

Our water supply system

- Long and short-term perspectives

Council workshops

February 2021



Our water, our future.

Our Taki

He wai, he wai
He wai herenga tāngata
He wai herenga whenua
He wairua
He waiora

It is water, it is water
Water that join us
Water that necessitates the land
Soul of life
Life forever

Today's agenda



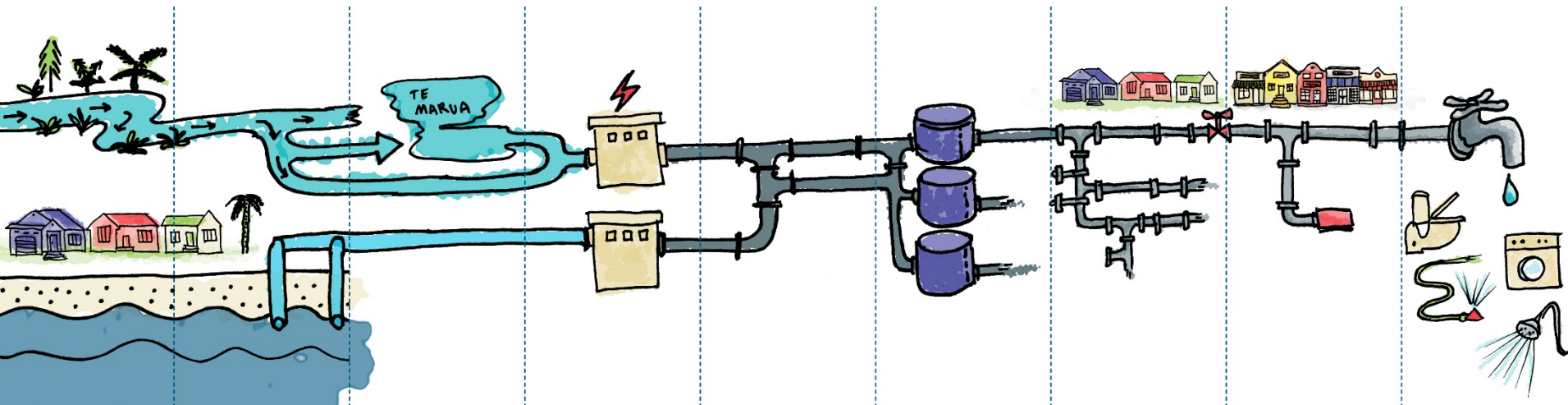
- Our water supply system, from catchment-to-tap
– long-term challenges and investment requirements
- Summer demand risk and how we are managing it
- Questions and discussion

