CITY OF VANCOUVER

City of Vancouver Waterworks Utility – Advancing Data Management

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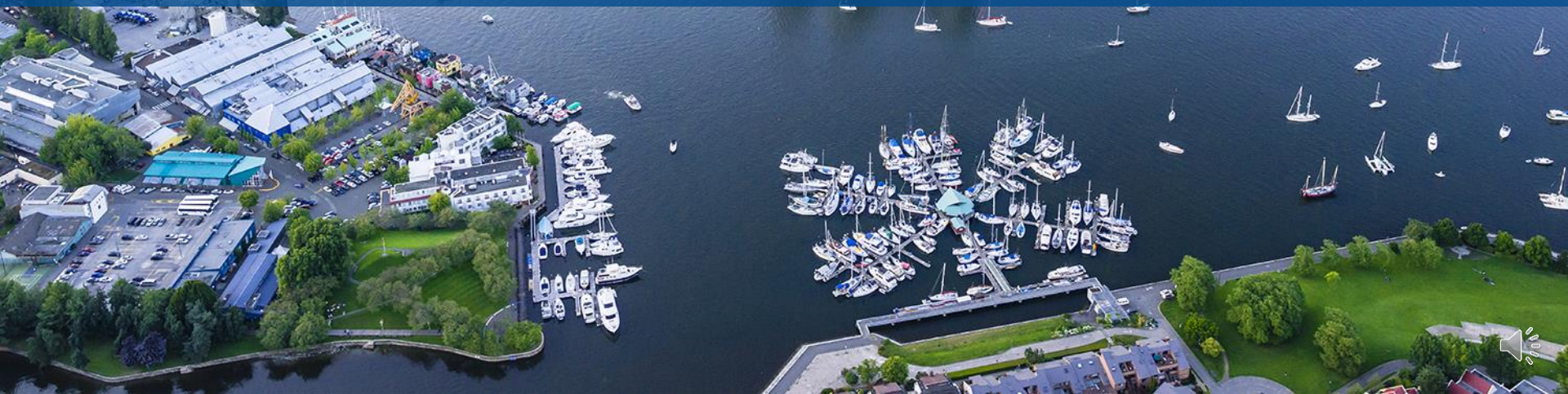
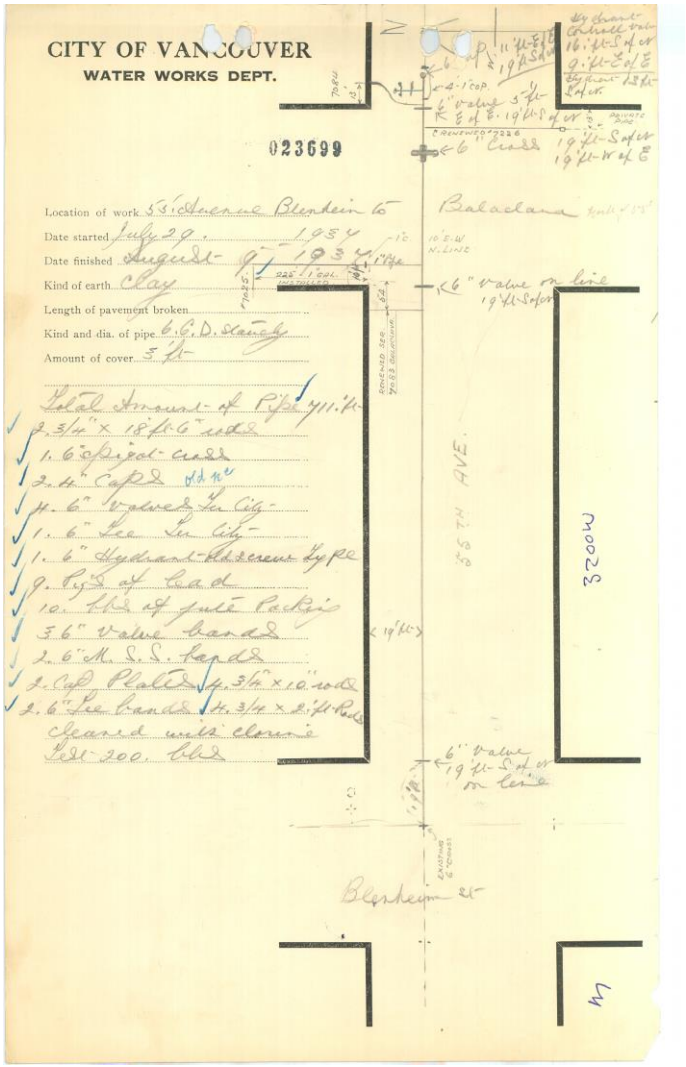
January 21, 2022



