	Gravel	Local	6	Hungerford	Hungerford	Highway 37	Bethel Road	774	7.00	n/a	2019	n/a	Annually	81	Good	1
R19-46	Charles Court	LCB	Local	6	Hungerford	Hungerford	Charles Road	End	290	5.0	0.5	2003	8	2029	72	Fair	1
R19-47	Charles Road	LCB	Local	6	Hungerford	Hungerford	Charles Court	End	470	6.6	0.5	2003	5	2026	50	Poor	1
R19-48	Charles Road	LCB	Local	6	Hungerford	Hungerford	Greenwood Road	Charles Court	420	6.6	0.5	2003	8	2029	72	Fair	1



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Municipality of Tweed
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Asset ID	Asset Name ¹	Detailed Asset Description (Gravel / LCB / HCB) ^{1,2}	Road Class		Geographic Township START ^{2,3}	Geographic Township END ^{2,3}	Road Location From ²	Road Location To ²	Section Length (m) ²	Road Width (m)	Shoulder Width (m)	Year in Service / or Last Upgrade Year ¹	Asset Life Expectancy (years) ¹	Projected Replacement or Upgrade Year	Pavement Condition Index (PCI; 0 - 100)	Condition Rating (good / fair / poor)	Current Level of Service (5 = high / 1 = low) ⁴
			Description	Municipal Class													
R19-49	Clare Street	LCB	Local	6	Hungerford	Hungerford	Carter Street	Johnston Road	433	6.3	0.5	1997	10	2031	84	Good	1
R19-50	Clare Street	LCB	Local	6	Hungerford	Hungerford	Highway 37	Thomas Street	745	6.0	0.5	1997	9	2030	77	Good	1
R19-51	Clare Street	LCB	Local	6	Hungerford	Hungerford	Thomas Street	Thomasburg Road	50	6.3	1.5	1997	10	2031	80	Good	1
R19-52	Clare Street	LCB	Local	6	Hungerford	Hungerford	Thomasburg Road	Carter Street	150	6.3	1.0	1997	9	2030	77	Good	1
R19-53	Clareview Road	Gravel	Local	6	Hungerford	Hungerford	Dennison Road	End	650	5.00	n/a	2019	n/a	Annually	72	Fair	1
R19-54	Clareview Road	Gravel	Local	6	Hungerford	Hungerford	Deshane Road	Dennison Road	1,200	5.00	n/a	2019	n/a	Annually	74	Fair	1
R19-55	Clarke Road	Gravel	Local	6	Elzevir	Elzevir	Flinton Road	End	512	4.2	n/a	2019	n/a	Annually	62	Fair	1
R19-56	Colborne Street	HCB	Local	5	Hungerford	Hungerford	Bridge Street East	Spring Street East	203	6.8	0.5	2002	10	2031	84	Good	2
R19-57	Colborne Street	HCB	Local	5	Hungerford	Hungerford	Jamieson Street East	River Street East	253	6.6	0.5	2002	7	2028	67	Fair	2
R19-58	Colborne Street	HCB	Local	5	Hungerford	Hungerford	Spring Street East	Jamieson Street	190	6.8	0.5	2002	10	2031	84	Good	2
R19-59	Cold Water Road	Gravel	Local	6	Hungerford	Hungerford	Napanee Road	End	450	4.50	n/a	2019	n/a	Annually	69	Fair	1
R19-60	College Street	HCB	Local	5	Hungerford	Hungerford	Katharine Street	Hungerford Road	248	7.3	1.0	2006	12	2033	91	Good	2
R19-61	College Street	HCB	Local	5	Hungerford	Hungerford	Pomeroy Court	Katharine Street	61	7.3	1.0	2006	10	2031	80	Good	2
R19-62	College Street	HCB	Local	5	Hungerford	Hungerford	River Street West	Pomeroy Court	316	7.3	1.0	2006	11	2032	85	Good	2
R19-63	Colonization Road	Gravel	Local	6	Hungerford	Hungerford	Marlbank Road	Horrigan Road	1,400	4.20	n/a	2019	n/a	Annually	83	Good	1
R19-64	Colonization Road	Gravel	Local	6	Hungerford	Hungerford	Moneymore Road	Horrigan Road	4,740	5.00	n/a	2019	n/a	Annually	74	Fair	1



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			Description	Municipal Class													
R19-65	Conchie Road	Gravel	Local	6	Hungerford	Hungerford	Deroche Road	Marlbank Road (West)	775	5.00	n/a	2019	n/a	Annually	79	Good	1
R19-66	Conchie Road	Gravel	Local	6	Hungerford	Hungerford	Marlbank Road (East)	Deroche Road	1,167	5.00	n/a	2019	n/a	Annually	79	Good	1
R19-67	Cosy Cove Lane	Gravel	Local	6	Hungerford	Hungerford	Sulphide Road	End	565	4.00	n/a	2019	n/a	Annually	53	Fair	1
R19-68	Countryman Road	Gravel	Local	6	Hungerford	Hungerford	Murphy Road	Highway 37	1,757	6.00	n/a	2019	n/a	Annually	84	Good	1
R19-69	Countryman Road	Gravel	Local	6	Hungerford	Hungerford	Rapids Road	End	2,770	6.00	n/a	2019	n/a	Annually	85	Good	1
R19-70	Countryman Road	Gravel	Local	6	Hungerford	Hungerford	Rapids Road	Murphy Road	1,970	7.00	n/a	2019	n/a	Annually	70	Fair	1
R19-71	Courneya Road	Gravel	Local	6	Hungerford	Hungerford	Allore Road	Brooks Road	2,435	5.00	n/a	2019	n/a	Annually	82	Good	1
R19-72	Courneya Road	Gravel	Local	6	Hungerford	Hungerford	Brooks Road	Stoco Road	2,046	6.00	n/a	2019	n/a	Annually	79	Good	1
R19-73	Croft Road	Gravel	Local	6	Elzevir	Elzevir	Bosley Road	End	721	3.5	n/a	2019	n/a	Annually	60	Fair	1
R19-74	Crookston Road	HCB	Major Collector	3	Hungerford	Hungerford	Rapids Road	College Street	3,835	7.0	1.2	2016	13	2034	96	Good	4
R19-75	Crookston Road	HCB	Major Collector	4	Hungerford	Hungerford	Rapids Road	Reavie Lane	915	7.0	1.2	2016	13	2034	95	Good	3
R19-76	Crookston Road	HCB	Major Collector	4	Hungerford	Hungerford	Reavie Lane	Municipal Boundary	725	7.0	1.2	2016	13	2034	95	Good	3
R19-77	Declair Road	HCB	Local	6	Elzevir	Elzevir	Queensborough Road	Rockies Road	838	6.0	1.2	2021	15	2036	85	Good	1
R19-78	Declair Road	Gravel	Local	6	Elzevir	Elzevir	Rockies Road	End	1,500	5.5	n/a	2019	n/a	Annually	65	Fair	1
R19-79	Dennison Road	Gravel	Local	6	Hungerford	Hungerford	Clareview Road	End	1,262	4.40	n/a	2019	n/a	Annually	75	Good	1
R19-80	Deroche Road	Gravel	Local	6	Hungerford	Hungerford	Conchie Road	Deroche Lane	1,422	4.50	n/a	2019	n/a	Annually	50	Poor	1



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			Description	Municipal Class													
R19-81	Deshane Road	Gravel	Local	6	Hungerford	Hungerford	Marlbank Road	Clareview Road	4,165	5.50	n/a	2019	n/a	Annually	82	Good	1
R19-82	East Hungerford Road	LCB	Local	6	Hungerford	Hungerford	1878 m East of Stoco Road	Stoco Road	1,878	5.3	0.5	2013	6	2027	64	Fair	1
R19-83	East Hungerford Road	Gravel	Local	6	Hungerford	Hungerford	Allore Road	3226 m West of Allore Road	3,226	6.50	n/a	2019	n/a	Annually	70	Fair	1
R19-84	East Hungerford Road	Gravel	Local	6	Hungerford	Hungerford	Allore Road	Cary Road	1,018	5.50	n/a	2019	n/a	Annually	77	Good	1
R19-85	East Hungerford Road	Gravel	Local	6	Hungerford	Hungerford	Cary Road	Kinlin Road (Tweed Road)	7,515	5.40	n/a	2019	n/a	Annually	82	Good	1
R19-86	Ekblad Road	Gravel	Local	6	Hungerford	Elzevir	Bridgewater Road	Potter Settlement Road	2,989	5.50	n/a	2019	n/a	Annually	67	Fair	1
R19-87	Elvis Lane	Gravel	Partially Maintained	5	Hungerford	Hungerford	Alexander Street	End	41	6.00	1.0	2019	n/a	Annually	81	Good	2
R19-88	Elzevir Road	Gravel	Local	6	Elzevir	Elzevir	Flinton Road	Boundary	6,454	5.0	n/a	2019	n/a	Annually	61	Fair	1
R19-89	Ervine Road	Gravel	Local	6	Hungerford	Hungerford	Windmill Road	Vanderwater Road	3,025	6.50	n/a	2019	n/a	Annually	81	Good	1
R19-90	Esker Road	Gravel	Local	6	Hungerford	Hungerford	Highway 37	Uens Road	619	7.00	n/a	2019	n/a	Annually	78	Good	1
R19-91	Esker Road	Gravel	Local	6	Hungerford	Hungerford	Uens Road	Lost Channel Road	1,466	7.00	n/a	2019	n/a	Annually	80	Good	1
R19-92	Esker Road	Gravel	Local	6	Hungerford	Hungerford	Vanderwater Road	Lost Channel Road	3,262	5.50	n/a	2019	n/a	Annually	82	Good	1
R19-93	Farrell Road	Gravel	Local	6	Hungerford	Hungerford	Marlbank Road	Flynn Road	430	6.50	n/a	2019	n/a	Annually	76	Good	1
R19-94	Flatrock Road	Gravel	Local	6	Hungerford	Hungerford	Highway 37	Flatrock Lane	2,280	5.00	n/a	2019	n/a	Annually	70	Fair	1
R19-95	Flinton Road	LCB	Minor Collector	4	Elzevir	Elzevir	Clarke Road	Highway 7	483	6.2	1.0	2008	6	2027	63	Fair	3
R19-96	Flinton Road	LCB	Minor Collector	4	Elzevir	Elzevir	Elzevir Road	Boundary	3,106	6.7	1.5	2008	6	2027	60	Fair	3



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			Description	Municipal Class													
R19-97	Flinton Road	LCB	Minor Collector	4	Elzevir	Elzevir	Forbes Road	Clarke Road	760	7.0	1.4	2008	8	2029	70	Fair	3
R19-98	Flinton Road	LCB	Minor Collector	4	Elzevir	Elzevir	Robinson Road North	Elzevir Road	7,062	6.1	1.2	2008	6	2027	61	Fair	3
R19-99	Flinton Road	LCB	Minor Collector	4	Elzevir	Elzevir	Robinson Road North	Forbes Road	644	6.8	1.2	2008	8	2029	73	Fair	3
R19-100	Flynn Road	Gravel	Local	6	Hungerford	Hungerford	Marlbank Road	End	1,380	5.60	n/a	2019	n/a	Annually	77	Good	1
R19-101	Forbes Road	Gravel	Local	6	Elzevir	Elzevir	Flinton Road	End	923	4.9	n/a	2019	n/a	Annually	83	Good	1
R19-102	Franklin Street	HCB	Local	5	Hungerford	Hungerford	Queen Street	End	380	4.6	1.0	1992	7	2028	65	Fair	2
R19-103	French Settlement Court	Gravel	Local	6	Hungerford	Hungerford	French Settlement Road	Latendre Lane	817	6.00	n/a	2019	n/a	Annually	71	Fair	1
R19-104	French Settlement Road	Gravel	Local	6	Hungerford	Hungerford	Cassidy Lane	Palmateer Road	1,158	6.00	n/a	2019	n/a	Annually	74	Fair	1
R19-105	French Settlement Road	Gravel	Local	6	Hungerford	Hungerford	French Settlement Court	Cassidy Lane	318	6.00	n/a	2019	n/a	Annually	75	Good	1
R19-106	French Settlement Road	LCB	Local	6	Hungerford	Hungerford	Palmateer Road	Victoria Street North	1,335	6.5	1.0	2017	10	2031	81	Good	1
R19-107	French Settlement Road	Gravel	Local	6	Hungerford	Hungerford	Rapids Road	French Settlement Court	3,066	6.00	n/a	2019	n/a	Annually	73	Fair	1
R19-108	French Settlement Road North	Gravel	Local	6	Elzevir	Elzevir	Highway 7	End	3,493	5.5	n/a	2019	n/a	Annually	65	Fair	1
R19-109	Fuller Road	LCB	Local	6	Hungerford	Hungerford	Rapids Road	Robinson Road	415	7.0	1.0	2017	10	2031	80	Good	1
R19-110	Gabe Lindsay Avenue	HCB	Local	5	Hungerford	Hungerford	Metcalfe Street	End	70	6.6	1.0		8	2029	72	Fair	2
R19-111	Gallagher Road	HCB	Local	6	Hungerford	Hungerford	Highway 37	End	460	6.0	1.0	2021	15	2036	85	Good	1
R19-112	Geen Road	Gravel	Local	6	Hungerford	Hungerford	Highway 37	End	600	6.00	n/a	2019	n/a	Annually	78	Good	1



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			Description	Municipal Class													
R19-113	Genereaux Road	Gravel	Local	6	Elzevir	Elzevir	Highway 7	Price Road	824	5.2	n/a	2019	n/a	Annually	70	Fair	1
R19-114	George Street	Gravel	Local	5	Hungerford	Hungerford	James Street South	End	96	5.00	0.5	2019	n/a	Annually	59	Fair	2
R19-115	George Street	HCB	Local	5	Hungerford	Hungerford	Louisa Street	James Street South	94	6.0	0.5	1987	7	2028	67	Fair	2
R19-116	Greenwood Road	HCB	Local	6	Hungerford	Hungerford	Charles Road	McRae Court	515	6.6	0.5	2012	13	2034	97	Good	1
R19-117	Greenwood Road	HCB	Local	6	Hungerford	Hungerford	Charles Road	Stoco Road	1,468	6.6	0.5	2012	12	2033	93	Good	1
R19-118	Greenwood Road	HCB	Local	6	Hungerford	Hungerford	Sulphide Road	McRae Court	240	6.6	1.0	2012	13	2034	96	Good	1
R19-119	Hannah Street	HCB	Local	5	Hungerford	Hungerford	Louisa Street	James Street North	95	6.0	1.0		7	2028	69	Fair	2
R19-120	Hawkins Bay Road	Gravel	Local	6	Hungerford	Hungerford	170m West of Scootamatta Lane	North Hawkins Bay Road	1,075	5.5	n/a	2019	n/a	Annually	81	Good	1
R19-121	Hawkins Bay Road	Gravel	Local	6	Hungerford	Hungerford	Hawkins Lane	End	164	4.0	n/a	2019	n/a	Annually	62	Fair	1
R19-122	Hawkins Bay Road	LCB	Local	6	Hungerford	Hungerford	Highway 37	End	125	5.0	1.0		5	2026	58	Fair	1
R19-123	Hawkins Bay Road	Gravel	Local	6	Hungerford	Hungerford	North Hawkins Bay Road	Hawkins Lane	655	4.4	n/a	2019	n/a	Annually	72	Fair	1
R19-124	Hawkins Bay Road	LCB	Local	6	Hungerford	Hungerford	Scootamatta Lane	50 m E of Scootamatta Lane	50	5.3	1.1	2019	9	2030	76	Good	1
R19-125	Hawkins Bay Road	LCB	Local	6	Hungerford	Hungerford	Scootamatta Lane	170 m W of Scootamatta Lane	170	5.3	0.5	2019	8	2029	71	Fair	1
R19-126	Heron Road	Gravel	Local	6	Elzevir	Elzevir	Queensborough Road	End	855	4.8	n/a	2019	n/a	Annually	62	Fair	1
R19-127	Highway 37	HCB	Arterial	2	Hungerford	Hungerford	Moir Street	Sulphide Road	177	8.0	2.0		13	2034	95	Good	5
R19-128	Highway 37	HCB	Arterial	2	Hungerford	Hungerford	Sulphide Road	180 m N of Sulphide Road	180	8.0	1.5		13	2034	96	Good	5



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			Description	Municipal Class													
R19-129	Highway 37	HCB	Arterial	2	Hungerford	Hungerford	Victoria Street North	Moira Street	219	9.6	2.0		13	2034	97	Good	5
R19-130	Hogs Back Road	Gravel	Local	6	Hungerford	Hungerford	Moneymore Road (East)	Tyner Road	5,613	5.00	n/a	2019	n/a	Annually	77	Good	1
R19-131	Hogs Back Road	Gravel	Local	6	Hungerford	Hungerford	Tyner Road	Moneymore Road (West)	2,428	5.00	n/a	2019	n/a	Annually	72	Fair	1
R19-132	Holdcroft Street	LCB	Local	5	Hungerford	Hungerford	Victoria Street North	End	250	6.6	1.0	2011	9	2030	75	Good	2
R19-133	Hollister Road	Gravel	Local	6	Hungerford	Hungerford	Sulphide Road	Lynch Road	1,755	5.50	n/a	2019	n/a	Annually	74	Fair	1
R19-134	Horrigan Road	Gravel	Local	6	Hungerford	Hungerford	Marlbank Road	Colonization Road	4,094	4.20	n/a	2019	n/a	Annually	73	Fair	1
R19-135	Hungerford Road	HCB	Local	5	Hungerford	Hungerford	College Street	Park Avenue	147	6.6	1.0	1987	13	2034	96	Good	2
R19-136	Hungerford Road	HCB	Local	5	Hungerford	Hungerford	College Street	Village Boundary	152	6.6	0.5	1987	13	2034	96	Good	2
R19-137	Hungerford Road	HCB	Local	5	Hungerford	Hungerford	Park Avenue	Metcalf Street	294	7.5	1.0	1987	7	2028	66	Fair	2
R19-138	Hungerford Street	HCB	Local	5	Elzevir	Elzevir	Highway 37	Centre Street	180	6.0	0.5	2021	15	2036	85	Good	2
R19-139	Hungerford Street	HCB	Local	5	Elzevir	Elzevir	Highway 37	Store Street	99	6.0	0.5	2021	15	2036	85	Good	2
R19-140	Hungerford Street	LCB	Local	5	Elzevir	Elzevir	Store Street	Centre Street	245	6.0	0.5	2003	7	2028	65	Fair	2
R19-141	Hunt Road	Gravel	Local	6	Hungerford	Hungerford	Highway 37	Murphy Road	1,213	6.00	n/a	2019	n/a	Annually	85	Good	1
R19-142	Hunt Road	Gravel	Local	6	Hungerford	Hungerford	Morton Road	Rapids Road	1,808	6.00	n/a	2019	n/a	Annually	79	Good	1
R19-143	Hunt Road	Gravel	Local	6	Hungerford	Hungerford	Murphy Road	Morton Road	170	6.00	n/a	2019	n/a	Annually	84	Good	1
R19-144	Hunt Road	Gravel	Local	6	Hungerford	Hungerford	Rapids Road	End	760	5.00	n/a	2019	n/a	Annually	80	Good	1



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			Description	Municipal Class													
R19-145	Industrial Park Road	LCB	Local	6	Hungerford	Hungerford	Highway 37	End	200	6.8	1.0	2002	5	2026	59	Fair	1
R19-146	Isaac Street	HCB	Local	5	Hungerford	Hungerford	Pringle Street	End	150	6.6	1.0	2006	10	2031	81	Good	2
R19-147	James Road	Gravel	Local	6	Elzevir	Elzevir	Upper Flinton Road	End	114	5.3	n/a	2019	n/a	Annually	83	Good	1
R19-148	James Street	HCB	Local	5	Hungerford	Hungerford	Queen Street	End	60	4.0	0.0	2002	9	2030	77	Good	2
R19-149	James Street North	HCB	Local	5	Hungerford	Hungerford	Jamieson Street	Hannah Street	100	6.8	1.0	1987	5	2026	56	Fair	2
R19-150	James Street South	Gravel	Local	5	Hungerford	Hungerford	George Street	River Street	134	6.50	n/a	2019	n/a	Annually	55	Fair	2
R19-151	Jamieson Street East	HCB	Local	5	Hungerford	Hungerford	Colborne Street	Mary Street	100	6.8	1.0	1987	7	2028	69	Fair	2
R19-152	Jamieson Street East	HCB	Local	5	Hungerford	Hungerford	Louisa Street	James Street North	100	6.8	1.0		7	2028	66	Fair	2
R19-153	Jamieson Street East	HCB	Local	5	Hungerford	Hungerford	Mary Street	Louisa Street	100	6.8	2.0	1996	10	2031	81	Good	2
R19-154	Jamieson Street East	HCB	Local	5	Hungerford	Hungerford	Victoria Street	Colborne Street	92	6.6	0.5		10	2031	83	Good	2
R19-155	Jamieson Street West	HCB	Local	5	Hungerford	Hungerford	Victoria Street	Metcalf Street	101	6.5	1.0	2008	11	2032	86	Good	2
R19-156	Jane Street East	HCB	Local	5	Hungerford	Hungerford	Victoria Street	End	85	4.0	2.0	1987	5	2026	57	Fair	2
R19-157	Jane Street West	HCB	Local	5	Hungerford	Hungerford	Victoria Street	End	47	5.0	1.0	1989	8	2029	74	Fair	2
R19-158	Johnston Road	LCB	Local	6	Hungerford	Hungerford	Highway 37	Rapids Road	333	6.0	0.3	2014	10	2031	84	Good	1
R19-159	Johnston Road	LCB	Local	6	Hungerford	Hungerford	Rapids Road	Boundary	310	6.0	0.3	2014	11	2032	85	Good	1
R19-160	Kaladar Street	HCB	Local	5	Hungerford	Hungerford	Bridgewater Road	Highway 37	215	5.00	n/a	2021	15	2036	80	Good	2



Table 4a
Detailed Summary of Municipal Assets (Roads)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Gravel / LCB / HCB) ^{1,2}	Road Class		Geographic Township START ^{2,3}	Geographic Township END ^{2,3}	Road Location From ²	Road Location To ²	Section Length (m) ²	Road Width (m)	Shoulder Width (m)	Year in Service / or Last Upgrade Year ¹	Asset Life Expectancy (years) ¹	Projected Replacement or Upgrade Year	Pavement Condition Index (PCI; 0 - 100)	Condition Rating (good / fair / poor)	Current Level of Service (5 = high / 1 = low) ⁴
			Description	Municipal Class													
R19-161	Kanata Lane	Gravel	Local	6	Hungerford	Hungerford	Sulphide Road	End	580	4.50	n/a	2019	n/a	Annually	57	Fair	1
R19-162	Karen Court	LCB	Local	6	Hungerford	Hungerford	McCrea Court	End	215	5.5	0.5	2002	5	2026	58	Fair	1
R19-163	Katharine Street	HCB	Local	5	Hungerford	Hungerford	Park Avenue	College Street	130	6.0	0.5	1993	8	2029	72	Fair	2
R19-164	Katharine Street	HCB	Local	5	Hungerford	Hungerford	Park Avenue	Metcalfe Street	330	6.0	0.5	1993	9	2030	78	Good	2
R19-165	Kehoe Road	Gravel	Local	6	Elzevir	Elzevir	Black River Road	Kehoe Lane	421	5.5	n/a	2019	n/a	Annually	75	Good	1
R19-166	Kenner Court	LCB	Local	6	Hungerford	Hungerford	Marlbank Road	End	511	6.0	1.0	2011	8	2029	72	Fair	1
R19-167	King Road	Gravel	Local	6	Hungerford	Hungerford	Highway 37	End	469	5.00	n/a	2019	n/a	Annually	73	Fair	1
R19-168	King Street	LCB	Local	6	Elzevir	Elzevir	Bosley Road	Queensborough Road	180	5.5	0.5	2007	6	2027	60	Fair	1
R19-169	Kinlin Road	Gravel	Local	6	Hungerford	Hungerford	Prevost Road	East Hungerford Road (Tweed Road)	5,773	5.0	n/a	2019	n/a	Annually	76	Good	1
R19-170	Kinlin Road	Gravel	Local	6	Hungerford	Hungerford	Prevost Road	Otter Creek Road	2,061	6.1	n/a	2019	n/a	Annually	74	Fair	1
R19-171	Labarge Road	Gravel	Local	6	Hungerford	Hungerford	2220 m North of Lynch Road	Bridgewater Road	2,066	6.00	n/a	2019	n/a	Annually	75	Good	1
R19-172	Labarge Road	Gravel	Local	6	Hungerford	Hungerford	Bridgewater Road	130 m North of Bridgewater	130	5.00	n/a	2019	n/a	Annually	67	Fair	1
R19-173	Labarge Road	LCB	Local	6	Hungerford	Hungerford	Lynch Road	2220 m North of Lynch Road	2,220	6.0	1.0		7	2028	66	Fair	1
R19-174	Lajoie Road	Gravel	Local	6	Hungerford	Hungerford	Sulphide Road	End	870	5.00	1.0	2019	n/a	Annually	74	Fair	1
R19-175	Lingham Lake Road	Gravel	Local	6	Elzevir	Elzevir	Boundary	End	6,500	6.0	n/a	2019	n/a	Annually	50	Poor	1
R19-176	Lost Channel Court	Gravel	Local	6	Hungerford	Hungerford	Lost Channel Road	End	250	4.00	n/a	2019	n/a	Annually	72	Fair	1



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Asset ID	Asset Name ¹	Detailed Asset Description (Gravel / LCB / HCB) ^{1,2}	Road Class		Geographic Township START ^{2,3}	Geographic Township END ^{2,3}	Road Location From ²	Road Location To ²	Section Length (m) ²	Road Width (m)	Shoulder Width (m)	Year in Service / or Last Upgrade Year ¹	Asset Life Expectancy (years) ¹	Projected Replacement or Upgrade Year	Pavement Condition Index (PCI; 0 - 100)	Condition Rating (good / fair / poor)	Current Level of Service (5 = high / 1 = low) ⁴
			Description	Municipal Class													
R19-177	Lost Channel Road	Gravel	Local	6	Hungerford	Hungerford	Esker Road	Maines Road	1,073	6.50	n/a	2019	n/a	Annually	82	Good	1
R19-178	Lost Channel Road	Gravel	Local	6	Hungerford	Hungerford	Highway 37	Esker Road	1,625	6.50	n/a	2019	n/a	Annually	84	Good	1
R19-179	Lost Channel Road	Gravel	Local	6	Hungerford	Hungerford	Maines Road	Carss Road	1,350	7.00	n/a	2019	n/a	Annually	78	Good	1
R19-180	Lost Channel Road	Gravel	Local	6	Hungerford	Hungerford	Old Hungerford Road	Tweedsmuir Lane	625	6.50	n/a	2019	n/a	Annually	83	Good	1
R19-181	Lost Channel Road	Gravel	Local	6	Hungerford	Hungerford	Tweedsmuir Lane	Carss Road	390	6.50	n/a	2019	n/a	Annually	81	Good	1
R19-182	Louisa Street	HCB	Local	5	Hungerford	Hungerford	George Street	River Street	112	6.6	0.5	2013	11	2032	87	Good	2
R19-183	Louisa Street	HCB	Local	5	Hungerford	Hungerford	Hannah Street	George Street	80	6.6	0.5	2013	12	2033	92	Good	2
R19-184	Louisa Street	HCB	Local	5	Hungerford	Hungerford	Jamieson Street	Hannah Street	112	6.8	0.5	2013	12	2033	93	Good	2
R19-185	Louisa Street	HCB	Local	5	Hungerford	Hungerford	Jamieson Street	Arthur Street	204	6.8	0.5	2013	11	2032	87	Good	2
R19-186	Luffman Road	Gravel	Local	6	Hungerford	Hungerford	Marlbank Road	Asselstine Road	1,044	5.50	n/a	2019	n/a	Annually	76	Good	1
R19-187	Luffman Road	LCB	Local	6	Hungerford	Hungerford	Queen Street	Asselstine Road	462	5.5	0.3		7	2028	68	Fair	1
R19-188	Lynch Road	LCB	Local	6	Hungerford	Hungerford	Highway 37	Old Troy Road	35	7.0	2.0	2012	10	2031	80	Good	1
R19-189	Lynch Road	LCB	Local	6	Hungerford	Hungerford	Hollister Road	Labarge Road	99	6.3	1.0	2012	9	2030	77	Good	1
R19-190	Lynch Road	Gravel	Local	6	Hungerford	Hungerford	Labarge Road	End	602	6.00	n/a	2019	n/a	Annually	72	Fair	1
R19-191	Lynch Road	LCB	Local	6	Hungerford	Hungerford	Old Troy Road	Hollister Road	934	7.0	2.0	2012	6	2027	62	Fair	1
R19-192	Maines Road	Gravel	Local	6	Hungerford	Hungerford	Lost Channel Road	Old Hungerford Road	1,644	5.50	n/a	2019	n/a	Annually	73	Fair	1



