

Universal Water Metering Phase 3

Infrastructure Services Committee
February 21, 2019

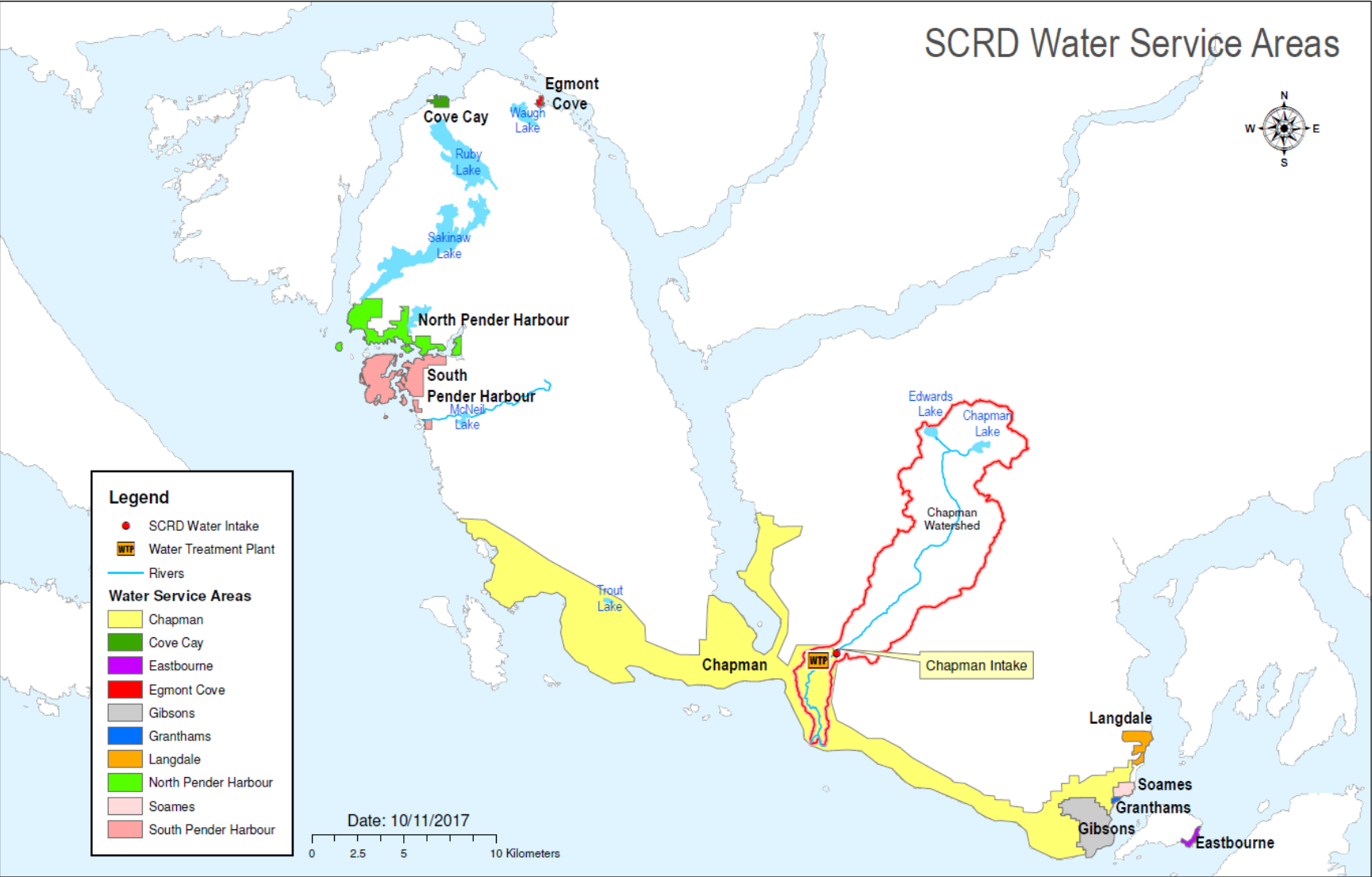


Overview

- Background
- Water conservation efforts to date
- Meter installations, incl. Phase 3
- Leak detection
- Future developments



