Date: Tuesday 19 May 2020  
Time: 2.00pm  
Meeting Room: This meeting will proceed via Skype for Business.  
Venue: Either a recording or written summary will be uploaded on the Auckland Council website

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**Devonport-Takapuna Local Board**  
**OPEN MINUTE ITEM ATTACHMENTS**

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**Note:** The attachments contained within this document are for consideration and should not be construed as Council policy unless and until adopted. Should Councillors require further information relating to any reports, please contact the relevant manager, Chairperson or Deputy Chairperson.
Public Submission to Devonport Takapuna Local Board, 19 May 2020 - Iain Rea

As New Zealand’s economy undergoes a period of realignment, Takapuna will not be unaffected. Simply upgrading Hurstmere Road will not be sufficient to return economic health to Takapuna. On the future of 40 Anzac Street, it seems Panuku’s plans have not materially altered to reflect a profound shift in our community’s situation.

I suggest 40 Anzac Street can be key to underpin the economic health of the Hurstmere precinct businesses and the community. The benefits of market enterprises to support economic activity, to encourage local economic development are well researched and documented internationally. Their ability to add to a visitor/tourist experience, to create a local economic engine, to enhance social cohesion and act as a community gathering space are well recorded.

I attach a request for records to Atreed and Panuku for the economic and environmental assessments of Takapuna Market in reference to best practice international research. Panuku’s response is also attached; such research and assessment has not been undertaken. However, in its response, Panuku acknowledges that “the market is a key part of Takapuna”.

Given that the market is so key, I suggest that any immediate planning for 40 Anzac Street should put the Sunday market at the heart of the development. I note in the Panuku proposal currently before this Local Board meeting the market’s successful “pre-covid” size and successful model cannot be accommodated.

40 Anzac Street currently divides the precinct, Shore City and the west wide of Lake Road to Hurstmere Road. I suggest that a post-covid 40 Anzac Street could not only include temporary and priority car parking, but the central area, adjoining the east side of 490 Lake Road (ex-Burger King outlet) could be activated as a public space, perhaps providing for some planting to encourage desire lines/movement between Hurstmere and Shore City. Perhaps the Burger King building could open up at the back onto the car park area with some tables. Perhaps the provision of bicycle parking on the central area’s fringe.

The Sunday market brings entrepreneurial activity and a visitor experience to the heart of Takapuna. It is also part of the precinct’s heritage. I suggest DTLB should advocate for the return of the Sunday market to 40 Anzac Street as soon as possible and that some seven day market activity should be encouraged on a portion of the site - perhaps towards Madam Woo.

Thank you for the opportunity to bring this perspective to the Board’s attention

Attached:

1. 241219 LGOIMA for Economic and Environmental Assessment Report for Takapuna Market to Atreed
2. Customer Response 8140006204_Panuku Market
Economic and Environmental Assessment Report for the Redevelopment of Takapuna Market

From: Iain Rea
December 24, 2019

Dear Auckland Tourism, Events and Economic Development Limited,

Please provide a copy of any and all economic and environmental assessment reports produced by Auckland Tourism, Events and Economic Development Limited (ATEED) since including 2015 to the present day. Such a report may be expected to include a record and consideration of visitor numbers, the number of jobs created and supported, amount of turn-over of market stalls, the market’s effect on turn-over of general retail activity in the Takapuna Metropolitan Centre Zone, and the metrics and reporting standards for evaluating the Auckland region’s markets.

I expect the report(s) will consider the fact that low-income populations have the potential to achieve greater benefits from markets such as Takapuna’s. I would expect the report(s) to make reference to “Markets matter: reviewing the evidence and detecting the market effect”, (2015) Hallsworth, Ntounis, Parker Quin, Institute of Place Management, https://www.placemanagement.org/news/mar...


(https://www.sciencedirect.com/science/article/abs/pii/S0261517716300413;) and the local economic development and social and environmental community vitality discussed in "Farmers markets act as gathering space and local economic engine" (2012 Darrton, Michigan State University MSU Extension, https://www.canr.msu.edu/news/farmers_ma...

(https://www.canr.msu.edu/news/farmers_markets_act_as_gathering_space_and_local_economic_engine)

I expect the Board of Ateed will have considered the above factors to allow Auckland Council to make a fully informed decision in progressing its Unlock Takapuna Programme which has the potential to significantly impact the Takapuna market, a regional asset that has been running for 32 years.

Yours faithfully,

Iain Rea
17 January 2020

Iain Rea
By email: fyi-request-11936-562a40c6@requests.fyi.org.nz

Dear Iain

Local Government Official Information and Meetings Act 1987

Re: Economic Impact Report Takapuna Market

I refer to your email, which we received on 24 December 2019, requesting any and all economic impact reports produced by Auckland Council or Panuku Development Auckland for the Takapuna Market since and including 2015 to the present day.

The Takapuna Sunday market is a private commercial operation. Auckland Council group does not manage the stalls or have the authority/approval to record visitor numbers, revenue of stall holders or spend by visitors at the market. The former Devonport-Takapuna Local Board was asked if it would like Takapuna to be included in a regional market study that was undertaken in late 2019 / early 2020, it declined.

The wider consumer spend can be found through external research (Market View), a paid subscription to receive this data.

Throughout the project, Panuku has remained in close contact with the Sunday market operator, and believe that the market is a key part of Takapuna.

Your request for Economic Impact Reports for the Takapuna Market is refused under Section 17(g) of the LGOIMA as the information is not held, and there are no grounds for believing that it might be held by another agency to which the request might be transferred.

Decisions about this response to your request were made by a senior manager in Panuku Development Auckland acting with delegated authority of the acting CEO.

Should you believe Auckland Council has not responded appropriately to your request, you have the right by way of complaint, under section 27(3) of the LGOIMA, to apply to the Ombudsman to seek an investigation and review of the decision.

If you have any further queries, please contact me on 09 301 0101 quoting Official Information Request No. 8140006204
Yours sincerely

Samantha Sinclair
Privacy & LGOIMA Business Partner
Democracy Services
Memorandum

18 May 2020

To: Devonport-Takapuna Local Board

Subject: Response to Notice of Motion – Watercare: Water supply situation

From: Eric Perry – Relationship Manager, Local Board Services

Purpose

1. To provide the Devonport-Takapuna Local Board with advice regarding a Notice of Motion (NOM) that has been placed on the agenda for the local board’s 19 May 2020 business meeting.

2. The Notice of Motion (NOM) recommends that the Devonport-Takapuna Local board receive the Notice of Motion, and:
   - requests a workshop session with Watercare Services on the implications of these water restrictions in the Devonport-Takapuna Local Board area and the messages that members should be disseminating to the community; and
   - requests to know more details on the recycling of water from the Rosedale Wastewater Treatment Plant for irrigating parks, reserves and golf courses.

Discussion

3. The advice and information contained within this memo has been sourced from publicly available reports, documents and webpages as well as from Watercare Services staff. It is recommended that the local board consider this information as part of decision-making against the Notice of Motion.

Report to Emergency Committee – 7 May 2020

4. A report from Watercare Services (Watercare) requesting Auckland Council implement water use restrictions to help maintain an adequate supply of drinking water in response to the severe drought was presented to council’s Emergency Committee on 7 May. A copy of this report, an accompanying presentation, and an extract of the minutes of the meeting for this item are attached to this memo for reference (refer Attachments A – C).