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			Description	Municipal Class													
R19-193	Marlbank Road	LCB	Major Collector	4	Hungerford	Hungerford	Asselstine Road	Luffman Road	1,588	6.8	1.2	2015	8	2029	74	Fair	3
R19-194	Marlbank Road	HCB	Major Collector	3	Hungerford	Hungerford	Bethel Road	Mulroney Lane	703	9.4	2.5	2020	20	2041	95	Good	4
R19-195	Marlbank Road	HCB	Major Collector	4	Hungerford	Hungerford	Colonization Road	Conchie Road	2,424	7.3	0.5	1991	11	2032	85	Good	3
R19-196	Marlbank Road	LCB	Major Collector	4	Hungerford	Hungerford	Conchie Road	Old Hungerford Road	2,940	7.0	0.5	2009	7	2028	69	Fair	3
R19-197	Marlbank Road	LCB	Major Collector	4	Hungerford	Hungerford	Conchie Road West	Conchie Road East	1,585	7.0	0.5	2009	8	2029	70	Fair	3
R19-198	Marlbank Road	LCB	Major Collector	4	Hungerford	Hungerford	Deshane Road	Cary Road	3,620	7.0	0.5	2009	7	2028	65	Fair	3
R19-199	Marlbank Road	LCB	Major Collector	4	Hungerford	Hungerford	Deshane Road	Flynn Road	1,292	7.3	1.0	2015	9	2030	75	Good	3
R19-200	Marlbank Road	HCB	Major Collector	3	Hungerford	Hungerford	East Hungerford Road	St. Edmunds Road	397	9.4	1.0	2020	20	2041	95	Good	4
R19-201	Marlbank Road	LCB	Major Collector	4	Hungerford	Hungerford	Farrell Road	McGrath Road	1,145	7.5	1.5	2015	8	2029	73	Fair	3
R19-202	Marlbank Road	LCB	Major Collector	4	Hungerford	Hungerford	Flynn Road	Farrell Road	462	6.8	1.5	2015	9	2030	75	Good	3
R19-203	Marlbank Road	HCB	Major Collector	3	Hungerford	Hungerford	Highway 37	Kenner Court	574	9.4	2.0	2020	20	2041	95	Good	4
R19-204	Marlbank Road	LCB	Major Collector	4	Hungerford	Hungerford	Luffman Road	Queen Street	1,940	6.8	2.0	2015	8	2029	74	Fair	3
R19-205	Marlbank Road	HCB	Major Collector	3	Hungerford	Hungerford	Mulroney Lane	Kenner Court	886	9.4	1.5	2020	20	2041	95	Good	4
R19-206	Marlbank Road	HCB	Major Collector	4	Hungerford	Hungerford	Old Hungerford Road	Stoco Road	1,457	9.4	2.0	2020	20	2041	95	Good	3
R19-207	Marlbank Road	HCB	Major Collector	3	Hungerford	Hungerford	St. Edmunds Road	Bethel Road	875	9.4	2.0	2020	20	2041	95	Good	4
R19-208	Marrisett Road	Gravel	Local	6	Hungerford	Hungerford	Highway 37	Rapids Road	1,653	6.00	n/a	2019	n/a	Annually	71	Fair	1



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			Description	Municipal Class													
R19-209	Martin Road	Gravel	Local	6	Hungerford	Hungerford	Rapids Road	Highway 37	1,697	5.00	n/a	2019	n/a	Annually	79	Good	1
R19-210	Martin Road	Gravel	Local	6	Hungerford	Hungerford	Robinson Road	Rapids Road	923	5.00	n/a	2019	n/a	Annually	85	Good	1
R19-211	Mary Street	HCB	Local	5	Hungerford	Hungerford	Jamieson Street	End (Lumber Yard)	83	6.8	0.5	1987	6	2027	60	Fair	2
R19-212	Mary Street	HCB	Local	5	Hungerford	Hungerford	River Street East	End (Lumber Yard)	88	6.6	0.5	1989	11	2032	88	Good	2
R19-213	Mary Street	HCB	Local	5	Hungerford	Hungerford	Spring Street East	Jamieson Street	179	6.8	0.5	1989	10	2031	83	Good	2
R19-214	Matilda Street	HCB	Local	5	Hungerford	Hungerford	Queen Street	Franklin Street	100	5.2	0.5	1989	5	2026	58	Fair	2
R19-215	McCamon Avenue	HCB	Local	5	Hungerford	Hungerford	River Street West	Metcalf Street	240	6.0	0.5	2008	13	2034	96	Good	2
R19-216	McClellan Street	HCB	Local	5	Hungerford	Hungerford	Pomeroy Avenue	River Street West	313	7.0	0.5	1987	7	2028	68	Fair	2
R19-217	McCrea Court	LCB	Local	6	Hungerford	Hungerford	Greenwood Road	Karen Court	135	5.3	0.5	2002	10	2031	82	Good	1
R19-218	McCrea Court	LCB	Local	6	Hungerford	Hungerford	Karen Court	End	452	5.3	0.5	2002	6	2027	62	Fair	1
R19-219	McGowan Street	HCB	Local	5	Hungerford	Hungerford	Pringle Street	Victoria Street South	140	6.6	0.5	2006	12	2033	94	Good	2
R19-220	McGowan Street	HCB	Local	5	Hungerford	Hungerford	River Street West	Pringle Street	165	6.6	0.5	2006	12	2033	94	Good	2
R19-221	McGrath Court	Gravel	Local	6	Hungerford	Hungerford	Marlbank Road	McGrath Road	220	4.50	n/a	2019	n/a	Annually	80	Good	1
R19-222	McGrath Road	Gravel	Local	6	Hungerford	Hungerford	Marlbank Road	End	1,500	4.50	n/a	2019	n/a	Annually	74	Fair	1
R19-223	Meeks Road	Gravel	Local	6	Hungerford	Hungerford	Moneymore Road	Marlbank Road	2,325	6.00	n/a	2019	n/a	Annually	75	Good	1
R19-224	Metcalf Street North	HCB	Local	5	Hungerford	Hungerford	Bridge Street West	Gabe Lindsay Avenue	134	7.0	0.5	1998	11	2032	87	Good	2



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			Description	Municipal Class													
R19-225	Metcalf Street North	HCB	Local	5	Hungerford	Hungerford	Gabe Lindsay Avenue	End	263	7.0	0.5	1998	10	2031	82	Good	2
R19-226	Metcalf Street South	HCB	Local	5	Hungerford	Hungerford	Jamieson St West	Pomeroy Avenue	159	11.5	0.5	2008	12	2033	93	Good	2
R19-227	Metcalf Street South	HCB	Local	5	Hungerford	Hungerford	Katharine Street	Bridge Street West	208	11.5	0.5	2008	12	2033	93	Good	2
R19-228	Metcalf Street South	HCB	Local	5	Hungerford	Hungerford	Pomeroy Avenue	Katharine Street	57	11.5	0.5	2008	13	2034	96	Good	2
R19-229	Metcalf Street South	HCB	Local	5	Hungerford	Hungerford	River Street West	Jamieson St West	194	7.0	0.5	2008	11	2032	88	Good	2
R19-230	Minnie Avenue	HCB	Local	5	Hungerford	Hungerford	Brooklyn Road	Old Bogart Road	272	7.3	0.5	1997	9	2030	75	Fair	2
R19-231	Moira Street	HCB	Local	5	Hungerford	Hungerford	Highway 37	Old Bogart Road	294	9.5	0.0	1996	8	2029	71	Fair	2
R19-232	Moira Street	HCB	Local	5	Hungerford	Hungerford	Old Bogart Road	Brooklyn Road	215	9.5	0.0	1996	9	2030	79	Good	2
R19-233	Moneymore Road	LCB	Minor Collector	4	Hungerford	Hungerford	Colonization Road	Hogs Back Road	297	6.5	1.0	2018	12	2033	90	Good	3
R19-234	Moneymore Road	LCB	Minor Collector	4	Hungerford	Hungerford	Hogs Back Road	Meeks Road	1,101	6.5	1.0	2018	12	2033	92	Good	3
R19-235	Moneymore Road	LCB	Minor Collector	4	Hungerford	Hungerford	Hogs Back Road	Old Hungerford Road	9,847	6.5	1.0	2013	6	2027	61	Fair	3
R19-236	Moneymore Road	LCB	Minor Collector	4	Hungerford	Hungerford	Meeks Road	Tyner Road	4,015	6.5	1.0	2013	10	2031	80	Good	3
R19-237	Moneymore Road	LCB	Minor Collector	4	Hungerford	Hungerford	Napanee Road	Hogs Back Road	1,507	6.8	0.5	2018	11	2032	89	Good	3
R19-238	Moneymore Road	LCB	Minor Collector	4	Hungerford	Hungerford	Old Hungerford Road	Municipal Boundary	1,525	6.5	1.0	2013	7	2028	69	Fair	3
R19-239	Moneymore Road	LCB	Minor Collector	4	Hungerford	Hungerford	Tyner Road	Colonization Road	936	6.5	1.0	2018	12	2033	91	Good	3
R19-240	Moore's Road	Gravel	Local	6	Elzevir	Elzevir	Upper Flinton Road	Robinson Road North	1,564	4.8	n/a	2019	n/a	Annually	80	Good	1



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			Description	Municipal Class													
R19-241	Morton Road	Gravel	Local	6	Hungerford	Hungerford	Hunt Road	Highway 37	780	5.50	n/a	2019	n/a	Annually	75	Good	1
R19-242	Mothers Road	Gravel	Local	6	Elzevir	Elzevir	Black River Road	End	111	5.5	n/a	2019	n/a	Annually	73	Fair	1
R19-243	Murphy Road	Gravel	Local	6	Hungerford	Hungerford	Hunt Road	Countryman Road	1,438	6.00	n/a	2019	n/a	Annually	74	Fair	1
R19-244	Napanee Road	HCB	Minor Collector	4	Hungerford	Hungerford	Marlbank Road	Moneymore Road	561	9.4	1.5	2021	20	2041	95	Good	3
R19-245	Napanee Road	HCB	Minor Collector	4	Hungerford	Hungerford	Moneymore Road	Municipal Boundary	2,015	9.4	1.5	2021	20	2041	95	Good	3
R19-246	Napanee Road	LCB	Minor Collector	4	Hungerford	Hungerford	Queen Street	Youngs Road	1,706	6.5	0.5	2013	7	2028	69	Fair	3
R19-247	North Hawkins Bay Road	Gravel	Local	6	Elzevir	Elzevir	Hawkins Bay Road	End (681 m N of Hawkins Bay Road)	681	5.6	n/a	2019	n/a	Annually	75	Good	1
R19-248	Old Bogart Road	HCB	Local	6	Hungerford	Hungerford	Minnie Avenue	Moir Street	122	7.3	1.0	1996	8	2029	74	Fair	1
R19-249	Old Bogart	LCB	Local	6	Hungerford	Hungerford	Minnie Avenue	Sulphide Road	891	5.3	0.5	2011	7	2028	67	Fair	1
R19-250	Old Hungerford Road	LCB	Local	6	Hungerford	Hungerford	Lost Channel Road	Windmill Lane	470	6.0	0.5	2013	10	2031	80	Good	1
R19-251	Old Hungerford Road	LCB	Local	6	Hungerford	Hungerford	Maines Road	Lost Channel Road	2,290	6.0	0.5	2013	8	2029	71	Fair	1
R19-252	Old Hungerford Road	LCB	Local	6	Hungerford	Hungerford	Moneymore Road	Vanderwater Road	3,005	6.5	0.5	2013	7	2028	68	Fair	1
R19-253	Old Hungerford Road	LCB	Local	6	Hungerford	Hungerford	Vanderwater Road	Maines Road	1,633	7.0	1.0	2013	8	2029	72	Fair	1
R19-254	Old Hungerford Road	LCB	Local	6	Hungerford	Hungerford	Windmill Road	Marlbank Road	1,869	6.5	0.5	2013	9	2030	78	Good	1
R19-255	Old Troy Road	HCB	Local	6	Hungerford	Hungerford	Highway 37	Lynch Road	1,125	5.0	1.0	2021	15	2036	85	Good	1
R19-256	Otter Creek Road	Gravel	Local	6	Hungerford	Hungerford	Kinlin Road	Allore Road	1,115	6.50	n/a	2019	n/a	Annually	80	Good	1



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Asset ID	Asset Name ¹	Detailed Asset Description (Gravel / LCB / HCB) ^{1,2}	Road Class		Geographic Township START ^{2,3}	Geographic Township END ^{2,3}	Road Location From ²	Road Location To ²	Section Length (m) ²	Road Width (m)	Shoulder Width (m)	Year in Service / or Last Upgrade Year ¹	Asset Life Expectancy (years) ¹	Projected Replacement or Upgrade Year	Pavement Condition Index (PCI; 0 - 100)	Condition Rating (good / fair / poor)	Current Level of Service (5 = high / 1 = low) ⁴
			Description	Municipal Class													
R19-257	Otter Creek Road	Gravel	Local	6	Hungerford	Hungerford	Prevost Road	Kinlin Road	1,690	5.4	n/a	2019	n/a	Annually	74	Fair	1
R19-258	Otter Creek Road	Gravel	Local	6	Hungerford	Hungerford	Sulphide Road	Turcotte Road	1,730	5.6	n/a	2019	n/a	Annually	74	Fair	1
R19-259	Otter Creek Road	Gravel	Local	6	Hungerford	Hungerford	Turcotte Road	Prevost Road	425	6.6	n/a	2019	n/a	Annually	81	Good	1
R19-260	Palmateer Road	Gravel	Local	6	Hungerford	Hungerford	1514 m West of French Settlement Road	Rapids Road	2,382	6.00	n/a	2019	n/a	Annually	70	Fair	1
R19-261	Palmateer Road	LCB	Local	6	Hungerford	Hungerford	French Settlement Road	1514 m West of French Settlement Road	1,514	6.0	0.0	2012	9	2030	75	Good	1
R19-262	Palmer Road	Gravel	Local	6	Hungerford	Hungerford	Highway 37	End	640	5.00	n/a	2019	n/a	Annually	70	Fair	1
R19-263	Park Avenue	HCB	Local	5	Hungerford	Hungerford	Hungerford Road	Katharine Street	212	6.0	0.3	1991	7	2028	65	Fair	2
R19-264	Park Avenue	HCB	Local	5	Hungerford	Hungerford	Katharine Street	McClellan Street	120	6.0	0.5	1991	10	2031	81	Good	2
R19-265	Peter Street	Gravel	Partially Maintained	6	Hungerford	Hungerford	Sulphide Road	End	120	6.0	n/a	2019	n/a	Annually	60	Fair	1
R19-266	Peterson Road	Gravel	Local	6	Elzevir	Elzevir	Highway 7	End	560	5.0	n/a	2019	n/a	Annually	44	Poor	1
R19-267	Pomeroy Avenue	HCB	Local	5	Hungerford	Hungerford	McClellan Street	Metcalfe Street	294	6.0	0.5	1993	8	2029	71	Fair	2
R19-268	Pomeroy Court	HCB	Local	5	Hungerford	Hungerford	College Street	End	52	3.5	0.5	1987	5	2026	56	Fair	2
R19-269	Potter Settlement Road	Gravel	Local	6	Hungerford	Hungerford	Bridgewater Road	Sulphide Road	4,117	5.5	n/a	2019	n/a	Annually	73	Fair	1
R19-270	Potter Settlement Road	Gravel	Local	6	Hungerford	Elzevir	Highway 7	Ekblad Road	2,951	5.7	n/a	2019	n/a	Annually	73	Fair	1
R19-271	Potter Settlement Road	Gravel	Local	6	Hungerford	Hungerford	Labarge Road	Bridgewater Road	607	5.3	n/a	2019	n/a	Annually	79	Good	1
R19-272	Prevost Road	Gravel	Local	6	Hungerford	Hungerford	Otter Creek Road	Kinlin Road	971	4.4	n/a	2019	n/a	Annually	55	Fair	1



Table 4a
Detailed Summary of Municipal Assets (Roads)
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Asset ID	Asset Name ¹	Detailed Asset Description (Gravel / LCB / HCB) ^{1,2}	Road Class		Geographic Township START ^{2,3}	Geographic Township END ^{2,3}	Road Location From ²	Road Location To ²	Section Length (m) ²	Road Width (m)	Shoulder Width (m)	Year in Service / or Last Upgrade Year ¹	Asset Life Expectancy (years) ¹	Projected Replacement or Upgrade Year	Pavement Condition Index (PCI; 0 - 100)	Condition Rating (good / fair / poor)	Current Level of Service (5 = high / 1 = low) ⁴
			Description	Municipal Class													
R19-273	Price Road	Gravel	Local	6	Elzevir	Elzevir	Genereaux Road	End	318	5.8	n/a	2019	n/a	Annually	72	Fair	1
R19-274	Price Road	Gravel	Local	6	Elzevir	Elzevir	Highway 7	Genereaux Road	148	6.8	n/a	2019	n/a	Annually	76	Good	1
R19-275	Pringle Street	HCB	Local	5	Hungerford	Hungerford	McGowan Street	Isaac Street	100	6.6	1.0	2006	11	2032	89	Good	2
R19-276	Quarry Street	LCB	Local	5	Hungerford	Hungerford	Bridgewater Road	End	84	6.0	1.0		8	2029	70	Fair	2
R19-277	Queen Street	Gravel	Local	4	Hungerford	Hungerford	(Gravel joint) 780 m N of Marlbank Road	End	454	4.00	n/a	2019	n/a	Annually	70	Fair	3
R19-278	Queen Street	HCB	Local	4	Hungerford	Hungerford	Marlbank Road	(Gravel joint) 780 m N of Marlbank Road	780	9.4	1.0	2021	20	2041	95	Good	3
R19-279	Queensborough Road	LCB	Minor Collector	4	Elzevir	Elzevir	2728 m NW of Highway 7	Bosley Road	2,029	6.7	1.0	2007	5	2026	59	Fair	3
R19-280	Queensborough Road	LCB	Minor Collector	4	Elzevir	Elzevir	Barry Road	Township Boundary	536	6.0	0.5	2012	9	2030	76	Good	3
R19-281	Queensborough Road	LCB	Minor Collector	4	Elzevir	Elzevir	Declair Road	Barry Road	2,555	7.3	1.0	2012	8	2029	74	Fair	3
R19-282	Queensborough Road	LCB	Minor Collector	4	Elzevir	Elzevir	Heron Road	Declair Road	1,685	6.9	1.4	2010	7	2028	67	Fair	3
R19-283	Queensborough Road	LCB	Minor Collector	4	Elzevir	Elzevir	Highway 7	2728 m NW of Highway 7	2,728	6.8	1.0	2012	8	2029	73	Fair	3
R19-284	Quin-Mo-Lac Road	LCB	Minor Collector	4	Hungerford	Hungerford	Hungerford Road	Rapids Road	3,870	7.0	0.5	2016	8	2029	74	Fair	3
R19-285	Quin-Mo-Lac Road	LCB	Minor Collector	4	Hungerford	Hungerford	Rapids Road	Camp Road	2,471	7.0	1.0	2016	8	2029	74	Fair	3
R19-286	Quinns Lane	HCB	Partially Maintained	5	Hungerford	Hungerford	Victoria Street	Colborne Street	95	5.0	0.0	1989	4	2025	46	Poor	2
R19-287	Ramsay Road	Gravel	Local	6	Elzevir	Elzevir	Bosley Road	Boundary (Plow turnaround)	850	4.0	n/a	2019	n/a	Annually	60	Fair	1
R19-288	Rapids Court	Gravel	Local	6	Hungerford	Hungerford	Rapids Road	End	550	6.00	n/a	2019	n/a	Annually	52	Fair	1



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			Description	Municipal Class													
R19-289	Rapids Road	LCB	Local	6	Hungerford	Hungerford	Countryman Road	Crookston Road	1,418	6.8	1.0	2007	8	2029	70	Fair	1
R19-290	Rapids Road	Gravel	Local	6	Hungerford	Hungerford	Crookston Road	1297 m North of Crookston Road	1,297	7.00	n/a	2019	n/a	Annually	73	Fair	1
R19-291	Rapids Road	Gravel	Local	6	Hungerford	Hungerford	French Settlement Road	Rapids Court	1,843	6.00	n/a	2019	n/a	Annually	70	Fair	1
R19-292	Rapids Road	LCB	Local	6	Hungerford	Hungerford	Fuller Road	Johnston Road	1,045	6.5	0.5	2014	10	2031	81	Good	1
R19-293	Rapids Road	LCB	Local	6	Hungerford	Hungerford	Hunt Road	Countryman Road	1,405	6.8	1.0	2007	7	2028	65	Fair	1
R19-294	Rapids Road	LCB	Local	6	Hungerford	Hungerford	Hunt Road	Martin Road	1,518	6.8	1.0	2007	9	2030	75	Good	1
R19-295	Rapids Road	LCB	Local	6	Hungerford	Hungerford	Marrisett Road	Fuller Road	353	6.5	0.5	2007	9	2030	79	Good	1
R19-296	Rapids Road	LCB	Local	6	Hungerford	Hungerford	Martin Road	Marrisett Road	1,498	6.5	0.5	2020	10	2031	95	Good	1
R19-297	Rapids Road	Gravel	Local	6	Hungerford	Hungerford	Palmateer Road	French Settlement Road	762	6.00	n/a	2019	n/a	Annually	72	Fair	1
R19-298	Rapids Road	LCB	Local	6	Hungerford	Hungerford	Quin-Mo-Lac Road	151 m South of Quin-Mo-Lac Road	151	6.8	1.0	2007	9	2030	77	Good	1
R19-299	Rapids Road	Gravel	Local	6	Hungerford	Hungerford	Quin-Mo-Lac Road	Palmateer Road	2,470	7.00	n/a	2019	n/a	Annually	70	Fair	1
R19-300	Rapids Road	Gravel	Local	6	Hungerford	Hungerford	Rapids Court	Boundary	1,368	6.00	n/a	2019	n/a	Annually	72	Fair	1
R19-301	River Street	Gravel	Local	5	Hungerford	Hungerford	Louisa Street	James Street South	100	6.50	1.0	2019	n/a	Annually	61	Fair	2
R19-302	River Street East	HCB	Local	5	Hungerford	Hungerford	Colborne Street	Victoria Street	105	6.6	0.5	2009	11	2032	88	Good	2
R19-303	River Street East	HCB	Local	5	Hungerford	Hungerford	Louisa Street	Mary Street South	96	6.6	0.5	2009	11	2032	87	Good	2
R19-304	River Street East	HCB	Local	5	Hungerford	Hungerford	Mary Street South	Colborne Street	92	6.6	0.5	2009	11	2032	89	Good	2



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			Description	Municipal Class													
R19-305	River Street West	HCB	Local	5	Hungerford	Hungerford	College Street	McClellan Street	186	7.0	0.5	2009	12	2033	93	Good	2
R19-306	River Street West	HCB	Local	5	Hungerford	Hungerford	McCamon Avenue	Metcalf Street	123	7.0	0.5	2009	12	2033	93	Good	2
R19-307	River Street West	HCB	Local	5	Hungerford	Hungerford	McClellan Street	McCamon Street	257	7.0	0.5	2009	12	2033	92	Good	2
R19-308	River Street West	HCB	Local	5	Hungerford	Hungerford	Victoria Street	Metcalf Street	107	6.6	0.5	2009	12	2033	90	Good	2
R19-309	Robinson Road	Gravel	Local	6	Hungerford	Hungerford	Fuller Road	Martin Road	1,493	5.00	n/a	2019	n/a	Annually	73	Fair	1
R19-310	Robinson Road North	Gravel	Local	6	Elzevir	Elzevir	Moores Road	Flinton Road	2,385	5.4	n/a	2019	n/a	Annually	73	Fair	1
R19-311	Robinson Road North	Gravel	Local	6	Elzevir	Elzevir	Upper Flinton Road	Moores Road	2,471	4.7	n/a	2019	n/a	Annually	76	Good	1
R19-312	Rockies Road	Gravel	Local	6	Elzevir	Elzevir	Declair Road	End	8,238	5.3	n/a	2019	n/a	Annually	53	Fair	1
R19-313	Sexsmith Road	LCB	Local	6	Elzevir	Elzevir	Highway 7	End	264	6.7	2.0		4	2025	49	Poor	1
R19-314	Sheffield Boundary Road	Gravel	Local	6	Hungerford	Hungerford	Deshane Road	End (3 Civic address)	510	5.00	n/a	2019	n/a	Annually	64	Fair	1
R19-315	Sherry Court	Gravel	Local	6	Hungerford	Hungerford	Sherry Road	End	725	6.00	n/a	2019	n/a	Annually	82	Good	1
R19-316	Sherry Road	Gravel	Local	6	Hungerford	Hungerford	Sherry Court	End	850	6.00	n/a	2019	n/a	Annually	81	Good	1
R19-317	Sherry Road	Gravel	Local	6	Hungerford	Hungerford	Vanderwater Road	Sherry Court	760	6.00	n/a	2019	n/a	Annually	80	Good	1
R19-318	Smith Road	Gravel	Local	6	Hungerford	Hungerford	Moneymore Road	End	2,512	6.00	n/a	2019	n/a	Annually	77	Good	1
R19-319	Spring Street East	HCB	Local	5	Hungerford	Hungerford	Colborne Street	Mary Street	75	6.8	0.5	1987	11	2032	88	Good	2
R19-320	Spring Street West	HCB	Local	5	Hungerford	Hungerford	Victoria Street	Metcalf Street	105	9.5	1.0	2002	13	2034	98	Good	2



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			Description	Municipal Class													
R19-321	St. Edmunds Road	LCB	Local	6	Hungerford	Hungerford	Marlbank Road	Bethel Road	951	6.0	0.5	2002	7	2028	67	Fair	1
R19-322	St. Joseph Street	HCB	Local	5	Hungerford	Hungerford	Alexander Street	Brooklyn Road	343	6.6	1.0	1990	10	2031	82	Good	2
R19-323	Station Road	Gravel	Local	6	Hungerford	Hungerford	Sulphide Road	End	815	4.5	n/a	2019	n/a	Annually	66	Fair	1
R19-324	Stoco Road	Gravel	Local	6	Hungerford	Hungerford	245 m North of Greenwood Road	Brooks Road	1,265	5.50	n/a	2019	n/a	Annually	77	Good	1
R19-325	Stoco Road	Gravel	Local	6	Hungerford	Hungerford	Allore Road	Bogart Road	1,614	6.3	n/a	2019	n/a	Annually	77	Good	1
R19-326	Stoco Road	Gravel	Local	6	Hungerford	Hungerford	Brooks Road	Bogart Road	995	6.00	n/a	2019	n/a	Annually	80	Good	1
R19-327	Stoco Road	LCB	Local	6	Hungerford	Hungerford	Courneya Road	Trudeau Lane	280	6.8	0.5	2015	9	2030	78	Good	1
R19-328	Stoco Road	LCB	Local	6	Hungerford	Hungerford	East Hungerford Road	Courneya Road	1,600	6.8	0.5	1991	6	2027	61	Fair	1
R19-329	Stoco Road	LCB	Local	6	Hungerford	Hungerford	Greenwood Road	245 m North of Greenwood Road	245	6.8	0.5	2015	10	2031	81	Good	1
R19-330	Stoco Road	LCB	Local	6	Hungerford	Hungerford	Hughes Lane	Greenwood Road	240	6.8	0.5	2015	9	2030	77	Good	1
R19-331	Stoco Road	LCB	Local	6	Hungerford	Hungerford	Marlbank Road	East Hungerford Road	78	6.8	1.0	1991	7	2028	68	Fair	1
R19-332	Stoco Road	LCB	Local	6	Hungerford	Hungerford	Trudeau Lane	Hughes Lane	661	6.8	0.5	2015	9	2030	79	Good	1
R19-333	Store Street	HCB	Local	5	Hungerford	Hungerford	Highway 37	Hungerford Street	153	6.0	0.5	2021	15	2036	85	Good	2
R19-334	Store Street	HCB	Local	5	Elzevir	Elzevir	Hungerford Street	Highway 37	333	6.0	0.5	2021	15	2036	85	Good	2
R19-335	Sulphide Road	LCB	Minor Collector	3	Hungerford	Hungerford	Bogart Road	Greenwood Road	2,080	6.0	1.0	2001	6	2027	61	Fair	1
R19-336	Sulphide Road	LCB	Minor Collector	3	Hungerford	Hungerford	Bogart Road	Potter Settlement Road	1,212	6.0	1.0	2001	6	2027	60	Fair	1