SCRD Water Service Areas



Comprehensive Regional Water Plan

- Adopted in 2013
- Assumed 2% / year population growth
 - Actual 2011-2018: 1.38%
- Identified water supply deficit during droughts
- Strategy balances conservation and supply expansion
- Drought Management Plan



4 Projects Identified in CRWP

- **Universal Metering**
- Chapman Lake Infrastructure Improvement Project
- Groundwater Investigation
- Raw Water Reservoir(s)



Since CRWP Adoption



Fish habitat at 200L/s

- Climate Change
 - Less precipitation during summer
 - Start of fall rains less reliable
- Environmental Flow Needs
 - Provincial requirement under *Water Sustainability Act* for flows in Chapman Creek
 - 200 Litres per second
 - Furthers the water deficit by 20 to 30 days

CWRP- Conservation approach

Conservation measures to be implemented are:

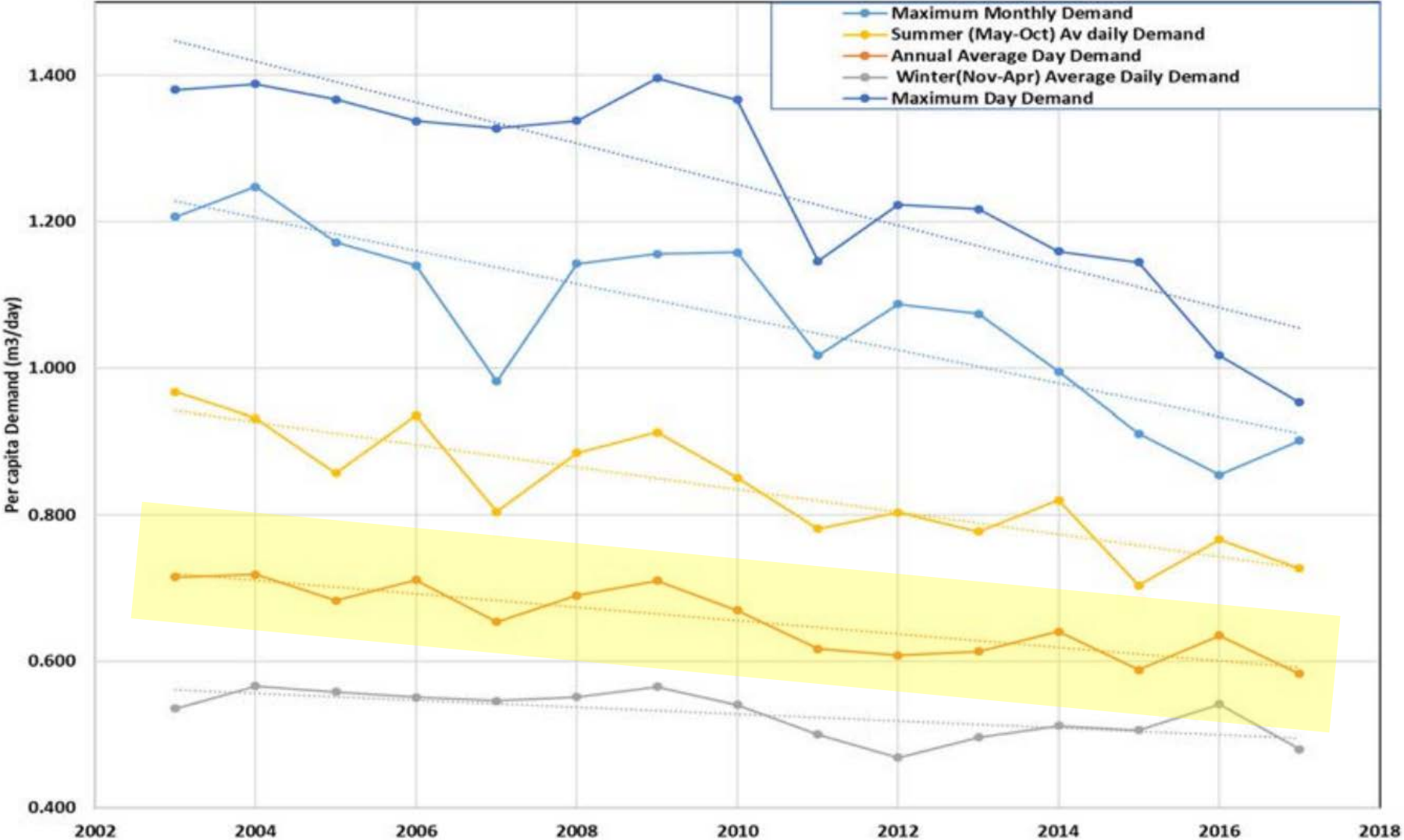
- Implementation of Universal Water Metering;
- More stringent Stage 2 and Stage 3 watering restrictions;
- Update water rates structure when universal metering is in place;
- Leak detection and repair in areas of high water consumption;
- New incentive programs such rainwater harvesting; and
- More education and public outreach programs as each of the above strategies are implemented.