5. Although the intent of this report was primarily to seek the implementation of water restrictions, it also references a range of actions that Watercare is taking to mitigate the effects of the drought, such as:
   - Implementation of a media campaign that commenced on 10 February 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 forward mandatory water restrictions.
   - 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 water storage dams.
   - Continuing to upgrade the Waikato River Treatment Plant so it can process an additional 25 million litres a day (noting that the upgrade is estimated for completion in three months time).
   - 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 (Hays Creek Dam in Papakura and a bore in Puketarua) back into service.
• Working with Auckland Council on reduced environmental compensation flows from Coxsays, Wairua and Waitakere dams.
• Working proactively with industry sectors and commercial customers who have high water use to achieve voluntary water efficiency gains.

Public awareness campaign – ‘Water is Precious’

6. In February 2020 Watercare launched its ‘Water is Precious’ campaign to drive public awareness of peak water demand and to encourage water-wise use. The campaign has been rolled out using a range of owned, earned and paid approaches:
   • Owned – emails to stakeholders, newsletters to customers and posts on social media;
   • Earned – press releases, video footage and photos provided to media outlets, conducting regular interviews;
   • Paid – paid radio and print advertising, digital and on-demand advertising, billboards and street posters, advertisements on buses.

7. For the period 1-28 April, the paid campaign achieved over 2 million impressions. Meanwhile, the social media campaign reached over 365,000 people and there were over 20 new media items during the same period. The messaging employed over April became stronger, from asking people to take shorter showers and check for water leaks, to asking people to keep washing their hands but to refrain from washing cars or water-blasting homes.

8. In mid to late April, an independent online market research company (Pureprofile) carried out a representative survey of 500 Aucklanders to understand people’s awareness of the drought, the need to save water, and how they can individually take steps to save water. The survey found:
   • Only 12% of respondents felt there was a plentiful water supply at the time the survey was taken;
   • 97% of respondents felt that it was important to save water; and
   • 79% of respondents felt that taking shorter showers was the best way to conserve water.

9. In May, the campaign has ramped up with an extensive radio and digital campaign that focuses on ‘water saving heroes’. Messaging has been adjusted to align with restrictions as and when implemented.

Further advice / information received from Watercare Services

10. Local Board Services staff have approached Watercare staff to seek advice and information in response to the proposed Notice of Motion. In response, Watercare staff have offered information in relation to:
   • Publicly available information and resources that can be shared with members of the community who may be approaching elected members with queries about the drought and drought management;
   • Watercare’s role in terms of imposing and implementing water restrictions;
   • The use of recycled or re-used water to irrigate public parks, reserves and golf courses; and
   • Accessing recycled wastewater from the Rosedale Wastewater Treatment Plant.

Local board member role

11. In addition to the ‘Water is Precious’ campaign described earlier in this memo, Watercare is providing a range of information through its own website and through the ‘Water for Life’ website. Elected members are encouraged to look at the information and resources provided through these channels and pass along the information and details therein to constituents who may be asking questions about the drought.
12. Watercare has been routinely providing elected members with information that includes material that can be shared publicly through members’ own personal Facebook accounts or other social media channels. Attached to this memo are two examples of such communications sent to elected members by Watercare, dated 22 April and 7 May (refer Attachments D and E respectively).

13. Watercare suggests that local board members can demonstrate leadership on this issue within their communities by getting in behind and supporting Watercare’s messaging and sharing it as widely as possible with their constituents. It is important to note that water supply is a regional issue that is affecting all parts of Auckland, so it is crucial that messaging is consistent, accurate and comes from one direct source.

Public resources available through Watercare Services and ‘Water for Life’ websites

14. Watercare is also providing a range of data, information and advice to the public through the Watercare Services website (https://www.watercare.co.nz/Water-and-wastewater/Drought-response). The information found at the link above specifically provides information about the impact of the drought and Watercare’s planned response.

15. The information package includes frequently asked questions (FAQs) for both residential and commercial customers, as well as information that provides insight into the seriousness of the current situation and why water restrictions are needed. Examples of publicly available material through Watercare’s website is attached to this memo for reference (refer Attachments F-H).

16. As part of its ‘Water is Precious’ campaign, Watercare is supporting the ‘Water for Life’ website (https://www.waterforlife.org.nz/water-is-precious) that identifies the various challenges created by the drought, and why being ‘water-wise’ is important. The website outlines what steps individuals can take to use water wisely around the house, as well as the activities that Watercare is undertaking to manage water demand. Examples of publicly available material through Watercare’s ‘Water for Life’ website is attached to this memo for reference (refer Attachments I-K).

Water Supply and Wastewater Network Bylaw 2015

17. As referenced in its report to the 7 May Emergency Committee, Watercare Services does not have the power to ‘impose major restrictions on the use of town supply water’ as suggested within the second paragraph of the Notice of Motion. Water restrictions are imposed by Auckland Council under the Water Supply and Wastewater Network Bylaw 2015, specifically clause 12 (‘Restriction on water use’) which states:

(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) above.

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

18. The bylaw powers are consistent with section 69T of the Health Act which provides that 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.

19. While the Health Act does not define ‘essential purposes’, proposed restrictions under Stage 1 exempt water use for emergency, health, safety and biosecurity reasons and encourages use of alternative sources where possible. Therefore, organisations such as hospitals and rest homes would naturally be exempt from restrictions.

Recycling / re-use of wastewater

20. The Notice of Motion suggests that the use of re-used or recycled water could be a mechanism that could be employed to address water issues caused as a result of the drought. It also
suggests that 're-treated' water was previously used to irrigate public amenities, such as Pupuke Golf Course.

21. Watercare advises that the use of recycled or 're-used' wastewater is an area that will become more relevant in the future but is not an appropriate mechanism to address water supply issues at present. Watercare reports that the New Zealand legislative landscape does not currently permit or enable such re-use of wastewater to occur in the manner suggested in the Notice of Motion. It should also be noted that it is very expensive to treat recycled or 're-used' water to potable standard.

22. Watercare is also unaware of any wastewater re-use from the Rosedale Wastewater Treatment Plant, although it is possible there could have been some re-use at the golf course as suggested in the Notice of Motion before the new outfall was constructed. However, it should be noted that any discharge of treated wastewater to land would require a resource consent, and without final treatment to a drinking standard, there are still potential public health risks with the re-use of wastewater in the manner suggested in the Notice of Motion.

23. Given the variety of challenges (legislative, regulatory, and potential public health risks) outlined above, Watercare is therefore of the view that using water from other sources (such as increasing Auckland’s water supply from the Waikato River) is a more relevant and preferable course of action for the region at present, when compared to reusing or recycling wastewater as a means to manage Auckland’s water issues.

Recommendation(s)

24. Based on the information and advice provide by Watercare staff, it is recommended that the board do not support the Notice of Motion as presently drafted, as the issues and concerns have been responded to via this memo and associated attachments.

25. It should also be noted that, due to the ongoing water issues in Auckland, that the ability of Watercare staff to support and attend a workshop with the local board on these issues would be extremely limited.

26. In the event members have further questions about any of the material or responses provided by Watercare through this memo, such queries should be sent through to Local Board Services staff in the first instance, who can then work with relevant Watercare staff to generate a response.

