



# Annual Water Outlook

1 December 2020





**We proudly acknowledge the Traditional Custodians of the land on which we work and live, and on the water on which we rely.**

**We pay our respects to their Elders, past, present and future.**

**We recognise Aboriginal and Torres Strait Islander peoples as the First Peoples of this Nation. We value their continuing cultures and contributions to our community, and their ongoing connection to the land and water over tens of thousands of years.**

## Barwon Water service region and key infrastructure



## Summary

**Every year all Victorian water corporations produce an Annual Water Outlook. Barwon Water's Annual Water Outlook contains information about our region's water supply systems, local population figures, forecast graphs that cover the next two years, and how the region's diverse supply options are being used.**

**Our region's drinking water supplies depend on a range of factors, including rainfall, water storage levels and how our customers and community use water. A diverse, adaptive and balanced approach to managing our water supplies is now more important than ever.**

## Our water supply forecast for the coming two years

**Our water supply systems are secure for the short-term, however our climate is becoming warmer and drier, and it's raining less in our catchments. This highlights the importance of continuing to work with our customers and community to protect our water supplies for years to come.**

Six of the first seven months of 2020 saw below average for rainfall for the West Barwon Reservoir. However, investments made during the Millennium Drought, including our Melbourne to Geelong Pipeline and Anglesea borefield, have meant that water supplies for Geelong and Colac are secure in the short-term.

Our coastal systems of Lorne and Apollo Bay are also secure in the short-term with water restrictions unlikely in the next 12 months. These systems rely solely on water harvested from rivers during the wetter months of winter and spring. Water is stored and then drawn down over summer when demand spikes due to the increase in tourist visitation and the hotter, drier weather. In the case of Apollo Bay, we've initiated actions to secure an additional 60 megalitres (ML) of water per year by 2023 to provide greater system resilience.

The climate outlook for the next three months issued by the Bureau of Meteorology is also positive for the region's short-term water security position.

## Three-month climate outlook

**The Bureau of Meteorology forecast (issued on 1 October 2020) indicates that rainfall in our region is expected to be above average, with higher-than-average maximum temperatures for the next three months.**

**More information on the observed changes and longer-term future climate and water projections can be found at <https://www.water.vic.gov.au/climate-change>**







## Recycled water

Further supporting our short-term water security position is the supply of various classes of recycled water to customers for non-drinking purposes such as toilet flushing, garden watering, car washing, business, industry, agriculture and other commercial uses.

### Case study: Recycled water on the Bellarine

Increased use of recycled water for non-drinking purposes on the Bellarine Peninsula will reduce drinking water demand and also help maintain its unique, high-quality rural landscapes. It will support increased agricultural production, economic growth and regional prosperity for the area.

Barwon Water is extending the supply of recycled water to agricultural and horticultural customers, including vineyards, along Portarlington Road from Scotchmans Road to Church Road.

Construction of the pipeline extension is set to start in 2021.



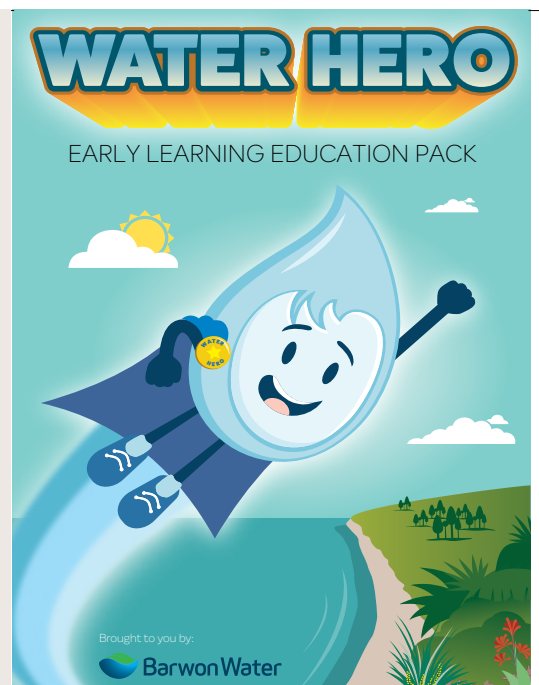
## Water efficiency

Our demand for water is also increasing, supplying around 35,000 million litres of water across the region annually. We're proud to help customers, schools and communities save water through a range of programs, and continue to promote water-efficient behaviour through various campaigns including our Permanent Water Saving Rules. In 2019/20, we undertook a dedicated coastal summer campaign that actively engaged tourists, visitors and tourism businesses to conserve and preserve water during the holidays.

