



## ***“Asset Management Update 2022”***

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**The Township of Stirling-Rawdon**

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July 1, 2019: Date for municipalities to have a finalized strategic asset management policy that promotes best practices and links asset management planning with budgeting, operations, maintenance and other municipal planning activities.

July 1, 2022: Date for municipalities to have an approved asset management plan for core assets (roads, bridges and culverts, water, wastewater and stormwater management systems) that identifies current levels of service and the cost of maintaining those levels of service.

**Revised Date: July 1, 2024 (previously July 1, 2023):** Date for municipalities to have an approved asset management plan for all municipal infrastructure assets that identifies current levels of service and the cost of maintaining those levels of service.

**Revised Date: July 1, 2025 (previously July 1, 2024):** Date for municipalities to have an approved asset management plan for all municipal infrastructure assets that builds upon the requirements set out in 2023. This includes an identification of proposed levels of service, what activities will be required to meet proposed levels of service, and a strategy to fund these activities

Objectives as defined by the Ontario reg. 588/17

A municipality's asset management plan must include for each asset category, the current levels of service being provided, determined in accordance with qualitative descriptions and technical metrics 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.

For each asset category, a summary of the assets in the category, the replacement cost of the assets in the category, the average age of the assets in the category, determined by assessing the average age of the components of the assets, the information available on the condition of the assets in the category, and 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.

For each asset category, the lifecycle activities that would need to be undertaken to maintain the current levels of service for each of the 10 years following the year for which the current levels of service are determined and the costs of providing those activities based on an assessment of the following: The full lifecycle of the assets, the options for which lifecycle activities could potentially be undertaken to maintain the current levels of service and the risks associated with the options.

## Recommendations

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Township to set aside an annual fund for ongoing asset management implementations, including inventory updates and collection of condition ratings.

Reduce financial liability through the Adoption an electronic service request to collect citizens inquires as well as deficiencies found by staff

Reduce financial liability through the adoption an electronic data repository of inventory and required maintenance

Reduce financial liability through the establishment an annual inspection process for culverts and roads

Reduce financial liability through the establishment a desired Level of Service for core infrastructure assets by utilizing condition ratings

Reduce financial liability through the establishment a Risk matrix utilizing; Probability of Failure (PoF) and Consequence of Failure (CoF)

Establish and maintain an accurate cost matrix specific to the township indicating actual replacement costs

## Council Responsibility

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- Council's responsibility is to provide direction to staff while supporting qualified staff in their choices.
- Members of council play an important role in validating township level of service through the policies that they adopt, the review and the ongoing involvement when levels are adversely affected.
- Members of council need to be educated on the asset management strategies which comprise of lifecycle events in order to reduce risk impact.
- As part of the Asset Management Policy, council to establish and support the frequency of the AM reviews.
- Council should validate and support the timelines required to reach expected Levels of Service

## **Asset Management Components**

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### Accurate and detailed asset inventory

- a summary of the assets in each category
- condition of the assets in each category
- the average age of the assets in each category
- a sufficient detailed data collection of each asset

### Lifecycle Management

- The options for which lifecycle activities could potentially be undertaken to maintain the current levels of service.
- The lifecycle activities undertaken for the lowest cost to maintain the current levels of service
- Lifecycle management and financial strategy with respect to the assets in each asset category for the 10-year period
- Maintenance, rehabilitation, reconstruction

### Level of Service

- Establishing Level of services
- The risks associated with the options
- Establish routine maintenance schedules
- Create work orders, and manage the repairing deadlines.