Our water, our future

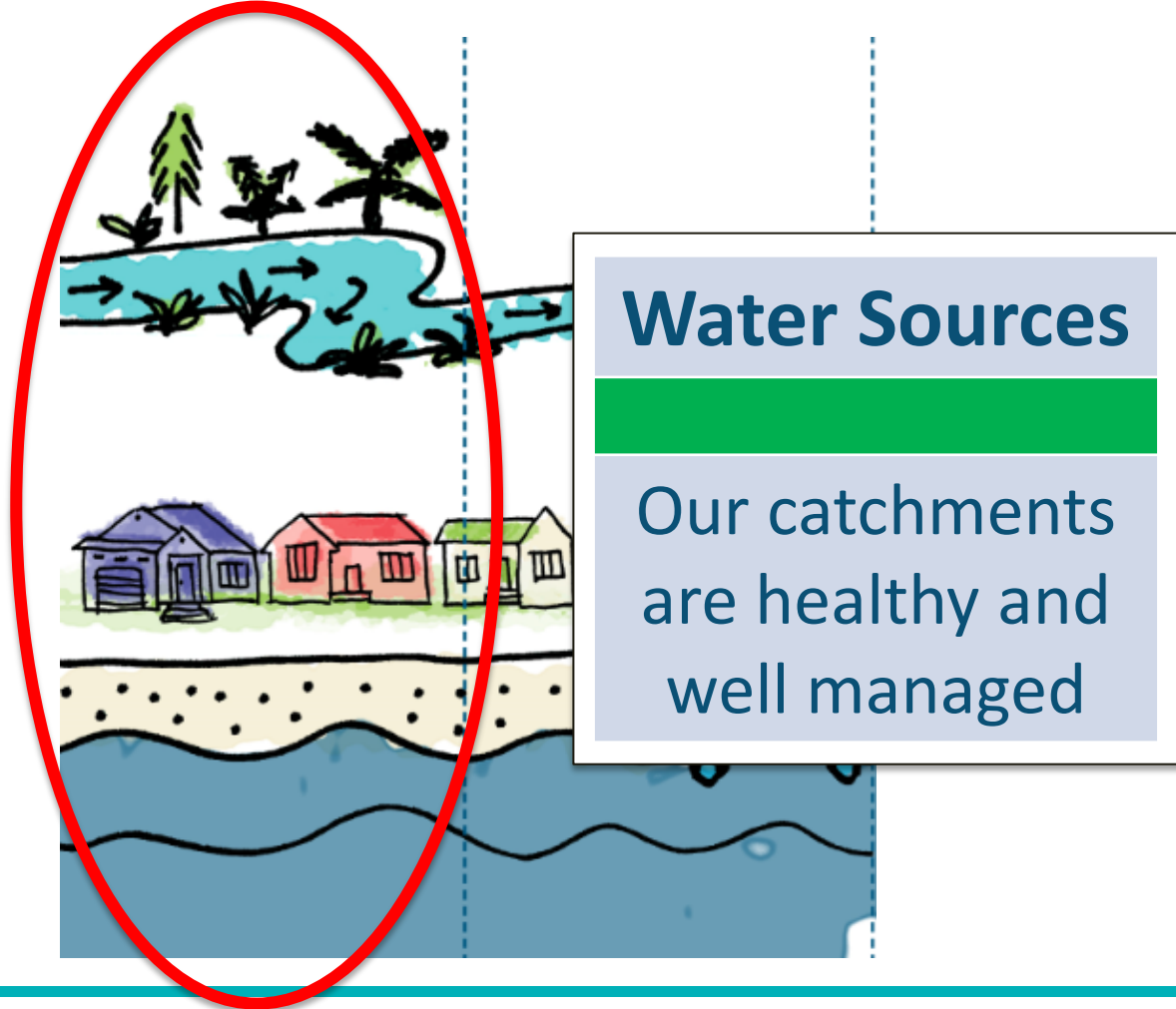


Our water, our future.

