

Enterprise Risk and Resilience Management in Utilities (ERRM)

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From sky to sea

An overview of Watercare's assets and operations



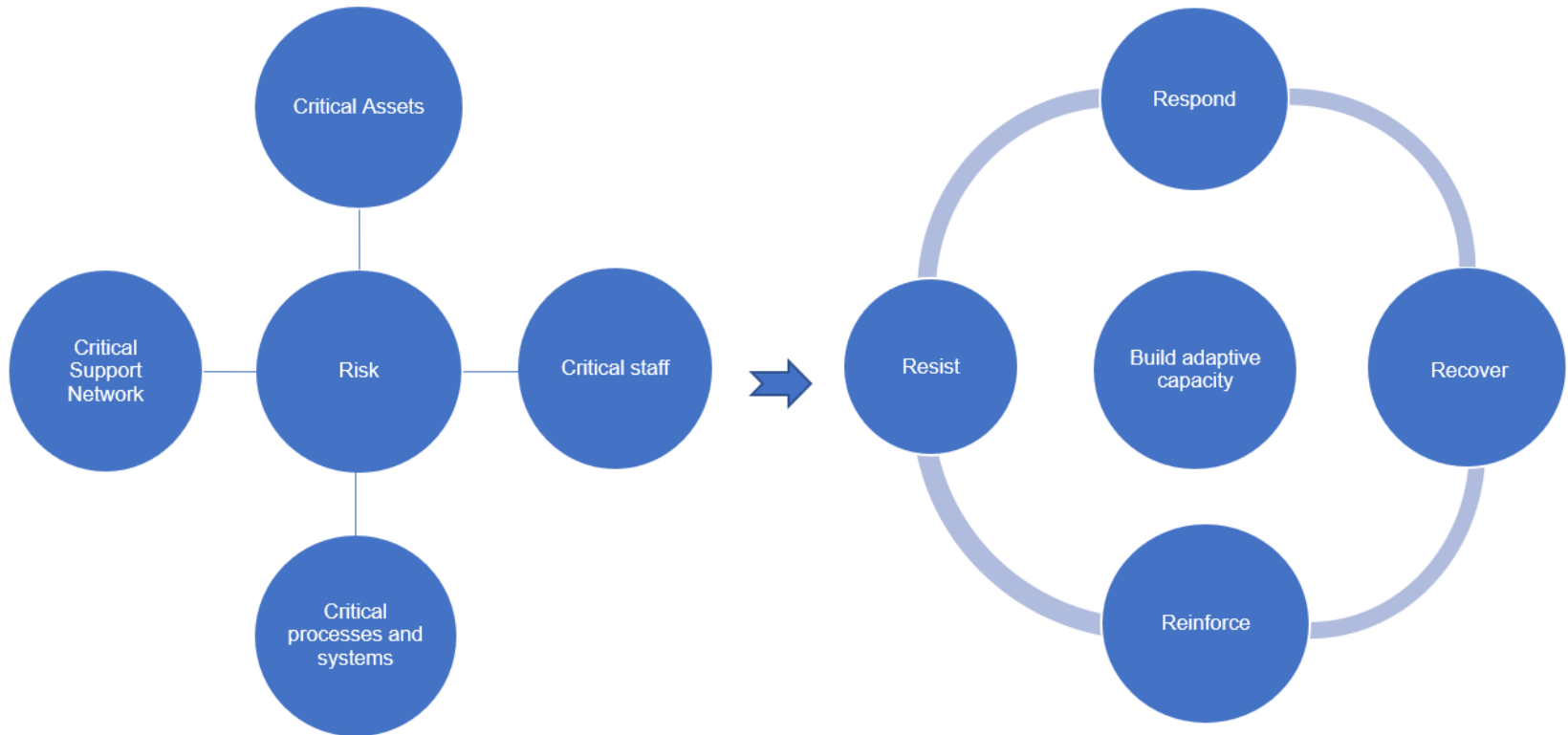
Linking Risk and Resilience Thinking