### Case study: Helping our community use water wisely

We're continuing to support local schools with our Schools Water Efficiency Program, including a grants program to help schools fix water leaks, which last financial year saved 85 million litres of drinking water. The launch of a WaterAssist Home program for high water using households is helping to fix leaking appliances and fixtures.

We also play an active role in our community through our comprehensive education program, which includes educational materials, information, tips and advice on how to be more water efficient.

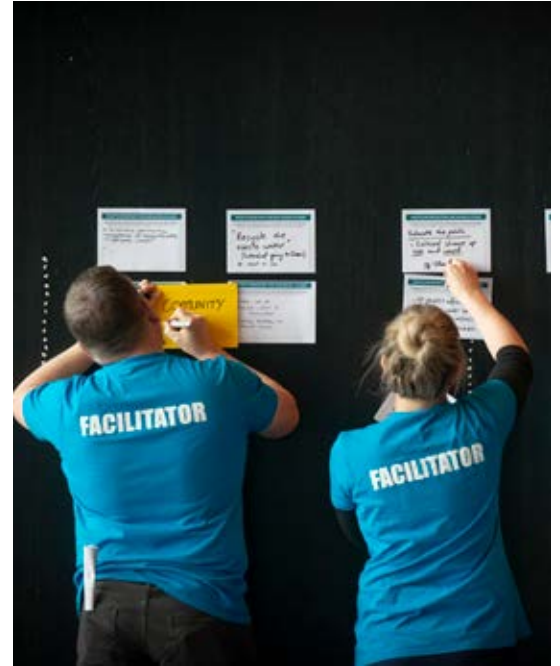


## Our long-term response

**With less rain and a hotter climate, we know it's time to think differently about how we use water and where it comes from in the future. That's why we're partnering with our community, stakeholders and regional leaders to design a new water future for our region.**

Although our water supply systems are secure in the short term, we recognise the immediate need to work on our long-term response. Through our **'Water for our Future'** program, we're drawing on the insights, experiences and ideas of our customers and community to help us create a water future that will support liveable and thriving communities and a healthy environment for years to come.

Through this engagement process we won't just rely on our own expertise. We've adopted a co-design approach for the program because we know we get better outcomes when we work alongside our community. Through this process, we have already heard from more than 3,000 people about what they value most about water and their ideas for managing future water supply and demand. We've also actively engaged with our regional stakeholders including the five G21 Councils, businesses and community groups.



At the same time, we've been undertaking necessary strategic technical and financial planning to carefully prepare for any future augmentation, to best position us to invest in new infrastructure if, and when required. We've also looked at every opportunity to potentially delay the need for a large scale augmentation through reducing leaks and losses from our system using new technologies such as smart network sensors.

Further supporting long-term water security planning, we make sure we put an environmental lens over everything we do. We're working to further support waterway and catchment health and have a strong relationship with the Corangamite Catchment Management Authority (CCMA) and Victorian Environmental Water Holder (VEWH) and will continue to work together to deliver key projects such as environmental flows for the Barwon and Moorabool rivers.