### Financial Controls

- An estimate of the annual costs for each of the 10 years of undertaking the lifecycle activities separated into capital expenditures and significant operating costs
- Calculate the replacement cost of the assets in each category
- Based on projected funding, identify any funding shortfall for the lifecycle activities
- An identification and explanation of the options examined by the township to maximize the funding associated to lifecycle events

### Municipal Engagement

- Make available electronic updates with the help of maps and tabular reports on the Township website
- Township residents and other interested parties able to provide input
- Electronic service requests associated to location, deficiency type, and action required

## Level of Service Policies

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The core purpose of a Township is to provide services to residents and other stakeholders. Physical assets are simply a portion of what is required to deliver the various levels of service as determined by the Township of Stirling-Rawdon. The Township needs to ensure that the infrastructure performs to meet the level of service goals at an affordable and sustainable cost. The objective of Levels of Service (LoS) analysis is to find a balance between the expected levels of service and the cost of providing that level of service. Determining township level of service policies requires first developing a baseline for acceptable and affordable LoS. This is done by first examining present-day service levels, community needs, regulatory or legal obligations and the cost of service delivery. Once present-day service levels have been examined, this baseline can be compared against expected LoS.

## Desired Level of Service (LoS)

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Begin by establishing a desired LoS for each road category. For a paved road a PCI rating of 75 while for a gravel road a condition of Fair which may be the equivalent of 60 a PCI.

## The Process

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**Levels of Service analysis may involve:**

1. Developing
  - Customer vs. Technical Levels of Service
  - Current vs. Expected Levels of Service
  - Use of performance measures
  - Financial validation
2. Communication
  - Receive input from staff
  - Receive input from citizens
  - Communicate the Levels of Service to stakeholders
  - Council approval of Levels of Service strategies
3. Regular and routine Updates
  - Yearly updates to the LoS validated by costs and risks

## Level of Service Overview

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LoS is a balance between user expectations for overall quality, performance, availability and safety versus affordability. LoS contains a number of distinct categories including:

- Service Identification
- Financial capacity
- Municipal risk
- Community Expectations



- Technical component
- Strategic (community) component

## Community

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LoS should reflect the priorities and expectations of the community. At some point it is necessary to ensure that the services provided does in fact reflect the community's priorities and expectations. It may also be important to determine if the services provided are at a level that the community finds acceptable or if those service levels should be increased or decreased.

Community LoS outline the overall quality, performance, availability and safety of the service being provided. Technical levels of service outline the operating, maintenance, rehabilitation, renewal and upgrade activities expected to occur. LoS is therefore a balance between user (citizen) expectations for overall quality, performance, availability and safety to a cost that is reasonable and affordable.

## LoS Matrix

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All assets carry a level of risk for their users. Generally when conducting risk assessment, two key factors that come into consideration are frequency of use and cost of improvement. Acceptable levels of risk may vary depending on their frequency of use and consequences of failure. Proposed targets for customer and technical levels of service must be included as part of the asset management strategy

Determining the desired levels of service for core asset (Roads and culverts) type is achieved with consideration of a number of factors including costs, user expectations and government mandated and minimum requirements.

LoS is a balance between user expectations for overall quality, performance, availability and safety, versus affordability. There are three (3) distinct categories of LoS:

- Municipal risk
- Asset life cycle cost implications
- Financial options

Technical levels of service (TLS) outline the operating, maintenance, rehabilitation, and renewal strategies and upgrade activities expected to occur. TLS must be considered that also look at the risk associated with providing the service.

Performance measures should be developed and the actual results achieved reported and updated annually. The target levels of service must be reviewed on a regular basis to determine if they are appropriate and achievable. Consideration should be given to risk and cost in the development of target levels of service.

## Accurate and updated Inventory

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An inventory repository stores detailed attributes associated to individual assets with sufficient detailed appropriate for the Township. Each asset listing can capture a variety of information from the physical location to the more specific details such as To, From, width, length, etc. The inventory repository is a valuable resource to all township staff as the information regarding their assets is organized, stored and accessed in one common location.

Key items;

- Collecting accurate and standardized inventory
- Component breakdown
- Location
- Condition
- Lifecycle events
- Photos attachment

## Lifecycle History

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Collect historical condition ratings from “roads needs study” or from other sources.

