

BUDGET COMMITTEE REQUEST:

Provide details of where the other \$2.8 million in funding is to arrive at the \$9 million total in road resurfacing funds (in addition to the \$6.2 million road resurfacing program)?

RECOMMENDATIONS:

- That the information be received.

KEY FACTS:

- The established service level objective is to maintain a minimum average network Pavement Quality Index (PQI) of 70 and percentage of deficient roads below 10%.
- 2023 pavement condition results indicate that the average network PQI was measured to be 77.1 with the percentage of deficient roads at 8.9%. These measured results exceed the service level objective.
- In 2025, \$2.8 million in road resurfacing is to be completed as part of existing road reconstruction projects budgeted in previous years.
- In 2025, \$6.2 million is to be completed within the Road Resurfacing Program project.
- Overall, the total 2025 investment in road resurfacing is \$9 million which will maintain and slightly exceed service level objectives.
- Staff will report back to Council in 2025 with an updated budget and 10-year forecast for the Road Resurfacing Program.

COMMENTS/OPTIONS:

Since 1997, the town has utilized a pavement management software system to manage the condition of its road pavement network. This software models, analyzes, and prioritizes all road pavement sections within the town based on measured pavement condition data that is collected on a regular basis. This pavement management system provides the ability to model existing and predicted pavement deteriorations and was adopted by the town and surrounding municipalities to ensure consistency.

In October and November 2019, Council considered two reports regarding pavement network performance levels. As a result of these reports, a service level was established to maintain a minimum average network PQI of 70, subject to holding the percentage of deficient roads at 10% or lower.

Figures 1 & 2 illustrate the modelled results based on pavement condition measurements that were completed in 2017. Figure 1 illustrates the average network PQI from 2019 to 2030 and budget investment which maintains the PQI average above 70. Figure 2 illustrates the modelled percentage of deficient roads below the minimum

PQI service level objective (minimum PQI = 65 for arterials and collectors, minimum PQI= 50 for local residential).

