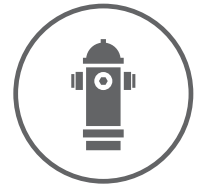




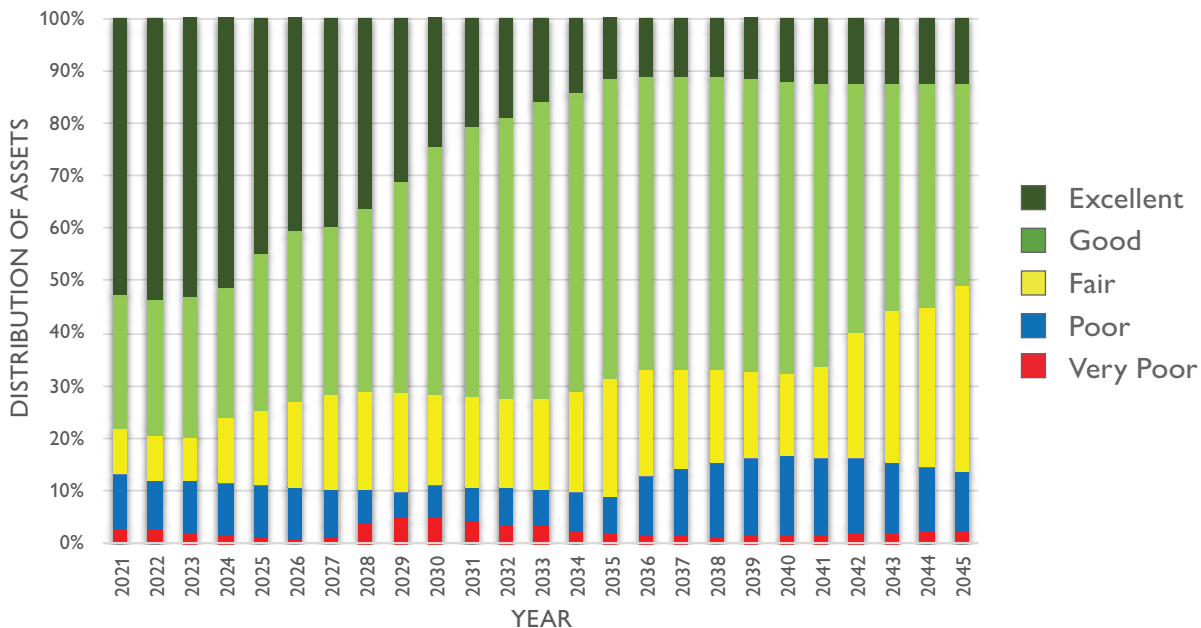
Water distribution

Total asset replacement value	\$368 million
Current condition	EXCELLENT
Projected condition in 25 years	GOOD ↓
Annual average funding	\$4.0 million
Annual funding needed to meet target performance	\$4.2 million
Annual funding gap	\$200,000
Funding Source	Water User Fees
Data Maturity Level	High



ASSETS INCLUDE
437 km of pipes
and 2,511 fire
hydrants

Annual performance of water distribution assets



CURRENT STRATEGY

The city's water distribution assets are fire hydrants, and the watermains that transport water to our homes and businesses. Water distribution is a highly regulated service and the City of Waterloo must meet strict provincial regulations and drinking water quality standards. Water distribution is a user fee funded asset.

Watermains can either be rehabilitated or replaced. In Waterloo, we replace watermains that experience a high number of breaks, or that have reached the end of their useful life. Watermain work is coordinated with other necessary replacement work on sanitary or stormwater sewers and road reconstruction. The estimated service life for watermains ranges between 45 and 85 years depending on the material type (e.g. clay, PVS) and 50 years for fire hydrants.

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 water asset data is considered high.

Over the 25 year timeline, we anticipate the percentage of our water network with an excellent performance profile to decline from approximately 50% in 2021 to around 10% by 2045. Based on the best available water asset data, deterioration rates and 2020-2029 capital funding, we estimate that water assets have an annual infrastructure funding gap of \$200,000.

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.