These initiatives were anticipated to result in a 20% reduction in per capita consumption from 2010 levels.



13% reduction achieved in per capita use compared to 2010

- Water conservation
- Drought Management Plan



2018 Water Demand Analysis

- Insight comparing supply to demand for Chapman Creek system
- Support strategic decision making
- Compared to Comprehensive Regional Water Plan (2013) (CRWP):
 - More accurate supply and demand data
 - Increased insight in climate change impacts
 - Updated water supply policy objective
 - Environmental Flow Need requirement

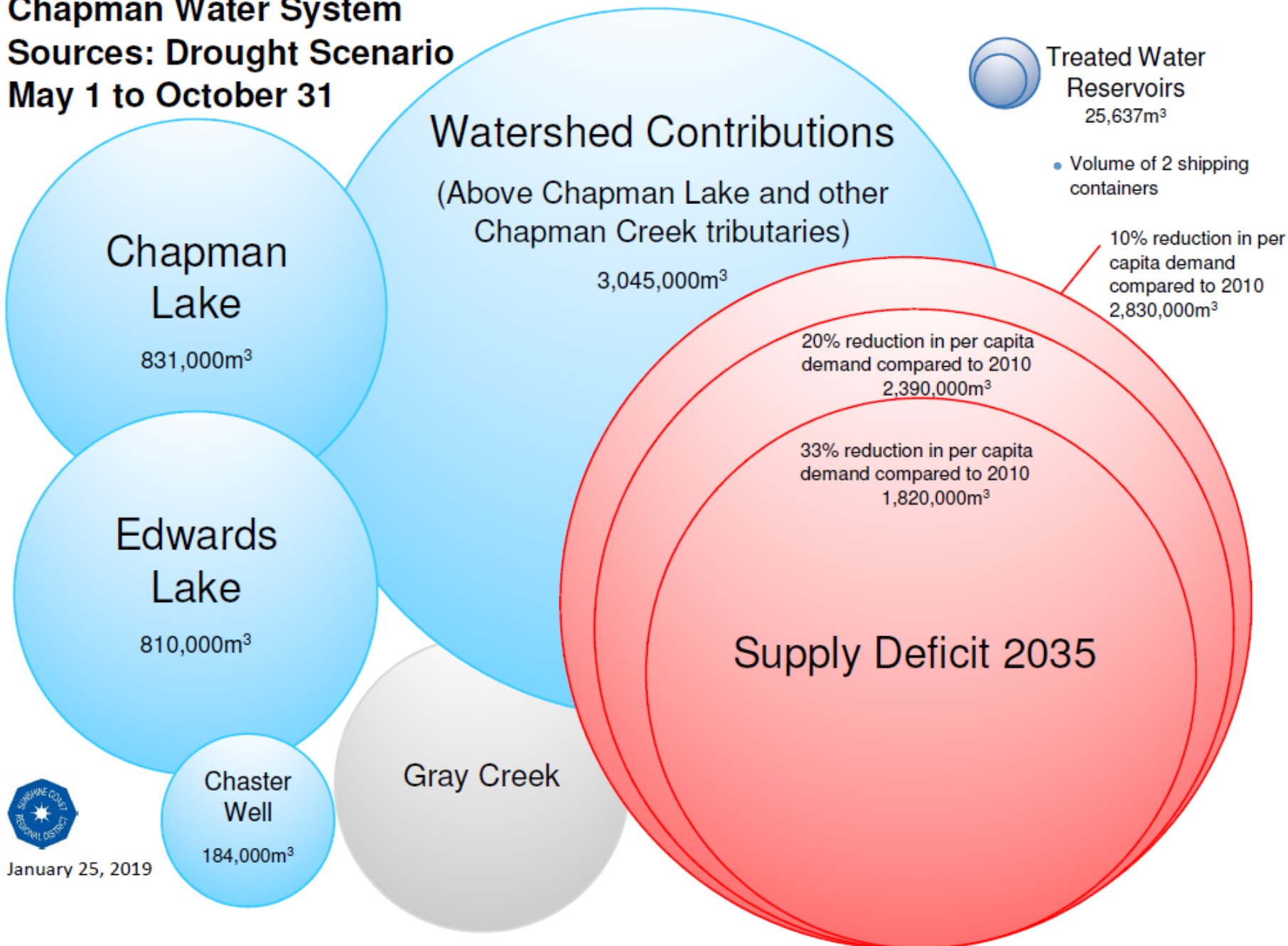


Water Supply Deficit (m³ per year)

Effectiveness of water conservation initiatives (per capita compared to 2010)	2025	2035	2050
Service Area Population	26,000	32,000	43,000
10% reduction	2,010,000	2,830,000	4,350,000
20% reduction	1,650,000	2,390,000	3,760,000
33% reduction	1,220,000	1,820,000	2,980,000



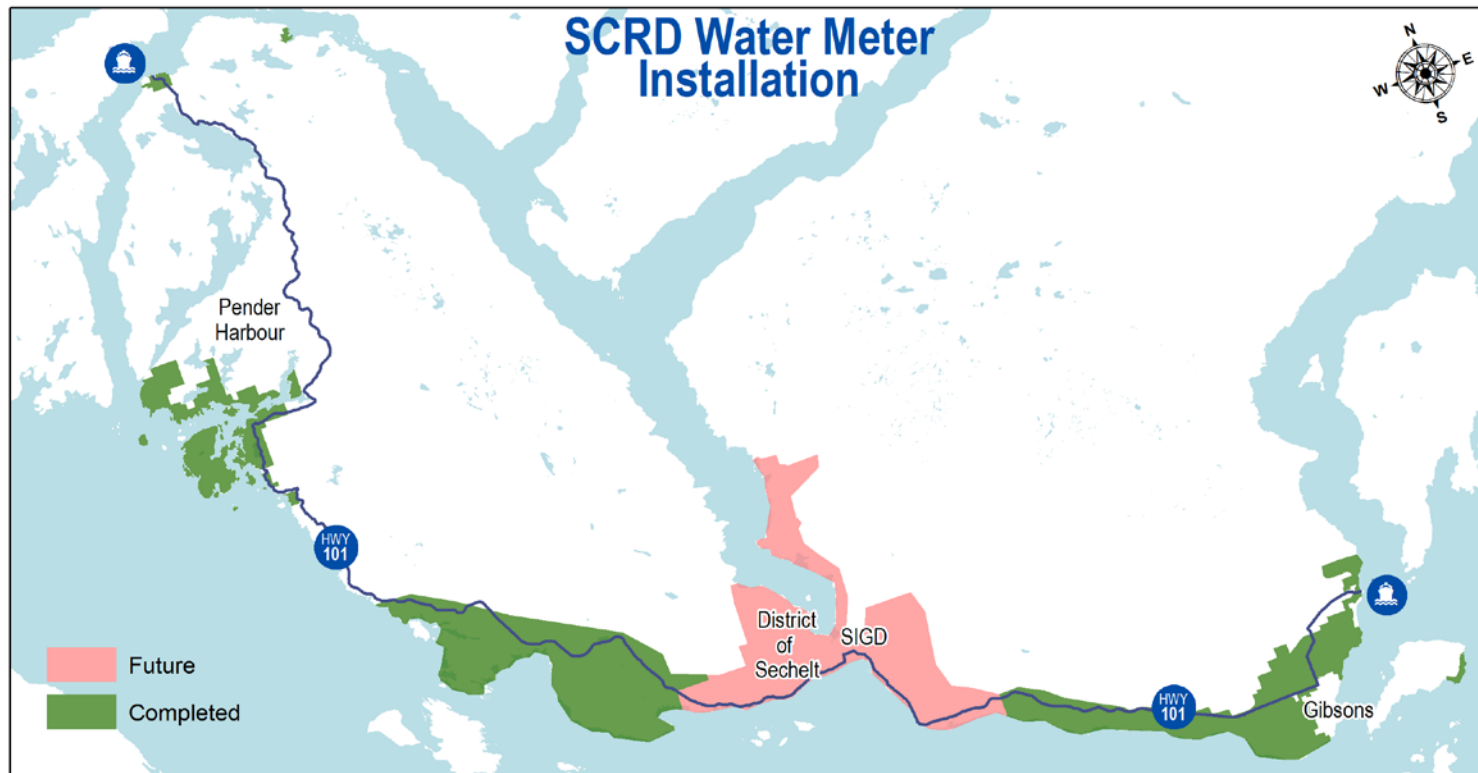
Chapman Water System Sources: Drought Scenario May 1 to October 31