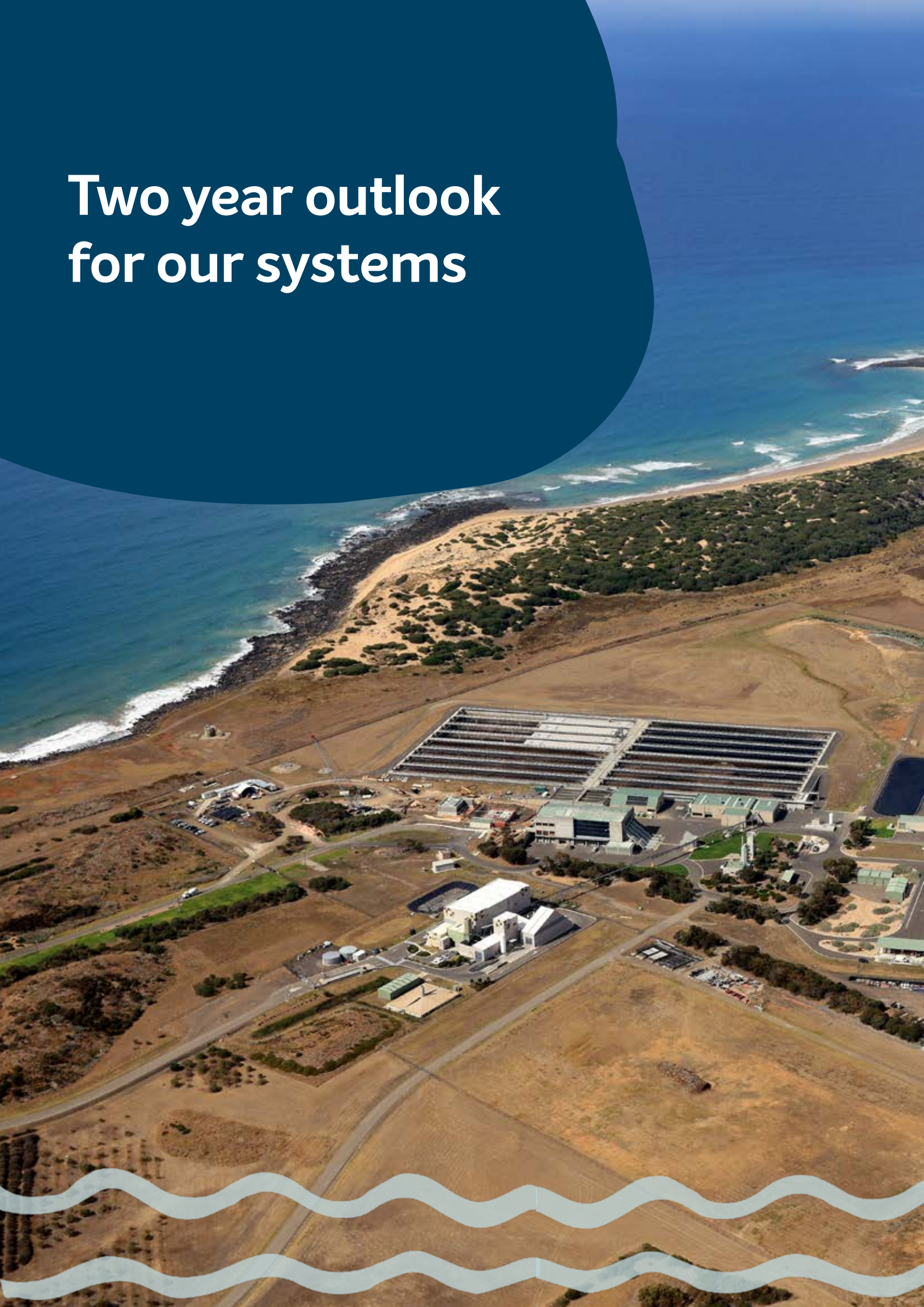
### Case study: Dewing Creek restoration project

We've implemented a river restoration project along a 2.8-kilometre stretch of Dewing Creek and started another on a 3-kilometre reach of the East Barwon River, working with nine adjoining land owners. The rehabilitation of Dewing Creek south of Colac involved installing fencing, removing willows and planting more than 30,000 plants along the waterway.

The creek runs through a leasehold cattle property that had about 2.8 kilometres of unprotected river frontage before the \$300,000 project began. The property has a catchment area of about 20 square kilometres with water diverted into the greater Geelong water supply just 400 metres downstream from its boundary.