Historical Context

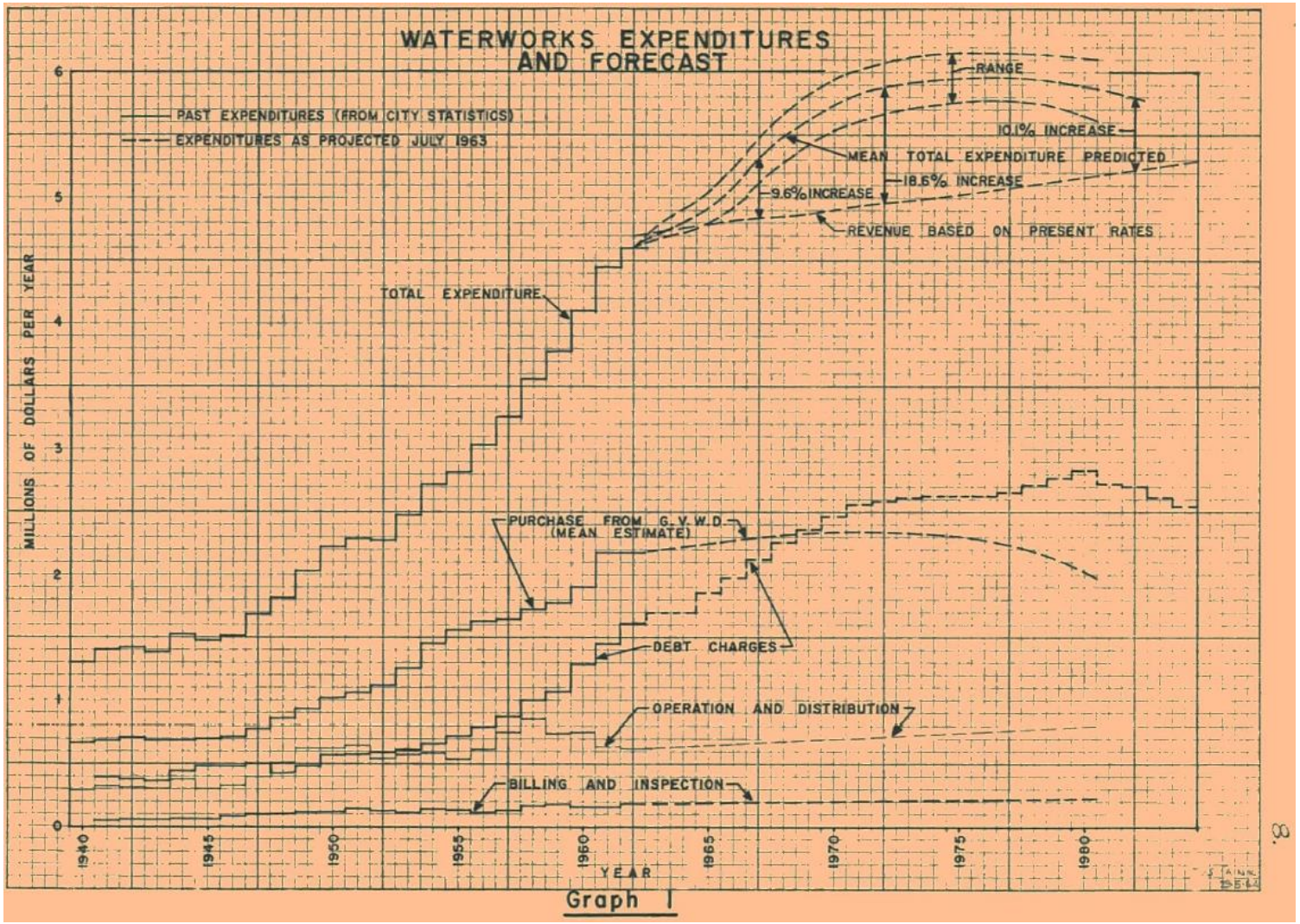


Block plan from 1934

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

Historical Context

