Water Quality

Annual Report 2025/26

GWMWater

Grampians
Wimmera
Mallee

2025/2026 Annual Report for Water Quality

GWMWater has a Water Quality Improvement Plan to improve reliability and quality of water delivered to the community and expand the number of customers that receive drinking water. Through the year further progress was made to deliver the water quality upgrades committed in the plan:

- The Dimboola-Nhill drinking water pipeline was extended to Kaniva. Kaniva was declared a drinking water supply 11 June 2026 when testing proved that the drinking water standards were consistently being achieved.

- Extension of the Warracknabeal to Sea Lake drinking water pipeline to Berriwillock and Culgoa was completed. Berriwillock and Culgoa will be declared a drinking water supply when commissioning and testing demonstrates that the supply meet the requirements under the *Safe Drinking Water Act 2003*.

- The Moyston upgrade to a drinking water supply is well advanced with construction of a pipeline connecting the town to Ararat treated water nearing completion.

- Construction of the East Grampians Pipeline improved water security by providing a reliable water supply to rural customers, water transfer to Wannon Water, and water for treatment at Willaura.

GWMWater follows the Australian Drinking Water Guidelines to support continual delivery of drinking water that meets the *Safe Drinking Water Act 2003*. This is accomplished through a water quality management system that involves prevention and control measures to manage risks to water quality from catchment to customer tap, including effective operation and proactive maintenance of water treatment plants.

Dedicated sampling taps have been installed in drinking water towns to reduce repetition of water quality exceedances reported this year that occurred from sampling error. This is to ensure sampled water most accurately represents the quality of water delivered to customers and is anticipated to improve GWMWater's regulatory performance.

Community members have expressed a desire for fluoridation to be extended to more towns to support improved oral health outcomes. Fluoridated drinking water is currently limited to

Horsham, Natimuk, Ararat and Ultima. Broader access would extend the recognised oral hygiene benefits of fluoridation to more communities across the region.

GWMWater is continuing to explore point-of-use and point-of-entry treatment technologies as potential options for providing drinking water in towns that currently receive a regulated water supply. This work is considering treatment effectiveness, regulatory requirements, operational impost, customer impacts and whole-of-life costs.

Health Based Target reporting has been deferred, allowing further time to confirm the reporting framework and assess the implications for GWMWater's systems. Meeting the Health Based Targets may require significant capital investment in treatment processes and supporting infrastructure across multiple supplies. The scale and cost of these upgrades present challenges for affordability and the prioritisation of capital works, particularly across a geographically dispersed service area.

GWMWater supply untreated water to Coliban Water and Wannon Water as Water Storage Manager. GWMWater has met its obligations as a bulk water supplier and coordinated closely with these corporations on water quality objectives.

GWMWater will continue to maintain its systems for providing safe, good quality water throughout its operating area in line with its vision of 'vital services for thriving communities'.

Mark Williams
Managing Director

Section 23 of the Safe Drinking Water Act 2003 requires Grampians Wimmera Mallee Water Corporation (GWMWater) to make available for inspection by the public the results of any water quality monitoring program conducted on any drinking water supplied by GWMWater. Customers and members of the public may access drinking water quality data by contacting GWMWater either by telephone on 1300 659 961 or via the internet at www.gwmwater.org.au.

Revision	Revision Date	Details	Authorised
1	31 July 2026	Draft for internal review	Matthew Kube
2	3 August 2026	Manager Water Treatment review	Suzy McDonald
3	20 August 2026	Executive Manager Service Delivery review	Michael Schneider
4	2 September 2026	Department of Health review	
5	29 September 2026	Review by Executive Leadership Team	Executive Leadership Team
6	12 October 2026	Managing Director review	Mark Williams
7	13 October 2026	Final copy to Department of Health	

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1 Introduction

Grampians Wimmera Mallee Water Corporation (trading as GWMWater) is a government-owned corporation, created by an order of the Victorian Government under the *Water Act 1989*. On 1 July 2004, GWMWater assumed the responsibilities of the predecessor organisations Grampians Water and Wimmera Mallee Water. The vision and purpose of GWMWater are:

Vision

'Vital services for thriving communities.'