Attachments

Attachment A – Report to 7 May 2020 meeting of Emergency Committee
Attachment B – Extract of minutes of 7 May 2020 Emergency Committee, item 13
Attachment C – Watercare Service presentation to 7 May 2020 Emergency Committee
Attachment D – Elected member update from Watercare Services, 22 April 2020
Attachment E – Elected member update from Watercare Services, 7 May 2020
Attachment F – Information taken from Watercare Services website (‘Drought response’)
Attachment G – Information taken from Watercare Services website (‘Residential water restrictions FAQs’)
Attachment H – Information taken from Watercare Services website (‘Commercial water restrictions FAQs’)
Attachment I – Information taken from ‘Water for Life’ website (‘The challenge’)
Attachment J – Information taken from ‘Water for Life’ website (‘Water saving tips’)
Attachment K – Information taken from ‘Water for Life’ website (‘What Watercare is doing’)

4
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 Pukenoke – 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 Council’s 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.

![Water storage level in Auckland](image)

**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.
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, organisations 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 lockdown.

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.
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.
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.

Stage three 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

At Stage 3 rotational water use cuts would also be required from commercial customers affecting the days on which they can operate.

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 Waikato 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 Waikato, 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 watewise 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
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.
13 **Auckland response to the 2019/2020 drought**

A PowerPoint presentation was given in support of the item. A copy has been placed on the official minutes and is available on the Auckland Council website as a minutes attachment.

Resolution number EME/2020/52

MOVED by Mayor P Goff, seconded by Cr L Cooper:

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 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, 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.

CARRIED ON VOICES

Attachments

2020 Drought
Implementing Auckland Water Restrictions
Briefing from Watercare
May 2020

Raveen Jaduram - Chief Executive
Mark Bourne - Head of Servicing & Consents

Mangatawhiri – April 2020
Lower Huia – April 2020
The Auckland Drought – Waitakere Rainfall
Cumulative annual rainfall (mm)

- Normal year
- 1993/94 drought
- 2018/19
- 2019/20 drought

Lower Huia – April 2020
The Auckland Drought – Hunua Rainfall
Cumulative annual rainfall (mm)
The Auckland Drought

- Auckland is in a severe drought - record low rainfall January and February 2020
- Coincided with record breaking demand - 560 MLD (430 MLD over L4 lock down, 460 MLD today)
- Unprecedented demand from rain tank users
- Auckland water storage currently 46% full (normal average 76%)
- Wet winter required to replenish dams for next summer
- Forecast is for less than to average rainfall over winter
**Watercare Response to Drought**

Tool box approach - range of interventions

**Supply Side Management**

*Interventions to help increase water supply*

- Maximised abstractions from the Waikato River and Onehunga Aquifer
- Continuing to expand the Waikato Water Treatment Plant
- Progressing approval for new seasonal water takes from Waikato River
- Bringing back into service Hays Creek Dam in Papakura and Pupekohe bore
- Reduce environmental compensation flows from Cosseys, Wairoa and Waitakere dams
Watercare Response to Drought

Tool box approach - range of interventions

**Demand Side Management**

*Interventions to help reduce water demand*

- ‘Water is Precious’ campaign commenced 10 February 2020 – voluntary savings both indoors and outdoors
- Good public awareness of the drought and requirement for water savings – helped reduce demand
- Voluntary water savings messages ongoing, even if it rains
- Water savings and restrictions – Following the Metropolitan Drought Management Plan – Feb 2020
- Proactive work with industry and large customers to achieve voluntary water efficiency gains – Auckland Council a large water user

www.waterforlife.org.nz
Metropolitan Drought Management Plan and Water Use Restrictions

- The Plan provides approach to drought management including options for water savings and restrictions
- Water saving messages continue to focus on both indoor and outdoor water use
- Voluntary savings also sought through Watercare’s high water use industries and key customers – Auckland Council a large customer
- Water use restrictions are within Auckland Council jurisdiction under the Water Supply and Wastewater Network Bylaw (2015)
- Water use restrictions focused on outdoor water use for households and businesses - compliance action can be observed and if necessary enforced
- Staged restrictions may become increasingly stringent if required to save water
### Water Use Restrictions

#### Stage 1 Water Use Restrictions

<table>
<thead>
<tr>
<th>Residential water use</th>
<th>Commercial and non-residential water use</th>
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#### Stage 2 Water Use Restrictions

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#### Stage 3 Water Use Restrictions

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</tbody>
</table>

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**Outdoor water use restrictions for which Council has jurisdiction will work alongside other voluntary water saving messages**

**Watercare will also continue to work with the high water use commercial sectors to encourage savings**

*Stage 3 water restrictions which may include rotating compulsory cuts to commercial water use will be discussed further with Auckland Council before any move to Stage 3 was agreed.*
Water Use Restrictions

When would water use restrictions be implemented?

- Different stages implemented according to the trigger levels in the Metropolitan Drought Management Plan – Feb 2020
- Proposal for Stage 1 restrictions from 16 May 2020 - depending on storage levels and rainfall
- Following a reasonable period of public notification

What area do the restrictions cover?

- Pukekohe, Patumahoe, Clarks Beach, Glenbrook Beach, and all other metropolitan areas from Waiwera to Drury and Huia Village which are serviced by the Metropolitan network
- Areas such as Warkworth with a deep aquifer water take are exempt
- Messaging will be region wide to avoid confusion – everyone is expected to show restraint with water use

When are restrictions likely to be withdrawn?

- Depends on rainfall and dam storage according to trigger levels in The Plan
Water Use Restrictions

How Enforced?

- Watercare delegation sought for Bylaw compliance and enforcement which would be consistent with Council Policy – focus on education first.
- Working proactively with Auckland Councils Compliance and Enforcement Team, especially if enforcement is required.

Residential vs Commercial customers

- Drought affects all water users
- Focus is on residential outdoor water use
- Businesses using water for health, safety, emergency or biosecurity reasons can continue operation at Stage 1 but will need to plan and prepare for more stringent restrictions
Dear Local Board Members,

I would like to update you on Auckland’s water supply situation as the severe drought looks set to persist for at least another month.

**What is our current situation?**

Our water supply situation is growing increasingly serious. Today, our total water storage is 48 per cent. This is lower than this time last year (65 per cent) as well as the average for this time of year (76 per cent). The graph attached to this email illustrates the impact of the drought on our total water storage. Since the start of 2020, we have received less than half (47 per cent) the usual rainfall.

**What is the latest weather forecast?**

Yesterday, we received a four-week weather forecast from the MetService suggesting we will continue to experience drier-than-normal conditions as outlined below. This means our region’s water supply will be further strained.

<table>
<thead>
<tr>
<th>Rainfall (% more or less than normal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week</td>
</tr>
<tr>
<td>20-26 April</td>
</tr>
<tr>
<td>27 April to 3 May</td>
</tr>
<tr>
<td>4-10 May</td>
</tr>
<tr>
<td>11-17 May</td>
</tr>
<tr>
<td>Waitakere Ranges</td>
</tr>
<tr>
<td>-36%</td>
</tr>
<tr>
<td>-5%</td>
</tr>
<tr>
<td>-6%</td>
</tr>
<tr>
<td>-2%</td>
</tr>
<tr>
<td>Hunua Ranges</td>
</tr>
<tr>
<td>-51%</td>
</tr>
<tr>
<td>-14%</td>
</tr>
<tr>
<td>-8%</td>
</tr>
<tr>
<td>0%</td>
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</table>

**Where does the forecast leave us?**

With the total water storage dropping below 50 per cent, we have reached a trigger point whereby we need to consider mandatory water restrictions. Restrictions have not been practical so far but if the rain doesn’t arrive soon, they will be implemented.