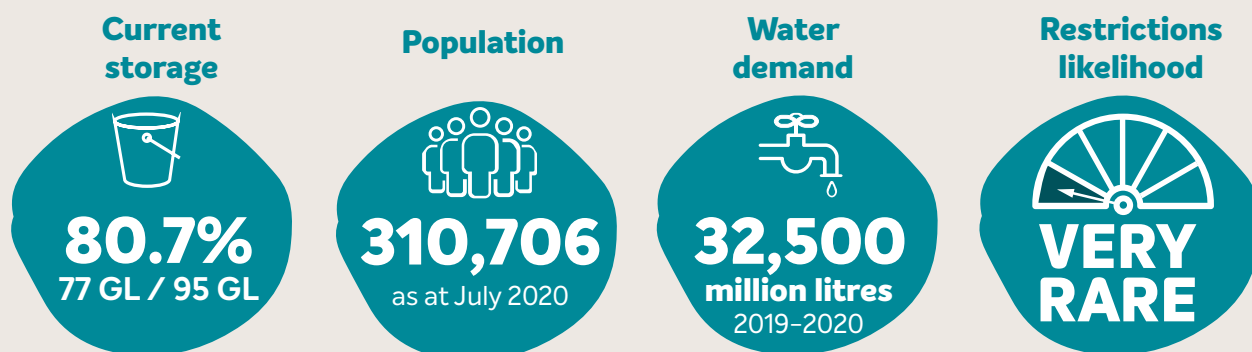


# Two year outlook for our systems



# Greater Geelong system

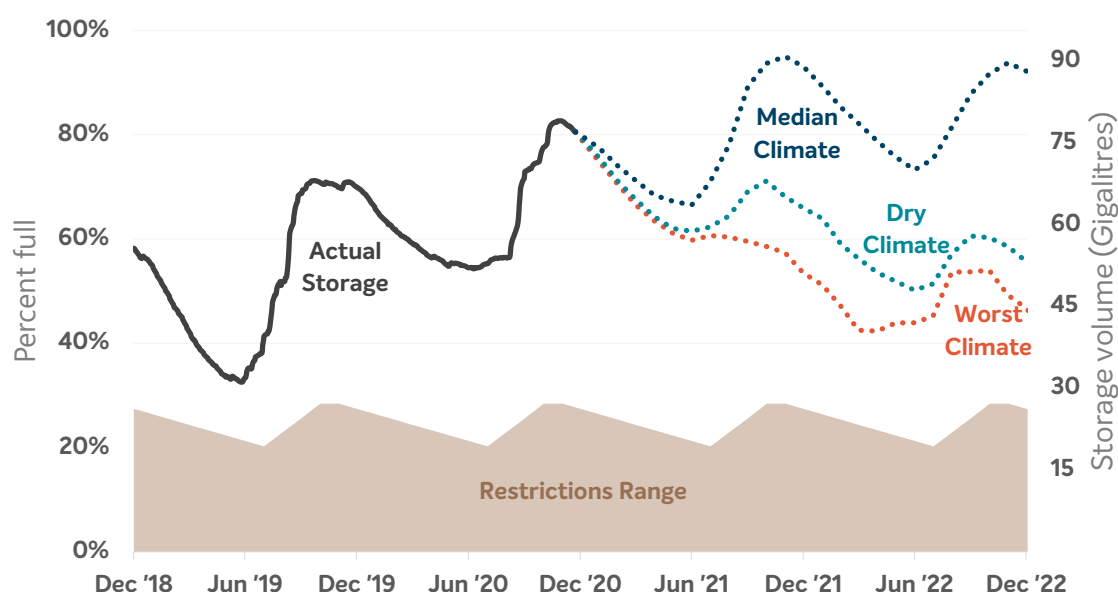
Geelong's drinking water is sourced from catchments on the upper Barwon and Moorabool rivers, groundwater from the Anglesea borefield and an entitlement to take water from Melbourne's Yarra Thomson catchment via the Melbourne to Geelong Pipeline. We also operate two Class A recycled water plants – the Northern Water Plant and the Black Rock Recycled Water Plant and supply recycled water for non-drinking purposes such as garden watering, commercial, industry and agriculture.



As of 25 November 2020

## Storage outlook

The short-term storage outlook shows that even under the worst climatic conditions, water restrictions will not be necessary for the next two years, to November 2022.



## Short-term actions

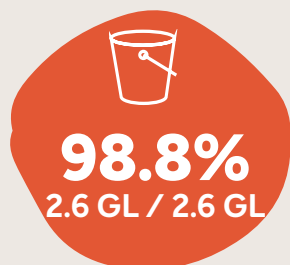
Action	Status
We will improve how water moves through our system by reviewing operating rules and triggers to increase the efficiency of our water supplies.	On track
We will continue to investigate opportunities to <b>increase the volume of recycled water put to productive use</b> by an extra 1,000 megalitres (ML) by 2022-23 as per our 2018 Price Submission commitment.	On track
Our <b>Water for our Future</b> program will progress engagement with our community and stakeholders to determine a preferred portfolio of long-term options that aligns with the vision and criteria set by the Water for our Future community panel.	On track
We will continue to engage and communicate with our community to promote <b>Permanent Water Saving Rules</b> as well as offer other demand management initiatives and water conservation programs.	In operation



# Colac system

Colac's water supply is sourced from the West Gellibrand and Olangolah reservoirs, which are located on the Gellibrand River in the Otway Ranges. During dry periods, Colac can draw on water from the Geelong system via a pipeline connection.