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			Description	Municipal Class													
R19-337	Sulphide Road	LCB	Minor Collector	3	Hungerford	Hungerford	Highway 37	Hollister Road	985	7.3	1.0	2001	9	2030	75	Good	4
R19-338	Sulphide Road	LCB	Minor Collector	3	Hungerford	Hungerford	Hollister Road	Lajoie Road	578	7.3	1.0	2001	8	2029	70	Fair	4
R19-339	Sulphide Road	LCB	Minor Collector	3	Hungerford	Hungerford	Lajoie Road	Greenwood Road	2,243	7.3	1.0	2001	6	2027	62	Fair	4
R19-340	Sulphide Road	Gravel	Local	6	Hungerford	Hungerford	Otter Creek Road	End (Boundary)	3,107	5.0	n/a	2019	n/a	Annually	68	Fair	1
R19-341	Sulphide Road	Gravel	Local	6	Hungerford	Hungerford	Peter Street	Otter Creek Road	2,930	5.6	n/a	2019	n/a	Annually	75	Good	1
R19-342	Sulphide Road	LCB	Minor Collector	3	Hungerford	Hungerford	Potter Settlement Road	Peter Street	1,850	6.5	2.0	2001	5	2026	50	Poor	1
R19-343	Thomas Street	LCB	Local	6	Hungerford	Hungerford	Highway 37	Clare Street	141	5.3	0.5	2001	7	2028	69	Fair	1
R19-344	Thomasburg Road	LCB	Local	6	Hungerford	Hungerford	Clare Street	Boundary	315	5.5	0.5	2001	9	2030	75	Good	1
R19-345	Trillium Road	Gravel	Local	6	Hungerford	Hungerford	Bethel Road	Clear Lane	250	6.5	n/a	2019	n/a	Annually	75	Good	1
R19-346	Turcotte Road	Gravel	Local	6	Hungerford	Hungerford	Otter Creek Road	Boundary	5,222	4.5	n/a	2019	n/a	Annually	55	Fair	1
R19-347	Tweedsmuir Crescent & Lane	Gravel	Local	6	Hungerford	Hungerford	Lost Channel Road	Tweedsmuir Lane	1,175	3.00	n/a	2019	n/a	Annually	74	Fair	1
R19-348	Tyner Road	Gravel	Local	6	Hungerford	Hungerford	Moneymore Road	Hogs Back Road	1,254	6.00	n/a	2019	n/a	Annually	74	Fair	1
R19-349	Uens Road	Gravel	Local	6	Hungerford	Hungerford	Bethel Road	Esker Road	1,640	5.00	n/a	2019	n/a	Annually	78	Good	1
R19-350	Upper Flinton Road	Gravel	Local	6	Elzevir	Elzevir	Highway 7	Robinson Road North	845	6.0	n/a	2019	n/a	Annually	75	Good	1
R19-351	Upper Flinton Road	Gravel	Local	6	Elzevir	Elzevir	James Road	Township Boundary	3,957	6.2	n/a	2019	n/a	Annually	73	Fair	1
R19-352	Upper Flinton Road	Gravel	Local	6	Elzevir	Elzevir	Moore's Road	James Road	1,435	5.4	n/a	2019	n/a	Annually	75	Good	1



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			Description	Municipal Class													
R19-353	Upper Flinton Road	Gravel	Local	6	Elzevir	Elzevir	Robinson Road North	Moore's Road	1,257	5.4	n/a	2019	n/a	Annually	79	Good	1
R19-354	Van Der Wey Court	Gravel	Local	6	Hungerford	Hungerford	Marlbank Road	End	135	4.00	n/a	2019	n/a	Annually	73	Fair	1
R19-355	Vanderwater Road	Gravel	Local	6	Hungerford	Hungerford	Ervine Road	End	775	5.00	n/a	2019	n/a	Annually	80	Good	1
R19-356	Vanderwater Road	LCB	Local	6	Hungerford	Hungerford	Esker Road	Sherry Road	547	6.8	2.0	2009	8	2029	72	Fair	1
R19-357	Vanderwater Road	LCB	Minor Collector	4	Hungerford	Hungerford	Highway 37	Esker Road	2,352	6.0	0.5	2009	6	2027	60	Fair	3
R19-358	Vanderwater Road	LCB	Local	6	Hungerford	Hungerford	Old Hungerford Road	Ervine Road	3,780	6.5	0.5	2009	8	2029	70	Fair	1
R19-359	Vanderwater Road	LCB	Local	6	Hungerford	Hungerford	Sherry Road	Old Hungerford Road	1,020	6.8	1.0	2009	8	2029	72	Fair	1
R19-360	Varty Road	Gravel	Local	6	Elzevir	Elzevir	Highway 7	End	1,511	5.0	n/a	2019	n/a	Annually	65	Fair	1
R19-361	Victoria Street North	HCB	Local	5	Hungerford	Hungerford	Bridge Street West	Highway 37	284	9.6	2.0	2017	13	2034	97	Good	2
R19-362	Victoria Street North	HCB	Local	5	Hungerford	Hungerford	French Settlement Road	Holdcroft Street	399	6.5	0.5	2017	13	2034	95	Good	2
R19-363	Victoria Street North	HCB	Local	5	Hungerford	Hungerford	Holdcroft Street	Highway 37	562	6.5	1.0	2017	13	2034	97	Good	2
R19-364	Victoria Street North	HCB	Local	5	Hungerford	Hungerford	Jamieson Street West	Spring Street West	188	14.1	2.0	2017	13	2034	98	Good	2
R19-365	Victoria Street North	HCB	Local	5	Hungerford	Hungerford	Quinns Lane	Bridge Street West	62	14.1	2.0	2017	13	2034	98	Good	2
R19-366	Victoria Street North	HCB	Local	5	Hungerford	Hungerford	River Street West	Jamieson Street West	220	14.1	2.0	2017	13	2034	98	Good	2
R19-367	Victoria Street North	HCB	Local	5	Hungerford	Hungerford	Spring Street West	Quinns Lane	156	14.1	2.0	2017	13	2034	98	Good	2
R19-368	Victoria Street South	HCB	Local	5	Hungerford	Hungerford	Highway 37	Jane Street West	310	9.8	2.0	2018	13	2034	97	Good	2



Table 4a
Detailed Summary of Municipal Assets (Roads)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Gravel / LCB / HCB) ^{1,2}	Road Class		Geographic Township START ^{2,3}	Geographic Township END ^{2,3}	Road Location From ²	Road Location To ²	Section Length (m) ²	Road Width (m)	Shoulder Width (m)	Year in Service / or Last Upgrade Year ¹	Asset Life Expectancy (years) ¹	Projected Replacement or Upgrade Year	Pavement Condition Index (PCI; 0 - 100)	Condition Rating (good / fair / poor)	Current Level of Service (5 = high / 1 = low) ⁴
			Description	Municipal Class													
R19-369	Victoria Street South	HCB	Local	5	Hungerford	Hungerford	Jane Street West	McGowan Street	143	9.8	2.0	2018	13	2034	98	Good	2
R19-370	Victoria Street South	HCB	Local	5	Hungerford	Hungerford	McGowan Street	River Street West	270	9.8	2.0	2018	13	2034	96	Good	2
R19-371	Victoria Varty Road	Gravel	Local	6	Hungerford	Hungerford	Bogart Road	End	1,015	4.5	n/a	2019	n/a	Annually	75	Good	1
R19-372	Weslemkoon Lake Road	LCB	Local	6	Grimsthorpe	Grimsthorpe	2107 m North of Pine View Ridge Road	1569 Weslemkoon Lake Road	255	6.0	1.0		5	2026	57	Fair	1
R19-373	William Street	HCB	Local	5	Hungerford	Hungerford	Queen Street	Franklin Street	95	6.3	0.3	1992	7	2028	67	Fair	2
R19-374	Windmill Road	Gravel	Local	6	Hungerford	Hungerford	Old Hungerford Road	Windmill Lane	1,099	5.0	n/a	2019	n/a	Annually	77	Good	1
R19-375	Youngs Road	Gravel	Local	6	Hungerford	Hungerford	Highway 41	Napanee Road	3,533	5.50	n/a	2019	n/a	Annually	67	Fair	1

Road Type	No. of Road Sections	Average Age (years)	Total Length in Kilometres (km)	Percentage of Total Road Network (%)	Replacement and/or Maintenance Cost
Gravel	165	2	253.68	61.76%	\$ 250,000
High Class Bituminous (HCB)	112	15	36.43	8.87%	\$ 8,316,539
Low Class Bituminous (LCB)	98	11	120.63	29.37%	\$ 15,516,027
TOTAL	375	8	410.74	100.00%	\$ 24,082,566

Notes:

1. Data from Municipality of Tweed, Tangible Capital Assets (2021) and/or provided by Municipality.
2. Roads Needs Study (Greenview, 2019).
3. Data Provided from Municipality of Tweed (Gap Analysis Meetings).
4. Level of Service: 1 = very low priority, 5 = very high priority.

Selected Focus Items



Table 4b
Detailed Summary of Municipal Assets (Bridges & Large Culverts)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Bridge / Culvert) ¹	Structure Type	Total Deck Length (m)	Overall Structure Width (m)	Total Deck Area (m ²)	Roadway Width (m)	No. of Spans (#)	Span Lengths (m)	Culvert Diameter (m) ²	No. of Culverts ¹	Loading Restriction (Y / N)	Dimensional Restriction (Y / N)	Geographic Township ¹	Structure Location	Municipal Road Class	UTM Coordinates			Year in Service / or Last Upgrade Year ¹	Asset Age (years)	Asset Life Expectancy (years) ¹	Projected Replacement or Upgrade Year	Tangible Capital Asset Report Financials				Rehabilitation Cost	Replacement Cost	Additional Investigations	Total Upgrade Cost	Bridge Condition Index (BCI) ²	Condition Rating (good / fair / poor)	Current Level of Service (5 = high / 1 = low) ⁴
																	Zone	Northing	Easting					Original Value ¹	Accumulated Amortization ¹	Additions and Betterments	Ending Value ¹							
BC19-01	Black Creek Bridge (Bridge #21)	Bridge	T-Beam	13.30	10.30	137.00	9.10	1	12.30	n/a	n/a	N	N	Hungerford	Sulphide Road, 3.2 km East of Highway #37	3	18T	4929688	318540	2016	6	2027	\$ 51,903	\$ 12,457	\$ -	\$ 39,446	\$ -	\$ 1,300,000	\$ 5,000	\$ 1,305,000	62.59	Fair	4	
BC19-02	Bogart Road Bridge (Bridge #17)	Culvert	Arch Culvert	19.00	5.80	98.80	5.20	1	15.10	15.1	1	N	Y	Hungerford	Bogart Road, 1.3 km South of Sulphide Road	6	18T	4929840	321007	2014	7	25	2046	\$ 847,766	\$ 90,762	\$ -	\$ 757,004	\$ -	\$ 940,000	\$ -	\$ 940,000	75.00	Good	1
BC19-03	Boundary Bridge (Bridge #29)	Bridge	Through Truss	30.40	4.80	145.90	4.30	1	30.20	n/a	n/a	N	Y	Hungerford	Hawkins Bay Road, 0.1 km West of Highway #37	6	18T	4933941	314635	2020	25	2046	\$ 1,536,502	\$ 39,266	\$ -	\$ 1,497,236	\$ -	\$ 1,370,000	\$ -	\$ 1,370,000	93.12	Good	1	
BC19-04	Bradshaw Bridge (Bridge #36)	Bridge	T-Beam	20.10	5.70	114.60	4.70	2	4.55	n/a	n/a	Y	N	Elzevir	Flinton Road, 1.2 km North of Highway #7	4	18T	4937264	316458	1921	1	2022	\$ 2,185	\$ 2,185	\$ -	\$ -	\$ -	\$ 1,090,000	\$ 5,000	\$ 1,095,000	46.88	Poor	3	
BC19-05	Catons Bridge North Structure (Bridge #8)	Bridge	T-Beam	40.20	5.50	221.10	4.30	3	12, 12, 12	n/a	n/a	Y	Y	Hungerford	Carrs Road, 1.3 km South of Bethel Road	6	18T	4922321	317575	1913	1	2022	\$ 2,497	\$ 2,497	\$ -	\$ -	\$ -	\$ 1,660,000	\$ 5,000	\$ 1,665,000	29.49	Poor	1	
BC19-06	Catons Bridge South Structure (Bridge #7)	Bridge	T-Beam	40.20	5.50	221.10	4.30	3	12, 12, 12	n/a	n/a	Y	Y	Hungerford	Carrs Road, 1.3 km South of Bethel Road	6	18T	4922264	317569	1913	1	2022	\$ 2,497	\$ 2,497	\$ -	\$ -	\$ -	\$ 1,660,000	\$ 5,000	\$ 1,665,000	31.17	Poor	1	
BC19-07	Clements Bridge (Bridge #13)	Bridge	I-Beams or Girders	12.00	4.90	58.80	4.60	1	7.00	n/a	n/a	N	Y	Hungerford	Kinlin Road, 0.4 km South of Prevost Road	6	18T	4930857	325454	2021	1	2022	\$ 703,514	\$ 112,872	\$ 23,909	\$ 614,551	\$ 75,000	\$ 640,000	\$ 10,000	\$ 725,000	54.88	Poor	1	
BC19-08	Crookston Culvert (Bridge #24)	Culvert	Rectangular Culvert	6.40	6.70	153.60	6.70	1	5.60	5.8	1	N	N	Hungerford	Crookston Road, 7.5 km East of Highway #7	3	18T	4925922	310315	1970	51	25	2046	\$ 269	\$ 269	\$ -	\$ -	\$ -	\$ 1,150,000	\$ -	\$ 1,150,000	71.17	Good	4



Table 4b
Detailed Summary of Municipal Assets (Bridges & Large Culverts)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Bridge / Culvert) ¹	Structure Type	Total Deck Length (m)	Overall Structure Width (m)	Total Deck Area (m ²)	Roadway Width (m)	No. of Spans (#)	Span Lengths (m)	Culvert Diameter (m) ²	No. of Culverts ¹	Loading Restriction (Y / N)	Dimensional Restriction (Y / N)	Geographic Township ¹	Structure Location	Municipal Road Class	UTM Coordinates			Year in Service / or Last Upgrade Year ¹	Asset Age (years)	Asset Life Expectancy (years) ¹	Projected Replacement or Upgrade Year	Tangible Capital Asset Report Financials				Rehabilitation Cost	Replacement Cost	Additional Investigations	Total Upgrade Cost	Bridge Condition Index (BCI) ²	Condition Rating (good / fair / poor)	Current Level of Service (5 = high / 1 = low) ⁴
																	Zone	Northing	Easting					Original Value ¹	Accumulated Amortization ¹	Additions and Betterments	Ending Value ¹							
BC19-09	Doran's Bridge (Bridge #14)	Bridge	I-Beams or Girders	22.00	5.90	129.80	5.00	1	19.00	n/a	n/a	N	N	Hungerford	Kinlin Road, 0.1 km South of Otter Creek Road	6	18T	4929941	323925	2007	14	25	2046	\$ 657,144	\$ 122,667	\$ -	\$ 534,477	\$ -	\$ 1,230,000	\$ -	\$ 1,230,000	74.88	Good	1
BC19-10	Dowling Bridge (Bridge #51)	Bridge	I-Beams or Girders	12.60	4.50	56.70	4.00	1	7.40	n/a	n/a	Y	Y	Hungerford	Hungerford Road, 1.8 km East of Colonization Road	6	18T	4927597	326513	2008		6	2027	\$ 28,350	\$ 4,914	\$ -	\$ 23,436	\$ -	\$ 610,000	\$ 5,000	\$ 615,000	53.79	Poor	1
BC19-11	Downey Rapids South Structure (Bridge #27)	Bridge	T-Beam	26.80	5.50	147.40	4.20	2	12.3, 12.3	n/a	n/a	Y	Y	Hungerford	Rapids Road, 2.6km South of Highway #7	6	18T	4931268	309975	1914		1	2022	\$ 1,691	\$ 1,691	\$ -	\$ -	\$ -	\$ 1,400,000	\$ 5,000	\$ 1,405,000	36.10	Poor	1
BC19-12	Downey Rapids North Structure (Bridge #28)	Bridge	T-Beam	7.20	5.50	39.60	4.20	1	6.10	n/a	n/a	Y	Y	Hungerford	Rapids Road, 2.6km South of Highway #7	6	18T	4931302	309950	1914		1	2022	\$ 460	\$ 460	\$ -	\$ -	\$ -	\$ 520,000	\$ 5,000	\$ 525,000	55.11	Poor	1
BC19-13	East Red Bridge (Bridge #30)	Bridge	T-Beam	8.50	5.40	39.10	4.20	1	7.60	n/a	n/a	Y	Y	Elzevir	Black River Road, 1.4 km West of North Hawkings Bay Road	6	18T	4934202	311698	1930		1	2022	\$ 828	\$ 828	\$ -	\$ -	\$ -	\$ 510,000	\$ 5,000	\$ 515,000	27.83	Poor	1
BC19-14	Forbes Culvert (Bridge #37)	Culvert	Round Culvert	5.70	18.40	34.20	8.50	2	3.5, 3.5	3.5	2	N	N	Elzevir	Forbes Road, 0.7 km West of Flinton Road	6	18T	4937532	315916	1991	30	6	2027	\$ 1,041	\$ 1,041	\$ -	\$ -	\$ -	\$ 450,000	\$ -	\$ 450,000	67.33	Fair	1
BC19-15	Gordon Bridge (Bridge #41)	Culvert	Round Culvert	5.55	9.20	51.06	7.00	3	1.85, 1.85, 1.85	1.85	3	N	N	Elzevir	Bosley Road, 0.6 km South of Queensborough Road	6	18T	4939942	308483	2011	10	25	2046	\$ 224,126	\$ 33,989	\$ -	\$ 190,137	\$ -	\$ 550,000	\$ -	\$ 550,000	74.92	Good	1
BC19-16	Graham's Bridge (Bridge #25)	Bridge	T-Beam	7.00	14.10	98.70	7.80	1	6.10	n/a	n/a	N	N	Hungerford	Quin Mo Lac Road, 1.2 km East of Camp Road	4	18T	4927652	310733	1930		6	2027	\$ 1,782	\$ 1,782	\$ -	\$ -	\$ 89,500	\$ 940,000	\$ -	\$ 1,029,500	69.23	Fair	3



Table 4b
Detailed Summary of Municipal Assets (Bridges & Large Culverts)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Bridge / Culvert) ¹	Structure Type	Total Deck Length (m)	Overall Structure Width (m)	Total Deck Area (m ²)	Roadway Width (m)	No. of Spans (#)	Span Lengths (m)	Culvert Diameter (m) ²	No. of Culverts ¹	Loading Restriction (Y / N)	Dimensional Restriction (Y / N)	Geographic Township ¹	Structure Location	Municipal Road Class	UTM Coordinates			Year in Service / or Last Upgrade Year ¹	Asset Age (years)	Asset Life Expectancy (years) ¹	Projected Replacement or Upgrade Year	Tangible Capital Asset Report Financials				Rehabilitation Cost	Replacement Cost	Additional Investigations	Total Upgrade Cost	Bridge Condition Index (BCI) ²	Condition Rating (good / fair / poor)	Current Level of Service (5 = high / 1 = low) ⁴
																	Zone	Northing	Easting					Original Value ¹	Accumulated Amortization ¹	Additions and Betterments	Ending Value ¹							
BC19-17	Greatrix Bridge (Bridge #35)	Bridge	T-Beam	7.30	5.60	40.90	-	1	6.50	n/a	n/a	Y	Y	Elzevir	Robinson Road, 0.3 km East of Flinton Road	6	18T	4937686	317173	1925		1	2022	\$ 713	\$ 713	\$ -	\$ -	\$ -	\$ 540,000	\$ 5,000	\$ 545,000	33.88	Poor	1
BC19-18	Hawkins Bridge (Bridge #22)	Bridge	I-Beams or Girders	9.10	11.70	118.20	6.50	1	9.10	n/a	n/a	N	N	Hungerford	Sulphide Road, 5.3 km East of Highway #7	3	18T	4931421	320657	1930		1	2022	\$ 2,124	\$ 2,124	\$ -	\$ -	\$ 420,000	\$ 1,120,000	\$ 8,000	\$ 1,548,000	52.08	Poor	4
BC19-19	Horrigan Bridge (Bridge #45)	Bridge	I-Beams or Girders	7.00	4.70	32.90	4.50	1	5.40	n/a	n/a	N	Y	Hungerford	Horrigan Road, 1.3 km West of Marlbank	6	18T	4923851	328529	2008		1	2022	\$ 16,500	\$ 2,860	\$ -	\$ 13,640	\$ 40,000	\$ 430,000	\$ -	\$ 470,000	70.24	Good	1
BC19-20	Joe Allore Bridge (Bridge #48)	Bridge	Half-Through Truss	18.50	5.50	101.75	5.50	1	16.00	n/a	n/a	Y	Y	Hungerford	Allore Road, 0.2 km Northwest of Otter Creek Road	6	18T	4929476	322894	1908		1	2022	\$ 1,038	\$ 1,038	\$ -	\$ -	\$ -	\$ 970,000	\$ 5,000	\$ 975,000	61.42	Fair	1
BC19-21	Joe Trudeau Bridge (Bridge #49)	Bridge	Half-Through Truss	19.50	5.50	107.00	5.00	1	18.50	n/a	n/a	Y	Y	Hungerford	Courneya Road, 0.5 km West of Allore Road	6	18T	4927957	322867	1930		1	2022	\$ 1,872	\$ 1,872	\$ -	\$ -	\$ -	\$ 1,020,000	\$ 5,000	\$ 1,025,000	49.75	Poor	1
BC19-22	Kennedy's Bridge (Bridge #4)	Bridge	Rigid Frame, Vertical Legs	8.00	6.20	49.60	4.60	1	7.30	n/a	n/a	N	Y	Hungerford	Esker Road, 1.1 km North of Concession Road 4	6	18T	4919425	315792	2008	13	25	2046	\$ 400,000	\$ 69,333	\$ -	\$ 330,667	\$ -	\$ 650,000	\$ -	\$ 650,000	73.35	Good	1
BC19-23	Ker's Bridge (Bridge #3)	Bridge	I-Beams or Girders	32.50	9.50	810.00	-	3	32.5, 32.5, 32.5	n/a	n/a	N	N	Hungerford	Vandenwater Road, 2.6 km East of Highway #37	4	18T	4918091	315519	1991		25	2046	\$ 1,672,628	\$ 688,104	\$ -	\$ 984,524	\$ -	\$ 6,080,000	\$ -	\$ 6,080,000	74.40	Good	3
BC19-24	Kinlin Bridge (Bridge #50)	Bridge	Half-Through Truss	16.00	5.10	70.40	4.50	2	7.7	n/a	n/a	Y	Y	Hungerford	Kinlin Road, 3.5 km East of Prevost Road	6	18T	4931105	328433	1930		1	2022	\$ 1,260	\$ 1,260	\$ -	\$ -	\$ -	\$ 760,000	\$ 5,000	\$ 765,000	45.21	Poor	1



Table 4b
Detailed Summary of Municipal Assets (Bridges & Large Culverts)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Bridge / Culvert) ¹	Structure Type	Total Deck Length (m)	Overall Structure Width (m)	Total Deck Area (m ²)	Roadway Width (m)	No. of Spans (#)	Span Lengths (m)	Culvert Diameter (m) ²	No. of Culverts ¹	Loading Restriction (Y / N)	Dimensional Restriction (Y / N)	Geographic Township ¹	Structure Location	Municipal Road Class	UTM Coordinates			Year in Service / or Last Upgrade Year ¹	Asset Age (years)	Asset Life Expectancy (years) ¹	Projected Replacement or Upgrade Year	Tangible Capital Asset Report Financials				Rehabilitation Cost	Replacement Cost	Additional Investigations	Total Upgrade Cost	Bridge Condition Index (BCI) ²	Condition Rating (good / fair / poor)	Current Level of Service (5 = high / 1 = low) ⁴
																	Zone	Northing	Easting					Original Value ¹	Accumulated Amortization ¹	Additions and Betterments	Ending Value ¹							
BC19-25	Lingham Lake Bridge (Bridge #43)	Bridge	Box Beams of Girders	26.00	4.30	111.80	4.30	1	24.10	n/a	n/a	N	Y	Elzevir	Lingham Lake Road, 5.7km east of Cooper Road	6	18T	4949854	308002	2016	5	25	2046	\$ 1,602	\$ 1,602	\$ -	\$ -	\$ -	\$ 1,060,000	\$ -	\$ 1,060,000	74.94	Good	1
BC19-26	Lost Channel Bridge (Bridge #6)	Bridge	T-Beam	53.80	5.70	306.70	4.50	4	12, 12, 12, 12	n/a	n/a	Y	Y	Hungerford	Lost Channel Road, 2.7 km East of Highway #37	6	18T	4921289	316389	1920		1	2022	\$ 6,616	\$ 6,616	\$ -	\$ -	\$ -	\$ 2,300,000	\$ 8,000	\$ 2,308,000	21.12	Poor	1
BC19-27	Maines Bridge (Bridge #9)	Bridge	I-Beams or Girders	30.80	9.30	286.40	7.40	1	30.00	n/a	n/a	N	N	Hungerford	Bethel Road, 1.9 km East of Highway #37	6	18T	4923390	317166	1986	35	25	2046	\$ 379,839	\$ 177,258	\$ -	\$ 202,581	\$ -	\$ 2,150,000	\$ -	\$ 2,150,000	74.07	Good	1
BC19-28	Marbank Bridge (Bridge #2)	Bridge	Rigid Frame, Vertical Legs	4.50	13.20	73.80	13.20	1	3.90	n/a	n/a	N	N	Hungerford	Queen Street, 0.3 km North of Marbank Road West	4	18T	4922415	333346	1980		1	2022	\$ 10,449	\$ 5,712	\$ -	\$ 4,737	\$ 155,000	\$ 800,000	\$ 10,000	\$ 965,000	62.33	Fair	3
BC19-29	Marbank Culvert (Bridge #46)	Culvert	Frame, Inclined Legs	4.20	11.00	46.20	5.50	1	3.60	3.6	1	N	N	Hungerford	Napanee Road, 200m East of Luffman Road	4	18T	4922556	333389	2007	14	25	2046	\$ 262,858	\$ 49,067	\$ -	\$ 213,791	\$ -	\$ 610,000	\$ -	\$ 610,000	74.85	Good	3
BC19-30	Marbank Road Bridge (Bridge #44)	Bridge	Rigid Frame, Vertical Legs	4.60	12.20	63.40	7.00	1	4.60	n/a	n/a	N	N	Hungerford	Marbank Road, 2.2 km East of Colonization Road	3	18T	4924961	327544	1930		25	2046	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 680,000	\$ -	\$ 680,000	73.58	Good	4
BC19-31	Marrison Bridge (Bridge #34)	Bridge	T-Beam	8.40	5.60	47.00	4.50	1	7.60	n/a	n/a	N	Y	Elzevir	Upper Flinton Road, 5 km East of Moore's Road	6	18T	4942217	322980	1930		6	2027	\$ 846	\$ 846	\$ -	\$ -	\$ -	\$ 620,000	\$ 5,000	\$ 625,000	51.10	Poor	1
BC19-32	Marshes Bridge (Bridge #26)	Bridge	Rigid Frame, Vertical Legs	8.10	6.15	49.80	5.50	1	7.20	n/a	n/a	N	N	Hungerford	French Settlement Road, 1.5 km East of Rapids Road	6	18T	4930552	312705	2008	13	25	2046	\$ 475,000	\$ 88,667	\$ -	\$ 386,333	\$ -	\$ 650,000	\$ -	\$ 650,000	74.79	Good	1



Table 4b
Detailed Summary of Municipal Assets (Bridges & Large Culverts)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Bridge / Culvert) ¹	Structure Type	Total Deck Length (m)	Overall Structure Width (m)	Total Deck Area (m ²)	Roadway Width (m)	No. of Spans (#)	Span Lengths (m)	Culvert Diameter (m) ²	No. of Culverts ¹	Loading Restriction (Y / N)	Dimensional Restriction (Y / N)	Geographic Township ¹	Structure Location	Municipal Road Class	UTM Coordinates			Year in Service / or Last Upgrade Year ¹	Asset Age (years)	Asset Life Expectancy (years) ¹	Projected Replacement or Upgrade Year	Tangible Capital Asset Report Financials				Rehabilitation Cost	Replacement Cost	Additional Investigations	Total Upgrade Cost	Bridge Condition Index (BCI) ²	Condition Rating (good / fair / poor)	Current Level of Service (5 = high / 1 = low) ⁴
																	Zone	Northing	Easting					Original Value ¹	Accumulated Amortization ¹	Additions and Betterments	Ending Value ¹							
BC19-33	Maurice Rivers Bridge (Bridge #15)	Bridge	Hybrid	8.70	7.50	66.99	7.00	1	7.10	n/a	n/a	N	Y	Hungerford	Allore Road, 0.1 km East of Stoco Road	6	18T	4929290	323042	2009		1	2022	\$ 177,801	\$ 28,448	\$ -	\$ 149,353	\$ 30,000	\$ 720,000	\$ -	\$ 750,000	64.94	Fair	1
BC19-34	Morton Memorial Bridge (Bridge #19)	Bridge	Through Truss	62.80	5.30	333.00	4.80	2	30.00	n/a	n/a	N	Y	Hungerford	Pedestrian walkway, Bridge Street East and Colborne Street	6	18T	4927793	316036	1920	101	25	2046	\$ 7,176	\$ 7,176	\$ -	\$ -	\$ -	\$ 2,500,000	\$ -	\$ 2,500,000	70.36	Good	1
BC19-35	Otter Creek Bridge (Bridge #47)	Bridge	Half-Through Truss	21.00	4.50	94.50	4.50	1	19.00	n/a	n/a	Y	Y	Hungerford	Prevost Road, 0.25 km North of Kinlin Road	6	18T	4930995	325238	1931	90	1	2022	\$ 1,610	\$ 1,610	\$ -	\$ -	\$ 100,000	\$ 900,000	\$ -	\$ 1,000,000	51.51	Poor	1
BC19-36	Paul Clement Bridge (Bridge #16)	Bridge	I-Beams or Girders	20.45	7.00	143.00	7.00	1	20.45	n/a	n/a	N	N	Hungerford	Greenwood Road, 0.4 km North of Stoco Road	6	18T	4927796	319425	2010	11	25	2046	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,360,000	\$ -	\$ 1,360,000	88.09	Good	1
BC19-37	Queensborough Bridge (Bridge #42)	Bridge	I-Beams or Girders	13.80	6.40	88.30	5.10	1	13.30	n/a	n/a	Y	N	Elzevir	Queensborough Road, 5.2 km East of Cooper Road	4	18T	4940472	308656	1925	96	1	2022	\$ 1,531	\$ 1,531	\$ -	\$ -	\$ -	\$ 840,000	\$ 5,000	\$ 845,000	52.79	Poor	3
BC19-38	Rapids Bridge (Bridge #52)	Bridge	Rigid Frame, Vertical Legs	6.00	5.30	31.80	4.50	1	5.00	n/a	n/a	Y	Y	Hungerford	Rapids Road, 0.5 km North of Quin Mo Lac Road	6	18T	4927656	311456	2019		25	2046	\$ 82,649	\$ 3,214	\$ -	\$ 79,435	\$ -	\$ 650,000	\$ -	\$ 650,000	100.00	Good	1
BC19-39	Reynolds Culvert (Bridge #38)	Culvert	Round Culvert	6.60	16.20	39.60	7.30	2	2.6, 2.6	2.6	2	N	N	Elzevir	Flinton Road, 2.2 kms north of Highway #7	4	18T	4938405	317029	1995	26	6	2027	\$ 1,106	\$ 1,106	\$ -	\$ -	\$ -	\$ 520,000	\$ 10,000	\$ 530,000	53.86	Poor	3
BC19-40	Robinson Bridge (Bridge #32)	Bridge	Box Beams of Girders	26.60	8.40	258.00	8.10	1	26.00	n/a	n/a	N	N	Elzevir	Upper Flinton Road, 0.2 km North of Highway #7	6	18T	4936586	320878	2017	4	25	2046	\$ 33,529	\$ 5,868	\$ -	\$ 27,661	\$ -	\$ 1,940,000	\$ -	\$ 1,940,000	74.29	Good	1



