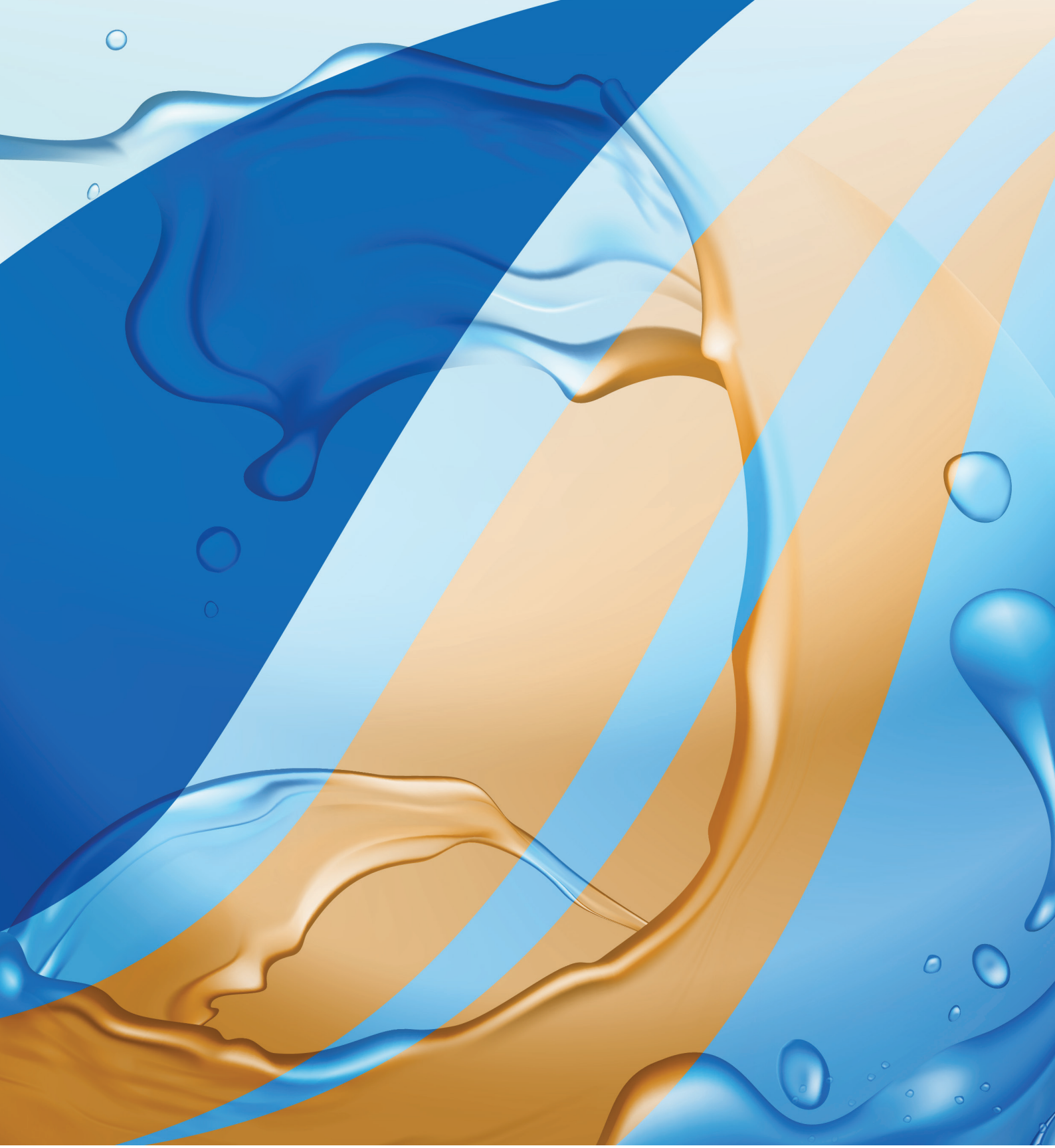

# Annual Water Outlook Summary
# 2019/2020

GWMWater

# Annual Water Outlook Summary 2019

Released: 1 December 2019

This Summary Annual Water Outlook outlines the key water security information for all GWMWater supplied towns and rural pipeline customers.

