WATERCARE SERVICES LIMITED

AGENDA	BOARD MEETING	Thursday, May 28, 2020
Venue	Watercare, Newmarket, Level 3	
Time	10am	

Open Public Meeting

	Item	Spokesperson	Action sought at governance meeting	Supporting Material
1	**Meeting Administration**	Chair	For discussion	Nil
2	**Apologies**	Chair	Record apologies	
3	**Minutes of Meeting**	Chair	Approve Board Meeting Minutes 28 April 2020	Board Minutes 28 April 2020
4	**Disclosure of Directors' Interests**	Chair	For noting	Report
5	**For discussion**			
5.1	Safety Moment	All	For sharing	Nil
5.2	Drought Update	Mark Bourne	For discussion	Report
5.3	Chief Executive's Report	Raveen Jaduram	For discussion	Report
5.4	Board Committee Updates	Committee Chairs	For discussion	Nil
6	**Directors' Corporate Governance Items**			
6.1	Board Planner	Chair	For noting	Report
6.2	Disclosure of Senior Executives' Interests	Chair	For noting	Report
6.3	Directors' Appointment Terms and Committee Memberships	Chair	For noting	Report
7	**General Business**	Chair	For discussion	Nil

Date of next meeting	Tuesday, June 30, 2020
Venue	Watercare Services, Level 3, 73 Remuera Road, Newmarket

MINUTES

SUBJECT	WATERCARE SERVICES BOARD MEETING
VENUE	Virtual online meeting due to Covid-19 Alert Level 3 restrictions
DATE	28 April 2020
TIME	9am
STATUS	Public Session

	Present:	**In Attendance:**	**Members of the Public and guests:**
	Margaret Devlin (Chair) Julia Hoare (Deputy Chair) Dave Chambers Nicki Crauford Brendon Green David Thomas Frances Valintine **Board intern** Colin Magee	Raveen Jaduram (CE) Marlon Bridge Shane Morgan Steve Webster Amanda Singleton Rebecca Chenery David Hawkins Shayne Cunis Jason Glennon Nigel Toms Peter Nichol Mark Bourne Rob Fisher Emma McBride Chris Lukar Bronwyn Struthers had technical difficulties so only attended for the initial Health Safety and Wellness item.	Councillor Linda Cooper Sarah Holdem, CCO Governance

1.	**Apologies** Hinerangi Raumati-Tu'ua sent her apologies. She had provided feedback to the Chair which would be addressed during the meeting. The Chair welcomed two guests to the meeting – Cr Linda Cooper, Watercare's Liaison Councillor, and Sarah Holdem, from Auckland Council CCO Governance. This meeting was recorded due to Covid-19 restrictions and will be available on the Watercare immediately following the meeting.
2.	**Minutes of Previous Meetings** The Board **resolved** that the minutes of the public section of the Board meeting held on 20 February 2020 2020 be confirmed as true and correct.
3.	**Review Disclosure of Directors' Interests** Nicki Crauford requested two changes to her disclosure of interests: - Remove "Independent Chair, Joint Governance Group Chorus and Visionstream UFB Connect"

	- Add "Trustee, Wellington Regional Stadium Trust". The Board noted the report.
4.	**For Discussion** **4.1 Safety Moment** Shayne Cunis, Executive Programme Director, Central Interceptor (CI) provided a safety moment. - This morning, the first day of the Covid-19 Alert Level 3, CI construction restarted. - A karakia was held before work commenced. All workers must electronically check-in and check-out, so there is a record of who has been on site if this is ever required for contact tracing. The usual warm up occurred with social distancing. **4.2 Chief Executive's Report** The report was taken as read. Management responded to questioning from the Board. ***Health, Safety & Wellness (page 14 of Boardbooks)*** - All workers on construction sites and in operations understand what is required of them to ensure they are able to work safely during Alert Level 3. - Many of the injuries suffered by workers and contractor recently have been due to their complacency. Staff are being reminded to be extra vigilant. The "Take 5" message, to think and plan before starting a new task, is being reinforced on all sites. - The return to work under Alert Level 3 conditions provided the opportunity to re-enforce the need for safe behaviour. ***SOI Measures (Page 14 of Boardbooks)*** This financial year, the company will not meet two measures: - The 12-month rolling average Per Capita Consumption (PCC). We have experienced record breaking demand over the long, hot period of January and February 2020. The high PPC figure will continue to be for some time as this is a 12 month rolling average figure. - Non-revenue water. There are a number of reasons, other than leakage alone, why non-revenue water is higher than the limit (13%), including: o Old meters, which are not recording correctly. To address this, our meter renewal programme is being accelerated. o Customers who do not have meters. Work is continuing to identify these customers (e.g. this can occur on historical subdivided properties). o Illegal consumption (e.g. taking water from fire hydrants, pipes and hoses to wash down footpaths, cars and supermarket docks). We are working closely with our top commercial customers to increase awareness of this issue.

Resource Management Act compliance (Page 16 of Boardbooks)

- The Board queried the company's level of exposure in relation to the increase in technical non-compliances due to the inability to conduct routine environmental sampling and reporting under the Covid-19 Alert Level 4 lockdown; and also the company's inability to complete remedial works on the Category 3 and 4 non-compliances.

- Rob Fisher, Company Secretary explained that the company's risk exposure is considered slight. Prior to the lockdown, remedial works were underway on three sites. However, all work ceased as the environmental consequences were considered so minimal, the remedial work was gauged not to be "essential" in the circumstances of Covid-19.

- With the move to Alert Level 3, environmental sampling and reporting, and the three remedial works, will all recommence. Council is aware of the three remedial projects.

Water Reuse for Central Interceptor (page 16 and 33 Boardbooks)

- There were a number of questions regarding the Māngere Recycled Water Plant (RWP) that will produce 1 MLD of potable standard water for use in the construction of the Central Interceptor.

- The Chair enquired why the water was being produced to a potable standard. In response, Shayne Cunis provided further background. Before committing to the RWP, the water quality to be produced by the plant was debated at length by the team. While a lower standard of water would have been easier to achieve, this would not realise the benefits of starting a conversation in New Zealand around wastewater reuse for potable purposes.

- Watercare staff have experience in all the technologies required to operate the RWP, except reverse osmosis. Once the RWP is no longer required for the CI Project, the plant will be handed over to the Operations team as an educational facility.

- New Zealand's current drinking water standards do not permit recycled water to be used for drinking. However, as soon as the RWP is operating on the CI project, Watercare plans to open up a conversation with the Government and health agencies regarding the need to update New Zealand's legislation to permit the use of this recycled water for various types of reuse (e.g. construction, industry, and in the longer term, drinking). The introduction of a water regulator into New Zealand soon means now is an ideal time to start this conversation.

- Currently, policy settings are not favourable around recycled water (e.g. Auckland Council's Unitary Plan does not permit the injection of treated wastewater into underground aquifers, despite this already happening in other cities around the world).

  A related conversation that Watercare wishes to have concerns greywater reuse (i.e. the re-use of relatively clean water from sinks, baths and washing machines). This is more difficult to implement in the absence of national standards. However, the use of greywater for gardens and toilets, particularly in drought prone areas, is an important conversation to have.

- Management will collate the information they have on wastewater reuse/recycling, desalination and present this to the Board at a future meeting. The various policy settings and public perception around wastewater re-use is an additional piece of work that Management also plans to start work on.

- The CI Tunnel Boring Machine is currently being built in Germany and is expected to arrive before the end of the year, which is only a slight delay due to the Covid-19 pandemic.

Water regulator (Page 33 of Boardbooks)

- There was a general discussion regarding the introduction of a water regulator. A regulator will provide more scrutiny of Watercare's performance, which Management welcomes. Other changes concern Asset Management Plans (AMPs). A regulator is likely to want more detail in AMPs, and for the plans to be built around the company's interactions and engagements with customers and the regulator.

- Management understand that the new water regulator's focus is likely to be first on the rest of New Zealand, where compliance with drinking water standards is relatively low. The Medical Officer of Health has previously commented that while Watercare is the biggest water operator to manage, we are the lowest risk. Under a water regulator, there will be increased focus on schools and maraes that manage their own water supplies.

31 March 2020 Manukau Harbour Wastewater Discharge (page 16 Boardbooks)

- The discharge at Green Bay was a dry weather overflow from a sewer system. The system was blocked due to roots and wet wipes. Our team found the discharge quickly and put controls in place.

- Water NZ, with Watercare's assistance, is currently gathering evidence from New Zealand's water utilities of wet wipe blockages. Their intention is to build a case against wet wipe manufacturers and their marketing of these products as "flushable". Pleasingly, Woolworths (owners of Countdown) has worked with WSAA (Water Services Association of Australia) on the wet-wipes problem. Countdown supermarkets in Australia and New Zealand now display large signs next to wet wipes that say they should not be flushed; and signs next to the toilet paper displays that notes toilet paper is the only thing to be flushed down a toilet.

The future of three waters service delivery (page 15 of Boardbooks)

- Water sector discussions are continuing in Wellington, there is no further update to report at present.

Covid-19 Level 3 return to work

- The Board has been having weekly briefings with Management regarding the Covid-19 emergency response by Watercare. At the most recent briefing, the Board received an update on the return to work plans for the first day of Alert level 3. For Watercare, the Alert Level 3 means the following:

    - Staff currently working from home, will continue to do so
    - If a staff member needs to return to the workplace, their manager will discuss options with them
    - Staff supporting the COVID-19 incident team will remain in the same role until their manager or the COVID-19 incident controller indicates otherwise
    - Around 40 construction projects will start up again (including the Central Interceptor). This includes construction works on operational sites. On-site worker numbers are ramping up to approximately 550 workers in 3 - 4 weeks. To help our contractors through the lockdown, Watercare offered an advanced entitlement payment to key contractors.
    - Safety protocols have been reviewed including contact tracing. Site separation and access guidelines have been developed and communicated to all sites.
    - Operational activities (e.g. planned maintenance) will also recommence in safe manner.
    - Developer services (e.g. new water and wastewater communications will recommence).

- Meter reading will recommence by our contractors.
- Physical distancing will continue with internal and external meetings happening online instead of face-to-face.
- Access to visitors, deliveries and couriers will continue to be restricted as it was under Alert Level 4.

Digester gas leak at the Rosedale Wastewater Treatment Plant (page 22 Boardbooks)

- In response to questioning regarding this incident, Shane Morgan, Chief Operations Officer, explained that a leak was discovered on a semi-buried gas line. The area of pipe involved was 5m long, old and with limited access. Following discovery of the leak, the 5m section was isolated and an over-ground conveyance installed. The area is now safe. The damaged pipe will be replaced as part of a major digester refurbishment, being a project that will run over the next 2 years.
- The Board commented that they were pleased to note that the worker was wearing a methane alarm and that the PPE worked effectively.

Biological exposure at Warkworth (page 22 Boardbooks)

- The biological exposure at Warkworth involved a valve that was overlooked. In their haste, the worker forgot to isolate a valve.
- We are conducting refreshers on "control of work" isolation processes at our plants.

Financial outlook (page 47 Boardbooks)

- The Board observed that a number of businesses and individuals are currently struggling with Covid-19 and enquired as to how Watercare is responding to customers in financial hardship.
- As it is only a few weeks into the emergency, the business has not noticed any increase in bad debt. However, we are expecting to see an increase in due course.
- The customer team is working closely with our Top 100 Customers to help them understand their consumption patterns and reduce their use where possible. Commercial customers represent 45% of Watercare's revenue; and the Top 100 customers represent contribute 45% to that 45% figure.
- It was observed that the customers most likely to struggle are smaller commercial customers and residential customers. We expect our customer agents will soon have many more conversations about overdue bills/bad debts. In these circumstances, as we do already, the customer agents will work with our customers agree on a payment plan.
- Watercare also has the Water Utility Consumer Assistance Trust (WUCAT) available to individuals who are facing financial hardship. The Customer team has been working closely with WUCAT during the Covid-19 emergency and expect they will need to direct more customers to this service in the near future.

Water resources (page 56-58, Boardbooks)

- The Board are having drought briefings with Management weekly to discuss the severe drought. While there are no water restrictions currently, it was noted that this may change imminently if significant rain does not arrive.

	4.3 Board Committee Updates **AMP and Major Capex Committee** Nicki Crauford, Chair of the Committee provided the Board with an update on the last meeting on 23 May 2020. - The Committee discussed Covid-19 Level 4 lockdown in detail and covered various issues including Watercare's standard contracts with contractors, which did not envisage a pandemic – as such, contractors are likely to make claims for "cost and time". Contractors run on thin margins, and to assist them with cashflow, Watercare is offering to provide advance payments to contractors, consistent with the payments being made by Council and NZTA. The Committee also discussed the long-term impact of Alert Level 3. While construction can re-start, there must also be social distancing, which is likely to impact negatively on both productivity and cost. - The Committee also received quarterly updates on four major projects and a deep dive presentation regarding people management on the Central Interceptor project. **Strategic Transformation Programme (STP) Committee** Brendon Green, Committee Chair, noted that the STP close-out meeting will be held this quarter. **Te Tangata Komiti** Dave Chambers, Committee Chair, noted that the next Committee is scheduled for 29 April 2020. **Climate Change Committee** Brendon Green, Chair of the Committee, noted that this Committee is meeting next on 22 May 2020. **Audit and Risk Committee** Julia Hoare noted that this Committee is next meeting on 25 May 2020.
5.	**Directors' Corporate Governance Items** **5.1 Board Planner** The report was noted. **5.2 Disclosure of Senior Executive's Interests** The report was noted. **5.3 Directors' Appointment Terms and Committee Memberships** The report was noted. The Chair updated the Board on the upcoming Director recruitment process.

6.	**General Business** **Covid-19 frontline workers** - The Board thanked all Watercare workers who have worked extremely hard, in difficult circumstances, during Alert Level 4, and in particular those who are working on the frontline at plants, laboratories and out in the field and community. **Water use restrictions** - Cr Linda Cooper, Watercare's Liaison Councillor, who was observing the meeting, enquired as to when Watercare would be asking the Governing Body to impose water use restrictions. Some Councillors were keen to see increased communications about the drought issue, and for these communications to effectively "cut through" the "noise" of Covid-19. - The Chair noted that the drought is being discussed in detail during the Confidential session after this meeting and both the Chair and CE are meeting with the Mayor later this afternoon. The agenda includes a discussion about the drought, communications and the timing of mandatory restrictions. Watercare Management are already working with officers at Council on a paper that will be going to the Emergency Committee on 7 May 2020. - The Chair will provide Cr Cooper with an update after the meeting with the Mayor. - Cr Cooper noted that there is a concern that the public currently have "message fatigue" with all of the news and alerts around Covid-19. However, she appreciated the good work done by Watercare so far, and indicated that the Governing Body would give Watercare its full support in this area. **Central Interceptor restart** - Shayne Cunis shared the following photograph with the Board taken this morning of CI construction workers returned to work on day 1 of Alert Level 3. - The workers are doing their warm up exercises whilst practicing social distancing. 
	The meeting closed at 10am.

CERTIFIED AS A TRUE AND CORRECT RECORD

Margaret Devlin
Chair

Report to the Board of Watercare Services Limited
Prepared for the 28 May 2020 Board meeting

4

Disclosure of Directors' interests

Purpose		
Information	Discussion	Approval
✓		

Team		
Prepared	Recommended	Submitted
Emma McBride Head of Governance	**Rob Fisher** Company Secretary	**Raveen Jaduram** Chief Executive

Intellectual capital	People and culture	Community and stakeholder relationships	Financial capital & resources	Natural environment	Assets and Infrastructure
	✓	✓			

1. Purpose and context

s140 Companies Act 1993 requires all companies to keep an Interests Register, which must be disclosed to the Board of the company.

2. The details

Watercare Services Limited's Directors' Interests Register is set out below.

Director	Interest
Margaret Devlin	• Director and Chair, Lyttleton Port Company Limited • Director, Waikato Regional Airport • Director, Titanium Park (wholly owned subsidiary of Waikato Regional Airport) • Director, Meteorological Services of NZ Limited • Director, Aurora Energy • Director, IT Partners Group • Councillor, Waikato University • Deputy Chair, WINTEC • Independent Chair of Audit and Risk Committee, Waikato District Council • Director, Infrastructure New Zealand • Chair, Advisory Board Women in Infrastructure Network • Chair, Hospice Waikato • Chartered Fellow, Institute of Directors • Member, Institute of Directors, Waikato Branch Committee
Julia Hoare	• Director, AWF Madison Group Limited • Deputy Chair, The a2 Milk Company Limited • Director, The a2 Milk Company (New Zealand) Limited • Director, Port of Tauranga Limited • Director, Auckland International Airport Limited • Director, Meridian Energy Limited • Chair, Auckland Committee, Institute of Directors • Member, Advisory Panel to External Reporting Board • Vice President, Institute of Directors National Council • Member, The Sustainable Finance Forum Leadership Group

Director	Interest
Nicola Crauford	• Chair, GNS Science Limited • Director, Environmental Protection Authority (EPA) • Member of Electoral Authority, Cooperative Bank Limited • Director and Shareholder - Riposte Consulting Limited • Director, Pioneer Energy Limited • Board member - Kāinga Ora - Homes and Communities • Director – CentrePort Limited Group • Trustee – Wellington Regional Stadium Trust
David Thomas	• Chair, Ngāti Whakaue Tribal Lands Inc. • Chair, Gypsum Board Manufacturers of Australasia • Shareholder / Employee, Fletcher Building Limited • Director, New Zealand Ceiling & Drywall Supplies Limited • Chair, Altus NZ Limited • Director, Winstone Wallboards Limited
Brendon Green	• Director, Kaitiaki Advisory Limited • Director, Tainui Kawhia Incorporation • Director, Peak2Peak Limited • Executive Director, Advanced Biotech NZ Limited • Economic Portfolio Executive, Te Rūnanganui o Ngāti Hikairo • Management contract, Tainui Kawhia Minerals • Advisor, Meterme • Australia-NZ representative, Wattstock LLC (USA) • Representative of Waipapa Marae, Kawhia, Te Whakakitenga o Waikato Tainui • Runanga Manukau Institute of Technology - Te Whakakitenga o Waikato representative
Hinerangi Raumati-Tu'ua	• Chair, Parininihi Ki Waitotara Incorporated • Trustee, PKW Trust • Chair, Ngā Miro Trust • Chair, Nga Kai Tautoko Limited • Chair, Te Kiwai Maui o Ngaruahine Limited • Director, Taranaki Iwi Holdings Management Limited • Director, Aotearoa Fisheries Limited • Director, Sealord Group Limited • Director, Port Nicholson Fisheries GP Limited • Director, Te Puia Tapapa GP Limited • Director, Tainui Group Holdings Limited • Executive Member, Te Whakakitenga O Waikato • Member, Venture Taranaki.
Dave Chambers	• Director, Paper Plus New Zealand Limited • Director, Living Clean NZ Limited
Frances Valintine	• Board member, Callaghan Innovation • Director and CEO, The Mind Lab Limited • Director and CEO, Tech Futures Lab Limited • Director, Harcourt Jasper Limited • Director, Pointed Tangram Limited • Director, Harper Lilley Limited • Director, On Being Bold Limited • Director, Sandell Trustees Limited • Selection Advisor, Edmund Hillary Fellowship • Trustee, Dilworth Trust Board • Futures Advisor, BNZ Bank

Director	Interest
Colin Magee (Board intern)	• Chair, Ākau Ltd and Ākau Foundation • Member, Advertising Standards Complaints Board • Contractor, College of Law • Director, C Magee Limited • Director, MyCap Limited • Director, MyCap Markets Limited • Member, Te Ārai Tūpono (Audit and Risk Committee) of Te Wānanga o Aotearoa

Report to the Board of Watercare Services Limited
Prepared for the 28 May 2020 Board meeting

Watercare
An Auckland Council Organisation

Chief Executive's report for April 2020

HIGHLIGHTS AND LOWLIGHTS

1. **Health, Safety & Wellness**
   - There were two Lost Time Injuries (LTI), and one Restricted Duties Injury (RDI) involving Watercare employees in April 2020.
   - There were no recordable injuries involving contractors in April 2020.
   - There were three close-calls in March/April 2020.
   - The rolling 12-month Lost Time Injury Frequency Rate (LTIFR) for employees is 10.84 per million hours, exceeding our target of ≤5.
   - The rolling 12-month Total Recordable Injury Frequency Rate (TRIFR) for employees is 20.05 per million hours, exceeding our target of ≤20.
   - **Wellbeing modules:** During lockdown, staff have been sent wellbeing modules via our Immerse online training system.
   - **Return to work under Level 3:** All infrastructure projects restarted in Alert Level 3, with additional safety and hygiene protocols in place.
   - **Working from Home:** Staff working from home during lockdown have been regularly contacted by a member of the Covid-19 created Welfare support team.
   - **Contractor induction:** Covid-19 has provided us with an opportunity to develop an online contractor HSW induction module.

2. **SOI measures**
   - We have 16 SOI measures. We are meeting 13 of these targets and on track to meet a 14th.
   - The average consumption of drinking water per day per resident continues to track above our targets. The measure is a rolling 12-month average, and will remain high for some time as daily water use records were repeatedly broken in January and February 2020.
   - The other missed SOI target is for real water loss. This will be reported in due course, as the consumption data needs to be finalised and checked in our new billing and customer system, IPS. However, with the long, hot, dry summer, resulting in the ground contracting, and therefore many pipe breaks, we anticipate that this measure will not meet the target.

3. People, Capability and Learning:

- The percentage of voluntary leavers and absences due to illness remain below our limits.
- The number of FTEs remains below our budget.

4. Customer service:

- Our Voice of the Customer survey was turned off in April 2020 for the Alert Level 4 Covid-19 lockdown as we were unable to set staff up on the telephony system remotely. When the call centre reopened in Level 2, (once our people could return to the office), the Voice of the Customer survey has been turned on again.
- NPS remains steady at 47 (12 month rolling average), which is a 1 point decline against last month's result. The slight reduction was driven by high contacts volumes for faults during February and March, with a high volume of leaks impacting the rolling average.
- The Customer Satisfaction score remains steady at 74.4.%. This is a rolling 12 month average. While the voice channel in the billing call centre was closed during the lockdown, customers were directed to our website and able to contact us via email. Our email traffic therefore increased significantly.
- Complaints within SLA has declined to 94% just under the SLA target. The increase in complex fault volumes over February and March resulted in more complaints, which were not resolved within the 10 day timeframe. This is because the faults team was trying to manage service levels as priority with a spike in contacts. We have since introduced a revised process, which saw the April 2020 result going up to 100%.
- eBilling has increased to 56%. This is as a result of communications sent directly to customers during lockdown to sign up to eBilling and My Account to promote self service.

5. Community and stakeholder relationships

- **Community and local board engagement**: Over the Covid-19 lock down period Local Board liaison continued via email and in some cases video conference.
  - **Waikato District Council:** The Watercare Waikato Team worked well under lockdown and there were no significant outages at treatment plants or in the reticulation network during April 2020. Work continued on the Asset Management Plan.
  - **Submissions on various documents and bills:** The Environment Committee has recommended a series of changes to the Resource Management Amendment Bill. The Taumata Arowai – Water Services Regulator Bill has been slightly delayed. On 23 April 2020, Watercare spoke to Watercare's submission before the Select Committee on the Infrastructure Funding and Financing Bill. Watercare has offered to contribute to Council's submission on the National Environmental Standards for Air Quality. Watercare continues to consider its position regarding the proposed Waikato Plan Change 1 by Waikato Regional Council. Watercare is considering its position regarding notified resource consent applications filed by Waste Management New Zealand in the Wellsford area.
  - **Māori Engagement & Outcomes:** Our focus is shifting from Maori Engagement to Maori Outcomes in line with the approach being taken by Auckland Council.

- **Communications snapshot**: Over the last month, the implementation of water use restrictions has been our main focus as we educated the public about what Stage 1 water restrictions means for residential and commercial customers. We continued to keep staff informed of our Covid-19 incident management activities. We have also engaged with media extensively regarding the water use restrictions and how we are supporting businesses that are impacted.
- **QUESTAR Award win:** Our Central Interceptor three minute public education video (https://vimeo.com/393772280) won a silver award in the educational/informative category at the 2020 QUESTAR Awards.