Table 4b
Detailed Summary of Municipal Assets (Bridges & Large Culverts)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Bridge / Culvert) ¹	Structure Type	Total Deck Length (m)	Overall Structure Width (m)	Total Deck Area (m ²)	Roadway Width (m)	No. of Spans (#)	Span Lengths (m)	Culvert Diameter (m) ²	No. of Culverts ¹	Loading Restriction (Y / N)	Dimensional Restriction (Y / N)	Geographic Township ¹	Structure Location	Municipal Road Class	UTM Coordinates			Year in Service / or Last Upgrade Year ¹	Asset Age (years)	Asset Life Expectancy (years) ¹	Projected Replacement or Upgrade Year	Tangible Capital Asset Report Financials				Rehabilitation Cost	Replacement Cost	Additional Investigations	Total Upgrade Cost	Bridge Condition Index (BCI) ²	Condition Rating (good / fair / poor)	Current Level of Service (5 = high / 1 = low) ⁴
																	Zone	Northing	Easting					Original Value ¹	Accumulated Amortization ¹	Additions and Betterments	Ending Value ¹							
BC19-41	Rocky Alter Bridge (Bridge #12)	Bridge	T-Beam	17.10	5.50	94.00	5.50	1	10.10	n/a	n/a	Y	Y	Hungerford	Allore Road, 1.1 km East of Hungerford Road	6	18T	4927847	323481	1930		1	2022	\$ 1,746	\$ 1,746	\$ -	\$ -	\$ -	\$ 890,000	\$ 5,000	\$ 895,000	21.13	Poor	1
BC19-42	Ross Bridge (Bridge #40)	Bridge	T-Beam	13.00	5.80	75.40	4.90	0	11.10	n/a	n/a	Y	Y	Elzevir	Bosley Road, 1.8 km West of Queensborough Road	6	18T	4938826	309889	1923		1	2022	\$ 1,305	\$ 1,305	\$ -	\$ -	\$ -	\$ 810,000	\$ 5,000	\$ 815,000	27.03	Poor	1
BC19-43	Sagonaska Bridge (Bridge #18)	Bridge	I-Beams or Girders	95.00	13.00	1233.70	10.00	3	31.5, 31.5, 31.5	n/a	n/a	N	N	Hungerford	Highway 37, 10m north of Victoria Street North	2	18T	4928067	315800	1997	24	25	2046	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,250,000	\$ -	\$ 9,250,000	73.23	Good	5
BC19-44	Scotchwoman Bridge (Bridge #39)	Bridge	T-Beam	20.10	5.70	114.60	4.70	0	18.20	n/a	n/a	Y	N	Elzevir	Flinton Road, 1 km south of North Addington Boundary	4	18T	4945408	321487	1921		1	2022	\$ 2,185	\$ 2,185	\$ -	\$ -	\$ -	\$ 1,090,000	\$ 5,000	\$ 1,095,000	52.84	Poor	3
BC19-45	Sherry's Bridge (Bridge #5)	Bridge	I-Beams or Girders	33.50	8.00	268.00	4.70	1	33.00	n/a	n/a	N	Y	Hungerford	Lost Channel Road, 2.3 km East of Highway #37	6	18T	4921181	315997	2007	14	25	2046	\$ 912,700	\$ 160,120	\$ -	\$ 752,580	\$ -	\$ 2,010,000	\$ -	\$ 2,010,000	74.98	Good	1
BC19-46	Stocco Bridge (Bridge #11)	Bridge	Box Beams of Girders	52.80	12.30	649.40	8.50	0	17.6, 17.6, 17.6	n/a	n/a	N	N	Hungerford	Marbank Road, 3.2 km East of Highway #37	4	18T	4925209	318877	1964		25	2046	\$ 73,670	\$ 55,007	\$ -	\$ 18,663	\$ -	\$ 5,760,000	\$ 10,000	\$ 5,770,000	73.50	Good	3
BC19-47	Storring Bridge (Bridge #33)	Bridge	T-Beam	11.50	5.10	58.70	4.00	1	10.90	n/a	n/a	Y	Y	Elzevir	Upper Flinton Road, 0.9 km East of Moores Road	6	18T	4938635	321306	1940		1	2022	\$ 1,006	\$ 1,006	\$ -	\$ -	\$ -	\$ 630,000	\$ 5,000	\$ 635,000	49.20	Poor	1
BC19-48	Sulphide Creek Bridge (Bridge #23)	Bridge	I-Beams or Girders	7.60	11.60	88.20	10.40	1	6.70	n/a	n/a	N	N	Hungerford	Sulphide Road, 6.1 km East of Highway #37	3	18T	4931910	321259	1959	62	1	2022	\$ 3,705	\$ 3,063	\$ -	\$ 642	\$ 310,000	\$ 840,000	\$ 10,000	\$ 1,160,000	55.27	Poor	4



Table 4b
Detailed Summary of Municipal Assets (Bridges & Large Culverts)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Bridge / Culvert) ¹	Structure Type	Total Deck Length (m)	Overall Structure Width (m)	Total Deck Area (m ²)	Roadway Width (m)	No. of Spans (#)	Span Lengths (m)	Culvert Diameter (m) ²	No. of Culverts ¹	Loading Restriction (Y / N)	Dimensional Restriction (Y / N)	Geographic Township ¹	Structure Location	Municipal Road Class	UTM Coordinates			Year in Service / or Last Upgrade Year ¹	Asset Age (years)	Asset Life Expectancy (years) ¹	Projected Replacement or Upgrade Year	Tangible Capital Asset Report Financials				Rehabilitation Cost	Replacement Cost	Additional Investigations	Total Upgrade Cost	Bridge Condition Index (BCI) ²	Condition Rating (good / fair / poor)	Current Level of Service (5 = high / 1 = low) ⁴
																	Zone	Northing	Easting					Original Value ¹	Accumulated Amortization ¹	Additions and Betterments	Ending Value ¹							
BC19-49	Tweed Bridge (Bridge #20)	Bridge	Box Beams of Girders	52.80	12.30	649.40	8.50	0	17.6, 17.6, 17.6	n/a	n/a	N	N	Hungerford	Louisa Street, 0.1 km North of Jamieson Street	5	18T	4927674	316324	1976	45	6	2027	\$ 210,179	\$ 126,107	\$ -	\$ 84,071	\$ 43,000	\$ 4,870,000	\$ 10,000	\$ 4,923,000	72.82	Good	2
BC19-50	Waterhouse Culvert (Bridge #1)	Culvert	Round Culvert	4.00	18.00	24.00	6.50	2	2.2	2	2	N	N	Hungerford	Moneymore Road, 2.6 kms East of Village of Moneymore	4	18T	4917564	322618	1995	26	6	2027	\$ 269	\$ 269	\$ -	\$ -	\$ -	\$ 310,000	\$ 5,000	\$ 315,000	56.65	Poor	3
BC19-51	West Branch Bridge (Bridge #10)	Bridge	I-Beams or Girders	31.10	11.00	342.10	9.10	1	30.20	n/a	n/a	N	N	Hungerford	Marbank Road, 1.3 km South of Highway #37	4	18T	4925365	317144	1971	50	1	2022	\$ 50,684	\$ 33,790	\$ -	\$ 16,895	\$ 439,000	\$ 2,570,000	\$ 10,000	\$ 3,019,000	68.26	Fair	3
BC19-52	West Red Bridge (Bridge #31)	Bridge	T-Beam	14.60	5.40	78.80	4.20	1	13.70	n/a	n/a	Y	Y	Elzevir	Black River Road, 1.4 km West of North Hawkings Bay Road	6	18T	4934211	311679	1930	91	1	2022	\$ 1,422	\$ 1,422	\$ -	\$ -	\$ -	\$ 850,000	\$ 5,000	\$ 855,000	49.47	Poor	1

Structure Type	Quantity	% Loading Restrictions	% Dimensional Restriction	Average Age (years)	Rehabilitation Cost	Replacement Cost	Additional Investigations	Total Upgrade Cost
Bridges	45	44%	58%	29	\$ 1,701,500	\$ 71,240,000	\$ 171,000	\$ 73,112,500
Culverts	7	0%	14%	7	\$ -	\$ 4,530,000	\$ 15,000	\$ 4,545,000
TOTAL	52	38%	52%	16	\$ 1,701,500	\$ 75,770,000	\$ 186,000	\$ 77,657,500

- Notes:
1. Data from Municipality of Tweed, Tangible Capital Assets (2021) and/or provided by Municipality.
 2. 2020 OSIM Bridge Inspection Report (Jewell Engineering, November 2020).
 3. Data Provided from Municipality of Tweed (Gap Analysis Meetings).
 4. Level of Service: 1 = very low priority, 5 = very high priority.

Selected Focus Items



Table 4c
Detailed Summary of Municipal Assets (Water Supply Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Building / Equipment / Water Main)	Asset Class (Distribution / Hydrant / Treatment)	Geographic Township	Address and/or Location ^{1,2,3}	UTM Coordinates			Location From	Location To	Quantity ^{2,3}	Units	Water Main Construction Material (Cast Iron / PVC / Other)	Year in Service / or Last Upgrade Year ^{1,2,3}	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost	Condition Rating (good / fair / poor) ³	Current Level of Service (5 = high / 1 = low) ⁴
						Zone	Northing	Easting											
WS19-01	Water Tower	Building	Distribution	Village of Tweed	351 Hungerford Road	18T	4927634	315384			1	#		1997	100	2097	\$ 3,000,000	Fair	5
WS19-02	Water Treatment Facility	Building	Treatment	Village of Tweed	430 River Street West	18T	4926973	315426			1	#		1998	75	2073	\$ 1,000,000	Good	5
WS19-03	Water Main	Water Main	Distribution	Village of Tweed	Alexander Street				Louisa Street	End (South-East)	85	m	Cast Iron	1949	75	2024	\$ 72,250	Fair	5
WS19-04	Water Main	Water Main	Distribution	Village of Tweed	Alexander Street				End (North-West)	Elvis Street	57	m	PVC	2007	100	2107	\$ 48,450	Good	5
WS19-05	Water Main	Water Main	Distribution	Village of Tweed	Alexander Street				Elvis Street	End (South-East)	299	m	PVC	2007	100	2107	\$ 254,150	Good	5
WS19-06	Water Main	Water Main	Distribution	Village of Tweed	Arthur Street				Brooklyn Road	Louisa Street	264	m	Cast Iron	1931	75	2006	\$ 224,400	Fair	5
WS19-07	Water Main	Water Main	Distribution	Village of Tweed	Bridge Street East				Victoria Street North	Colborne Street	80	m	Cast Iron	1931	75	2006	\$ 68,000	Fair	5
WS19-08	Water Main	Water Main	Distribution	Village of Tweed	Bridge Street East				Colbourne Street	End (North-East)	25	m	Cast Iron	1931	75	2006	\$ 21,250	Fair	5
WS19-09	Water Main	Water Main	Distribution	Village of Tweed	Bridge Street West				Metcalf Street	Victoria Street North	96	m	Cast Iron	1931	75	2006	\$ 81,600	Fair	5
WS19-10	Water Main	Water Main	Distribution	Village of Tweed	Brooklyn Road				Arthur Street	Minnie Avenue	67	m	Cast Iron	1931	75	2006	\$ 56,950	Fair	5
WS19-11	Water Main	Water Main	Distribution	Village of Tweed	Brooklyn Road				Minnie Avenue	St. Joseph Street	33	m	Cast Iron	1931	75	2006	\$ 28,050	Fair	5
WS19-12	Water Main	Water Main	Distribution	Village of Tweed	Brooklyn Road				St. Joseph Street	End (North-East)	68	m	Cast Iron	1931	75	2006	\$ 57,800	Fair	5
WS19-13	Water Main	Water Main	Distribution	Village of Tweed	Colborne Street				Bridge Street East	Quinns Lane	64	m	Cast Iron	1930	75	2005	\$ 54,400	Fair	5
WS19-14	Water Main	Water Main	Distribution	Village of Tweed	Colborne Street				Spring Street East	Jamieson Street East	189	m	Cast Iron	1930	75	2005	\$ 160,650	Fair	5
WS19-15	Water Main	Water Main	Distribution	Village of Tweed	Colborne Street				Jamieson Street East	River Street East	125	m	Cast Iron	1930	75	2005	\$ 106,525	Fair	5
WS19-16	Water Main	Water Main	Distribution	Village of Tweed	Colborne Street				Quinns Lane	Spring Street East	142	m	Cast Iron	1930	75	2005	\$ 120,700	Fair	5
WS19-17	Water Main	Water Main	Distribution	Village of Tweed	College Street				Hungerford Road	Katharine Street	250	m	Cast Iron	1953	75	2028	\$ 212,500	Fair	5
WS19-18	Water Main	Water Main	Distribution	Village of Tweed	College Street				Katharine Street	Pomeroy Court	67	m	Cast Iron	1953	75	2028	\$ 56,950	Fair	5
WS19-19	Water Main	Water Main	Distribution	Village of Tweed	College Street				Pomeroy Court	River Street West	315	m	Cast Iron	1953	75	2028	\$ 267,750	Fair	5



Table 4c
Detailed Summary of Municipal Assets (Water Supply Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Building / Equipment / Water Main)	Asset Class (Distribution / Hydrant / Treatment)	Geographic Township	Address and/or Location ^{1,2,3}	UTM Coordinates			Location From	Location To	Quantity ^{2,3}	Units	Water Main Construction Material (Cast Iron / PVC / Other)	Year in Service / or Last Upgrade Year ^{1,2,3}	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost	Condition Rating (good / fair / poor) ³	Current Level of Service (5 = high / 1 = low) ⁴
						Zone	Northing	Easting											
WS19-20	Water Main	Water Main	Distribution	Village of Tweed	Elvis Lane				Alexander Street	End (North-East)	46	m	PVC	2007	100	2107	\$ 39,100	Good	5
WS19-21	Water Main	Water Main	Distribution	Village of Tweed	Fire Hall				River Street West	End (South-West)	102	m	PVC	2010	100	2110	\$ 86,700	Good	5
WS19-22	Water Main	Water Main	Distribution	Village of Tweed	Gabe Lindsay Avenue				Metcalf Street	End (South-West)	52	m	Cast Iron	1950	75	2025	\$ 44,200	Fair	5
WS19-23	Water Main	Water Main	Distribution	Village of Tweed	Gateway Community Health Centre				McClellan Street	End (North-East)	53	m	PVC	2000	100	2100	\$ 45,050	Good	5
WS19-24	Water Main	Water Main	Distribution	Village of Tweed	George Street				Louisa Street	James Street South	91	m	Cast Iron	1930	75	2005	\$ 77,350	Fair	5
WS19-25	Water Main	Water Main	Distribution	Village of Tweed	George Street				James Street South	End (North-East)	101	m	Cast Iron	1930	75	2005	\$ 85,850	Fair	5
WS19-26	Water Main	Water Main	Distribution	Village of Tweed	Hannah Street				Louisa Street	James Street North	92	m	Cast Iron	1930	75	2005	\$ 78,200	Fair	5
WS19-27	Water Main	Water Main	Distribution	Village of Tweed	Highway 37				Moir Street	End (North-West)	110	m	Cast Iron	1930	75	2005	\$ 93,500	Fair	5
WS19-28	Water Main	Water Main	Distribution	Village of Tweed	Holdcroft Street				End (North-West)	Victoria Street North	240	m	PVC	2001	100	2101	\$ 204,000	Good	5
WS19-29	Water Main	Water Main	Distribution	Village of Tweed	Hungerford Road				College Street	Park Avenue	139	m	PVC	2010	100	2110	\$ 118,150	Good	5
WS19-30	Water Main	Water Main	Distribution	Village of Tweed	Hungerford Road				College Street	End (North-West)	108	m	PVC	2010	100	2110	\$ 91,800	Good	5
WS19-31	Water Main	Water Main	Distribution	Village of Tweed	Hungerford Road				Park Avenue	Metcalf Street	291	m	Cast Iron	1925	75	2000	\$ 246,992	Fair	5
WS19-32	Water Main	Water Main	Distribution	Village of Tweed	Isaac Street				Pringle Street	End (South-East)	97	m	PVC	2006	100	2106	\$ 82,450	Good	5
WS19-33	Water Main	Water Main	Distribution	Village of Tweed	James Street North				Jamieson Street East	End (South-East)	112	m	Cast Iron	1925	75	2000	\$ 95,200	Fair	5
WS19-34	Water Main	Water Main	Distribution	Village of Tweed	James Street South				River Street East	End (North-West)	74	m	Cast Iron	1925	75	2000	\$ 62,900	Fair	5
WS19-35	Water Main	Water Main	Distribution	Village of Tweed	Jamieson Street East				Mary Street	Colborne Street	95	m	Cast Iron	1925	75	2000	\$ 80,750	Fair	5
WS19-36	Water Main	Water Main	Distribution	Village of Tweed	Jamieson Street East				Louisa Street	Mary Street	97	m	Cast Iron	1925	75	2000	\$ 82,450	Fair	5
WS19-37	Water Main	Water Main	Distribution	Village of Tweed	Jamieson Street East				James Street North	Louisa Street	94	m	Cast Iron	1925	75	2000	\$ 79,900	Fair	5
WS19-38	Water Main	Water Main	Distribution	Village of Tweed	Jamieson Street East				Colborne Street	Victoria Street North	97	m	Cast Iron	1925	75	2000	\$ 82,450	Fair	5



Table 4c
Detailed Summary of Municipal Assets (Water Supply Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Building / Equipment / Water Main)	Asset Class (Distribution / Hydrant / Treatment)	Geographic Township	Address and/or Location ^{1,2,3}	UTM Coordinates			Location From	Location To	Quantity ^{2,3}	Units	Water Main Construction Material (Cast Iron / PVC / Other)	Year in Service / or Last Upgrade Year ^{1,2,3}	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost	Condition Rating (good / fair / poor) ³	Current Level of Service (5 = high / 1 = low) ⁴
						Zone	Northing	Easting											
WS19-39	Water Main	Water Main	Distribution	Village of Tweed	Jamieson Street West				Metcalf Street	Victoria Street	101	m	PVC	2008	100	2108	\$ 85,850	Good	5
WS19-40	Water Main	Water Main	Distribution	Village of Tweed	Jamieson Street West				Metcalf Street	McCamon Avenue	81	m	PVC	2008	100	2108	\$ 68,850	Good	5
WS19-41	Water Main	Water Main	Distribution	Village of Tweed	Jane Street East				Victoria Street South	End (North-East)	87	m	Cast Iron	1930	75	2005	\$ 74,074	Fair	5
WS19-42	Water Main	Water Main	Distribution	Village of Tweed	Jane Street West				Victoria Street South	End (South-West)	46	m	Cast Iron	1930	75	2005	\$ 39,100	Fair	5
WS19-43	Water Main	Water Main	Distribution	Village of Tweed	Katharine Street				Park Avenue	Metcalf Street	328	m	Cast Iron	1954	75	2029	\$ 278,800	Fair	5
WS19-44	Water Main	Water Main	Distribution	Village of Tweed	Katharine Street				College Street	Park Avenue	137	m	Cast Iron	1954	75	2029	\$ 116,450	Fair	5
WS19-45	Water Main	Water Main	Distribution	Village of Tweed	Louisa Street				St. Joseph Street	Alexander Street	81	m	Cast Iron	1949	75	2024	\$ 68,850	Fair	5
WS19-46	Water Main	Water Main	Distribution	Village of Tweed	Louisa Street				Jamieson Street East	End (North-West)	81	m	PVC	2014	100	2114	\$ 68,850	Good	5
WS19-47	Water Main	Water Main	Distribution	Village of Tweed	Louisa Street				Jamieson Street East	Hannah Street	116	m	PVC	2014	100	2114	\$ 98,600	Good	5
WS19-48	Water Main	Water Main	Distribution	Village of Tweed	Louisa Street				River Street East	George Street	114	m	PVC	2014	100	2114	\$ 96,900	Good	5
WS19-49	Water Main	Water Main	Distribution	Village of Tweed	Louisa Street				Arthur Street	End (South-West)	30	m	Cast Iron	1949	75	2024	\$ 25,500	Fair	5
WS19-50	Water Main	Water Main	Distribution	Village of Tweed	Louisa Street				Arthur Street	Alexander Street	9	m	Cast Iron	1949	75	2024	\$ 7,650	Fair	5
WS19-51	Water Main	Water Main	Distribution	Village of Tweed	Louisa Street				George Street	End (North-West)	19	m	PVC	2014	100	2114	\$ 16,150	Good	7
WS19-52	Water Main	Water Main	Distribution	Village of Tweed	Mary Street				Spring Street East	Jamieson Street East	187	m	PVC	2000	100	2100	\$ 158,950	Good	5
WS19-53	Water Main	Water Main	Distribution	Village of Tweed	Mary Street				Jamieson Street East	End (South-East)	78	m	PVC	2000	100	2100	\$ 66,300	Good	5
WS19-54	Water Main	Water Main	Distribution	Village of Tweed	Mary Street South				River Street East	End (North-West)	71	m	PVC	1950	100	2050	\$ 60,350	Good	5
WS19-55	Water Main	Water Main	Distribution	Village of Tweed	McCamon Avenue				River Street West	Metcalf Street	164	m	PVC	2008	100	2108	\$ 139,400	Good	5
WS19-56	Water Main	Water Main	Distribution	Village of Tweed	McClellan Street				Pomeroy Avenue	River Street West	312	m	Cast Iron	1949	75	2024	\$ 265,200	Fair	5
WS19-57	Water Main	Water Main	Distribution	Village of Tweed	McGowan Street				Victoria Street South	Pringle Street	135	m	PVC	2006	100	2106	\$ 114,750	Good	5



Table 4c
Detailed Summary of Municipal Assets (Water Supply Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Building / Equipment / Water Main)	Asset Class (Distribution / Hydrant / Treatment)	Geographic Township	Address and/or Location ^{1,2,3}	UTM Coordinates			Location From	Location To	Quantity ^{2,3}	Units	Water Main Construction Material (Cast Iron / PVC / Other)	Year in Service / or Last Upgrade Year ^{1,2,3}	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost	Condition Rating (good / fair / poor) ³	Current Level of Service (5 = high / 1 = low) ⁴
						Zone	Northing	Easting											
WS19-58	Water Main	Water Main	Distribution	Village of Tweed	McGowan Street				Pringle Street	End (North-West)	121	m	PVC	2007	100	2107	\$ 102,850	Good	5
WS19-59	Water Main	Water Main	Distribution	Village of Tweed	Metcalf Street				Pomeroy Avenue	Jamieson Street West	159	m	PVC	2008	100	2108	\$ 135,150	Good	5
WS19-60	Water Main	Water Main	Distribution	Village of Tweed	Metcalf Street				Jamieson Street West	River Street West	196	m	PVC	2008	100	2108	\$ 166,600	Good	5
WS19-61	Water Main	Water Main	Distribution	Village of Tweed	Metcalf Street				Katharine Street	Pomeroy Avenue	57	m	PVC	2008	100	2108	\$ 48,450	Good	5
WS19-62	Water Main	Water Main	Distribution	Village of Tweed	Metcalf Street				Katharine Street	Hungerford Street	206	m	PVC	2008	100	2108	\$ 175,100	Good	5
WS19-63	Water Main	Water Main	Distribution	Village of Tweed	Metcalf Street				Gabe Lindsay Avenue	Hungerford Street	137	m	PVC	2008	100	2108	\$ 116,450	Good	5
WS19-64	Water Main	Water Main	Distribution	Village of Tweed	Metcalf Street				Gabe Lindsay Avenue	Victoria Street North	329	m	PVC	2008	100	2108	\$ 279,650	Good	5
WS19-65	Water Main	Water Main	Distribution	Village of Tweed	Minnie Avenue				Old Bogart Road	Brooklyn Road	270	m	PVC	1998	100	2098	\$ 229,500	Good	5
WS19-66	Water Main	Water Main	Distribution	Village of Tweed	Minnie Avenue				Old Bogart Road	End (North-West)	34	m	PVC	1998	100	2098	\$ 28,900	Good	5
WS21-67	Water Main	Water Main	Distribution	Village of Tweed	Moir River North Connection				Bridge Street East	Moir Street	91	m	Cast Iron	1930	75	2005	\$ 900,000	Poor	5
WS19-68	Water Main	Water Main	Distribution	Village of Tweed	Moir Street				Old Bogart Road	Arthur Street	225	m	Cast Iron	1930	75	2005	\$ 191,250	Fair	5
WS19-69	Water Main	Water Main	Distribution	Village of Tweed	Moir Street				Highway 37	Old Bogart Road	294	m	Cast Iron	1930	75	2005	\$ 249,900	Fair	5
WS19-70	Water Main	Water Main	Distribution	Village of Tweed	Moir Place Long Term Care Home				River Street West	End (South-East)	96	m	PVC	2000	100	2100	\$ 81,600	Good	5
WS19-71	Water Main	Water Main	Distribution	Village of Tweed	Old Bogart Road				Moir Street	Minnie Avenue	119	m	Cast Iron	1930	75	2005	\$ 101,150	Fair	5
WS19-72	Water Main	Water Main	Distribution	Village of Tweed	Old Bogart Road				Minnie Avenue	End (North-East)	218	m	Cast Iron	1930	75	2005	\$ 185,300	Fair	5
WS19-73	Water Main	Water Main	Distribution	Village of Tweed	Park Avenue				Hungerford Road	Katharine Street	209	m	Cast Iron	1962	75	2037	\$ 177,650	Fair	5
WS19-74	Water Main	Water Main	Distribution	Village of Tweed	Pomeroy Avenue				Park Avenue	MecClellan Street	59	m	Cast Iron	1949	75	2024	\$ 50,150	Fair	5
WS19-75	Water Main	Water Main	Distribution	Village of Tweed	Pomeroy Avenue				McClellan Street	Metcalf Street	291	m	Cast Iron	1949	75	2024	\$ 247,350	Fair	5
WS19-76	Water Main	Water Main	Distribution	Village of Tweed	Pomeroy Court				College Street	End (North-East)	44	m	Cast Iron	1949	75	2024	\$ 37,400	Fair	5