© Watercare Services Limited 2019

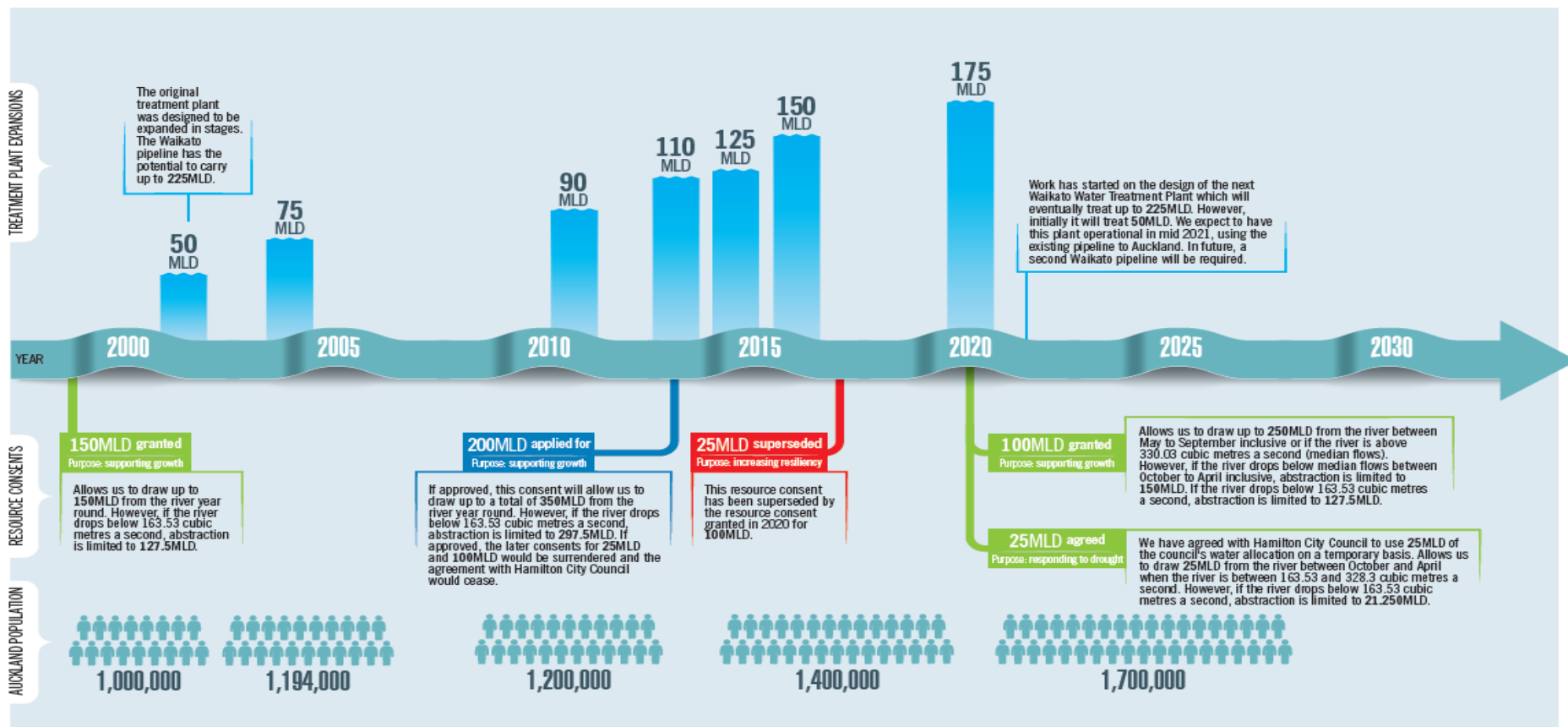


Building resilience



Build resistance - Increasing water supply

Auckland's Waikato River water source



MLD = million litres a day
Updated September 2020.

