

# UTILITY SYSTEMS INFRASTRUCTURE

ANNUAL REPORT



# Report Purpose and Overview

Reports on annual inspections, maintenance, and management of the City's sanitary, water, and stormwater systems (Council's Strategic Plan, action item 8.b.1).

Provides an overview of each utility system, including:

- Asset Information
- Inspection & Maintenance Programs
- Performance Indicators
- Future Improvements to reporting

Demonstrates the resiliency of the utility systems through prudent investment in both operating and capital programs.

# Utility Network Asset Information

## Section 1

# Utility Network Asset Information



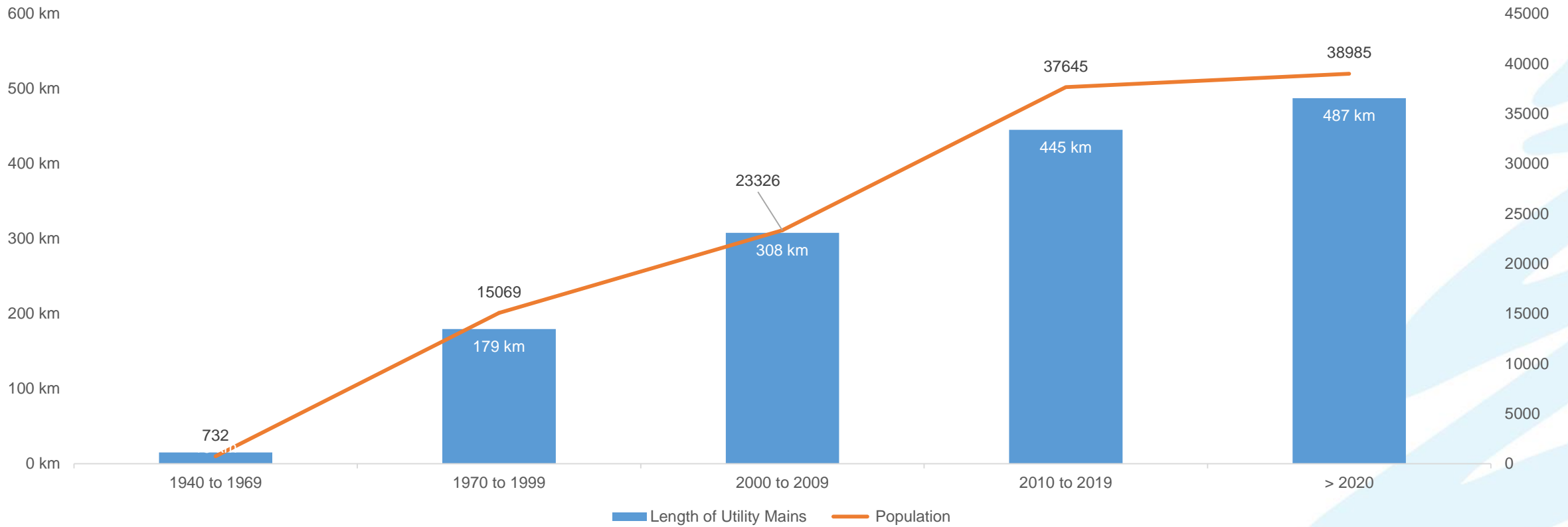
This first annual report focuses on the condition of the mains which are a key contributor and indicator of performance of the networks.

Includes:

- Water distribution system
- Sanitary system
- Stormwater system

# Growth of City & Utility Assets

Cumulative Growth of Utility Mains Length (km) vs Population Growth



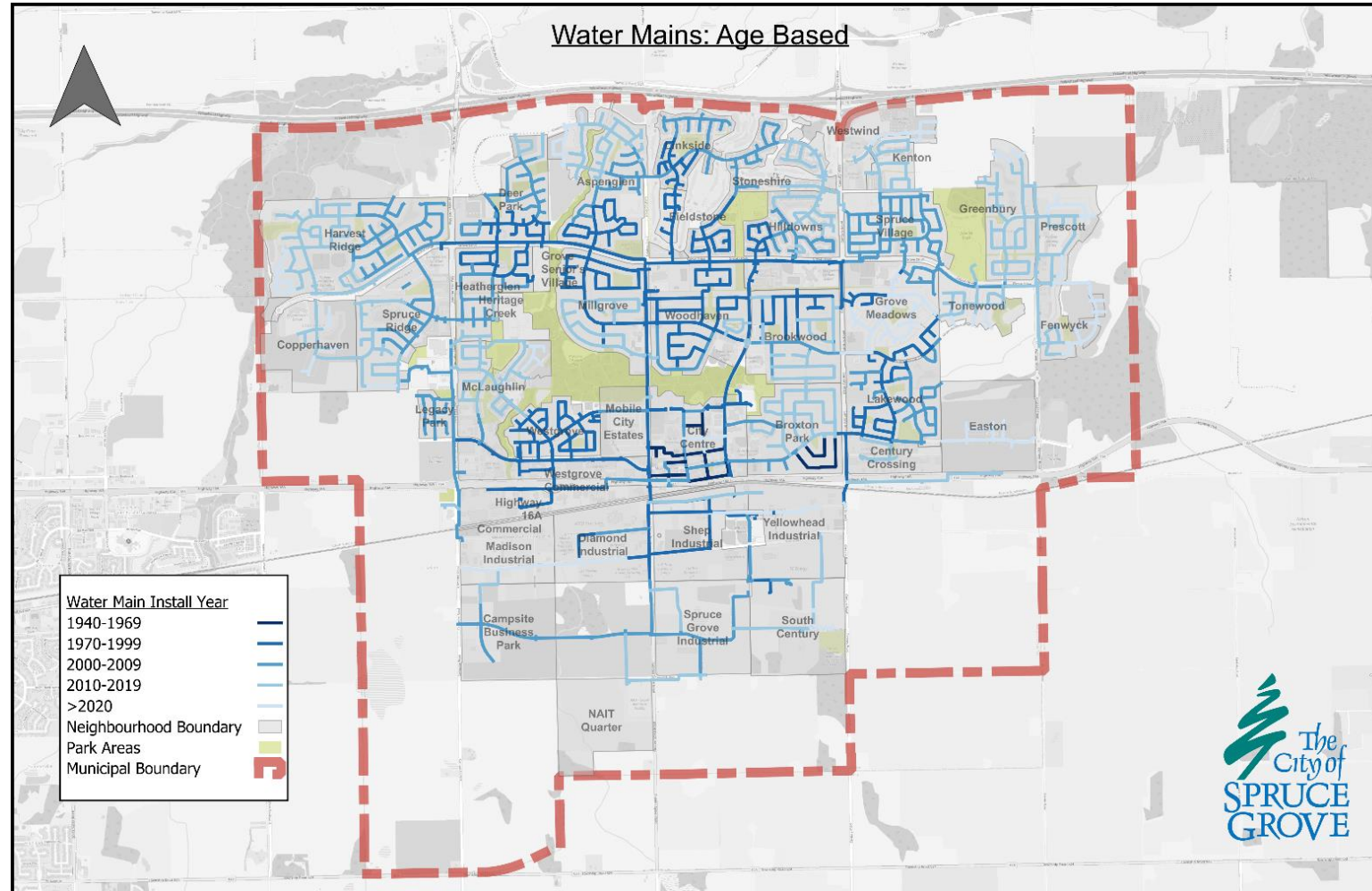
# Utility Network Assets - Inventory

Introduces demographic information on Utility Infrastructure

Gives a sense of scale and scope

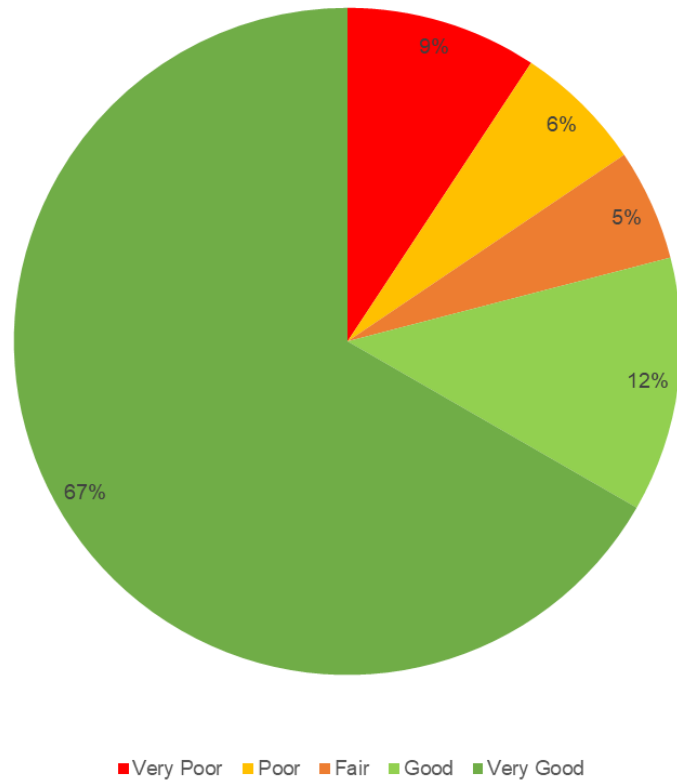
- 177 km of watermains
- 168 km of sanitary mains
- 142 km of storm mains