Deficiencies: Input the number and type of yearly deficiencies identified on each road section. Separate those between MMS, Non MMS, and citizen requests

Lifecycle Event: establish the hierarchy of lifecycle events including; treatments, costs, associated to specific pavement condition indexes.

Attachments: Attaching documents such as photos of assets, legal documents, and technical documents.

Invoices: Electronically collect all invoices for work done on each road. Use this data to compare financial investments required to maintain the asset. Run yearly comparisons to see if alternative lifecycle events should be considered.

Finance: A view into the invoice expenses, funding requirement and budget allocation per asset.

## Lifecycle events

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Measure the effectiveness of adopting various lifecycle strategies such as maintenance, rehabilitation, reconstruction. For roads lifecycle events may include;

- Crack Sealing of HCB Roads
- grading
- Annual Right-of-way brushing and ditch cleaning
- Culvert flushing
- Dust suppression

## Risk

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Risk is a combination of PoF and CoF

### Prioritization Matrix

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Assigning a numeric base line value for each township asset category will enable the prioritization and comparison of various asset categories.

### Probability of Failure (PoF)

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As the assets deteriorate the probability of failure increases. Not all road assets deteriorate at the same level. In some cases the deterioration may be quantitative as 2 PCI per year based on road usage, road base, and ongoing maintenance. PoF for an asset category such as roads requires a combination of attributes including baseline weight, material, classification, condition rating and useful life. These values are normalized to a value from 1-5. The condition rating PCI, and remaining useful life are matched against a desired level of service. The results, including percentage weight produce a PoF rating from 1-5

### Consequence of Failure (CoF)

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Not all assets pose the same level of risk. Even within the same category a road in front of a hospital, over a body of water, or a main road versus a cottage road pose different risk or consequence of failure. CoF can be derived for each asset category from the calculation of an asset category baseline weight, and 5 criteria including; safety, operational, environment, finance, and legal.

### Risk lookup

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**Environmental conditions;** Values from 1- 5 with associated description and details outlining the severity of the consequence associated to the environment

**Financial conditions;** Values from 1- 5 with associated description and details outlining the severity of the consequence associated to the financial

**Health and safety conditions;** Values from 1- 5 with associated description and details outlining the severity of the consequence associated to the Health and safety

**Legal;** Values from 1- 5 with associated description and details outlining the severity of the consequence associated to the Legal

**Operational conditions;** Values from 1- 5 with associated description and details outlining the severity of the consequence associated to the Operational

## Data Validation and visualization

### Asset Matrix

Category	Type	Confidence
roads	roads	Very good
bridges	bridges	Very good
culverts	Culverts <3	Very good
Water	Water	Very good
Wastewater	Wastewater	Very good
Storm Water	Storm Water	Very good

### Asset Condition Information

Category	Type	Current Condition rating	Optimal condition rating
roads	roads	Estimated useful life	PCI
bridges	bridges	Very good	BCI
culverts	Culverts <3	Estimated useful life	inspections
Water	Water	Estimated useful life	Estimated Useful life/inspection
Wastewater	Wastewater	Estimated useful life	Estimated Useful life/inspection
Storm water	Storm water	Estimated useful life	Estimate Useful life/inspection

## Asset attributes

Asset category	Asset attributes	Data collection
road	Area square	✓
	Road classification	✓
	Surface material	✓
bridges	Area square	✓
	Load Posting	✓
	BCI	✓
Water	Size of pipe	✓
	BCI	✓
Wastewater	Size of pipe	✓
	BCI	✓
Stormwater	Diameter	✓
	Material	✓
	age	✓

