



Township of Frontenac Islands Asset Management Plan

Council Presentation
October 11, 2022

Introduction

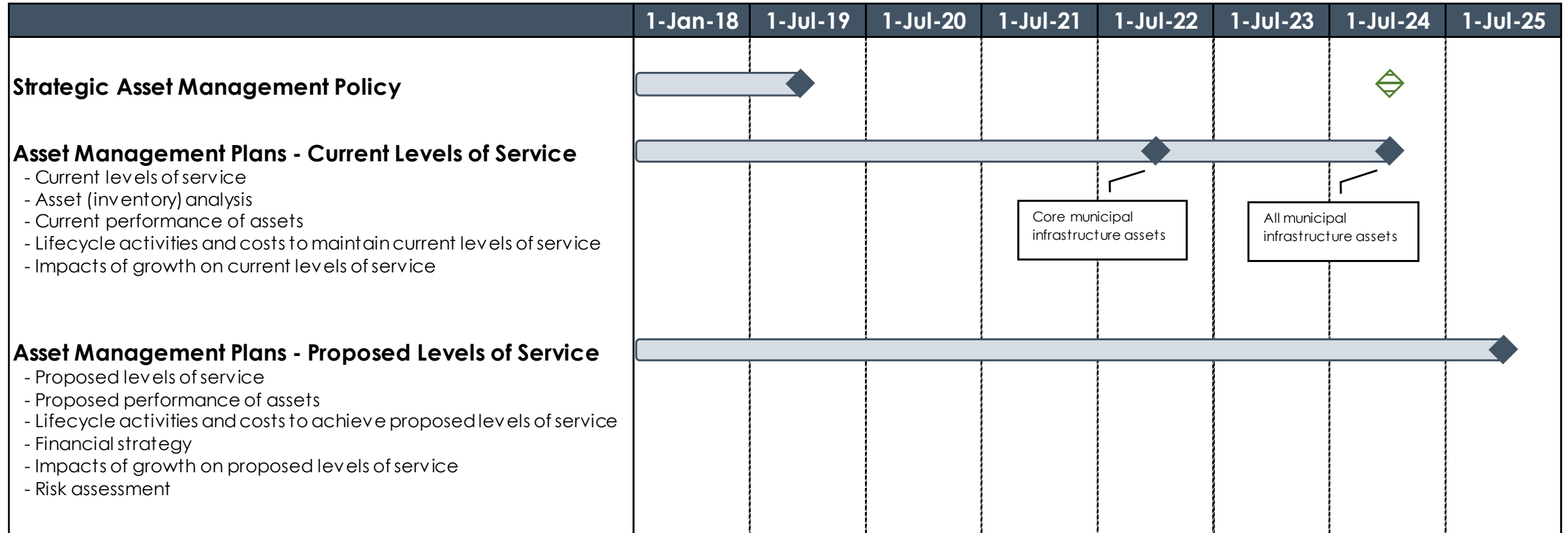
Asset Management Plan



- Watson & Associates Economists Ltd. (Watson) was retained to develop a comprehensive Asset Management Plan for the Township of Frontenac Islands (Township)
- This AMP is an intermediate step focusing on core assets. The main objective of this AMP is to bring the Township into compliance with the current requirements of O. Reg. 588/17 (July 1, 2022 requirements)

Ontario Regulation 588/17

Asset Management Planning for Municipal Infrastructure



- ◆ Deadline for completion
- ◇ Update

Asset Management Plan



2022 AMP does the following for core infrastructure assets:

- Provides summary information regarding the assets, including replacement costs and condition
- Establishes a basic Levels of Service framework that will be used by the Township as a starting point to track and report on the performance of assets
- Identifies 10-year forecast of lifecycle activities required to maintain current levels of service



Figure adapted from Federation of Canadian Municipalities: How to develop an asset management policy, strategy and governance framework

Roads

Asset Summary Information



Road Network Length (centreline-kilometres)	Average Age	Replacement Cost (2022\$)
<p>Gravel, 97.7 km, 50%</p> <p>Asphalt, 5.7 km, 3%</p> <p>Surface Treatment, 90.9 km, 47%</p> <p>194.4 kilometres</p>	<p>Asphalt 32 years</p> <p>Surface Treatment 31 years</p> <p>Gravel 38 years</p>	<p>Gravel, \$58.2 M, 45%</p> <p>Asphalt, \$6.2 M, 5%</p> <p>Surface Treatment, \$63.7 M, 50%</p> <p>\$128.1 million</p>