Water restrictions are not a black and white science – several variables come into play. With the COVID-19 lockdown, we are very aware of the new demands everyone is facing and we do not want to add to these. We also acknowledge that it’s not possible to enforce restrictions while meeting physical distancing requirements. Instead we need everyone to keep on focussing on water savings, particularly as we move on from lockdown.

Very positively though, Auckland’s current water usage – admittedly under lockdown conditions – is low enough that we are achieving enough savings through voluntary means. The challenge for our community, and for businesses, is to remain extremely mindful of their water use as they emerge from the lockdown.

If mandatory restrictions are required, we will give you advance notice with information on the restrictions as well as the exemptions process.

**What are we doing to manage the situation?**

As you know, we are maximising production at our Waikato and Onehunga treatment plants in order to reduce the demand on our water storage dams. We are also working to fix leaks in the network as quickly and efficiently as possible.

Over the next three months, our focus is on bringing two former water sources – the Hays Creek Dam in Papakura and a bore in Pukekohe – back into service. This requires us to build temporary water treatment plants and to connect these to the existing water network.

**How can you help us to respond the drought?**
As per my last update, our 'Water is precious' campaign has been running continuously since the start of February. This is achieving solid results, with paid advertising and social media reaching well over 1 million Aucklanders this month alone. In addition, we have had regular media articles that have highlighted the severity of the situation. Last weekend, we surveyed 500 Aucklanders to gauge their awareness of the drought and the need to save water now. Very positively, 97 per cent of respondents said they believe it's important to reduce their water use now. This is an excellent result and will be the focus of a media release that will be distributed tomorrow (see attached). We ask that you help us by extending the reach and effectiveness of our campaign. This is achieved by sharing our key messages. These are:

- Auckland is experiencing a severe drought that is having a significant impact on the region's water supply.
- Last week, the total volume of water stored in the region’s dams dropped below the halfway mark for the first time in more than 25 years.
- Today, the total water storage is 48 per cent. This is lower than this time last year (66 per cent) as well as the average for this time of year (76 per cent).
- It is important that everyone continues to do their bit to reduce their water use.
  - Please keep washing your hands – that’s essential.
  - Please keep your showers short.
  - Do not clean your car
  - Do not water blast your house
  - Do not water your lawn.
- There are no water restrictions right now but this may change if the rain doesn’t arrive.
- A picture speaks a thousand words, therefore I have attached two recent photos of Lower Huia Dam in the Waitakere Ranges for you to share.

Kind regards

Brent Evans  |  Manager Local Board and Stakeholder Liaison

Watercare Services Limited
DDT: +64 9 539 7803
Mobile: +64 21 221 7403
Customer service line: +64 9 442 2222
Postal address: Private Bag 92 521, Wellesley Street, Auckland 1143, New Zealand
Physical address: 73 Remuera Road, Remuera, Auckland 1050, New Zealand
Website: [www.watercare.co.nz](http://www.watercare.co.nz)
Auckland Water Supply Update
Thursday 7 May 2020

Good afternoon

I would like to let you know that earlier today, Auckland Council agreed to impose mandatory water restrictions in Auckland that will limit outdoor water use. These restrictions will take effect on 16 May 2020 until further notice.

Who will the restrictions apply to?
The restrictions will apply to everyone who uses water from the Auckland metropolitan network. This includes those Pukekohe, Patumahoe, Clarks Beach, Glenbrook Beach, and all other metropolitan areas from Waipera to Drury and Huia Village.

What are the restrictions for residential water users?
Residential water users cannot:
- Use an outdoor hose or water blaster.

What are the restrictions for commercial and other non-domestic water users?
Commercial and other non-domestic water users 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 they have an irrigation system that is fitted with soil moisture or rain sensors.

We understand the restrictions will have a bigger impact on commercial and other non-domestic water users than on residential water users. And we know it comes at a very difficult time for businesses, given the challenges of COVID-19.

I would like to assure you that we will engage with those who are most affected, helping them to understand what they can and cannot do. We are also working with council to set up non-potable (untreated) water sources that businesses will be able to access over the coming weeks for activities such as water blasting and dust suppression.
Why are the restrictions necessary?
As per my last email to you on 22 April, Auckland is experiencing a severe drought that is on track to be the worst in living memory.

Since the start of the year, Auckland has received only 34 per cent of its usual rainfall. As a result, the total volume of water stored in Auckland’s dams has been steadily declining from 89 per cent full in November 2019 to 46.5 per cent today.
You can also watch [dron footage of our Waitakere dams](#), captured earlier this week. As you will see, we all need to work together to preserve the remaining water in our dams in case the winter rain doesn’t arrive.

**Why are restrictions being implemented at this time of year?**

Most of the time, water restrictions are imposed by councils in summer to manage ‘peak’ demand. This is when a community’s demand for water is greater than the capacity of their local treatment plant.

In Auckland, we do not have a treatment plant capacity issue – we have a rainfall shortage issue. Our water supply situation was stable in summer, when sunny days and high demand are normal. However, with the drought continuing into May, our water supply situation has become stressed. Recently, we reached a trigger point in our drought management plan that signalled restrictions are necessary.

**What is the latest weather forecast?**

Yesterday, we received a seasonal forecast from the MetService suggesting we will receive relatively normal rainfall over winter, followed by a dry spring.

While we welcomed the rain earlier in the week, it only lifted our total dam storage level from 45.8 per cent to 46.5 per cent full and bought us just a few days relief. What we need is significant and sustained rainfall to replenish our dams.
What are we doing to manage the situation?

As I have said in previous emails, we have been maximising production at our Waikato and Onehunga water treatment plants. Together, they are delivering up to 170 million litres of water a day. Without these vital plants, Auckland would be out of water by now.

We’re often asked about the Waikato Water Treatment Plant. Why don’t we draw more water from the river? The answer is that we have been expanding the plant step-by-step to stay ahead of population growth. When it was first built in 2002, it produced 50 million litres of water a day. Since then, there have been five upgrades so that it can now produce 150 million litres a day.

Currently, our team is working on the next expansion – another 25 million litres a day – which we expect to have up and running in three months’ time.

![Waikato Water Treatment Plant expansions](image)

Also by spring, we expect to have brought two former water sources – the Hays Creek Dam in Papakura and a bore in Pukekohe – back into service. This requires us to set up modular water treatment plants and local network connections.

These initiatives will increase the volume of water available to Auckland next summer. But they will not overcome our need for rainfall. That’s because our water supply is stressed because of a drought, not a lack of infrastructure.
How can you help us to respond the drought?
Please share the information in this email with your friends, family, colleagues and community. It’s important that people understand the seriousness of the drought as well as their role in preserving Auckland’s precious water supply.

We also ask that you help to extend the reach of our ‘Water is precious’ campaign. Recently, we have been refreshing the artwork and messaging to encourage people to become water savings superheroes. We ask that you share our posts on Facebook with your friends and followers.

We sincerely thank you for your support.
Drought response

The impact of the drought and our planned response

Auckland’s severe drought means water restrictions will be introduced on Saturday 16th May

Since the start of the year, the region has received significantly less rainfall than normal. This is having a big impact on our water supply. On 15th April, the total volume of water stored in our dams dropped below 50 per cent for the first time in more than 25 years. We desperately need to preserve what’s left. Please use water wisely and reduce wastage of this precious resource by:

- Keeping your showers short (four minutes or less)
- Run your washing machine and dishwasher only when they’re full
- Don’t wash your car
- Don’t water blast your house
- Don’t hose your lawn

One thing we do want you to do is keep washing your hands to combat COVID-19.