6. Natural Environment

- **Watercare's Drought Management Response:** As predicted in this report last month, water use restrictions are required, and have been in place since 16 May 2020, following the resolution of the Auckland Council Emergency Committee on 7 May 2020.
- **Water outlook for May 2020:** At the end of April 2020, system storage was 46.3% against a historical average of 77.4%. As 24 May 2020, total storage was down to 42.5%. The long-range forecast predicts near to below normal rain for May, and near normal rainfall for June to August. Initial indications are that Spring will be dry. In the meantime, the company continues to work on various projects to boost water supply.

7. Resource Management Act Compliance:

- Watercare currently holds 506 active consents across Auckland and Waikato. Of these, 194 relate to water takes or discharges to water, air, or land. Water takes and discharges are the activities most likely to have non-compliances.
- In April 2020, 56 of our 194 discharge and take consents were technically non-compliant; 50 under Auckland Council and 4 under Waikato Regional Council. Two non-compliances in Auckland were Category 3 (one for a water treatment plant and one for a wastewater treatment plant). One non-compliance in Auckland was Category 4 (Helensville wastewater treatment plant).
- There was an increase in technical non-compliance due to two independent factors. Some non-compliance is because of the Covid-19 lockdown, others are the result of changing the way we manage compensation flows from our dam sources during this period of extended drought conditions.
- As in March 2020, the Covid-19 lockdown has meant some routine environmental sampling and reporting was not possible for Health & Safety reasons and because of reduced laboratory capacity, although all critical sampling has continued. We have defined "critical" as those parameters that have numerical limits. We have defined "non-critical" as parameters we must measure, but there are no compliance thresholds. We have also deferred sampling in the receiving environment. Auckland Council confirmed in writing that they understand the need to suspend environmental work during the Covid-19 response period.
- We have applied for emergency dispensation for the changes in compensation flows under Section 330 of the Resource Management Act. Until Auckland Council grants our applications, we are reporting the flow reductions as technically non-compliant.

8. **Assets and Infrastructure**

   - **Central Interceptor:** The CI project has been commended by the Infrastructure Sustainability Council of Australia (ISCA) framework. The verifiers said the CI submission was exemplary and other projects could learn a lot from how the team approached the rating.

9. **Covid-19 Response:**

   - **Watercare response:** We continue to have a full time Incident Response Team working on Covid-19. The overall objectives of the Incident Response Team are to: protect staff and support their families; maintain critical water and wastewater services; and minimise risk exposure.
   - **Covid-19 Recovery (Fast track consenting) Bill:** Watercare is monitoring the progress of this Bill, which will accelerate the consenting for infrastructure projects that are significant in size and create many jobs.

FUTURE OUTLOOK

UPCOMING BOARD ACTIVITY

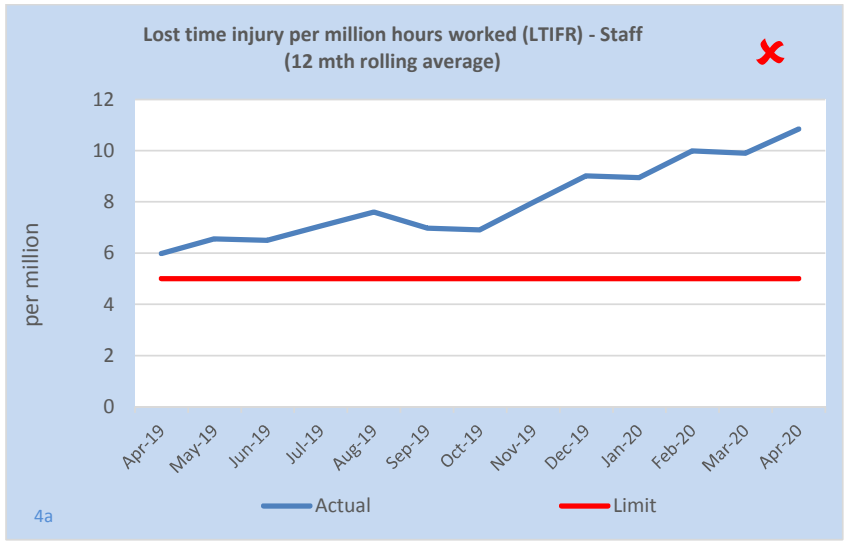
- STP Committee close out meeting – 19 June 2020
- Catch up Te Tangata Meeting – To be confirmed – June 2020
- Workshop afternoon - 29 June 2020
- June Board meeting – 30 June 2020

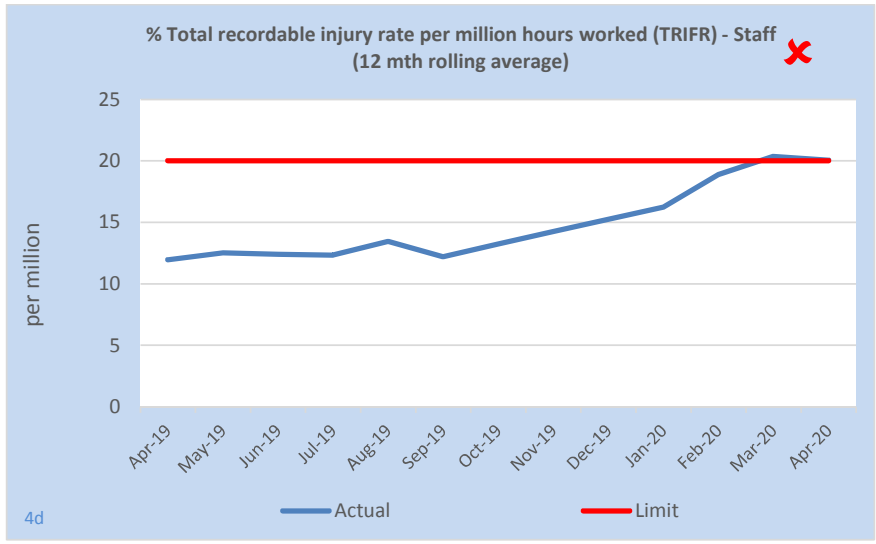
Revised timetable for the Statement of Intent process

- The Covid-19 lockdown has disrupted the Statement of Intent Process. Auckland Council has provided all CCOs with additional time to revise their Statements of Intent in light of Covid-19.
- Watercare is currently revising the Statement of Intent for 2020-2023. The statutory meeting where members of the public will be able to provide feedback on the draft SOI will be held on the morning of 28 July 2020.

Raveen Jaduram
Chief Executive

1. HEALTH, SAFETY & WELLNESS UPDATE





Worker, type of incident and location	Critical Risk (Yes/No) and Severity	Description of injury/incident	Our learnings	The actions we have taken
Watercare RDI Operations - Te Kauwhata WWTP 9248 06/04/20	No- Slip, trip or fall on the same level RDI – 24 days	A worker's knee 'popped' as he exited the work vehicle. He could not straighten it and it was very sore. First aid was provided on-site and the worker saw his physiotherapist who placed the worker on restricted duties The physiotherapist advised this is likely to be an aggravation of a previous work-related knee injury from February.	• Existing injuries present a risk. We need to have visibility and to manage worker activity to avoid further injury	• The worker has been booked for an MRI to assist diagnosis and treatment. In the meantime, he is receiving ongoing physiotherapy treatment
Watercare LTI Operations - Service Delivery 9299 08/04/20	No – Use of hand tools LTI – 14 days	A worker was using a portable drill when the drill bit jammed and broke. The worker's wrist twisted, injuring his hand and finger. The worker was taken to hospital for treatment and was deemed unfit for work for 14 days.	• Workers have a wide range of tasks and equipment to use and need ongoing refreshing and coaching to manage learning decay	• Investigation identified the worker's technique as a contributing factor • Supervisor has provided coaching to the individual and will further support when the task is next performed on site
Watercare LTI MSN 9767 30/04/20	No – Environmental conditions LTI – 1 day	A worker was walking on a customer's driveway when the wind blew dust into his eye. He rubbed his eye but thought it was OK. The following morning the worker's eye was irritated. He contacted his supervisor and went to the doctor. There was a small scratch on the worker's cornea which was treated, and the worker had one day off work.	• Early treatment prevents injury escalation	• Workers have been advised to wear safety glasses at all times when on site • Workers have also been advised that eye irritations should be irrigated

SIGNIFICANT INCIDENTS/HAZARDS/CLOSE CALLS

There was one close call in late March (not reported in the previous report), and two in April 2020.

Worker, type of incident and location	Critical Risk (Yes/No) and Severity	Description of injury/incident	Our learnings	The actions we have taken
Watercare Close Call Operations – Service Delivery 9176 31/03/20	Yes – Confined Space Entry	Workers were using CCTV to inspect a sewer chamber when the camera became stuck inside the chamber The work team entered the chamber to retrieve the camera. No formal permit to work was completed, however verbal authorisation was provided over the phone.	• We need to manage communication during times of stress or change to ensure workers are not overloaded with information • When under stress, usual thought processes can be interrupted	• Initial investigation findings indicate distraction as workers were in the initial stages of COVID-19 controls and were trying to retrieve the camera quickly
Watercare Close Call Operations – Waiuku WTPs 9611 26/04/20	Yes – Security Breach	The Cornwall Road WTP was left unsecured with the gate left open. This allowed access to the operational area and chlorine gas storage. This was the third time small, unattended sites have been left open within the last two months. No buildings have been left unlocked – only the grounds.	• Site security relies heavily on visitors following lock-up procedures • Other less manual means of securing the sites should be investigated • Further monitoring and investigation required	• An investigation has been initiated and is ongoing • The most recent occurrence involved a Lab Sampler. This incident has been managed both with the individual and the wider team • The other two incidents were found by Service Delivery technicians and are under investigation • The sites are visited by several groups including; City Care, contract gardeners, samplers, operators and maintenance calibration technicians
Contractor Close Call Fletcher Construction 9673 30/04/20	Yes – Biological Hazard	A worker was feeling unwell. They phoned in to let their supervisor know they were unwell and would get tested for Covid-19. The work bubble was stood down pending test results in line with the contractor site management plan. The test was negative for Covid-19 and workers were permitted to return to work.	• Workers want to do the right thing from a safety point of view • Part of good safety leadership is to recognise and reinforce safe behaviours	• The worker and contractor were recognised for following procedure • A positive safety alert was sent to all Infrastructure managers to reinforce the positive behaviour • This was included in an organisation-wide reinforcement to the Fletcher's team

HEALTH, SAFETY & WELLNESS UPDATE continued…

Wellbeing Modules

In a time of significant change, we identified worker wellbeing as a risk, particularly for the large group working from home. A series of wellbeing modules were delivered in April to help workers negotiate and successfully manage the changed work environment:

- Working Out Your New Normal
- Social Interactions and Relationships
- Financial, Physical and Nutritional Wellbeing

Our intention is to continue to develop further modules to be delivered monthly in line with a revised programme of work.

Infrastructure and Central Interceptor Return to Work

With a shift from Covid-19 Alert Level 4 to Alert Level 3, many of our Infrastructure projects were able to return to work, albeit with additional processes and controls in place.

We referred to the 5-step return to work guidelines provided by the Construction Accord. This was used to review contractor plans as well as to develop guidance for Project and Contract Managers.

Overall, return to work went smoothly with sound plans and good compliance by workers, as seen in the positive safety alert sent out by the Chief Infrastructure Officer after a worker followed correct procedures and alerted their supervisor by phone that they were feeling ill and would not return to work until they had received the results of a Covid-19 test.

The **Central Interceptor** GA-JV Return to Work plan was recognised by CHASNZ as an outstanding example of a comprehensive approach to the Covid-19 requirements. The Contractor's H&S Manager was interviewed as an education tool for the CHASNZ website.

Contractor Induction

Currently, Contractor Inductions are run as face-to-face sessions by the Operations team. This approach uses creates significant resources for both Watercare Operations team and contractors and is not best-practice in the current social-distancing environment.

We have identified an opportunity to improve the quality and professionalism of the Contractor HSW Induction. The HSW team is working closely with the Operations, Learning and Occupational Development and Communications teams to develop an online HSW module.

We are using existing technology to deliver the induction and record completion and are investigating linking this into our site security systems.

The project is progressing well – the pilot programme is currently being trialled and tested with user groups.

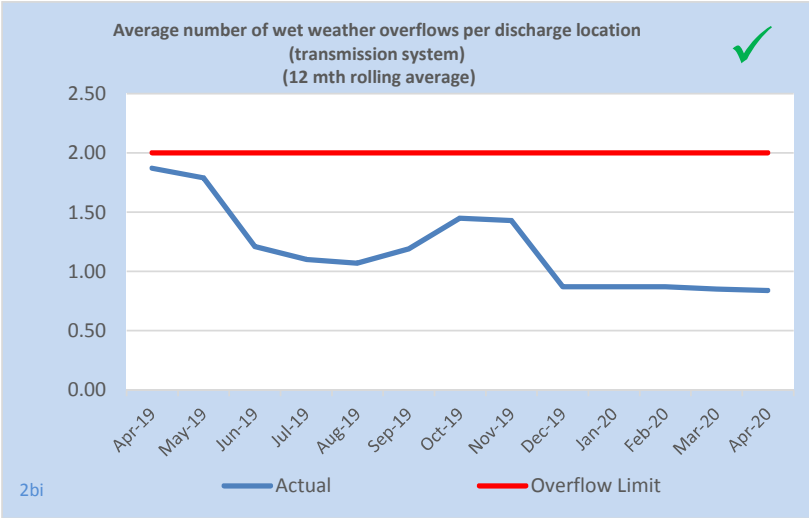
COVID-19 Welfare and Incident Management Support

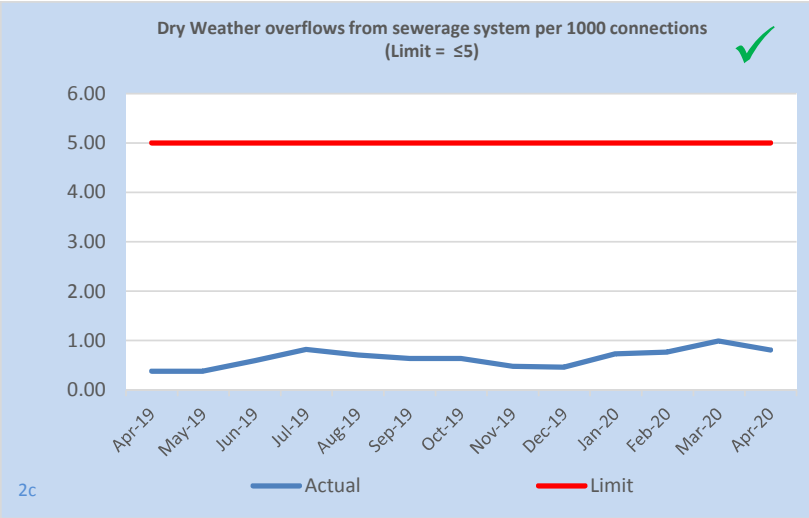
The People team has continued to provide Welfare support to the Operations team.

Staff working from home have been regularly contacted by a member of the Welfare support team and the Wellbeing App is being regularly used.

HSW meetings have continued as normal.

2. SOI MEASURES – 2019-2020 - Natural environment





0

Non-compliance with RMA consents measured by number of abatements notices etc

2d

SOI MEASURES – 2019-2020 - Assets and Infrastructure

100% ✓

Volume of water meeting Aa standard

1a

100% ✓

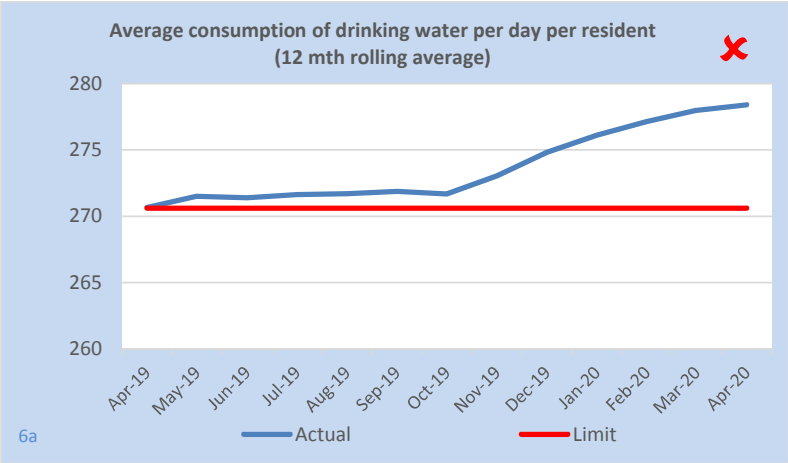
Compliance with Part 4 of the Drinking Water Standards (bacterial)

1a

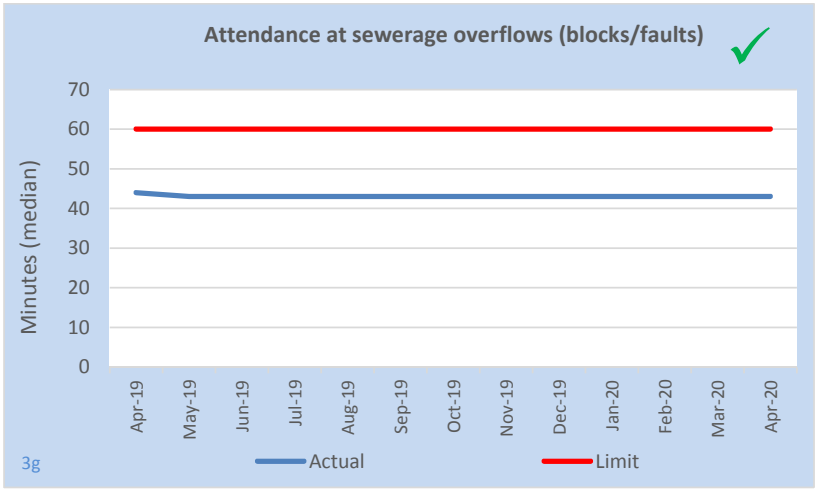
100% ✓

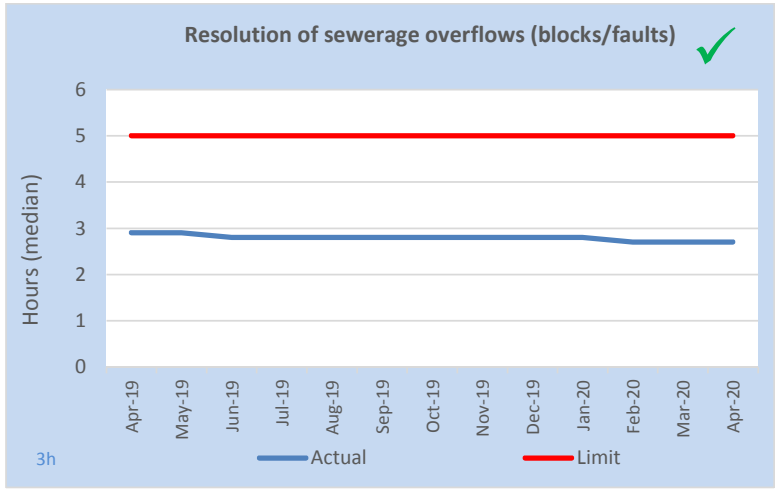
Compliance with Part 5 of the Drinking Water Standards (protozoal)

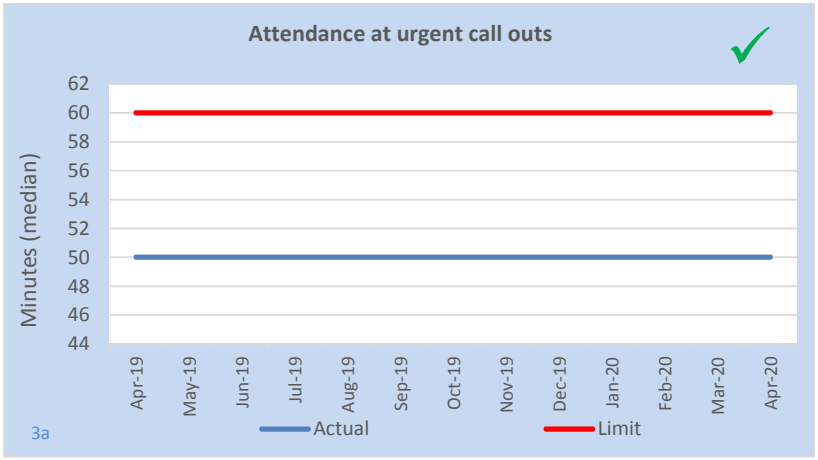
1b

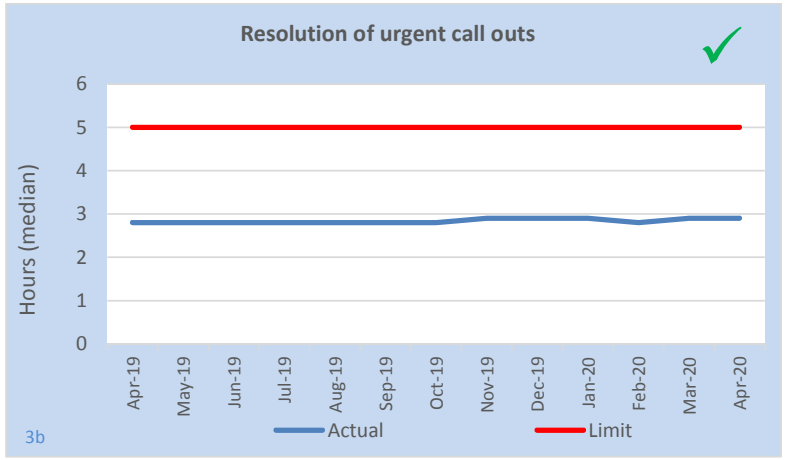


SOI MEASURES – 2019-2020- Community and Stakeholder relationships

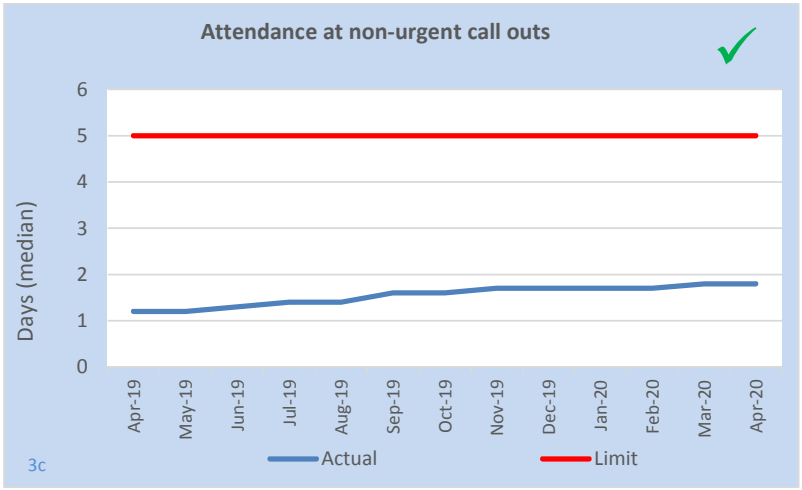


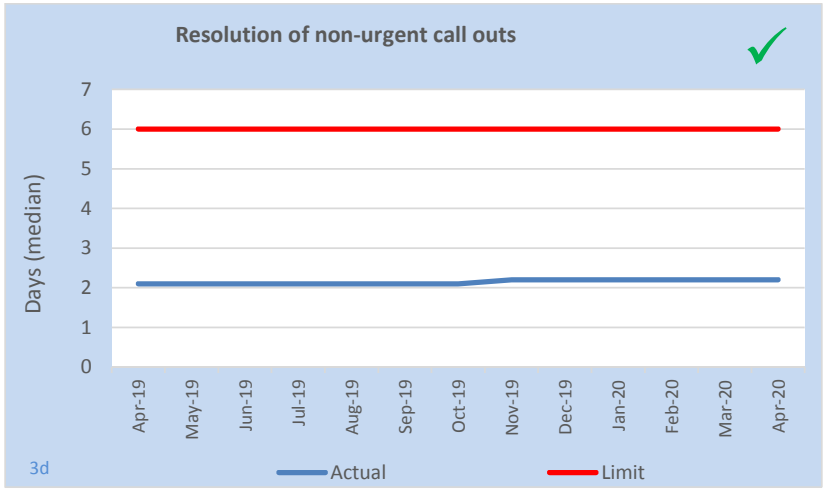


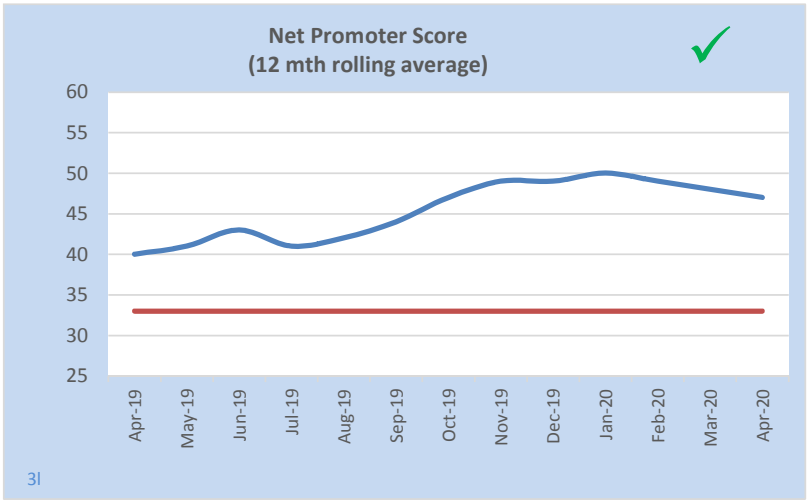




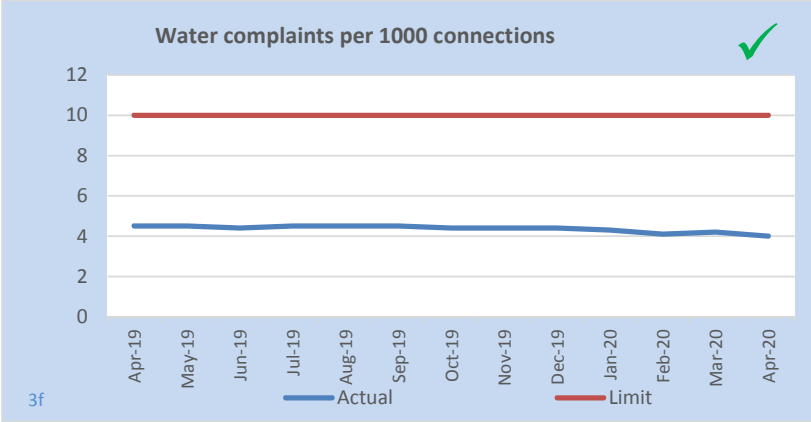
SOI MEASURES – 2019-2020 - Community and Stakeholder relationships