## Roads

Column 1 Service attribute	Column 2 Community levels of service (qualitative descriptions)	Column 3 Technical levels of service (technical metrics)
Scope	<p>Description, which may include maps, of the road network in the municipality and its level of connectivity.</p> <p>See Image #1 page 14</p>	<p>Number of lane-kilometers of each of arterial roads, collector roads and local roads as a proportion of square kilometers of land area of the municipality.</p> <p>225 Kms of Collector Roads</p> <p>58 Kms of Local Roads</p>
Quality	<p>Description or images that illustrate the different levels of road class pavement condition.</p>	<p>1. For paved roads in the municipality, the average pavement condition index value.</p> <p>Average Condition Index 75 PCI</p> <p>2. For unpaved roads in the municipality, the average surface condition (e.g. excellent, good, fair or poor).</p> <p>Unpaved Roads Average condition is Fair</p>

## Road LoS Target

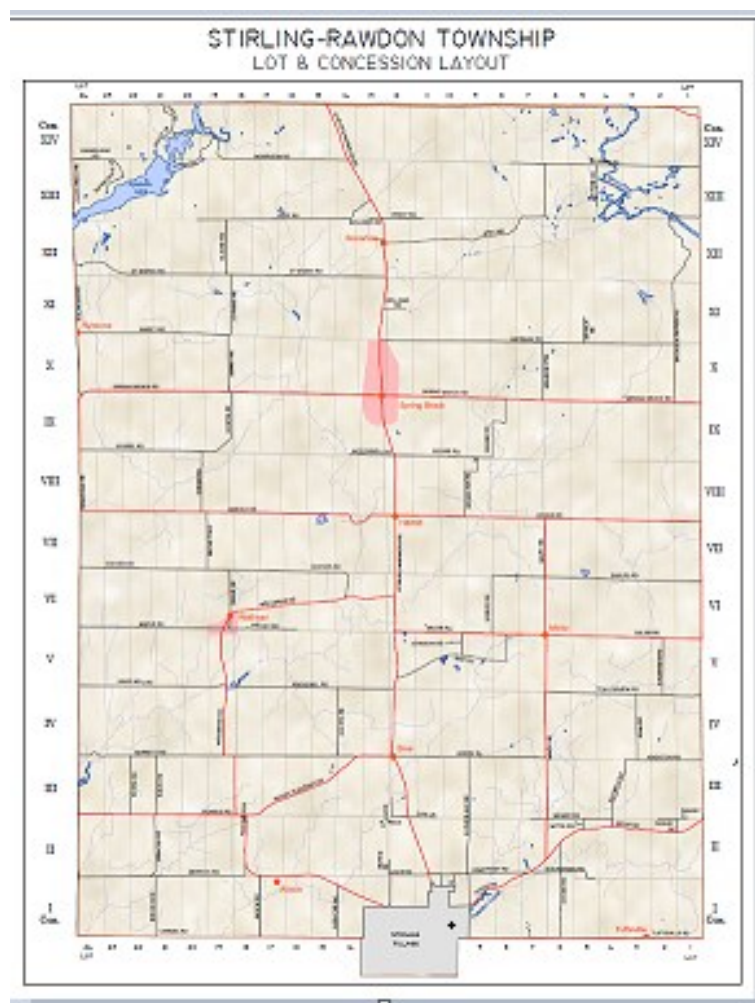
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For Asphalt roads, the township has established a PCI rating for the target level of service for roads and classifying road segments based on surface types and the minimum standards Ontario Reg. 239/02. The desired level of service for township roads is to maintain an average weighted condition rating of for each road type based on each asset category such as HCB, LCB, and gravel. The rating system consists of a numeric Pavement Condition Index (PCI) of 1 through 100. For the purposes of this LOS, the following assumptions were made for road deterioration

- Adopting a methodology based on minimum standards Ontario Reg. 239/02.
- Utilizing existing roads needs studies
- Collecting routine road data through regular inspections
- Citizen engagement strategy.

