Annual Water Outlook Summary 2020/2021

GWMWater

Annual Water Outlook Summary 2020

Released: 1 December 2020

This Annual Water Outlook Summary 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.

CONTENTS

1 All Systems Summary

1 Water Resource Overview

2 Climate Outlook

3 Grampians Supplied Systems Water Security Outlook

4 Murray & Goulburn Supplied Systems Water Security Outlook

5 Eastern Grampians and Pyrenees Water Security Outlook

6 Groundwater Towns Water Security Outlook

7 Quambatook Water Security Outlook

8 Unregulated and Groundwater Licensed Users Water Security Outlook

8 Short-Term Action Plan

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 winter 2020 was below average across a number of our key water supply catchment areas, including the Grampians reservoir catchments. The Grampians reservoir system held 30 percent of operating capacity heading into winter, with reservoir levels gradually rising to a maximum of 40.5 percent in October. At 25 November, Grampians reservoirs still held 39.7 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 81 percent allocation in November and are projected to reach 94 percent by February 2020 under dry inflow conditions. GWMWater received its full allocation in the Goulburn River system in November. The Resource Manager for Northern Victoria 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 2020-21 season remains below the available volume.

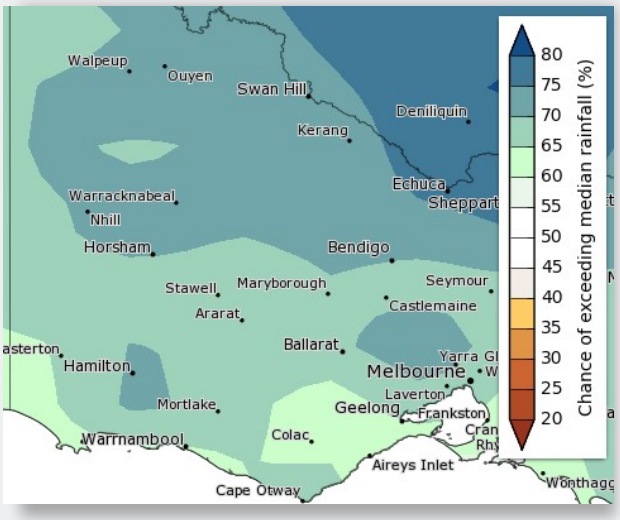
Regional groundwater resources remain secure, with regular water level monitoring conducted across all of our groundwater resource areas.

Climate Outlook

The Bureau of Meteorology weather outlook for the period between December 2020 and February 2021 suggests a 65 to 75 percent chance of exceeding the median rainfall across much of GWMWater's operating area.

Temperature outlooks indicate a 65 to 80 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 into the future. However, there will still be a lot of variability in Victoria's climate and streamflow.

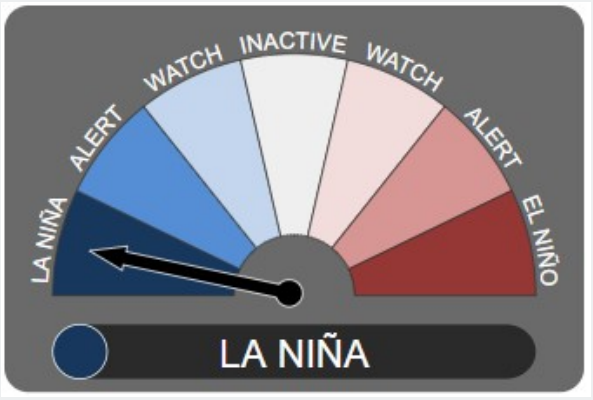


Chance of exceeding median rainfall: December 2020 to February 2021. Courtesy of Bureau of Meteorology

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

The Bureau of Meteorology reports a La Niña event is continuing in the tropical Pacific, with all climate models forecasting La Niña conditions will persist through the southern hemisphere summer 2020/21. La Niña events typically increase the chance of above average summer rainfall across much of eastern Australia during summer.

Bureau of Meteorology outlooks indicate that the Indian Ocean Dipole (IOD) is likely to remain neutral through late 2020 and early 2021. Warming in the Indian Ocean has reduced the likelihood of a negative IOD event forming in 2020. Typically, a negative IOD event brings above average spring rainfall to southern parts of Australia, especially if it corresponds with a La Niña event.



ENSO outlook at 24 November 2020 (image courtesy of the Bureau of Meteorology).