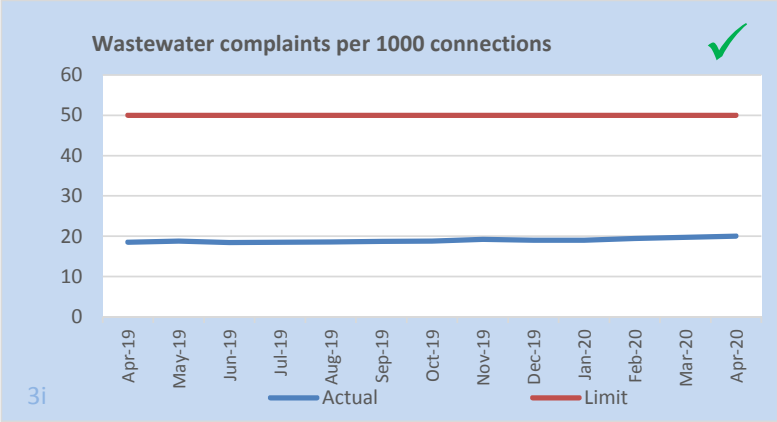




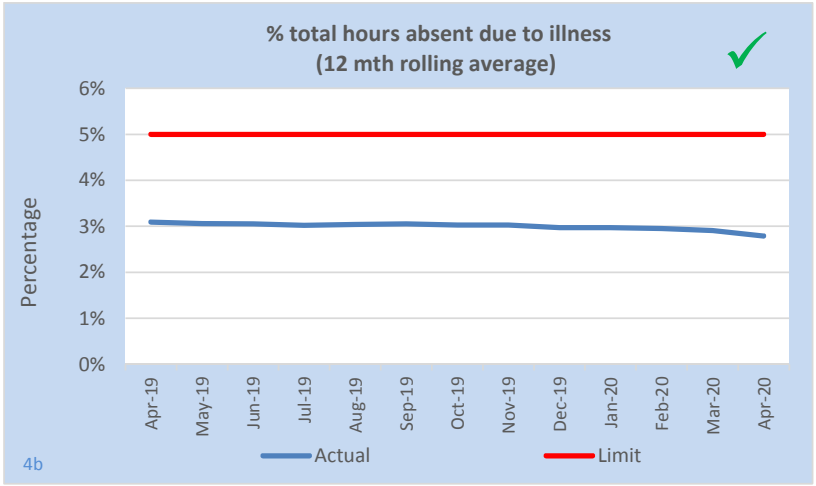


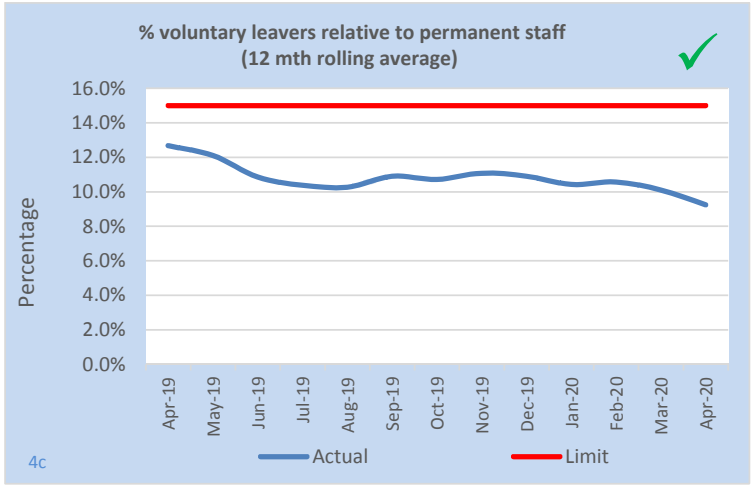
SOI MEASURES – 2019-2020 - Community and Stakeholder relationships

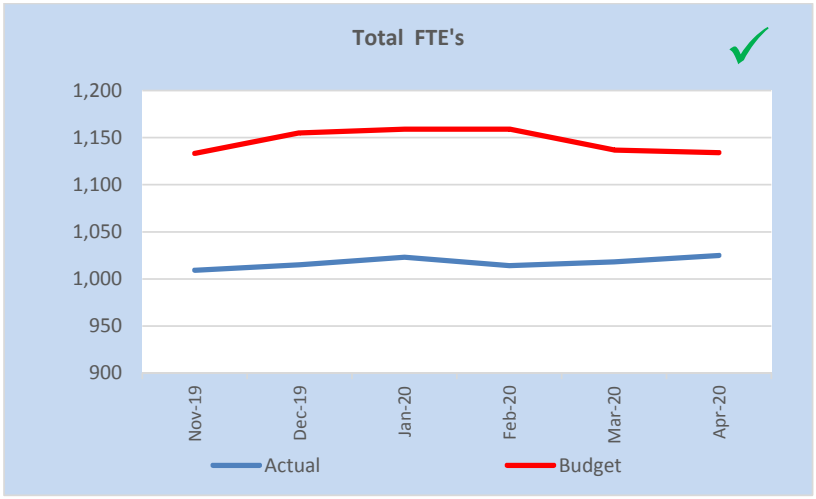




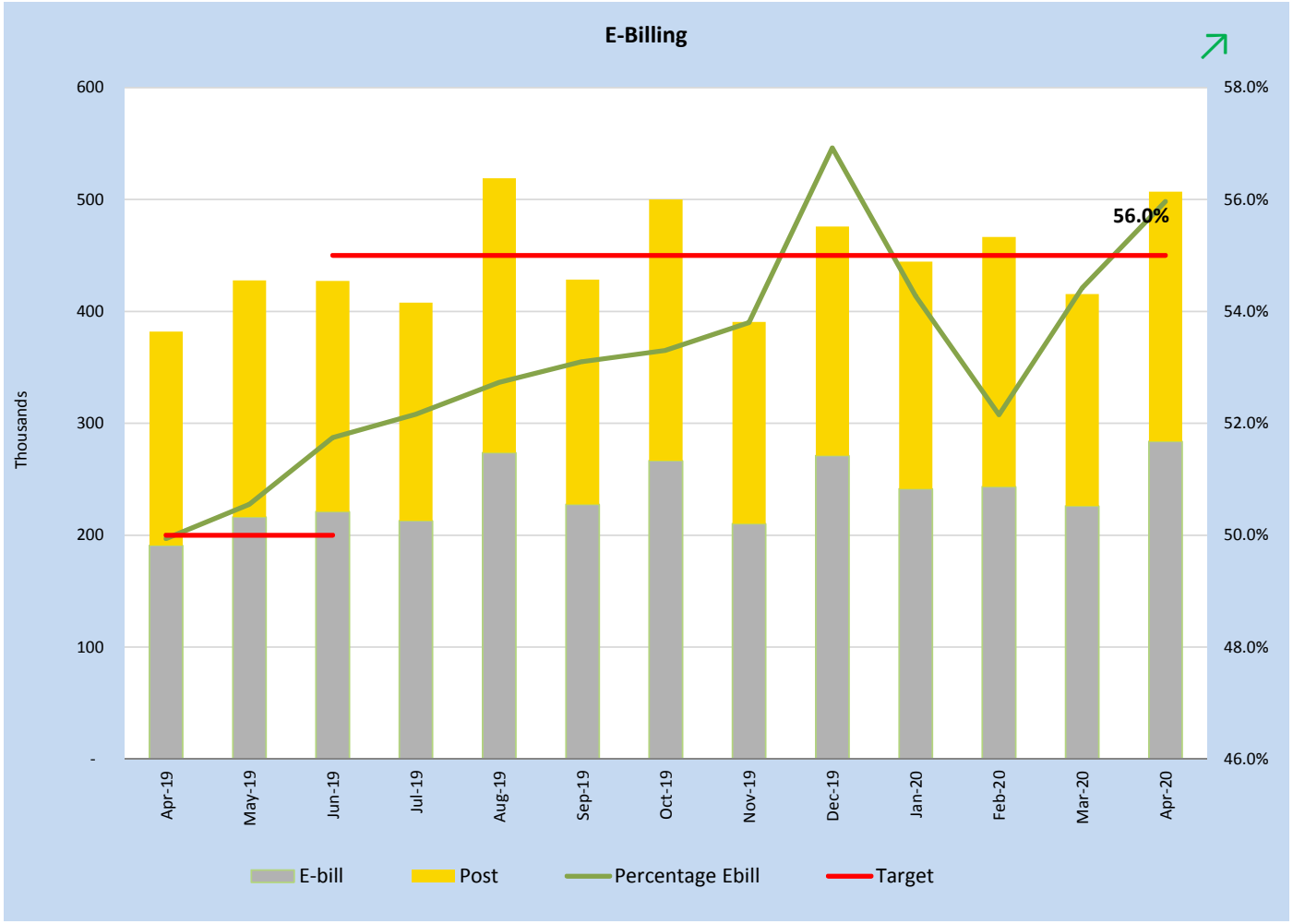
3. PEOPLE, CAPABILITY AND LEARNING







4. CUSTOMER SERVICE



5. COMMUNITY AND STAKEHOLDER RELATIONSHIPS UPDATE

LOCAL BOARD ENGAGEMENT

WORKING WITH LOCAL BOARDS

- Over the Covid-19 lock down period Local Board liaison continued via email and in some cases video conference.
- A significant focus over the later period of the lock down was the deteriorating water supply situation. Local Board members have been kept up to date with regular emails including information on the water use restrictions process approved by the Emergency Committee. Responses have also been prepared to questions from elected members and escalations form members of the public.
- The start-up of construction work following the lock-down was communicated with the relevant local boards. Updates were provided of specific construction activity in local board areas, including for projects such as the Central Interceptor, Snells Algies wastewater outfall and the Orewa watermain among others.
- Central Interceptor and other project bulletins continued and were distributed to interested local boards.

WAIKATO DISTRICT COUNCIL (WDC) STATUS UPDATE

- Following the move from Level 3 to Level 2 more staff have returned to site and office work. There have been no Covid-19 related issues to date.
- There were no significant outages at treatment plants or in the reticulation networks in April.
- Work is continuing on developing the initial Asset Management Plan and Business for the contract. Both due to be submitted to WDC in June.
- The contract award document for the Meremere MBR has been submitted to the Water Governance board for approval in May
- Work is continuing on preparing discharge consent applications for Raglan, Meremere and Te Kauwhata.

COMMUNITY AND STAKEHOLDER RELATIONSHIPS UPDATE continued

WATERCARE'S SUBMISSIONS ON VARIOUS BILLS

The Resource Management Amendment Bill

- The Government is currently proceeding with a two stage process to reform the Resource Management Act 1991 (RMA). The Resource Management Amendment Bill 2019 (Amendment Bill) is the outcome of the first stage.
- Amendment Bill reverses some of the previous government's RMA amendments, increases infringement fines and introduces a new planning process for regional plan changes needed to protect freshwater.
- The Environment Committee has recommended a series of changes to the Amendment Bill. Its recommendation to allow local authorities to consider and manage the adverse effects of greenhouse gases on climate change is particularly significant.

Taumata Arowai – the Water Services Regulator Bill

- The Water Services Regulator Bill was introduced to Parliament in December 2019 to establish Taumata Arowai – the Water Services Regulator as a new Crown agent. The Bill was expected to be introduced in April 2020, however has now been delayed with expected introduction into Parliament any time over the next few months.

Infrastructure Funding and Financing Bill (IFF Bill)

- The IFF Bill was introduced into Parliament in December 2019. This Bill would establish an alternative funding and financing model to address challenges and support the provision of infrastructure to support housing and urban development. Watercare made a submission. Its submission points focused on allowing Watercare to establish an SPV, have greater designing, planning and construction roles, and not having the IFF Bill to compromise Watercare's IGC's. Submissions closed 5 March 2020. Marlon Bridge spoke to Watercare's submission to the Select Committee on 23 April.

National Environmental Standards for Air Quality

- MfE are consulting on their "Proposed amendments to the National Environmental Standards for Air Quality – Consultation document" ("NPS-AQ"). These amendments focus on particulate matter and mercury emissions. We are currently assessing the possible implications on Watercare. The submission date has now been extended out until 31 July 2020. Watercare will not make its own submission but has offered to contribute to Council's submission.

Proposed Waikato Plan Change 1 by Waikato Regional Council

- Proposed Waikato Regional Plan Change 1 – Waikato Regional Council. On 18 March 2020, WRC councillors voted in favour of notifying a decisions version of Plan Change 1 (water quality). WRC has applied to the Environment Court to extend the appeal period out to 50 working days (it is normally 30 working days). If an extension is granted, the appeal period would close 2 July. Overall, Watercare is relatively satisfied with WRC's PC1 decisions version, but it still actively considering its position.

Waste Management New Zealand in Wellsford

- Waste Management New Zealand ("WMNZ") notified a series of resource consent applications (including land use consents, discharge and water permits) to construct and operate a new regional landfill in Wayby Valley (Dome Valley). WMNZ are also seeking a Private Plan Change to include a new precinct which would be included within the Auckland Unitary Plan. This plan change would specifically recognise this proposed Auckland Regional Landfill. Submissions close on 26 May 2020. Watercare is considering its position on these applications, but is likely to make a submission due to the potential to impact on groundwater in the area which is a future water source for Wellsford

COMMUNITY AND STAKEHOLDER RELATIONSHIPS UPDATE continued

MĀORI ENGAGEMENT AND OUTCOMES IN APRIL 2020

Our focus is shifting from Māori engagement to Māori outcomes in line with the approach being taken by Auckland Council.

Activities undertaken in April 2020 included

- Working on Watercare's draft Māori outcomes framework and priorities
- holding various discussions and engagement meetings with Waikato Tainui regarding the rāhui on the Waikato River and Waipaa rivers during Alert Level 3 and the affect on Watercare's consent to take water from the river.
- Various discussion with local iwi regarding emergency s330 Resource Management Act compensation flows, including with Te Wārena Taua, Te Kawerau ā Maki (Waitakere); and James Brown, Ngāi Tai ki Tāmaki (Cosseys and Wairoa streams).
- Meeting with Waikato Tainui regarding the Waikato River seasonal take application and the Waikato River second take;
- Meeting with the Chair Ngāti Whanaunga and Gavin Anderson, Kaitiaki Ngāti Whanaunga regarding the water storage situation and future planning for the Hunua and provision of water
- Continuing to identify Mana whenua opportunities in general, and also for the CI project in particular.
- Meeting with the Māori Outcomes Steering Group, together with Pānuku, ATEED and AT
- Leading discussions with the Chair of the Mana Whneua Management Kaitiaki Forum regarding Covid-19 and Mana Whenua involvement – in this regard we continued our communications with Mana whenua ō Tāmaki Makaurau regarding the severe drought.
- In relation to maraes, we corresponded with Kowhai Olsen of Makaurau Marae, Te Ahiwaru regarding Covid-19 and Biosolids process

CENTRAL INTERCEPTOR PUBLIC EDUCATION VIDEO WINS PRESTIGIOUS QUESTAR AWARD

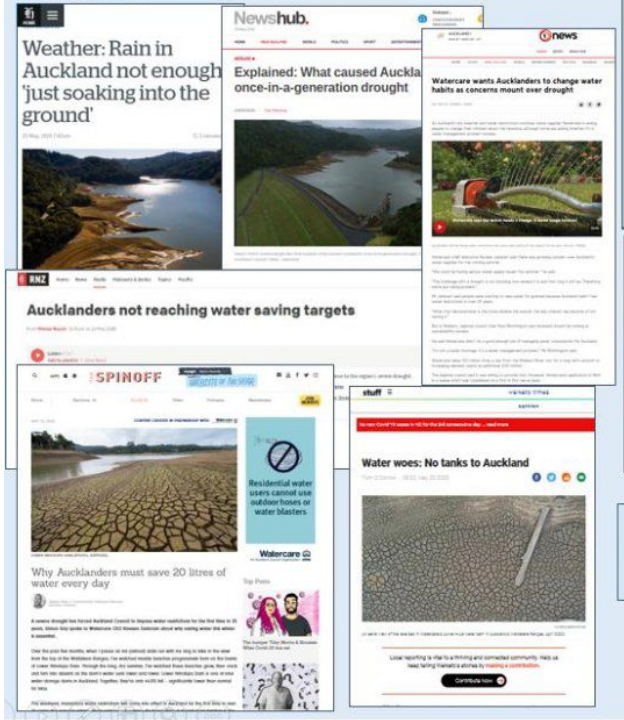
- Our Central Interceptor 3 minute public education video (https://vimeo.com/393772280) won a silver award in the educational/informative category at the 2020 QUESTAR Awards.
- QUESTAR is an international festival that recognises the best commercials, TV content, in-house videos and web links from across the world.
- Everyone who featured in the video is either a member of the Watercare team, a friend or family member.
- The video was produced in house by Watercare's Communications team, and was written and directed by Maxine Clayton, Watercare's Media stakeholder liaison advisor.

Monthly snapshot of communications and stakeholder engagement

Enabling engaged communities and stakeholders

Media

As part of the drought communications campaign, we engaged with media extensively: we organised interviews and features in print, radio and TV: NZ Herald, Stuff, Radio New Zealand, Three News (NewsHub), TVNZ as well as a feature in partnership with the Spinoff. Key messages include highlighting the lack of rainfall, the severity and rarity of a drought of this scale and reiterating key water conservation tips and water saving targets for Aucklanders to do their part. Coverage also included the water restrictions announcements and how we will implement that and support businesses that are impacted.



Enabling safe, happy and empowered teams

Staff

We continued to updated staff on the drought with weekly water storage, rainfall and demand dashboards, and briefings.
We also continued to keep staff informed on COVID-19 level 2 protocols to ensure they stay vigilant.

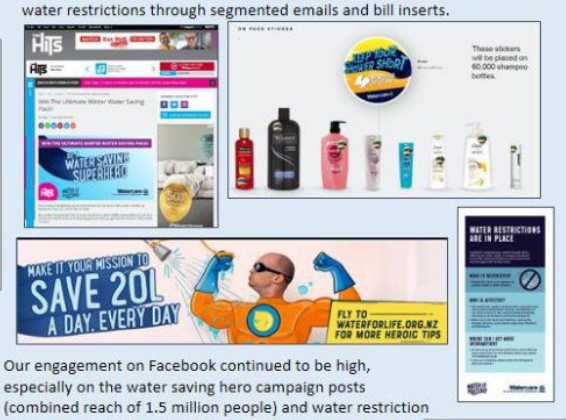
Stakeholders

We continued to keep the local boards and councillors informed on the ongoing drought; our weekly stakeholder briefing pack provides information on our water storage levels, consumption and key messages on water conservation. They have been extremely supportive of our efforts and have shared our key messages on social media.

Enabling customer trust and value

Customers and communities

As part of the drought campaign, we continued to extensively promote and advertise our key water conservation messages through radio advertisements across 24 stations running at high-frequency, large scale adverts in NZ Herald, Youtube video advertisements (combined reach of over 2 million impressions) Google ads, competitions on the HITS and Breeze radio stations. We also notified customers and businesses on water restrictions through segmented emails and bill inserts.

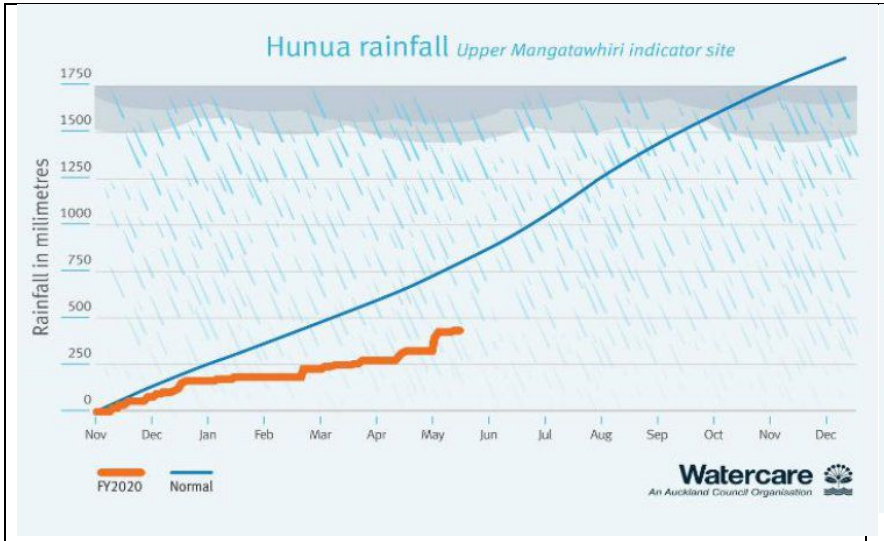


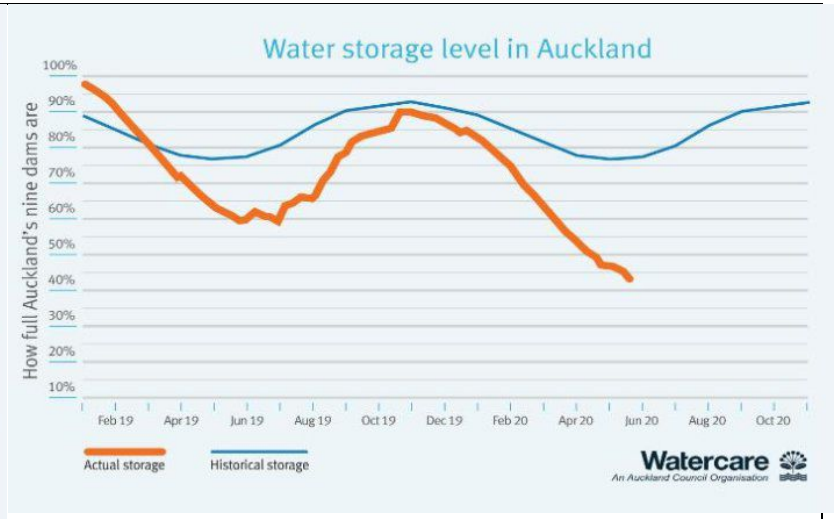
Our engagement on Facebook continued to be high, especially on the water saving hero campaign posts (combined reach of 1.5 million people) and water restriction announcements (combined reach of over 450,000 people).