Purpose

'Enhance prosperity and liveability in our communities through sustainable, quality and affordable water and other essential services.'

GWMWater provides water services to a region covering an area of 62,000 km^2, with a population of approximately 77,600 at a density of only a little over one person/km^2. This includes around 33,000 water supply connections for people living in 71 urban areas throughout the region and providing domestic and stock water supply to 9,600 rural customers.

1.1 Safe Drinking Water Act 2003

1.1.1 Background

The *Safe Drinking Water Act 2003* (the Act) and the Safe Drinking Water Regulations 2025 (the Regulations) are the legislative framework for assuring drinking water quality in Victoria. The Act is based on:

a) Adoption of 'catchment-to-tap' risk management obligations.
b) Standards are applicable to all drinking water samples for key water quality criteria.
c) Information disclosure obligations for water suppliers.
d) Adoption of systemic community consultation processes.

This approach is consistent with regulatory best practice for the management of complex and inter-dependent risks.

1.1.2 Purpose and Outline

The Act:

a) Requires water suppliers and water storage managers to prepare and implement Risk Management Plans (RMPs) to manage risk in relation to drinking water and some types of non-potable water.
b) Provides for the auditing of those plans by approved auditors.
c) Requires water suppliers to ensure that the drinking water they supply meets quality standards specified by the regulations.
d) Requires water suppliers to disclose to the public information concerning the quality of drinking water.
e) Provides for the variation, after community consultation, of water quality standards that relate only to aesthetic factors.
f) Requires the reporting of known or suspected contamination of drinking water to the Department of Health (DH).

1.1.3 Definitions

The Act provides the following definitions for water quality classification:

Drinking Water

As defined by the Act, drinking water is water that is intended for human consumption or for purposes connected with human consumption, such as the preparation of food or the making of ice for consumption or for the preservation of unpackaged food, whether or not the water is used for other purposes.

Regulated Water

As defined by the Act, regulated water is water that is the subject of a declaration made by the minister under section 6 of the Act. The minister may only make a declaration in relation to a water supply if the Minister is satisfied that the water may be supplied to the public in circumstances in which it may be mistaken as being drinking water.

1.1.4 Safe Drinking Water Regulations 2025

The objective of the Regulations is to give effect to key aspects of the Act. In particular, the Regulations:

a) Specifies the major elements to be incorporated in risk management plans.
b) Specifies the standards relating to the quality of drinking water supplied to customers by water suppliers.
c) Specifies criteria for approval of auditors.
d) Specifies details to be included in annual reports.

This annual report is a requirement under section 26 of the Act and addressed the specific requirements from the Regulations.

1.1.5 *Health Fluoridation Act 1973*

The *Health Fluoridation Act 1973* governs the addition of fluoride to drinking water. Fluoridation of drinking water supplies requires a preventive risk management approach. For this purpose, the Code of practice for fluoridation of drinking water supplies, second edition (2018) supports utilities in the adoption and safe operation of fluoride addition to drinking water supplies.

1.2 Australian Drinking Water Guidelines 2011

The Australian Drinking Water Guidelines 2011 (ADWG) provide a framework for the management of drinking water supplies and is designed to assure safety at point of use. The ADWG is concerned with both health and aesthetic quality.

The ADWG has been developed after consideration of the best available scientific evidence.

The ADWG is the authoritative reference of what constitutes safe, good quality water, and aligns with the Victorian's Safe Drinking Water Regulatory Framework. The ADWG and the Regulations are consistent with the Act and provide a basis for determining the quality of water to be supplied to consumers in all parts of Australia. These need to consider the diverse array of regional or local factors, and consider economic, political and cultural issues, including customer expectations and willingness and the ability to pay.

The ADWG are intended for use by the Australian community and all agencies with responsibilities associated with the supply of drinking water, including catchment and water resource managers, drinking water suppliers, water regulators and health authorities.