Grampians Supplied Systems Water Security Outlook

The total volume in Grampians reservoirs peaked at 40.5 percent (227,800 megalitres) midway through October 2020. Reservoir levels are at sufficient levels to ensure continued supply for all GWMWater urban and domestic rural demands through 2020-21 and into 2021-22.

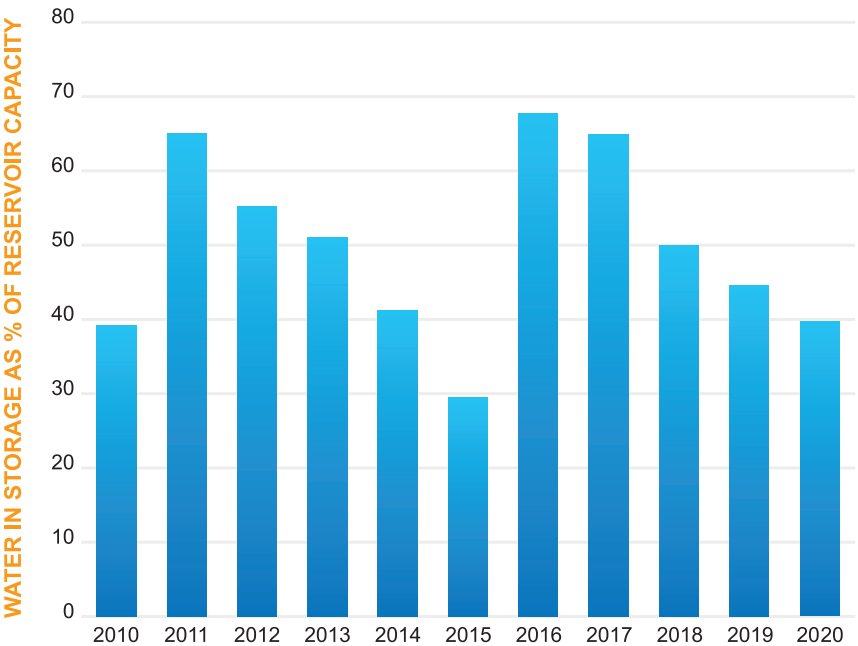
Projected demand from the Grampians reservoir system for the Wimmera-Mallee Pipeline Supply Systems 1, 2, 3, 4, 6, 7; South-West Loddon Pipeline; and towns supplied from Grampians reservoirs is approximately 15,500 megalitres for the 2020-21 season. In comparison, GWMWater currently holds more than 70,000 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 reservoir evaporation.

If dry inflow conditions are experienced in the Lake Wartook and Moora Moora Reservoir catchments during summer 2020/21 as well as winter and spring 2021, the volume held in Lake Wartook may not be sufficient to support the level of water use under Permanent Water Saving Rules beyond late 2021. 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.

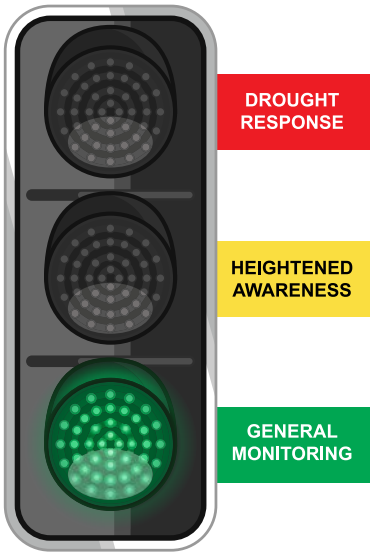
More information on entitlement holders supplied from the Grampians reservoir system and reservoir operations is available from the Wimmera-Glenelg Storage Manager website.

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 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