Water restrictions take effect on Saturday 16th May

On Thursday 7th May, Auckland Council agreed to impose mandatory water restrictions across Auckland that will limit outdoor water use. **These restrictions will impact both residential and commercial customers.** To find out how you or your business is affected, click the relevant section below.

Residential FAQs
Click here (https://www.watercare.co.nz/Water-and-wastewater/Drought-response/Residential-water-restriction-FAQs) to find out how restrictions will affect residential customers

Commercial FAQs
Click here (https://www.watercare.co.nz/Water-and-wastewater/Drought-response/Water-restriction-FAQs-for-businesses) to find out how water restrictions will affect commercial operators

The information below provides insight into the seriousness of the current situation and why restrictions are needed.
Rainfall in scarce supply

The four week weather forecast from the MetService indicates that this week will remain dry, with rain turning up next week and potentially the week after. However, with much less rainfall than we usually experience at this time of year, our region’s water supply will remain under strain.

<table>
<thead>
<tr>
<th>Ranges</th>
<th>4 May-10 May</th>
<th>11-17 May</th>
<th>18-24 May</th>
<th>25-31 May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waitakere</td>
<td>-15%</td>
<td>5%</td>
<td>28%</td>
<td>4%</td>
</tr>
<tr>
<td>Hūnuas</td>
<td>-32%</td>
<td>4%</td>
<td>39%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Click to enlarge the graph to the left which shows this year’s rainfall in the Hūnuas compared to normal rainfall.

Dam storage levels continue to slide

Our dams in the Hūnuas and Waitakere Ranges rely on rainfall to replenish water stores. Unfortunately, that hasn’t been happening on a regular basis over the past few months. As you can see from the table below, our total water storage has continued to decline over the past five weeks.

<table>
<thead>
<tr>
<th>Date</th>
<th>Total dam storage</th>
<th>Rainfall in catchments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon 6 April</td>
<td>51.89</td>
<td>0</td>
</tr>
<tr>
<td>Mon 13 April</td>
<td>50.24</td>
<td>33.5</td>
</tr>
</tbody>
</table>

Attachment G

Item 12

The table to the left shows how our current storage level (in orange) compares to the historical average of 76% for this time of year.

As dam levels continue to drop, we're maximising production elsewhere

- To reduce the demand on our water storage dams, we are maximising production at our Waikato and Onehunga treatment plants.
- We're working to return two former water sources – Hayes Creek Dam in Papakura and a bore in Pukenoke – to supply.

Contributions from the Waikato River

We currently have resource consent to take 150,000 cubic metres of water each day from the Waikato River. A further resource consent application to increase that volume was submitted several years ago. We are awaiting the outcome of that application. The table below gives an idea of the volume of Waikato River water we use (once treated) to supply Auckland with A-grade tap water on a daily basis.

<table>
<thead>
<tr>
<th>Date</th>
<th>Total volume of water used (cubic metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sat 2 May</td>
<td>149,886</td>
</tr>
</tbody>
</table>


If you have a question that is not covered by our FAQs, please click here (mailto:save-water@water.co.nz?subject=Drought%20enquiry).

Follow us at

(http://www.facebook.com/WatercareNZ)

(http://www.youtube.com/channel/UCsPOnLL5yV78KeLhejBG_w?sub_confirmation=1)

(http://www.linkedin.com/company/watercare-services-limited)
Residential water restriction FAQs

How water restrictions will affect households

Many households will be wondering what they can and cannot do when water restrictions come into force on Saturday 16th May 2020. Well, we’ve put together a list of frequently asked questions and answers which should cover off most queries.

General FAQs
Click here (https://www.watercare.co.nz/Water-and-wastewater/Drought-response/FAQs) for a general background on restrictions

Commercial FAQs
Click here (https://www.watercare.co.nz/Water-and-wastewater/Drought-response/Water-restriction-FAQs-for-businesses) to find out how water restrictions will affect commercial operators

Residential FAQs

When will water restrictions be introduced?
Water restrictions will be introduced on 16th May 2020.

Who will the restrictions apply to?
The restrictions will apply to all properties connected to Auckland’s metropolitan water supply network.

Click here (https://wsipwstoreprd.blob.core.windows.net/kentico-media-libraries-prod/watercarepublicweb/media/watercare-media-library-2/drought/watercare_metro_water_supply_map_may_2020.pdf) to view the metropolitan supply map.

Who will the restrictions NOT apply to?
The restrictions will not apply to the rural townships of Waiuku, Helensville, Bombay, Murawai, Snells Algies, Wellsford and Warkworth because they have local water sources.

What water uses will be restricted from Saturday 16th May?
Residential water users will not be able to:
- Use an outdoor hose or water blaster.

Will I still be able to water my garden?
Yes, so long as you do not use an outdoor hose or water blaster. For example, you can water your garden using a watering can. Please limit your water use.

We can only restrict activities we can see. For properties with in ground irrigation systems, we strongly advise that these are switched off.

Will I still be able to wash my car?
Yes, so long as you do not use an outdoor hose or water blaster. For example, you can wash your car using a bucket of water. Please limit your water use.

How can I tell if a car wash facility uses recycled water?
Once the restrictions are implemented, only car wash facilities that use recycled water should be operating. If you are not sure, please ask them.

Will I still be able to wash the outside of my house and windows?
Yes, so long as you do not use an outdoor hose or water blaster. For example, you can wash your house and windows using a bucket of water. Please limit your water use.

Will I still be able to wash my driveway and footpath?
Yes, so long as you do not use an outdoor hose or water blaster. We recommend you use a broom to sweep your driveway and footpath as this does not require water.

Will I still be able to top-up or fill my pool or spa?
Yes, so long as you do not use an outdoor hose or water blaster.
There are ways to make your pool or spa more water wise. You can:
- Use a pool cover. A properly fitted pool cover can stop up to 97 per cent of evaporation and reduce the amount of chemicals required to treat the water
- Check your pool for leaks. A tiny leak can lead to a substantial amount of water loss
- Maintain the correct chemical balance in your pool and clean it regularly. Top up your pool with rainwater runoff
- When purchasing a new pool filter, look for a water efficient model. An energy efficient pump can also significantly save on energy costs.

Can my kids still play with water toys or under the sprinkler?
Kids cannot play under the sprinkler as this connects to a hose. There are lots of fun water-based activities they can do. Check out the smart water play ideas (https://www.smartwater.org.nz/being-water-smart/water-smart-tips/smart-water-kids/) put together by the three councils in the Waikato.

What is grey water?
- Greywater is water from bathtubs, showers, bathroom washbasins, washing machines and laundry tubs. Watering your landscape with greywater will save drinking water resources.
- The simplest way to re-use greywater is catching it in a large bendy bucket (the type with two handles) from your shower, washing machine and laundry sink and carrying it outside to water the garden.
Can I install a rainwater tank?
Yes, all property owners have the option of installing rainwater tanks. The installation and maintenance of rainwater tanks is overseen by Auckland Council. Its website (https://www.aucklandcouncil.govt.nz/environment/looking-after-aucklands-water/rainwater-tanks/Pages/rainwater-tank-installation-maintenance.aspx) has useful information.