An outlook for licensed surface water diverters and licensed groundwater users is also provided.

A full listing of towns and rural pipelines can be found on GWMWater's website, along with information on the supply source and any current water restrictions. Please visit **www.gwmwater.org.au/our-water-supply/check-your-water-supply** for more information.

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## All Systems Summary

With the water resources available across all of GWMWater's supply sources this season, no restrictions to urban or rural pipeline customers are anticipated under normal operating conditions.

## Water Resource Overview

Rainfall during late winter and early spring 2019 was below average across a number of our key water supply catchment areas, including the Grampians reservoir catchments. The Grampians reservoir system held 34 percent of operating capacity heading into winter, with reservoir levels gradually rising to a maximum of 45 percent in September. At 27 November, Grampians reservoirs held 42 percent in storage. Despite below average inflows to reservoirs during winter and spring, the key reservoirs which directly supply GWMWater's urban and rural network remain at sufficient levels to meet the expected volume of demand.

GWMWater's bulk water entitlements in the River Murray system reached 48 percent allocation in November and are projected to reach 58 percent by February 2020 under dry conditions. Water allocations in the Goulburn River system are projected to reach 66 percent allocation by February, under dry conditions. The Resource Manager for Northern Victoria (www.nvrm.net.au) determines River Murray and Goulburn River system allocations.

Urban water storages for all Eastern Grampians and Pyrenees towns remain above 80 percent of capacity. Projected demand for the remainder of the 2019-20 season remains below the volume GWMWater has available.

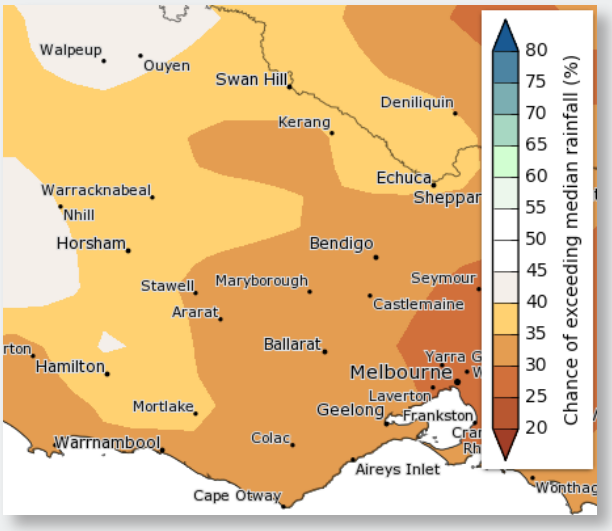
Regional groundwater resources remain secure, with regular water level monitoring conducted across all of our groundwater resource areas.

## Climate Outlook

The Bureau of Meteorology weather outlook for the period between December 2019 and February 2020 suggests a less than 40 percent chance of exceeding the median rainfall across much of GWMWater's operating area.

Temperature outlooks indicate greater than a 70 percent chance of warmer than normal daily temperatures during summer.

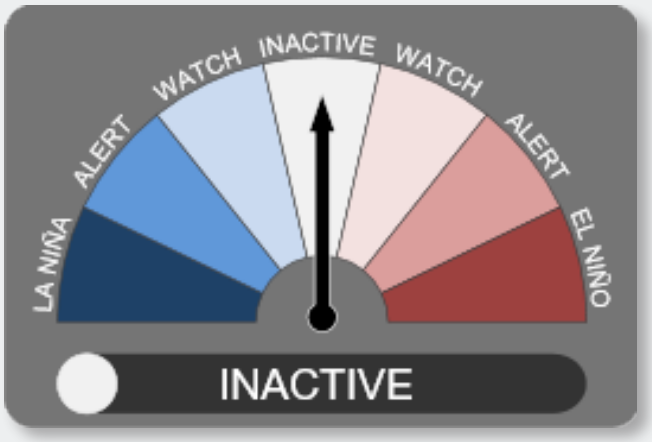
Climate experts have advised Victoria's climate has shown a warming and drying trend over recent decades, and this trend is expected to continue.