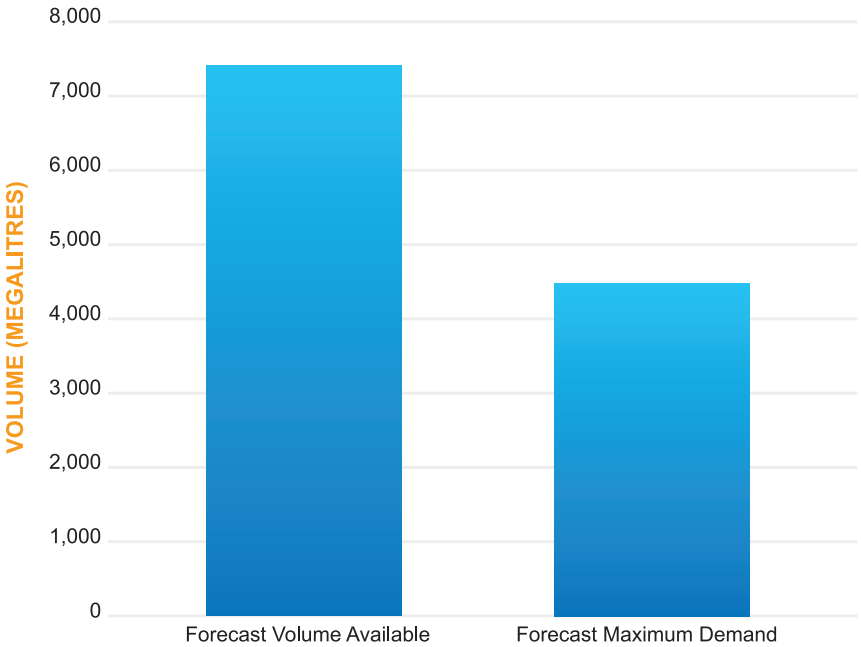
Murray & Goulburn Supplied Systems Water Security Outlook

GWMWater had received the equivalent of 85 percent of its possible allocation midway through November, with approximately 7,700 megalitres available. This volume is sufficient to service the projected 4,500 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, the water security status for Murray and Goulburn supplied systems is Heightened Awareness, due to the possibility of holding lower volumes in reserve for the 2021-22 year.

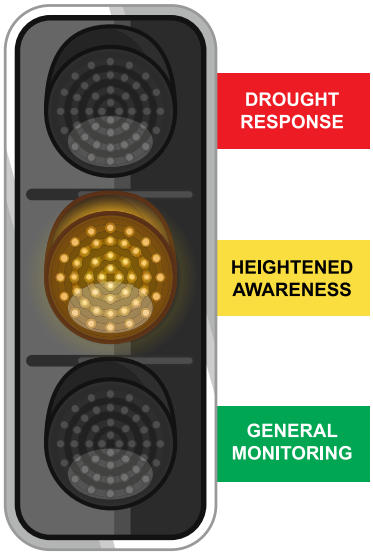
Permanent Water Saving Rules remain in place across all GWMWater towns supplied from the River Murray via the Northern Mallee Pipeline and Wimmera-Mallee Pipeline Supply System 5. Rural users are also asked to abide by Permanent Water Savings Rules for domestic use. GWMWater does not anticipate the introduction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

WATER AVAILABLE TO GWMWATER IN MURRAY & GOULBURN SYSTEMS



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

WATER SECURITY TRAFFIC LIGHT



PERMANENT WATER SAVING RULES APPLY

Eastern Grampians and Pyrenees Water Security Outlook

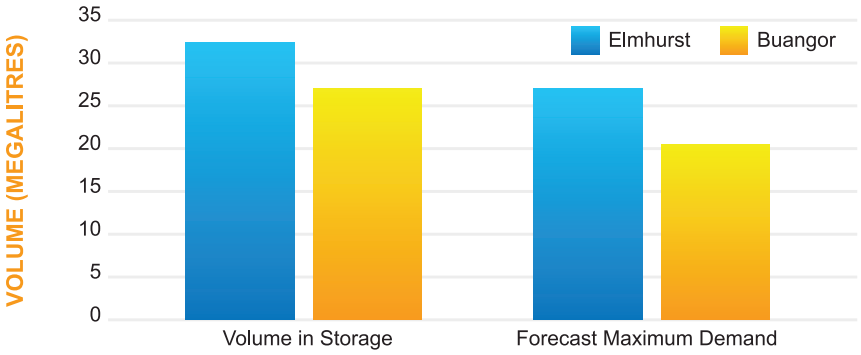
The Eastern Grampians and Pyrenees systems are considered ‘annual systems’; meaning they rely on winter and spring streamflow to replenish town supply reservoirs each year.

Winter and spring streamflows 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.