## Current storage



## Population



## Water demand



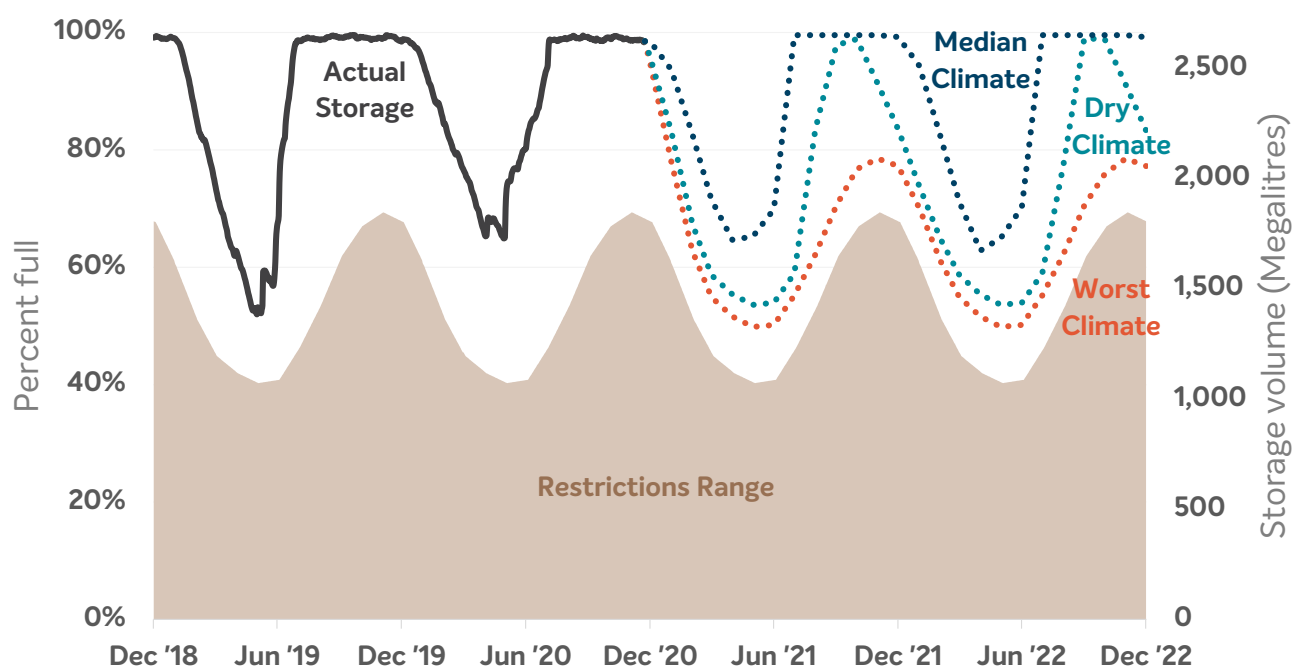
## Restrictions likelihood



As of 25 November 2020

## Storage outlook

The short-term storage outlook shows that even under the worst climatic conditions, water restrictions will not be necessary for the next two years, to November 2022.



## Short-term actions

Action	Status
We will continue to engage and communicate with our community to promote <b>Permanent Water Saving Rules</b> as well as offer other demand management initiatives and water conservation programs.	In operation
Our <b>Water for our Future</b> program will continue engagement with the Colac community to understand their views on how we create a new water future.	On track
We will <b>improve</b> operating rules and triggers for transfer of water from the Greater Geelong system to Colac to increase Colac's water security.	Early stages

# Lorne system

The Lorne water supply system is a standalone system, which means it relies solely on water sourced from the Allen Reservoir, located on the St George River. Water is treated before being supplied to customers.