Table 4c
Detailed Summary of Municipal Assets (Water Supply Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Building / Equipment / Water Main)	Asset Class (Distribution / Hydrant / Treatment)	Geographic Township	Address and/or Location ^{1,2,3}	UTM Coordinates			Location From	Location To	Quantity ^{2,3}	Units	Water Main Construction Material (Cast Iron / PVC / Other)	Year in Service / or Last Upgrade Year ^{1,2,3}	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost	Condition Rating (good / fair / poor) ³	Current Level of Service (5 = high / 1 = low) ⁴
						Zone	Northing	Easting											
WS19-77	Water Main	Water Main	Distribution	Village of Tweed	Pringle Street				Isaac Street	End (North-West)	97	m	PVC	2007	100	2107	\$ 82,450	Good	5
WS19-78	Water Main	Water Main	Distribution	Village of Tweed	River Street East				Victoria Street	Colborne Street	108	m	PVC	2010	100	2110	\$ 91,800	Good	5
WS19-79	Water Main	Water Main	Distribution	Village of Tweed	River Street East				Mary Street South	Louisa Street	96	m	PVC	2010	100	2110	\$ 81,600	Good	5
WS19-80	Water Main	Water Main	Distribution	Village of Tweed	River Street East				Colborne Street	Mary Street South	94	m	PVC	2010	100	2110	\$ 79,900	Good	5
WS19-81	Water Main	Water Main	Distribution	Village of Tweed	River Street East				Louisa Street	James Street South	96	m	PVC	2010	100	2110	\$ 81,600	Good	5
WS19-82	Water Main	Water Main	Distribution	Village of Tweed	River Street West				College Street	End (North-West)	160	m	PVC	2010	100	2110	\$ 136,000	Good	5
WS19-83	Water Main	Water Main	Distribution	Village of Tweed	River Street West				College Street	McClellan Street	191	m	PVC	2010	100	2110	\$ 162,350	Good	5
WS19-84	Water Main	Water Main	Distribution	Village of Tweed	River Street West				McClellan Street	McCamon Avenue	253	m	PVC	2010	100	2110	\$ 215,050	Good	5
WS19-85	Water Main	Water Main	Distribution	Village of Tweed	River Street West				Metcalf Street	Victoria Street	109	m	PVC	2010	100	2110	\$ 92,650	Good	5
WS19-86	Water Main	Water Main	Distribution	Village of Tweed	River Street West				McCamon Avenue	Metcalf Street	127	m	PVC	2010	100	2110	\$ 107,950	Good	5
WS19-87	Water Main	Water Main	Distribution	Village of Tweed	Spring Street East				Colborne Street	End (North-East)	93	m	PVC	2000	100	2100	\$ 79,050	Good	5
WS21-88	Water Main	Water Main	Distribution	Village of Tweed	Moir River South Connection				Spring Street East	Arthur Street	189	m	PVC	1988	100	2088	\$ 160,650	Good	5
WS19-89	Water Main	Water Main	Distribution	Village of Tweed	St. Joseph Street				Brooklyn Road	Louisa Street	255	m	Cast Iron	1949	75	2024	\$ 216,750	Fair	5
WS19-90	Water Main	Water Main	Distribution	Village of Tweed	Victoria Street North				Highway 37	Bridge Street	294	m	PVC	1983	100	2083	\$ 249,900	Good	5
WS19-91	Water Main	Water Main	Distribution	Village of Tweed	Victoria Street North				Jamieson Street	River Street	220	m	PVC	1983	100	2083	\$ 187,187	Good	5
WS19-92	Water Main	Water Main	Distribution	Village of Tweed	Victoria Street North				Spring Street	Jamieson Street	188	m	PVC	1983	100	2083	\$ 159,800	Good	5
WS19-93	Water Main	Water Main	Distribution	Village of Tweed	Victoria Street North				Bridge Street	Quinns Lane	60	m	PVC	1983	100	2083	\$ 51,000	Good	5
WS19-94	Water Main	Water Main	Distribution	Village of Tweed	Victoria Street North				Holdcroft Street	Highway 37	570	m	Cast Iron	1930	75	2005	\$ 484,500	Fair	5
WS19-95	Water Main	Water Main	Distribution	Village of Tweed	Victoria Street North				Quinns Lane	Spring Street	156	m	PVC	1983	100	2083	\$ 132,600	Good	5



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Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Building / Equipment / Water Main)	Asset Class (Distribution / Hydrant / Treatment)	Geographic Township	Address and/or Location ^{1,2,3}	UTM Coordinates			Location From	Location To	Quantity ^{2,3}	Units	Water Main Construction Material (Cast Iron / PVC / Other)	Year in Service / or Last Upgrade Year ^{1,2,3}	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost	Condition Rating (good / fair / poor) ³	Current Level of Service (5 = high / 1 = low) ⁴
						Zone	Northing	Easting											
WS19-96	Water Main	Water Main	Distribution	Village of Tweed	Victoria Street South				McGowan Street	Jane Street	150	m	PVC	1983	100	2083	\$ 127,500	Good	5
WS19-97	Water Main	Water Main	Distribution	Village of Tweed	Victoria Street South				Jane Street	End (South-East)	243	m	PVC	1983	100	2083	\$ 206,550	Good	5
WS19-98	Water Main	Water Main	Distribution	Village of Tweed	Victoria Street South				River Street	McGowan Street	274	m	PVC	1983	100	2083	\$ 232,900	Good	5
WS19-99	Water Main	Water Main	Distribution	Village of Tweed	Water Tower				Hungerford Road	Water Tower	89	m	Cast Iron	1940	75	2015	\$ 75,650	Fair	5
WS19-100	Water Main	Water Main	Distribution	Village of Tweed	Water Tower (Raw Water)				Well No 1	Water Treatment Facility	911	m	PVC	2005	100	2105	\$ 774,350	Good	5
WS19-101	Water Main	Water Main	Distribution	Village of Tweed	Water Tower (Treated Water)				Water Treatment Facility	Water Tower	900	m	Cast Iron	1940	75	2015	\$ 765,000	Fair	5
WS19-102	Water Tower - General Appurtenances	Equipment	Distribution	Village of Tweed	351 Hungerford Road	18T	4927634	315384			1	#		various	various	2024	\$ 30,000	Good	5
WS19-103	Well No. 1	Equipment	Distribution	Village of Tweed	351 Hungerford Road	18T	4927669	315376			1	#		2006	75	2081	\$ 1,000,000	Fair	5
WS19-104	Well No. 1 - General Appurtenances	Equipment	Distribution	Village of Tweed	351 Hungerford Road	18T	4927669	315376			1	#		various	various	2024	\$ 25,000	Good	5
WS19-105	Well No. 3	Equipment	Distribution	Village of Tweed	430 River Street West	18T	4926973	315426			1	#		1998	60	2055	\$ 1,000,000	Good	5
WS19-106	Well No. 3 - General Appurtenances	Equipment	Distribution	Village of Tweed	430 River Street West	18T	4926973	315426			1	#		various	various	2024	\$ 30,000	Good	5
WS19-107	Fire Hydrant (No. 1)	Equipment	Hydrant	Village of Tweed	North Side of River St. W. (East Side of Driveway into Well No. 3)	18 T	4926945	315467			1	#		1997	40	2037	\$ 10,000	Fair	5
WS19-108	Fire Hydrant (No. 2)	Equipment	Hydrant	Village of Tweed	North-West Corner of College St. & River St. W.	18 T	4926979	315586			1	#		1998	40	2038	\$ 10,000	Poor	5
WS19-109	Fire Hydrant (No. 3)	Equipment	Hydrant	Village of Tweed	North Side of River St. W. (Between College St. & McClellan St.)	18 T	497014	315701			1	#		2018	40	2058	\$ 10,000	Good	5
WS19-110	Fire Hydrant (No. 4)	Equipment	Hydrant	Village of Tweed	North-West Corner of McClellan St. & River St. W.	18 T	4927042	315783			1	#		2010	40	2050	\$ 10,000	Fair	5
WS19-111	Fire Hydrant (No. 5)	Equipment	Hydrant	Village of Tweed	North Side of River St. W. (West Hydrant Between McClellan St. & McCamon Ave.)	18 T	4927073	315876			1	#		2008	40	2048	\$ 10,000	Fair	5
WS19-112	Fire Hydrant (No. 6)	Equipment	Hydrant	Village of Tweed	North Side of River St. W. (East Hydrant Between McClellan St. & McCamon Ave.)	18 T	4927098	3159950			1	#		2008	40	2048	\$ 10,000	Fair	5
WS19-113	Fire Hydrant (No. 7)	Equipment	Hydrant	Village of Tweed	North-West Corner of McCamon Ave. & River St. W.	18 T	4927136	316025			1	#		2008	40	2048	\$ 10,000	Fair	5
WS19-114	Fire Hydrant (No. 8)	Equipment	Hydrant	Village of Tweed	North-West Corner of Metcalf St. & River St. W.	18 T	4927161	316141			1	#		2006	40	2046	\$ 10,000	Fair	5



Table 4c
Detailed Summary of Municipal Assets (Water Supply Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Building / Equipment / Water Main)	Asset Class (Distribution / Hydrant / Treatment)	Geographic Township	Address and/or Location ^{1,2,3}	UTM Coordinates			Location From	Location To	Quantity ^{2,3}	Units	Water Main Construction Material (Cast Iron / PVC / Other)	Year in Service / or Last Upgrade Year ^{1,2,3}	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost	Condition Rating (good / fair / poor) ³	Current Level of Service (5 = high / 1 = low) ⁴
						Zone	Northing	Easting											
WS19-115	Fire Hydrant (No. 9)	Equipment	Hydrant	Village of Tweed	North of Tweed Fire Department (Middle of Driveway)	18 T	4927050	316067			1	#		2001	40	2041	\$ 10,000	Fair	5
WS19-116	Fire Hydrant (No. 10)	Equipment	Hydrant	Village of Tweed	East Side of College St. (Most South Between Pomeroy Ct. & River St.)	18 T	4927084	315587			1	#		2005	40	2045	\$ 10,000	Fair	5
WS19-117	Fire Hydrant (No. 11)	Equipment	Hydrant	Village of Tweed	East Side of College St. (North Hydrant Between Pomeroy Ct. & River St.)	18 T	4927261	315530			1	#		1982	40	2022	\$ 10,000	Fair	5
WS19-118	Fire Hydrant (No. 12)	Equipment	Hydrant	Village of Tweed	East Side of College St. (Between Hungerford Rd. & Katherine St.)	18 T	4927433	315469			1	#		2005	40	2045	\$ 10,000	Fair	5
WS19-119	Fire Hydrant (No. 13)	Equipment	Hydrant	Village of Tweed	West of Water Tower	18 T	4927637	315379			1	#		1996	40	2036	\$ 10,000	Fair	5
WS19-120	Fire Hydrant (No. 14)	Equipment	Hydrant	Village of Tweed	North of Hungerford Rd. and College St.	18 T	4927587	315422			1	#		2005	40	2045	\$ 10,000	Fair	5
WS19-121	Fire Hydrant (No. 15)	Equipment	Hydrant	Village of Tweed	North Side of Hungerford Rd. (North of Park Ave.)	18 T	4927592	315567			1	#		2017	40	2057	\$ 10,000	Good	5
WS19-122	Fire Hydrant (No. 16)	Equipment	Hydrant	Village of Tweed	North Side of Hungerford Rd. (Between Park Ave. & Metcalf St.)	18 T	4927638	315719			1	#		1925	40	1965	\$ 10,000	Good	5
WS19-123	Fire Hydrant (No. 17)	Equipment	Hydrant	Village of Tweed	West side of Park Ave.	18 T	4927479	315587			1	#		2016	40	2056	\$ 10,000	Poor	5
WS19-124	Fire Hydrant (No. 18)	Equipment	Hydrant	Village of Tweed	South-East Corner of Park Ave. & Katherine St.	18 T	4927382	315634			1	#		2003	40	2043	\$ 10,000	Fair	5
WS19-125	Fire Hydrant (No. 19)	Equipment	Hydrant	Village of Tweed	South Side of Katherine St.	18 T	4927442	315813			1	#		2017	40	2057	\$ 10,000	Poor	5
WS19-126	Fire Hydrant (No. 20)	Equipment	Hydrant	Village of Tweed	South-West Corner of Park Ave. & Pomeroy Ave.	18 T	4927313	315644			1	#		2018	40	2058	\$ 10,000	Good	5
WS19-127	Fire Hydrant (No. 21)	Equipment	Hydrant	Village of Tweed	North Side of Pomeroy Ave.	18 T	4927359	315749			1	#		2011	40	2051	\$ 10,000	Fair	5
WS19-128	Fire Hydrant (No. 22)	Equipment	Hydrant	Village of Tweed	East Side of McClellan St. (Most South Hydrant)	18 T	4927146	315768			1	#		2018	40	2058	\$ 10,000	Good	5
WS19-129	Fire Hydrant (No. 23)	Equipment	Hydrant	Village of Tweed	East of McClellan St. (North Side of Driveway for Gateway Community Health Center)	18 T	4927208	315801			1	#		2008	40	2048	\$ 10,000	Fair	5
WS19-130	Fire Hydrant (No. 25)	Equipment	Hydrant	Village of Tweed	East Side of McClellan St. (Most North Hydrant)	18 T	4927254	315730			1	#		2018	40	2058	\$ 10,000	Good	5
WS19-131	Fire Hydrant (No. 26)	Equipment	Hydrant	Village of Tweed	South-East Corner of Jamieson St. W. & McCamom Ave.	18 T	4927274	315998			1	#		2008	40	2048	\$ 10,000	Fair	5
WS19-132	Fire Hydrant (No. 27)	Equipment	Hydrant	Village of Tweed	West Side of Metcalf St. (Between River St. W. & Jamieson St. W.)	18 T	4927239	316102			1	#		2008	40	2048	\$ 10,000	Fair	5
WS19-133	Fire Hydrant (No. 28)	Equipment	Hydrant	Village of Tweed	South-East Side of Jamieson St. W. (Between Metcalf St. & Victoria St.)	18 T	4927327	316076			1	#		2016	40	2056	\$ 10,000	Fair	5



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						Zone	Northing	Easting											
WS19-134	Fire Hydrant (No. 29)	Equipment	Hydrant	Village of Tweed	North-East Side of Metcalf St. (Pomeroy Ave. & Jamieson St. W.)	18 T	4927436	315986			1	#		2008	40	2048	\$ 10,000	Fair	5
WS19-135	Fire Hydrant (No. 30)	Equipment	Hydrant	Village of Tweed	East Side of Metcalf St. (Between Bridge St. W. & Katherine St.)	18 T	4927582	315883			1	#		2008	40	2048	\$ 10,000	Poor	5
WS19-136	Fire Hydrant (No. 31)	Equipment	Hydrant	Village of Tweed	South-East Corner of Bridge St. W. & Metcalf St.	18 T	4927675	315841			1	#		2008	40	2048	\$ 10,000	Poor	5
WS19-137	Fire Hydrant (No. 32)	Equipment	Hydrant	Village of Tweed	East Side of Metcalf St. (Between Gabe Lindsay Ave. & Bridge St. W.)	18 T	4927771	315804			1	#		2015	40	2055	\$ 10,000	Poor	5
WS19-138	Fire Hydrant (No. 33)	Equipment	Hydrant	Village of Tweed	West Side of Metcalf St. (North of Gabe Lindsay Ave.)	18 T	4927930	315720			1	#		2008	40	2048	\$ 10,000	Fair	5
WS19-139	Fire Hydrant (No. 34)	Equipment	Hydrant	Village of Tweed	South-East Side of McGowan St. (Between River St. W. & Pringle St.)	18 T	4927123	316186			1	#		2006	40	2046	\$ 10,000	Fair	5
WS19-140	Fire Hydrant (No. 35)	Equipment	Hydrant	Village of Tweed	South Corner of McGowan St. & Pringle St.	18 T	4927042	316278			1	#		2006	40	2046	\$ 10,000	Fair	5
WS19-141	Fire Hydrant (No. 36)	Equipment	Hydrant	Village of Tweed	West Corner of Pringle St. & Isaac St.	18 T	4926956	316230			1	#		2006	40	2046	\$ 10,000	Poor	5
WS19-142	Fire Hydrant (No. 37)	Equipment	Hydrant	Village of Tweed	South-West Side of Isaac St.	18 T	4926911	316286			1	#		2006	40	2046	\$ 10,000	Fair	5
WS19-143	Fire Hydrant (No. 38)	Equipment	Hydrant	Village of Tweed	East Side of Victoria St. (South Hydrant Between Victoria St. N. & Bridge St. E.)	18 T	4927825	315888			1	#		1983	40	2023	\$ 10,000	Fair	5
WS19-144	Fire Hydrant (No. 39)	Equipment	Hydrant	Village of Tweed	East Side of Victoria St. (North Hydrant Between Victoria St. N. & Bridge St. E.)	18 T	4927919	315851			1	#		1985	40	2025	\$ 10,000	Poor	5
WS19-145	Fire Hydrant (No. 40)	Equipment	Hydrant	Village of Tweed	South-West Corner of Victoria St. N. & Hwy. #37	18 T	4927985	315807			1	#		1985	40	2025	\$ 10,000	Fair	5
WS19-146	Fire Hydrant (No. 41)	Equipment	Hydrant	Village of Tweed	South-West Side of Victoria St. N. (Between Hwy. #37 & Holdcroft St.)	18 T	4928058	315740			1	#		1988	40	2028	\$ 10,000	Poor	5
WS19-147	Fire Hydrant (No. 42)	Equipment	Hydrant	Village of Tweed	West Side of Victoria St. N. (Between Hwy. #37 & Holdcroft St.)	18 T	4928154	315676			1	#		1988	40	2028	\$ 10,000	Fair	5
WS19-148	Fire Hydrant (No. 43)	Equipment	Hydrant	Village of Tweed	West Side of Victoria St. N. (Between Hwy. #37 & Holdcroft St.)	18 T	4928260	3151652			1	#		1982	40	2022	\$ 10,000	Fair	5
WS19-149	Fire Hydrant (No. 44)	Equipment	Hydrant	Village of Tweed	West Side of Victoria St. N. (Across the river from Sulphide Road)	18 T	4928345	315632			1	#		1988	40	2028	\$ 10,000	Poor	5
WS19-150	Fire Hydrant (No. 45)	Equipment	Hydrant	Village of Tweed	South-West Corner of Holdcroft St. & Victoria St. N.	18 T	4928480	315588			1	#		1988	40	2028	\$ 10,000	Poor	5
WS19-151	Fire Hydrant (No. 46)	Equipment	Hydrant	Village of Tweed	South Side of Holdcroft St. (Middle Hydrant on Holdcroft St.)	18 T	4928451	315492			1	#		2001	40	2041	\$ 10,000	Poor	5
WS19-152	Fire Hydrant (No. 47)	Equipment	Hydrant	Village of Tweed	North-East End Corner of Holdcroft Rd.	18 T	4928426	315361			1	#		2001	40	2041	\$ 10,000	Poor	5



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169.21.003

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						Zone	Northing	Easting											
WS19-153	Fire Hydrant (No. 48)	Equipment	Hydrant	Village of Tweed	South-East Corner of Bridge St. E. & Victoria St.	18 T	4927675	315841			1	#		1983	40	2023	\$ 10,000	Fair	5
WS19-154	Fire Hydrant (No. 49)	Equipment	Hydrant	Village of Tweed	West Side of Victoria St. (Between Quinns Ln. & Spring St. W.)	18 T	4927600	315974			1	#		1988	40	2028	\$ 10,000	Fair	5
WS19-155	Fire Hydrant (No. 50)	Equipment	Hydrant	Village of Tweed	North-West Corner of Victoria St. & Spring St. W.	18 T	4927542	316017			1	#		1982	40	2022	\$ 10,000	Fair	5
WS19-156	Fire Hydrant (No. 51)	Equipment	Hydrant	Village of Tweed	East Side of Victoria St. (North Hydrant Between Jamieson St. E. & Spring St. E.)	18 T	4927402	316063			1	#		1982	40	2022	\$ 10,000	Poor	5
WS19-157	Fire Hydrant (No. 52)	Equipment	Hydrant	Village of Tweed	West Side of Victoria St. (South Hydrant Between Jamieson St. W. & Spring St. W.)	18 T	4927404	316112			1	#		1982	40	2022	\$ 10,000	Fair	5
WS19-158	Fire Hydrant (No. 53)	Equipment	Hydrant	Village of Tweed	West Side of Victoria St. (Between Jamieson St. W. & River St. W.)	18 T	4927280	316193			1	#		1982	40	2022	\$ 10,000	Fair	5
WS19-159	Fire Hydrant (No. 54)	Equipment	Hydrant	Village of Tweed	South-East Corner of River St. E. & Victoria St. S.	18 T	4927184	316285			1	#		1983	40	2023	\$ 10,000	Poor	5
WS19-160	Fire Hydrant (No. 55)	Equipment	Hydrant	Village of Tweed	East Side of Victoria St. S. (In front of Park Place Motel)	18 T	4927118	316359			1	#		1983	40	2023	\$ 10,000	Poor	5
WS19-161	Fire Hydrant (No. 56)	Equipment	Hydrant	Village of Tweed	East Side of Victoria St. S. (Across from McGowan St.)	18 T	4926965	316391			1	#		1983	40	2023	\$ 10,000	Poor	5
WS19-162	Fire Hydrant (No. 57)	Equipment	Hydrant	Village of Tweed	South-East Corner of Jane St. E. & Hwy. #37	18 T	4926815	316403			1	#		1983	40	2023	\$ 10,000	Poor	5
WS19-163	Fire Hydrant (No. 58)	Equipment	Hydrant	Village of Tweed	East Side of Hwy. #37 (South of Jane St. E.)	18 T	4926688	316411			1	#		1983	40	2023	\$ 10,000	Poor	5
WS19-164	Fire Hydrant (No. 59)	Equipment	Hydrant	Village of Tweed	East Side of Hwy. #37 (Most South Hydrant)	18 T	4926586	316419			1	#		1983	40	2023	\$ 10,000	Poor	5
WS19-165	Fire Hydrant (No. 60)	Equipment	Hydrant	Village of Tweed	North-West Corner of River St. E. & Colborne St.	18 T	4927231	316346			1	#		2003	40	2043	\$ 10,000	Fair	5
WS19-166	Fire Hydrant (No. 61)	Equipment	Hydrant	Village of Tweed	North-West Corner of River St. E. & Mary St. S.	18 T	4927267	316439			1	#		2008	40	2048	\$ 10,000	Poor	5
WS19-167	Fire Hydrant (No. 62)	Equipment	Hydrant	Village of Tweed	North-West Corner of River St. E. & Louisa St.	18 T	4927301	316533			1	#		1969	40	2009	\$ 10,000	Fair	5
WS19-168	Fire Hydrant (No. 63)	Equipment	Hydrant	Village of Tweed	East Side of Colborne St. (Between Jamieson St. E. & River St. E.)	18 T	4927336	316293			1	#		2008	40	2048	\$ 10,000	Fair	5
WS19-169	Fire Hydrant (No. 64)	Equipment	Hydrant	Village of Tweed	South-West Corner of Jamieson St. E. & Colborne St.	18 T	4927428	316212			1	#		2008	40	2048	\$ 10,000	Poor	5
WS19-170	Fire Hydrant (No. 65)	Equipment	Hydrant	Village of Tweed	East Side of Colborne St. (Between Jamieson St. E. & Spring St. E.)	18 T	4927522	316165			1	#		2011	40	2051	\$ 10,000	Fair	5
WS19-171	Fire Hydrant (No. 66)	Equipment	Hydrant	Village of Tweed	South-East Corner of Spring St. E. & Colborne St.	18 T	4927591	316118			1	#		2011	40	2051	\$ 10,000	Fair	5



Table 4c
Detailed Summary of Municipal Assets (Water Supply Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Building / Equipment / Water Main)	Asset Class (Distribution / Hydrant / Treatment)	Geographic Township	Address and/or Location ^{1,2,3}	UTM Coordinates			Location From	Location To	Quantity ^{2,3}	Units	Water Main Construction Material (Cast Iron / PVC / Other)	Year in Service / or Last Upgrade Year ^{1,2,3}	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost	Condition Rating (good / fair / poor) ³	Current Level of Service (5 = high / 1 = low) ⁴
						Zone	Northing	Easting											
WS19-172	Fire Hydrant (No. 67)	Equipment	Hydrant	Village of Tweed	West Side of Colborne St. (Between Quinns Ln. & Spring St. E.)	18 T	4927677	316044			1	#		1979	40	2019	\$ 10,000	Poor	5
WS19-173	Fire Hydrant (No. 68)	Equipment	Hydrant	Village of Tweed	South-West Corner of Bridge St. E. & Colborne St.	18 T	4927754	315987			1	#		1988	40	2028	\$ 10,000	Poor	5
WS19-174	Fire Hydrant (No. 69)	Equipment	Hydrant	Village of Tweed	South-East Side of Spring St. E. (Between Colborne St. & Mary St. N.)	18 T	4927619	316157			1	#		1969	40	2009	\$ 10,000	Fair	5
WS19-175	Fire Hydrant (No. 70)	Equipment	Hydrant	Village of Tweed	West Side of Mary St. N. (Between Spring St. E. & Jamieson St. E.)	18 T	4927574	316231			1	#		1978	40	2018	\$ 10,000	Poor	5
WS19-176	Fire Hydrant (No. 71)	Equipment	Hydrant	Village of Tweed	South-East Corner of Jamieson St. E. & Mary St. N.	18 T	4927495	316309			1	#		2011	40	2051	\$ 10,000	Fair	5
WS19-177	Fire Hydrant (No. 72)	Equipment	Hydrant	Village of Tweed	West Side of Mary St. N. (South of Jamieson St. E.)	18 T	4927426	316338			1	#		2015	40	2055	\$ 10,000	Fair	5
WS19-178	Fire Hydrant (No. 73)	Equipment	Hydrant	Village of Tweed	West Side of Mary St. S.	18 T	4927323	316408			1	#		2016	40	2056	\$ 10,000	Fair	5
WS19-179	Fire Hydrant (No. 74)	Equipment	Hydrant	Village of Tweed	North-East Corner of Louisa St. & George St.	18 T	4927395	316488			1	#		2013	40	2053	\$ 10,000	Fair	5
WS19-180	Fire Hydrant (No. 75)	Equipment	Hydrant	Village of Tweed	West Side of Louis St. (Between Hannah St. & Jamieson St. E.)	18 T	4927466	316425			1	#		2014	40	2054	\$ 10,000	Fair	5
WS19-181	Fire Hydrant (No. 76)	Equipment	Hydrant	Village of Tweed	South-West Corner of Jamieson St. E. & Louisa St.	18 T	4927533	316367			1	#		2017	40	2057	\$ 10,000	Good	5
WS19-182	Fire Hydrant (No. 77)	Equipment	Hydrant	Village of Tweed	West Side of Louis St. (Between Jamieson St. E. & Tweed Bridge)	18 T	4927606	316324			1	#		2013	40	2053	\$ 10,000	Fair	5
WS19-183	Fire Hydrant (No. 78)	Equipment	Hydrant	Village of Tweed	West Side of James St. N. (North Hydrant Between Jamieson St. E. & Hannah St.)	18 T	4927576	316466			1	#		2011	40	2051	\$ 10,000	Fair	5
WS19-184	Fire Hydrant (No. 79)	Equipment	Hydrant	Village of Tweed	North-West Corner of James St. N. & Hannah St. (South Hydrant on James St. N.)	18 T	4927514	316509			1	#		1925	40	1965	\$ 10,000	Fair	5
WS19-185	Fire Hydrant (No. 80)	Equipment	Hydrant	Village of Tweed	North Side of George St. (East of James St. South)	18 T	4927494	316637			1	#		2020	40	2060	\$ 10,000	Poor	5
WS19-186	Fire Hydrant (No. 81)	Equipment	Hydrant	Village of Tweed	West Side of James St. S.	18 T	4927390	316596			1	#		2011	40	2051	\$ 10,000	Fair	5
WS19-187	Fire Hydrant (No. 82)	Equipment	Hydrant	Village of Tweed	South-East Side of Arthur St.	18 T	4927780	316214			1	#		1988	40	2028	\$ 10,000	Poor	5
WS19-188	Fire Hydrant (No. 83)	Equipment	Hydrant	Village of Tweed	North-East Corner of Arthur St. & Louisa St.	18 T	4927746	316334			1	#		2020	40	2060	\$ 10,000	Good	5
WS19-189	Fire Hydrant (No. 84)	Equipment	Hydrant	Village of Tweed	East Corner of Arthur St. & Brooklyn Rd.	18 T	4927843	316109			1	#		2015	40	2055	\$ 10,000	Fair	5
WS19-190	Fire Hydrant (No. 85)	Equipment	Hydrant	Village of Tweed	East Side of Moira St. (North of Morton Memorial Bridge)	18 T	4927898	316032			1	#		2013	40	2053	\$ 10,000	Fair	5