*Chance of exceeding median rainfall: December 2019 to February 2020. Courtesy of Bureau of Meteorology*

## El Niño Southern Oscillation (ENSO) & Indian Ocean Dipole (IOD)

The Bureau of Meteorology reports a neutral El Niño Southern Oscillation, with most climate models forecasting neutral conditions to remain for the rest of 2019 and into the first quarter of 2020. When ENSO is neutral, it has little influence on the climatic conditions for southern parts of Australia.




The Bureau of Meteorology reports that the Indian Ocean Dipole (IOD) is likely to remain strongly positive for some time. International climate models suggest that due to the strength of the positive IOD event, it is likely to be slow to decline, and could persist into mid-summer. Typically, a positive IOD event brings below average spring rainfall to southern Australia, with warmer day-time temperatures for the southern two-thirds of the country.

## Grampians Supplied Systems Water Security Outlook

The total volume in Grampians reservoirs peaked at 45 percent (249,300 megalitres) in late September 2019. Reservoir levels will remain at sufficient levels to ensure continued supply for all GWMWater urban and domestic rural demands through 2019-20 and into 2020-21.

Projected demand from the Grampians reservoir system for the Wimmera-Mallee Pipeline Supply Systems 1, 2 , 3, 4, 6, 7; South-West Loddon Pipeline; and towns supplied from Grampians reservoirs is approximately 17,000 megalitres for the 2019-20 season. In comparison, GWMWater currently holds more than 70,000 megalitres of water allocation to service this demand. The balance of water held in reservoirs belongs to other entitlement holders or is held in reserve by the Storage Manager for losses such as evaporation from reservoirs.

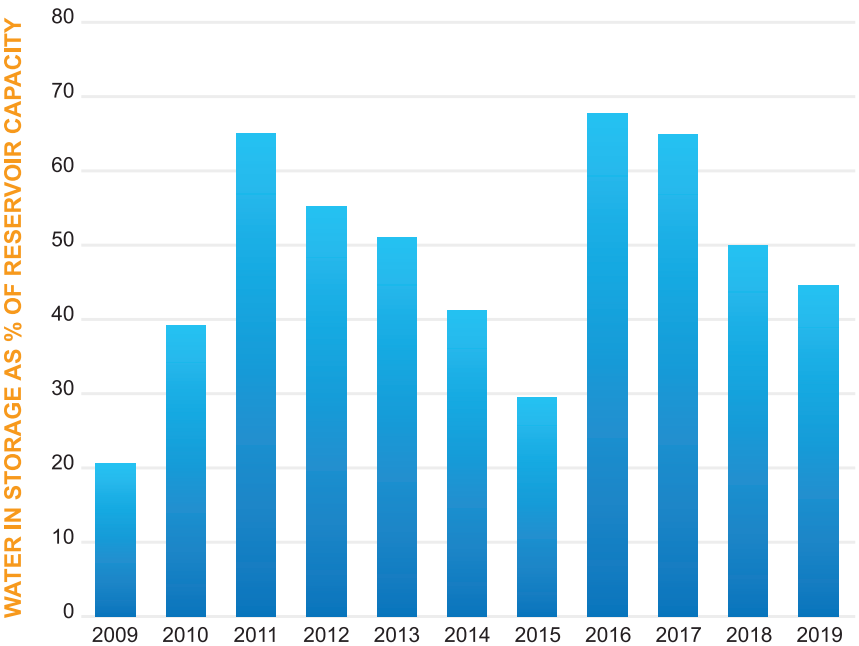
If very dry conditions are experienced in the Lake Wartook and Moora Moora Reservoir catchments during winter and spring 2020, the volume held in Lake Wartook may not be sufficient to support Permanent Water Saving Rules level of water use beyond late 2020.