6. NATURAL ENVIRONMENT

Watercare's Drought Management Response

As reported last month, the Auckland region is currently experiencing severe drought. Since the start of 2020, we have received less than half (47 per cent) the usual rainfall (left graph). Our dams in the Hūnua and Waitakere Ranges rely on rainfall to replenish water stores. With record low rainfall, total water storage levels have continued to decline.





Since February 2020, we have been encouraging people to voluntarily save water via the Water is Precious campaign. We are also working to boost our supply (e.g. by reducing compensation flows from dams, maximising production at Waikato and Onehunga Water Treatment Plants. We are also working to return two former water sources – Hayes Creek Dam in Papakura and a bore in Pukekohe – to supply. However, despite these activities and without any significant long-term rainfall predicted, mandatory water restrictions have become necessary.

On 7 May 2020, a paper went to the went to the Auckland Council's Emergency Committee titled "Auckland response to the 2019/2020 drought" (**Appendix A)**. The Chief Executive and Mark Bourne, Watercare's Head of Servicing and Consents/ Incident Controller for Watercare's Incident Team, attended this Emergency Committee meeting to respond to various questioning from the Councillors.

Below is the resolution passed by the Emergency Committee at that meeting:

That the Emergency Committee:

a) note that the ability for Watercare Services Limited (Watercare) to maintain an adequate supply of drinking water to the Auckland metropolitan system is at risk due to the 2019/2020 drought

b) approve restrictions on the use of water supplied to customers connected to Watercare's metropolitan system under clause 12(1) of the Water Supply and Wastewater Network Bylaw 2015, in accordance with Watercare's Auckland Metropolitan Drought Management Plan, as outlined in clauses c) and d) below

c) approve the following mandatory Stage 1 water use restrictions, to come into force on 16 May 2020:

- *i) Residential*
  - *A) no use of an outdoor hose or water blaster*
- *ii) Commercial and non-residential*
  - *A) no use an outdoor hose or water blaster unless it is for a health, safety, emergency or biosecurity reason*
  - *B) no operation of a carwash unless it uses recycled water*
  - *C) no watering of sports fields, plants or paddocks unless an irrigation system is fitted with soil moisture or rain sensors*

d) approve the following Stage 2 water use restrictions, to come into force once the trigger levels in Figure 1 of the Auckland Metropolitan Drought Management Plan are reached:

- *i) Residential*
  - *A) no use of an outdoor hose or water blaster*
- *ii) Commercial and non-residential*
  - *A) no use of an outdoor hose or water blaster unless it is for a health, safety, emergency or biosecurity reason*
  - *B) no operation of a carwash unless it uses recycled water*

C) no watering of sports fields

D) no watering of plants or paddocks unless an irrigation system is fitted with soil moisture or rain sensors.

e) delegate to Watercare the enforcement of water use restrictions under clause 12(4) of the Water Supply and Wastewater Network Bylaw 2015, in accordance with its Auckland Metropolitan Drought Management Plan

f) delegate to Watercare the responsibility to publish the necessary public notices under clause 12(3) of the Water Supply and Wastewater Network Bylaw 2015 prior to the stage 1 or stage 2 restrictions coming into force;

g) agree that the water use restrictions and delegations in clauses b) to f) will apply until Auckland Council is satisfied, based on advice from Watercare, that there is no longer a risk to the adequate supply of drinking water to Auckland metropolitan customers

h) request Watercare to continue to provide regular updates to Auckland Council on the implementation of water use restrictions and its ability to maintain an adequate supply of drinking water

i) request Watercare to work directly with key customers to ensure clear lines of communication around the effects of water restrictions and possible mitigation measures

j) agree to convene a joint workshop of the Governing Body, or appropriate council committee and the Watercare board of directors to canvass the urgent need to examine a climate resilient water strategy for Auckland, and other relevant issues.

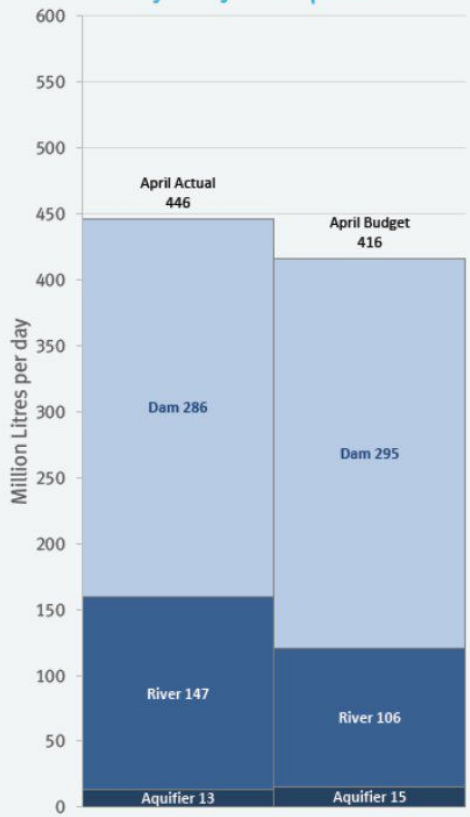
Water outlook for May 2020

Water position: Abundant | Managed | Stressed | Limited | Restricted Stage 1

Rainfall for April

	Waitakere	Hunua
April Actual	36.5mm	55.0mm
April Normal	130.3mm	133.7mm
Nov to April Actual	393.5mm	325.5mm
Nov to April Normal	702.1mm	715.7mm

Average daily water produced



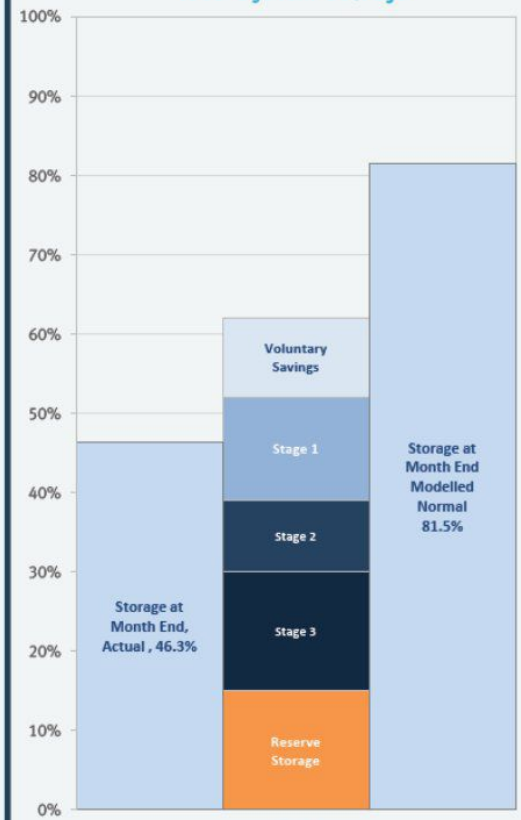
Water resources position

- Total system storage decreased through April from 53.8% to finish the month at 46.3%, compared to the FY2020 budgeted storage response of 81.5% for a modelled normal response for April.
- Rainfall for the month of April was again well below normal for all of Auckland. The Waitakere and Hunua ranges received 28% and 41% of their historical averages respectively. Analysis undertaken by NIWA suggests that current rainfall totals since November 2019 to April 2020 are now worse than those of a 1 in a 100 year drought.
- Storage remains below levels that would normally be experienced at this time of year (77.4%), if compared with the historical average (1981–2010). April's storage response drop was above that of a fifty year dry (48.7%), and is now close to a 100 year dry response (41.3%).
- Abstractions from Waikato and Onehunga continued to be optimised throughout April to reduce abstraction pressures on the storage lakes keeping the Waikato Water Treatment Plant running at maximum capacity.
- Total water treatment plant production was 7.0% above budgeted volumes for April, and 8.1% above budget for the Financial Year to date.
- Demand throughout April dropped from its high in summer in response to the change in weather as temperatures started to lower, to the COVID-19 lockdown and to the 'Water is precious' advertising campaign. There were increases in the month in response to the COVID-19 level changes and government announcements.

Long range forecast position

- Rain for May has been forecast to be near to below normal for Auckland.
- May 2020 temperatures are expected to be near or above average, a trend expected to continue throughout winter.
- Current long term forecasts are suggesting that rainfall should be near normal for June to August, however these forecasts would not be sufficient to overcome the deficit experienced to date. Initial indications are that spring is likely to be dry.
- It is important to note that reduced short-term weather forecast accuracy has been confirmed due to the sharp drop in the number of airplane observations of temperature and wind that weather models use. It is likely that long-range models are also affected, but as yet this has not been quantified.
- Judicial abstractions and operational decisions across our water sources have ensured sufficient water resources for the summer and early autumn, more proactive measures for demand and supply are required to ensure secure water supply for coming spring/summer.

Total system storage



Watercare

7. RESOURCE MANAGEMENT ACT COMPLIANCE – Auckland Council

April 2020 Summary	Compliance proceedings	Nil	Environmental incidents of significance	0
	Category 4 non-compliant consents held by Watercare	1	Category 3 non-compliant consents held by Watercare	2

	Nov	Dec	Jan	Feb	Mar	Apr
Number of non-compliant consents held by Watercare in Auckland[1]	5	12	13	9	21	52
Number of non-compliant category 3 or 4 conditions[2] *Non -compliance where the result will have or has the potential to have an adverse or significant adverse effect on the environment, or where there has been a repeat of a lower score non-compliance.* *We would typically receive notification or have warning of a category 4 non-compliance well before we prepare this report.*	2	3	3	3	3	3
Number of non-compliant category 1 or 2 conditions[2] *Technical non-compliance with no more than minor potential or actual adverse effect to the environment. For example, reports provided after due date.*	8	8	9	6	22	36

Notes: *1 – excludes trade waste consents; 2 - Excludes conditions duplicated across consents.*

Area	Background and Reason for Non-Compliance	Summary of Current Actions	Current Self-Assessed Council Compliance Rating
WATER TREATMENT			
Huia Village	Long-term issue. Consent has a condition for some recycling of process discharges back to the dam, but this recycling has not been possible given the existing infrastructure at site. Instead, all discharges go direct to Huia Stream, but monitoring shows no adverse environmental effects.	Completion of upgrade expected by end June 2020.	3 – Ongoing issue (negligible environmental impact)
WASTEWATER TREATMENT			
Helensville	On-going water quality issues at the compliance point. Upgraded to Category 4 after Auckland Council inspection.	Remediation work has begun. Works expected to be complete by end June 2020.	4 – Ongoing issue (Auckland Council assessment)
Denehurst	Vegetation on irrigation field has slowly decreased over time. Planting-density no longer meets resource consent requirements, and lack of vegetation likely reducing irrigation field efficacy for passive wastewater treatment.	Replanting delayed by Covid lockdown. Now due to occur in winter 2020.	3 – Auckland Council assessment after inspection; small scale irrigation means effects on groundwater less than minor.

RESOURCE MANAGEMENT ACT COMPLIANCE - Waikato Regional Council

April 2020	Compliance proceedings	Nil	Environmental incidents of significance	Nil
Summary	Category 4 non-compliant consents held by Watercare	Nil	Category 3 non-compliant consents held by Watercare	Nil

	Nov	Dec	Jan	Feb	Mar	Apr
Number of non-compliant consents held by Watercare in Waikato [1]	3	2	1	0	6	4
Number of non-compliant category 3 conditions[2] *Non -compliance where the result will have or has the potential to have an adverse or significant adverse effect on the environment, or where there has been a repeat of a lower score non-compliance.* *We would typically receive notification or have warning of a category 4 non-compliance well before we prepare this report.*	1	0	0	0	0	0
Number of non-compliant category 1 or 2 conditions[2] *Technical non-compliance with no more than minor potential or actual adverse effect to the environment. For example, reports provided after due date.*	3	2	1	0	4	6

Notes: *1 – excludes trade waste consents. Consents held by Watercare include the Waikato WTP, Pukekohe WWTP and associated pump stations, along with the Lower Mangatangi and Mangatawhiri dams. The assets we operate for Waikato District Council are operated under consents held by WDC and are not included in this report; 2 - Excludes conditions duplicated across consents*

ASSETS AND INFRASTRUCTURE

CENTRAL INTERCEPTOR (CI) COMMENDED FOR SUSTAINABLE DESIGN

The CI is piloting the first Infrastructure Sustainability rating for Watercare and is also the first ever pipeline project to seek an Infrastructure Sustainability Council of Australia (ISCA) framework rating.

The ISCA framework provides a common language for sustainability in infrastructure and benchmarks gold-standard sustainability performance. An ISAC rating assesses projects for whole-of-life impacts of their assets in environmental, social, economic, and cultural areas.

After the first round, the detailed work done during the CI Project's concept and detailed-design phases (which focused on sustainable outcomes) achieved a score of 39.9 points (anything above 25 is "Commended"). The ISCA verifiers said the CI submission was exemplary and that other projects could learn a lot from how the team have approached the rating. They also noted that sustainability goals and outcomes appear to be taken seriously by Watercare and the CI project team.

The project scored well for energy reduction and climate change adaptation elements in the design. Major aspects of energy reduction on the CI include changes in design which mean construction footprints are smaller and there is less fuel used in excavation and spoil haul. Additionally, Puketutu will be receiving a significant proportion of the tunnel's spoil which significantly reduces the haul distance from the Māngere construction site.

Climate change adaptation has been considered in relation to a) tunnel sizing, b) ensuring emergency relief points are out of sea level rise zones; c) ensuring the drop shafts are raised out of flood plains. These actions are well-aligned to the wider goals of Watercare's Climate Change Strategy.

The next focus of the team is to demonstrate ecological enhancement, water and materials reductions, and preservation of heritage values.

The team's goal is to achieve a score of 50 and are working to achieve this in the second and final rounds of verification.

Other projects that have achieved an IS rating in New Zealand are the City Rail Link (C1 & C2), Madden-Packenham Streets upgrade in Wynyard Quarter, McDougall chair lift replacement at Cardrona, Queenstown, and Auckland Airport for its operations.

8. WATERCARE'S COVID-19 RESPONSE

In April 2020, we continued to have a full time Incident Response Team working on Covid-19. Team members are from all areas of the business and are experts in their fields. Key members of the team all have deputies, and the teams worked on a one week on- one week off basis.

The overall objectives of the Incident Response Team are:

- Protect staff and support their families
- Maintain critical water and wastewater services
- Minimise risk exposure

The Board receive weekly briefings from Senior Management on Covid-19, and will do so until these are no longer required. As the situation is fast moving, the briefings are quickly overtaken.

Our People

In April 2020, Watercare has 180 staff in total working at our water and wastewater treatment plants, and around 20-40 spread out across our Head Office at Newmarket. We introduced procedures and new shift rosters to ensure that our people are able to physically distance themselves from others whilst they work. 180 is the minimum level management consider prudent to maintain operations. The remaining staff worked from home, and continue to do so even though we are now in Alert Level 2.

Staff continue to be provided with regular email and video briefings from the Covid-19 team, the CE and via the Intranet.

To date, none of our staff have been diagnosed with Covid-19.

Our Construction Sites

With the move to Alert Level 3 in late April 2020, all of our construction sites reopened, including the Central Interceptor. We are, and will continue to, follow the Covid-19 Standard for New Zealand Construction Operations (https://www.chasnz.org/covid19), to ensure our people and contractors remain safe.

Our Operations

With the move to Alert Level 3, our operations teams could restart most of their usual work, whilst also keeping themselves and the community safe.

Our Customers

We are maintaining communications with our customers, and have a page on our website titled “Our approach to Covid-19 and some changes to how we operate”. Customers continue to receive bills, which will be an estimated bill based on the average of the last two actual reads recorded as our meter reading team has not been reading meters in Alert Level 4. Meter reading, which is a solitary task, recommenced in Alert Level 3.

Financial outlook

If the pandemic response is protracted, payment of water bills and IGCs may be impacted - this position continues to be monitored. A range of scenarios are being developed to assess the potential financial impacts during and post the Covid-19 incident.

9. COVID-19 Recovery (Fast-track Consenting) Bill

In mid-April 2020, Minister Parker released a Cabinet paper on the proposal to accelerate consenting of infrastructure and development projects to assist New Zealand's Covid-19 recovery. The Cabinet Paper recommends that while existing processes under the RMA "adequately enable development in normal circumstances", those processes are not considered well-equipped to manage consenting of projects at pace. We understand that a Bill will be introduced shortly, and is intended to be enacted in late June 2020. The Bill is expected to briefly go to Select Committee. Once enacted, the Act would be repealed in two years.

The Minister has stated that eligible projects will have to be "significant" in size and create many jobs, and that both private and public projects would be considered.

The Bill will propose three ways to accelerate consenting for projects:

1. Some specific projects ("up to six" from NZTA's land transport programme) will be listed in the Bill and will get resource consent once the Bill is passed, similar to what happened through the Hurunui/Kaikōura Earthquakes Recovery Act 2016.

2. Some Government-led projects will be able to undertake small scale works as either deemed permitted activities or by "self-consenting".

3. "Eligible" public or private projects can apply to the Minister to use a new fast-track consenting process. If the Minister approves your application, you can use an accelerated consenting process to obtain consents.

Category One and Two projects will immediately benefit from the new legislation, and we have previously seen the responsiveness of this approach following the Canterbury and Hurunui/Kaikōura earthquakes. The uncertainty lies with Category Three projects and the fast-track process. Category 3 will also be of most interest to infrastructure organisations and developers.

The Minister can take into account the following criteria when determining whether to accept an application for the fast-track consenting process:

- Economic benefits for communities and industries affected by Covid-19.
- Social and cultural wellbeing for current and future generations.
- Whether the project would be likely to progress significantly faster using the fast-track process.
- Whether the project will result in significant public benefit, including matters such as whether the project will:

a) generate employment

b) increase housing supply and contribute to well-functioning urban environments

c) provide infrastructure, to improve economic, employment, and environmental outcomes, and increase productivity

d) improve environmental outcomes for coastal or freshwater quality, air quality, or indigenous biodiversity

e) minimise waste

f) contribute to New Zealand's efforts to mitigate climate change, including accelerating New Zealand's transition to a low emissions economy

g) promote the protection of historic heritage

h) strengthen our environmental, economic and social resilience, including to natural hazards and the impacts of climate change.

The Minister may decline an application for any reason, including where it would be "more appropriate" for the project to use existing consenting processes. Once a project is accepted for fast-tracking, there should be a "high level of certainty" that a consent or designation will be granted.

How fast track consenting will work

Once the Minister approves a project to use the fast-track process, the project will be referred to an "expert consenting panel" chaired by a judge or senior RMA lawyer.

The expert consenting panel will be required to apply the standard RMA tests. However, many aspects of RMA processes that create delay and cost (notification and public submissions, information requirements, decision deadlines, and appeals to the Environment Court) will be restricted or cut out altogether.

There is no requirement to hold a hearing, although the panel will be required to seek feedback from identified persons, including the relevant councils and iwi authorities, adjacent landowners and occupiers, and certain identified organisations (like environmental NGOs and infrastructure industry groups).

Appeal rights will be limited to points of law and/or judicial review to the High Court, with one further right of appeal to the Court of Appeal.

10.DELEGATED AUTHORITY OF THE CHIEF EXECUTIVE

For the month of April 2020, there were 4 documents required to be signed by the CE with the delegated authority provided to the Chief Executive by the Board in relation to deeds, instruments and other documents. These were: • 2 x Section 107 Public Works Act exemption certificates in favour of Watercare • 1 x Caveators and Encumbrance consent in favour of Watercare • 1 x Agreement to grant an easement in favour of Watercare	**In April 2020, there were two Capex/Opex contracts, over $100,000, approved by the CE in accordance with the delegated authority provided to the Chief Executive by the Board.** • Warkworth to Snells Transfer Pipeline (McConnell Dowell Constructors Ltd) • Infrastructure Data – DWS Compliance Reporting (Lutra Limited)	**In April 2020, there were no capex approvals signed in accordance with the delegated authority provided to the Chief Executive by the Board in relation to Capex approvals below a threshold of $15m.**

Appendix A

Emergency Committee
07 May 2020

Auckland response to the 2019/2020 drought

File No.: CP2020/05210

Te take mō te pūrongo
Purpose of the report

1. To consider measures in response to the 2019/2020 drought.

Whakarāpopototanga matua
Executive summary

This report would normally go before the Regulatory Committee or Governing Body, however, in light of COVID-19, it must now be considered by the Emergency Committee.

2. Auckland's water supply situation is growing increasingly serious. As at 6 May 2020, total water storage was approximately 46 per cent of capacity. Since the start of 2020, Auckland has received less than half of the usual rainfall.
3. Watercare's planned response to drought events is described in its Auckland Metropolitan Drought Management Plan (revised in February 2020), which includes measures to reduce demand and increase supply.
4. It defines three drought response 'trigger' levels at which there is a need to act to reduce water consumption (which includes voluntary savings and mandatory water restrictions) and increase supply. These trigger levels vary throughout the year.
5. The trigger for Stage 1 was met in early April. Watercare is already taking all the actions under Stage 1 of the plan except mandatory water use restrictions.
6. We recommend that the committee impose mandatory Stage 1 water restrictions to take effect from 16 May 2020, with a move to Stage 2 water use restrictions if the trigger levels in the Metropolitan Drought Management Plan are met. If there was a need to move to Stage 3 water use restrictions, we would seek a separate decision from this committee based on further advice.
7. Restrictions would be lifted once the water storage lakes have replenished sufficiently.
8. None of the three stages impose restrictions on water for drinking or sanitary use of water in the household, or uses for health, safety, emergency or biosecurity reasons.
9. The proposed water use restrictions come as business is beginning to restart following the COVID-19 lockdown, which could impose further operating limits. The costs of the water use restrictions have not been quantified. However, Watercare is working with these industries to optimise their water use and mitigate the impacts of the proposed water use restrictions. This includes investigating non-potable water sources

Ngā tūtohunga
Recommendation/s

That the Emergency Committee:

a) note that the ability for Watercare Services Limited (Watercare) to maintain an adequate supply of drinking water to the Auckland metropolitan system is at risk due to the 2019/2020 drought

b) approve restrictions on the use of water supplied to customers connected to Watercare's metropolitan system under clause 12(1) of the Water Supply and Wastewater Network Bylaw 2015, in accordance with Watercare's Auckland Metropolitan Drought Management Plan, as outlined in clauses c) and d) below

c) approve the following mandatory Stage 1 water use restrictions, to come into force on 16 May 2020:

   i) Residential

      A) no use of an outdoor hose or water blaster

   ii) Commercial and non-residential

      A) no use an outdoor hose or water blaster unless it is for a health, safety, emergency or biosecurity reason

      B) no operation of a carwash unless it uses recycled water

      C) no watering of sports fields, plants or paddocks unless an irrigation system is fitted with soil moisture or rain sensors

d) approve the following Stage 2 water use restrictions, to come into force once the trigger levels in Figure 1 of the Auckland Metropolitan Drought Management Plan are reached:

   i) Residential

      A) no use of an outdoor hose or water blaster

   ii) Commercial and non-residential

      A) no use of an outdoor hose or water blaster unless it is for a health, safety, emergency or biosecurity reason

      B) no operation of a carwash unless it uses recycled water

      C) no watering of sports fields

      D) no watering of plants or paddocks unless an irrigation system is fitted with soil moisture or rain sensors.

e) delegate to Watercare the enforcement of water use restrictions under clause 12(4) of the Water Supply and Wastewater Network Bylaw 2015, in accordance with its Auckland Metropolitan Drought Management Plan

f) delegate to Watercare the responsibility to publish the necessary public notices under clause 12(3) of the Water Supply and Wastewater Network Bylaw 2015 prior to the stage 1 or stage 2 restrictions coming into force;

g) agree that the water use restrictions and delegations in clauses b) to f) will apply until Auckland Council is satisfied, based on advice from Watercare, that there is no longer a risk to the adequate supply of drinking water to Auckland metropolitan customers

h) request Watercare to continue to provide regular updates to Auckland Council on the implementation of water use restrictions and its ability to maintain an adequate supply of drinking water.