Water - from catchment-to-tap



Access to water – sources and allocations



Access to water – sources and allocations

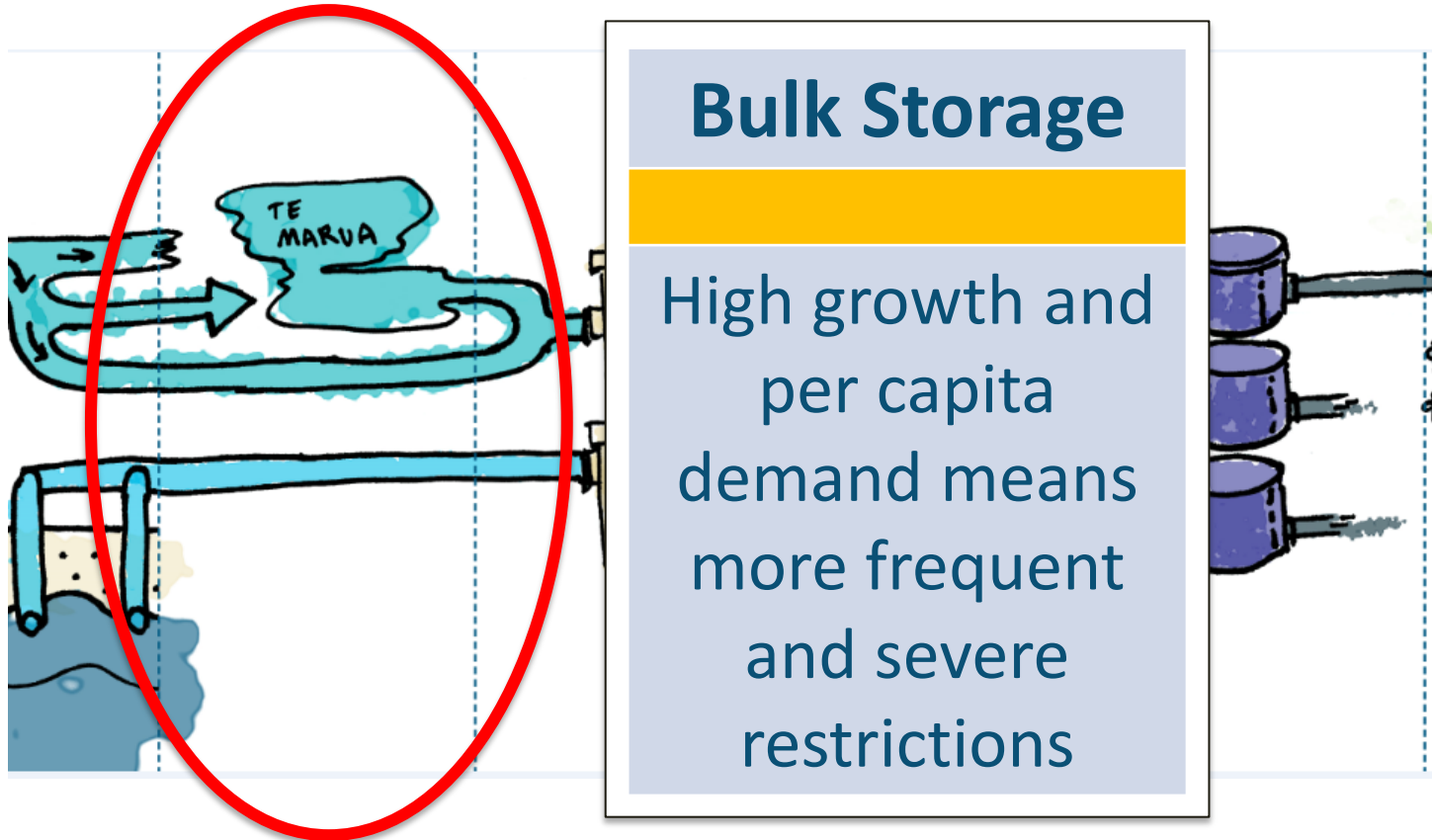
Available volumes

Te Awa Kairangi
is over-allocated
Future water
takes will have
more restrictions



Bulk water

– storage, treatment and transport

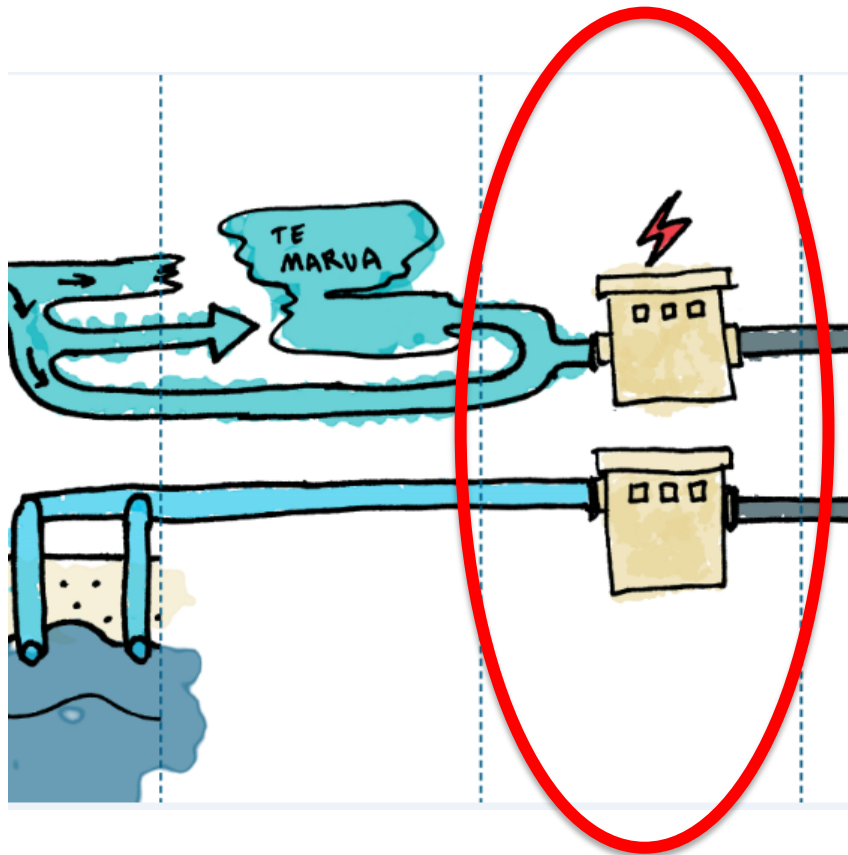


Bulk Storage

High growth and per capita demand means more frequent and severe restrictions

Bulk water

– storage, treatment and transport

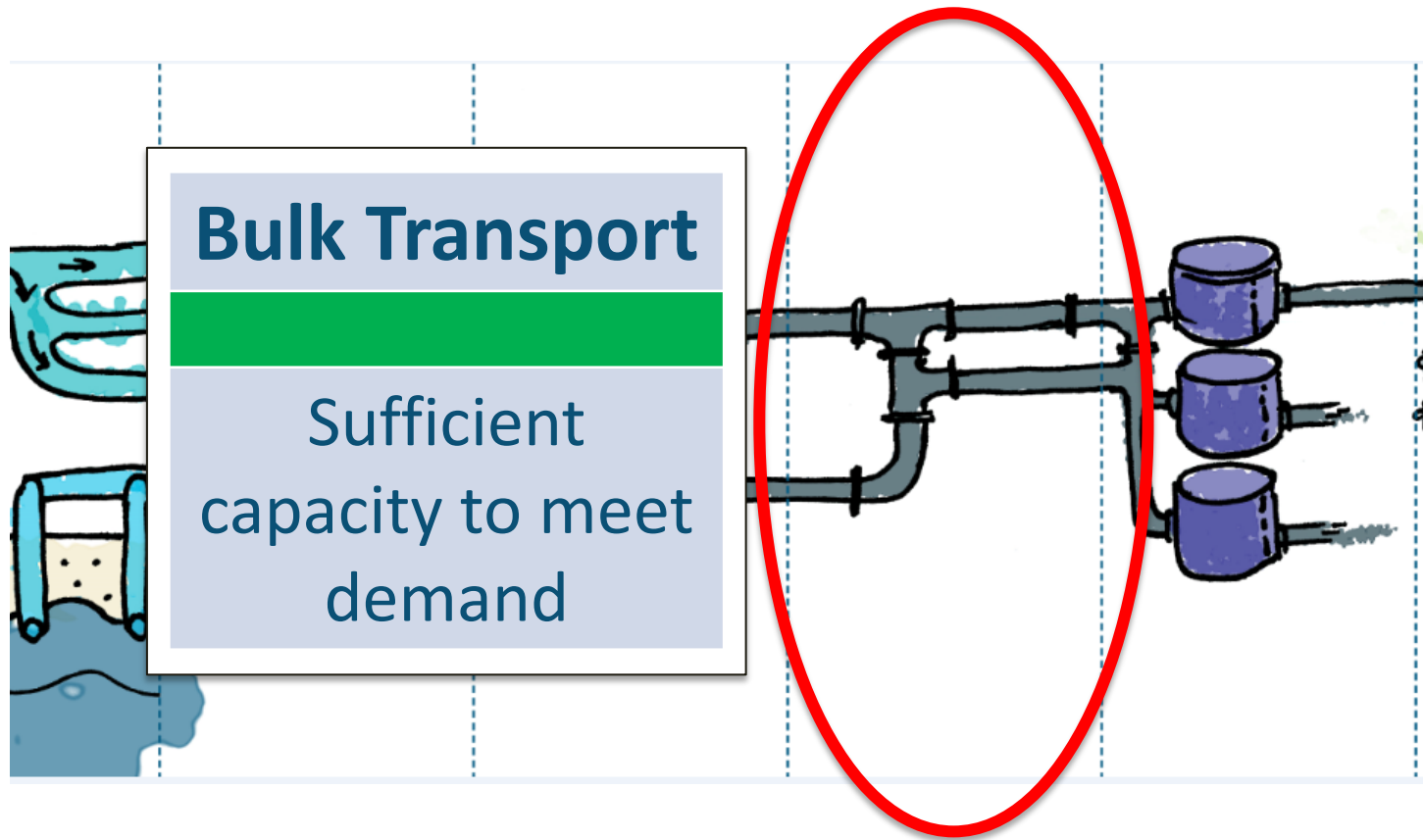


Water Treatment

Drought resilience standard not met
High demand puts pressure on ability to meet peak demand