GWMWater will continue to work with the Wimmera–Glenelg Storage Manager and other bulk entitlement holders to confirm low-inflow water access arrangements for these storages.

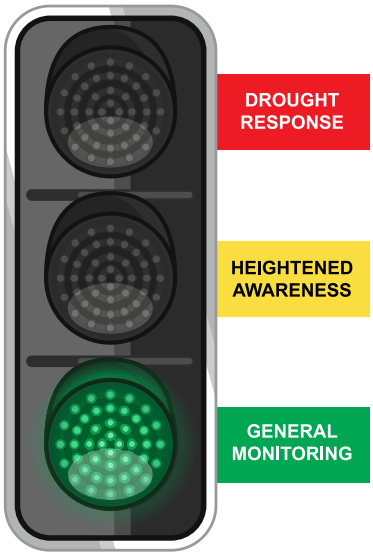
More information on entitlement holders supplied from the Grampians reservoir system and reservoir operations is available from the Wimmera-Glenelg Storage Manager website (www.storagemanager.com.au).

Permanent Water Saving Rules remain in place across all towns supplied from the Grampians reservoir system. Rural users are also asked to abide by Permanent Water Savings Rules for their domestic use. GWMWater does not anticipate the introduction of water restrictions to any town during the remainder of the water year under normal operating conditions.

### GRAMPIANS RESERVOIRS: WATER IN STORAGE AT 1 NOVEMBER




### WATER SECURITY TRAFFIC LIGHT




**PERMANENT WATER SAVING RULES APPLY**

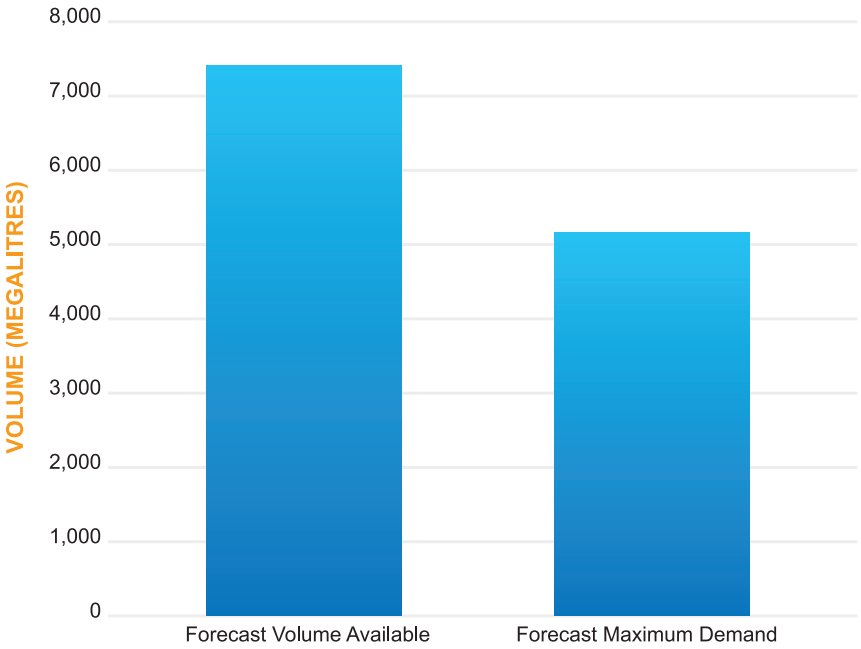
## Murray & Goulburn Supplied Systems Water Security Outlook

GWMWater had received the equivalent of 51 percent of its possible allocation at the end of November, with approximately 6800 megalitres available. This volume is sufficient to service the projected 4800–5200 megalitre combined demand from the Northern Mallee Pipeline, Wimmera-Mallee Pipeline Supply System 5 and Goulburn supplied area of the South-West Loddon Pipeline (including recreational lakes). The volume of bulk water available to GWMWater to service these supply systems can be supplemented with purchases from the water market if and when required. This provides a further mechanism to manage and maintain security for these systems, even during times of reduced bulk water allocations.