Why isn’t it compulsory for all homes to have rainwater tanks?
While we are happy for homeowners to install rainwater tanks, they are not that useful from a region-wide water planning perspective. Our job is to provide a reliable water supply year-round. Unfortunately, rainwater tanks often run dry during the hot summer months when people are using the most water.

What should I do if I see someone wasting water?
It would be great if you could start a friendly conversation with them and explain that we are in a drought and everyone needs to use water wisely. Or click here (http://www.watercare.co.nz/Water-and-wastewater/Drought-response/Report-water-misuse) to report water misuse.

How can I learn about using water wisely?
Our website www.waterforlife.org.nz (http://www.waterforlife.org.nz) has lots of tips on how to reduce your water use.

If I have a question related to the drought or water restrictions, who do I contact?
Please email your enquiry to save-water@water.co.nz (mailto:save-water@water.co.nz?subject=Drought/water%20restrictions%20enquiry)

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Commercial water restriction FAQs

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Many businesses will be wondering what they can and cannot do when water restrictions come into force on Saturday 16th May 2020. Well, we've put together a list of frequently asked questions and answers which should cover off most queries.

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Residential FAQs
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Commercial FAQs

When will water restrictions be introduced?
Water restrictions will be introduced on 16th May 2020.

Why is Auckland's water supply strained?
Since the start of the year, the region has received significantly less rainfall than normal. This is having a big impact on our water supply. On 15th April, the total volume of water stored in our dams dropped below 50 per cent for the first time in more than 25 years. We need to preserve what’s left.

Who will the restrictions apply to?
The restrictions will apply to all commercial and non-domestic water users that use water from the Auckland metropolitan network. This includes those Pukekohe, Patumahoe, Clarks Beach, Glenbrook Beach, and all other metropolitan areas from Waiwera to Drury and Huia Village.

Click here (https://wsipwstoreprd.blob.core.windows.net/kentico-media-libraries-prod/watercarepublicweb/media/watercare-media-library-2/drought/watercareMetroWaterSupplyMapMay2020.pdf) to view the metropolitan water supply map

Who will the restrictions NOT apply to?
The restrictions will not apply to businesses operating in the rural townships of Waiuku, Helensville, Bombay, Murawai, Snells Algies, Wellsford and Warkworth because they have local water sources.

What are the restrictions for commercial and other non-domestic water users?
Commercial and other non-domestic water users 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 they have an irrigation system that is fitted with soil moisture or rain sensors.

What is considered a valid health, safety, emergency or biosecurity reason for using an outdoor hose or water blaster?
This could include a number of scenarios i.e: the prevention of slips, or cleaning in preparation for return to work after COVID-19 Level 3 lockdown.

What should I do if I see someone wasting water?
It would be great if you could start a friendly conversation with them and explain that we are in a drought and everyone needs to use water wisely. Or you can click here (https://www.watercare.co.nz/Water-and-wastewater/Drought-response/Report-water-misuse) to report water misuse.

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(http://www.youtube.com/channel/UCspP0nLLSyV7SKEkJejBG_w?sub_confirmation=1)
(http://www.linkedin.com/company/watercare-services-limited)
What is the challenge?

https://waterforlife.org.nz/what-is-the-challenge
With the Auckland region receiving less than half the normal rainfall since the beginning of the year, we have been thrown into the grips of a severe drought. The total volume of water stored in our dams has fallen below 50 per cent - that's a lot lower than the average for this time of year.

To help reduce the strain on our dams, we've been maximising production at our Waikato and Onehunga treatment plants which draw water from a river and aquifer. And, while those measures are good, they're not enough. We need 1.7 million Aucklanders to do their bit and conserve water.

Since the start of February, we've been running a campaign encouraging people to conserve water inside and outside the home. When we kicked off, the dry weather was causing water demand to skyrocket over 500 million litres per day. Since that peak, demand has tapered off, but we still have one ask of Aucklanders – conserve water by making the following changes to your routine.

• Keep your showers short: 4-minutes or less
• Only run your dishwasher or washing machine when they're full
• Don't wash the car
• Don’t water blast the house or driveway

While we haven't implemented water restrictions yet, we can't rule them out if demand goes up. For tips on how you can get on board and reduce your water usage, visit our water saving tips page.

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Important facts

about our water supply

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https://waterforlife.org.nz/what-is-the-challenge
From source to tap

A lot of effort goes into getting water from our local rivers, dams and aquifers and transforming it into the Aa-grade product that flows from our taps.

It is the result of research, extensive testing, specialised infrastructure and the work of more than 1000 people. It’s that journey and extensive process which makes water our most precious resource.

Managing our water is a massive task, requiring significant infrastructure. Across Auckland we operate:

- 28 water sources
- 15 water treatment plants
- 85 water reservoirs to store water (concrete tanks)
- 9432 kilometres of water pipes

While we plan decades in advance and continually upgrade and maintain our extensive water network, big spikes in water usage can strain our existing assets. Becoming a

https://waterforlife.org.nz/what-is-the-challenge
more water wise Auckland means we get the most out of this existing infrastructure.

Dam levels drop during a drought

Most of Auckland’s water comes from dams in the Hūnua and Waitākere Ranges. Prolonged extreme weather events like the drought we are currently experiencing can cause dam levels to drop further than normal.

This time last year (April 2019), the total amount of water in our dams was around 75 per cent, but this year thanks to the drought we’re below 50 per cent. With no significant rain in the forecast, water conservation across Auckland is becoming a necessity.

This isn’t the first or the last time Auckland will suffer at the hands of a prolonged weather event. During the first half of 2019, the ‘big dry’ saw total water stores drop to
59.2 per cent. Unsurprisingly, on these dry days water usage often increases as people head into the garden to provide some relief to their parched plants. As a result, we've recently seen daily water consumption get as high as 565 million litres. Rewind six months to August, a damper month, when the average daily use was 411 million litres, and you can see how the weather influences demand.

While the weather is out of our control, how we use water is very much in our hands. If each of us adopts water wise behaviour we can reduce the strain on our precious resource, and when our dams are full we'll be able to create a healthy buffer for when times get tough.

What is fresh water and where does it come from?

The amount of fresh water on Earth hasn’t changed in millions of years.

https://waterforlife.org.nz/what-is-the-challenge
Water once guzzled by woolly mammoths has been recycled through the atmosphere and falls from our skies today. However, what has changed is the number of people needing access to fresh drinking water.

Only 2.5% of water in the world is drinkable. Of this, only 1% is accessible (the rest is frozen in glaciers and snow), making only 0.0007% of Earth’s water available to fuel 6.8 billion people. That water supply then needs to be collected, treated, and managed to ensure the health of those consuming it.

Overall demand for water is on the increase.

Auckland's demand for safe drinking water is rising.

https://waterforlife.org.nz/what-is-the-challenge
A growing population, expanding businesses, and high tourist numbers are pushing up the total demand for water. This means that over the past 20 years, the city’s consumption has gone up by over 100,000 million litres a day. Though we’re prepared for this increase, we all need to be mindful of how we use water, especially during a drought when our dams are under added pressure.

Looking for more tips on how you can reduce your water use at home?
Check out our comprehensive [guide on how to save water](#).