Horopaki

Context

10. In February 2020 the Minister of Agriculture declared an agricultural drought north of the Auckland Harbour Bridge and in March 2020 extended that to the rest of Auckland. Large parts of the rest of the North Island are also experiencing both agricultural and hydrological droughts[1].

[1] Hydrological drought occurs when low water supply becomes evident, especially in streams, reservoirs, and groundwater levels. Agricultural drought happens when crops become affected.

11. As a result of the drought, Auckland's water supply situation is growing increasingly serious. As at 6 May 2020, total water storage was approximately 46 per cent of capacity. This is lower than this time last year (when storage was at approximately 65 per cent of capacity) as well as the average for this time of year (when storage is usually at approximately 76 per cent of capacity). Since the start of 2020, Auckland has received less than half of the usual rainfall.

12. Watercare Services Limited (Watercare) has taken measures to increase the supply of drinking water as well as to manage demand. Attachment A contains a more thorough description of the steps to manage the 2019/2020 drought, including increasing supply and reducing demand.

13. Watercare has been running a public campaign since early February, "Water is precious", urging Aucklanders to make voluntary water savings. This has resulted in a reduction in demand, even though Aucklanders have been spending more time at home during the COVID-19 lockdown. Water use has begun to increase since the end of COVID-19 Alert Level 4.

14. Despite actions to increase water supply and reduce demand, the current volume of water use, and the absence of sufficient rain over the next four weeks, means that Watercare considers mandatory water restrictions to be necessary. Water restrictions have not been imposed in Auckland since the drought of 1993/1994.

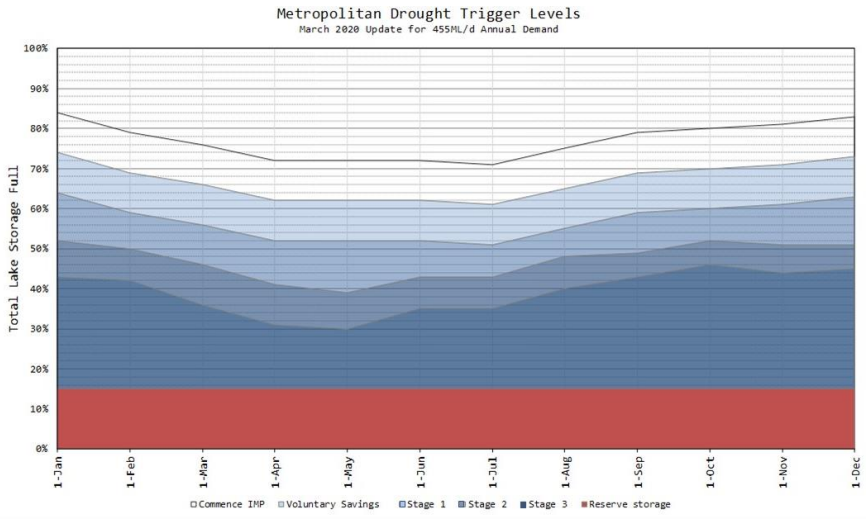
Auckland Metropolitan Drought Management Plan

15. Watercare's planned response to drought events is set out in its Auckland Metropolitan Drought Management Plan (the plan) (Attachment B to this report).

16. It defines broad drought response 'trigger' levels at which there is a need to act to reduce water consumption and increase supply. Reducing demand for water can include both voluntary savings and mandatory water use restrictions.

17. There are three trigger levels for the Auckland metropolitan supply dams which vary throughout the year depending on the season. They are based on technical assumptions, including increased dry weather demand and historical reliability of sources. These correspond to three stages where increasing measures are taken to reduce demand and increase supply. The trigger levels are defined in Figure 1.

Figure 1 – Drought trigger levels



18. Although the trigger level for Stage 1 was met in early April, Watercare has not asked the council to impose the mandatory water use restrictions under Stage 1 yet. This is because of COVID-19 and the difficulty of enforcing any mandatory restrictions during the lockdown. Instead, it has been asking Aucklanders to voluntarily reduce water use.
19. However, Watercare is already taking all other actions under Stage 1 of the plan including emphasising messages about water conservation, investigating bringing available bores into service and planning for emergency water sources.
20. Consistent with Government COVID-19 guidelines, the public message has emphasised the need to continue to wash your hands frequently.

Water restrictions

21. Mandatory water use restrictions are one tool in Watercare's Drought Management Plan. The plan also includes maximising the water supply, and proactive work with industry and large customers (including the council, which is one of Watercare's largest customers).
22. Mandatory water use restrictions only cover outdoor water use because it can be observed and if necessary, enforced.
23. Table 1 lists the proposed mandatory water use restrictions at Stages 1, 2 and 3.
24. None of the three stages impose mandatory restrictions on water for drinking or sanitary use of water in the household, or operations that use water for health, safety, emergency and biosecurity measures. Watercare has been encouraging users to make voluntary savings in these areas.
25. Watercare has recommended a narrower set of restrictions to simplify the public message at a time when communities and businesses are already dealing with many limits on what they can do because of COVID-19.

Table 1 - Proposed mandatory water use restrictions for the 2019/2020 drought

Stage	Proposed residential water use restrictions	Proposed commercial and non-residential water use restrictions
Stage 1	No use of an outdoor hose or water blaster.	No use of an outdoor hose or water blaster unless it is for a health, safety, emergency or biosecurity reason. No operation of a carwash unless it uses recycled water. No watering of sports fields, plants or paddocks unless an irrigation system is fitted with soil moisture or rain sensors.
Stage 2	No use of an outdoor hose or water blaster.	No use of an outdoor hose or water blaster unless it is for a health, safety, emergency or biosecurity reason. No operation of a carwash unless it uses recycled water. No watering of sports fields. No watering of plants or paddocks unless an irrigation system is fitted with soil moisture or rain sensors.

Stage	Proposed residential water use restrictions	Proposed commercial and non-residential water use restrictions
Stage 3	No use of an outdoor hose or water blaster.	No use of an outdoor hose or water blaster unless it is for a health, safety, emergency or biosecurity reason. No operation of a carwash unless it uses recycled water. No watering of sports fields. No watering of plants or paddocks.
Depending on the size of the savings that are needed, Stage 3 water restrictions could also include rotating compulsory cuts to commercial water use. The impacts and feasibility of this are being further assessed. A move to Stage 3 water use restrictions would require a separate decision from this committee.		

26. For the mandatory water use restrictions, the only difference between Stages 1 and 2 is that in Stage 2, sports fields cannot be watered whereas in Stage 1, sports fields can be watered if fitted with rain sensors. The more significant interventions in Stage 2 would be from voluntary efficiency savings from industry and large customers and increases in supply, for example from maximising water take from the Waikato River and Onehunga Aquifer.

27. Different industries are affected by mandatory water use restrictions in different ways. At Stages 1 and 2, some industries would be directly affected because of their outdoor water use (e.g. window washers). Watercare is working with all industries that would be affected to help them to optimise their water use and minimise the impact from use restrictions. Watercare and Healthy Waters are also investigating non-potable water sources that may be used by those industries.

28. A larger number of industries would be more severely affected by Stage 3 water use restrictions. For example, under Stage 3, there is no watering of plants or paddocks, and cuts could be imposed on large industrial and commercial customers where they are prohibited from using water at least one day per week. This would impact a number of industries including agriculture, horticulture and manufacturing.

29. The water use restrictions would apply to all customers of Watercare's metropolitan network, which includes users in Pukekohe, Patumahoe, Clarks Beach, Glenbrook Beach, and all other metropolitan areas from Waiwera to Drury and Huia Village. The map in Attachment C shows the area covered by the metropolitan network. Water use restrictions would not apply to customers who are on bore water.

How are mandatory water restrictions implemented?

30. The use of water and wastewater is governed by Auckland Council's Water Supply and Wastewater Network Bylaw 2015. Clause 12 of the bylaw relates to mandatory restrictions on water use:

> *12 Restriction on water use*
>
> (1) Where the council considers that its ability to maintain an adequate supply of drinking water is or may be at risk because of drought, emergency or for any other reason, it may restrict the use of water supplied to any premises.
>
> (2) Any such restriction may apply to all of Auckland or one or more parts of Auckland.
>
> (3) The council will give such public notice as is reasonable in the circumstances of any restriction on water use under subclause (1).
>
> (4) No person may use water contrary to a restriction made under this clause.

31. Although Watercare is the drinking water supplier in Auckland and manages the water storage lakes, the bylaw requires the council to make a decision to impose mandatory water restrictions. It cannot delegate this duty to Watercare. It would normally be the responsibility of the Governing Body or the Regulatory Committee, but it is currently delegated to the Emergency Committee.
32. Watercare is responsible for all other measures in its Drought Management Plan.
33. The background to the bylaw powers is the Health Act 1956, which stipulates that the council must not restrict the use of water for 'essential' purposes. It is also implicit that restrictions should be proportionate to the risk, are reasonable, and fair e.g. between different categories of users.

Tātaritanga me ngā tohutohu
Analysis and advice

34. There are options in relation to imposing water restrictions. These are described and evaluated in Table 1.

Table 2 – Options to impose water use restrictions for Watercare's metropolitan network

Option	Advantages	Disadvantages
Option A: status quo – continue to rely on voluntary water use reduction from Aucklanders and monitor the situation.	No compliance or enforcement action is required.	There is a very high risk that this option would not yield the required savings, given the current long-range weather forecast and the use to date. This could result in a more severe supply shortage and the need for much more severe restrictions if sufficient rain does not fall to replenish the water storage lakes. This option is **not recommended**.
Option B: impose a Stage 1 water restriction from 16 May 2020 and make a decision to move to more severe restrictions (Stage 2 and 3) as and when required based on further advice from Watercare.	This would have a higher likelihood of achieving the required savings than Option A.	This may result in a slower implementation of more stringent restrictions if they are required. It could also result in confusion on the part of the public. Communities and businesses having to deal with another level of restriction on their activity during the COVID-19 pandemic. This option is **not recommended**.

Option	Advantages	Disadvantages
Option C: impose water restrictions, with Stage 1 water use restrictions taking effect from 16 May 2020, with a move to Stage 2 water use restrictions if the trigger levels in the Metropolitan Drought Management Plan are met (refer to Figure 1). **Water use restrictions would be lifted once the water storage lakes have replenished sufficiently.**	This option would have a higher likelihood of achieving the required savings than Option A. This would allow Stage 2 water use restrictions to be implemented more quickly, if required (as soon as the trigger level is met). This gives more clarity and certainty to the public and other stakeholders about when further restrictions are likely.	Communities and businesses having to deal with another level of restriction on their activity during the COVID-19 pandemic. This option is **recommended**.

35. If there was a need to move to Stage 3 water use restrictions, we would seek a separate decision from this committee based on further advice.

Discussion of impacts

36. The proposed water use restrictions come as industry is beginning to restart following the COVID-19 lockdown, and they could impose further operating limits. The Stage 1 and 2 water use restrictions are likely to particularly affect outdoor water users such as building washing and construction, outdoor vehicle washers or cleaners without water recycling or anyone undertaking washing for non-essential purposes. At level 2 the impacts will extend to parks and sports fields. Watercare is working with Healthy Waters to investigate access to alternative non-potable water sources for some industry sectors.

37. In the time available, we have not been able to quantify the costs and impacts of the different stages of the proposed water use restrictions in a detailed way. This is the first time that water use restrictions would have been imposed since 1994 and the economy is very different to then.

38. However, the costs of the status quo (not imposing water use restrictions) would be significant as the levels in the water storage lakes are likely to continue to drop. This would require greater restrictions which would mean more significant impacts across a larger number of industries. There is a clear driver to impose restrictions now to mitigate the risk of needing to impose Stage 3 water restrictions later on.

Recommended option

39. We recommend that the committee approves option C. It provides more clarity and certainty for the public about what will happen if the initial Stage 1 water restrictions do not achieve enough savings and sufficient rain does not arrive to replenish Auckland's water storage lakes.

40. Under option C, restrictions would remain in place until Auckland's water storage lakes reach levels where Watercare and the council can be confident there is no longer any risk to an adequate supply of drinking water in the metropolitan system. This is very dependent on the weather conditions through the winter and into next summer.

Compliance and enforcement

41. Once the council has imposed a water use restriction, it is possible to delegate to Watercare the enforcement of restrictions. If the council delegates enforcement to Watercare, Auckland Council officers would still be able to exercise those powers as well (e.g. if they observed non-compliance with water use restrictions while responding to a separate complaint).

42. Therefore, we recommend that the committee delegates enforcement of the bylaw to Watercare. Compliance and enforcement under the bylaw will be led by Watercare, with support from the council's Regulatory Compliance team.

43. Watercare will adopt the council's graduated approach to enforcement, which involves educating water users, and graduates to prosecution if there is significant or repeated non-compliance.

Tauākī whakaaweawe āhuarangi
Climate impact statement

44. The decision to impose water use restrictions does not have a climate impact. However, the drought is associated with the effects of the changing climate and the very low levels of rainfall over the last six months.

45. More frequent droughts (not necessarily of this severity or duration), as well as more extreme rainfall, are expected in the future. These parameters continue to be factored into long term planning, including Auckland's Climate Action Framework.

Ngā whakaaweawe me ngā tirohanga a te rōpū Kaunihera
Council group impacts and views

46. We have worked with Watercare staff to prepare this advice.

Ngā whakaaweawe ā-rohe me ngā tirohanga a te poari ā-rohe
Local impacts and local board views

47. Local boards have not been consulted on this decision as the decision is for the Emergency Committee to make. However, Watercare has been providing frequent updates to local board members (as well as elected members of this committee) about the water supply situation and the need to continue efforts to conserve water.

48. There have been enquiries from Rodney members about whether restrictions will apply to their constituents. If the committee agrees to the recommendations, Rodney residents and business in the rural area, who are not connected to the metropolitan network, will **not** be subject to restrictions. However, Rodney residents and businesses connected to the Watercare metropolitan network will be subject to restrictions.

49. Franklin Local Board has also asked for updates on Hays Creek dam and the Pukekohe groundwater take.

50. Kaitiaki Forum has been kept up to date with the water supply situation. There are no specific impacts on Māori above the general impacts of water use restrictions on all Aucklanders. If marae or dwellings on Māori land are connected to the metropolitan water supply, they will be subject to the Stage 1 restrictions.

51. Watercare is engaging with iwi in Waikato in relation to the applications for an increased take from the Waikato River.

Tauākī whakaaweawe Māori
Māori impact statement

52. Watercare will experience a minor reduction in revenue from reduced water consumption. This is likely to be similar to the increased revenue from high water use during the summer.

53. If the drought continues and Stage 2 and 3 restrictions become necessary, there may be financial impacts on the council e.g. the council's parks may be restricted from watering their grounds, which may result in the need for these grounds to be re-turfed.

Ngā ritenga ā-pūtea
Financial implications

54. Watercare will experience a minor reduction in revenue from reduced water consumption. This is likely to be similar to the increased revenue from high water use during the summer.

55. If the drought continues and Stage 2 and 3 restrictions become necessary, there may be financial impacts on the council e.g. the council's parks may be restricted from watering their grounds, which may result in the need for these grounds to be re-turfed.

Ngā raru tūpono me ngā whakamaurutanga
Risks and mitigations

56. There is a risk that Stage 1 restrictions will affect the operation of some businesses, which could compound the economic impacts of COVID-19.

57. This can be mitigated by Watercare working with those industries to minimise the impact of water use restrictions, including investigating non-potable water sources. It would also be important to continue to encourage voluntary savings above the mandatory water use restrictions.

58. There is a risk that there could be confusion about where water use restrictions would apply, as those on bore water are not affected by water use restrictions. This can be mitigated by targeting specific communications to those communities.

Ngā koringa ā-muri
Next steps

59. The bylaw requires the council to give the public reasonable notice when it imposes water use restrictions

60. If the committee agrees to the resolutions, Watercare will immediately begin placing public notices in newspapers and online.

61. There will also be wider public communications about water use restrictions, and what this means for communities and businesses.

Item 13

5.3

Ngā tāpirihanga
Attachments

No.	Title	Page
A⇩	Implementing Auckland Water Restrictions	15
B⇩	Auckland Metropolitan Drought Management Plan	25
C⇩	Map of Watercare's Metropolitan Water Supply Network	51

Ngā kaihaina
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Watercare
An Auckland Council Organisation

Implementing Auckland Water Restrictions

4 May 2020

1. Purpose of the Report

To request Auckland Council implement water use restrictions to help maintain an adequate supply of drinking water in response to the severe drought currently being experienced across Auckland.

On 28 April 2020 the Watercare Board met and agreed to request that Auckland Council exercise its powers under clause 12 of the Water Supply and Wastewater Network Bylaw 2015 (The Bylaw) and implement water use restrictions in order to help maintain an adequate supply of drinking water. The Board also requested that Stage 1 restrictions be imposed to come into force on Saturday, 16 May, with the move to Stage 2 restrictions imposed when the threshold is triggered in general accordance with the Auckland Metropolitan Drought Management Plan - February 2020 (The Plan - attached as Appendix A). Watercare is also seeking delegation from Auckland Council to undertake compliance activities and enforcement of the restrictions under Clause 12(4) of the Bylaw.

In the event that the threshold for Stage 3 restrictions is likely to be reached Watercare will come back to the Emergency Committee.

2. Executive Summary / Context

The Auckland region is experiencing a severe drought. Record low rainfall early in 2020 coupled with record high demand from Aucklanders, and a weather forecast indicating drier than average conditions are set to continue, is seriously straining Auckland's water supply. Water storage dams in the Hunua and Waitakere Ranges, which supply almost 70 per cent of Auckland's water, are now below 50 per cent full for the first time since the 1993/4 drought. Watercare has been following The Plan and in order to mitigate the effects of the drought the following actions have been undertaken:

- Implemented a media campaign which commenced 10 February 2020 to encourage voluntary savings under the 'water is precious' tagline. The tone of the media campaign is now in line with the requirement to move toward mandatory restrictions at the next stage of The Plan.
- Increased focus on reducing non-revenue water and repairing water leaks.
- Maximised abstractions from the Waikato River and Onehunga Aquifer to reduce abstraction pressure on the water storage dams.
- Continuing to upgrade the Waikato Water Treatment Plant so it can process an additional 25 million litres per day – the upgrade is estimated to be complete in 3 months.
- Progressing approval for new seasonal water takes from the Waikato River which will help reduce dependence on the water storage dams.
- Working to bring two former water sources – the Hays Creek Dam in Papakura and a bore in Pukekohe – back into service.
- Working with Auckland Council on reduced environmental compensation flows from Cosseys, Wairoa and Waitakere dams.
- Working proactively with industry sectors and commercial customers who have high water use to achieve voluntary water efficiency gains in general accordance with The Plan.

A further potential uplift in water demand has been experienced as people and businesses exit the Covid-19 lock down and return to work. Without significant rain, water levels in the storage dams continue to fall and a new level of intervention in the form of outdoor water use restrictions is required to help conserve an adequate water supply. Watercare is requesting that Auckland Council

implement mandatory outdoor water use restrictions under clause 12 of the Bylaw with effect from 16 May. Restrictions would be implemented by Watercare as per this paper and in general accordance with The Plan. Auckland Council is also requested to delegate Watercare responsibility to undertake compliance activities and enforcement of the water use restrictions working with the Councils Regulatory Compliance Team who have already been providing excellent advice and support to Watercare.

3. Analysis and Advice

3.1 What is the current situation?

Auckland is in a severe drought and the water supply situation is growing increasingly serious. In November 2019 water supply dams were 89 per cent full, normal for that time of year. Lower than normal rainfall started in November 2019 with record low rainfall in January and February 2020. The low rainfall was coupled with numerous record-breaking days of water use by Aucklanders. Recent rainfall over the weekend of 2 and 3 May only replenished dam storage by less than 1 per cent and has failed to prevent the water supply being placed under increased pressure. The water supply situation was exacerbated by record water takes from Watercare's tanker filling stations serving areas not on Watercare's networked supply. The demand was such that for the first time since integration, Auckland Council was required to provide special assistance for rain tank users.

Water drawn from non-dam sources such as the Waikato River and the Onehunga Aquifer has been prioritised since June 2019 to reduce demand on the water storage dams. However, without any significant rain since November 2019 and record low levels in January and February 2020, water storage levels continue to fall and are now at 46 per cent full. This is lower than this time last year (64 per cent) as well as below the average for this time of year (76 per cent). Figure 1 below illustrates the impact of the drought on our total water storage.

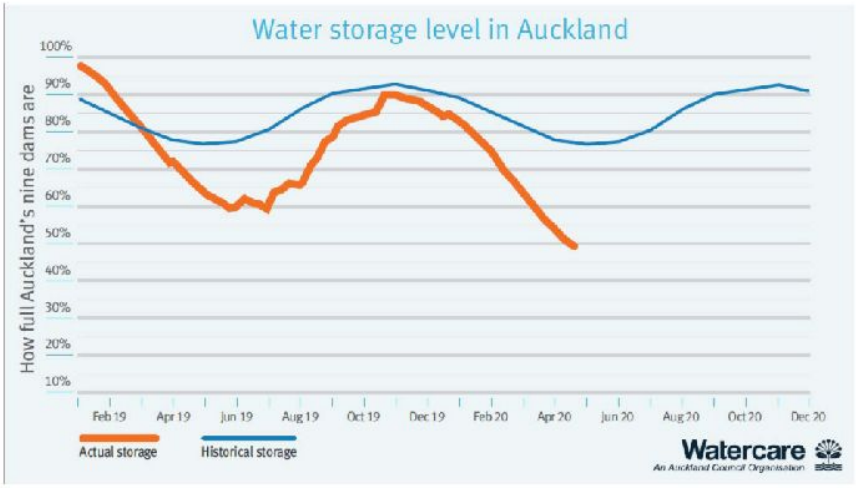

Figure 1. Dam Water Storage as at 22 April versus historical averages.

At the peak of summer Aucklanders were using record amounts of water - around 565 million litres a day. This has fallen around 30 per cent, partly in response to our 'Water is Precious' campaign which started 10 February and the cooler autumn weather. Over the Covid-19 Level 4 lock down Aucklanders were using around 430 million litres of water a day. Consumption has started to increase to around 460 million litres a day as the Covid-19 lock down ends and business once again gets underway.

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Since the start of 2020, we have received less than half (47 per cent) the usual rainfall. The most recent forecast from MetService suggests we will continue to experience drier-than-normal conditions in the coming month meaning our region's water supply will be further stressed.

At present water is being consumed at a rate faster than it can be replenished and without significant and sustained rain and other interventions including water use restrictions the water supply levels in our dams will continue to slowly decline.

3.2 Where does the drought leave us?

Significant rainfall is needed to break the drought and replenish water levels in the dams. Demand for water is such that without rain the drought will extend into the 2020 winter requiring increasingly stringent mandatory water use restrictions. Even if rain arrives there is a risk that the dam storage will not recover sufficiently over the winter to get us through the next summer without the need for mandatory water use restrictions in place. Watercare will continue to implement appropriate interventions (Section 3.3) and monitor the situation while providing regular updates to Auckland Council.

3.3 What are we doing in response to the drought?

In the absence of significant rain, there are two primary focus areas for Watercare's drought response. One is to increase the amount of water being brought into production and supply **(supply side management)** and the other is to reduce water consumption or demand for water **(demand side management**). Together these two approaches will help us maintain adequate supply until rain can replenish the storage dams.

3.3.1 Supply side management

In 2013 Watercare made an application to the Waikato Regional Council for an additional water take of up to 200 million litres a day from the Waikato River. The application is needed to secure Auckland's future water supply. The application follows due process and is currently queued behind other water take applications and yet to be heard.

In response to the drought an application for new seasonal water takes from the Waikato River is being progressed which will help reduce dependence on the water storage dams as they fill over the winter. Work also continues on upgrading the Waikato Water Treatment Plant so it can process an additional 25 million litres per day – the upgrade estimated to be complete in 3 months. Work has also accelerated to advance completion of the Pukekohe East water reservoir which will store water from the Waikato River for supply to Auckland.

Over the next three months two former water sources – the Hays Creek Dam in Papakura and a bore in Pukekohe – will gradually be brought back into service. This requires installation of modular water treatment plants and connection into the existing water networks.