Although GWMWater has sufficient water available in the Murray and Goulburn systems to support use under Permanent Water Saving Rules, projections from the Northern Victoria Resource Manager suggest full allocations will not be achieved this season. As a result, the water security status for Murray and Goulburn supplied systems is Heightened Awareness, due to the likelihood of lower volumes in reserve for the 2020-21 year.

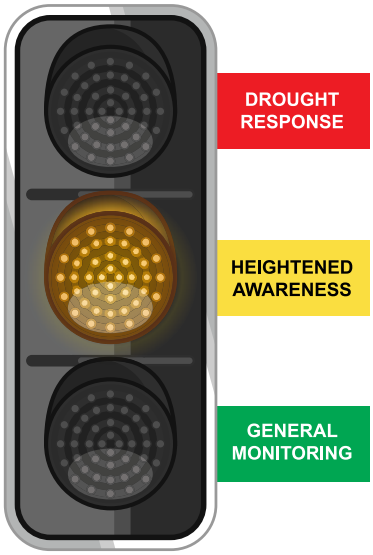
Permanent Water Saving Rules remain in place across all GWMWater towns supplied from the River Murray via the Northern Mallee Pipeline and Wimmera-Mallee Pipeline Supply System 5. Rural users are also asked to abide by Permanent Water Savings Rules for their domestic use. GWMWater does not anticipate the introduction of water restrictions to any town during the remainder of the water year under normal operating conditions.

### GRAMPIANS RESERVOIRS: WATER IN STORAGE AT 1 NOVEMBER




*Note: Volume available includes GWMWater's Goulburn system allocation (accessed via trading)*

### WATER SECURITY TRAFFIC LIGHT




**PERMANENT WATER SAVING RULES APPLY**

# Eastern Grampians and Pyrenees Water Security Outlook

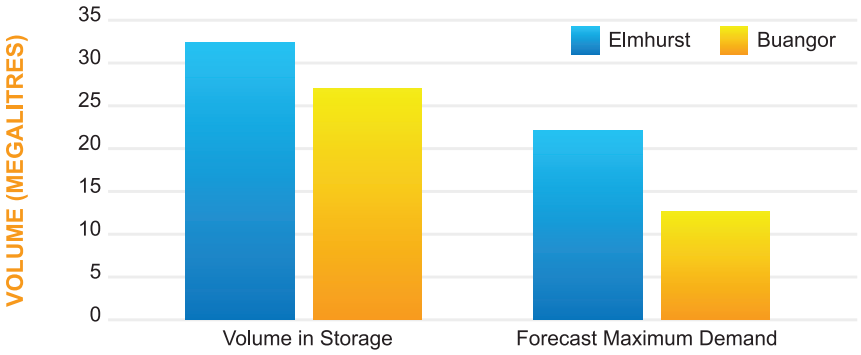
The Eastern Grampians and Pyrenees systems are considered ‘annual systems’ meaning that they rely on winter and spring streamflow to replenish town supply reservoirs each year.

Winter and spring stream flows were sufficient to fill Elmhurst and Buangor reservoirs and maintain them above 80 percent capacity into December. Under hot summer conditions with high demand, GWMWater may conduct supplementary water carting if required, to maintain adequate reserve volumes in town supply reservoirs. In this event, standpipe access may be temporarily limited to essential use.