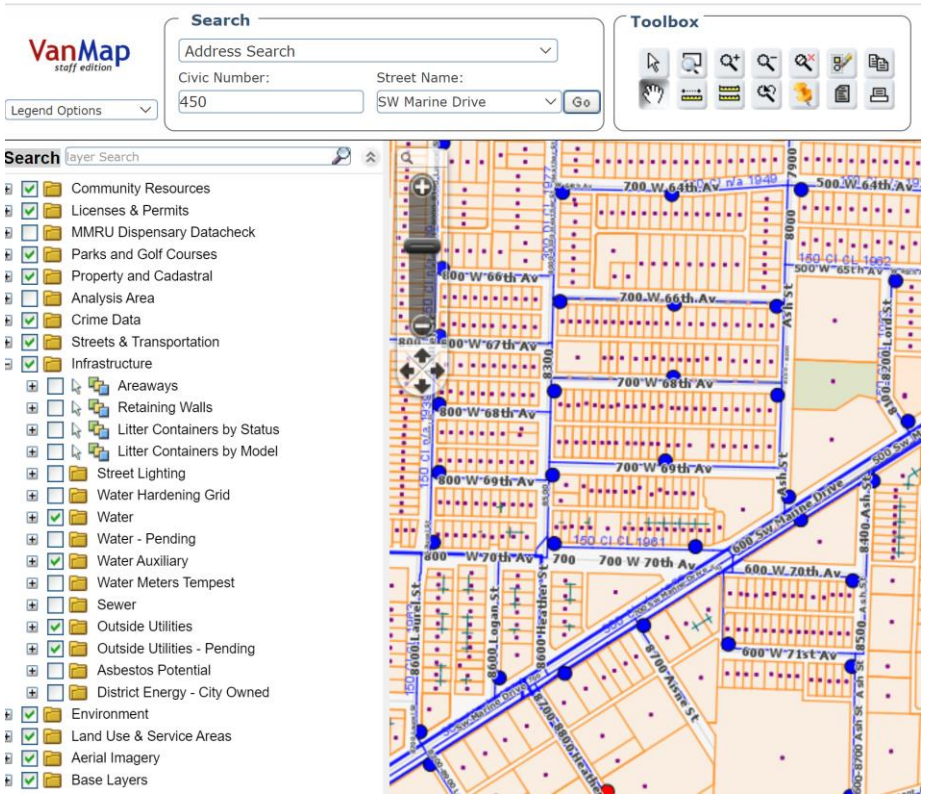


Planning document from 1963 – staff were trying to set water rates based on future investment need

