



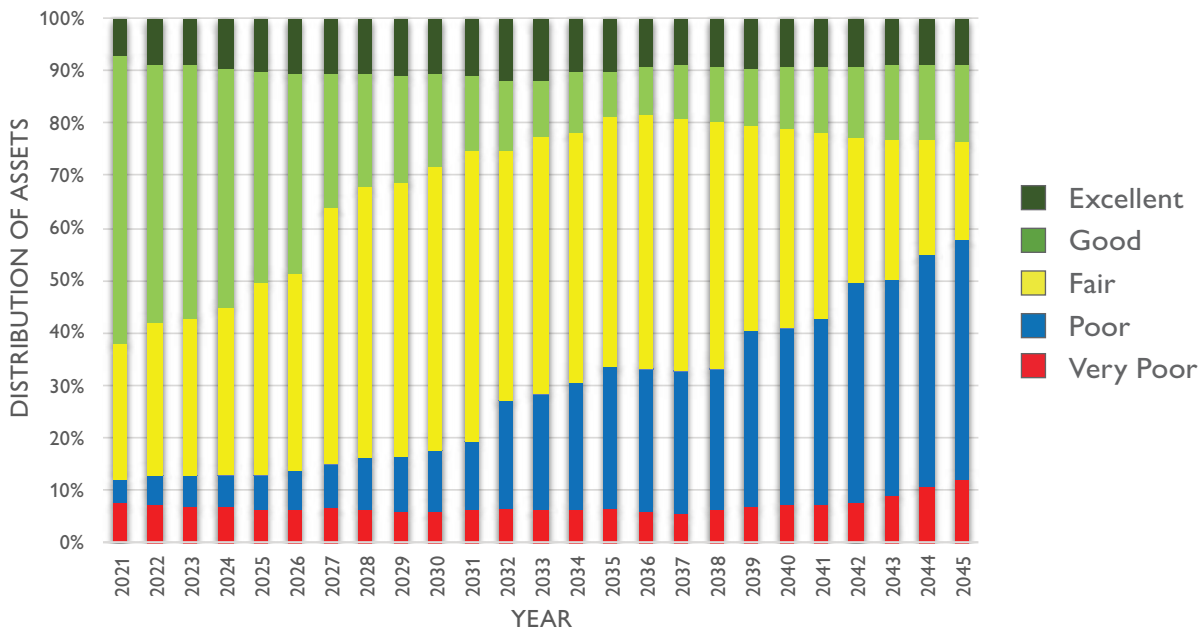
# Sanitary Collection

Total asset replacement value	<b>\$426 million</b>
Current condition	<b>GOOD</b>
Projected condition in 25 years	<b>POOR</b> ⬇️
Annual average funding	<b>\$3.7 million</b>
Annual funding needed to meet target performance	<b>\$4.2 million</b>
Annual funding gap	<b>\$500,000</b>
Funding Source	<b>Sanitary User Fees</b>
Data Maturity Level	<b>High</b>



**ASSETS INCLUDE**  
418 km of pipes  
and 6 sewage  
pumping stations

Annual performance of sanitary collection assets



## **CURRENT STRATEGY**

The city's sanitary collection assets are the sewers and pumping stations that carry wastewater away from our homes and businesses. The City of Waterloo is required to have sufficient maintenance and rehabilitation funding for this system in order to meet provincial regulations. The sanitary collection network is a user fee funded asset.

Sanitary sewers can either be rehabilitated or replaced. In Waterloo, we replace sanitary sewers that are in poor or very poor condition when other work is being done on watermains or stormwater sewers during road reconstruction. Sometimes it is possible to rehabilitate sewers, using trenchless technology without disturbing anything else, if the road and other pipes are still in good shape. The estimated service life for sanitary sewers ranges between 45 and 85 years depending on the material type (e.g. clay, PVC). Sewage pumping stations are rehabilitated on an as-needed basis, replacing or refurbishing the individual components in each facility as they reach the end of their useful life. Each component has an industry-accepted estimated service life that is combined with observations about the condition of each component during site investigations.

## **ASSET PERFORMANCE**

We evaluate the performance of our assets using asset data, a combination of historical knowledge, age, observed conditions, measurements and analytical techniques. The quality and availability of this information (also known as “asset data maturity”) is continuously improving. Updates to asset data and deterioration trends will change the projected performance of an asset. The higher the data maturity is, the greater confidence we have in our future performance projections for the asset. The maturity of our sanitary collection asset data is considered high.

Over the 25 year timeline, we anticipate the percentage of our sanitary collection network with a poor or very poor performance profile to increase from approximately 10% in 2021 to approximately 60% by 2045. Based on the best available sanitary collection asset data, deterioration rates and 2020-2029 capital funding, we estimate that sanitary collection assets have an annual infrastructure funding gap of \$500,000.

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*The information presented here is based on the best currently available data regarding asset inventory, performance and degradation curves along with funding included in the approved 2020-2022 capital budget and 2023-2029 capital forecast.*



**Sanitary  
collection assets  
with a poor  
or very poor  
performance**