## Road Inventory – Image #1

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## Bridges and Culverts > 3 m

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"> <li>1. Description or images of the condition of bridges and how this would affect use of the bridges.</li> <li>2. Description or images of the condition of culverts and how this would affect use of the culverts.</li> </ol>	<ol style="list-style-type: none"> <li>1. For bridges in the municipality, the average bridge condition index value.</li> <li>2. For structural culverts in the municipality, the average bridge condition index value.</li> </ol>

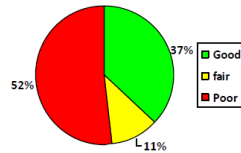
## Bridge Summary

2021 OSIM Inspections

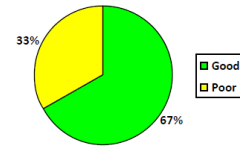
### List 1 - Summary Listing of All Structures

Asset Health Summary			
Bridges			
Poor		Fair	Good
BCI<50	50<BCI<60	60<BCI<70	BCI<70
9	5	3	10
Culverts			
Poor		Fair	Good
BCI<50	50<BCI<60	60<BCI<70	BCI<70
1	0	0	2

Bridge Condition



Culvert Condition



Structure Number	Structure Name	Road Name	Struct. Type	Deck Area (sq.m)	Estimated Replacement Cost (2021\$)	BCI
1	Seely's Bridge	Evergreen Road	I-Beams or Girders	135	\$1,280,000.00	74.53
2	Goods Road Bridge	Goods Road	T-Beam	54.1	\$580,000.00	54.04
3	Rawdon Creek Bridge	Minto Road	T-Beam	83	\$790,000.00	47.78
4	McGee Bridge	McGee Road	I-Beams or Girders	86.7	\$820,000.00	96.83
5	Cain's Bridge	Hollowview Road	Rigid Frame, Vertical Leg	38.5	\$500,000.00	56.88
6	Hagerman Bridge	Hagerman Road	Arch Culvert	54.3	\$590,000.00	91.06
7	Sine Bridge	Cooke Road	T-Beam	41.8	\$550,000.00	59.43
8	Harold Cheese Factory Road Brid	Harold Road	T-Beam	38.5	\$500,000.00	36.26
9	Sprys Bridge	Storms Road	Earth Filled Arch	135	\$1,280,000.00	48.71
10	Bronson's Bridge North	Bronson Rapids Road	T-Beam	65.5	\$710,000.00	57.61
11	Bronson's Bridge South	Bronson Rapids Road	T-Beam	119.9	\$1,140,000.00	45.58



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2021 OSIM Inspections

### List 1 - Summary Listing of All Structures

Structure Number	Structure Name	Road Name	Struct. Type	Deck Area (sq.m)	Estimated Replacement Cost (2021\$)	BCI
12	County Road 14 North Bridge	County Road 14	Rigid Frame, Vertical Leg	74.6	\$810,000.00	69.1
13	Squire's Creek Bridge	Wingfield Road	I-Beams or Girders	252.8	\$1,900,000.00	74.91
14	Anson Road Bridge	Anson Road	Arch Culvert	56	\$600,000.00	99.84
15	Ridge Road Bridge	Ridge Road	I-Beams or Girders	189.1	\$1,420,000.00	70.8
16	Gurnsey Bridge	Barrett Road	I-Beams or Girders	132.7	\$1,260,000.00	65.24
17	Henry Street Bridge	Henry Street	Rigid Frame, Vertical Leg	220	\$1,650,000.00	35.04
18	James Street Bridge	James Street	I-Beams or Girders	201.6	\$1,510,000.00	73.54
19	Highway 14 North and South	Highway 14	I-Beams or Girders	293	\$2,200,000.00	70.09
20	Frankford Road Bridge	County Road 33	Rigid Frame, Vertical Leg	174.7	\$1,310,000.00	59.05
21	Bedford Road Bridge	Bedford Road	Rigid Frame, Vertical Leg	30.2	\$400,000.00	34.09
22	Dunnam's Bridge	Demorest Road	Box Beams of Girders	111.6	\$1,060,000.00	74.15
23	Green Road Bridge	Green Road	Rigid Frame, Vertical Leg	25.9	\$340,000.00	40.82
25	Sine Road Bridge	Sine Road	Rigid Frame, Vertical Leg	22.5	\$290,000.00	42.99
26	King's Mill Bridge	CR-19 Wellmans Road	Box Beams of Girders	252	\$1,890,000.00	70.33
27	Wellmans Road North Bridge	CR-19 Wellmans Road	Rigid Frame, Vertical Leg	24	\$310,000.00	33.44
28	Wellmans Road West Bridge	CR-19 Wellmans Road	Rigid Frame, Vertical Leg	75.3	\$810,000.00	73.04
29	Springbrook Road Bridge	Springbrook Road	Box Beams of Girders	132	\$1,250,000.00	66.9
30	St. Marks culvert	St. Marks Road	Rectangular Culvert	21.6	\$280,000.00	27.95
32	Wellmans Road East Bridge	CR-19 Wellmans Road	Rigid Frame, Vertical Leg	106	\$1,010,000.00	74.06