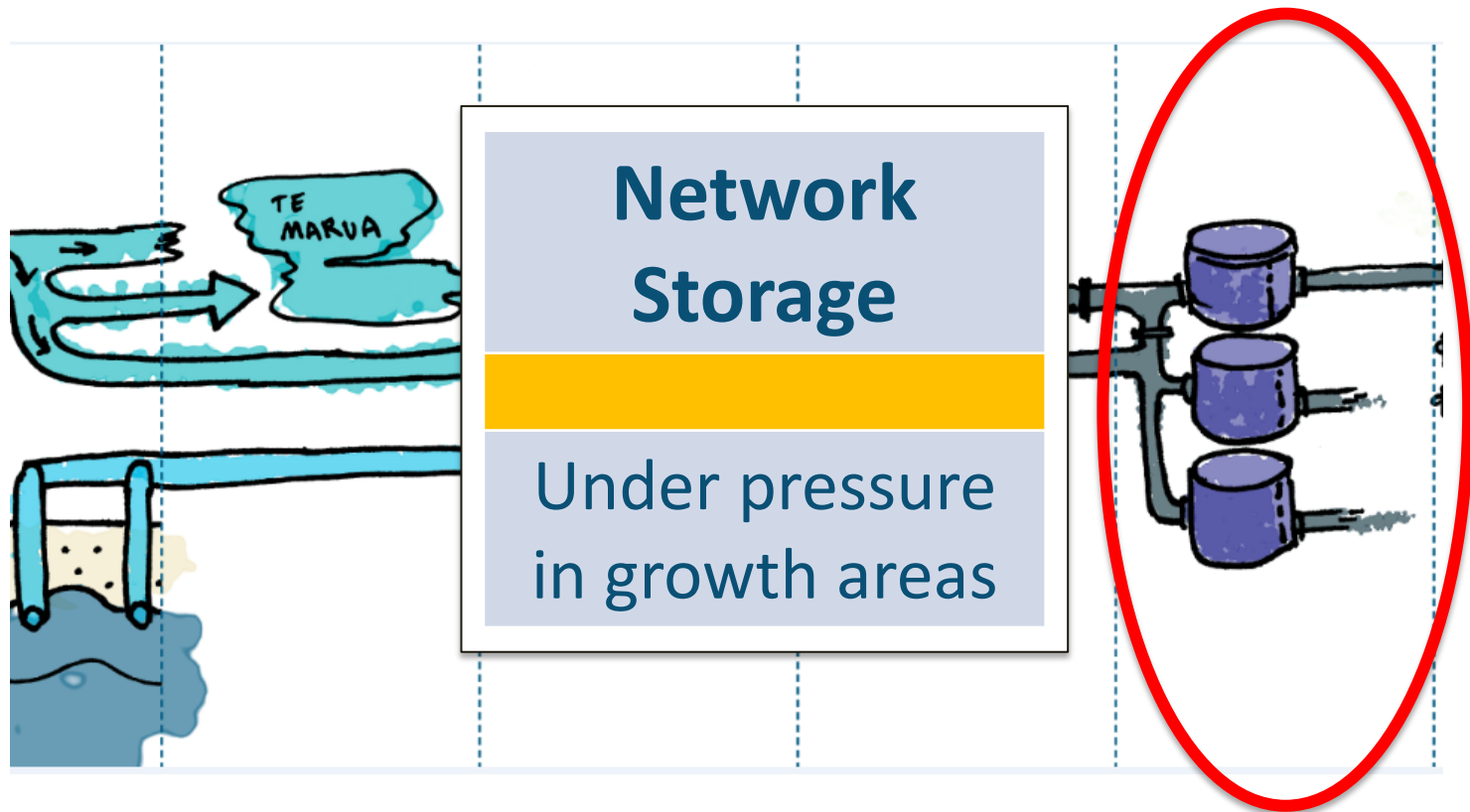
Bulk water

– storage, treatment and transport

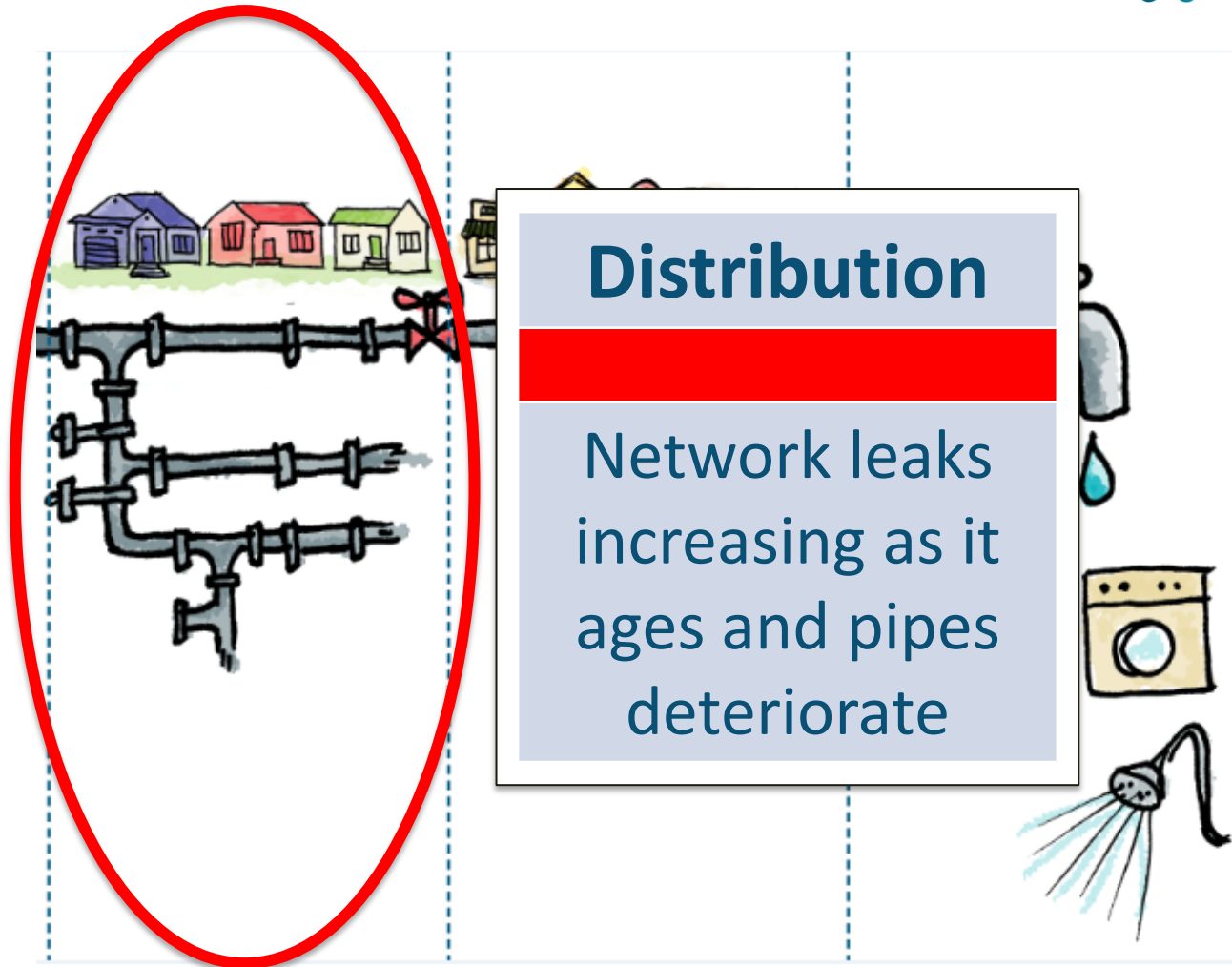


Bulk water