Historical Context

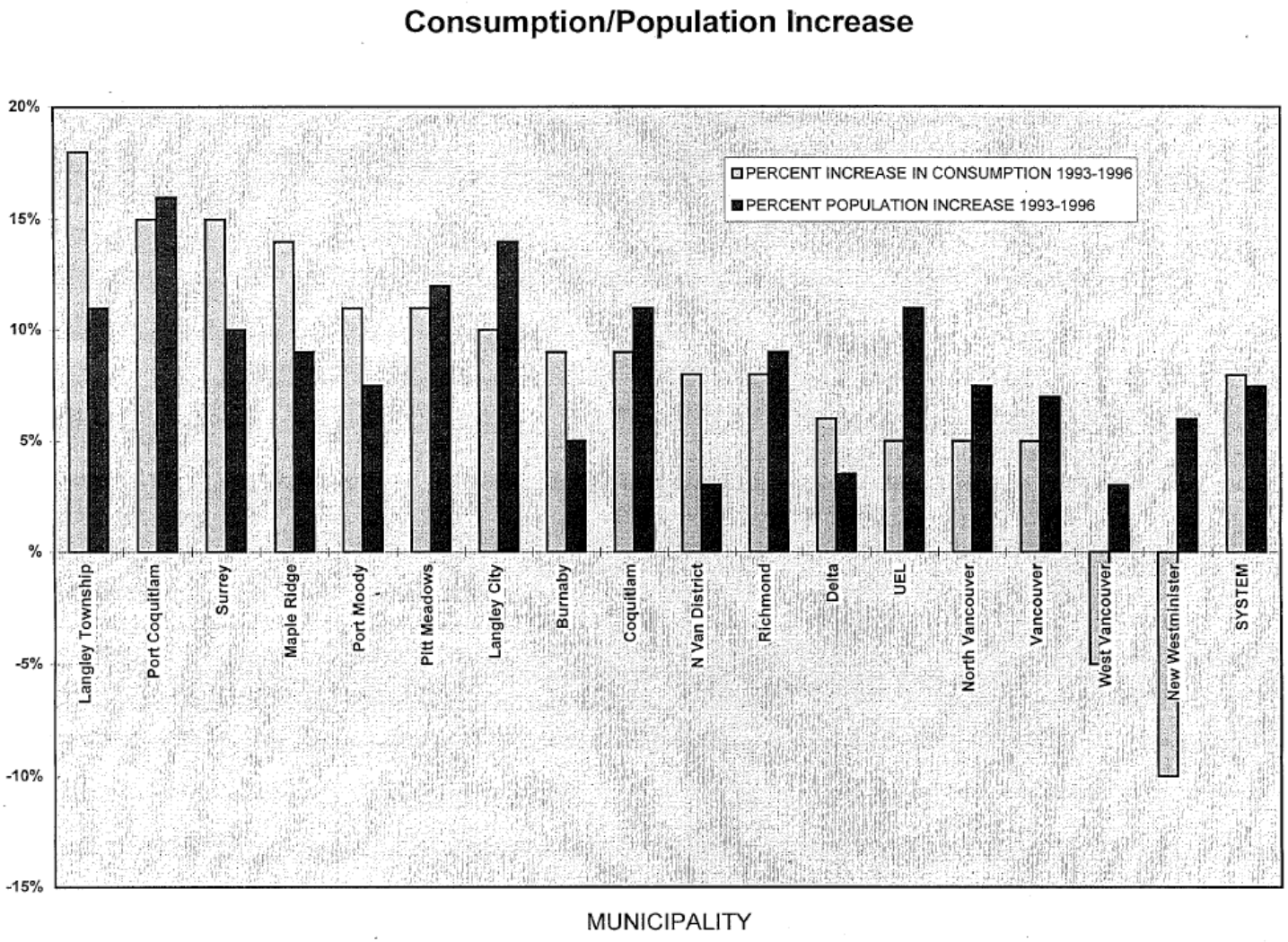
1990s – late 2000s

- 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



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

Current Practices