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## Bridge Images

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## Water Assets

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Column 1 Service attribute	Column 2 Community levels of service (qualitative descriptions)	Column 3 Technical levels of service (technical metrics)
Scope	<ol style="list-style-type: none"><li>1. Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal water system.</li><li>2. Description, which may include maps, of the user groups or areas of the municipality that have fire flow.</li></ol>	<ol style="list-style-type: none"><li>1. Percentage of properties connected to the municipal water system.</li><li>2. Percentage of properties where fire flow is available.</li></ol>
Reliability	Description of boil water advisories and service interruptions.	<ol style="list-style-type: none"><li>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.</li><li>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.</li></ol>

## Water Asset Images

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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"> <li>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.</li> <li>2. Description of the frequency and volume of overflows in combined sewers in the municipal wastewater system that occur in habitable areas or beaches.</li> <li>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.</li> <li>4. Description of how sanitary sewers in the municipal wastewater system are designed to be resilient to avoid events described in paragraph 3.</li> <li>5. Description of the effluent that is discharged from sewage treatment plants in the municipal wastewater system.</li> </ol>	<ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>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.</li> </ol>











## Storm Water Asset

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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.	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.

## Storm Water Asset Images

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## Spreadsheets – Road Data Collection – other assets are available at the office.

2022		Stirling-Rowdon Surface Treatment Road Evaluation								
Road Name	ID #	Location	Length (km)	Rating (Out of 5)	Road Condition	Road Condition %	Class	Comments/Improvements	Date Inspected	Cost
Wingfield Rd South	ID #3027	Hoard's Rd to Carmel Rd	2.8	2.15	POOR	41	4	High shoulders removed in 2016. Section needs to be raised in the swamp. Areas of road beyond repair and needs to be pulverized and replaced with DST layer. Pulverized swamp section of road in 2017. Signs inspected Summer 2021.	2022	\$277,346
Wingfield Rd	ID #3026	Hoard's Rd to Maple Rd	4.3	2.30	POOR	46	4	Road section is beyond repair. Needs pulverizing, ditching and high shoulders removed. DST layer is needed now. Have removed some high shoulders fall 2019. Signs inspected summer 2021.	2022	\$382,219
Wellman's Rd	ID # 3023	Stirling-Marmora Rd to Maple Rd	4.24	2.40	POOR	48	4	DST layer applied South Barnett's Rd in 2014. SST layer needed soon. Section needs to be pulverized and replaced with new DST layer. Signs inspected in summer 2021. cleaned culvert ends September 2021.	2022	\$408,284