## Current storage



## Population



## Water demand



## Restrictions likelihood

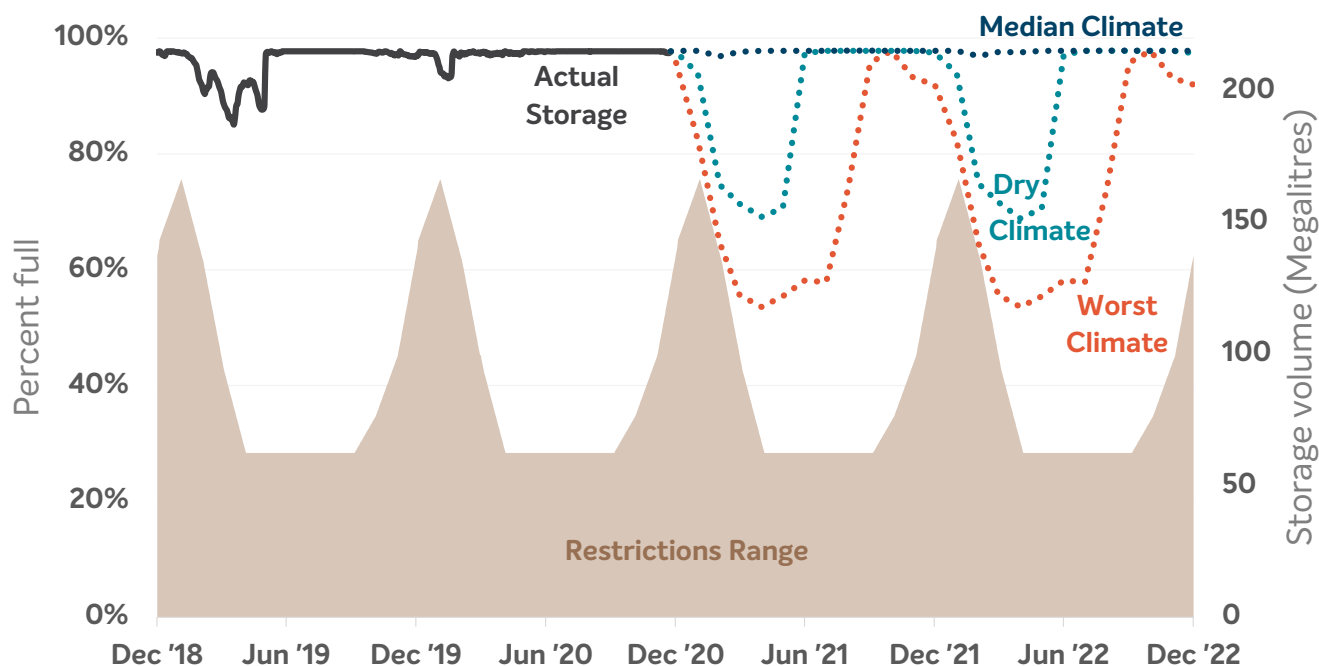


As of 25 November 2020

## Storage outlook

Allen Reservoir typically fills over the winter period due to good rainfall and inflows. Over the summer months, this stored water is drawn down as demand increases due to an increase in tourism, which sees the population rise from approximately 1,750 to 18,000 people.

The short-term storage outlook shows that even under the worst climatic conditions, water restrictions will not be necessary in the next two years, to November 2022.



## Short-term actions

Action	Status
We will continue to engage and communicate with our community to promote <b>Permanent Water Saving Rules</b> as well as offer other demand management initiatives and water conservation programs.	In operation
Our <b>Water for our Future</b> program will continue engagement with the Lorne community to understand their views on how we create a new water future.	On track



# Apollo Bay system

The communities of Apollo Bay, Skenes Creek and Marengo rely solely on the Barham River for water supply. Water harvested from the river during high flow periods in the winter and spring is stored in two basins – Marengo Basin (125ML) and Apollo Bay Basin (250ML) before being treated and supplied to customers. Water harvesting is limited during summer to preference water for environmental flows.