– storage, treatment and transport



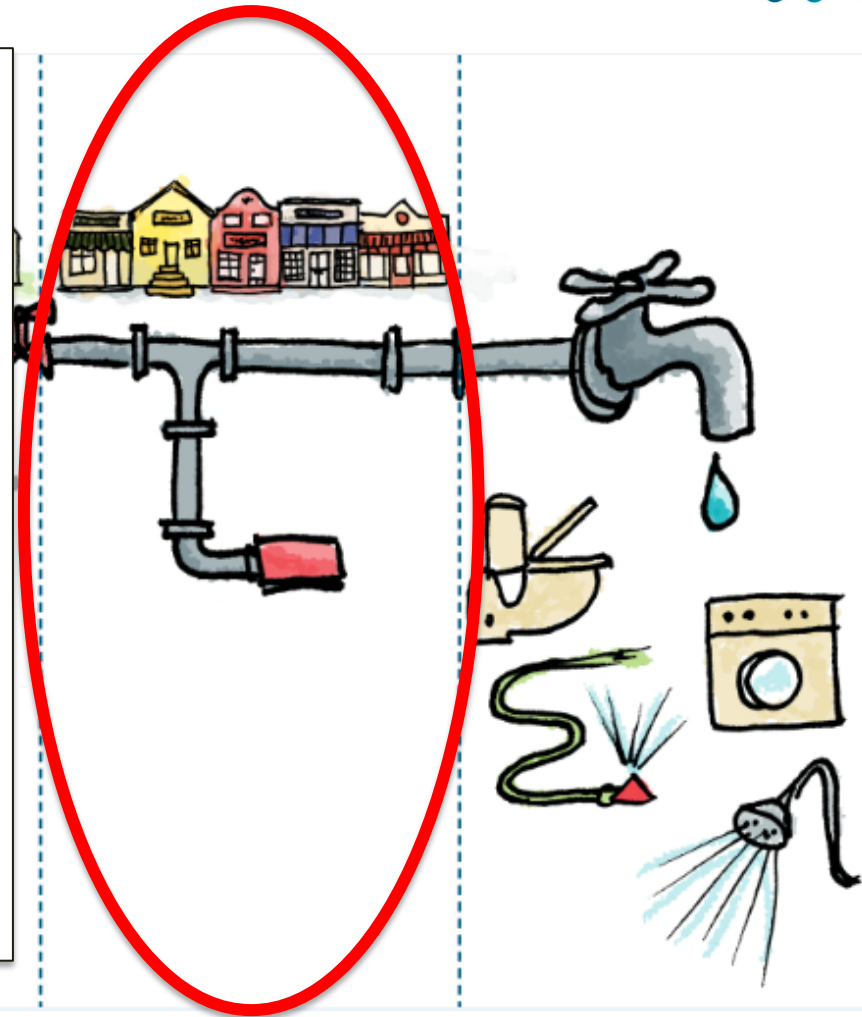
Distribution and use



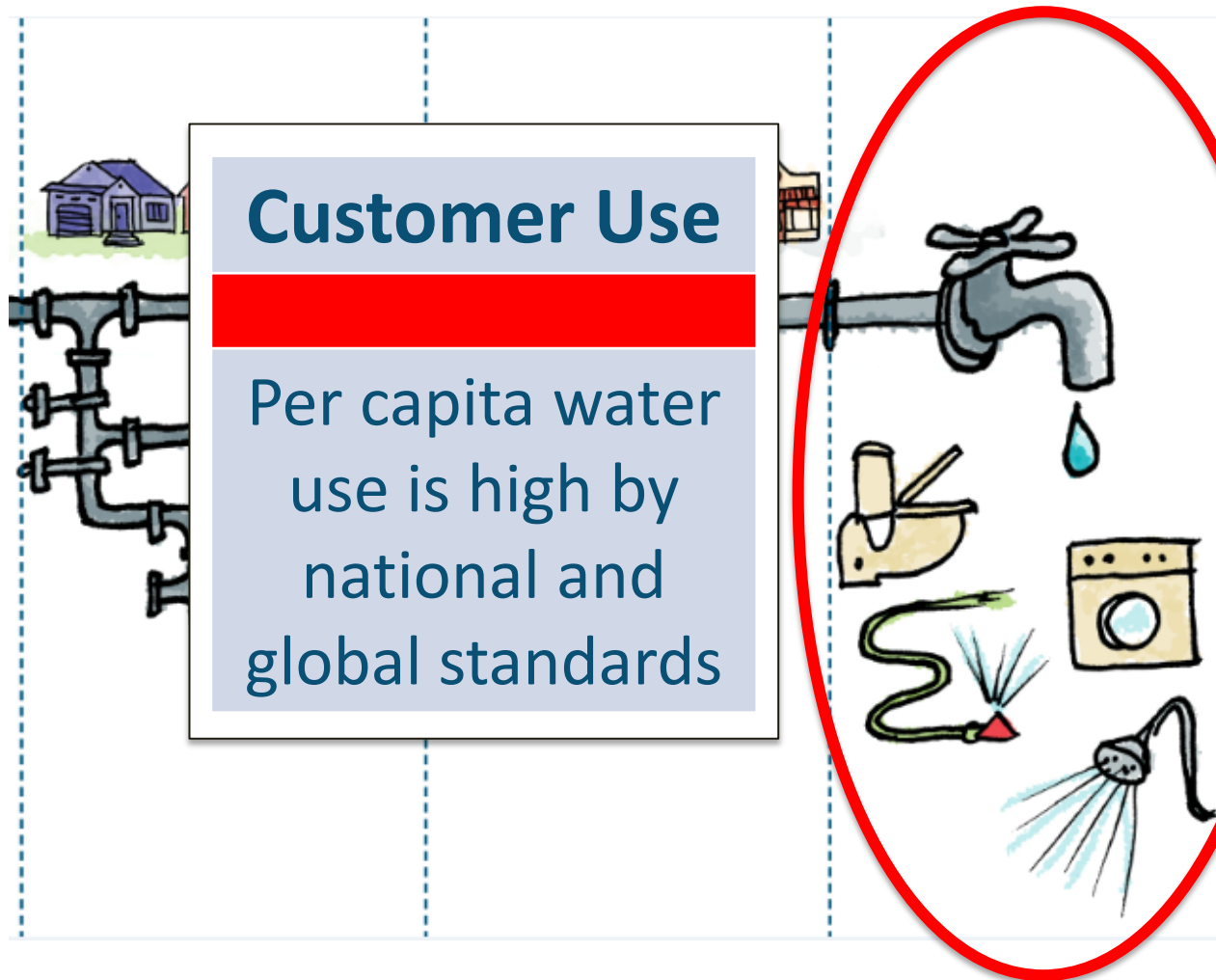
Distribution and use

