



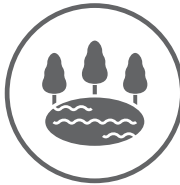
2023 ASSET MANAGEMENT REPORT CARD

Stormwater

| | |
|--|-----------------------------|
| Total asset replacement value | \$761 million |
| Current condition | FAIR |
| Projected condition in 25 years | POOR |
| Annual funding needed to meet target performance | \$17.2 million |
| Annual average funding | \$4.3 million |
| Annual funding gap | \$12.9 million |
| Funding source | Stormwater user fees |
| Data maturity level | Medium |

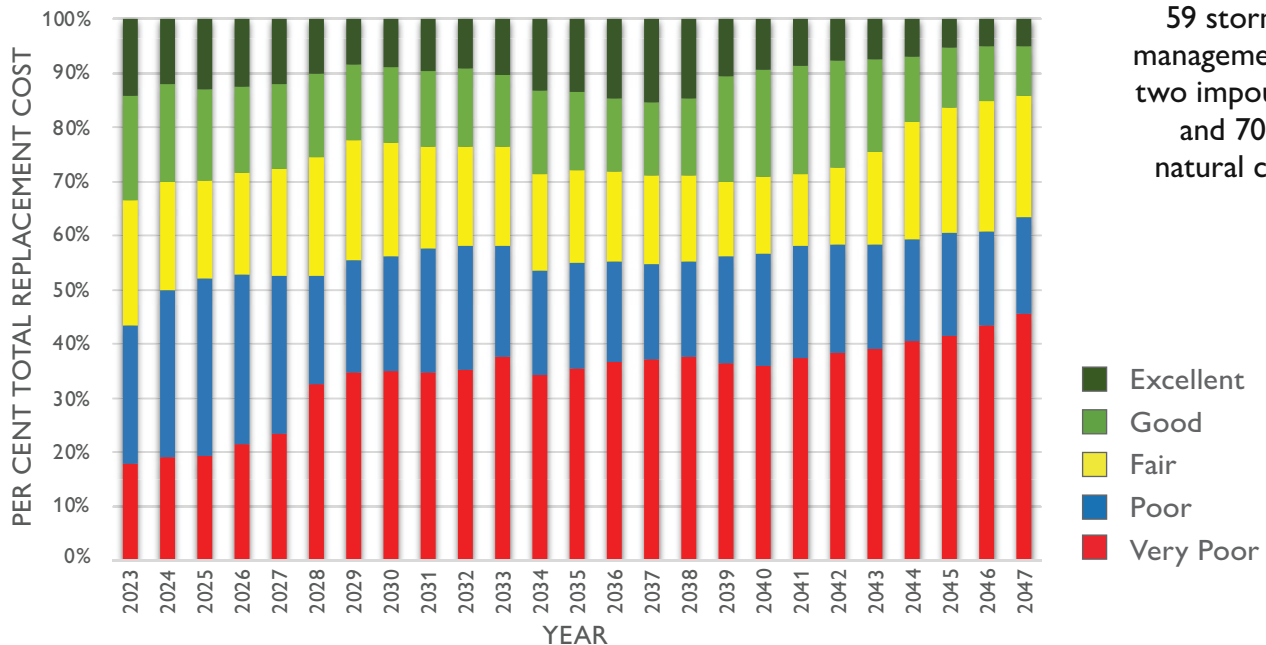


Annual funding needed: \$17.2 million



Assets include 361 km of pipes, 59 stormwater management ponds, two impoundments and 70 km of natural channels.

Annual performance of stormwater assets



- Excellent
- Good
- Fair
- Poor
- Very Poor

CURRENT STRATEGY

The City's stormwater assets are the pipes, catchbasins, ponds and creeks that collect, manage and infiltrate rain water runoff from roads and properties. The stormwater pipe collection network has 361 km of pipes with associated catchbasins and manholes. The City's stormwater management facilities include 59 stormwater management ponds and two impoundments (Silver Lake and Clair Lake). In addition, the city is responsible for 70 km of natural creek channels. The stormwater network is a user fee funded asset.

Storm sewers can either be rehabilitated or replaced. In Waterloo we replace storm sewers that are in very poor condition when other work is being done on watermains or sanitary sewers during road reconstruction. Stormwater management ponds are dredged on a routine basis to remove sediment that has accumulated, restoring the full capability to treat and control the quality and quantity of stormwater runoff. We also maintain our natural stormwater assets (creeks) in the urban environment to support adequate flow through the system, control erosion, and reduce risk to critical infrastructure.

ASSET PERFORMANCE

Stormwater asset performance is evaluated using historical knowledge, age and observed conditions. The quality and availability of our asset data (data maturity) are continuously evolving. The current data maturity level for stormwater assets is assessed to be medium. The city is continuously working to improve asset data quality.

About 44% of the stormwater assets are currently considered in poor or very poor performance. Over the 25 year timeline, with the current level of funding, we anticipate the percentage of stormwater assets with a poor or very poor performance profile to increase from approximately 44% in 2023 to approximately 64% by 2047. Based on the best available stormwater asset data, deterioration rates and 2023-2032 capital funding, we estimate that stormwater assets have an annual infrastructure funding gap of \$12.9 million.

LEVELS OF SERVICE

The following tables show the levels of service established by the City for stormwater assets. These metrics include the technical and community level of service required as part of the Ontario Regulation 588/17. Service metrics are reported for the prior year ending on December 31.



44%

Stormwater assets with a poor or very poor performance

COMMUNITY LEVELS OF SERVICE

The following table outlines the qualitative descriptions that determine the community levels of service for stormwater assets.

| SERVICE ATTRIBUTE | QUALITATIVE DESCRIPTION | 2022 |
|-------------------|---|--|
| 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. | A significant portion of the developed area within the City of Waterloo is protected from flooding either through surface or underground stormwater management infrastructure as seen in Figure 38 in the 2020 Asset Management Plan |

TECHNICAL LEVELS OF SERVICE

The following table outlines the quantitative metrics that determine the technical level of service for stormwater assets.

| SERVICE ATTRIBUTE | QUANTITATIVE METRICS | 2021 | 2022 |
|-------------------|---|-------|-------|
| Scope | Properties resilient to a 100-year storm (per cent) | 81.5% | 81.5% |
| Scope | Properties resilient to a 5-year storm (per cent) | 92.3% | 92.3% |

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