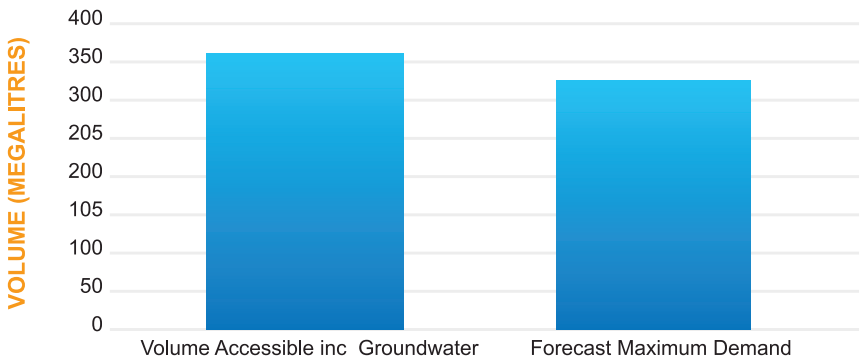
Eastern Grampians town supply reservoirs remained near full in late November, with the groundwater supply to be brought on-line as streamflows recede heading into summer. While there are known capacity limitations in this system, the current system status indicates that restrictions are unlikely to be required during 2020-21. 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 and 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.

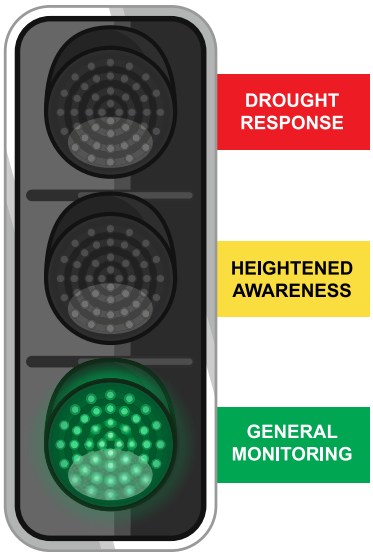
WATER AVAILABLE FOR PYRENEES TOWNS



WATER AVAILABLE FOR EASTERN GRAMPIANS TOWNS



WATER SECURITY TRAFFIC LIGHT



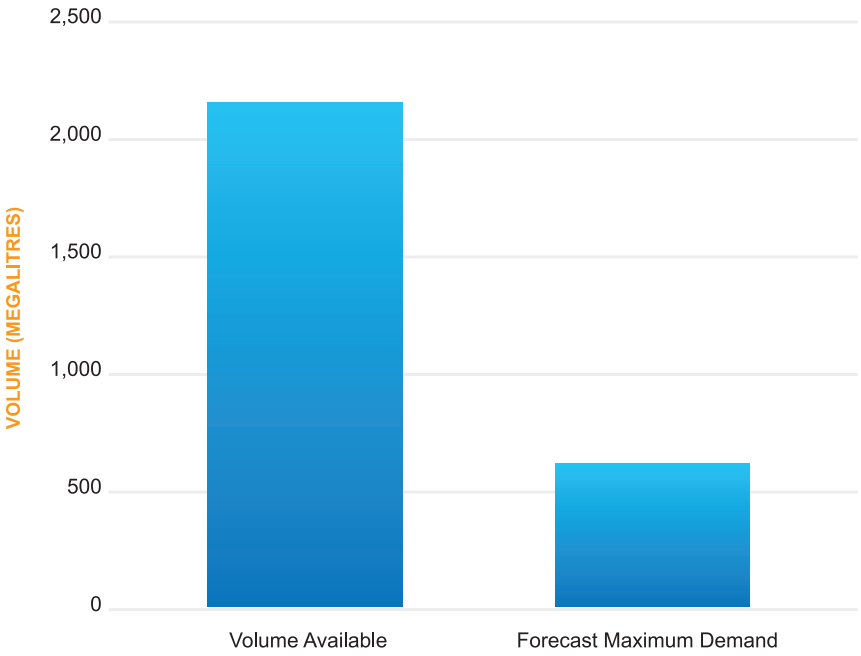
PERMANENT WATER SAVING RULES APPLY

Groundwater Towns Water Security Outlook

Groundwater towns in 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. Regional groundwater resources remain secure, with regular water level monitoring conducted across groundwater resource areas.

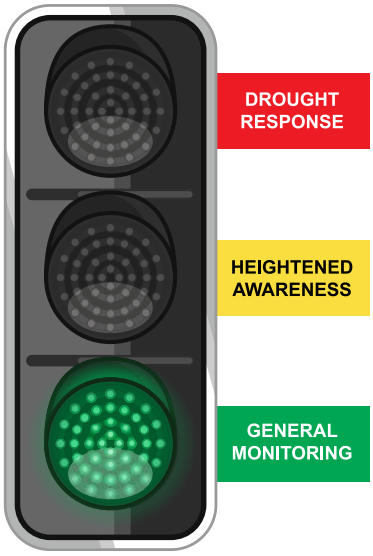
Permanent Water Saving Rules remain in place across all towns with groundwater as their primary supply source. GWMWater does not anticipate the introduction of water restrictions to any town during the remainder of the water year under normal operating conditions.