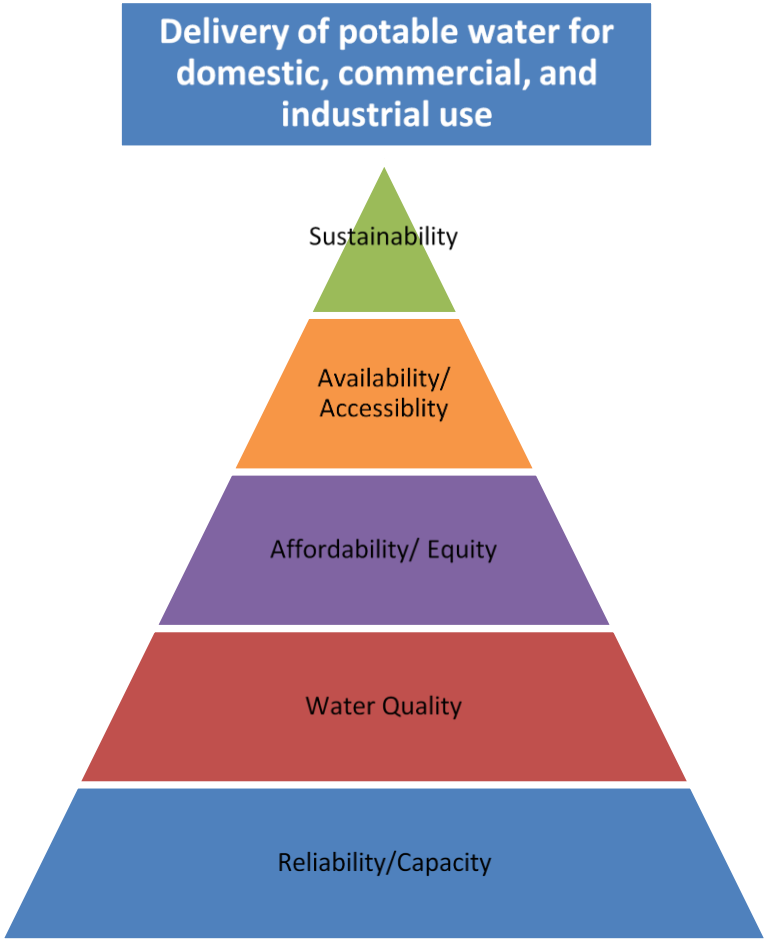
2010 – Present

- 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

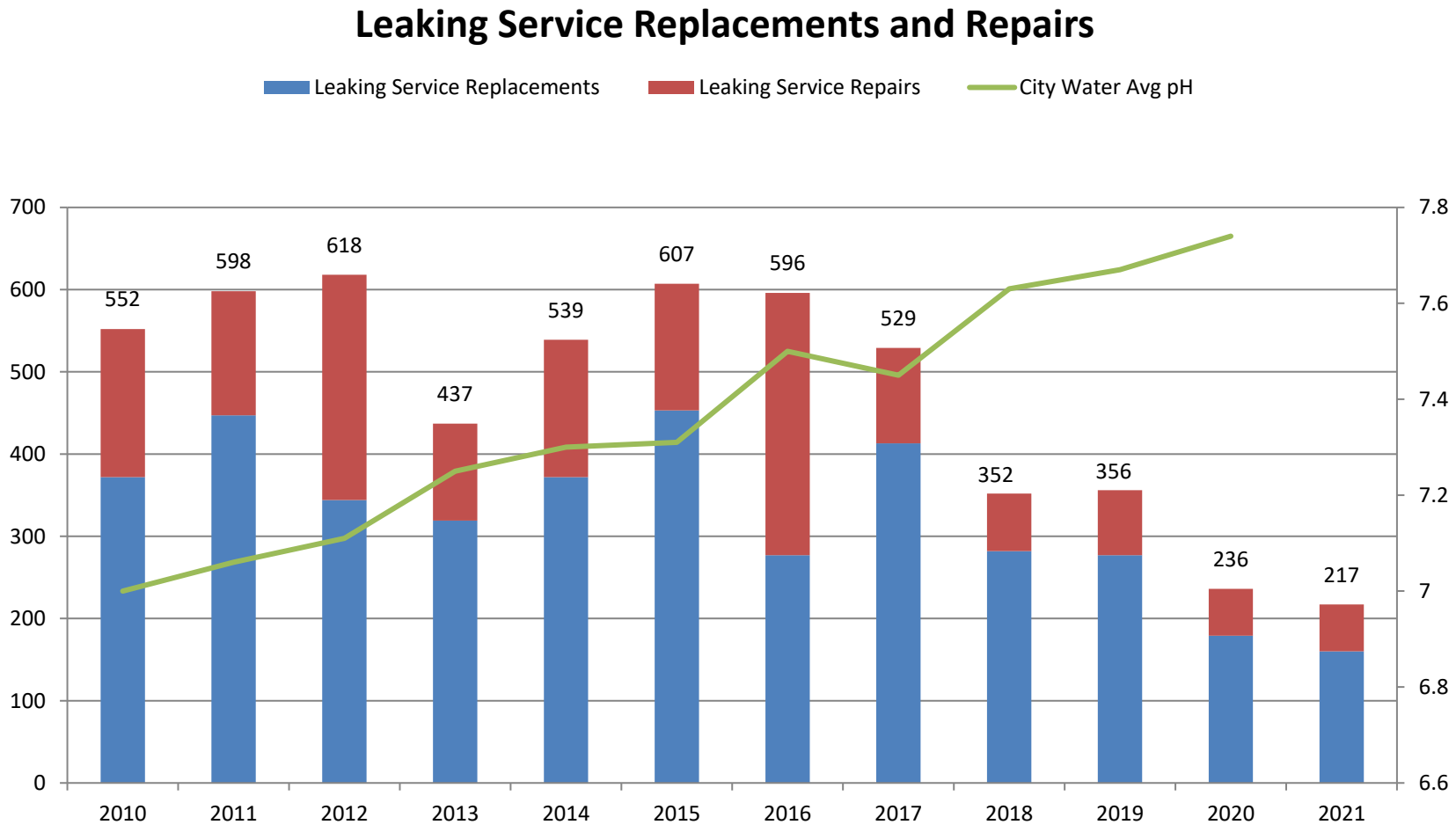
- Asset Management Plan and 10-Year Capital Strategic Outlook documents