## Current storage



## Population



## Water demand



## Restrictions likelihood



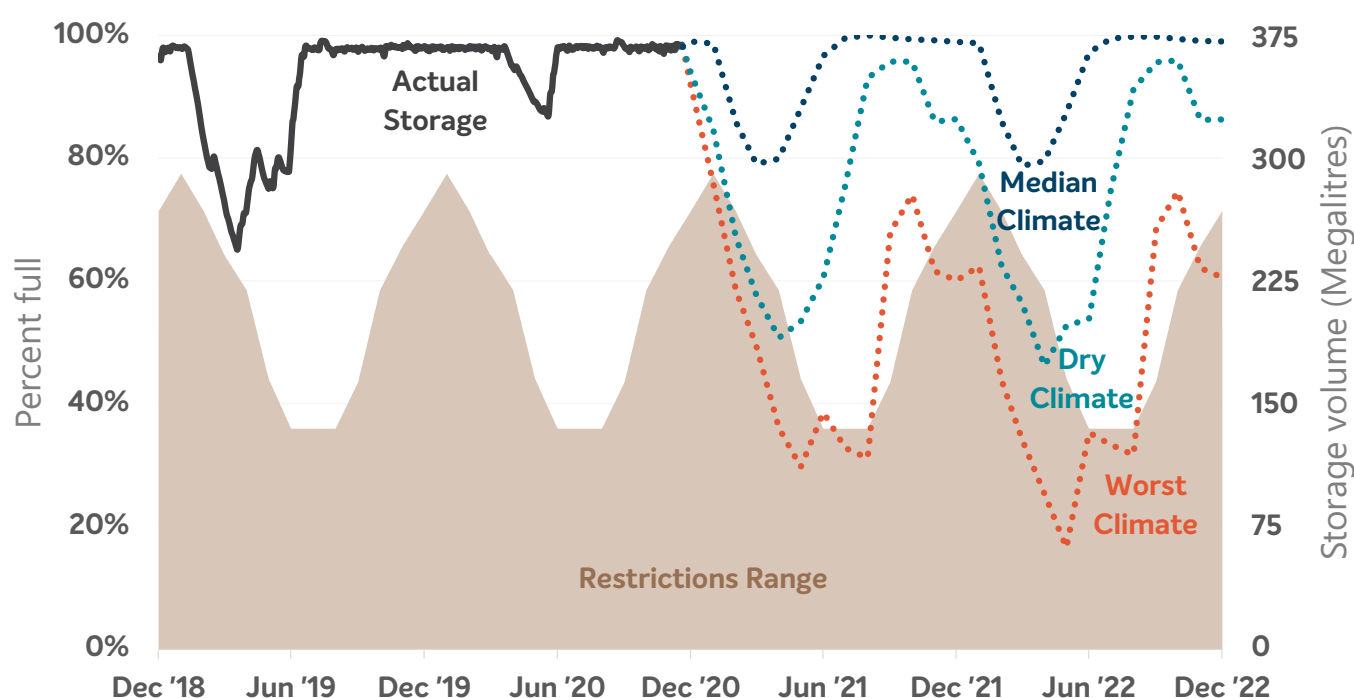
As of 25 November 2020

## Storage outlook

An updated understanding of Apollo Bay's water supply and demand projection has shown that, by 2023, the system becomes vulnerable to an increased likelihood of triggering water restrictions under a worst-case scenario of high climate change and high growth.

Water restrictions may be required to slow storages drawing down if we see a dry winter and spring limiting opportunity to harvest and store enough water, minimal rainfall events to 'top-up' the system during the summer and autumn, or if demand is much greater than expected than what we have seen historically.

Short-term actions are currently underway and will be carried out in the next two years to source an additional 60 megalitres (ML) per year of water by 2023. These actions are expected to delay the next upgrade by up to 10 years, providing Apollo Bay with water security to at least 2033 under a 'worst-case' scenario of high climate change and high growth. While the likelihood is classified as unlikely, under dry and worst case climate scenarios, water restrictions could be triggered over the summer period.