Building resistance in utilities is expensive!!

The New Zealand Herald | Tuesday, July 7, 2020

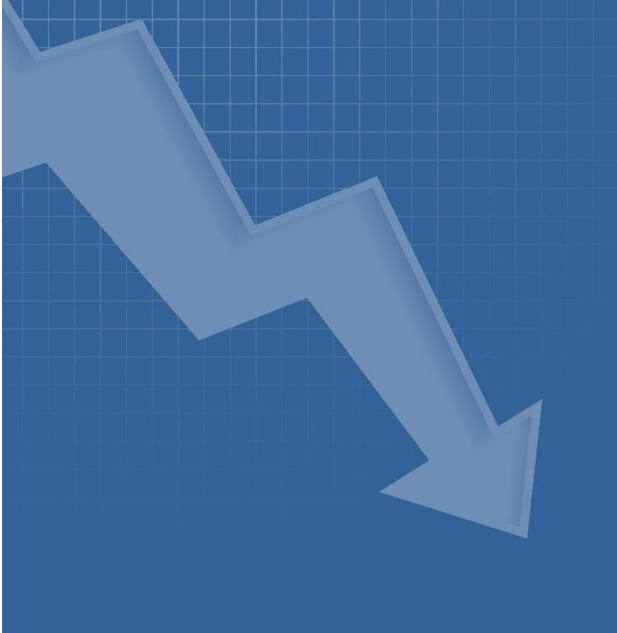
News A1

‘Water bomb’ as cost of fixing crisis hits \$224m

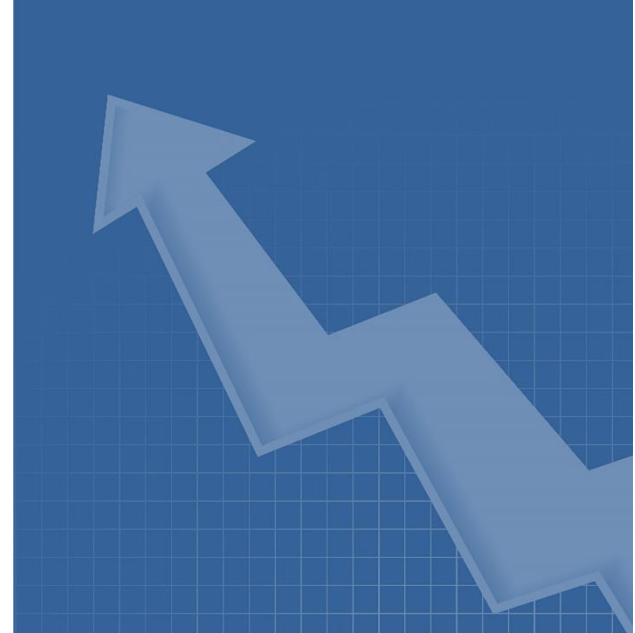
Councillors gobsmacked as estimate for easing Auckland drought woes rockets