Example: Service Line Breaks and Leaks



Value	Customer LOS	Technical LoS
Reliability/ Capacity	# of unplanned service interruptions	# of Main Breaks **# of Service Line Breaks** # 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



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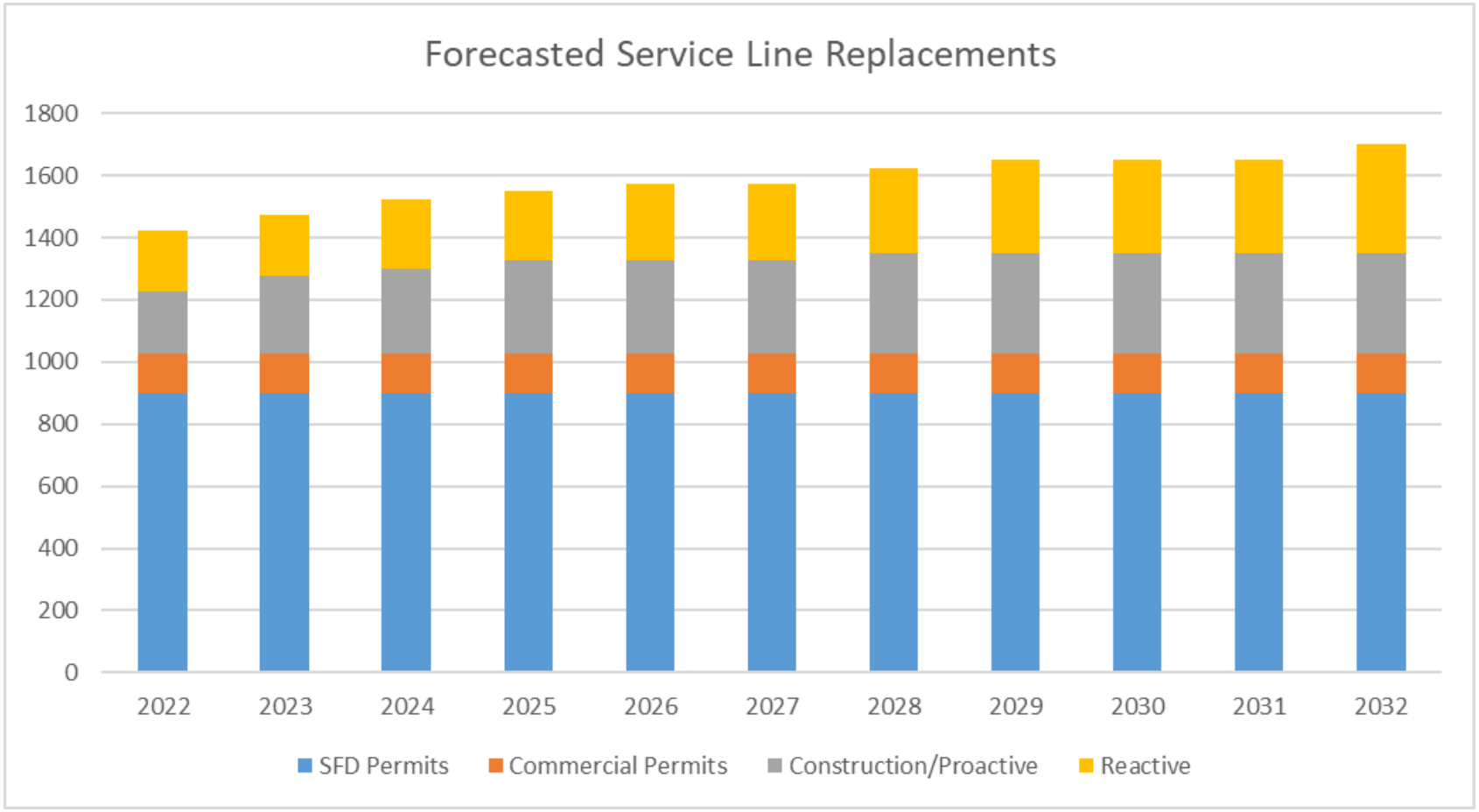