Roads

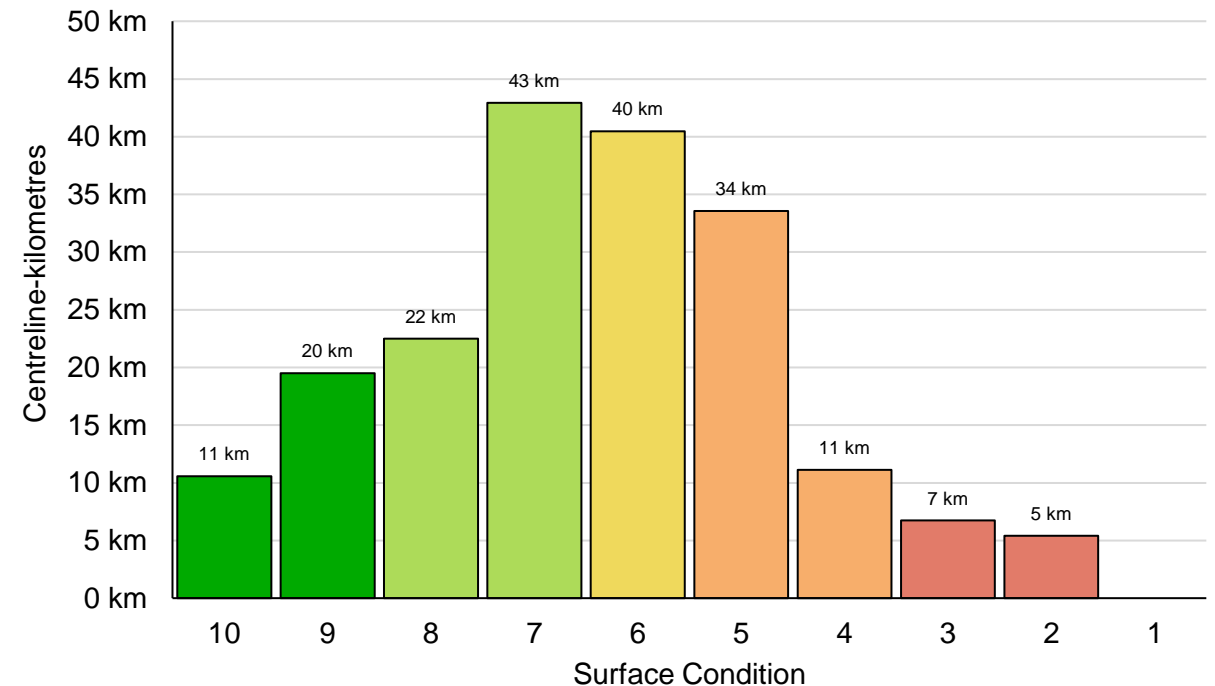
Asset Condition



Township's approach to assessing condition of roads:

- Road Needs Study completed by Jewell Engineering Inc. in 2022
- Condition assessment methodology is based on the Ontario Ministry of Transportation's Inventory Manual for Municipal Roads (1991)

Overall Distribution of Township Roads by Condition Rating



Bridges and Structural Culverts

Asset Summary Information



- The Township has three structural culverts with a total estimated replacement cost of \$1.2 million.
- The average age of the culverts is not available.

Township Bridges and Structural Culverts

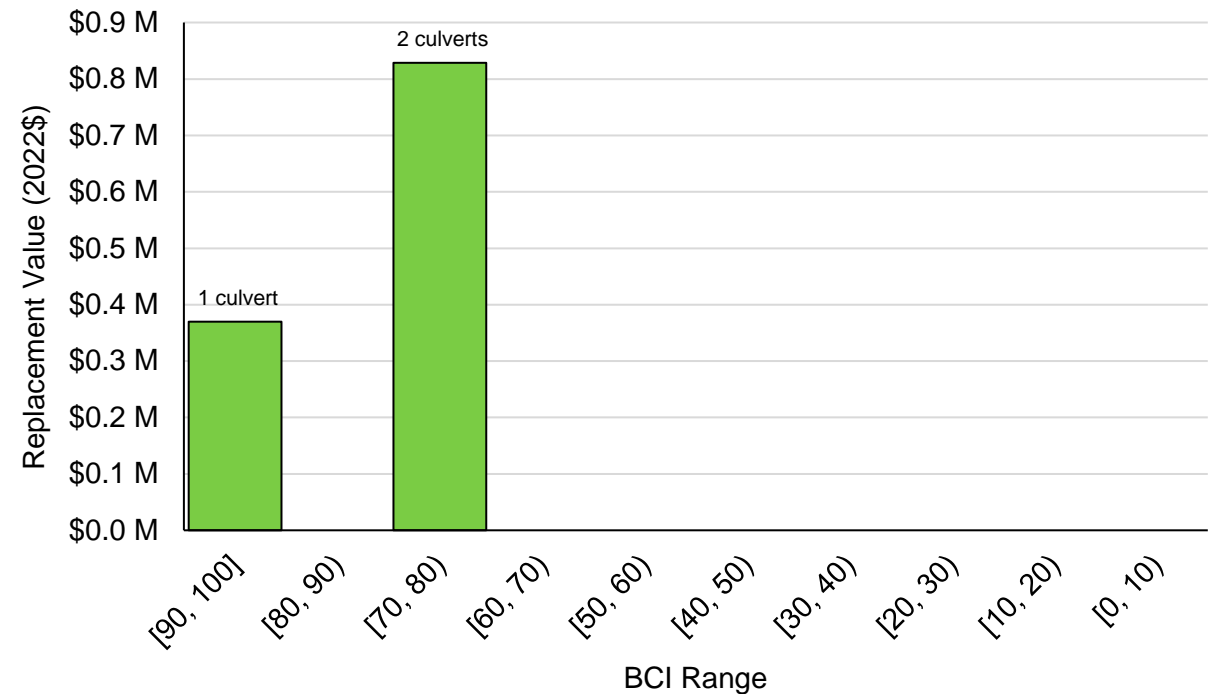
Condition



Township's approach to assessing condition of culverts:

- Biennial inspections completed in accordance with O. Reg. 104/97, following the Ontario Structure Inspection Manual (OSIM)
- Most recent assessment was completed by Jewell Engineering Inc. in 2022

Overall Distribution of Township Structural Culverts by Condition Range



Transportation Services

Levels of Service



Service Attribute	Performance Measure	2021 Performance
Scope	Number of lane-kilometres of arterial roads as a proportion of square kilometres of land area of the Township	Not Applicable
	Number of lane-kilometres of collector roads as a proportion of square kilometres of land area of the Township	1.10 lane-km/km ²
	Number of lane-kilometres of local roads as a proportion of square kilometres of land area of the Township	1.06 lane-km/km ²
	Percentage of bridges in the Township with loading or dimensional restrictions	Not Applicable
Quality	For paved roads in the Township, the average pavement condition index value.	69
	For unpaved roads in the Township, the average surface condition.	6.0
	For bridges in the Township, the average bridge condition index value	Not Applicable
	For structural culverts in the Township, the average bridge condition index value	82.4

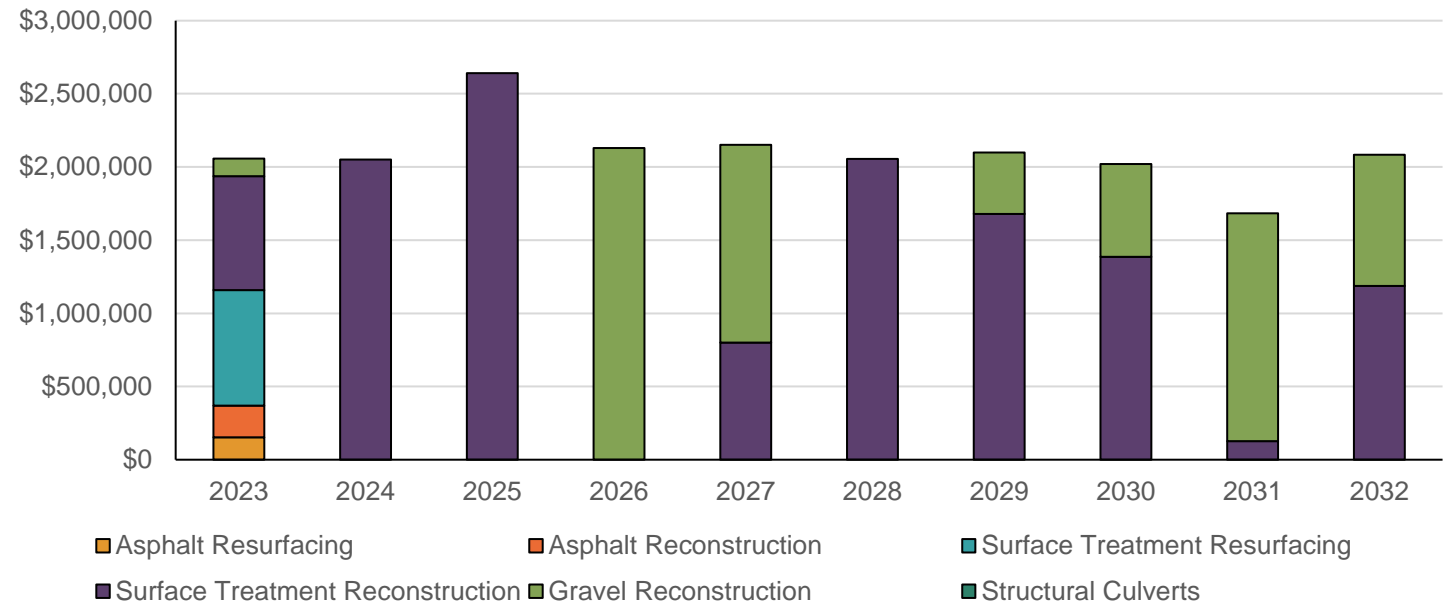
Transportation Services

Lifecycle Expenditure Forecast



10-year forecast of lifecycle activities required to maintain current levels of service

- The forecast is based on two of the Township's reports
 - 2022 Road Needs study and Condition Assessment
 - 2022 OSIM report
- Average annual expenditures over the forecast period estimated at approximately \$2,097,000



Continual Improvement



- Potential expansion of the Levels of Service framework to include additional performance measures that may be of interest to the Township
- Future expansions of the AMP to incorporate all assets (by July 1, 2024), establish level of service targets, and develop a financial strategy (by July 1, 2025)
- Annual review of asset management progress