Watercare has also reduced environmental compensation flows from Cosseys, Wairoa and Waitakere dams. The flows were reduced under emergency provisions of the Resource Management Act, and Auckland Council was notified as required under that Act. Mana whenua were consulted and understood the need for compensation flow reduction. The effects on streams were minimal and the volumes relatively small. However, the cumulative daily savings are welcome and help to reduce pressure on the water storage dams. Resource consent is being sought to formalise this process.

Since June 2019, we have been maximising production from our Waikato and Onehunga treatment plants, which together have been providing around 30 per cent of Auckland's water supply. Prioritisation of the non-storage sources which are less sensitive to rainfall has helped reduce

pressure on the storage dams. We are also working to fix leaks in the water supply network more quickly and reduce the volume of water used for maintenance flushing.

Our focus on reducing non-revenue water and repairing water leaks has also intensified.

3.3.2 Demand side management

3.3.2.1 'Water is precious' and 'Water for life' campaigns

In February 2020, Watercare launched a 'Water is precious' campaign to drive public awareness of peak water demand and to encourage wise water use. By March, the peaks were reducing however the campaign continued in response to the drought.

The campaign has been rolled out using a variety of owned, earned and paid channels. For example:

- Owned: emails to stakeholders, newsletters to customers, posts on social media.
- Earned: releases, video footage and photos supplied to media, regular interviews.
- Paid: radio and print advertising, digital and on-demand advertising, billboards and street posters, bus sides.

In April alone (1-28 period), the paid campaign achieved over 2 million impressions. Meanwhile, social media reached 365 thousand people and there were 20 plus news media items. The messaging over the course of April has become stronger – from asking people to take shorter showers and check for leaks, to asking people to keep washing their hands but also not wash their cars or water blast their homes.

In mid-to-late April, Pureprofile – an independent online market research company – carried out a representative survey of 500 Aucklanders to understand people's awareness of the drought, the need to save water, and how to save water. It found:

- Only 12 per cent of people believe there is a plentiful water supply now
- 97 per cent of people believe it is important to save water now
- 79 per cent of people believe shorter showers are the best way to save water.

This demonstrates the campaign has been achieving cut-through at a time when COVID-19 dominates not only the news media but all aspects of people's lives.

In May, the campaign will continue to ramp up with an extensive radio and digital campaign planned that focuses on water saving heroes. Messages will also be adjusted to align with staged restrictions if and when implemented.

3.3.2.2 The Drought Management Plan and use of water restrictions

As the drought persists and dam storage levels continue to decline, the use of mandatory restrictions under The Plan becomes increasingly important for the management of water consumption and demand. The Plan focuses on a range of water saving and restriction measures required to ensure a reduction in demand to assist in ensuring there is no system failure due to shortages of water. The Plan also considers the scenarios under which different stages of increasingly onerous restrictions are implemented to achieve savings and ensure an adequate water supply can be maintained.

The ability to implement mandatory restrictions as per The Plan is set out in the Auckland Council Water Supply and Wastewater Network Bylaw 2015 which states:

12 Restriction on water use

(1) Where the council considers that its ability to maintain an adequate supply of drinking water is or may be at risk because of drought, emergency or for any other reason, it may restrict the use of water supplied to any premises.

(2) Any such restriction may apply to all of Auckland or one or more parts of Auckland.

(3) The council will give such public notice as is reasonable in the circumstances of any restriction on water use under subclause (1).

(4) No person may use water contrary to a restriction made under this clause.

The Bylaw powers are consistent with Section 69T of the Health Act which provides Council cannot restrict water use unless it considers the adequate supply of drinking water is or may be at risk. Under these powers Council must also not restrict the use of water for essential purposes and must apply restrictions that are reasonable and fair, for example between users or categories of users.

While the Health Act does not define 'essential purposes', The Plan and proposed restrictions at the Stage 1 level exempt water use for emergency, health, safety and biosecurity reasons and encourages use of alternative sources where possible. Therefore, organisiations such as Hospitals and rest homes would naturally be exempt.

3.3.2.3 When would staged water restrictions be implemented?

Staged water restrictions would be implemented at different storage trigger levels as per The Plan. The trigger levels cannot be over-prescriptive, as the levels depend on factors such as the hydrological situation and weather forecast as well as the supply-demand balance at the time of restrictions. Accordingly, we may be required to change the trigger levels if the drought extends beyond the winter.

Figure 2 over the page shows the current drought trigger levels overlain with the actual storage response (black line) for a period of 2 years from January 2019 to December 2020. The figure demonstrates the storage levels at which it is proposed water restrictions would be implemented consistent with The Plan. *(Note: Trigger levels on Page 7 of The Plan are shown over a shorter period of January to December 2020).* The trigger levels are as follows:

Voluntary water saving messages:

Voluntary indoor and outdoor water saving messages have been in place since early February 2020 and will continue consistent with The Plan and section 3.3.2.1.

Stage 1 water use restrictions:

The current trigger for Stage 1 restrictions was passed in early April 2020 as dam storage passed through approximately 52 per cent. A request for mandatory outdoor restrictions was not sought for pragmatic reasons associated with Covid-19 Level 4 lock down.

Stage 2 water use restrictions:

Stage 2 will come in when levels reach those shown in Figure 2 over page (also refer graph Page 7 of The Plan) which is approximately 40 per cent in the near-term dependent on how the dam levels respond to water use restrictions, rainfall and other supply side augmentation initiatives.

Stage 3 water use restrictions:

Due to the potential for more significant economic and social impacts of Stage 3 water use restrictions, Watercare would approach Auckland Council for further discussion and approval before any move to Stage 3 was agreed.

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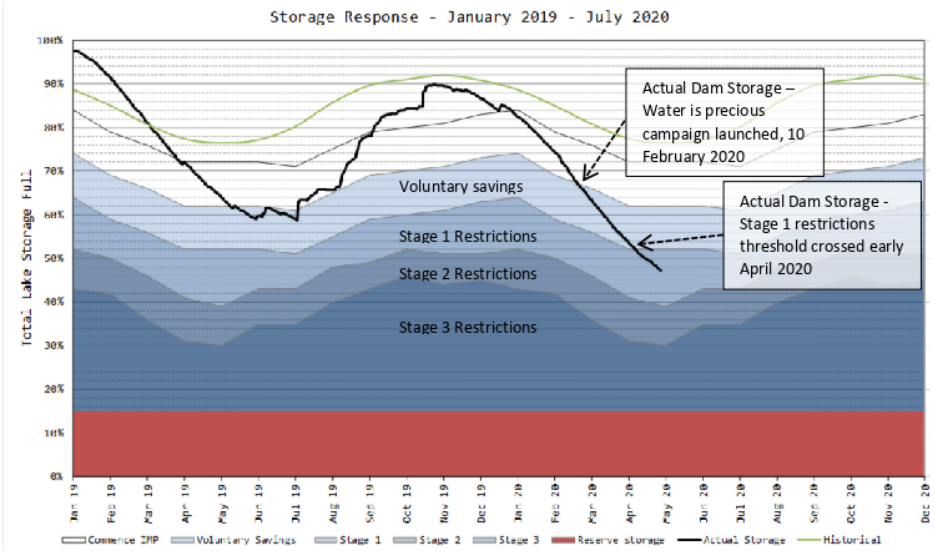

Figure 2. Metropolitan dam storage response and trigger levels for staged restrictions according to The Drought Management Plan 2020.

Mandatory restrictions apply to outdoor water use. In addition, voluntary indoor savings will still be promoted and expected at each stage by residential and commercial customers. For instance, the focus for residential customers will remain on shorter 4 minutes showers and ensuring full loads for laundry and dish washing which use the greatest amount of water inside the home. However, in practice excessive indoor water use cannot be identified or prevented, unlike breaches of restrictions on outdoor water use.

Watercare will also continue to work directly with non-domestic or commercial customers to voluntarily reduce water consumption compared with previous years. Specific savings targets will be established in general accordance with The Plan.

Watercare also controls the use of standpipes for approved purposes. The use of such water supply devices will be carefully controlled and non-potable sources of water will be encouraged as a substitute where appropriate and without compromising drinking water safety.

3.3.2.4 Proposed staged mandatory water restrictions

Water use restrictions are one of a number of tools available in response to the drought. Section 4 of The Plan includes a range of water saving and restriction opportunities. However, water use restrictions within Auckland Councils jurisdiction under The Bylaw only include those specifically targeted at outdoor water use activities where compliance action can be observed and if necessary enforced. As mentioned previously, Watercare will support these initiatives with public and industry sector education and information campaigns aimed at reducing water use across the board, with a particular focus on households.

We request Auckland Council decide to implement the following stage one and stage two restrictions at the different dam storage trigger levels described in Figure 2. These restrictions have been tailored to suit the current drought situation and are simple to avoid confusion on the part of the public. Further information including Q&A's will be prepared to help with implementation.

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Stage 1 water use restrictions

Residential water use

You cannot:

- Use an outdoor hose or water blaster

Commercial and non-residential water use

You cannot:

- Use an outdoor hose or water blaster unless it is for a health, safety, emergency or biosecurity reason.
- Operate a car wash unless it uses recycled water.
- Water sports fields, plants or paddocks unless you have an irrigation system fitted with soil moisture or rain sensors.

Stage two water use restrictions

Residential water use

You cannot:

- Use an outdoor hose or water blaster

Commercial and non-residential water use

You cannot:

- Use an outdoor hose or water blaster unless it is for a health, safety, emergency or biosecurity reason.
- Operate a car wash unless it uses recycled water.
- Water sports fields.
- Water plants or paddocks unless you have an irrigation system fitted with soil moisture or rain sensors.

If significant rain does not arrive and dam storage levels continue to decline, Watercare will return to Auckland Council for further discussion and approval before any Stage 3 water use restrictions are sought. These restrictions are designed to respond to a much more serious water supply situation resulting in non-water use days for business, and create the potential for more serious economic and social impacts.

3.3.2.5 How do restrictions apply to residential versus commercial customers?

The drought affects all water users and everyone connected to the metropolitan water supply network will be expected to contribute to water savings. The timing of the drought relative to the Covid-19 lock down is extremely unfortunate. However, Watercare considers that water use restrictions are an important part of the planned response to the severe drought and should be implemented by Council.

Residential and commercial water use restrictions focus on outdoor water use where compliance can be observed and enforced if required. However, considerable attention will be focused on other aspects of The Plan which includes facilitating discussions with key commercial customers and high water use business sectors. Auckland Council, as one of the largest and most visible users of water, will also be expected to play an important leadership role demonstrating compliance with water use restrictions and voluntary savings. Other businesses using water for health, safety, emergency or biosecurity reasons will be able to continue operation at Stage 1 but will need to plan and prepare for more stringent restrictions at later stages.

A considerable focus will remain on proactive work and education with commercial customers and the high water use business sector to provide guidance and facilitate water savings where possible.

If all of Auckland contributes a small amount towards savings we can help head off more stringent restrictions until significant rain arrives and dam storage increases.

3.3.2.6 Request to Auckland Council to implement mandatory water restrictions?

With dam levels now at 46% and falling, Auckland is already considered to be at the level requiring Stage 1 water use restrictions. The primary reason for not seeking mandatory restrictions to date has been the practicalities of implementation and enforcement associated with the Covid-19 lock down.

On 28 April 2020 the Watercare Board met and agreed to request that Auckland Council exercise its powers under clause 12 of The Bylaw and implement water use restrictions in order to help maintain an adequate supply of drinking water. The Board also requested that Stage 1 restrictions be imposed to come into force on Saturday, 16 May, with the move to Stage 2 restrictions imposed when such thresholds are triggered in The Plan.

Restrictions would need to follow a reasonable period of public notification as required under 12(3) of The Bylaw. The 9 day period between a Council decision and restrictions is considered adequate as there has been significant awareness of the drought through the summer campaigns and media as demonstrated by independent survey referred to in Section 3.3.2.1 above. Regular updates have also been shared with elected members and Local Boards on the status and response to the water situation over the period of the drought. The same information has also been provided to the 19 Iwi entities of Tāmaki Makaurau.

3.3.2.7 Do the restrictions apply to all of Auckland?

The Plan and request for water restrictions apply to the metropolitan water supply areas of Auckland which include Pukekohe, Patumahoe, Clarks Beach, Glenbrook Beach, and all other metropolitan areas from Waiwera to Drury and Huia Village which are serviced by the network supplying Hunua and Waitakere Dams, the Waikato River and Onehunga Aquifer.

Rural townships including Waiuku, Helensville, Bombay, Murawai, Snells Algies, Wellsford and Warkworth supplied by local water sources are exempt at this time. In the case of Warkworth the new deep bore built by Watercare in 2018 offers a more drought resilient supply and the current water restrictions will not apply.

Water takes from rural aquifers and streams are managed by resource consents for which we remain compliant. Auckland Council, as the regulator, monitors the status and condition of aquifers and will approach water users including Watercare if further action is required. Separate approval will be sought from Auckland Council to implement local restrictions in these rural townships if required.

To avoid confusion drought related communications will generally refer to all of Auckland and we will expect all Aucklanders across the region to show restraint and treat water as a precious resource.

3.3.2.8 When will restrictions be lifted - what if it rains?

Mandatory Stage 1 restrictions are likely to be withdrawn (through a decision of Auckland Council) if the dam levels cross back above the trigger thresholds referred to previously in The Plan (refer Section 3.3.2.3). Even if sufficient rain falls and mandatory restrictions are lifted, Watercare will continue with winter waterwise messaging in preparation for an expanded 2020/21 spring and summer campaign with greater emphasis on outdoor water use.

3.3.2.9 Enforcement of water restrictions

The Board also resolved to ask Auckland Council to delegate Watercare the enforcement of water restrictions under Clause 12(4) of the Bylaw. Enforcement of mandatory restrictions will focus first on education and information sharing in line with Auckland Council's Compliance and Enforcement

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Policy. Where there is a requirement for more punitive action, particularly if the restrictions become more stringent, Watercare will leverage the experience and expertise of Auckland Council's Regulatory Compliance Team who have been very cooperative and helpful with discussions to date. Watercare will also obtain warrants allowing key staff to enforce The Bylaw. The Council team has also offered to provide compliance training for relevant Watercare staff where necessary.

Watercare
An Auckland Council Organisation

Auckland Metropolitan Drought Management Plan

February 2020

Auckland Drought Management Plan

Document Control

Document Responsibility

Requests for change to this document are to be submitted to the Water Resources Manager and recommended by the Head of Water Value. All changes are to be approved by the Chief Operations Officer, Chief Corporate Affairs Officer and Chief Customer Officer prior to release.

Recommended for Issue

Title	Signature	Date
Head of water value		24/2/2020

Authorised for Release

Title	Signature	Date
Chief operations officer		24/2/2020
Chief customer officer		24/2/2020
Chief corporate affairs officer		24/2/2020

Distribution

Title	Controlled Copy Number
Water resources manager	v1.0
Communications manager	v1.0
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Head of water value	v1.0
Head of operations excellence	v1.0
Head of production	v1.0
Head of service delivery	v1.0
Head of risk and resilience	v1.0

Amendment Register

Version	Description of Changes	Changed By	Date
V1.0	Updated water savings Reworded and shortened plan significantly	Roseline Klein Head of water value	15/02/2020

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Auckland Drought Management Plan

V1.1	Updated Figure 1 Drought response trigger levels with current water demand for increased accuracy (no signatures required)	Roseline Klein Head of water value	23/04/2020

Executive Summary

For Watercare, a hydrological drought declared in Auckland qualifies as an incident. It is to be managed following Watercare's Incident Management Plan (IMP). This Drought Management Plan (DMP) complements the IMP by providing the approach and restrictions for Watercare to trigger in case of a drought, leading to the need to conserve water resources and work with customers effectively towards this outcome. Auckland Council retains the legislative powers to impose bylaws necessary to enact restrictions on water use and trigger the implementation of the plan.

This DMP focuses primarily on Watercare's Auckland metropolitan area. The metropolitan area covers most of the region, sourcing its water from the Waitakere ranges and Hunua ranges dams, the Onehunga aquifer and the Waikato river. Non-metropolitan areas that use groundwater or springs for their water supply are not included in this DMP because they have been assessed and found to be independent of short-term climate variability. Those sources provide water to Helensville, Warkworth, Snells-Algies, Muriwai, Bombay and Waiuku. Watercare's current run of river takes in the Rodney region, mainly the Hoteo river supplying Wellsford, are not typically restricted during periods of low river flow. However, trigger points and actions have been developed to ensure supply in extreme events or during the enactment of regulatory constraints. These are documented in separate DMPs for those supplies.

Reviews of practices and principles internationally and nationally were used to identify appropriate restrictions for Auckland which, if implemented individually or together could deliver meaningful savings to conserve water resources.

Three levels of water restrictions have been defined for the following categories:

- Residential, commercial and public lawns and gardens (including garden centres)
- Playing fields (e.g. golf courses, hockey turfs, bowling greens)
- Fountains and water features
- Hard surfaces
- Vehicle and boat washing
- Building and window washing
- Swimming pools, spas, and recreation
- Tanker supplies
- Construction and renovation
- Large users - Industrial and commercial customers
- Agricultural and horticultural users

Overall savings estimates are:

- Level 1 restrictions: winter 0-3%, summer 5-10%
- Level 2 restrictions: winter 3-5%, summer 10-16%
- Level 3 restrictions: winter 12-25%, summer 24-30%

The response to a hydrological drought within Watercare involves Operations (definition of a drought for the Auckland Metropolitan region), Customer (options available to mitigate the impacts of the drought) and Communications (communication of the mitigation options). This document is subject to ongoing reviews to determine the most efficient way to response to droughts.

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1. Glossary

The following table provides explanations of terms and abbreviations used specifically in this Drought Management Plan. Please also refer to the definition of terms section in the Incident Management Plan (IMP) for other common terms used in this document. The IMP can be found on the Watercare Intranet.

Table 1: Definition of Terms

Critical Customers	Customers, such as dialysis patients, who rely on water availability more than most.
Key and strategic Customers	Strategic customers, such as hospitals, retirement villages and schools, who rely on water availability. Key customers are our highest use customers.
Hydrological drought	A shortage in rainfall that has caused or threatens to cause a deficiency in water supply that may lead to an imbalance between supply and demand. This is not to be confused with an agricultural drought, declared when the soil moisture availability to plants has dropped to such a level that it adversely affects the crop yield.
Incident Management Plan (IMP)	The IMP has been designed to assist Watercare Services Limited (Watercare) respond to any event, which has potential to negatively impact achievement of Watercare's operational and strategic objectives. This Incident Management Plan (IMP) sets out responsibilities and give guidance for matters to consider in an Incident. This plan helps avoid confusion and wasted effort and is designed to guide management in the planning of responses.
Incident management team (IMT)	The IMT will be responsible for managing the response, recovery and resumption phases of Level 2 and 3 incidents. Core responsibilities include: • Taking actions to assume control of any situation • Providing leadership during incidents • Evaluating the extent and impact of the incident • Determining priorities within the organisation • Directing recovery activities • Managing resources including materials, equipment, staff and funding • Coordinating and maintaining internal and external communications • Restoring functions as quickly as possible to minimise loss or damage The roles and responsibility of the IMT are listed at Appendix 4 of the Incident Management Plan. The IMT will be scaled to address the size and complexity of the incident.
Integrated Source Management Model (ISMM)	ISMM is the tool used by the Watercare to support weekly source abstraction decision making, along with long term planning. This model is designed to ensure that Watercare operates at the lowest possible cost

	while maintaining agreed security of supply.
Mains water	Mains water is water supplied to customers directly through a metered connection to the public water reticulation system, or supplied indirectly by tankered water taken from reticulation
Recycled water	Recycled water, sometimes referred to as grey water, refers to water first used for other purposes in the laundry, kitchen or bathroom but not including toilet water. In commercial activities, recycled water also includes water used in processes such as cooling that is not contaminated by sewage or other substances likely to cause a public health risk.
Security of Supply	The metropolitan water supply system is operated to meet demand during a drought with a 1% probability of occurring (a 1:100 year drought) with 15% residual TSS without demand restrictions being implemented.
Standpipe Collection	Water is supplied to residential customers by collection from designated hydrants.
Total system storage (TSS)	The quantity of water available in the metropolitan dam sources expressed in percentage
Voluntary and Mandatory water conservation measures	For the purposes of this document, voluntary water savings measures are those measures that consumers are encouraged to take to conserve the water resource prior to the implementation of restrictions. Mandatory measures vary according to the imposition of Stage 1 to 3 restrictions as set out in this DMP. All restrictions are mandatory and all consumers are expected to comply with those restrictions. Council may use local bylaws to "underline" the mandatory nature of, and to enforce compliance with, the restrictions imposed at any particular stage.

2. Droughts and trigger levels

2.1 Auckland's Drought Management Standards

A drought is considered to be a shortage of rain that has caused, or threatens to cause, a deficiency in water supplies that may lead to an imbalance between supply and demand. A shortage of rainfall will typically lead to low river flows, low replenishment of surface water reservoirs and slower recharge to groundwater resources. Each drought is different in duration, severity and the area over which its effects are felt. It is not considered appropriate to plan for a drought based solely on historic events since this assumes that future droughts will be a repetition of previous droughts.

The Auckland Metropolitan Region has adopted a 1:100 year drought security standard having a 15% residual capacity in the storage lakes during normal demand. This means that based on hydrological records, the total lake storage will be drawn down to 15% once in 100 years on average over the long term. This will happen in the case where no restrictions are implemented and normal operational abstraction decisions are made. However, this does not negate the need to have a DMP and restrictions on water use during droughts to ensure supply during conditions worse than the design standard.

Auckland's Metropolitan water supply lakes have a total combined capacity that equates to approximately 220 days of usage as of 2019. This relatively small storage capacity relates to the historic reliability of rainfall in the storage catchments. Factors such as climate change, the effects of El Niño/La Niña events, and positive Southern Annular Mode, can affect Auckland's climate, resulting in more severe droughts than those that 'normal operations' can sustain.

For the Metropolitan region, only the abstraction from the Waikato River has been assessed as reliable enough to be described as independent of short-term climate variability. However, this source is not the sole source of water for Auckland due to constraints from consented maximum take, potential low river flow restrictions, and infrastructure on site. Therefore it is important that sources that are affected by climate variability be managed prudently, to ensure that there are no significant risks of adverse public health effects, due to the lack of water for basic sanitary requirements in an event that is worse than 1:100 year drought.

Watercare utilises the Integrated Source Management Model (ISMM) to make abstraction decisions from the various sources that make up Watercare's conjunctive supply system for the Auckland Metropolitan Area.

In respect to cost, ISMM optimises the abstraction decisions by balancing the risk of shortfall for the cheaper stored water sources against the cost of more expensive non-storage sources. ISMM does this by assigning a value to risk. For normal operations this is calibrated to ensure that Watercare meets its drought standard of 1 in 100 years to 15% residual storage.

The abstraction guidance is reviewed weekly to adjust for operational constraints, source water quality and climate conditions. For example, if there are on-going periods of below average rainfall, but total system storage (TSS) is above average due to a wet winter, it may be decided to proactively reduce the risk profile and use more non-storage sources. During a drought, the frequency of monitoring of TSS and reporting increases so that appropriate management decisions can be made in a timely manner.

2.2 Target Trigger Levels

Watercare has a drought warning system in place for its bulk water storage system as shown in Figure 1. below. The combined total system storage level for its metropolitan supply lakes is routinely monitored on a weekly basis against the trigger levels and potential shortfall risk, as calculated by ISMM.