Full website coming soon
The Water for Life information and community hub is a place to share the projects that Watercare is passionate about. It’s also where you can get involved by becoming a Water Guardian and helping us to protect our most precious resource: water.
5/11/2020

Water For Life | The Challenge | How Saving Water Helps the Environment | WFL

Water is precious
What is the challenge?
Water saving tips
What Watercare is doing

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https://waterforlife.org.nz/what-is-the-challenge
Water saving tips

Be waterwise

inside the home
Attachment K

Item 12

5/11/2020

How to reduce water waste around the home

Two key factors contribute to excessive water wastage around the home. These are your home’s water flow rate and undetected leaks. These can lead to unnecessary additional water use in all areas of the home and drive up your water bill. The first step on your journey to a water-efficient home is addressing these issues.

01 Your home’s water flow rate

02 Check your home for leaks

03 Install flow restrictors

04 Leaks checklist

How to save water

The bathroom is by far the biggest contributor to household water use. If we combine the average shower, bath, and toilet water usage, almost 50% of daily water consumption within the home is attributed to the bathroom. Luckily there are many simple ways you can save water here.

01 Reduce your shower time

02 Low-flow showerhead

03 Turn off your bathroom tap while brushing teeth or shaving

04 Check your toilet for leaks

05 Time to replace a toilet? Get a water-efficient, dual-flush toilet

06 Have a single-flush toilet? You can still conserve water!
How to save water

Up to one quarter of your household’s water is used in the laundry. The way we wash our clothes may seem very standardised, but our clothes washing habits and the use of older, inefficient technology sees hundreds of litres of water wasted in the laundry, every day. Older washing machines can use 200 litres of water per wash! Simply replacing an older machine for a front-loader can result in massive water savings in your home.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>01</strong></td>
<td>Switch from a top-loader washing machine to a front-loader</td>
</tr>
<tr>
<td><strong>02</strong></td>
<td>Change to water-efficient settings on your washing machine</td>
</tr>
<tr>
<td><strong>03</strong></td>
<td>Don’t wash small loads - wash full loads</td>
</tr>
<tr>
<td><strong>04</strong></td>
<td>Use a bucket and recycle water when washing clothes by hand</td>
</tr>
<tr>
<td><strong>05</strong></td>
<td>Don’t over-wash your clothes</td>
</tr>
</tbody>
</table>

How to save water

in the kitchen

Whether it's washing dishes, cooking, filling the kettle, or just pouring a glass of fresh drinking water, the kitchen sees a lot of varied water use each day. With so many everyday tasks that require water occurring in the kitchen, there is great opportunity for water reduction. Simply adjusting a few habits can go a long way to conserving water.

01 Don’t leave taps running while using the sink

02 Stop rinsing your dishes before placing in dishwasher

03 Reduce water flow of kitchen tap with a tap aerator

04 Upgrade to an energy-efficient dishwasher

05 Be a water-wise cook

06 Keep a jug of drinking water in the fridge

07 Ditch the Insinkerator for composting

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Be waterwise

outside the home

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How to save water outside the home

In summer, Aucklanders flock outdoors in droves. Beaching, boating, swimming, gardening – if the sun is shining, Auckland gets outside. By nature, many of the activities we love to do outside involve water, and the hotter it gets, the more water we use. Being mindful of Auckland’s spike in water use as the temperature gets up, we can help ease these summer pressures on our water network. You don’t need to go without the summer activities you love, simply follow our guide to reducing water use outside the home.
How to save water

With a severe drought gripping Auckland, now more than ever we need to be mindful of our outdoor water use. You may not think so, but it is possible to limit your water use in and around the garden and still maintain a healthy garden and vegetable patch. Here’s a few helpful tips to make sure your garden stays green and your water usage doesn’t get out of hand.

| 01 | Do not water your garden with a hose |
| 02 | Reuse water from the shower, sink or fish tank |
| 03 | Learn the watering needs of your plants |
| 04 | Water your garden early morning or late afternoon |
| 05 | Add mulch and seal in the moisture |
| 06 | Consider plants with low-watering needs |

Finally, our last and most important tip – be mindful of your water use

It's simple. The more you are aware of your water use, the less likely you are to waste it. By simply thinking about water as you are using it, you will begin to use water more efficiently. Whether you're prepping food in the kitchen, brushing your teeth in the bathroom, or watering your garden, a conscious water-user is an economical water-user. And being mindful of using water at home goes a long way to protecting our environment.

Check out some of the work the Watercare team have been doing to manage and conserve our water supply.
Site map

Water is precious
What is the challenge?
Water saving tips
What Watercare is doing

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What Watercare is doing

https://waterforlife.org.nz/what-watercare-is-doing
We are privileged to provide 1.7 million Aucklanders with access to A-grade drinking water.

It’s our job to manage this precious resource, including protecting our fresh water sources and expanding our infrastructure for future generations.

What Watercare is doing to
manage the water supply

Proactive leak detection

Auckland has over 9,000 kilometres of public water pipes - that’s almost equal to the distance from Auckland to Bangkok! With construction activity taking place all over the city and variable ground conditions, these pipes can be damaged from time-to-time. And sometimes the leaking water disappears underground without people seeing it.

We have a proactive leak-detection programme to find and fix these leaks.Leaks have a distinctive noise profile. Because they are constantly running, they can have a different frequency to that of normal use. An acoustic leak detection device locates leaks by differentiating leak sounds from those of normal water flow through pipes. Once a leak is detected, a crew is deployed to fix it.

Investing in Infrastructure

https://waterforlife.org.nz/what-watercare-is-doing
The Watercare team works to continuously maintain, renew and expand the water network. To meet the water needs of a growing city, we are investing heavily in various projects that either renew ageing infrastructure or involve building new infrastructure.

https://waterforlife.org.nz/what-watercare-is-doing
New infrastructure: Pukekohe East Reservoir

We are building two new reservoirs in Pukekohe East to temporarily store water. These reservoirs will improve the resilience of our water network and help manage the growing population.

https://waterforlife.org.nz/what-watercare-is-doing
Planning for the future

We have a dedicated team of planners who prepare our Asset Management Plan (AMP) which has a 20-year outlook. They take into consideration numerous factors including population growth, increasingly stringent water quality measures and climate change. They also have to make sure our services remain affordable for Aucklanders.

https://waterforlife.org.nz/what-watercare-is-doing
Supporting EcoMatters Environment Trust

We actively support EcoMatters Environment Trust’s water conservation campaign which offers free water audits for all Aucklanders. The audits show Auckland households exactly how they’re using water and offer practical resources, products and tips to save water around the home.

Public awareness campaigns and supporting public events

https://waterforlife.org.nz/what-watercare-is-doing
Raising public awareness around how to be waterwise during periods of peak demand is an important part of our mandate. Working with schools, businesses and getting involved in community events helps keep water conservation top of mind. We aim to inspire every Aucklander to become more waterwise and appreciate *every drop of* this precious resource.

School education programme

https://waterforlife.org.nz/what-watercare-is-doing
Our free education lessons for Auckland school kids (kindergarten to intermediate age) began in 2001. Run by our education co-ordinator Sarah Slater, our water lessons include practical sessions, field trips and hands-on experiments. They give Auckland's next generation the opportunity to learn about water, wastewater and science. Our DIY Freshwater Detectives™ kit is available to teachers who wish to run their own water quality lessons. Find out more.

Full website coming soon

The Water for Life information and community hub is a place to share the projects that Watercare is passionate about. It's also where you can get involved by becoming a Water Guardian and helping us to protect our most precious resource: water.

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https://waterforlife.org.nz/what-watercare-is-doing
18 May 2020

Memo to: DEVONPORT TAKAPUNA LOCAL BOARD
Re: WATER SHORTAGE

We notice that Board member George Wood has a notice of motion for tomorrow’s meeting about Watercare and the current shortage of supply in Auckland.