# Apollo Bay system – continued

## Short-term actions

Action	Status
We will continue working with local tourism and hospitality businesses to target high water use over the peak summer period to improve water efficiency, awareness and reduce leaks.	In operation
We will continue to engage and communicate with our community to promote <b>Permanent Water Saving Rules</b> as well as offer other demand management initiatives and water conservation programs.	In operation
Our <b>Water for our Future</b> program will continue engagement with the Apollo Bay community to understand their views on how we create a new water future.	On track
Design work is underway to install a cover on the Apollo Bay Basin and modify the spillway to increase storage capacity, with construction to commence early 2022. <b>Estimated yield is 45 megalitres (ML) per year</b> , equivalent to just over 10 per cent of Apollo Bay’s annual demand.	On track
Supply of recycled water to the local golf course for irrigation to substitute use of drinking water. Construction to start mid 2021 subject to agreement with the club. <b>Estimated reduction in demand is up to 10 megalitres (ML) per year</b> , equivalent to just over two per cent of Apollo Bay’s annual demand.	On track
Pilot trial for smart networks to commence in early 2021 to test new technology that prevents leaks. <b>Estimated savings of 4.6 megalitres (ML) per year</b> , equivalent to just over one per cent of Apollo Bay’s annual demand.	On track





# Gellibrand system

Gellibrand is located approximately 25 kilometres south of Colac and supplies less than 100 properties. Water is harvested from Lardners Creek and then pumped to the Gellibrand Water Treatment Plant prior to being gravity fed to customers.

## Annual entitlement



## Population



## Water demand



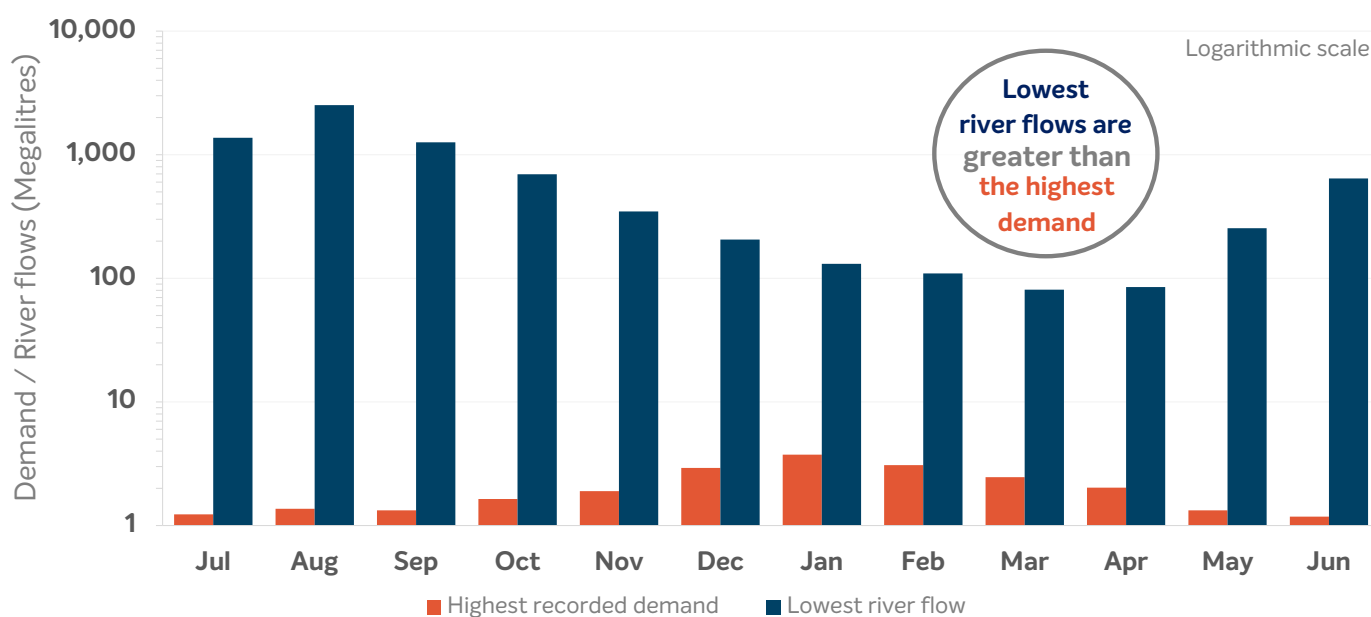
## Restrictions likelihood



As of 2 November 2020

## Supply outlook

The short-term supply outlook shows that even under the worst climatic conditions, water restrictions will not be necessary in the next two years, to November 2022.



## Short-term actions

Action	Timing	Status
We will continue to engage and communicate with our community to promote <b>Permanent Water Saving Rules</b> as well as offer other demand management initiatives and water conservation programs.		In operation
Our <b>Water for our Future</b> program will continue engagement with the Gellibrand community to understand their views on how we create a new water future.		On track



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