Wellman's Rd	ID # 3024	Maple Rd to Barnett Rd	3.23	2.40	POOR	48	4	DST layer applied South Barnett's Rd in 2014. SST layer needed soon. Section needs to be pulverized and replaced with new DST layer. Signs inspected in summer 2021. Cleaned culvert ends September 2021.	2022	\$346,493
Cooke Rd	ID # 3000	Stirling-Marmora Rd to Joyce Rd	7.1	2.4	POOR	49	4	Few road base dig outs, ditching and high shoulders need to be removed. Current DST layer applied in 2013 needs a SST layer now. Signs inspected summer 2021. Hill at Robert Millers rebuilt summer 2019.	2022	\$125,745
Maple Rd	ID #3010	Wellman's Rd to Wingfield Rd	3.3	2.45	POOR	49	4	Current surface layer deteriorated past repair. Needs pulverizing, high shoulders removed, ditching to improve drainage and new DST surface layer. Section was pulverized in 2021. Signs inspected in summer 2021.	2022	\$624,184
Gospel Rd	ID #3008	Springbrook Rd W to Springbrook Rd W	4.7	2.55	POOR	51	4	Brushing completed in 2017. Road needs high shoulder removed, ditching, pulverizing and replaced with DST layer. Current layer deteriorated past repair. 3 areas have been pulverized. Signs inspected summer 2021.	2022	\$419,657
Salem Rd	ID # 3013	Stirling-Marmora Rd to Minto Rd	3.52	2.7	POOR	54	4	Few road base dig outs, ditching and high shoulders need to be removed. Current DST layer applied in 2012 needs a SST layer now. Signs inspected summer 2021. Hill at Forestall Hay barn rebuilt summer 2019.	2022	\$853,914
Salem Rd	ID # 3013	Minto Rd to Joyce Rd	3.66	2.7	POOR	54	4	Few road base dig outs, ditching and high shoulders need to be removed. Current DST layer applied in 2012 needs a SST layer now. Signs inspected summer 2021. Hill at Forestall Hay barn rebuilt summer 2019.	2022	\$117,190
Tuftsville Rd	ID #3021	Goods Rd to Baptist Church Hill	1.53	2.75	FAIR	55	4	Remove high shoulders, ditching, brushing throughout section. DST applied in 2013 needs SST layer now. Remaining needs pulverizing and DST layer. Sign inspection completed summer 2021. Pulverizing of 1.5 km's from Baptist Church to Goods Rd.	2022	\$332,246
Lake Rd	ID #3009	Stirling-Marmora Rd to Hoard's Rd	1.7	2.9	FAIR	58	4	Current DST layer applied in 2013. Three dig out areas of bad base, ditching and remove high shoulders is needed. SST layer is needed now. Signs inspected Summer 2021.	2022	\$299,215
Tuftsville Rd	ID # 3020	9 Tuftsville Rd to Goods Rd	1.5	3.10	FAIR	62	4	Remove high shoulders, ditching, brushing throughout section. DST applied in 2013 needs SST layer now. Remaining needs pulverizing and DST layer. Sign inspection completed summer 2021. Pulverizing of 1.5 km's from Baptist Church to Goods Rd.	2022	\$322,271
Wellman's Rd	ID # 3025	Barnett Rd to Hoard's Rd	1.38	3.15	FAIR	63	4	DST layer applied South Barnett's Rd in 2014. SST layer needed soon. Section needs to be pulverized and replaced with new DST layer. Signs inspected in summer 2021. Cleaned culvert ends September 2021.	2022	\$163,713
Mount Pleasant Rd	ID #3011	Stirling-Marmora Rd to Hoard's Rd	3.8	3.15	FAIR	63	4	Road section needs pulverizing and new DST layer. Current layer has deteriorated past repair. Ditching is needed to improve drainage and road base. Signs inspected summer 2021.	2022	\$262,338
Fargry Rd	ID #3006	Ridge Rd to Dead End	1.0	3.7	GOOD	74	4	Ditching and high shoulders need to be removed. Layer of DST applied in 2013. SST layer is needed now. Signs inspected summer 2021. Road is due for final SST.	2022	\$87,802