Figure 1: Network Average Pavement Quality Index (PQI) Modelled

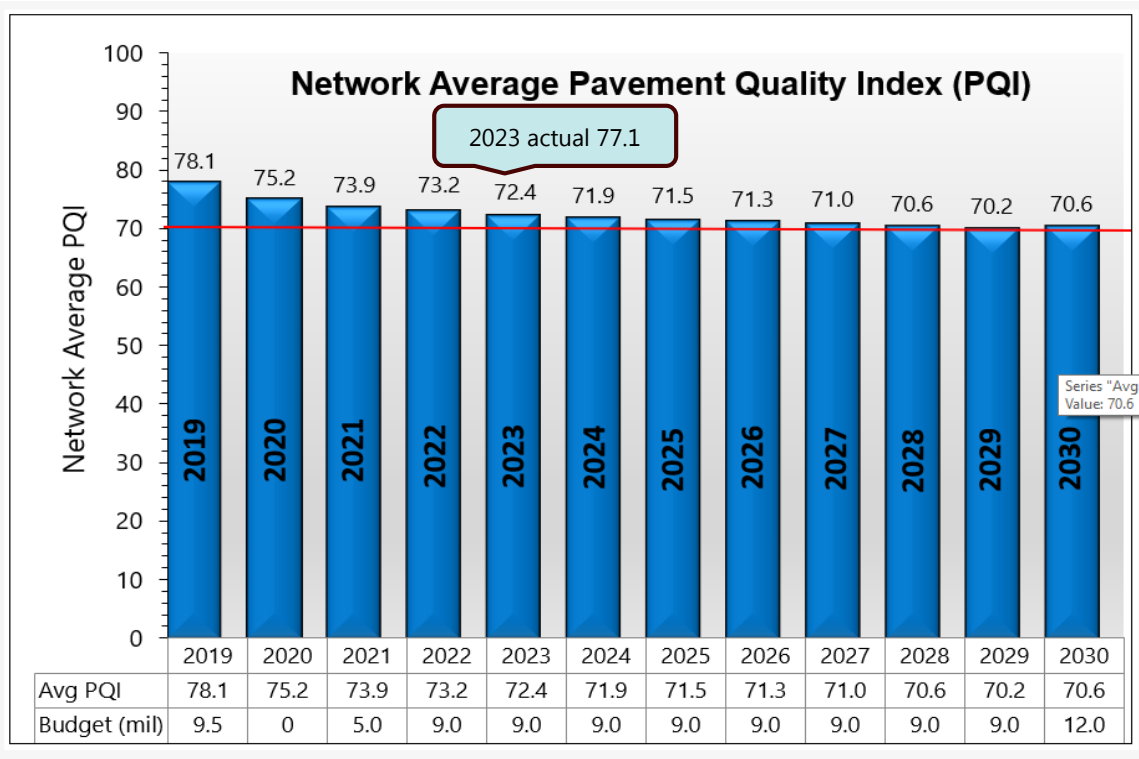


Figure 2: Percentage of Deficient Roads Modelled

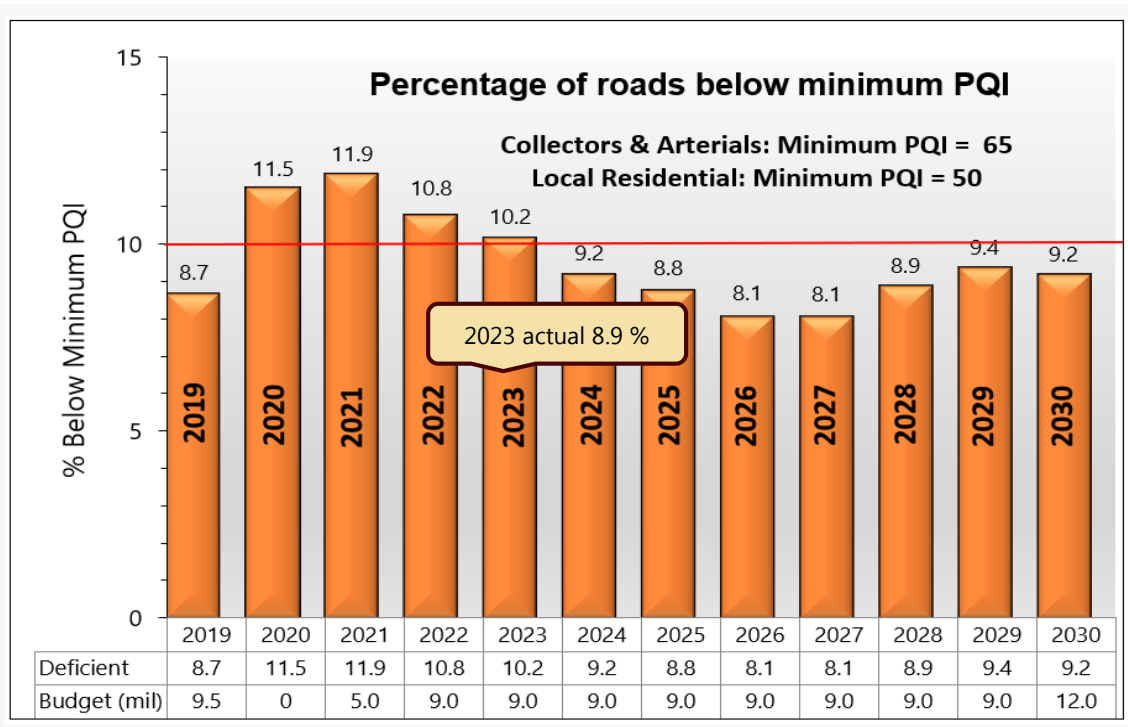


Table 1 shows the road resurfacing program budget between 2018 and 2023 which is the time between the last two sets of pavement condition measurements. The total budget for these six years was \$42.1 million, with the deferral of the program in 2020 and reduced program in 2021 due to COVID-19. The annual average budget from 2018 to 2023 was \$7.0 million.

Table 1 - Road Resurfacing Budget	
Year	Budget (\$M)
2018	9.6
2019	9.5
2020	0.0
2021	5.0
2022	9.0
2023	9.0
Total	42.1
Avg. Annual	7.0

In 2017, the average network PQI was measured to be 79.4 with future modelled results expected to decline to 72.4 by 2023 as illustrated in Figure 1. Near the end of 2023, pavement condition measurements were completed which show the actual average network PQI was 77.1, This is higher than the target of 70 and exceeds the projected expectation of 72.4 in 2023. Therefore, the average annual budget of \$7.0 million from 2018 to 2023 resulted in better performance than expected with only a slight decrease in the average network PQI from 79.4 to 77.1.

In addition, the percentage of deficient roads was lower than predicted by the model. The measured percentage of deficient roads was 8.9% in 2023 versus the model estimate of 10.2% as shown in Figure 2. Therefore, the service level objective to hold the percentage of deficient roads at 10% or lower is being met.

The pavement management software system also accounts for road resurfacing that is completed as part of capital road reconstruction projects when calculating PQI values. Table 2 lists a number of capital road reconstruction projects with road resurfacing that were originally budgeted between 2020 and 2024 and were included in the model analysis. Construction is now expected to be completed in 2025.

Table 2 - Delayed Capital Projects with Road Resurfacing		
Capital Project #	Capital Project Title	Approx. Value of Road Resurfacing
53311713	Speers Rd Widening & AT - Fourth Line to Dorval Drive	\$1,100,000
53322204	York St and Wallace Rd Reconstruction and Urbanization	\$300,000
53311006	Sixth Line Urbanization and Widening w/AT - North Park to WHP	\$1,200,000
53382102	Westminster Drive Storm Sewer - Hixon St to Lakeshore Rd	\$200,000
	Total	\$2,800,000

Given the higher measured PQI results in 2023, and that \$2.8 million of road resurfacing will be completed in 2025 as part of previously funded road reconstruction projects, the 2025 road resurfacing project budget has been reduced to \$6.2 million for 2025. This maintains an overall \$9 million investment in the road network asphalt in 2025 and will continue to maintain and slightly exceed the PQI service level objectives.

Staff are currently updating the pavement management software system and adjusting the predictive models using the most recent filed measurement data. Staff will report back to Council in 2025 with an updated budget and 10-year forecast for the Road Resurfacing Program as part of the 2026 capital budget process. The report to Council will include an updated Figure 1 and Figure 2.