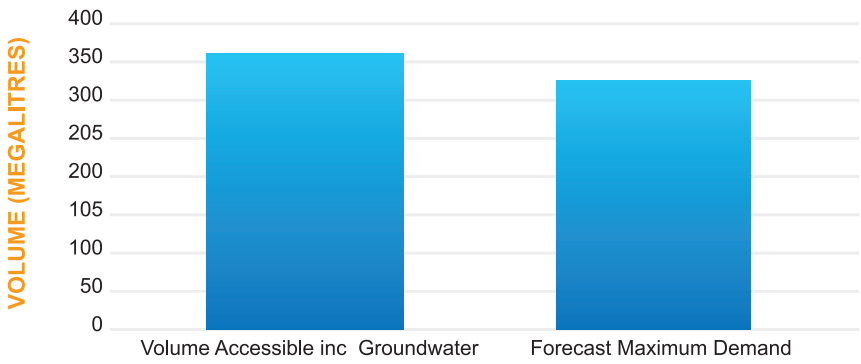
Eastern Grampians town supply reservoirs remained near full at the end of November, with the groundwater supply to be brought on-line as stream flows recede heading into summer. While there are known capacity limitations in this system, the current system status indicates that restrictions are unlikely to be required during 2019-20. GWMWater may conduct supplementary water carting if required, to maintain adequate reserve volumes in town supply reservoirs. In this event, standpipe access in Willaura, Lake Bolac, Moyston or Wickliffe may be temporarily limited to essential uses.

Permanent Water Saving Rules remain in place across all Eastern Grampians and Pyrenees towns. GWMWater does not anticipate the introduction of water restrictions during the remainder of the water year under normal operating conditions. Due to the nature of these supply systems, close monitoring is conducted during the summer months. At the time of this outlook, this supply system had a water security status of General Monitoring.