Responding / Recovering from a Drought

Reduce demand



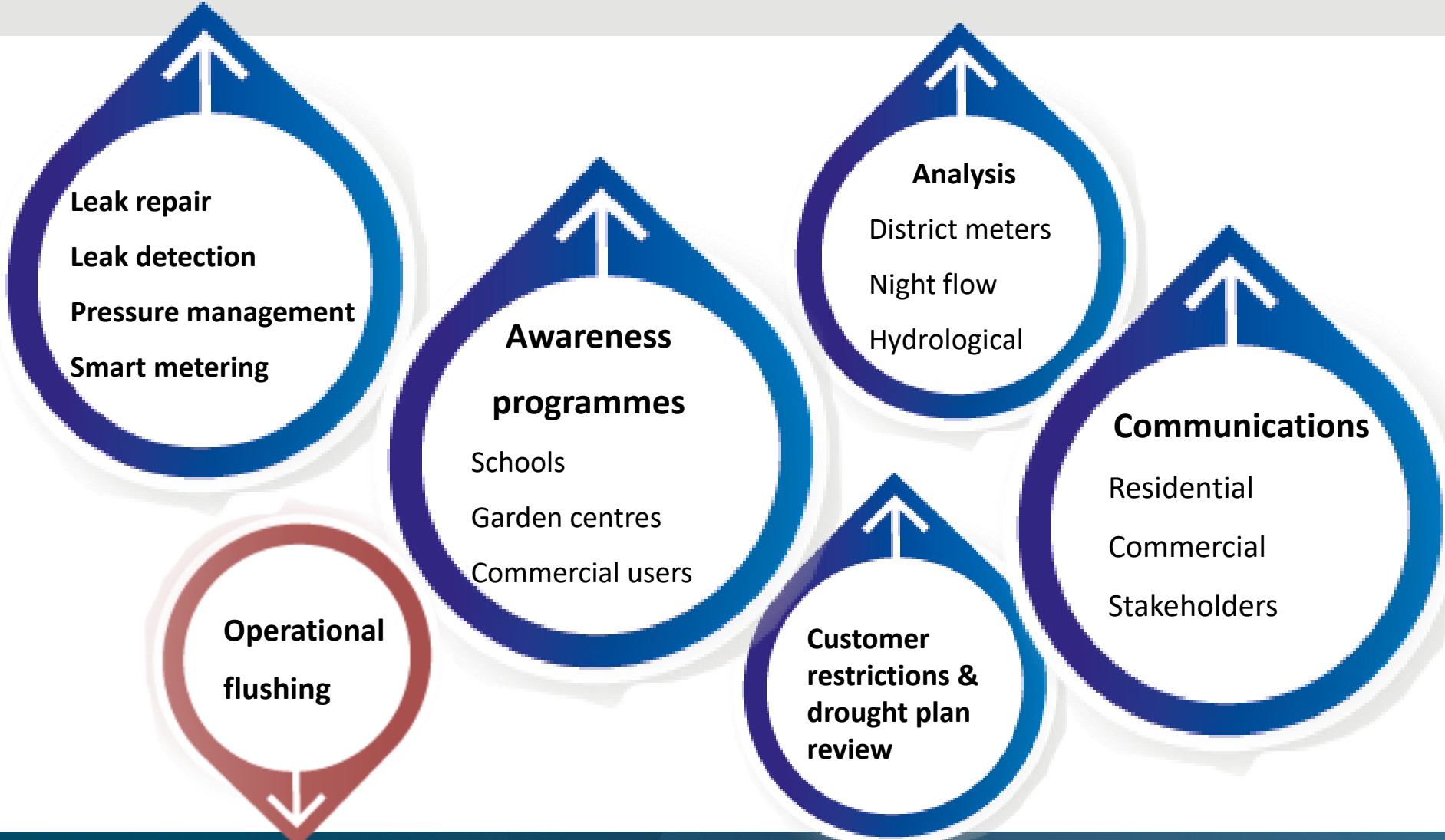
Increase supply



At the same time!



