



# City of Vancouver Waterworks Utility – Advancing Data Management

Sushmitha Karunakaran (CoV Water Design Branch)

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# Historical Context

CITY OF VANCOUVER  
WATER WORKS DEPT.

023699

Location of work: 5310 Avenue Blenheim to Balalaclava south of 10<sup>th</sup> W. AVE.

Date started: July 29, 1934

Date finished: August 9, 1934

Kind of earth: Clay

Length of pavement broken: 225 ft.

Kind and dia. of pipe: 6" D. Orange

Amount of cover: 5 ft.

Total Amount of Pipe 411 ft.

- ✓ 2.3/4" x 18 ft. 6" rods
- ✓ 1.6" spiral wire
- ✓ 2.4" Copd. H.M.
- ✓ 4.6" valves in line
- ✓ 1.6" Tee in line
- ✓ 1.6" Hydrant-Blowdown type
- ✓ 9.6" of lead
- ✓ 10. lbs of joint Packing
- ✓ 3.6" valve bands
- ✓ 2.6" H.S.S. caps
- ✓ 2.6" Copd. Plates 4.3/4" x 10" rods
- ✓ 2.6" Tee bands 4.3/4" x 2.1/2" Rod

cleared with clowm  
See 200. 112

357th AVE.

320028

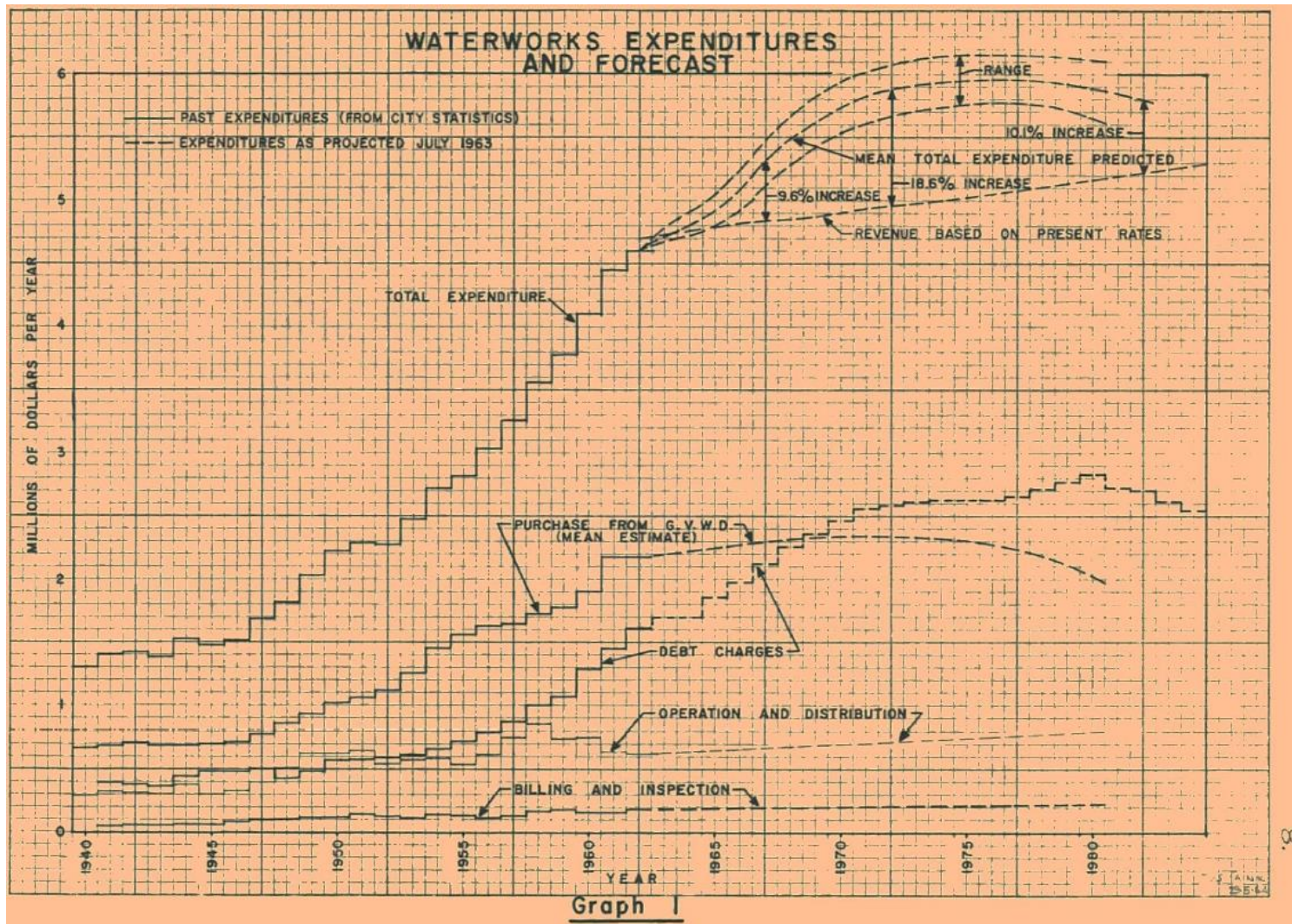
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## 1900s-1980s:

- Have data about our water assets since 1900s
- Basic maintenance history starting in 1960s
- Started establishing infrastructure management and renewal strategies in 1980s

Block plan from 1934

# Historical Context

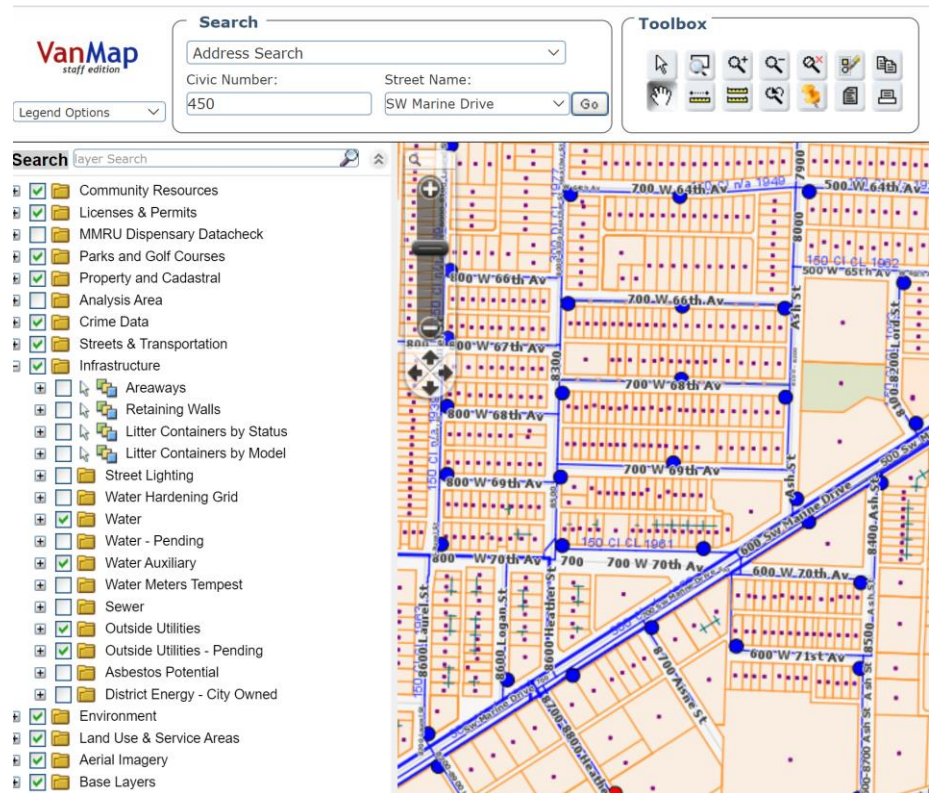


*Planning document from 1963 – staff were trying to set water rates based on future investment need*