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

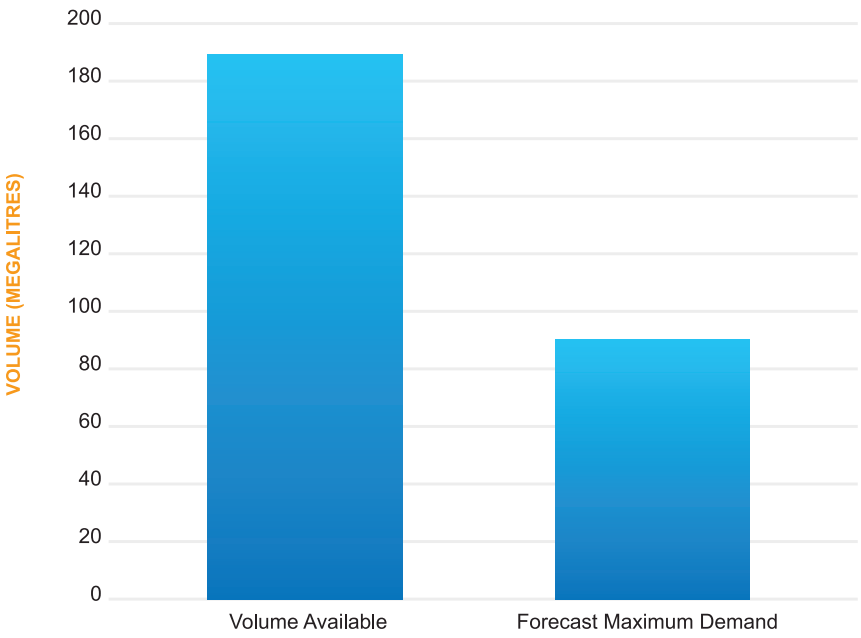
Quambatook Water Security Outlook

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

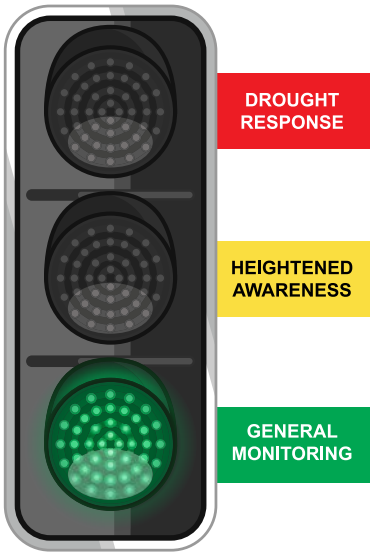
GWMWater has received 100 percent of its possible bulk water allocation for Quambatook this season, in addition to carryover allocation. A total of 190 megalitres is available to service the projected 90-100 megalitre demand from Quambatook township. The volume of bulk water available to GWMWater to 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



WATER SECURITY TRAFFIC LIGHT



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.

Below average rainfall over the winter period has resulted in low flow volumes being recorded in the Wimmera River and Avoca River. The volumes recorded to the end of November were insufficient to satisfy the respective irrigation diversion triggers. This means that insufficient natural flows have been recorded at the Glenorchy flow gauge on the Wimmera River (requiring a flow of 10,000 megalitres in total) or passing the Lalbert–Kerang Road Bridge on the Avoca River (requiring a minimum flow of 100 megalitres per day) to permit the extraction of water for irrigation use. GWMWater will notify irrigation diverters from these river systems once either of these triggers are satisfied. If permitted, the extraction of water for irrigation use will be 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 2020-21 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 2020-21 or 2021-22, with the exception of Neuarpur Zone 1 which will remain at 80 percent.

Surface water diverters and groundwater licensed users are reminded that their volume of take must remain within the permitted volume, unless a trade or transfer has been secured. Any trade or transfer must be approved by GWMWater prior to the taking of additional water volumes. Victoria has a zero tolerance policy on unauthorised water take.

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 2017-2022 period, to improve the long-term water security for the towns and rural users we supply.

GWMWater continues to pursue opportunities for system cross-connections and expansion of Victoria's Water Grid in order to maximise water security for urban and rural pipeline customers. Augmentation of the Eastern Grampians and Pyrenees supply systems is being progressed through 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 Water Supply business case.