To reduce demand



Leak repair
Leak detection
Pressure management
Smart metering

Awareness programmes

Schools
Garden centres
Commercial users

Analysis

District meters
Night flow
Hydrological

Communications

Residential
Commercial
Stakeholders

Customer
restrictions &
drought plan
review

Operational
flushing



To increase supply

Flow configuration

Protect dam supplies

Slow down
Ardmore

Expand existing capacity

Waikato river +25 MLD
Onehunga bore +4MLD
Waitakere upgrade

**Consenting/
Regulatory
compliance**

New sources

Waikato river +50 MLD
Pukekohe bore +5MLD
Hays Creek Dam +12 MLD

**Finding alternate
or non-potable
sources**

MetService/NIWA

**Managing Tanker
filling stations**

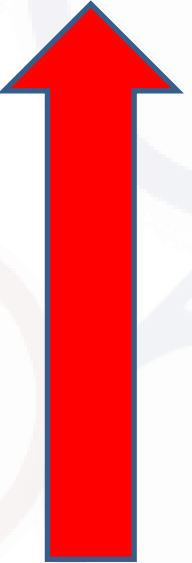


In the eye of the storm

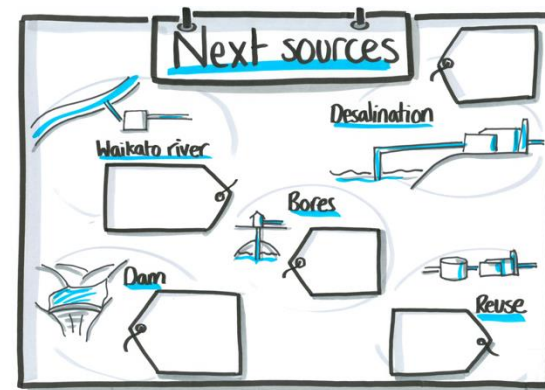
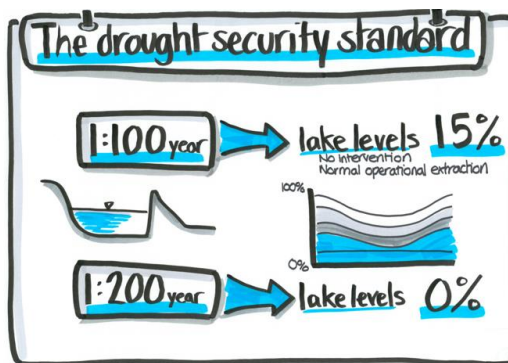
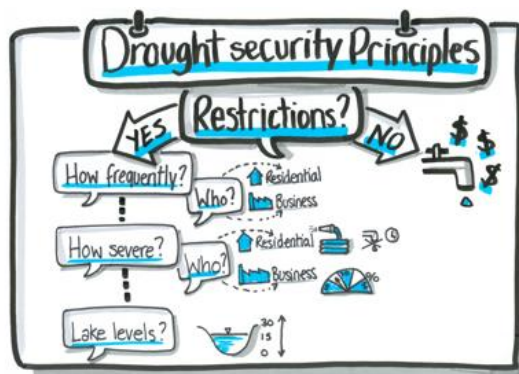
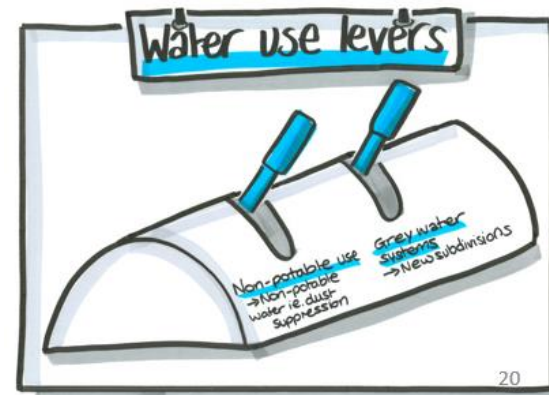
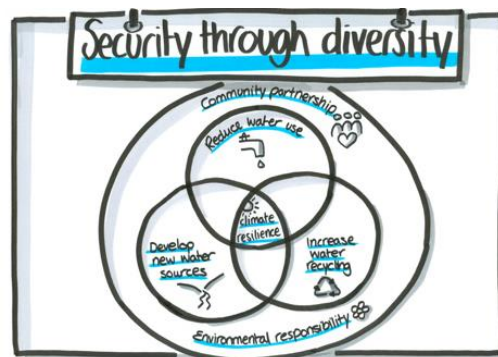
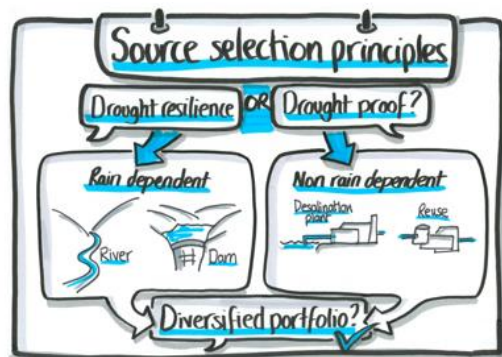