# Historical Context

## 1990s – late 2000s

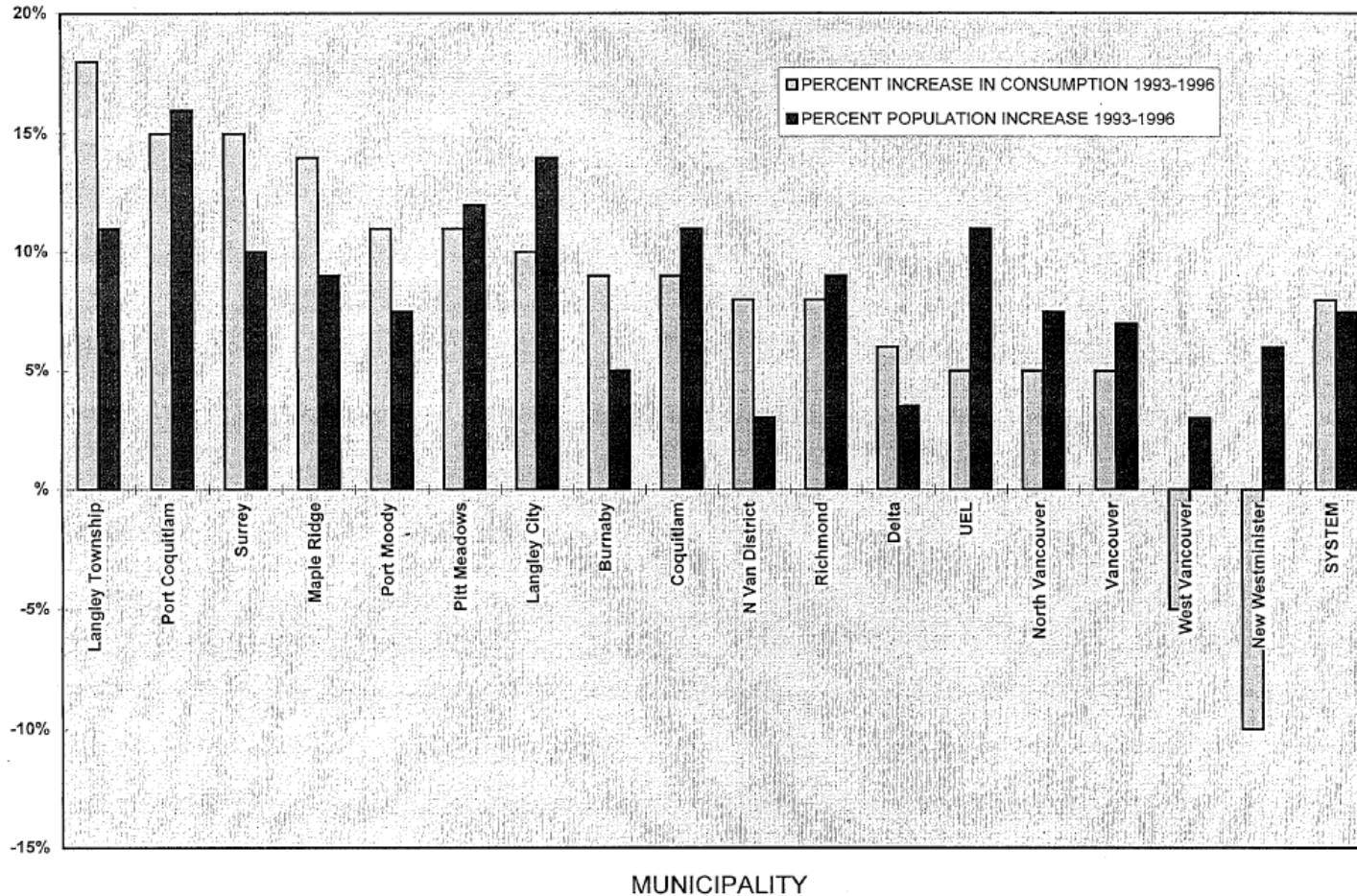
- More detailed data collection and use of GIS/CAD
- Long Range Plans in 1991 and 2006
- Conservation program first implemented in 1993