Private Network

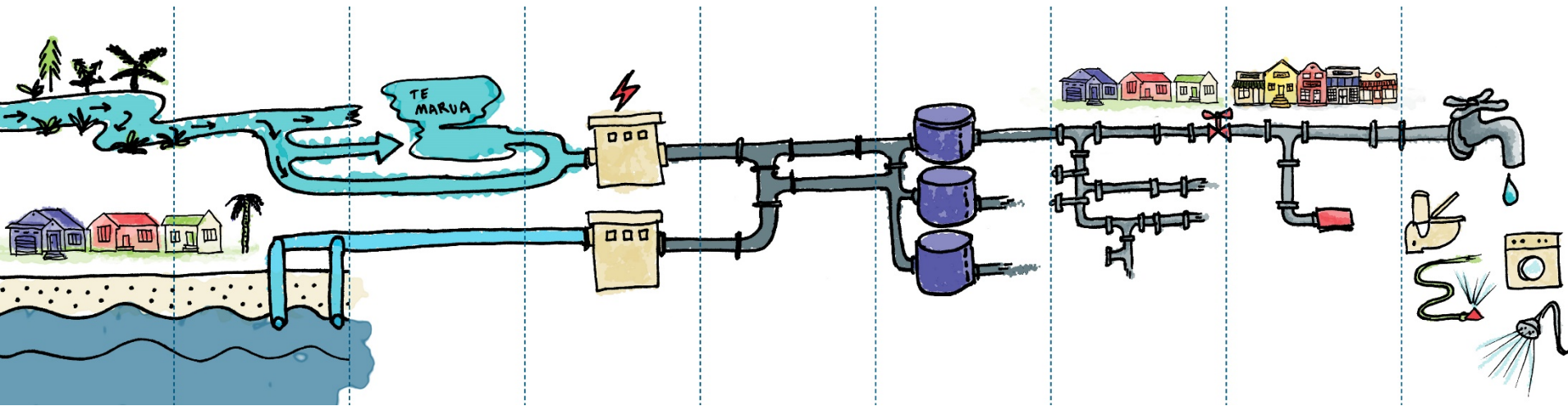
Customer leaks
~20% of total
demand but we
have limited
ability to detect
them