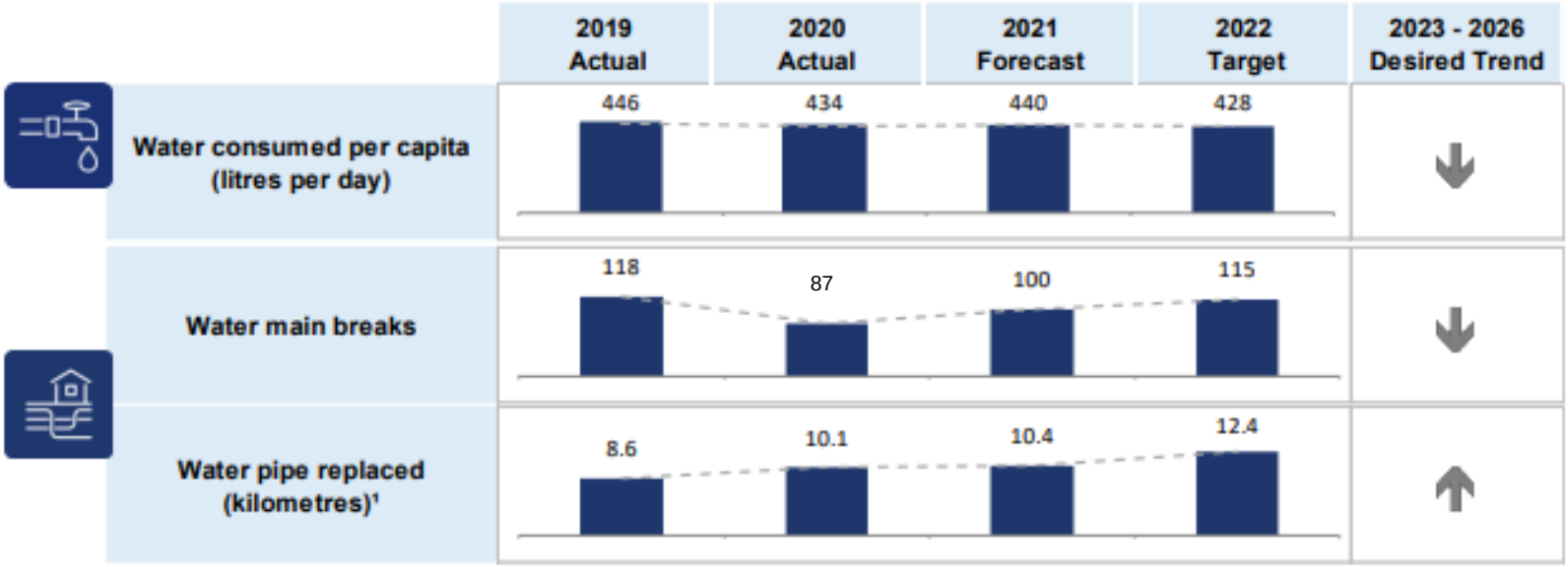


Future Advancement of LOS

Future Advancement of LOS

Service plan performance metrics highlights – how we measure ourselves



[1] Includes both distribution and transmission size, as well as growth related projects.

Thank You!

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