# Utility Network Assets - Age Grouping



# Utility Network Assets - Condition Rating

Overall Condition Rating



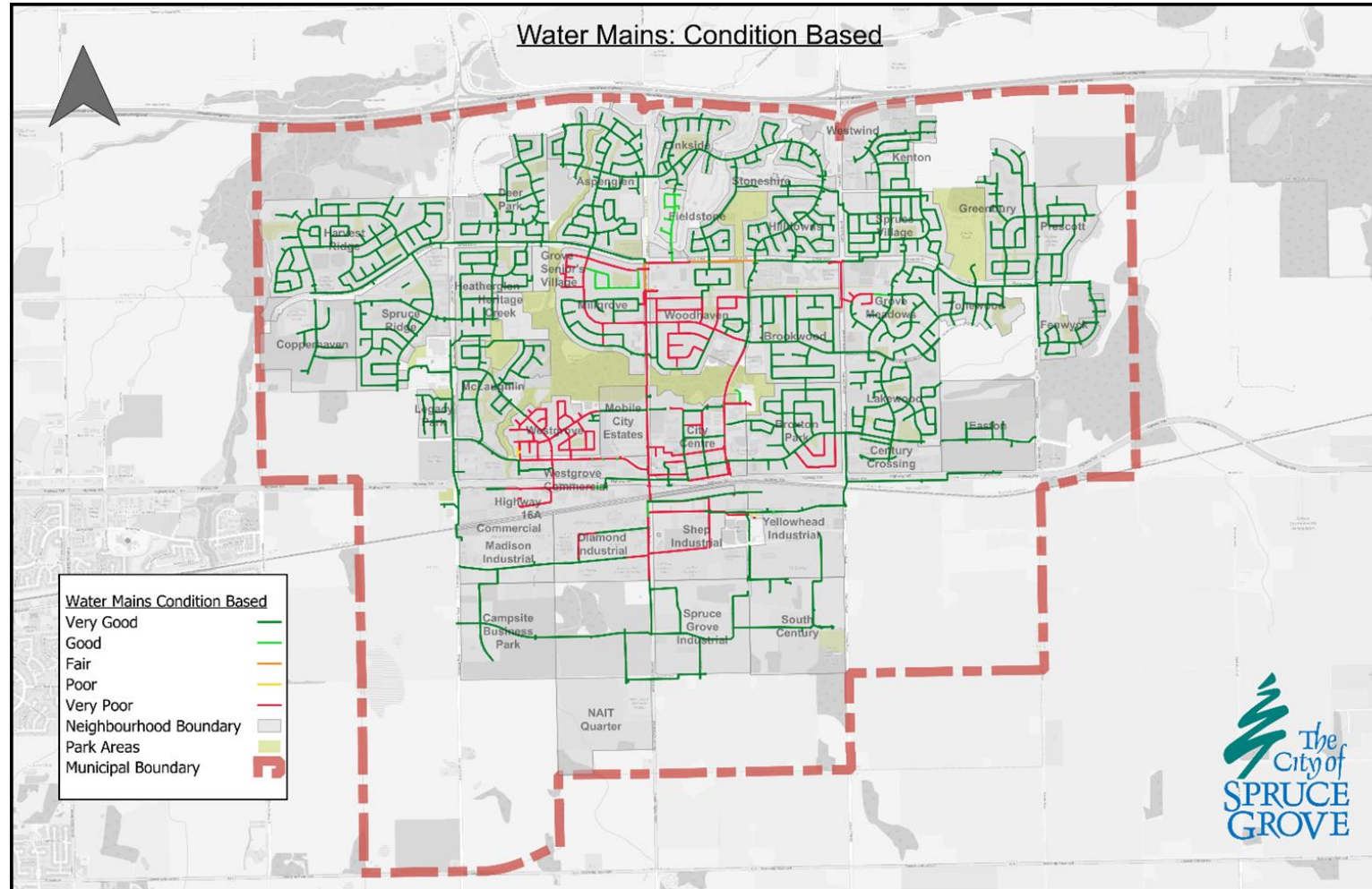
Most utility system mains are in good to very good condition

More than 50% of the City's utility mains, are less than 25 years old.

Informs lifecycle plans and continuous improvement for inspections and maintenance programs



# Utility Network Assets - Condition Grouping



# Inspection & Maintenance Programs

## Section 2

# Programs - Governance

Designed to ensure the reliable operation, safety, and efficiency of utility systems

Governed by the following policies:

- 2,016 - Water Distribution Inspection and Maintenance
- 2,015 - Sanitary Sewer system Inspection and Maintenance Policy
- 2,023 - Storm Water Maintenance Policy

# Programs - Details

Comprehensive for each utility system - More than 50 distinct programs (see Appendix B)

Key outcomes are:

- Maintaining reliability
- Quality Control / Monitoring
- Meeting environmental regulation
- Complying with regulations
- Maintaining safety
- Adhering to Best Practices

# Performance Measures

## Section 3

# Performance Indicators

## Results of Performance Indicators

- High-pressure concrete watermains in good condition
- Low unmetered water loss
- Fewer water and sanitary main breaks in last five years
- No recorded water advisories in past 10 years
- No incidents of blue-green algae blooms in stormwater management facilities in past 10 years

Overall, the City's Utility systems are performing well and show evidence that the maintenance and inspection programs are effective at maintaining good service levels.

# Future Improvements

## Section 4

# Continuous Improvement

Continuing to improve / expand asset inventory

Expand condition assessment reporting

Benchmarking

Demonstrate tie-ins to the Long-term Capital Plan