Table 4c
Detailed Summary of Municipal Assets (Water Supply Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Building / Equipment / Water Main)	Asset Class (Distribution / Hydrant / Treatment)	Geographic Township	Address and/or Location ^{1,2,3}	UTM Coordinates			Location From	Location To	Quantity ^{2,3}	Units	Water Main Construction Material (Cast Iron / PVC / Other)	Year in Service / or Last Upgrade Year ^{1,2,3}	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost	Condition Rating (good / fair / poor) ³	Current Level of Service (5 = high / 1 = low) ⁴
						Zone	Northing	Easting											
WS19-191	Fire Hydrant (No. 86)	Equipment	Hydrant	Village of Tweed	East Corner of Moira St. & Old Bogart Rd.	18 T	4927995	315965			1	#		2013	40	2053	\$ 10,000	Fair	5
WS19-192	Fire Hydrant (No. 87)	Equipment	Hydrant	Village of Tweed	East Side of Moira St. (Between Hwy. #37 & Old Bogart Rd.)	18 T	4928093	315886			1	#		2013	40	2053	\$ 10,000	Poor	5
WS19-193	Fire Hydrant (No. 88)	Equipment	Hydrant	Village of Tweed	East Side of Hwy. #37 (Between Sulphide Rd. & Moira St.)	18 T	4928250	315764			1	#		2006	40	2046	\$ 10,000	Fair	5
WS19-194	Fire Hydrant (No. 89)	Equipment	Hydrant	Village of Tweed	East Side of Old Bogart Rd. (Between Moira St. & Minnie Ave.)	18 T	4928084	315978			1	#		1992	40	2032	\$ 10,000	Poor	5
WS19-195	Fire Hydrant (No. 90)	Equipment	Hydrant	Village of Tweed	South-East Side of Old Bogart Rd.	18 T	4928182	315999			1	#		1992	40	2032	\$ 10,000	Fair	5
WS19-196	Fire Hydrant (No. 91)	Equipment	Hydrant	Village of Tweed	West Side of Minnie Ave. (North Hydrant Between Old Bogart Rd. & Brooklyn Rd.)	18 T	4928028	316038			1	#		1997	40	2037	\$ 10,000	Fair	5
WS19-197	Fire Hydrant (No. 92)	Equipment	Hydrant	Village of Tweed	West Side of Minnie Ave. (South Hydrant Between Old Bogart Rd. & Brooklyn Rd.)	18 T	4927931	3161055			1	#		1997	40	2037	\$ 10,000	Poor	5
WS19-198	Fire Hydrant (No. 93)	Equipment	Hydrant	Village of Tweed	South-East Side of Brooklyn Rd.	18 T	4927945	316171			1	#		1950	40	1990	\$ 10,000	Poor	5
WS19-199	Fire Hydrant (No. 94)	Equipment	Hydrant	Village of Tweed	South Side of St. Joseph St.	18 T	4927886	316219			1	#		1949	40	1989	\$ 10,000	Poor	5
WS19-200	Fire Hydrant (No. 95)	Equipment	Hydrant	Village of Tweed	East Corner of St. Joseph St. & Louisa St.	18 T	4927810	316380			1	#		1997	40	2037	\$ 10,000	Poor	5
WS19-201	Fire Hydrant (No. 96)	Equipment	Hydrant	Village of Tweed	North Side of Alexander St. (Between Louisa St. & Elvis Lane)	18 T	4927729	316432			1	#		2007	40	2047	\$ 10,000	Fair	5
WS19-202	Fire Hydrant (No. 97)	Equipment	Hydrant	Village of Tweed	South Side of Alexander St. (First Hydrant East of Elvis Lane)	18 T	4927688	316549			1	#		2007	40	2047	\$ 10,000	Fair	5
WS19-203	Fire Hydrant (No. 98)	Equipment	Hydrant	Village of Tweed	South Side of Alexander St. (Second Hydrant East of Elvis Lane)	18 T	4927658	316652			1	#		2020	40	2060	\$ 10,000	Good	5
WS19-204	Backflow Preventers	Equipment	Treatment	Village of Tweed	430 River Street West	18T	4926973	315426			1	#		1998	40	2038	\$ 50,000	Good	5
WS19-205	Chlorination Equipment	Equipment	Treatment	Village of Tweed	430 River Street West	18T	4926973	315426			1	#		1998	25	2023	\$ 15,000	Fair	5
WS19-206	Generator	Equipment	Treatment	Village of Tweed	430 River Street West	18T	4926973	315426			1	#		2008	20	2028	\$ 60,000	Good	5
WS19-207	Ion Exchange Unit	Equipment	Treatment	Village of Tweed	430 River Street West	18T	4926973	315426			1	#		1998	25	2023	\$ 20,000	Good	5
WS19-208	UV Light Disinfection Unit (and related equipment)	Equipment	Treatment	Village of Tweed	430 River Street West	18T	4926973	315426			2	#		2005	25	2030	\$ 20,000	Good	5
WS19-209	Water Softener	Equipment	Treatment	Village of Tweed	430 River Street West	18T	4926973	315426			1	#		1998	25	2023	\$ 10,000	Fair	5



Table 4c
Detailed Summary of Municipal Assets (Water Supply Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Building / Equipment / Water Main)	Asset Class (Distribution / Hydrant / Treatment)	Geographic Township	Address and/or Location ^{1,2,3}	UTM Coordinates			Location From	Location To	Quantity ^{2,3}	Units	Water Main Construction Material (Cast Iron / PVC / Other)	Year in Service / or Last Upgrade Year ^{1,2,3}	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost	Condition Rating (good / fair / poor) ³	Current Level of Service (5 = high / 1 = low) ⁴
						Zone	Northing	Easting											
WS19-210	Water Treatment Facility - General Appurtenances	Equipment	Treatment	Village of Tweed	430 River Street West	18T	4926973	315426			1	#		various	various	2035	\$ 100,000	Good	5

Asset Description and Class		Construction Material (Cast Iron / PVC)	Quantity	Average Age (years)	Units	Replacement and/or Maintenance Cost	Percentage of Properties Connected to Municipal Water System	Percentage of Properties where Fire Flow is Available	No. of Connection-Days per Year where a Boil Water Advisory Notice is in Place Compared to the Total Number of Properties Connected to the Municipal Water System	No. of Connection-Days per Year Due to Water Main Breaks Compared to the Total Number of Properties Connected to the Municipal Water System
Building	Distribution		1	24	#	\$ 3,000,000	= (730 / 4,695)	= (730 / 4,695)	= (730 x 2) / 730	= (10 x 2) / 730
Building	Treatment		1	23	#	\$ 1,000,000				
Equipment	Distribution		5	8	#	\$ 2,085,000	= 15.5%	= 15.5%	= 2	= 0.027
Water Main	Distribution	Cast Iron	7,570	84	m	\$ 7,257,190				
Water Main	Distribution	PVC	8,002	19	m	\$ 6,801,887				
Equipment	Hydrant		97	22	#	\$ 970,000				
Equipment	Treatment		8	15	#	\$ 275,000				
TOTAL	-	-	-	35	-	\$ 21,389,077				

- Notes:
1. Data from Municipality of Tweed, Tangible Capital Assets (2021) and/or provided by Municipality.
 2. Data obtained from Municipal sources and/or from County of Hastings.
 3. Data Provided from Municipality of Tweed (Gap Analysis Meetings).
 4. Level of Service: 1 = very low priority, 5 = very high priority.
 5. There is no fire hydrant with a No. 24 designation.

Selected Focus Items



Table 4d
Detailed Summary of Municipal Assets (Wastewater Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Facility / Equipment / Sewer / Land)	Asset Class (Treatment / Distribution)	Geographic Township	Address and/or Location ^{1,2,3}	UTM Coordinates			Location From	Location To	Quantity ^{2,3}	Units	Sewer Type (PVC / Asbestos Cement / Forcemain) ¹	Year in Service / or Last Upgrade Year ^{1,2,3}	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost	Condition Rating (good / fair / poor) ³	Current Level of Service (5 = high / 1 = low) ⁴
						Zone	Northing	Easting											
WW19-01	Jamieson Street Pumping Station	Facility	Distribution	Village of Tweed	325 Jamieson Street East	18T	316465	4927602			1	#		1975	100	2075	\$ 150,000	Good	5
WW19-02	River Street Pumping Station	Facility	Distribution	Village of Tweed	125 River Street East	18T	4927277	316565			1	#		1975	100	2075	\$ 300,000	Good	5
WW19-03	Jamieson Street Pumping Station - Submersible Pumps	Equipment	Distribution	Village of Tweed	325 Jamieson Street East	18T	316465	4927602			2	#		2000	20	2020	\$ 8,000	Good	5
WW19-04	Jamieson Street Pumping Station - Generator	Equipment	Distribution	Village of Tweed	325 Jamieson Street East	18T	316465	4927602			1	#		2014	20	2034	\$ 60,000	Good	5
WW19-05	River Street Pumping Station - Submersible Pumps	Equipment	Distribution	Village of Tweed	125 River Street East	18T	4927277	316565			2	#		2016	20	2036	\$ 30,000	Good	5
WW19-06	River Street Pumping Station - Storage Tank	Equipment	Treatment	Village of Tweed	125 River Street East	18T	4927277	316565			1	#		1975	50	2025	\$ 75,000	Fair	5
WW19-07	River Street Pumping Station - Generator	Equipment	Treatment	Village of Tweed	125 River Street East	18T	4927277	316565			1	#		2018	20	2038	\$ 60,000	Good	5
WW19-08	River Street Pumping Station - General Appurtenances	Equipment	Treatment	Village of Tweed	125 River Street East	18T	4927277	316565			1	#	various	various	2039	\$ 20,000	Good	5	
WW19-09	North Waste Stabilization Pond (Sewage Lagoon)	Land	Treatment	Village of Tweed	Lot 12-13, Concession 10	18T	4928122	317117			1	#		1975	50	2025	\$ 100,000	Fair	5
WW19-10	South Waste Stabilization Pond (Sewage Lagoon)	Land	Treatment	Village of Tweed	Lot 12-13, Concession 11	18T	4927937	317107			1	#		1975	50	2025	\$ 100,000	Fair	5
WW19-11	Sewer Mains	Sewer	Distribution	Village of Tweed	Alexander Street				Elvis Lane	End (South-East)	300	m	PVC	2007	100	2107	\$ 150,000	Good	5
WW19-12	Sewer Mains	Sewer	Distribution	Village of Tweed	Alexander Street				Louisa Street	87m SE of Louisa Street	87	m	Asbestos Cement	1931	75	2006	\$ 43,500	Fair	5
WW19-13	Sewer Mains	Sewer	Distribution	Village of Tweed	Alexander Street				Elvis Lane	55m NW of Elvis Land	55	m	PVC	2007	100	2107	\$ 27,500	Good	5
WW19-14	Sewer Mains	Sewer	Distribution	Village of Tweed	Arthur Street				Brooklyn Road	Louisa Street	263	m	Asbestos Cement	1931	75	2006	\$ 131,500	Poor	5
WW19-15	Sewer Mains	Sewer	Distribution	Village of Tweed	Bridge Street East				Victoria Street N	End (North-East)	78	m	Asbestos Cement	1931	75	2006	\$ 39,000	Fair	5
WW19-16	Sewer Mains	Sewer	Distribution	Village of Tweed	Bridge Street West				Victoria Street N	Metcalf Street	97	m	Asbestos Cement	1931	75	2006	\$ 48,500	Fair	5
WW19-17	Sewer Mains	Sewer	Distribution	Village of Tweed	Brooklyn Road				Arthur Street	Minnie Avenue	66	m	Asbestos Cement	1931	75	2006	\$ 33,000	Fair	5
WW19-18	Sewer Mains	Sewer	Distribution	Village of Tweed	Brooklyn Road				Minnie Avenue	St. Joseph Street	34	m	Asbestos Cement	1931	75	2006	\$ 17,000	Fair	5
WW19-19	Sewer Mains	Sewer	Distribution	Village of Tweed	Brooklyn Road				St. Joseph Street	End (North-East)	47	m	Asbestos Cement	1931	75	2006	\$ 23,500	Fair	5
WW19-20	Sewer Mains	Sewer	Distribution	Village of Tweed	Colborne Street				Jamieson Street East	Spring Street East	189	m	Asbestos Cement	1930	75	2005	\$ 94,500	Fair	5
WW19-21	Sewer Mains	Sewer	Distribution	Village of Tweed	Colborne Street				River Street East	Jamieson Street East	258	m	Asbestos Cement	1930	75	2005	\$ 129,000	Fair	5
WW19-22	Sewer Mains	Sewer	Distribution	Village of Tweed	Colborne Street				Spring Street	Quinns Lane	143	m	Asbestos Cement	1930	75	2005	\$ 71,500	Fair	5
WW19-23	Sewer Mains	Sewer	Distribution	Village of Tweed	Colborne Street				Quinns Lane	Bridge Street East	60	m	Asbestos Cement	1930	75	2005	\$ 30,000	Fair	5
WW19-24	Sewer Mains	Sewer	Distribution	Village of Tweed	College Street				Katharine Street	End (North-West)	205	m	Asbestos Cement	1953	75	2028	\$ 102,253	Fair	5
WW19-25	Sewer Mains	Sewer	Distribution	Village of Tweed	College Street				Katharine Street	Pomeroy Court	69	m	Asbestos Cement	1953	75	2028	\$ 34,500	Fair	5



Table 4d
Detailed Summary of Municipal Assets (Wastewater Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Facility / Equipment / Sewer / Land)	Asset Class (Treatment / Distribution)	Geographic Township	Address and/or Location ^{1,2,3}	UTM Coordinates			Location From	Location To	Quantity ^{2,3}	Units	Sewer Type (PVC / Asbestos Cement / Forcemain) ¹	Year in Service / or Last Upgrade Year ^{1,2,3}	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost	Condition Rating (good / fair / poor) ³	Current Level of Service (5 = high / 1 = low) ⁴
						Zone	Northing	Easting											
WW19-26	Sewer Mains	Sewer	Distribution	Village of Tweed	College Street				Pomeroy Court	River Street West	319	m	Asbestos Cement	1953	75	2028	\$ 159,500	Fair	5
WW19-27	Sewer Mains	Sewer	Distribution	Village of Tweed	Elvis Lane				Alexander Street	End (North-East)	44	m	PVC	2007	100	2107	\$ 22,000	Good	5
WW19-28	Sewer Mains	Sewer	Distribution	Village of Tweed	Fire Hall Service				River Street West	End (South-West)	93	m	PVC	2010	100	2110	\$ 46,500	Good	5
WW19-29	Sewer Mains	Sewer	Distribution	Village of Tweed	Gabe Lindsay Avenue				Metcalf Street	End (South-West)	49	m	Asbestos Cement	1930	75	2005	\$ 24,500	Fair	5
WW19-30	Sewer Mains	Sewer	Distribution	Village of Tweed	Gateway Community Health Centre				McClellan Street	End (East)	53	m	Asbestos Cement	1949	75	2024	\$ 26,500	Fair	5
WW19-31	Sewer Mains	Sewer	Distribution	Village of Tweed	Hannah Street				Louisa Street	James Street North	92	m	Asbestos Cement	1925	75	2000	\$ 46,000	Fair	5
WW19-32	Sewer Mains	Sewer	Distribution	Village of Tweed	Highway 37				Moir Street	End (North-West)	78	m	Asbestos Cement	1930	75	2005	\$ 39,000	Fair	5
WW19-33	Sewer Mains	Sewer	Distribution	Village of Tweed	Holdcroft Street				Victoria Street North	End (South-West)	232	m	PVC	2001	100	2101	\$ 116,000	Good	5
WW19-34	Sewer Mains	Sewer	Distribution	Village of Tweed	Hungerford Road				Metcalf Street	Park Avenue	297	m	Asbestos Cement	1930	75	2005	\$ 148,500	Fair	5
WW19-35	Sewer Mains	Sewer	Distribution	Village of Tweed	Hungerford Road				Park Avenue	College Street	136	m	PVC	2010	100	2110	\$ 68,000	Good	5
WW19-36	Sewer Mains	Sewer	Distribution	Village of Tweed	Hungerford Road				College Street	End (North-East)	146	m	PVC	2010	100	2110	\$ 73,000	Good	5
WW19-37	Sewer Mains	Sewer	Distribution	Village of Tweed	Isaac Street				Pringle Street	End (South-East)	112	m	PVC	2006	100	2106	\$ 56,000	Good	5
WW19-38	Sewer Mains	Sewer	Distribution	Village of Tweed	James Street North				Jamieson Street East	Hannah Street	105	m	Asbestos Cement	1925	75	2000	\$ 52,500	Fair	5
WW19-39	Sewer Mains	Sewer	Distribution	Village of Tweed	James Street South				River Street East	George Street	128	m	Asbestos Cement	1925	75	2000	\$ 64,000	Fair	5
WW19-40	Sewer Mains	Sewer	Distribution	Village of Tweed	Jamieson Pumping Station				Jamieson Street East	Alexander Street	113	m	Asbestos Cement	1975	75	2050	\$ 56,500	Fair	5
WW19-41	Sewer Mains	Sewer	Distribution	Village of Tweed	Jamieson Street East				Colborne Street	Victoria Street North	102	m	Asbestos Cement	1925	75	2000	\$ 51,000	Fair	5
WW19-42	Sewer Mains	Sewer	Distribution	Village of Tweed	Jamieson Street East				Colborne Street	Mary Street	96	m	Asbestos Cement	1925	75	2000	\$ 48,000	Fair	5
WW19-43	Sewer Mains	Sewer	Distribution	Village of Tweed	Jamieson Street East				Louisa Street	James Street North	90	m	Asbestos Cement	1925	75	2000	\$ 45,000	Fair	5
WW19-44	Sewer Mains	Sewer	Distribution	Village of Tweed	Jamieson Street East				Mary Street	Louisa Street	97	m	Asbestos Cement	1925	75	2000	\$ 48,500	Fair	5
WW19-45	Sewer Mains	Sewer	Distribution	Village of Tweed	Jamieson Street West				Metcalf Street	McCarn Avenue	95	m	PVC	2008	100	2108	\$ 47,500	Good	5
WW19-46	Sewer Mains	Sewer	Distribution	Village of Tweed	Jamieson Street West				Victoria Street North	Metcalf Street	97	m	PVC	2008	100	2108	\$ 48,500	Good	5
WW19-47	Sewer Mains	Sewer	Distribution	Village of Tweed	Jane Street East				Victoria Street South	End (East)	87	m	Asbestos Cement	1930	75	2005	\$ 43,500	Fair	5
WW19-48	Sewer Mains	Sewer	Distribution	Village of Tweed	Jane Street West				Victoria Street South	End (West)	49	m	Asbestos Cement	1930	75	2005	\$ 24,500	Fair	5
WW19-49	Sewer Mains	Sewer	Distribution	Village of Tweed	Katharine Street				Metcalf Street	Park Avenue	326	m	Asbestos Cement	1954	75	2029	\$ 163,000	Fair	5
WW19-50	Sewer Mains	Sewer	Distribution	Village of Tweed	Katharine Street				Park Avenue	College Street	141	m	Asbestos Cement	1954	75	2029	\$ 70,500	Fair	5



Table 4d
Detailed Summary of Municipal Assets (Wastewater Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Facility / Equipment / Sewer / Land)	Asset Class (Treatment / Distribution)	Geographic Township	Address and/or Location ^{1,2,3}	UTM Coordinates			Location From	Location To	Quantity ^{2,3}	Units	Sewer Type (PVC / Asbestos Cement / Forcemain) ¹	Year in Service / or Last Upgrade Year ^{1,2,3}	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost	Condition Rating (good / fair / poor) ³	Current Level of Service (5 = high / 1 = low) ⁴
						Zone	Northing	Easting											
WW19-51	Sewer Mains	Sewer	Distribution	Village of Tweed	Louisa Street				Arthur Street	Alexander Street	14	m	Asbestos Cement	1931	75	2006	\$ 7,000	Fair	5
WW19-52	Sewer Mains	Sewer	Distribution	Village of Tweed	Louisa Street				Jamieson Street East	End (North-West)	85	m	PVC	2014	100	2114	\$ 42,500	Good	5
WW19-53	Sewer Mains	Sewer	Distribution	Village of Tweed	Louisa Street				Jamieson Street East	Hannah Street	111	m	PVC	2014	100	2114	\$ 55,500	Good	5
WW19-54	Sewer Mains	Sewer	Distribution	Village of Tweed	Louisa Street				River Street East	George Street	116	m	PVC	2014	100	2114	\$ 58,000	Good	5
WW19-55	Sewer Mains	Sewer	Distribution	Village of Tweed	Louisa Street				St. Joseph Street	Alexander Street	77	m	Asbestos Cement	1931	75	2006	\$ 38,500	Fair	5
WW19-56	Sewer Mains	Sewer	Distribution	Village of Tweed	Mary Street				Jamieson Street East	End (South-East)	83	m	PVC	2000	100	2100	\$ 41,500	Good	5
WW19-57	Sewer Mains	Sewer	Distribution	Village of Tweed	Mary Street				Spring Street East	End (South-East)	124	m	PVC	2000	100	2100	\$ 62,000	Good	5
WW19-58	Sewer Mains	Sewer	Distribution	Village of Tweed	Mary Street South				River Street East	End (North-West)	76	m	PVC	2000	100	2100	\$ 38,000	Good	5
WW19-59	Sewer Mains	Sewer	Distribution	Village of Tweed	McCamon Avenue				Jamieson Street West	River Street West	143	m	PVC	2008	100	2108	\$ 71,500	Good	5
WW19-60	Sewer Mains	Sewer	Distribution	Village of Tweed	McClellan Street				River Street West	End (North-West)	229	m	Asbestos Cement	1949	75	2024	\$ 114,563	Fair	5
WW19-61	Sewer Mains	Sewer	Distribution	Village of Tweed	McGowan Street				Pringle Street	End (North-West)	126	m	PVC	2006	100	2106	\$ 63,000	Good	5
WW19-62	Sewer Mains	Sewer	Distribution	Village of Tweed	McGowan Street				Pringle Street	Victoria Street South	136	m	PVC	2006	100	2106	\$ 68,000	Good	5
WW19-63	Sewer Mains	Sewer	Distribution	Village of Tweed	Metcalf Street				End (North-West)	Gabe Lindsay Avenue	253	m	PVC	2008	100	2108	\$ 126,500	Good	5
WW19-64	Sewer Mains	Sewer	Distribution	Village of Tweed	Metcalf Street				Hungerford Road	Katharine Street	207	m	PVC	2008	100	2108	\$ 103,500	Good	5
WW19-65	Sewer Mains	Sewer	Distribution	Village of Tweed	Metcalf Street				Jamieson Street West	River Street West	198	m	PVC	2008	100	2108	\$ 99,000	Good	5
WW19-66	Sewer Mains	Sewer	Distribution	Village of Tweed	Metcalf Street				Katharine Street	Pomeroy Avenue	57	m	PVC	2008	100	2108	\$ 28,500	Good	5
WW19-67	Sewer Mains	Sewer	Distribution	Village of Tweed	Metcalf Street				Pomeroy Avenue	Jamieson Street West	159	m	PVC	2008	100	2108	\$ 79,500	Good	5
WW19-68	Sewer Mains	Sewer	Distribution	Village of Tweed	Metcalf Street				Gabe Lindsay Avenue	Bridge Street West	137	m	PVC	2008	100	2108	\$ 68,500	Good	5
WW19-69	Sewer Mains	Sewer	Distribution	Village of Tweed	Minnie Avenue				Brooklyn Road	Old Bogart Road	264	m	PVC	1998	100	2098	\$ 132,000	Good	5
WW19-70	Sewer Mains	Sewer	Distribution	Village of Tweed	Moir Street				Highway 37	Old Bogart Road	291	m	Asbestos Cement	1930	75	2005	\$ 145,500	Poor	5
WW19-71	Sewer Mains	Sewer	Distribution	Village of Tweed	Moir Street				Old Bogart Road	Arthur Street	240	m	Asbestos Cement	1930	75	2005	\$ 120,000	Poor	5
WW19-72	Sewer Mains	Sewer	Distribution	Village of Tweed	Old Bogart Road				Minnie Avenue	End (North-East)	216	m	Asbestos Cement	1930	75	2005	\$ 108,000	Fair	5
WW19-73	Sewer Mains	Sewer	Distribution	Village of Tweed	Old Bogart Road				Moir Street	Minnie Avenue	128	m	Asbestos Cement	1930	75	2005	\$ 64,000	Fair	5
WW19-74	Sewer Mains	Sewer	Distribution	Village of Tweed	Park Avenue				End (North-West)	Katharine Street	145	m	Asbestos Cement	1962	75	2037	\$ 72,552	Fair	5
WW19-75	Sewer Mains	Sewer	Distribution	Village of Tweed	Park Avenue				Hungerford Road	End (South-East)	42	m	Asbestos Cement	1962	75	2037	\$ 21,000	Fair	5



Table 4d
Detailed Summary of Municipal Assets (Wastewater Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Facility / Equipment / Sewer / Land)	Asset Class (Treatment / Distribution)	Geographic Township	Address and/or Location ^{1,2,3}	UTM Coordinates			Location From	Location To	Quantity ^{2,3}	Units	Sewer Type (PVC / Asbestos Cement / Forcemain) ¹	Year in Service / or Last Upgrade Year ^{1,2,3}	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost	Condition Rating (good / fair / poor) ³	Current Level of Service (5 = high / 1 = low) ⁴
						Zone	Northing	Easting											
WW19-76	Sewer Mains	Sewer	Distribution	Village of Tweed	Pomeroy Avenue				McClellan Street	Park Avenue	81	m	Asbestos Cement	1949	75	2024	\$ 40,500	Fair	5
WW19-77	Sewer Mains	Sewer	Distribution	Village of Tweed	Pomeroy Avenue				Metcalf Street	McClellan Street	289	m	Asbestos Cement	1949	75	2024	\$ 144,500	Fair	5
WW19-78	Sewer Mains	Sewer	Distribution	Village of Tweed	Pomeroy Court				College Street	End (North-East)	48	m	Asbestos Cement	1949	75	2024	\$ 24,000	Fair	5
WW19-79	Sewer Mains	Sewer	Distribution	Village of Tweed	Pond Connection Forcemain				River Street Pumping Station	North Waste Stabilization Pond	1128	m	Forcemain	1975	75	2050	\$ 564,000	Good	5
WW19-80	Sewer Mains	Sewer	Distribution	Village of Tweed	Pringle Street				McGowan Street	Isaac Street	90	m	PVC	2007	100	2107	\$ 45,000	Good	5
WW19-81	Sewer Mains	Sewer	Distribution	Village of Tweed	Pumping Station Connection Forcemain				River Street Pumping Station	Jamieson Street Pumping Station	442	m	Forcemain	1975	75	2050	\$ 221,000	Good	5
WW19-82	Sewer Mains	Sewer	Distribution	Village of Tweed	River Street Connection Main				River Street East	Victoria Street South Connection Main	55	m	PVC	2010	100	2110	\$ 27,500	Good	5
WW19-83	Sewer Mains	Sewer	Distribution	Village of Tweed	River Street East				Colborne Street	Mary Street South	98	m	PVC	2010	100	2110	\$ 49,000	Good	5
WW19-84	Sewer Mains	Sewer	Distribution	Village of Tweed	River Street East				Louisa Street	James Street South	105	m	PVC	2010	100	2110	\$ 52,500	Good	5
WW19-85	Sewer Mains	Sewer	Distribution	Village of Tweed	River Street East				Mary Street South	Louisa Street	96	m	PVC	2010	100	2110	\$ 48,000	Good	5
WW19-86	Sewer Mains	Sewer	Distribution	Village of Tweed	River Street West				College Street	End (South-East)	160	m	PVC	2010	100	2110	\$ 80,003	Good	5
WW19-87	Sewer Mains	Sewer	Distribution	Village of Tweed	River Street West				College Street	McClellan Street	192	m	PVC	2010	100	2110	\$ 95,993	Good	5
WW19-88	Sewer Mains	Sewer	Distribution	Village of Tweed	River Street West				McClellan Street	McCarnon Avenue	253	m	PVC	2010	100	2110	\$ 126,527	Good	5
WW19-89	Sewer Mains	Sewer	Distribution	Village of Tweed	River Street West				Metcalf Street	Victoria Street	107	m	PVC	2010	100	2110	\$ 53,475	Good	5
WW19-90	Sewer Mains	Sewer	Distribution	Village of Tweed	River Street West				Metcalf Street	McCarnon Avenue	127	m	PVC	2010	100	2110	\$ 63,500	Good	5
WW19-91	Sewer Mains	Sewer	Distribution	Village of Tweed	Spring Street East				Colborne Street	Mary Street	89	m	PVC	2000	100	2100	\$ 44,500	Good	5
WW19-92	Sewer Mains	Sewer	Distribution	Village of Tweed	St. Joseph Street				Brooklyn Road	Louisa Street	268	m	Asbestos Cement	1949	75	2024	\$ 134,000	Fair	5
WW19-93	Sewer Mains	Sewer	Distribution	Village of Tweed	Victoria Street North				Bridge Street	Quinns Lane	60	m	PVC	1983	100	2083	\$ 30,000	Good	5
WW19-94	Sewer Mains	Sewer	Distribution	Village of Tweed	Victoria Street North				Holdcroft Street	Highway 37	570	m	PVC	1983	100	2083	\$ 285,000	Good	5
WW19-95	Sewer Mains	Sewer	Distribution	Village of Tweed	Victoria Street North				Jamieson Street	End (North-West)	172	m	PVC	1983	100	2083	\$ 86,000	Good	5
WW19-96	Sewer Mains	Sewer	Distribution	Village of Tweed	Victoria Street North				Jamieson Street	River Street	224	m	PVC	1983	100	2083	\$ 111,951	Good	5
WW19-97	Sewer Mains	Sewer	Distribution	Village of Tweed	Victoria Street North				Quinns Lane	Spring Street	157	m	PVC	1983	100	2083	\$ 78,500	Good	5
WW19-98	Sewer Mains	Sewer	Distribution	Village of Tweed	Victoria Street North				Highway 37	Bridge Street	291	m	PVC	1983	100	2083	\$ 145,500	Good	5
WW19-99	Sewer Mains	Sewer	Distribution	Village of Tweed	Victoria Street South				End (South-East)	Jane Street	108	m	PVC	1983	100	2083	\$ 54,017	Good	5
WW19-100	Sewer Mains	Sewer	Distribution	Village of Tweed	Victoria Street South				Jane Street	McGowan Street	150	m	PVC	1983	100	2083	\$ 75,000	Good	5



Table 4d
Detailed Summary of Municipal Assets (Wastewater Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Facility / Equipment / Sewer / Land)	Asset Class (Treatment / Distribution)	Geographic Township	Address and/or Location ^{1,2,3}	UTM Coordinates			Location From	Location To	Quantity ^{2,3}	Units	Sewer Type (PVC / Asbestos Cement / Forcemain) ¹	Year in Service / or Last Upgrade Year ^{1,2,3}	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Replacement and/or Maintenance Cost	Condition Rating (good / fair / poor) ³	Current Level of Service (5 = high / 1 = low) ⁴
						Zone	Northing	Easting											
WW19-101	Sewer Mains	Sewer	Distribution	Village of Tweed	Victoria Street South				River Street	McGowan Street	293	m	PVC	1983	100	2083	\$ 146,500	Good	5
WW19-102	Sewer Mains	Sewer	Distribution	Village of Tweed	Victoria Street South Connection Main				Victoria Street South	River Street Pumping Station	260	m	Asbestos Cement	1975	75	2050	\$ 130,000	Fair	5

Asset Description and Class		Sewer Type (PVC / Asbestos Cement / Forcemain)	Quantity	Average Age (years)	Units	Replacement and/or Maintenance Cost	Percentage of Properties Connected to the Municipal Wastewater System	No. of Events per Year Where Combined Sewer Flow in the Municipal Wastewater System Exceeds System Capacity Compared to the Total Number of Properties Connected to the Municipal Wastewater System	No. of Effluent Violations per Year Due to Wastewater Discharge Compared to the Total Number of Properties Connected to the Municipal Wastewater System
Facility	Distribution		2	46	#	\$ 450,000	= (730 / 4,695)	The municipal wastewater system does not have combined sewers.	= (3 / 730)
Equipment	Distribution		5	7	#	\$ 98,000			
Equipment	Treatment		3	16	#	\$ 155,000			
Land	Treatment		2	46	#	\$ 200,000	= 15.5%		= 0.004
Sewer	Distribution	PVC	6,982	18	m	\$ 3,490,965			
Sewer	Distribution	Asbestos Cement	6,146	83	m	\$ 3,072,868			
Sewer	Distribution	Forcemain	1,570	46	m	\$ 785,000			
TOTAL		-	-	47	-	\$ 8,251,833	-	-	-

- Notes:
1. Data from Municipality of Tweed, Tangible Capital Assets (2021) and/or provided by Municipality.
 2. Data obtained from Municipal sources and/or from County of Hastings.
 3. Data Provided from Municipality of Tweed (Gap Analysis Meetings).
 4. Level of Service: 1 = very low priority, 5 = very high priority.