Fargry Crescent	ID #3005	Fargry Rd to dead end	0.2	3.75	GOOD	75	4	Ditching and high shoulders need to be removed. Layer of DST applied in 2013. SST layer is needed now. Signs inspected summer 2021. Road is due for final SST.	2022	\$41,480
St. Mark's Rd	ID # 3017	Stirling-Marmora Rd to Rylestone Rd	7.3	3.95	GOOD	79	4	High shoulders removed and brushing completed in 2017. Few roadbase dig outs and ditching needed. DST layer applied in 2006 needs SST layer now. Signs inspected summer 2021.	2022	\$559,505
Sutherland Rd North	ID # 3018	Green Rd to Demarest Rd	2.7	4	GOOD	80	4	DST layer applied in 2014. SST layer needed in very near future. Remove high shoulders and cold patch damages edges prior to applying lift. Signs inspected summer 2021. Road is due for SST layer.	2022	\$413,310
Sutherland Rd South	ID # 3019	Demarest Rd to Ridge Rd	0.7	4.1	GOOD	82	4	High shoulders removed in 2016. Ditching updated 2019, some culverts replaced in 2018. Road was pulverized and 4" new gravel added and DST layer was completed in 2019. Signs inspected summer 2021.	2022	\$53,351
Demarest Rd	ID # 3001	Stirling-Marmora Rd to Sutherland Rd South	1.3495	4.1	GOOD	82	4	High shoulders removed and layer of DST East of Sutherland Rd in 2017. DST West side of Sutherland Rd in 2015. Budget for SST layer in next 5 years. Signs inspected summer 2021. SST layer due now from Sutherland S to Stirling-Marmora Rd.	2022	\$223,354
Goods Rd	ID #3007	Ridge Rd to Tuftsville Rd	2.7	4.10	GOOD	82	4	High shoulders removed and layer of DST applied in 2017. Budget for SST layer in next 5 years. New shoulder material added summer 2018. Signs inspected summer 2021.	2022	\$174,135
Edward Street	ID #3003	From Legion to Demarest Road	0.74	4.25	GOOD	85	4	Surface layer is showing signs of fatigue, alligator and longitudinal cracks forming. Sidewalks beginning to shift, no curb and gutter. Requires complete reconstruction. Signs inspected summer 2021. Surface	2022	\$48,495
Evergreen Rd	ID #3004	Goods Rd to Ridge Rd	0.8	4.3	EXCELLENT	96	4	High shoulders removed and layer of DST applied in 2017. Budget for SST layer in next 5 years. Work done around bridge/ditching, high shoulders, new culverts summer 2019. Signs inspected summer 2021.	2022	\$24,575
Springbrook Rd West	ID #3016	Railroad Tracks to Trent Hills Boundary	7.5	4.65	EXCELLENT	99	4	Ditching, high shoulders removed and culverts replaced in 2017. Section pulverized and DST layer in 2018. Signs inspected summer 2021.	2022	\$337,080
Tuftsville Rd	ID #3022	Baptist Church Hill to Boundary	2.8	4.75	EXCELLENT	99	4	Road was reconstructed Summer 2020. Some sections road base repaired, all new DST and new culverts. Sign inspection 2021.	2022	\$323,620
Springbrook Rd East	ID #3015	Municipal Building to Centre Hastings Boundary	7.2	4.75	EXCELLENT	99	4	Ditching, high shoulders removed and culverts replaced in 2018. Section pulverized and DST layer in 2019. Signs inspected summer 2021.	2022	\$61,579
Demarest Rd South	ID # 3002	Sutherland Rd South to Ridge Rd	0.9505	4.85	EXCELLENT	97	4	High shoulders removed and layer of DST East of Sutherland Rd in 2017. DST West side of Sutherland Rd in 2015. Budget for SST layer in next 5 years. Signs inspected summer 2021.	2022	\$147,153
Old Marmora Rd	ID #3012	Shand Boundary to Bronson Rapid Rd	0.7	5.00	EXCELLENT	100	5	Road reconstructed Summer of 2020. Signs inspected summer 2021.	2022	\$97,595