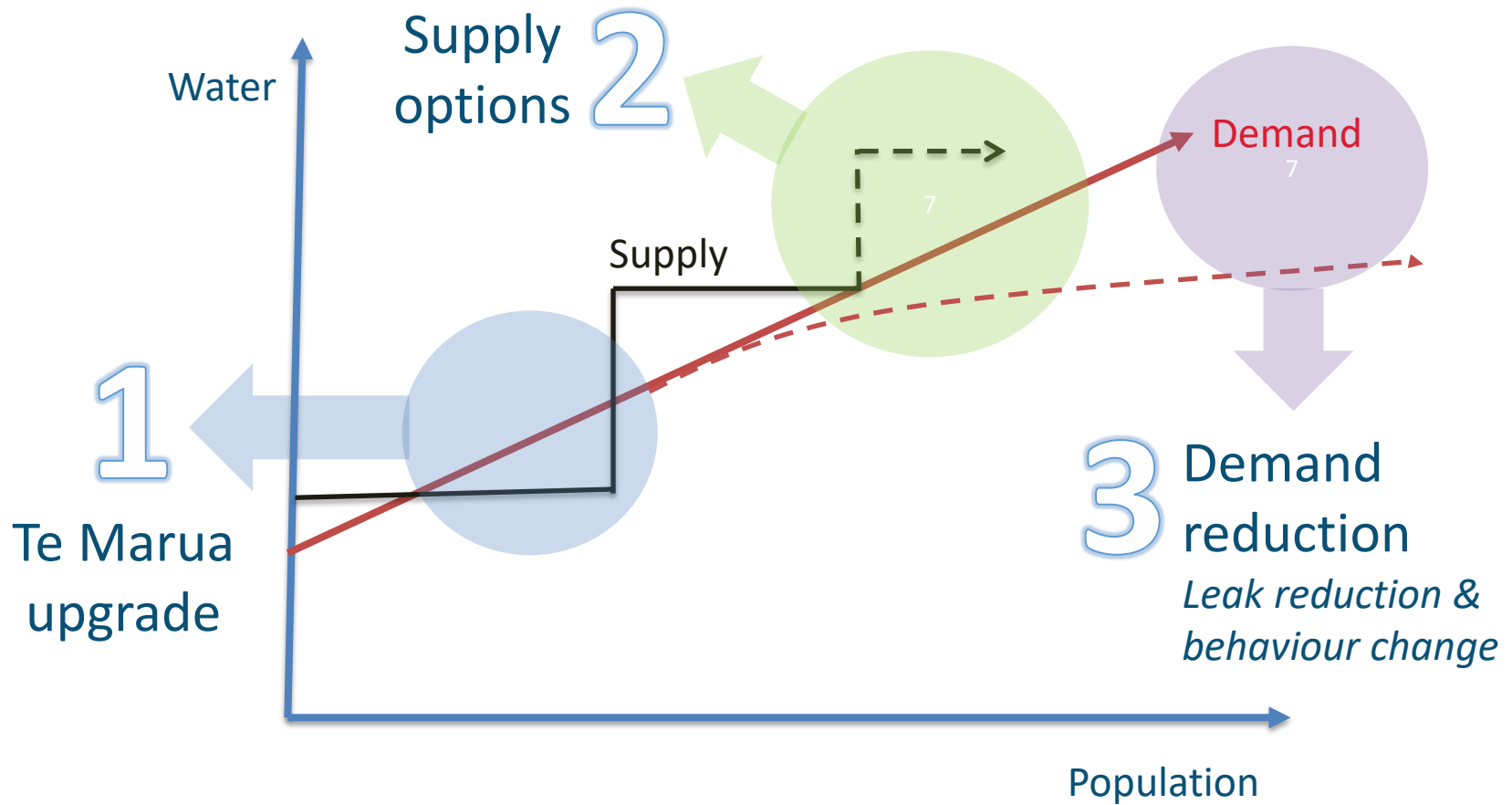
Distribution and use



Water - from catchment-to-tap



3 elements to a sustainable, affordable water supply



Our ability to deliver Safe and Healthy Water

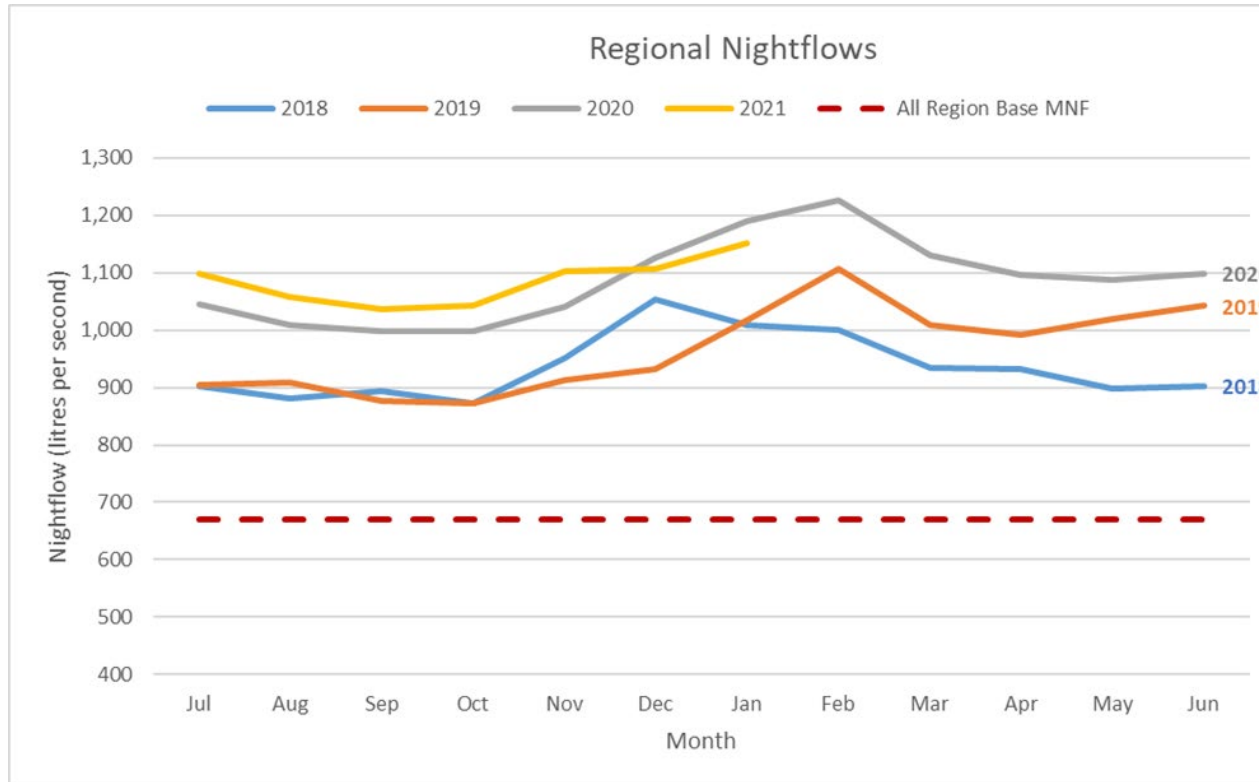


Water supply shortfall risk is caused by:



- i) Short period (several weeks) of hot/dry weather where peak demand approaches or exceeds the treatment capacity.
- ii) Extended drought (2-3 months) where river and aquifer sources recede, and water storage in the Macaskill Lakes is drawn down.
- iii) Unexpected network outage such as source contamination, critical asset failure, catchment fire, etc.

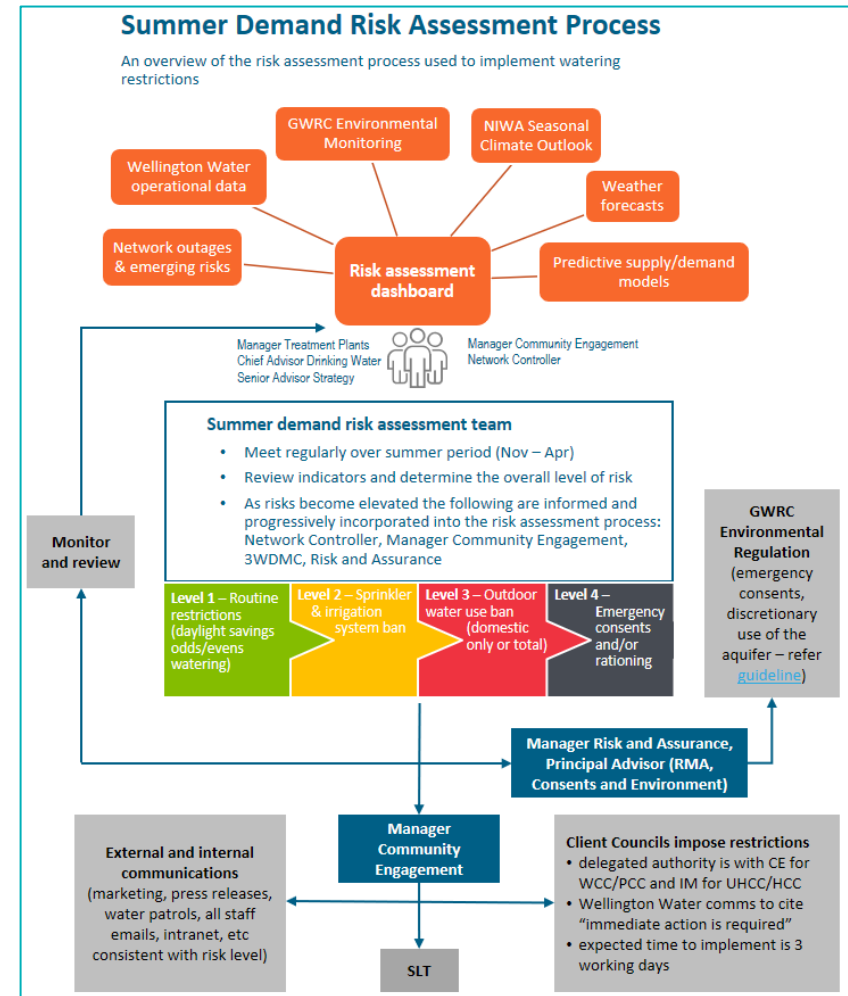
Short term risk update



We have an increased risk of short term water shortage over summer due to predicted demand approaching treatment capacity.

How do we manage the risk?

- Proactive risk management and contingency planning
- Targeted risk assessment team
- Technical tools and resources
- Council and community engagement



Current situation

So far this summer we have not had a period of hot/dry weather sufficient to cause concern, but this could change over a short period (around 2 weeks).



Looking ahead



Increased chance of watering restrictions during summer until the Te Marua WTP optimisation upgrade is completed.

Summary and questions