Selected Focus Items



Table 4e
Detailed Summary of Municipal Assets (Stormwater Assets)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description (Catchment Area)	Catchment Area Type	Geographic Township	UTM Coordinates			Area (hectares; ha)	Inlet Structures (#)	Outlet Structures (#)	Inlet Diameter (m)	Inlet Material	Inlet Description	Outlet Diameter (m)	Outlet Material	Outlet Description	Outlet Location	Outlet Relative to Flood Level	Number of Properties At Risk of Flooding to 100-year Storm	Estimated Inlet Flow (Q-Runoff; m ³ /s)	Estimated Outlet Flow (Q-Outlet; m ³ /s)	Systems Resilient to a 5-year Storm	Year in Service / or Last Upgrade Year ^{1,2,3}	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Tangible Capital Asset Report Financials				Replacement and/or Maintenance Cost	Condition Rating (good / fair / poor) ³	Current Level of Service (5 = high / 1 = low) ⁴
					Zone	Northing	Easting																			Original Value ¹	Accumulated Amortization ¹	Additions and Betterments	Ending Value ¹			
STW20-01	Actinolite	Catchment Area (Small)	CA00	Elzevir	18T	4925212	319011	1	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	10	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	
STW20-02	Maribank	Catchment Area (Small)	CA00	Hungerford	18T	4922349	333396	1	4	1	unknown	Concrete	OPSD Catch Basin (double grate)	0.20	Concrete	Bridge Abutment Drain	Creek	Outside of Available Flood Mapping	0	0.08	0.08	Yes	1988	100	2088	Unknown	\$ 10,000	fair	2			
STW20-03	Queensborough	Catchment Area (Small)	CA00	Elzevir	18T	4940534	308512	1	2	1	unknown	Polyethylene (PE)	OPSD Catch Basin (single)	unknown	Polyethylene (PE)	Open Pipe	Wetland / Black River	Outside of Available Flood Mapping	10	0.08	0.08	Yes	1988	100	2088	Unknown	\$ 10,000	poor	2			
STW20-04	Stoco	Catchment Area (Small)	CA00	Hungerford	18T	4925212	319011	1	2	1	unknown	Polyethylene (PE)	OPSD Catch Basin (single grate)	0.4 & 0.2	Polyethylene (PE)	Open Pipe (2x)	Moir River	At 2-year / Below 100-year Flood Level	40	0.08	0.08	Yes	2010	100	2110	Unknown	\$ 10,000	fair	2			
STW20-05	Thomasburg	Catchment Area (Small)	CA05	Hungerford	18T	4918109	313035	2	7	1	unknown	Polyvinyl Chloride (PVC)	OPSD Catch Basin (double & single grate)	0.40	Polyvinyl Chloride (PVC)	Open Pipe	Creek/Wetland	Above 100-year Flood Level	0	0.16	0.16	Yes	1988	100	2088	Unknown	\$ 70,000	fair	2			
STW20-06	Tweed Centre	Catchment Area (Large)	CA01	Tweed	18T	4927452	315954	60	172	1	unknown	unknown	OPSD Catch Basin (typical)	1.05	Concrete	Headwall	Moir River	Above 100-year Flood Level	0	3.81	2.10	No	1983	100	2083	Unknown	\$ 1,720,000	fair	5			
STW20-07	Tweed Southwest	Catchment Area (Large)	CA02	Tweed	18T	4926991	316042	50	54	2	unknown	unknown	OPSD Catch Basin (typical)	0.6 & 0.9	Concrete/CSP	Headwall	Tweed Memorial Park, Wetland Areas south of town	Below 2-year Flood Level	0	1.37	1.40	Yes	1983	100	2083	Unknown	\$ 240,000	fair	4			
STW20-08	Tweed Southeast	Catchment Area (Medium)	CA03	Tweed	18T	4927255	316451	6	22	1	unknown	unknown	OPSD Catch Basin (typical)	(2x) 0.45 & (1x) 0.3	Polyvinyl Chloride (PVC)	Open Pipe	Tweed Memorial Park, Stoco Lake	Below 2-year Flood Level	5	0.49	0.50	Yes	1988	100	2088	Unknown	\$ 220,000	fair	4			
STW20-09	Tweed East	Catchment Area (Medium)	CA04	Tweed	18T	4927822	316248	6	27	1	unknown	unknown	OPSD Catch Basin (typical)	0.45	unknown	Headwall	Moir River	Above 100-year Flood Level	0	0.49	0.21	No	1988	100	2088	Unknown	\$ 270,000	fair	4			
STW20-10	Tweed West	Catchment Area (Small)	CA00	Tweed	18T	4927575	315419	1	1	1	unknown	unknown	OPSD Catch Basin (typical)	unknown	unknown	unknown	unknown	unknown	0	0.08	0.08	Yes	1988	100	2088	Unknown	\$ 20,000	fair	4			
STW20-11	Tweed South	Catchment Area (Small)	CA00	Tweed	18T	4926600	316411	1	4	1	unknown	unknown	OPSD Catch Basin (typical)	unknown	unknown	unknown	unknown	unknown	1	0.08	0.08	Yes	1983	100	2083	Unknown	\$ 40,000	fair	3			
STW20-12	Tweed North	Catchment Area (Multi)	CA00	Tweed	18T	4928101	315795	30	61	individual outlets	unknown	unknown	OPSD Catch Basin (typical)	unknown	unknown	unknown	unknown	unknown	10	0.08	0.08	Yes	1983	100	2083	Unknown	\$ 610,000	fair	4			

Asset Description	Number of Catchment Areas	Total Hectares (ha)	Total Inlet Structures (#)	Total Outlet Structures (#)	Total Properties At Risk to Flooding to 100-year Storm (#)	Total Systems Not Resilient to a 5-year Storm (#)	Average Age (years)	Replacement and/or Maintenance Cost	Percentage of Properties in Municipality that are Resilient to 100-year Storm	Percentage of Municipal Stormwater Management System Resilient to a 5-year Storm
Catchment Area (Small)	7	8	20	6	61	0	26	\$ 160,000	= (4,870 Total Properties in Municipality) - (76 Properties At Risk to 100-year Storm) ÷ (4,870 Total Properties in Municipality) x 100% = 98.44%	= (Total Number of Inlet Structures - Inlet Structures in Tweed East) ÷ (Total Number of Inlet Structures) x 100% = 92.42%
Catchment Area (Medium)	2	12	49	2	5	1	33	\$ 490,000		
Catchment Area (Large)	2	110	226	3	0	1	38	\$ 1,960,000		
Catchment Area (Multi)	1	30	61	individual outlets	10	0	38	\$ 610,000		
TOTAL	12	160	356	11	76	2	36	\$ 3,220,000		

Notes:

1. Data from Municipality of Tweed, Tangible Capital Assets (2021) and/or provided by Municipality.
2. Data obtained from Municipal sources and/or from County of Hastings.
3. Data Provided from Municipality of Tweed (Gap Analysis Meetings).
4. Level of Service: 1 = very low priority, 5 = very high priority.
5. Data per site observations and topographic surveying by Greenview Environmental Management Limited (2020).

Selected Focus Items



Table 4f
Detailed Summary of Municipal Assets (Buildings & Facilities)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name	Detailed Asset Description (Building, Land Improvement, Land)	Sub-Description	Asset Use	Operating Department	Area		Address	Geographic Township	UTM Coordinates			Original Year in Service	Last Upgrade Year	Asset Age (years)	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Tangible Capital Asset Report Financials				Replacement and/or Upgrade Cost ²	Condition Rating (good / fair / poor) ²	Current Level of Service (5 = high / 1 = low) ³
						Value	Units			Zone	Northing	Easting						Original Value ¹	Accumulated Amortization ¹	Additions and Betterments	Ending Value ¹			
BF22-01	Actinolite Community Hall	Building	All Buildings	Community Hall	Parks & Recreation	390	m ²	20 Bridgewater Road, Actinolite, ON	Elzevir	18T	4934839	315341	1861	2013	160	10	2031	\$ 4,985	\$ 10,239	\$ 16,285	\$ 11,031	\$ 100,000	Fair	3
BF22-02	Kiwanis Pavillion	Building	Original Building	Community Hall	Parks & Recreation	372	m ²	137 Victoria Street South, Tweed, ON	Tweed	18T	4926985	316444	1929	2016	92	5	2026	\$ -	\$ 24,126	\$ 84,695	\$ 60,569	Unknown	Unknown	3
BF22-03	Lions Hungerford Hall & Administration Office	Building	All Buildings	Community Hall & Accountant's Office	Parks & Recreation	250	m ²	65 Victoria Street North, Tweed, ON	Tweed	18T	4927373	316151	1877	2018	144	10	2031	\$ 6,066	\$ 11,532	\$ 30,146	\$ 24,680	Unknown	Unknown	3
BF22-04	Maribank Pavillion	Building	All Buildings	Sports & Recreation	Parks & Recreation	570	m ²	4381 Maribank Road, Maribank, ON	Hungerford	18T	4922059	333363	2020	2020	1	20	2041	\$ -	\$ 8,905	\$ 100,917	\$ 92,013	\$ 50,000	Fair	3
BF22-05	Queensborough Community Centre	Building	All Buildings	Community Hall	Parks & Recreation	210	m ²	1853 Queensborough Road, Queensborough, ON	Elzevir	18T	4940446	308237	1901	2016	120	5	2026	\$ 7,204	\$ 19,219	\$ 41,858	\$ 29,843	\$ 200,000	Fair	3
BF22-06	Stoco Public Works Garage	Building	All Buildings	Public Works	Public Works	580	m ²	869 Maribank Road, Stoco, ON	Hungerford	18T	4924304	319248	1967	2010	54	10	2031	\$ 63,362	\$ 88,114	\$ 39,091	\$ 14,340	\$ 150,000	Fair	5
BF22-07	Stoco Public Works Salt Shed	Building	Original Building	Salt Storage	Public Works	120	m ²	869 Maribank Road, Stoco, ON	Hungerford	18T	4924254	319272	1999	-	22	5	2026	\$ 15,593	\$ 8,576	\$ -	\$ 7,017	\$ 200,000	Poor	5
BF22-08	Stoco Public Works Sand Dome (New)	Building	Original Building	Sand Storage	Public Works	590	m ²	869 Maribank Road, Stoco, ON	Hungerford	18T	4924273	319263	2020	2020	1	25	2046	\$ 84,140	\$ 75,888	\$ 14,562	\$ 248,812	\$ 1,000,000	Fair	5
BF22-09	Stoco Public Works Sand Dome (Old)	Building	Original Building	Sand Storage	Public Works	610	m ²	869 Maribank Road, Stoco, ON	Hungerford	18T	4924273	319263	1987	-	34	5	2026	\$ 244,763	\$ 18,765	\$ -	\$ -	\$ 1,000,000	Unknown	5
BF22-10	Stoco Public Works Storage Building	Building	Original Building	Storage Building	Public Works	165	m ²	869 Maribank Road, Stoco, ON	Hungerford	18T	4924311	319297	1975	-	46	10	2031	\$ 25,458	\$ 24,875	\$ -	\$ 583	\$ 150,000	Fair	3
BF22-11	Thomasburg Hall	Building	All Buildings	Community Hall	Parks & Recreation	225	m ²	110 Clare Street, Thomasburg, ON	Hungerford	18T	4917870	313093	1890	2012	131	5	2026	\$ 6,137	\$ 9,591	\$ 12,290	\$ 8,836	Unknown	Fair	3
BF22-12	Tweed Arena & Community Centre	Building	All Buildings	Sports & Recreation	Parks & Recreation	2405	m ²	297 St. Joseph Street, Tweed, ON	Tweed	18T	4927819	316401	1967	2017	54	15	2036	\$ -	\$ 440,890	\$ 1,323,850	\$ 882,960	\$ 1,000,000	Fair	4
BF22-13	Tweed Fire Station #1	Building	All Buildings	Fire Hall	Fire	610	m ²	127 River Street West, Tweed, ON	Tweed	18T	4926998	316091	1970	2021	51	15	2036	\$ 241,046	\$ 188,615	\$ 193,825	\$ 246,256	Unknown	Fair	5
BF22-14	Tweed Jailhouse	Building	Original Building	Tourist Attraction	Tourism & Promotion	35	m ²	61 Victoria Street North, Tweed, ON	Tweed	18T	4927357	316166	1900	2013	121	15	2036	\$ 2,880	\$ 5,828	\$ 2,948	\$ -	\$ 20,000	Fair	1
BF22-15	Tweed Municipal Office	Building	All Buildings	Municipal Office	Administration	585	m ²	255 Metcalf Street, Tweed, ON	Tweed	18T	4927469	315960	1967	2019	54	20	2041	\$ 46,590	\$ 168,781	\$ 411,650	\$ 289,459	\$ 150,000	Fair	5
BF22-16	Tweed Public Library	Building	Original Building	Library	Library	565	m ²	230 Metcalf Street, Tweed, ON	Tweed	18T	4927387	315978	2010	-	11	30	2051	\$ 876,450	\$ 262,887	\$ -	\$ 613,563	\$ 20,000	Good	4
BF22-17	Tweed Recycling Depot Building	Building	Original Building	Waste & Recycling	Waste	210	m ²	831 Maribank Road, Stoco, ON	Hungerford	18T	4924356	319261	2008	-	13	20	2041	\$ 141,734	\$ 47,688	\$ -	\$ 94,045	\$ 25,000	Fair	4
BF22-18	Tweed Waste Disposal Site Scale Building	Building	Original Building	Waste & Recycling	Waste	15	m ²	831 Maribank Road, Stoco, ON	Hungerford	18T	4924354	319303	2013	-	8	20	2041	\$ 12,856	\$ 2,893	\$ -	\$ 9,963	\$ 20,000	Fair	5



Table 4f
 Detailed Summary of Municipal Assets (Buildings & Facilities)
 Asset Management Planning (2021)
 Municipality of Tweed
 169.21.003

Asset ID	Asset Name	Detailed Asset Description (Building, Land Improvement, Land)	Sub-Description	Asset Use	Operating Department	Area		Address	Geographic Township	UTM Coordinates			Original Year in Service	Last Upgrade Year	Asset Age (years)	Asset Life Expectancy (years)	Projected Replacement or Upgrade Year	Tangible Capital Asset Report Financials				Replacement and/or Upgrade Cost ²	Condition Rating (good / fair / poor) ²	Current Level of Service (5 = high / 1 = low) ³
						Value	Units			Zone	Northing	Easting						Original Value ¹	Accumulated Amortization ¹	Additions and Betterments	Ending Value ¹			
Asset Description		Quantity		Area		Average Age (years)		Replacement and/or Upgrade Cost																
Buildings (Administration)		1		585		m ² 54		\$ 150,000																
Buildings (Public Works)		5		1,455		m ² 31		\$ 2,500,000																
Buildings (Parks & Recreation)		7		4,197		m ² 100		Unknown																
Buildings (Fire)		1		610		m ² 51		Unknown																
Buildings (Tourism & Promotion)		1		35		m ² 121		\$ 20,000																
Buildings (Library)		1		565		m ² 11		\$ 20,000																
Buildings (Waste)		2		225		m ² 11		\$ 45,000																
TOTAL		18		7,087		m² 379		\$ 2,735,000																

Notes:

1. Data from Municipality of Tweed Asset Register (2021) and/or provided by Municipality.
2. Based on observations conducted as part of Preliminary Building & Facility Assessment Report (Greenview, January 2023).
3. Level of Service: 1 = very low priority, 5 = very high priority.

Selected Focus Items



Table 5d
Financial Assessment and Projections (Wastewater Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Asset ID	Asset Name ¹	Detailed Asset Description ¹	Asset Class (Treatment / Distribution)	Sewer Type (PVC / Asbestos Cement / Forcemain) ¹	Remaining Useful Life ¹	Current Reserves ¹	Replacement and/or Upgrade Cost ^{1,2}	Reserve Planning Balance	Proposed Annual Contribution to Reserves ³																														Total Reserve (30 Year)	Total Required Reserve (Replacement Cost)	Estimated Borrowing Cost (Replacement Cost) ⁴	Difference (Borrowing - Savings) ⁵
									Years 1 to 5					Years 6 to 10					Years 11 to 15					Years 16 to 20					Years 21 to 25					Years 26 to 30								
									2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050				
WW19-94	Sewer Mains	Sewer	Distribution	PVC	62	\$ 24,306	\$ 285,000	\$ 260,694	\$ 24,306	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 4,205	\$ 146,244	\$ 285,000	\$ 429,476	\$ 144,476				
WW19-95	Sewer Mains	Sewer	Distribution	PVC	62	\$ 7,335	\$ 86,000	\$ 78,665	\$ 7,335	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 1,269	\$ 44,130	\$ 86,000	\$ 129,596	\$ 43,596				
WW19-96	Sewer Mains	Sewer	Distribution	PVC	62	\$ 9,548	\$ 111,951	\$ 102,403	\$ 9,548	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 1,652	\$ 57,446	\$ 111,951	\$ 168,702	\$ 56,751				
WW19-97	Sewer Mains	Sewer	Distribution	PVC	62	\$ 6,695	\$ 78,500	\$ 71,805	\$ 6,695	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 1,158	\$ 40,281	\$ 78,500	\$ 118,294	\$ 39,794				
WW19-98	Sewer Mains	Sewer	Distribution	PVC	62	\$ 12,409	\$ 145,500	\$ 133,091	\$ 12,409	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 2,147	\$ 74,661	\$ 145,500	\$ 219,259	\$ 73,759				
WW19-99	Sewer Mains	Sewer	Distribution	PVC	62	\$ 4,607	\$ 54,017	\$ 49,410	\$ 4,607	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 797	\$ 27,718	\$ 54,017	\$ 81,399	\$ 27,383				
WW19-100	Sewer Mains	Sewer	Distribution	PVC	62	\$ 6,396	\$ 75,000	\$ 68,604	\$ 6,396	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 1,107	\$ 38,485	\$ 75,000	\$ 113,020	\$ 38,020				
WW19-101	Sewer Mains	Sewer	Distribution	PVC	62	\$ 12,494	\$ 146,500	\$ 134,006	\$ 12,494	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 2,161	\$ 75,174	\$ 146,500	\$ 220,766	\$ 74,266				
WW19-102	Sewer Mains	Sewer	Distribution	Asbestos Cement	29	\$ 11,400	\$ 130,000	\$ 118,600	\$ 11,400	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 4,090	\$ 130,000	\$ 130,000	\$ 195,901	\$ 65,901				
	Facility		Distribution			\$ -	\$ 450,000	\$ 450,000	\$ 38,879	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 7,613	\$ 259,666	\$ 308,000	\$ 678,119	\$ 228,119				
	Equipment		Distribution			\$ -	\$ 98,000	\$ 98,000	\$ 8,467	\$ 13,353	\$ 6,044	\$ 6,044	\$ 6,044	\$ 6,044	\$ 6,044	\$ 6,044	\$ 6,044	\$ 6,044	\$ 6,044	\$ 6,044	\$ 6,044	\$ 6,044	\$ 6,044	\$ 6,044	\$ 1,827	\$ 1,827	\$ 1,827	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 111,915	\$ 98,000	\$ 128,837	\$ 30,837				
	Equipment		Treatment			\$ -	\$ 155,000	\$ 155,000	\$ 13,392	\$ 21,370	\$ 21,370	\$ 21,370	\$ 21,370	\$ 21,370	\$ 21,370	\$ 4,240	\$ 4,240	\$ 4,240	\$ 4,240	\$ 4,240	\$ 4,240	\$ 4,240	\$ 4,240	\$ 4,240	\$ 4,240	\$ 4,240	\$ 4,240	\$ 4,240	\$ 4,240	\$ 1,015	\$ -	\$ -	\$ -	\$ -	\$ 197,739	\$ 155,000	\$ 218,193	\$ 63,193				
	Land		Treatment			\$ -	\$ 200,000	\$ 200,000	\$ 17,279	\$ 45,680	\$ 45,680	\$ 45,680	\$ 45,680	\$ 45,680	\$ 45,680	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 291,360	\$ 200,000	\$ 301,386	\$ 101,386				
	Sewer		Distribution	PVC		\$ -	\$ 3,490,965	\$ 3,490,965	\$ 301,609	\$ 82,886	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 41,266	\$ 1,539,952	\$ 3,536,465	\$ 5,329,212	\$ 1,792,747				
	Sewer		Distribution	Asbestos Cement		\$ -	\$ 3,072,868	\$ 3,072,868	\$ 265,487	\$ 1,805,124	\$ 223,644	\$ 223,644	\$ 223,644	\$ 223,644	\$ 76,440	\$ 76,440	\$ 76,440	\$ 76,440	\$ 76,440	\$ 37,829	\$ 11,201	\$ 11,201	\$ 11,201	\$ 11,201	\$ 11,201	\$ 11,201	\$ 11,201	\$ 11,201	\$ 5,867	\$ 5,867	\$ 5,867	\$ 5,867	\$ 5,867	\$ 5,867	\$ 5,867	\$ 5,867	\$ 5,867	\$ 3,462,922	\$ 3,027,368	\$ 4,562,037	\$ 1,534,669	
	Sewer		Distribution	Forcemain		\$ -	\$ 785,000	\$ 785,000	\$ 67,822	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 24,730	\$ 785,000	\$ 785,000	\$ 1,182,942	\$ 397,942				
TOTALS						\$ 712,934	\$ 8,251,833	\$ 8,251,833	\$ 712,934	\$ 2,000,756	\$ 370,348	\$ 370,348	\$ 370,348	\$ 370,348	\$ 223,143	\$ 160,333	\$ 160,333	\$ 160,333	\$ 160,333	\$ 121,723	\$ 95,095	\$ 95,095	\$ 95,095	\$ 95,095	\$ 95,095	\$ 90,878	\$ 90,878	\$ 90,878	\$ 83,717	\$ 80,492	\$ 79,477	\$ 79,477	\$ 79,477	\$ 79,477	\$ 79,477	\$ 79,477	\$ 6,646,554	\$ 8,251,833	\$ 12,400,727	\$ 4,148,893		

Notes:
 1. Data from Municipality of Tweed Tangible Capital Assets (2021) and/or provided by Municipality.
 2. Data Provided from Municipality of Tweed (Gap Analysis Meetings).
 3. Proposed Annual Contribution to Reserves calculated based on Replacement and/or Upgrade Cost / Remaining Useful Life.
 4. Estimated Borrowing Cost from Infrastructure Ontario Lending Rates and Loan Payment Calculator, based on five-year to thirty-year payment term (as applicable) and annual payments.
 5. Difference (Saving vs. Borrowing) calculated as Estimated Borrowing Cost (Replacement Cost) - Total Required Reserve (Replacement Cost).
 6. Any grant/subsidies (Federal or Provincial) would be used to reduce Annual Contributions to Reserves and/or borrowing amounts.
 7. Proposed Annual Contributions to Reserves assumes Interest Rate on savings for Reserves equals Inflation Rate on cost of asset purchases.

Selected Focus Item



Table 6a
Priority Assets Recommended for Further Review (Roads)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

HCB Road Sections Recommended for Further Review

Asset ID	Asset Name	Road Location From	Road Location To	Section Length (m)	Asset Life Expectancy	PCI (0-100)	Current Level of Service	Reconstruction / Rehabilitation Cost
R19-286	Quinns Lane	Victoria Street	Colborne Street	95	4	46	2	\$ 15,131
R19-149	James Street North	Jamieson Street	Hannah Street	100	5	56	2	\$ 21,959
R19-268	Pomeroy Court	College Street	End	52	5	56	2	\$ 6,370
R19-156	Jane Street East	Victoria Street	End	85	5	57	2	\$ 13,012
R19-37	Brooklyn Road	St. Joseph Street	End	76	5	58	2	\$ 15,082
R19-214	Matilda Street	Queen Street	Franklin Street	100	5	58	2	\$ 17,041

LCB Road Sections Recommended for Further Review

Asset ID	Asset Name	Road Location From	Road Location To	Section Length (m)	Asset Life Expectancy	PCI (0-100)	Current Level of Service	Reconstruction / Rehabilitation Cost
R19-339	Sulphide Road	Lajoie Road	Greenwood Road	2,243	6	62	4	\$ 316,799
R19-338	Sulphide Road	Hollister Road	Lajoie Road	578	8	70	4	\$ 81,636
R19-279	Queensborough Road	2728 m NW of Highway 7	Bosley Road	2,029	5	59	3	\$ 269,354
R19-96	Flinton Road	Elzevir Road	Boundary	3,106	6	60	3	\$ 429,410
R19-357	Vanderwater Road	Highway 37	Esker Road	2,352	6	60	3	\$ 273,890
R19-98	Flinton Road	Robinson Road North	Elzevir Road	7,062	6	61	3	\$ 887,645
R19-235	Moneymore Road	Hogs Back Road	Old Hungerford Road	9,847	6	61	3	\$ 1,276,817



Table 6b
Priority Assets Recommended for Further Review (Bridges and Large Culverts)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Bridges and Large Culverts Recommended for Further Review

Asset ID	Asset Name	Detailed Asset Description	Asset Life Expectancy Remaining (years)	Condition Rating	BCI (0-100)	Current Level of Service	Replacement and/or Upgrade Cost
BC19-11	Downey Rapids South Structure (Bridge #27)	Bridge	1	Poor	36	1	\$ 1,405,000
BC19-04	Bradshaw Bridge (Bridge #36)	Bridge	1	Poor	47	3	\$ 1,095,000
BC19-18	Hawkins Bridge (Bridge #22)	Bridge	1	Poor	52	4	\$ 1,548,000
BC19-37	Queensborough Bridge (Bridge #42)	Bridge	1	Poor	53	3	\$ 845,000
BC19-44	Scotchwoman Bridge (Bridge #39)	Bridge	1	Poor	53	3	\$ 1,095,000
BC19-39	Reynolds Culvert (Bridge #38)	Culvert	6	Poor	54	3	\$ 530,000
BC19-48	Sulphide Creek Bridge (Bridge #23)	Bridge	1	Poor	55	4	\$ 1,160,000
BC19-50	Waterhouse Culvert (Bridge #1)	Culvert	6	Poor	57	3	\$ 315,000



Table 6c
Priority Assets Recommended for Further Review (Water Supply Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Water Supply Services Assets (Fire Hydrants Only) Recommended for Further Review

Asset ID	Asset Name	Detailed Asset Desc.	Asset Class	Year in Service	Condition Rating	Replacement and/or Upgrade Cost
WS19-187	Fire Hydrant (No. 82)	Equipment	Hydrant	1931	Poor	\$10,000
WS19-199	Fire Hydrant (No. 94)	Equipment	Hydrant	1949	Poor	\$10,000
WS19-198	Fire Hydrant (No. 93)	Equipment	Hydrant	1950	Poor	\$10,000
WS19-185	Fire Hydrant (No. 80)	Equipment	Hydrant	1953	Poor	\$10,000
WS19-175	Fire Hydrant (No. 70)	Equipment	Hydrant	1969	Poor	\$10,000

Water Supply Services Assets (Excluding Fire Hydrants) Recommended for Further Review

Asset ID	Asset Name	Asset Class	Construction Material	Location		Length (m)	Year in Service	Condition Rating	Replacement and/or Upgrade Cost
				Location From	Location To				
WS21-67	Water Main	Distribution	Cast Iron	Moira River North Connection		91	1930	Poor	\$ 900,000
				Bridge Street East	Moira Street				
WS19-31	Water Main	Distribution	Cast Iron	Hungerford Road		291	1925	Fair	\$ 246,992
				Park Avenue	Metcalf Street				
WS19-33	Water Main	Distribution	Cast Iron	James Street North		112	1925	Fair	\$ 95,200
				Jamieson Street East	End (South-East)				
WS19-34	Water Main	Distribution	Cast Iron	James Street South		74	1925	Fair	\$ 62,900
				River Street East	End (North-West)				
WS19-35	Water Main	Distribution	Cast Iron	Jamieson Street East		95	1925	Fair	\$ 80,750
				Mary Street	Colborne Street				
WS19-36	Water Main	Distribution	Cast Iron	Jamieson Street East		97	1925	Fair	\$ 82,450
				Louisa Street	Mary Street				
WS19-37	Water Main	Distribution	Cast Iron	Jamieson Street East		94	1925	Fair	\$ 79,900
				James Street North	Louisa Street				
WS19-38	Water Main	Distribution	Cast Iron	Jamieson Street East		97	1925	Fair	\$ 82,450
				Colborne Street	Victoria Street North				



Table 6d
Priority Assets Recommended for Further Review (Wastewater Services)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Wastewater Services Assets Recommended for Further Review

Asset ID	Asset Name	Asset Class	Construction Material	Location		Length (m)	Year in Service	Condition Rating	Replacement and/or Upgrade Cost
				Location From	Location To				
WW19-39	Sewer Mains	Distribution	Asbestos Cement	James Street South		128	1925	Fair	\$ 64,000
				River Street East	George Street				
WW19-41	Sewer Mains	Distribution	Asbestos Cement	Jamieson Street East		102	1925	Fair	\$ 51,000
				Colborne Street	Victoria Street North				
WW19-42	Sewer Mains	Distribution	Asbestos Cement	Jamieson Street East		96	1925	Fair	\$ 48,000
				Colborne Street	Mary Street				
WW19-43	Sewer Mains	Distribution	Asbestos Cement	Jamieson Street East		90	1925	Fair	\$ 45,000
				Louisa Street	James Street North				
WW19-44	Sewer Mains	Distribution	Asbestos Cement	Jamieson Street East		97	1925	Fair	\$ 48,500
				Mary Street	Louisa Street				
WW19-70	Sewer Mains	Distribution	Asbestos Cement	Moir Street		291	1930	Poor	\$ 145,500
				Highway 37	Old Bogart Road				
WW19-71	Sewer Mains	Distribution	Asbestos Cement	Moir Street		240	1930	Poor	\$ 120,000
				Old Bogart Road	Arthur Street				
WW19-14	Sewer Mains	Distribution	Asbestos Cement	Arthur Street		263	1931	Poor	\$ 131,500
				Brooklyn Road	Louisa Street				



Table 6e
Priority Assets Recommended for Further Review (Stormwater Assets)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Stormwater Assets Recommended for Further Review

Asset ID	Asset Name	Detailed Asset Description (Catchment Area)	Catchment Area Type	Area (hectares; ha)	Inlet Structures (#)	Outlet Structures (#)	Number of Properties At Risk of Flooding to 100-year Storm	Systems Resilient to a 5-year Storm	Year in Service	Condition Rating	Level of Service	Replacement and/or Upgrade Cost
STW20-06	Tweed Centre	Catchment Area (Large)	CA01	60	172	1	0	No	1983	fair	5	\$ 1,720,000
STW20-09	Tweed East	Catchment Area (Medium)	CA04	6	27	1	0	No	1988	fair	4	\$ 270,000
STW20-12	Tweed North	Catchment Area (Multi)	CA00	30	61	individual outlets	10	Yes	1983	fair	4	\$ 610,000
STW20-01	Actinolite	Catchment Area (Small)	CA00	1	Unknown	Unknown	10	Unknown	Unknown	Unknown	Unknown	Unknown



Table 6f
Priority Assets Recommended for Further Review (Building & Facility Assets)
Asset Management Planning (2021)
Municipality of Tweed
169.21.003

Building & Facility Assets Recommended for Further Review

Asset ID	Asset Name	Detailed Asset Description	Asset Use	Area		Year in Service	Condition Rating	Level of Service	Replacement and/or Upgrade Cost
				Value	Units				
BF22-02	Kiwanis Pavillion	Building	Community Hall	372	m2	1929	Unknown	3	Unknown
BF22-03	Lions Hungerford Hall & Administration Office	Building	Community Hall	250	m2	1877	Unknown	3	Unknown
BF22-09	Stoco Public Works Sand Dome (Old)	Building	Sand Storage	610	m2	1987	Unknown	5	\$ 1,000,000
BF22-11	Thomasburg Hall	Building	Community Hall	225	m2	1890	Fair	3	Unknown
BF22-13	Tweed Fire Station #1	Building	Fire Hall	610	m2	1970	Fair	5	Unknown

Appendix A



Infrastructure for Jobs and Prosperity Act, 2015

ONTARIO REGULATION 588/17

ASSET MANAGEMENT PLANNING FOR MUNICIPAL INFRASTRUCTURE

Consolidation Period: From March 15, 2021 to the [e-Laws currency date](#).