Auckland Drought Management Plan

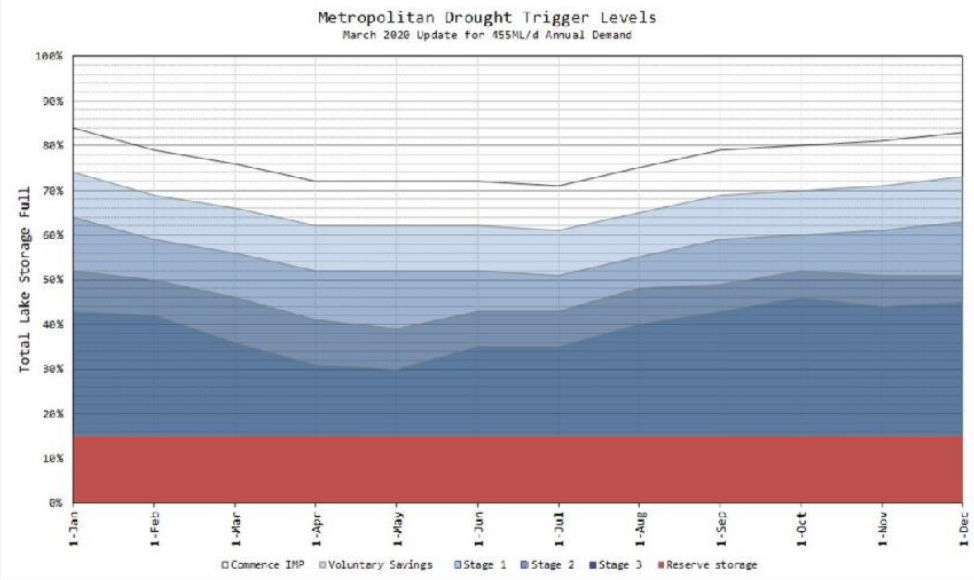

Figure 1: Drought Response Trigger Levels

Trigger levels for Watercare have been developed based on total system storage for the Auckland metropolitan region. These levels are based on the reduction in demand required to ensure there is no system failure due to shortage of water.

A number of assumptions were made in the calculation of these trigger levels. These include:

- Increased dry weather demand, including increase demand for tankered water for non-reticulated domestic use
- The Waikato Water Treatment Plant follows historic reliability of 90%
- Abstraction from the Waikato River is restricted by 15% during low river flows in line with Waikato Regional Council Regional Plan Variation during summer/autumn historic low flow periods
- Onehunga dry summer availability of 12,000m^3/d (based on 2010 & 2013 experience)
- 2-6 weeks lead time to achieve savings
- Current maximum outputs of storage lakes & WTPs

These trigger levels cannot be over-prescriptive, as the decision as to whether or not to introduce various measures depends on the hydrological situation and weather forecast at the time, as well as the potential implications that the hydrological situation may have on the supply-demand balance.

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The notional savings required at each trigger level are summarised in the table below.

Table 2: Phases of Drought Management

Phases of Drought Management			
Phase	**Risk of Shortfall**	**Restrictions**	**Savings required***
Commence IMP	**Not significant**	**Operational**	**0%**
Commence voluntary Savings	**Minor**	**Voluntary**	**0% to 5%**
Stage 1 trigger	**Minor**	**Mild**	**5%**
Stage 2 trigger	**Medium**	**Medium**	**10%**
Stage 3 trigger	**Major**	**High**	**15%**
15% Residual Storage	**Extreme**	**Critical**	**>20%**

* expressed as % of projected monthly demand, in summer

The consequences of not achieving the desired savings during a water crisis are that:

- The water supply could run out, resulting in significant risks of adverse public health effects, such as those caused by the lack of water for basic sanitary requirements.
- Many businesses could cease to operate, creating adverse economic effects for the community and individual workers.

This plan is not intended to cover localised areas within the Auckland region where demand requires management following an incident to the local reticulation, but this does not preclude the procedures contained within this plan being used to manage localised events, or any regional event that requires a significant reduction in water supply consumption other than drought.

3. Incident management

3.1 Incident Management Plan (IMP)

This document has been designed to assist Watercare Services Limited (Watercare) respond to any event, which has potential to negatively impact achievement of Watercare's operational and strategic objectives including the management of water shortages and droughts. A drought is considered to be a 'non-normal" situation and will follow the process outlined within the IMP for escalation of an event. It is assumed that the readers of this DMP are familiar with the IMP.

A drought response can be categorised into phases of seriousness, each requiring actions to be taken that will ensure reductions in water use by the community. Reductions in use will be effected through the voluntary or mandatory savings detailed in this plan, once certain trigger levels have been reached. Mandatory savings are classified into three stages.

A Level 2 incident will be declared by Watercare once system storage has reached the first alert level (Commence IMP). At this point Watercare will increase situational monitoring and forecasting which may indicate that the event is worsening, a communications campaign for voluntary savings is to be under taken.

If drought conditions persist, the drought response will increase to mandatory restrictions; these restrictions will be staged in 3 levels. The ability to enact the necessary by-laws required for mandatory restrictions rests with the Auckland Council, with Watercare to recommend the necessary restrictions. At this point a level 3 incident will be declared in line with the IMP.

As each stage of restrictions is reached, planning is to be underway in preparation of reaching the next level of restrictions.

The decision to move from voluntary management to mandatory management is not a step which should be taken lightly. No mandatory measure will achieve the required savings unless the public support the measure. The risk of losing the good will and support of the public, by the imposition of mandatory measures, should be carefully considered. Therefore, mandatory measures will only be introduced if it has not been possible to achieve the required level of savings by voluntary means.

3.2 Objectives of the DMP

The purpose of this plan is to ensure a timely, customer centric and effective short-term response to the occurrence of water shortages, with the aim of minimising the impacts (social, economic, and environmental) of such shortages.

There are two components involved in securing an adequate water supply in times of drought:

- The provision of an adequate supply system to satisfy current and future demands over a range of climatic conditions ensuring that the risk of shortfalls in supply are within 'acceptable' levels.
- The specification of actions required when shortfalls in water supply occur as a result of drought.

The first component represents long term planning actions that determine the level of infrastructure development required to satisfy specified standards of supply.

The second component relates to management actions that are required to minimize the impacts of shortfalls in supply; the purpose of this plan. The DMP complements the long-term planning process where the short term response needs to be based on a good understanding of the longer term security of supply (i.e. knowledge of the likely frequency and severity of drought restrictions).

DMP objectives include:

- Provide timely warning of any water shortages which might occur during future drought events and to be prepared to deal with such shortages when they occur.
- Develop and implement an appropriate action plan to respond to water shortages.
- Identify all the necessary steps that need to be taken through a drought, including identifying clear trigger variables to instigate actions.
- Provide a basis for regular reviews of the plan as the system develops and information becomes available.
- Give direction for reviewing the plan during and following a drought; where its performance can be evaluated.
- Provide clear indicators to ensure that a reliable assessment of drought status is available.
- Ensure that a minimum supply is always provided (Note: AS/NZS 3500 stipulates adequate water to hygienically flush the bowl, but doesn't give a definitive quantity). The World Health Organisation recommends 70 litres per person per day to maintain sanitary requirements in the short to medium term.
- Ensure that the incident management team is aware of the stage of the drought and how severe the drought is likely to be.
- Ensure that the incident management team maintains information on current levels and patterns of demand and continually assess customer expectations in relation to desirable levels of service.

3.3 Implementation Strategy

The DMP will be implemented through the following steps:

Table 3: Sequential Plan of Action for Drought Management

Sequential Plan of Action for Drought Management	
Trigger	**Action**
Voluntary savings trigger level	• Alert public to the imminent water shortages and possible need for restrictions in the future. • Promote "voluntary restrictions" via media advertising campaigns to inform consumers about water conservation programs. • Monitor storage volume response and perform regular forecasting of storage volume projections. • Monitor flows daily and increase frequency of monitoring demands for high consumers.
Stage 1 trigger level	• Implement Stage 1 Restrictions • Introduce advertising campaign using all appropriate forms of media. • Continue to monitor storage volume response and perform regular forecasting of storage volume projections. • Investigate arrangements to bring available bores into service. • Inform customers about possible pressure reductions and problems this may entail. • Identify and plan for implementation of alternative emergency options e.g. rivers, Three Kings reservoir. • Start to engage with Council to reduce Environmental Releases from reservoirs.
Stage 2 trigger level	• Implement Stage 2 Restrictions • Continue media advertising. • Continue to monitor storage volume response and perform regular forecasting of storage volume projections. • Highlight, where feasible, unusually high use on customers' bills. • Lower the water supply system pressures, where feasible, to reduce water use.
Stage 3 trigger level	• Implement Stage 3 Restrictions • Continue media advertising. • Continue to monitor storage volume response and perform regular forecasting of storage volume projections. • Bring into service alternative emergency options e.g. rivers, Three Kings reservoir. • Bring any available bore pumping infrastructure into service.
Implement other emergency supply options.	• Implement other emergency supply options. • Continue media advertising. • Continue to monitor storage volume response and perform regular forecasting of storage volume projections.

This DMP has been prepared on the basis of full participation and support of the public.

3.4 Legal powers to invoke the DMP

With the establishment of the Auckland Council under the Local Government (Auckland Council) Act 2009, Council retains the sole ability to pass bylaws in respect to water supply. Traditionally drought events are managed through passing bylaws that restrict the use of water and a state of drought can also be enacted under the Civil Defence Emergency Management (CDEM) Act 2002, which recognises the importance of lifeline utilities, such as water, to the well-being of society.

3.5 Plan review and updates

This DMP shall be reviewed and updated every 24 months or as required, and after any event that requires all or parts of the DMP to be used. The DMP shall also be reviewed and updated every time the IMP is reviewed or updated.

Watercare's Water resources manager shall ensure that both the controlled hard copy document and the controlled intranet copy are updated upon approval of additions and alterations.

4. Water savings and restrictions

4.1 Rationale for restrictions

Residential, commercial and public lawns and gardens including garden centres

- These are external uses that are visible and can therefore be monitored (by the public, Watercare, aerial imagery etc), are non-essential, and high water use activities. Includes garden centres.

Playing fields (e.g. golf courses, hockey turfs, bowling greens)

- These are external uses that are visible and can therefore be monitored, contain non-essential components of use and are high water use activities. 7pm to 7am watering is proposed to minimise losses and to minimise the visibility of the activity.
- Sportfields provide a public good and there are health and safety concerns for people and animals (horse racing, polo) related to playing on hard surfaces. The intention is to maintain these benefits as long as possible. Applies equally to public and private sports facilities.

Fountains and water features

- These are external uses that are visible and can therefore be monitored, contain non-essential components of use and can be high water use activities.
- Turning off public fountains adds visibility and consistency to water conservation messages.
- Maintain environmental protection to ecosystems throughout a drought when they are stressed.

Hard surfaces

- These are external uses that are visible and can therefore be monitored, are non-essential uses and are high water use activities. Note that high pressure water blasters are typically highly water efficient.

Vehicle and boat washing

- These are external uses that are visible and can therefore be monitored, contain non-essential components of use and are high water use activities. Covers all form of vehicle (planes, trains, cars, buses, scooters, trailers, boats).
- Boat motor flushing is permitted at levels 1 and 2, to enable recreational use consistent with the restrictions on playing field watering. Watercare should seek to make non-potable sources available as soon as possible.
- Some car wash facilities do not use recycling systems. Whilst there will be a commercial impact on these operators, these rules will encourage them to invest in recycling systems, with a long term water reduction benefit. Note that there may be a financial impact on valet cleaning businesses from Level 2.

Building and window washing

- These are external uses that are visible and can therefore be monitored, are largely non-essential uses and can be high water use activities.

Swimming pools, spas, and recreation

- These are uses that are recorded on Council files and can therefore be monitored, contain non-essential components of use and can be high water use activities.
- Many utilities permit filling of paddling and temporary pools. These are high water use activities, and Aucklanders have access to free or cheap municipal pools and the sea so it is proposed that these activities are not permitted.

Tanker supplies

- Customers receiving water from tankers are subject to the same restrictions as Watercare's customers.
- Tankers provide water for essential uses and need to continue to supply.
- The Warkworth and Waiuku supplies are drought resistant and may continue to support communities outside Auckland subject to limitations on Watercare's infrastructure.

Construction and renovation

- Whilst non-potable supplies may be available there may be limited tankers available to provide this.
- Construction may be interrupted in Level 3 restrictions due to limitations placed on industrial customers (large users).

Large users - Industrial and commercial customers

- Rota cuts are not normally seen within a suite of water restrictions. They are normally seen as an emergency measure. However, there is precedent in the Waikato, where industrial users are required to restrict their water takes (compared to a consented volume) before other municipal users.
- Auckland may move through each band of restriction rapidly. Beyond Level 3 will be city-wide rota cuts, pressure reduction (with associated boil water notices) and/or the use of stand pipes to distribute water. Rota cuts of industrial users are considered preferable than a city-wide state of emergency.
- We have insufficient data to determine a threshold for large users for this restriction and more work on this is required by Watercare. Note, users will not know that they are affected. Watercare will need to contact them.

Agricultural and horticultural users

- These water uses are not well understood in Auckland. Efficient irrigation can be permitted for levels 1 and 2, but irrigators should be encouraged to permanently switch to other sources.

4.2 Exemptions

Residential, commercial and public lawns and gardens including garden centres

- New turf exemption (typical in UK and Australia) designed to minimise the impact on commercial growers, landscape firms and erosion of soil. For Level 1 and 2 restrictions new turf may be watered with a sprinkler for one week after it is delivered in accordance with a new turf watering plan [Watercare needs to develop this with the industry].
- Exemptions for medical reasons (people unable to operate a trigger nozzle)
- Exemptions for garden centres in Level 3, watering with a watering can allowed.

Playing fields (e.g. golf courses, hockey turfs, bowling greens)

- Watering to enable international sporting events to proceed will be permitted subject to an approved water use plan.

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Fountains and water features

- Exemptions for medical reasons (people unable to operate a trigger nozzle).

Hard surfaces

- Graffiti removal permitted in Levels 1 and 2 to protect small businesses, property and community wellbeing.

Vehicle and boat washing

- Graffiti removal permitted in Levels 1 and 2 to protect property and community wellbeing.

Building and window washing

- Water efficient cleaning devices (window cleaning systems, for example) are exempt at Level 1, to protect small businesses.
- Graffiti removal permitted in Levels 1 and 2 to protect small businesses, property and community wellbeing.

Swimming pools, spas, and recreation

- All municipal pools for Levels 1 and 2, to ensure community well-being. Existing indoor municipal and commercial pools for Level 3. Existing pools used for human or animal medical treatments.
- Certification by a Chartered Professional Engineer that a pool needs to be filled for structural or health and safety reasons.

Tanker supplies

- Water supply to areas outside of Auckland may be permitted by Watercare from stated tanker filling stations.

Construction and renovation

- Where the proposed methods for water restrictions result in health and safety or environmental impacts.

Large users - Industrial and commercial customers

- Hospitals and schools.
- Domestic users (within apartment buildings with a single metered account, for example).
- Users who can demonstrate via a detailed water use plan that they will save more water than they would on the proposed rota cut schedule.

Agricultural and horticultural users

- Domestic use on agricultural and horticultural premises.
- Water use for animal drinking water. Some use for animal husbandry and wellbeing may also be exempt subject to an efficient water use plan.

4.3 Restrictions in three levels

Level of restriction	Residential, commercial and public lawns and gardens (including garden centres)	Playing fields (e.g. golf courses, hockey turfs, bowling greens)	Fountains and water features	Hard surfaces	Vehicle and boat washing	Building and window washing	Swimming pools, spas, and recreation	Tanker supplies	Construction and renovation	Large users - Industrial and commercial customers	Agricultural and horticultural users
Level 1 Expected savings: winter 0-3% summer 5-10%	- Watering permitted only as required using a hand held hose with a trigger nozzle, watering can or bucket, or an irrigation system with an automated weather adjustment, rain sensor or soil moisture sensor. - New turf may be watered for one week after it is delivered.	- Watering of sports fields and playing fields including artificial turf is permitted only as required, using a hand held hose with a trigger nozzle, watering can or bucket, or an irrigation system automated with a weather adjustment, rain sensor or soil moisture sensor. - Limited to between 7pm and 7am to minimise evaporative losses.	A hand held hose, bucket or watering can may be used to fill or top up fountains or water features if the fountain or water feature recirculates water; ponds or lakes supporting aquatic fauna or birdlife; and new ponds or lakes.	Cleaning of hardstanding (paths, roads, patios, decks etc.) or outdoor artificial surfaces is not permitted except spot cleaning for health and safety or biosecurity purposes with a high pressure water blaster or water from a bucket.	- May be washed using a bucket and hand held hose for rinsing, a high pressure cleaning unit, or at a commercial car or boat wash facility using a water recycling system. - Boat motor flushing is permitted only if a non-potable water source is not available.	- Cleaning only permitted with a bucket and hose with a trigger nozzle for rinsing, or a high pressure cleaning unit. - Graffiti removal permitted.	- Top up of existing pool or spa to replace water lost is authorised using a hand held hosepipe, bucket or watering can only. - Fill of new or renovated pool or spa pool (volume >500l) allowed only if permanent cover to reduce evaporation. - Paddling or temporary pools (holding less than 2,000l) may not be filled. - Water toys or water play using a hosepipe are not permitted.	- Tankers supplying the wider Auckland region only (refer exemptions) are permitted to fill from the Watercare system. - Customers receiving water from tankers are subject to the same restrictions as Watercare's customers.	- Replace potable water with non-potable sources wherever practicable. - No unattended hosepipes in site at any time. - Potable water may only be used to supress dust if no other alternative source is available and in any case only by means of a hand-held hose with a trigger nozzle, watering can or a purpose built water tanker. - All potable water use (including dust suppression) is limited to health and safety; environmental protection reasons as required by resource consent conditions; or construction equipment requiring water for safe operation;	- Replace potable water with non-potable sources wherever practicable. - Subject to the same restrictions on use as all other customers.	- Replace potable water with non-potable sources wherever possible. - Irrigation watering permitted only as required using a hand held hose with a trigger nozzle, watering can or bucket, or an irrigation system with an automated weather adjustment, rain sensor or soil moisture sensor.

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Level of restriction	Residential, commercial and public lawns and gardens (including garden centres)	Playing fields (e.g. golf courses, hockey turfs, bowling greens)	Fountains and water features	Hard surfaces	Vehicle and boat washing	Building and window washing	Swimming pools, spas, and recreation	Tanker supplies	Construction and renovation	Large users - Industrial and commercial customers	Agricultural and horticultural users
Level 2 Expected savings: winter 3-5% summer 10-16%	- No lawn watering. - Garden watering permitted only as required using a hand held hose with a trigger nozzle, watering can or bucket, or a drip or trickle irrigation system with an automated weather adjustment, rain sensor, soil moisture sensor. - New turf may be watered for one week after it is delivered.	- Watering of sports fields and playing fields limited to watering of the active strip / playing area only, as required using a hand held hose with a trigger nozzle, watering can or bucket, or a drip or trickle irrigation system with an automated weather adjustment, rain sensor, soil moisture sensor. - Limited to between 7pm and 7am to minimise evaporative losses.	- A hand held hose, bucket or watering can may be used to top up existing ponds or lakes supporting aquatic fauna or birdlife. - Water cannot be used to fill or top up fountains and water features or new ponds or lakes.	Cleaning of hardstanding (paths, roads, patios, decks etc.) or outdoor artificial surfaces is not permitted except spot cleaning for health and safety or biosecurity purposes with a high pressure water blaster or water from a bucket.	- Only clean for health and safety or biosecurity reasons. - A bucket and hand held hose may be used for rinsing or a high pressure cleaning unit used to wash the windows, mirrors, lights, registration plates and carry out spot removal of corrosive substances. - Use of a car or boat wash facility with an efficient water recycling system is permitted. - Boat motor flushing is permitted only if a non-potable water source is not available.	- Cleaning only allowed with a bucket and hose with a trigger nozzle for rinsing, or a high pressure cleaning unit and only for health and safety, accident and emergency reasons. - Graffiti removal permitted.	- Top up of an existing covered pool or spa which has a permanent cover is allowed using a bucket or watering can. - Pools and spas without covers may only be topped up if an engineer certifies that this is required for structural or health and safety reasons. - Newly constructed and not previously filled pool, or renovated pool of any size may not be filled. - Paddling or temporary pools (holding less than 2,000l) may not be filled. - Water toys or water play using a hosepipe are not permitted.	- Limited to approved filling stations. - Tankers supplying the wider Auckland region for essential uses only are permitted to fill from the Watercare system. - Customers receiving water from tankers are subject to the same restrictions as Watercare's customers.	- Replace potable water with non-potable sources wherever practicable. - No unattended hosepipes in site at any time. - Potable water may only be used to supress dust if no other alternative source is available and in any case only by means of a hand-held hose with a trigger nozzle, watering can or a purpose built water tanker. - All potable water use (including dust suppression) is limited to health and safety; environmental protection reasons as required by resource consent conditions; or construction equipment requiring water for safe operation.	- Replace potable water with non-potable sources wherever practicable. - Subject to the same restrictions on use as all other customers.	- Replace potable water with non-potable sources wherever possible. - Watering permitted only as required using a hand held hose with a trigger nozzle, watering can or bucket, or an irrigation system with an automated weather adjustment, rain sensor or soil moisture sensor.

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Auckland Drought Management Plan

Level of restriction	Residential, commercial and public lawns and gardens (including garden centres)	Playing fields (e.g. golf courses, hockey turfs, bowling greens)	Fountains and water features	Hard surfaces	Vehicle and boat washing	Building and window washing	Swimming pools, spas, and recreation	Tanker supplies	Construction and renovation	Large users - Industrial and commercial customers	Agricultural and horticultural users
Level 3 Expected savings: winter 12-25% summer 24-30%	No lawn or garden watering is permitted.	No watering of sports fields or playing fields is permitted.	- A hand held hose, bucket or watering can may be used to top up existing ponds or lakes supporting aquatic fauna or birdlife. - Water cannot be used to fill or top up fountains and water features or new ponds or lakes.	Cleaning of hardstanding (paths, roads, patios, decks etc.) or outdoor artificial surfaces is not permitted except spot cleaning for health and safety or biosecurity purposes with a high pressure water blaster or water from a bucket.	- Cleaning limited to windows, mirrors, lights and registration plates and spot cleaning for removing corrosive substances. - Boat motor flushing is permitted only using non-potable water sources.	Cleaning only allowed with a bucket and hose with a trigger nozzle for rinsing, or a high pressure cleaning unit and only for health and safety, accident and emergency reasons.	- Top up an existing covered pool or spa which has a permanent cover allowed using a bucket or watering can only. - Pools and spas without covers may only be topped up if an engineer certifies that this is required for structural or health and safety reasons. - Newly constructed and not previously filled pool, or renovated pool, of any size, may not be filled. - Paddling or temporary pools (holding less than 2,000l) may not be filled. - Water toys or water play using a hosepipe are not permitted.	- Limited to approved filling stations. - Tankers supplying the wider Auckland region for essential uses only are permitted to fill from the Watercare system. - The volume delivered to each property will be limited to the Auckland average per capita consumption per household resident. A reasonable allowance for animal drinking water is also permitted. - Customers receiving water from tankers are subject to the same restrictions as Watercare's customers.	As for Levels 1 and 2 but an efficient water use plan is required for testing and flushing.	- Rota cuts (days when customers cannot use water) will be imposed and monitored. - All large users will be prohibited from using water one or more days per week.	No potable water use allowed other than for domestic use and animal drinking water.

No unattended hosepipes for any purpose once restrictions are imposed.

These restrictions also apply to the use of water from cisterns and tanks filled from the municipal supply.

Whilst limited time of day restrictions are proposed, promoting watering when evaporation is limited should be recommended and could be required.

Rainwater and recycled water may be used for any purpose at any time, unless the rainwater tank is topped up or filled using the municipal water supply.

Consider defining essential uses from water tanks: as for human health requirements, watering of stock and animals, firefighting unless a non-potable source is available, for the safety, but not the cleaning, of vehicles and equipment, and for cleaning required as a result of an accident, fire, health hazard, safety hazard or other emergency (in accordance with the permitted methods and unless a non-potable source is available).

Vehicles includes all types of vehicle; cars, trucks, buses, rolling stock, trailers and boats.

Graffiti removal permitted in Levels 1 and 2.

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5. Customer segmentation

5.1 Health Considerations (Health and Safety)

5.1.1 Critical Customers

When water supplies are extremely limited, stringent measures will be required to minimise the adverse effects on health. Critical customers need to be prioritised and may be supplied with tanker water – this can be in the form of mini tankers.

Critical customers include:

- Dialysis patients – list supplied by Auckland Regional Public Health Service (ARPHS)
- Hospitals
- Schools
- Private hospitals/Rest homes
- Fire service

5.1.2 General Public Health

The most likely adverse health outcome related to water restrictions would be an increase in the incidence of food and waterborne diseases. An increase in fire risk would also apply due to possible reductions in pressure.