*VanMap is a spatial tool that is used by internal and external users*

# Historical Context

## Consumption/Population Increase



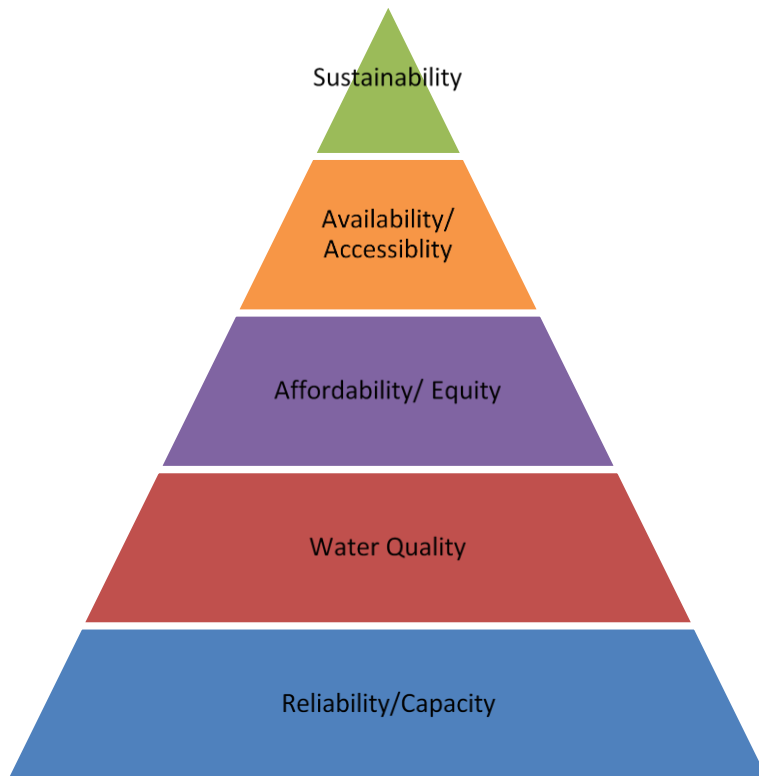
*Development of conservation strategy, better analysis of consumption data, started comparison to other Lower Mainland municipalities*

## 2010 – Present

- Evolution of technology and tools
  - Implementation of Hansen in 2010
  - Use of GIS, CAD, hydraulic models to perform geospatial analysis
- Use of standardized asset management concepts to link to Capital Planning and financial investment
- Asset Management Plan and 10-Year Capital Strategic Outlook documents