January 25, 2019

Universal Water Metering - Installations

- Phase 1: North and South Pender Harbour – Completed (2015)
- Phase 2: Other Rural Electoral Areas – Completed (2017-2018)
- Phase 3: District of Sechelt / shíshálh Nation (pending)



District of Sechelt / shíshálh Nation – Phase 3

- About 5300 water services connection to be metered
- About 4800 to be installed or upgraded
- Of these, approximately:
 - 1,100 of the existing 1,600 meters are not equipped with data transmitters and will need a new radio frequency transmitter. In most cases, the meter will not need to be replaced.
 - Over 850 meter setters and meter boxes are ready for new meter installations and will not require excavation.
 - 2,850 entire new meter and meter boxes need to be installed.



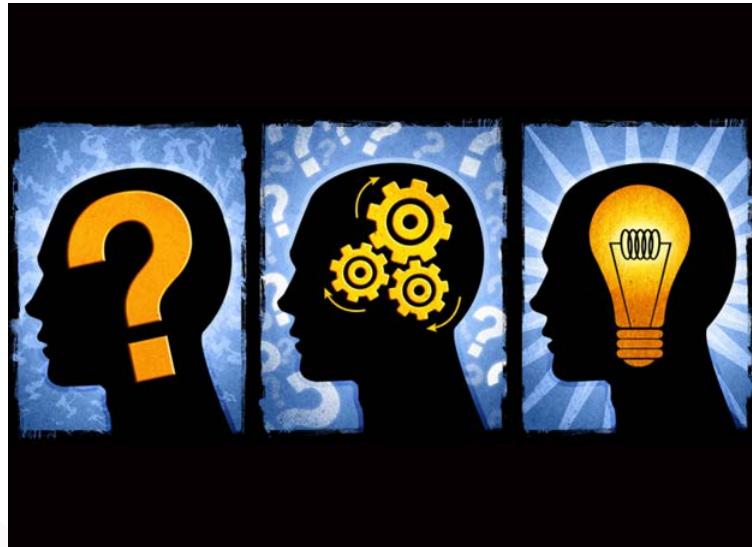
Funding attempts for Phase 3

- January, 2018 – grant application was unsuccessful
- July, 2018 – Electoral Approval for AAP was not obtained