These health effects would not be because the water is unfit to drink, but possibly due to inappropriate measures being undertaken by customers, particularly relating to a limited general understanding of food and water hygiene. Likely problems are:

- Use of non-potable water for drinking, cooking, food preparation and dishwashing. This includes inappropriate use of roof-collected rainwater;
- Relaxation of frequency and adequacy of hand washing;
- Excessive conservation measures voluntarily being taken.

It is envisaged that control of these issues will be achieved primarily by education, with emphasis on groups such as the elderly and schools, and in commercial premises by monitoring. The incident management team shall ensure that consumers are advised on health related issues.

Mitigation measures may include:

- Assisting in intensive public education on differentiating between potable and non-potable water in respect to use and storage;
- Assisting in intensive public education on the maintenance of hygiene when water is scarce.

5.2 Water Savings

5.2.1 Specific Commercial/Industrial users - Voluntary Savings

The incident management team might consider targeting specific commercial/industrial water users in an education programme of voluntary savings. The education programme might be part of the unified communications campaign. Tips for water saving measures would target specific users such as:

- Commercial Car Washing facilities.
- Commercial Kitchens / Restaurants & Hotels/Motels (dishwashers)
- Laundries/Laundromats
- Commercial Swimming pools/spas
- Industrial process washing and rinsing

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5.2.2 Council Self-Imposed Restrictions

Public cooperation with voluntary savings will have a greater chance of success if Watercare and Auckland Council lead by example. The Auckland Council should consider directing staff to make an immediate reduction in water use at city facilities. Such measures might include:

- Landscape irrigation reduced, including park and golf course irrigation.
- Leak detection and repair program augmented (start with water audits on Council buildings, then target top 100 water users).
- Ornamental fountains turned off.
- Reduced cleaning of vehicles and facilities.
- Reduced flushing of streets, sewers, and storm drains.
- Restricting use of fire hydrants except for fire fighting.

5.2.3 Engaging the Services of Other City Agencies

The incident management team might also consider consultation with other City Agencies to encourage their support. Considerations might include:

- Police Department - Assist in closing illegally opened hydrants.
- Housing Authorities - Request plumbing leak surveys.
- Auckland Transport - Request fleet washing cutback.
- Ministry of Education - Initiate student water conservation education program.

5.2.4 Encouraging Commercial/Industrial Cooperation

The voluntary stage of water savings is a good time to encourage cooperation from major commercial and industrial users of water. The incident management team might consider ways of approaching these major users to encourage them to prepare a water consumption reduction plan, enabling each to reduce its water in stages based upon its average water consumption during the previous calendar year.

5.2.5 Implementation of Restrictions

If all of the council's efforts in using the voluntary management options outlined previously consistently fail to reduce demand, and storage levels and inflows are trending below the target, then mandatory management options will need to be introduced. Forward looking projections of storage response are an integral part of short term planning during a drought. Projections assist to anticipate the "likely" response based on current climatic conditions.

5.2.6 Mandatory Savings Measures

Restrictions generally apply to all properties connected to municipal water reticulation, almost all of which will be connected to a public sewerage system. It also applies to anyone taking water from the water reticulation system, such as tanker operators taking water for self-serviced properties, construction activities, etc.

In situations where public health and/or safety are potentially at risk, including firefighting, restrictions will not apply.

Use of recycled water and water from other private sources, such as rainwater tanks, is not under the control of local government bodies and will therefore not be restricted. Wherever recycled water or water from private sources is used, approved signage has to be displayed by those users.

During any event, the restrictions will need to be reviewed, confirmed, added to or modified over time based on the effectiveness in bringing about reductions in water consumption.

It should be noted that Stage 4 restrictions are regarded as an emergency situation and should be viewed as a last resort to be avoided at almost all costs owing to the deleterious effects that they could have on public health and safety and on the economy.

5.2.7 Water Tanks

The use of water from water storage tanks is unrestricted as long as the tank is not also connected to mains supply (some water tanks have the option of topping up with mains water when the water level in the tank gets too low – in these cases, water usage restrictions shall apply). However, levels 2 and 3 ask of households on rainwater tanks not connected to the network to follow the same restrictions as households solely supplied by the network.

5.2.8 Water Supply Augmentation – contingency plan

Alternative water supplies need to be considered and the list of alternative sources should be reviewed and updated as required.

5.2.9 Standpipes

Should the drought worsen and total storage reach the 15% reserve storage level, then the following steps will be used to effect standpipe collection:

- Standpipes will be installed on critical mains and will be located near public places;
- The public shall be notified of the location of standpipe facilities on the isolated distribution mains.
- All users of dialysis and other medical equipment dependent on the water supply shall be notified and systems put in place for alternate methods of a consistent potable water supply.

5.2.10 Policing

During the droughts in Australia, 2003-2010, it was found that for outdoor use, neighbours police each other and report transgressions. This may be followed up by visits from Council representatives and eventually the issuing of fines.

For indoor use policing may not be possible except through inspection of water bills to assess total average use per household. High use households may be visited by Council/Watercare staff to advise occupants on how to save water. This may not be practical unless more frequent water meter readings are implemented to replace the normal schedule.

6. Communications

The primary purpose of a communications campaign is to give consumers ownership of the situation and the appropriate solutions so that they can contribute to achieving the desired savings. Savings through imposing restrictions will only work if the community is aware of them and implement them. The responsibilities of the Communications Group are covered in the IMP and will include the following:

- **Key Authorities and Groups**

  It will be necessary to conduct and record discussions between the key public authorities and groups from the early stages of drought prediction through until the final response stages

- **Key and strategic Customers**

  Ensure key and strategic customers are identified and their requirements fully documented, so they are protected in the event of a drought. Strategic and key customers are those more affected than most others by a reduction in the quality and/or quantity of water, including:

  - residential customers such as dialysis patients;
  - commercial customers including hospitals, mortuaries, hotels etc., where the continuous supply of water is critical to their normal operations and where those operations have a direct interest in maintaining a healthy community;
  - commercial and industrial customers who normally would consume significant quantities of water and would be expected to make considerable changes to their normal activities in order to achieve the desired savings (this group often needs more time to prepare).

- **The public**, to ensure that they:
  - take ownership of water savings;
  - are informed of the drought situation;
  - know what they are required to do following the introduction of any restrictions included in this plan; and
  - know how to reduce water use.

7. Recovery, Close-out and review

The incident management team will decide when steps can be taken to alleviate consumer consumption restriction. Alleviation will take place in accordance with total system storage reaching the trigger levels in

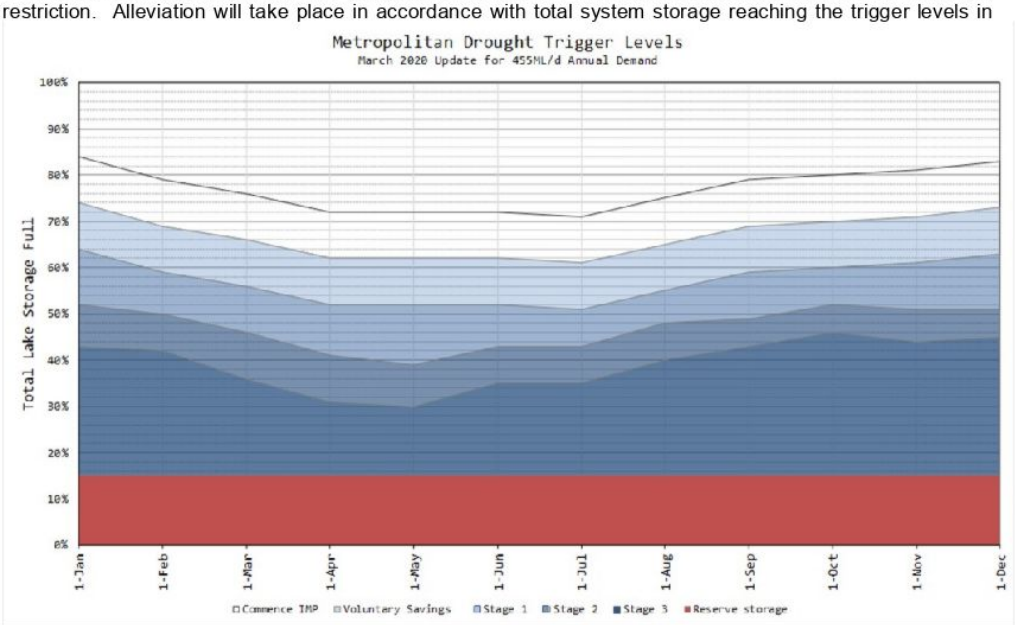

Figure 1: Drought Response Trigger **Levels**.

The introduction and removal of water restrictions is an exercise in public relations, and it is important to minimise the frequency (where practicable) in which restrictions are introduced and removed so that the messages sent to the community are clear and do not become confused. Therefore, the key issues to be evaluated when removing restrictions include:

- the time of year and therefore the effectiveness of removing restrictions;
- the short term climatic outlook;
- community acceptance of restrictions; and
- the likelihood that restrictions will have to be reintroduced over the subsequent months.

A risk based approach is preferred when evaluating whether to remove restrictions, with the likelihood of having to re-introduce restrictions over a pre-defined short term period being the key performance measure.

When the end to the drought event is declared by the incident management team, a full debrief will be conducted to review the overall success of the drought savings measures;

The incident management team shall ensure the following activities are conducted at the end of the drought:

- inform all customers that all water restrictions have been removed (formal declaration via the communications coordinator);
- produce a review report of the execution of the drought management plan so lessons learned can be documented and the DMP updated accordingly

Actions to be considered after a drought has occurred are summarised below. These include evaluating the appropriateness of the DMP trigger levels, the effectiveness of demand reduction and emergency supply augmentation options and the effectiveness of each level of restriction:

Table 4: Assessment of Trigger Level Response and Success

Evaluate Trigger Levels and Associated Actions		
Trigger Point Link	**Description**	**Assessment Procedure**
Voluntary Trigger	Voluntary Demand Reduction	Was the community responsive? Was there a significant reduction in demand? Was the trigger level appropriate?
Stages 1-3	Water Restrictions	Was the expected reduction in demand achieved for each stage? Were the trigger levels appropriate? Were policing methods effective; if so, how?
15% Reserve Storage	Implement other emergency supply options	To what level was demand reduced? What was the cost and practicality of carting water if undertaken? Were individual emergency options implemented too late?

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The table below summarises the assessment procedure for evaluating the impact of restrictions applied to customers, authority staff and supply systems. The intention is to learn from the methodologies that have been applied in order to minimise any future incidents of this nature.

Table 5: Assessment of Impact of Restrictions

Evaluate the Impact of Restrictions	
Users	**Assessment Procedure**
End Users	• Were the restrictions too severe? • Was the right mix of media used to disseminate information? • Was there enough warning of impending drought? If not, how could it be improved?
Environmental	• Were there any reported environmental impacts? • Were they assessed? • What methods have been put into place to rectify any environmental effects?

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Auckland Drought Management Plan

Authority Staff	• Were many instances reported of restriction violations? • Was it possible to effectively enforce the restriction policy? • Was there sufficient staff available to monitor system performance?
Supply Systems	• Did restrictions achieve expected levels of water savings? • Have supply systems been replenished? If so, how long did it take to achieve this level? • What procedures were put in place to achieve this?

Appendix 1: Augmentation of Water Supplies

In case of extreme drought conditions, augmentation of water supplies may be needed. The following information was initially gathered during the 1994 Auckland Drought and this list should be reviewed annually to ensure the information is current and complete. Since the '94 drought, one major water supply have been added, the Waikato River.

During the 1994 drought, Watercare Services Limited commissioned the following sources of bulk potable water:

Source	Annual Average Yield
Papatoetoe Aquifer	500 m3/d
Hays Creek Dam	6000 – 8000 m3/d

The following sources also need to be investigated to determine their potential, in terms of quality, quantity, cost and logistics:

Orewa River	Weiti River	Karamatura Stream
Wairau Creek	Lake Pupuke	Papakura Stream
Opanuku Stream	Oratia Stream	Lower Mangatawhiri
Mt Wellington Quarry	Heritage Park	Desalination
Western Springs	Pigeon Mountain	Roof water tanks
Mangere Mountain	Okura Stream	Sewage re-use
Hunua Stream	Swanson Stream	

The following area-specific water sources were investigated during the 1994 drought:

Auckland:

Source	Yield m3/d	Potable potential
Western Springs	8000 – 12000	Yes
Three Kings	3000 – 6500	Yes
Heritage Park	2500 – 10000	Yes
Lunn Avenue	2000	No
Southpark	2000 – 3500	Yes
Fisher Crescent	1700	Yes
North Shore: (numerous bores in the area)		
Lake Pupuke	Unknown	Unknown
Paremoremo Prison bore	75% of prison water requirement	Unknown
Papakura District: Three bores	2500 m3/d (per bore)	Yes
Waitakere: Some small lakes	Unknown	Unknown
Opnanuku and Oratia stream	Unknown	Unknown

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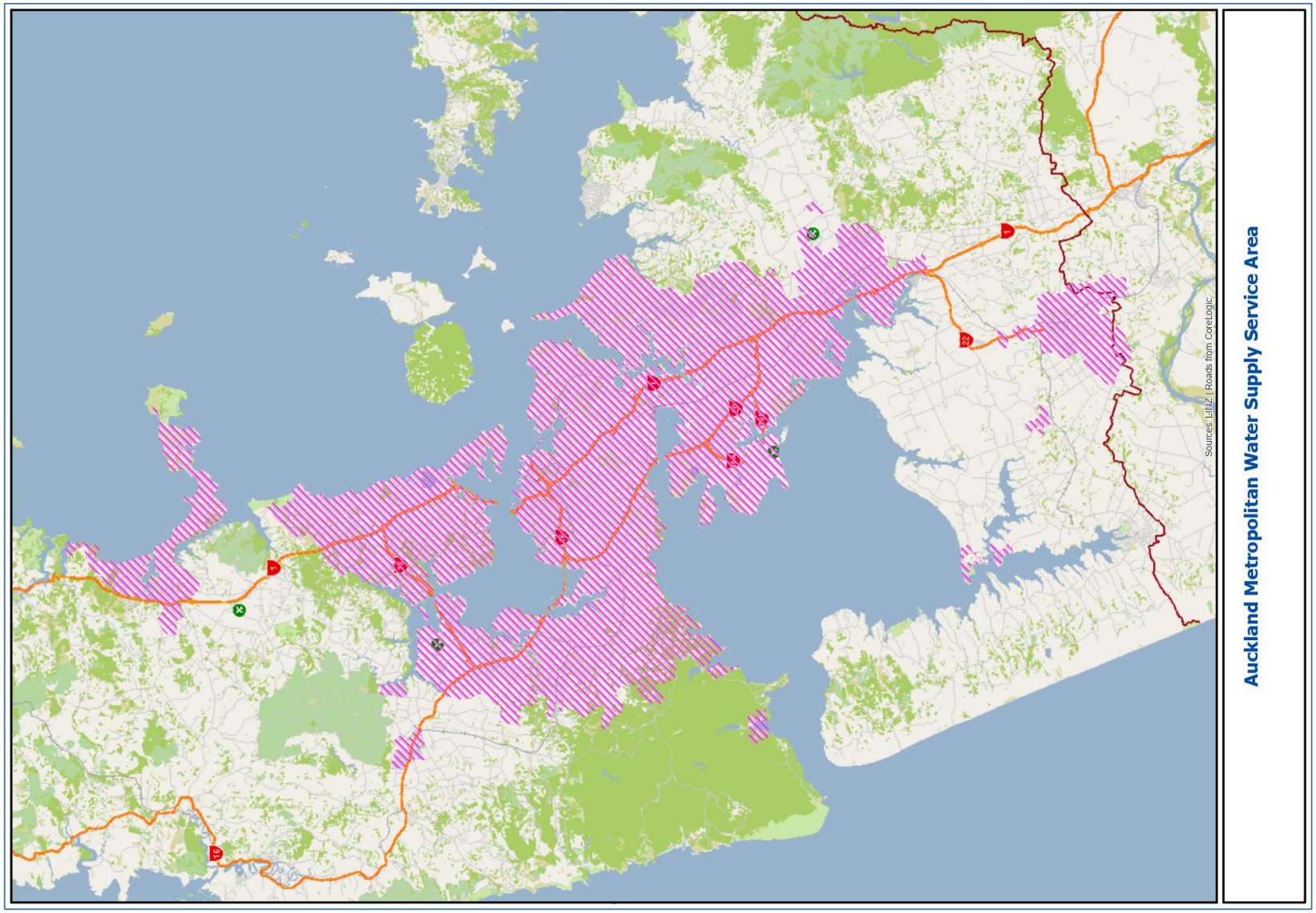
Auckland Metropolitan Water Supply Service Area
Sources: LINZ | Roads from CoreLogic

Board Planner 2020

		May	June	July	August	September	October	November	December
Meetings	Board	28-May 8.30am-12.30pm	29 workshops/ 30 June Board meeting	28-July 8.30am-12.30pm	25-Aug 8.30am-12.30pm	29-Sept 8.30am-12.30pm	27-Oct 8.30am-12.30pm Followed by Board Dinner to farewell retiring board members	24-Nov 8.30am-12.30pm	15-Dec 8am-11am (Teleconference)
	Audit and risk committee	25-May 1pm-3.30pm		27-July 1pm-3.30pm	24-Aug 10am-12.30pm		27 Oct 1.30pm-4pm		
	Te Tangata Komiti		Catch up meeting - TBC	29 July 8.30-10.30am	24 Aug 1-3pm			26 Nov 8.30-10.30am	
	AMP & Major Capex Committee			28 Jul (after Board meeting)				19 Nov (9.30-12pm)	
	STP Committee		19 June (9am-10am)						
	Committee for Climate Action	22 May (9-11.30am)			6 Aug (1.30-3.30pm)		13 Oct (9-11.230am)		
	CCO Oversight Committee meetings		23-Jun		11 Aug (M Devlin)	22 Sept (possible date for Watercare Board/Council workshop?)	27-Oct	24-Nov	8 Dec (M Devlin)
Events	Community and Stakeholder Relationships		TBC: Meeting with the WDC Waters Governance Board	TBC: Meet the Diversity & Inclusion Committee	Action 2030 Symposium TBC				
Governance	Charter reviews	A&R Charter	Corpoate Governance charter	Te Tangata Charter					
	Policy reviews		Sensitive Expenditure Policy Good Employer Policy IGCs	Our Commitment to Health, Safety & Wellness *Risk Management Policy (2021)*				*Fraud & Corruption Policy (2021)*	
	Risk report due to Council			Risk report (due to Council 31 July)			Risk report (due to Council 12 Nov)		
	Enterprise Risk report to Board			Report to Board			Report to Board		
	Compliance			Statutory compliance			Statutory compliance		
	H&S Quarterly report			Apr-Jun 20 Report			Jul-Sept 20 Report		
	Shareholder interaction		Govering Body/Board Workshop on climate resilient water strategy for Auckland - TBC	Q4 quarterly report due on 30 July (to be approved by Board at July meeting)		Q4 briefing to the CCO Oversight Committee TBC	Q1 quarterly report due on TBC		Q1 briefing to CCO Oversight Committee TBC
	Site Visits		Site Visit		Site Visit		Site Visit		
Board Training	Board training & development		Privacy Law (once new laws are in place)	Board evaluaton check-in	Culture and conduct/Future of work	Board evaluaton check-in	Mental Health & Wellbeing in the workplace	H&S Board Update	
Business strategy	Strategic planning & Deep Dives	Deep Dive: Drought update	Deep Dive: TBA		Deep Dive: TBA	Strategy Update:TBA		Deep Dive: TBA	
Business planning	Key finance and business decisions	Present plan for Year End to A&R Approve Insurance Proposal Auckland Council and Watercare to review Treasury Interest rate by 31 May	Approval of 2020/21 Budget & updated SOI Financials Mayor's Treasury Guarantee Letter due by 30 June	Approve Auckland Council Reporting Pack	a) approve 2020/21 accounts, b) delegate final sign off of 2020/21 Annual Report		AMP		Auckland Council Draft Annual Plan - approve Watercare input'
	Statement of intent	.	Present shareholder SOI feedback at public meeting. Public Deputations received Final 2020-2023 SOI issued to shareholder		Final 2020/2023 SOI adopted by Auckland Council		2019/2020 SOI Results to be presented to Board at Public Meeting. Public Deputations received.		2021/22 Letter of Expectation to be received

Report to the Board of Watercare Services Limited
Prepared for the 28 May 2020 Board meeting

6.2

Disclosure of senior executives' interests

Purpose			Team		
Information	Discussion	Approval	Prepared	Recommended	Submitted
✓			**Emma McBride** Head of Governance	**Rob Fisher** Company Secretary	**Raveen Jaduram** Chief Executive

Intellectual capital	People and culture	Community and stakeholder relationships	Financial capital & resources	Natural environment	Assets and Infrastructure
					

1. Purpose and context

One of key principles of good governance is transparency, and having an open and honest approach to working with the wider community. Watercare not only maintains an Interests Register for its directors (as required by law), but also voluntarily maintains an Interests Register for our senior executives.

2. The details

Watercare Services Limited's senior executives' Interests Register is set out below.

Senior Executive	Interest
Raveen Jaduram	• Director – J N Jaduram Corporation Limited (Fiji) • Member - Auditor-General's Local Government Advisory Group • Director– New Zealand Infrastructure Commission - Te Waihanga • Director – Water Services Association of Australia
Rob Fisher	• Deputy Chair – Middlemore Foundation • Trustee – Watercare Harbour Clean Up Trust • Trustee – Te Motu a Hiaroa (Puketutu Island) Governance Trust
Steve Webster	• Director – Howick Swimgym Limited
Marlon Bridge	• Trustee –Te Motu a Hiaroa (Puketutu Island) Governance Trust • Director – WCS Limited
Rebecca Chenery	• Director – Chenery Consulting Services Limited • Director – Lutra Limited
David Hawkins	• Nil
Jason Glennon	• Director - Michaels Ave Investments Limited
Amanda Singleton	• Director – Die Weskusplek Pty Ltd (South Africa) • Trustee – Te Motu a Hiaroa (Puketutu Island) Governance Trust
Shane Morgan	• Committee Member – International Water Association, New Zealand • Director – Lutra Limited
Shayne Cunis	• Director – The Water Research Foundation (USA)

Report to the Board of Watercare Services Limited
Prepared for the 28 May 2020 Board meeting

6.3

Directors' appointment terms and committee memberships

Purpose		
Information	Discussion	Approval
✓		

Team		
Prepared	Recommended	Submitted
Emma McBride Head of Governance	**Rob Fisher** Company Secretary	**Raveen Jaduram** Chief Executive

Intellectual capital	People and culture	Community and stakeholder relationships	Financial capital & resources	Natural environment	Assets and Infrastructure
	✓	✓			

1. Purpose and context

This paper provides an update on:

- the tenure of the eight directors of Watercare Services Limited
- details of the committees each director is a member of.

2. The details

Table 1: We have eight directors
Our directors are appointed by Auckland Council

Director	Original appointment date	End of term
Margaret Devlin (Chair)	1 November 2016	31 October 2022
Dave Chambers	1 November 2019	31 October 2022
Nicola Crauford	1 April 2014	31 October 2021
Brendon Green	1 November 2016	31 October 2022
Julia Hoare (Deputy Chair)	1 November 2013	31 October 2020
Hinerangi Raumati-Tu'ua	1 August 2019	31 October 2022
David Thomas	1 November 2014	31 October 2020
Frances Valintine	1 November 2019	31 October 2022

Table 2: We have five committees to assist the Board in its corporate governance

Committee Chairs and members are appointed by the Chair. Attendance at Committee meetings by non-members is optional.

Director	Audit and Risk	Te Tangata	Strategic Transformation Programme	AMP & Major Capex	Committee for Climate Action
Margaret Devlin (Chair)	*	✓		✓	
Julia Hoare (Deputy Chair)	✓			✓	
Dave Chambers		Committee Chair			
Nicola Crauford			✓	Committee Chair	✓
Brendon Green	✓		Committee Chair		Committee Chair
Hinerangi Raumati-Tu'ua	Committee Chair				
David Thomas	✓	✓			
Frances Valintine			✓	✓	✓

**Board Chair attends in ex-officio capacity*