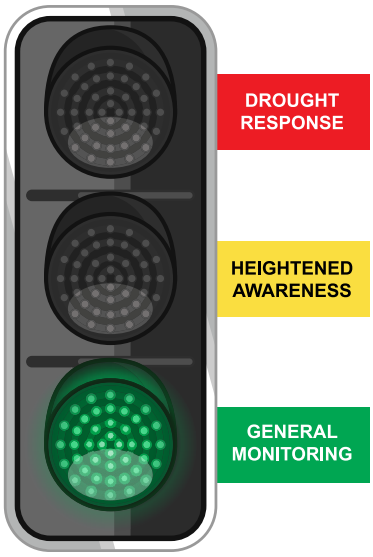
## WATER AVAILABLE FOR PYRENEES TOWNS




## WATER AVAILABLE FOR EASTERN GRAMPIANS TOWNS




## WATER SECURITY TRAFFIC LIGHT



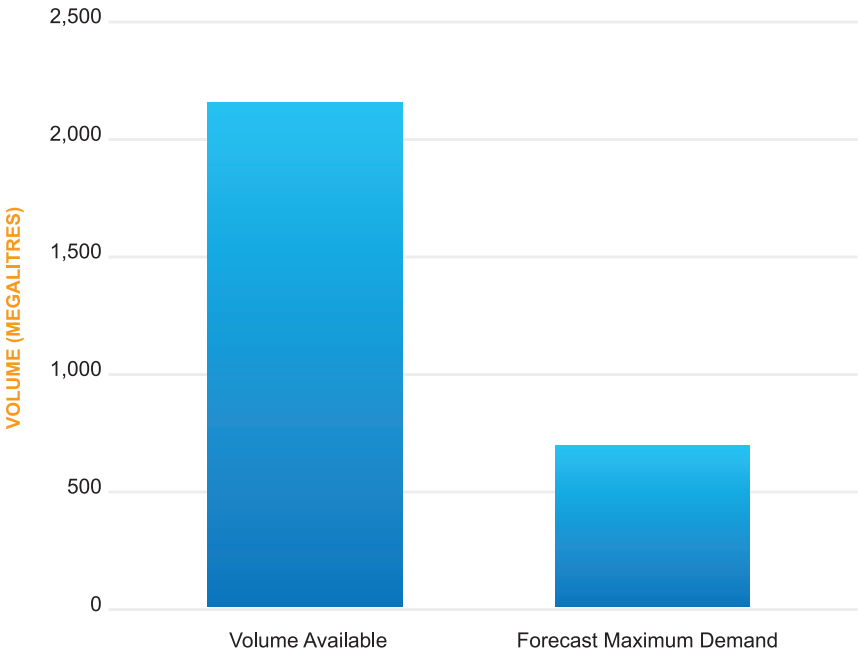

**PERMANENT WATER SAVING RULES APPLY**

## Groundwater Towns Water Security Outlook

Groundwater towns throughout GWMWater's area have reliable access to water under their entitlements by virtue of the sheer volume of groundwater reserves in these areas.
As a result, groundwater allocations are largely independent of short-term climatic conditions.
Regional groundwater resources remain secure, with regular water level monitoring conducted across groundwater resource areas.

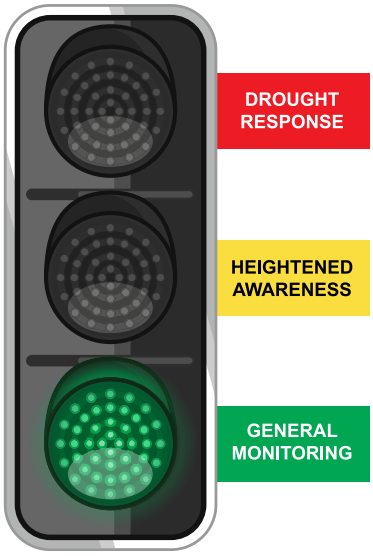
Permanent Water Saving Rules remain in place across all towns with groundwater as their primary supply source. GWMWater does not anticipate the introduction of water restrictions to any town during the remainder of the water year under normal operating conditions.

### WATER AVAILABLE FOR GWMWATER GROUNDWATER TOWNS




*Note: Volume available is an aggregation of GWMWater's urban groundwater licences*

### WATER SECURITY TRAFFIC LIGHT




**PERMANENT WATER SAVING RULES APPLY**

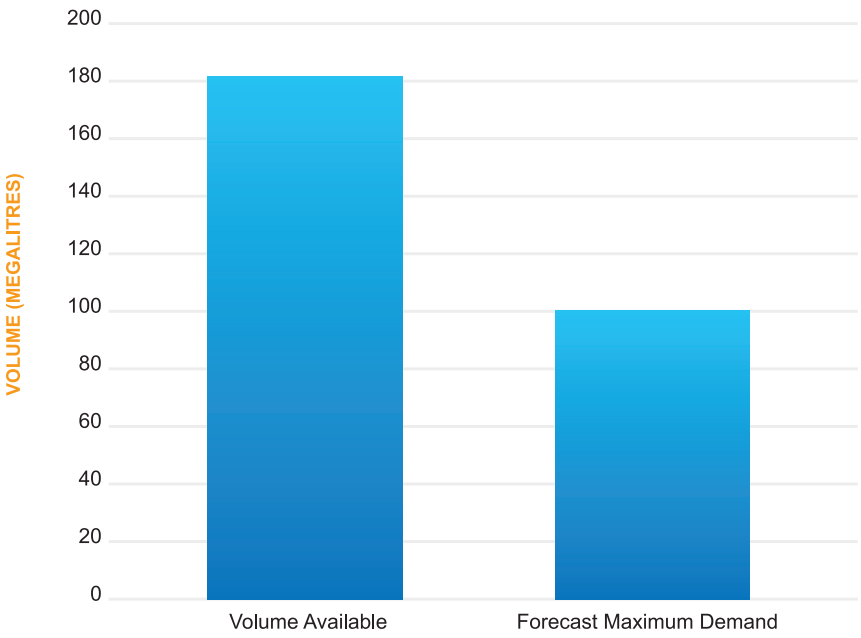
## Quambatook Water Security Outlook

Quambatook's raw water supply comes from the Normanville Pipeline, and is considered part of the Goulburn River system.