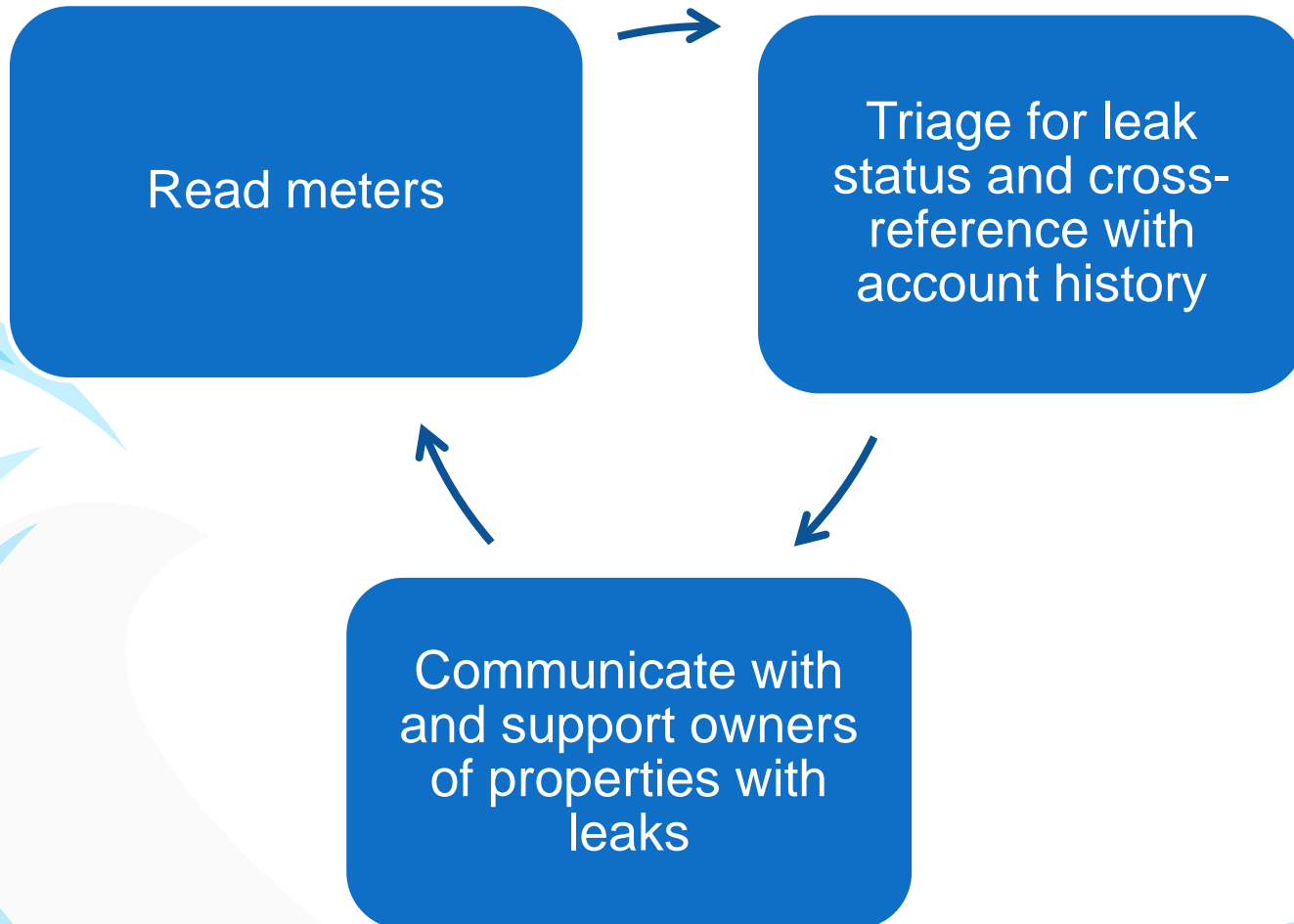


Raising Awareness

- Personalized mail out to 1,421 properties in Pender Harbour Systems with consumption trends in late 2017.
- Sharing consumption data on an as requested basis at this stage.



Private Leaks



Private Leaks

- Program Reach
 - 6,200 meters installed in Electoral Areas
 - Contributed to 1,511 leaks resolved since January 2017
 - Saving approximately 5,300,000 litres per day (not net reduction)
 - 440 active private side water leaks (Jan 2019)
- Program Impact
 - South Pender Water Service Area: 15% decrease
 - North Pender Water Service Area: 8% increase



Future developments

- Development of database management system
 - Online water consumption tool
 - Detailed analyses to support communication and policy making
- Water rate structure review

All to certain extent depended on completion installations in District of Sechelt and shíshálh Nation.



Questions?