# Example: Service Line Breaks and Leaks

Delivery of potable water for domestic, commercial, and industrial use

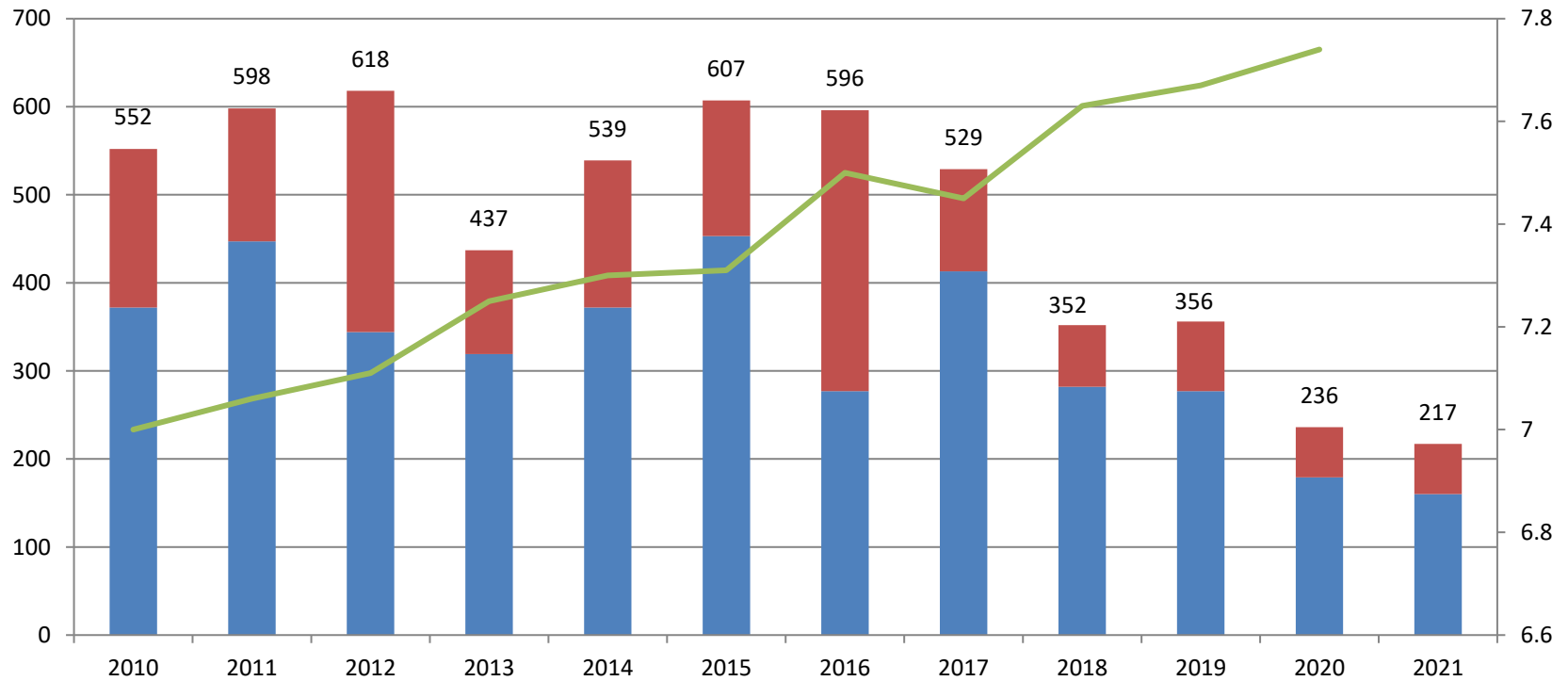


Value	Customer LOS	Technical LoS
<b>Reliability/ Capacity</b>	# of unplanned service interruptions	# of Main Breaks <b># of Service Line Breaks</b> # of inoperable valves
	# of low pressure complaints	# of properties with measured or modeled pressure <40 psi during peak hour demands

# Example: Service Line Breaks and Leaks

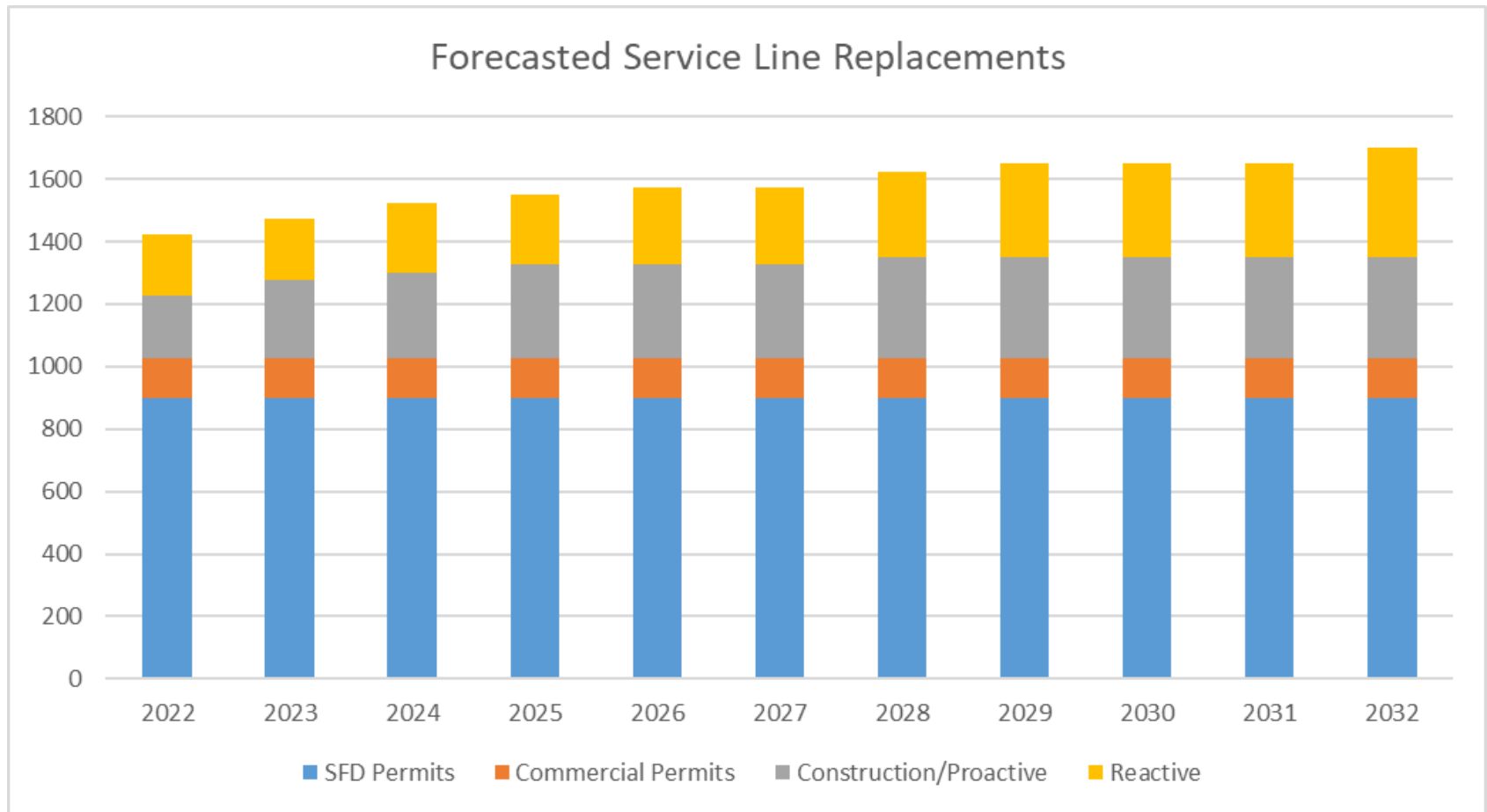
## Leaking Service Replacements and Repairs