Last amendment: [193/21](#).

Legislative History: [+]

This is the English version of a bilingual regulation.

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INTERPRETATION AND APPLICATION

Definitions

1. (1) In this Regulation,

“asset category” means a category of municipal infrastructure assets that is,

- (a) an aggregate of assets described in each of clauses (a) to (e) of the definition of core municipal infrastructure asset, or
- (b) composed of any other aggregate of municipal infrastructure assets that provide the same type of service; (“catégorie de biens”)

“core municipal infrastructure asset” means any municipal infrastructure asset that is a,

- (a) water asset that relates to the collection, production, treatment, storage, supply or distribution of water,
- (b) wastewater asset that relates to the collection, transmission, treatment or disposal of wastewater, including any wastewater asset that from time to time manages stormwater,
- (c) stormwater management asset that relates to the collection, transmission, treatment, retention, infiltration, control or disposal of stormwater,
- (d) road, or
- (e) bridge or culvert; (“bien d’infrastructure municipale essentiel”)

“ecological functions” has the same meaning as in Ontario Regulation 140/02 (Oak Ridges Moraine Conservation Plan) made under the *Oak Ridges Moraine Conservation Act, 2001*; (“fonctions écologiques”)

“green infrastructure asset” means an infrastructure asset consisting of natural or human-made elements that provide ecological and hydrological functions and processes and includes natural heritage features and systems, parklands, stormwater management systems, street trees, urban forests, natural channels, permeable surfaces and green roofs; (“bien d’infrastructure verte”)

“hydrological functions” has the same meaning as in Ontario Regulation 140/02; (“fonctions hydrologiques”)

“joint municipal water board” means a joint board established in accordance with a transfer order made under the *Municipal Water and Sewage Transfer Act, 1997*; (“conseil mixte de gestion municipale des eaux”)

“lifecycle activities” means activities undertaken with respect to a municipal infrastructure asset over its service life, including constructing, maintaining, renewing, operating and decommissioning, and all engineering and design work associated with those activities; (“activités relatives au cycle de vie”)

“municipal infrastructure asset” means an infrastructure asset, including a green infrastructure asset, directly owned by a municipality or included on the consolidated financial statements of a municipality, but does not include an infrastructure asset that is managed by a joint municipal water board; (“bien d’infrastructure municipale”)

“municipality” has the same meaning as in the *Municipal Act, 2001*; (“municipalité”)

“operating costs” means the aggregate of costs, including energy costs, of operating a municipal infrastructure asset over its service life; (“frais d’exploitation”)

“service life” means the total period during which a municipal infrastructure asset is in use or is available to be used; (“durée de vie”)

“significant operating costs” means, where the operating costs with respect to all municipal infrastructure assets within an asset category are in excess of a threshold amount set by the municipality, the total amount of those operating costs. (“frais d’exploitation importants”)

(2) In Tables 1 and 2,

“connection-days” means the number of properties connected to a municipal system that are affected by a service issue, multiplied by the number of days on which those properties are affected by the service issue. (“jours-branchements”)

(3) In Table 4,

“arterial roads” means Class 1 and Class 2 highways as determined under the Table to section 1 of Ontario Regulation 239/02 (Minimum Maintenance Standards for Municipal Highways) made under the *Municipal Act, 2001*; (“artères”)

“collector roads” means Class 3 and Class 4 highways as determined under the Table to section 1 of Ontario Regulation 239/02; (“routes collectrices”)

“lane-kilometre” means a kilometre-long segment of roadway that is a single lane in width; (“kilomètre de voie”)

“local roads” means Class 5 and Class 6 highways as determined under the Table to section 1 of Ontario Regulation 239/02. (“routes locales”)

(4) In Table 5,

“Ontario Structure Inspection Manual” means the Ontario Structure Inspection Manual (OSIM), published by the Ministry of Transportation and dated October 2000 (revised November 2003 and April 2008) and available on a Government of Ontario website; (“manuel d’inspection des structures de l’Ontario”)

“structural culvert” has the meaning set out for “culvert (structural)” in the Ontario Structure Inspection Manual. (“ponceau structurel”)

Application

2. For the purposes of section 6 of the Act, every municipality is prescribed as a broader public sector entity to which that section applies.

STRATEGIC ASSET MANAGEMENT POLICIES

Strategic asset management policy

3. (1) Every municipality shall prepare a strategic asset management policy that includes the following:

1. Any of the municipality’s goals, policies or plans that are supported by its asset management plan.
2. The process by which the asset management plan is to be considered in the development of the municipality’s budget or of any long-term financial plans of the municipality that take into account municipal infrastructure assets.
3. The municipality’s approach to continuous improvement and adoption of appropriate practices regarding asset management planning.
4. The principles to be followed by the municipality in its asset management planning, which must include the principles set out in section 3 of the Act.
5. The municipality’s commitment to consider, as part of its asset management planning,
 - i. the actions that may be required to address the vulnerabilities that may be caused by climate change to the municipality’s infrastructure assets, in respect of such matters as,
 - A. operations, such as increased maintenance schedules,
 - B. levels of service, and
 - C. lifecycle management,
 - ii. the anticipated costs that could arise from the vulnerabilities described in subparagraph i,
 - iii. adaptation opportunities that may be undertaken to manage the vulnerabilities described in subparagraph i,
 - iv. mitigation approaches to climate change, such as greenhouse gas emission reduction goals and targets, and
 - v. disaster planning and contingency funding.
6. A process to ensure that the municipality’s asset management planning is aligned with any of the following financial plans:
 - i. Financial plans related to the municipality’s water assets including any financial plans prepared under the *Safe Drinking Water Act, 2002*.
 - ii. Financial plans related to the municipality’s wastewater assets.

7. A process to ensure that the municipality's asset management planning is aligned with Ontario's land-use planning framework, including any relevant policy statements issued under subsection 3 (1) of the *Planning Act*, any provincial plans as defined in the *Planning Act* and the municipality's official plan.
8. An explanation of the capitalization thresholds used to determine which assets are to be included in the municipality's asset management plan and how the thresholds compare to those in the municipality's tangible capital asset policy, if it has one.
9. The municipality's commitment to coordinate planning for asset management, where municipal infrastructure assets connect or are interrelated with those of its upper-tier municipality, neighbouring municipalities or jointly-owned municipal bodies.
10. The persons responsible for the municipality's asset management planning, including the executive lead.
11. An explanation of the municipal council's involvement in the municipality's asset management planning.
12. The municipality's commitment to provide opportunities for municipal residents and other interested parties to provide input into the municipality's asset management planning.

(2) For the purposes of this section,

"capitalization threshold" is the value of a municipal infrastructure asset at or above which a municipality will capitalize the value of it and below which it will expense the value of it. ("seuil de capitalisation")

Update of asset management policy

4. Every municipality shall prepare its first strategic asset management policy by July 1, 2019 and shall review and, if necessary, update it at least every five years.

ASSET MANAGEMENT PLANS

Asset management plans, current levels of service

5. (1) Every municipality shall prepare an asset management plan in respect of its core municipal infrastructure assets on or before July 1, 2022, and in respect of all of its other municipal infrastructure assets on or before July 1, 2024. O. Reg. 193/21, s. 1.

(2) A municipality's asset management plan must include the following:

1. For each asset category, the current levels of service being provided, determined in accordance with the following qualitative descriptions and technical metrics and based on data from at most the two calendar years prior to the year in which all information required under this section is included in the asset management plan:
 - i. With respect to core municipal infrastructure assets, the qualitative descriptions set out in Column 2 and the technical metrics set out in Column 3 of Table 1, 2, 3, 4 or 5, as the case may be.
 - ii. With respect to all other municipal infrastructure assets, the qualitative descriptions and technical metrics established by the municipality.
2. The current performance of each asset category, determined in accordance with the performance measures established by the municipality, such as those that would measure energy usage and operating efficiency, and based on data from at most two calendar years prior to the year in which all information required under this section is included in the asset management plan.
3. For each asset category,
 - i. a summary of the assets in the category,
 - ii. the replacement cost of the assets in the category,
 - iii. the average age of the assets in the category, determined by assessing the average age of the components of the assets,

- iv. the information available on the condition of the assets in the category, and
 - v. a description of the municipality's approach to assessing the condition of the assets in the category, based on recognized and generally accepted good engineering practices where appropriate.
4. For each asset category, the lifecycle activities that would need to be undertaken to maintain the current levels of service as described in paragraph 1 for each of the 10 years following the year for which the current levels of service under paragraph 1 are determined and the costs of providing those activities based on an assessment of the following:
- i. The full lifecycle of the assets.
 - ii. The options for which lifecycle activities could potentially be undertaken to maintain the current levels of service.
 - iii. The risks associated with the options referred to in subparagraph ii.
 - iv. The lifecycle activities referred to in subparagraph ii that can be undertaken for the lowest cost to maintain the current levels of service.
5. For municipalities with a population of less than 25,000, as reported by Statistics Canada in the most recent official census, the following:
- i. A description of assumptions regarding future changes in population or economic activity.
 - ii. How the assumptions referred to in subparagraph i relate to the information required by paragraph 4.
6. For municipalities with a population of 25,000 or more, as reported by Statistics Canada in the most recent official census, the following:
- i. With respect to municipalities in the Greater Golden Horseshoe growth plan area, if the population and employment forecasts for the municipality are set out in Schedule 3 or 7 to the 2017 Growth Plan, those forecasts.
 - ii. With respect to lower-tier municipalities in the Greater Golden Horseshoe growth plan area, if the population and employment forecasts for the municipality are not set out in Schedule 7 to the 2017 Growth Plan, the portion of the forecasts allocated to the lower-tier municipality in the official plan of the upper-tier municipality of which it is a part.
 - iii. With respect to upper-tier municipalities or single-tier municipalities outside of the Greater Golden Horseshoe growth plan area, the population and employment forecasts for the municipality that are set out in its official plan.
 - iv. With respect to lower-tier municipalities outside of the Greater Golden Horseshoe growth plan area, the population and employment forecasts for the lower-tier municipality that are set out in the official plan of the upper-tier municipality of which it is a part.
 - v. If, with respect to any municipality referred to in subparagraph iii or iv, the population and employment forecasts for the municipality cannot be determined as set out in those subparagraphs, a description of assumptions regarding future changes in population or economic activity.
 - vi. For each of the 10 years following the year for which the current levels of service under paragraph 1 are determined, the estimated capital expenditures and significant operating costs related to the lifecycle activities required to maintain the current levels of service in order to accommodate projected increases in demand caused by growth, including estimated capital expenditures and significant operating costs related to new construction or to upgrading of existing municipal infrastructure assets. O. Reg. 588/17, s. 5 (2).

(3) Every asset management plan must indicate how all background information and reports upon which the information required by paragraph 3 of subsection (2) is based will be made available to the public. O. Reg. 588/17, s. 5 (3).

(4) In this section,

“2017 Growth Plan” means the Growth Plan for the Greater Golden Horseshoe, 2017 that was approved under subsection 7 (6) of the *Places to Grow Act, 2005* on May 16, 2017 and came into effect on July 1, 2017; (“Plan de croissance de 2017”)

“Greater Golden Horseshoe growth plan area” means the area designated by section 2 of Ontario Regulation 416/05 (Growth Plan Areas) made under the *Places to Grow Act, 2005*. (“zone de croissance planifiée de la région élargie du Golden Horseshoe”) O. Reg. 588/17, s. 5 (4).

Asset management plans, proposed levels of service

6. (1) Subject to subsection (2), on or before July 1, 2025, every asset management plan prepared under section 5 must include the following additional information:

1. For each asset category, the levels of service that the municipality proposes to provide for each of the 10 years following the year in which all information required under section 5 and this section is included in the asset management plan, determined in accordance with the following qualitative descriptions and technical metrics:
 - i. With respect to core municipal infrastructure assets, the qualitative descriptions set out in Column 2 and the technical metrics set out in Column 3 of Table 1, 2, 3, 4 or 5, as the case may be.
 - ii. With respect to all other municipal infrastructure assets, the qualitative descriptions and technical metrics established by the municipality.
2. An explanation of why the proposed levels of service under paragraph 1 are appropriate for the municipality, based on an assessment of the following:
 - i. The options for the proposed levels of service and the risks associated with those options to the long term sustainability of the municipality.
 - ii. How the proposed levels of service differ from the current levels of service set out under paragraph 1 of subsection 5 (2).
 - iii. Whether the proposed levels of service are achievable.
 - iv. The municipality’s ability to afford the proposed levels of service.
3. The proposed performance of each asset category for each year of the 10-year period referred to in paragraph 1, determined in accordance with the performance measures established by the municipality, such as those that would measure energy usage and operating efficiency.
4. A lifecycle management and financial strategy that sets out the following information with respect to the assets in each asset category for the 10-year period referred to in paragraph 1:
 - i. An identification of the lifecycle activities that would need to be undertaken to provide the proposed levels of service described in paragraph 1, based on an assessment of the following:
 - A. The full lifecycle of the assets.
 - B. The options for which lifecycle activities could potentially be undertaken to achieve the proposed levels of service.
 - C. The risks associated with the options referred to in sub-subparagraph B.

D. The lifecycle activities referred to in sub-subparagraph B that can be undertaken for the lowest cost to achieve the proposed levels of service.

ii. An estimate of the annual costs for each of the 10 years of undertaking the lifecycle activities identified in subparagraph i, separated into capital expenditures and significant operating costs.

iii. An identification of the annual funding projected to be available to undertake lifecycle activities and an explanation of the options examined by the municipality to maximize the funding projected to be available.

iv. If, based on the funding projected to be available, the municipality identifies a funding shortfall for the lifecycle activities identified in subparagraph i,

A. an identification of the lifecycle activities, whether set out in subparagraph i or otherwise, that the municipality will undertake, and

B. if applicable, an explanation of how the municipality will manage the risks associated with not undertaking any of the lifecycle activities identified in subparagraph i.

5. For municipalities with a population of less than 25,000, as reported by Statistics Canada in the most recent official census, a discussion of how the assumptions regarding future changes in population and economic activity, set out in subparagraph 5 i of subsection 5 (2), informed the preparation of the lifecycle management and financial strategy referred to in paragraph 4 of this subsection.

6. For municipalities with a population of 25,000 or more, as reported by Statistics Canada in the most recent official census,

i. the estimated capital expenditures and significant operating costs to achieve the proposed levels of service as described in paragraph 1 in order to accommodate projected increases in demand caused by population and employment growth, as set out in the forecasts or assumptions referred to in paragraph 6 of subsection 5 (2), including estimated capital expenditures and significant operating costs related to new construction or to upgrading of existing municipal infrastructure assets,

ii. the funding projected to be available, by source, as a result of increased population and economic activity, and

iii. an overview of the risks associated with implementation of the asset management plan and any actions that would be proposed in response to those risks.

7. An explanation of any other key assumptions underlying the plan that have not previously been explained. O. Reg. 588/17, s. 6 (1); O. Reg. 193/21, s. 2 (1).

(2) With respect to an asset management plan prepared under section 5 on or before July 1, 2022, if the additional information required under this section is not included before July 1, 2024, the municipality shall, before including the additional information, update the current levels of service set out under paragraph 1 of subsection 5 (2) and the current performance measures set out under paragraph 2 of subsection 5 (2) based on data from the two most recent calendar years. O. Reg. 193/21, s. 2 (2).

Update of asset management plans

7. (1) Every municipality shall review and update its asset management plan at least five years after the year in which the plan is completed under section 6 and at least every five years thereafter.

(2) The updated asset management plan must comply with the requirements set out under paragraphs 1, 2 and 3 and subparagraphs 5 i and 6 i, ii, iii, iv and v of subsection 5 (2), subsection 5 (3) and paragraphs 1 to 7 of subsection 6 (1).

Endorsement and approval required

8. Every asset management plan prepared under section 5 or 6, or updated under section 7, must be,

- (a) endorsed by the executive lead of the municipality; and
- (b) approved by a resolution passed by the municipal council.

Annual review of asset management planning progress

9. (1) Every municipal council shall conduct an annual review of its asset management progress on or before July 1 in each year, starting the year after the municipality's asset management plan is completed under section 6.

(2) The annual review must address,

- (a) the municipality's progress in implementing its asset management plan;
- (b) any factors impeding the municipality's ability to implement its asset management plan; and
- (c) a strategy to address the factors described in clause (b).

Public availability

10. Every municipality shall post its current strategic asset management policy and asset management plan on a website that is available to the public, and shall provide a copy of the policy and plan to any person who requests it.

TABLE 1
WATER ASSETS

Column 1 Service attribute	Column 2 Community levels of service (qualitative descriptions)	Column 3 Technical levels of service (technical metrics)
Scope	1. Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal water system. 2. Description, which may include maps, of the user groups or areas of the municipality that have fire flow.	1. Percentage of properties connected to the municipal water system. 2. Percentage of properties where fire flow is available.
Reliability	Description of boil water advisories and service interruptions.	1. The number of connection-days per year where a boil water advisory notice is in place compared to the total number of properties connected to the municipal water system. 2. The number of connection-days per year due to water main breaks compared to the total number of properties connected to the municipal water system.

TABLE 2
WASTEWATER ASSETS

Column 1 Service attribute	Column 2 Community levels of service (qualitative descriptions)	Column 3 Technical levels of service (technical metrics)
Scope	Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal wastewater system.	Percentage of properties connected to the municipal wastewater system.

Reliability	<ol style="list-style-type: none"> 1. Description of how combined sewers in the municipal wastewater system are designed with overflow structures in place which allow overflow during storm events to prevent backups into homes. 2. Description of the frequency and volume of overflows in combined sewers in the municipal wastewater system that occur in habitable areas or beaches. 3. Description of how stormwater can get into sanitary sewers in the municipal wastewater system, causing sewage to overflow into streets or backup into homes. 4. Description of how sanitary sewers in the municipal wastewater system are designed to be resilient to avoid events described in paragraph 3. 5. Description of the effluent that is discharged from sewage treatment plants in the municipal wastewater system. 	<ol style="list-style-type: none"> 1. The number of events per year where combined sewer flow in the municipal wastewater system exceeds system capacity compared to the total number of properties connected to the municipal wastewater system. 2. The number of connection-days per year due to wastewater backups compared to the total number of properties connected to the municipal wastewater system. 3. The number of effluent violations per year due to wastewater discharge compared to the total number of properties connected to the municipal wastewater system.
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TABLE 3
STORMWATER MANAGEMENT ASSETS

Column 1 Service attribute	Column 2 Community levels of service (qualitative descriptions)	Column 3 Technical levels of service (technical metrics)
Scope	Description, which may include maps, of the user groups or areas of the municipality that are protected from flooding, including the extent of the protection provided by the municipal stormwater management system.	<ol style="list-style-type: none"> 1. Percentage of properties in municipality resilient to a 100-year storm. 2. Percentage of the municipal stormwater management system resilient to a 5-year storm.

TABLE 4
ROADS

Column 1 Service attribute	Column 2 Community levels of service (qualitative descriptions)	Column 3 Technical levels of service (technical metrics)
Scope	Description, which may include maps, of the road network in the municipality and its level of connectivity.	Number of lane-kilometres of each of arterial roads, collector roads and local roads as a proportion of square kilometres of land area of the municipality.
Quality	Description or images that illustrate the different levels of road class pavement condition.	<ol style="list-style-type: none"> 1. For paved roads in the municipality, the average pavement condition index value. 2. For unpaved roads in the municipality, the average surface condition (e.g. excellent, good, fair or poor).

TABLE 5
BRIDGES AND CULVERTS

Column 1 Service attribute	Column 2 Community levels of service (qualitative descriptions)	Column 3 Technical levels of service (technical metrics)
Scope	Description of the traffic that is supported by municipal bridges (e.g., heavy transport vehicles, motor vehicles, emergency vehicles, pedestrians, cyclists).	Percentage of bridges in the municipality with loading or dimensional restrictions.
Quality	<ol style="list-style-type: none"> 1. Description or images of the condition of bridges and how this would affect use of the bridges. 2. Description or images of the condition of culverts and how this would affect use of the culverts. 	<ol style="list-style-type: none"> 1. For bridges in the municipality, the average bridge condition index value. 2. For structural culverts in the municipality, the average bridge condition index value.

11. OMITTED (PROVIDES FOR COMING INTO FORCE OF PROVISIONS OF THIS REGULATION).

Français

Appendix B



Statement of Service Conditions & Limitations

The following conditions and limitations shall form an integral part of any agreement between Greenview and the Client. In the event of duplication or conflict, the most stringent shall supercede the other.

Provision of Services and Payment

Upon documented acceptance of Greenview's proposed services and conditions in written form by the Client, Greenview may commence work on the proposed services directly.

Greenview's offers for services in the form of proposals, quotations, bids, tenders, or other like an offering to a Client are formulated upon available information at the time of the offer submission. In the event of discovery of unknown conditions, or any other unknown circumstance that may arise following the presentation of Greenview's offer to the Client, Greenview reserves the right to negotiate terms with the Client with respect to changes in scope, fees, disbursements, or the like as may be fair and reasonable considering the discovery.

Upon retention of Greenview's services related to any commission, the Client agrees to remit payment for the services rendered for the specified period within (30) days of the invoice date as invoiced by Greenview on a typical monthly basis, unless otherwise arranged between the Client and Greenview. In the event of non-payment by the Client, Greenview reserves the right, without external influence or expense, to discontinue services and retain any documentation, data, reports, or other project information until such time as payment is received by Greenview. Interest on any overdue accounts may be applied accordingly.

Warranty, Limitations, and Reliance

Greenview relies on background and historical information from the Client to determine the appropriate scope of services to meet the Client's objectives, in accordance with applicable legislation, guidelines, industry practices, and accepted methodologies.

Greenview provides its services under the specific terms and conditions of a specific proposal (and where necessary formal contract), in accordance with the above requirements and the *Limitations Act 2002*, as amended, only.

The hypotheses, results, conclusions, and recommendations presented in documentation authored by Greenview are founded on the information provided by the Client to Greenview in preparation for the work. Facts, conditions, and circumstances discovered by Greenview during the performance of the work requested by the Client are assumed by Greenview to be part of preparatory information provided by the Client as part of the proposal stage of the project. Greenview assumes that, until notified or discovered otherwise, that the information provided by, or obtained by Greenview from, the Client is factual, accurate, and represents a true depiction of the circumstances that exist related to the time of the work.

Greenview relies on its Clients to inform Greenview if there are changes to any related information to the work. Greenview does not review, analyze, or attempt to verify the accuracy or completeness of the information or materials provided, or circumstances encountered, other than in accordance with applicable accepted industry practice. Greenview will not be responsible for matters arising from incomplete, incorrect, or misleading information or from facts or circumstances that are not fully disclosed to, or that are concealed from Greenview during the period that proposals, services, work, or documentation preparation was performed by Greenview.

Facts, conditions, information, and circumstances may vary with time and locations and Greenview's services are based on a review of such matters as they existed at the time and location indicated in its documentation. No assurance is made by Greenview that the facts, conditions, information, circumstances or any underlying assumptions made by Greenview in connection with the work performed will not change after the work is completed and documentation is submitted. If any such changes occur or additional information is obtained, Greenview should be advised and

requested to consider if the changes or additional information affect its findings or results.

When preparing documentation, Greenview considers applicable legislation, regulations, governmental guidelines, and policies to the extent they are within its knowledge, but Greenview is not qualified to advise with respect to legal matters. The presentation of information regarding applicable legislation, regulations, not intended to and should not be interpreted as constituting a legal opinion concerning the work completed or conditions outlined in a report. All legal matters should be reviewed and considered by an appropriately qualified legal practitioner.

Greenview's services, work and reports are provided solely for the exclusive use of the Client which has retained the services of Greenview and to which its reports are addressed. Greenview is not responsible for the use of its services, work or reports by any other party, or for the reliance on, or for any decision which is made by any party using the services or work performed by or a report prepared by Greenview without Greenview's express written consent. Any party that uses, relies on, or makes a decision based on services or work performed by Greenview or a report prepared by Greenview without Greenview's express written consent, does so at its own risk. Except as set out herein, Greenview specifically disclaims any liability or responsibility to any third party for any loss, damage, expense, fine, penalty or other such thing which may arise or result from the use of, reliance on or decision based on any information, recommendation or other matter arising from the services, work or reports provided by Greenview.

Site Reviews and Assessments

A site assessment is created using data and information collected during the investigation of a site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that Greenview's work or report considers any locations or times other than those from which information, sample results and data were specifically received, the work or report is based on a reasonable extrapolation from such information, sample results and data but the actual conditions encountered may vary from those based on extrapolations.

Only conditions, and substances, at the site and locations chosen for study by the Client are evaluated; no adjacent or other properties are evaluated unless specifically requested by the Client. Any physical or other aspects of the site that were not chosen for study by the Client, or any other matter not specifically addressed in a report prepared by Greenview, are beyond the scope of the work performed by Greenview and such matters have not been investigated or addressed.

Confidentiality

Greenview provides its proposals, reports, assessments, designs, and any other work for the sole party identified as the Client or potential Client in the case of proposals.

For proposals specifically, the information contained therein is strictly confidential, proprietary information, and shall not be reproduced or disclosed to any other party than to that of the addressee of the original proposal submission, without prior written permission of Greenview. Any such unauthorised reproduction, in whole or in part, is considered a breach of trust or contract, as applicable by law.

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