Please be aware that the solution is probably not as simple as an immediate increase in the volume of water taken from the Waikato River. The Waikato District Council is probably well justified in being hesitant about approving the increase draw-off which Auckland has applied for, as its river is the sole source of water supplies for the city of Hamilton and communities to its immediate north who are, as they must be, that Council’s immediate responsibility, rather than communities outside its jurisdiction.

It is our understanding that the situation is exacerbated by the existence of a flood plain in and around the Huntly area which can be adversely affected by sedimentation if the river flow is not maintained at a sufficiently high level, especially at this time of year or in periods of drought.

We would suggest that, rather than pursuing the unlikely prospect of sourcing more water from the Waikato River, your Board would be wiser to press Auckland Council for an explanation of why Watercare has not in earlier years moved to expand water storage to meet the needs of our growing city, by deepening existing dams and constructing new such dams. Those charged with the management of Watercare over these past few years have much to answer for.

Terry Dunleavy,
Chairman
terry@winezeal.co.nz  [cellphone 0274836688]
Response to letter from Takapuna Residents Association – Water Shortage

**Purpose**

1. The purpose of this note is to provide an initial response to the memo received by the Devonport-Takapuna Local Board from Mr Terry Dunleavy (on behalf of the Takapuna Residents Association) dated 18 May 2020, in relation to Auckland’s water shortage. Within this memo, Mr Dunleavy requested that the local board:

   ‘...press Auckland Council for an explanation of why Watercare has not in earlier years moved to expand water storage to meet the needs of our growing city, by deepening existing dams and constructing new such dams.’

2. Upon receipt Local Board Services staff forwarded the memo from the Takapuna Residents Association to Watercare Services for an indicative response, which is provided below.

**Response From Watercare Services**

3. Watercare assessed many different options for the future supply of water to Auckland before settling on a future take form the Waikato River as the next option (the application lodged in 2013).

4. Water from the Waikato River is not subject to the same effects of rainfall as are storage dams. Storage dams are very expensive to build, very difficult to obtain consent for, and do not necessarily achieve the yield required to make them viable. Watercare suggests that there are no other potential significant dam locations in Auckland beyond those that are already in operation.

5. While storage dams do naturally change over time, dredging the dams would be expensive, risky in terms of sedimentation and unlikely to achieve the yields required to make the work viable. Therefore, Watercare believes that the Waikato River is not only much more resilient, but the land and infrastructure is already in place.

6. It is very important to note that the current water shortage issues are a result of a lack of rainfall, as Auckland is experiencing its worst drought on record. At present Watercare runs its water supply system to a 1 in 200-year drought standard, which means that only in the very worst years is the region likely to experience water restrictions of the magnitude and scale recently instigated.

7. If Watercare ran a drought standard of 1 in 1000 years, the cost of service delivery (i.e. water and wastewater charges) would be a lot more expensive, and there would likely be expensive infrastructure sitting underutilized for all but the very driest periods.

8. Watercare is required by the Local Government Act 2002 (LGA2002) to be a minimum cost operator collectively to the residents of Auckland. This means that Watercare must strike a careful balance between the cost of infrastructure and the delivery of services. This is the reason behind Watercare’s decision to stage the upgrades of the Waikato Water Treatment Plant, rather than building all of the infrastructure at once and then waiting for growth to occur.
9. Similarly, when Watercare secures the next allocation from the Waikato River, it will enable planning for future staged upgrades that will also include pumping and a second Waikato water pipeline – all done in progressive stages.

10. Watercare has provided additional information (refer Attachment A) that explains the situation around the Waikato River consents in greater detail.

Attachments

Attachment A – Waikato River water take and drought explained
Attachment A – Waikato River water take and drought explained

The different consent applications explained

The current treatment capacity of the Waikato Water Treatment Plant is 150 million litres a day (ML/d). This aligns with the current resource consent that provides for 150 ML/d net abstraction from the river at any time.

The current consent also allows for net abstraction up to 175 ML/d, but only when the river is above median flow. The purpose of this additional water take is to reduce abstraction from dams during wet weather and to provide system resilience. It has not been above median flow since October 2019. Work is still underway to expand the plant to increase peak production to 175 ML/d. The increase in capacity has been delivered in stages, with peak production capacity currently at 160 ML/d. This will increase to 175 ML/d when the Puakeko East Reservoir is completed in August. The reservoir’s construction was delayed when resource consents were appealed in the Environment Court.

In December 2013, Watercare Services lodged a resource consent application with Waikato Regional Council to increase the volume of water abstracted from the river by 200 ML/d to meet the projected demand increase due to population growth. This application sits in a processing queue and is unlikely to be heard for a further 18 months.

To side-step this queue, Watercare has lodged a separate application for a seasonal take of 100 ML/d. This would allow the treatment of a further 100 ML/d between May and September regardless of the river flow. It would also allow treatment of that additional 100 ML/d at other times of the year if the river is above median flow.

Watercare expects this consent application will be processed with minimal delay, as the Waikato Regional Council has confirmed there is no competition for this winter water. If this consent is granted, Watercare will be able to increase its daily production to 160 ML/d immediately, and to 175 ML/d as soon as the Puakeko East Reservoir is commissioned.

The granting of this consent would also allow the design and construction of the Waikato Water Treatment Plant’s next upgrade to progress, which will be delivered in stages. The first stage would expand the plant and increase the flow through the existing treated water pipeline. Watercare’s current Asset Management Plan shows this stage will be needed by 2028. The second stage would involve a further plant expansion and the construction of a second treated water pipeline to Auckland.

Please note, the problems we are facing now are due to a shortage of rainfall, not a shortfall in treatment capacity. Over the dry and hot summer, Watercare was able to meet peak demand without restrictions.

The current annual average demand is 440 ML/d. The current system is able to provide for an annual average demand of 482 ML/d, which would see the region through a 1-in-200-year drought. Because it is unknown how long this drought will last (and experts are anticipating a dry spring), Watercare has recommended the implementation of outdoor water restrictions now.

Watercare is planning for the average daily demand to increase by up to 35 per cent on a peak day. The peak treatment capacity is currently 615 ML/d, but again it is the lack of rainfall that is the problem. Total dam storage currently sits at approximately 44.6 per cent of capacity.
**Defining a drought**

Watercare defines a drought 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 water supply lakes and slower recharge to groundwater resources. This is a standard definition for water supply system droughts.

The National Institute of Water and Atmospheric Research (NIWA) drought index referenced is focused on agriculture droughts, not hydrological or water supply droughts. An agricultural drought will develop quickly as it is primarily concerned with near-surface soil moisture content and the impact on plant growth. On the other hand, a hydrological or water supply drought will develop over a longer time period and is primarily related to the recharge of the water source.

A good indicator of a water supply drought is the cumulative deficit of rainfall. At the start of November, Watercare’s water supply lakes were almost 90 per cent full. By the beginning of February, lake levels had dropped as expected to near 75 per cent and the rainfall deficit was minor. The forecast rainfall for the following months did not indicate rainfall levels being significantly below normal.

As a drought develops it is therefore difficult to determine when it begins. It is not until a sustained period of lower-than-expected rainfall occurs that a drought condition is evident. For this reason Watercare began its communication programme to encourage water-wise behaviour in February, before drought conditions developed. It is the accumulation of successive dry months that have led to the severity of the current water supply drought.