Leaking Service Replacements    Leaking Service Repairs    City Water Avg pH





# Example: Service Line Breaks and Leaks

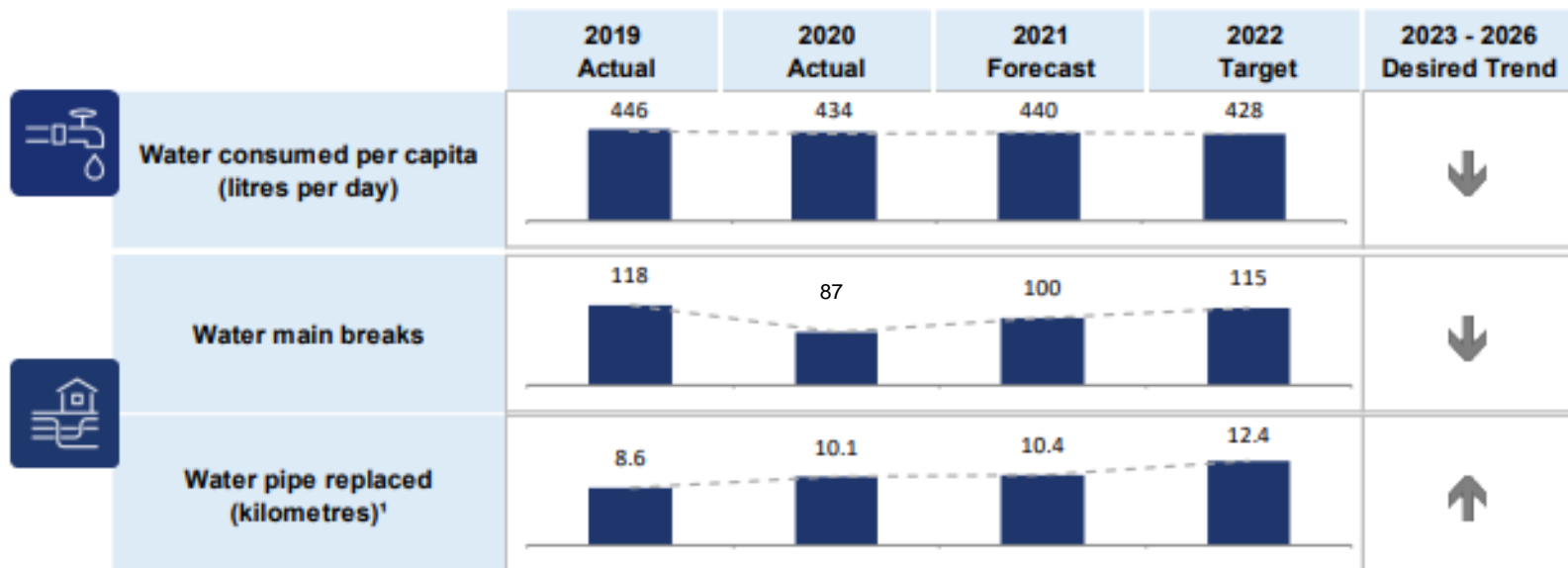


# Future Advancement of LOS



# Future Advancement of LOS

## Service plan performance metrics highlights – how we measure ourselves



<sup>1</sup> Includes both distribution and transmission size, as well as growth related projects.

# Thank You!

[Sushmitha.Karunakaran@vancouver.ca](mailto:Sushmitha.Karunakaran@vancouver.ca)

[Brandon.Hildebrandt@vancouver.ca](mailto:Brandon.Hildebrandt@vancouver.ca)