Information Requests

- Council
- Central government
- Press/Media and OIA

- 
- Customer complaints
 - Social media
(and fake news)
 - Self professed experts

Reinforce - Avoiding Future Droughts



PAS 60518:2020

Published in July 2020 by the British Standards Institute (BSI)

Using understanding of risks to guide resilience development

Gives guidance on responding to extreme events:

Integrating business continuity and incident management plans

Improving staff capabilities

Use of extended supporting networks

Provides Guidance + Examples + Templates

Website address:

<https://shop.bsigroup.com/ProductDetail?pid=000000000030390660>

PAS 60518:2020

Developing and implementing enterprise risk and resilience management (ERRM) in utilities – Guide



هيئة كهرباء ومياه دبي
Dubai Electricity & Water Authority

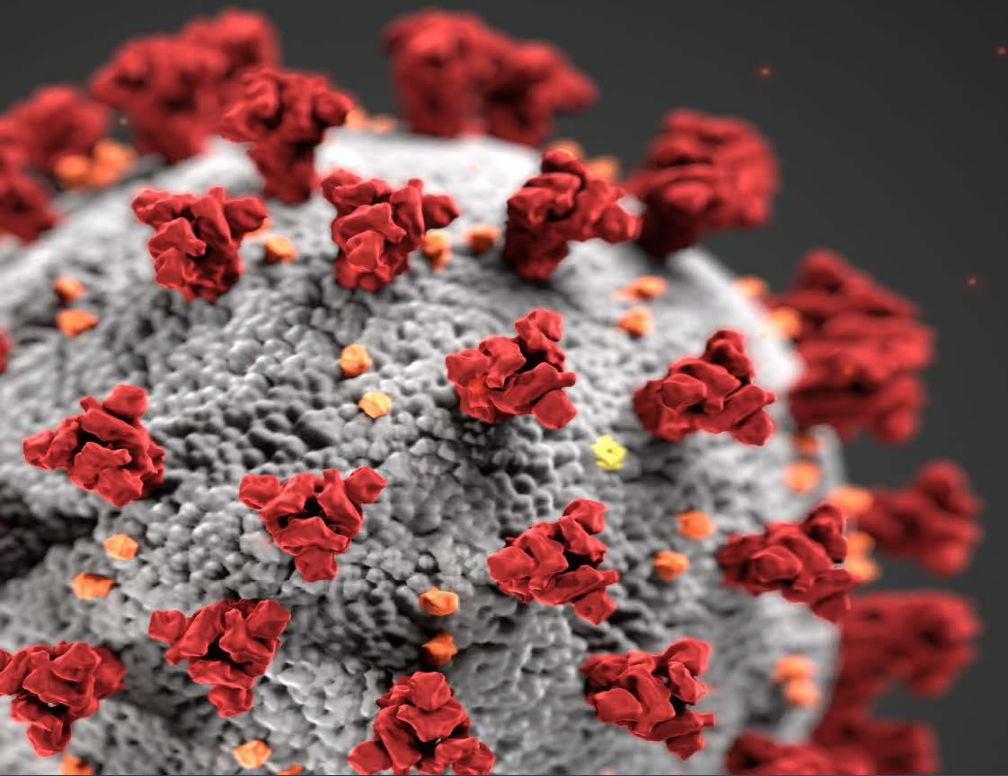


bsi.



A pandemic plan for utilities

A guide for utilities who want to build their own pandemic plan



Watercare Pandemic Plan

Developed in the midst of Covid-19

Interactive plan with guidance, videos, templates and samples

Coming Soon

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