GWMWater has received 100 percent of its possible bulk water allocation for Quambatook this season, in addition to carryover allocation. A total of 181 megalitres is available to service the projected 90-100 megalitre demand from Quambatook township. The volume of bulk water available to GWMWater to service Quambatook can also be supplemented by water trade from GWMWater's Murray and Goulburn water entitlements, or purchases of temporary allocation from the water market if and when required. This provides a further mechanism by which security for Quambatook can be managed and maintained, even during times of reduced bulk water allocations.

Permanent Water Saving Rules remain in place for Quambatook township. GWMWater does not anticipate the introduction of water restrictions during the remainder of the water year under normal operating conditions.

### WATER AVAILABLE TO GWMWATER FOR QUAMBATOOK

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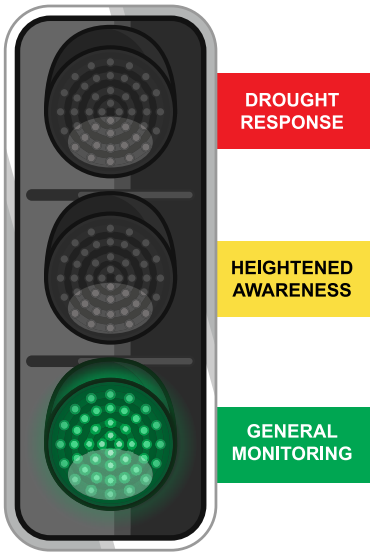


**PERMANENT WATER SAVING RULES APPLY**

## Unregulated and Groundwater Licensed Users Water Security Outlook

Rivers and streams in the Wimmera-Mallee region generally only flow in response to good winter-spring rainfall, and sporadically at other times.

Under 'average' or 'wet' conditions, the likelihood of restrictions is generally low. The drier the season, the higher the likelihood of reduced river flow and the greater chance of restrictions being implemented.

As a result of good rainfall during the early winter months, irrigation diversion triggers for the Wimmera River and Avoca River reached 100 percent by mid-August 2019. This means that sufficient natural flows were recorded at the Glenorchy flow gauge (Wimmera River, 10,000 megalitres total) and the Lalbert – Kerang Road Bridge (Avoca River, 100 megalitres per day). Irrigation diverters from these river systems are permitted to take water during the 2019-20 season, subject to licence conditions and local management rules. River diverters are asked to notify GWMWater prior to taking water for irrigation purposes.

Groundwater users throughout GWMWater's operational area have reliable access to water under their entitlements by virtue of the sheer volume of groundwater reserves in these areas. As a result, groundwater allocations are largely independent of short-term climatic conditions.

All groundwater licence holders in GWMWater's area of management have been permitted to access 100 percent of their entitlement for the 2019-20 season, with the exception of Neuarpur Zone 1. Allocations in Neuarpur Zone 1 are restricted to 80 percent as part of a long-term management plan to address declining groundwater levels, as detailed in the West Wimmera Groundwater Local Management Plan and the West Wimmera Groundwater Management Strategy.

GWMWater does not anticipate the introduction of any restriction to groundwater allocations during 2019-20 or 2020-21, with the exception of Neuarpur Zone 1 which will remain at 80 percent.

## Short-Term Action Plan

GWMWater's Urban and Rural Water Strategy was completed in early 2017 and identifies the best mix of measures to provide water services in our towns and cities now and into the future. The Urban and Rural Water Strategy takes a detailed look at projected future water demands and future water availability under a range of possible future climates. Our Urban and Rural Water Strategy outlines a number of priority actions for the next five years to improve the long-term water security for the towns and rural users we supply. A copy of GWMWater's Urban and Rural Water Strategy is available at www.gwmwater.org.au.

GWMWater continues to pursue opportunities for system cross-connections and expansion of Victoria's Water Grid in order to maximise water security and for urban and rural pipeline customers. Investigations into augmentation of the Eastern Grampians and Pyrenees supply systems have been deferred to align with the East Grampians Rural Pipeline Project, currently in the planning and design stage. Future water security for the Edenhope township is also a consideration within the West Grampians Rural Pipeline business case.