1.3 GWMWater Drinking Water Quality Policy

GWMWater is committed to managing its water supply to provide safe drinking water that meets the ADWG, other regulatory and consumer expectations. For this purpose, GWMWater has a drinking water quality policy (Figure 1-1) that provides the framework for managing the risks involved in harvesting, treating and distributing drinking water. GWMWater's drinking water quality policy was last updated February 2024 and is next due for review in 2026.

GWMWater is committed to managing its water supply effectively to provide a safe high quality drinking water that consistently meets the Australian Drinking Water Guidelines and consumer and other regulatory requirements.

To achieve this, in partnership with stakeholders and relevant agencies, GWMWater will:

- Manage water quality at all points along the delivery chain from catchment to the customers' tap.
- Use a risk based approach in which potential threats to water quality are identified and balanced.
- Integrate the needs and expectations of our customers, stakeholders, regulators and employees into our planning.
- Establish regular monitoring of the quality of drinking water and effective reporting mechanisms to provide relevant and timely information and promote confidence in the water supply and its management.
- Develop appropriate contingency planning and incident response capability.
- Participate in appropriate research and development activities to ensure continued understanding of drinking water quality issues and performance.
- Contribute to the debate on setting industry regulations and guidelines, and other standards relevant to public health and the water cycle.
- Continually improve our performance against corporate commitments and stakeholder expectations.

The organisation will implement and maintain a water quality management system consistent with the Australian Drinking Water Guidelines to effectively manage the risks to drinking water quality.

All GWMWater employees involved in the supply of drinking water are responsible for understanding, maintaining and continuously improving the water quality management system.

Mark Williams
Managing Director

Caroline Welsh
Chair

GWMWater

CMS/2747V2

Figure 1-1 - Statement for GWMWater's Drinking Water Quality Policy.

1.4 Characterisation of the System

GWMWater's operational area is shown in Figure 1-2. Key components of the water supply system include:

1. Headworks system, comprising the area in and around the Grampians Ranges and the Wimmera River. The main storages are Lake Bellfield, Lake Fyans, Taylors Lake, Lake Wartook, Mt Cole Reservoir, and Rocklands Reservoir, with raw water for drinking water treatment and supply also collected from creeks and Mt William and Edenhope Borefields. The total catchment area is 400,000 hectares with a maximum reservoir operating capacity of 522,000 megalitres.

2. GWMWater provides water through extensive pipeline systems.
    a. The Wimmera Mallee Pipeline (WMP) system, as follows:
        i. Supply Systems 1,2,3,4,6 and the South West Loddon Pipeline, all originate from the Grampians headworks and consist of 9,270 kilometres of pipeline; and
        ii. Supply System 5 draws water from the Murray River and consists of approximately 860 kilometres of pipeline.

3. The Northern Mallee Pipeline (NMP) system consisting of 3,390 kilometres of pipeline which draws water from the Murray River.

4. The East Grampians Rural Pipeline (EGRP) system which draws water from the Bayindeen catchment and the Grampians catchment and Mt William bores. The full scheme once complete may service up to 1000 properties over 200,000 hectares of area.

5. A total of 1,620 kilometres of pipeline classified as urban, servicing the 71 urban water supplies.

6. Thirty-five towns receive water that is classified as drinking water (Table 1-1).

7. The fully treated water is supplied by 16 water treatment plants owned and operated by GWMWater, transfer of treated water from Swan Hill which is operated by Lower Murray Water, and a further four water treatment plants operated under a Build, Own, Operate and Transfer (BOOT) agreement. These BOOT plants are located at Halls Gap, Ararat, Great Western and Stawell, and as of 23 June 2014 have been operated by Trility, an independent private sector owner and operator.

8. GWMWater also supplies regulated water to 36 towns (Table 1-2). These supplies are harvested from a range of sources, including surface water and groundwater. Regulated supplies have low-level or no treatment, and are not intended for human consumption, drinking or food preparation.

1.5 Source of Water

GWMWater sources water from a range of surface water catchments, rivers and groundwater aquifers across the region. The catchments located within National Parks and State Forest are co-managed with Parks Victoria and DEECA – Department of Energy, Environment and Climate Action. GWMWater also partners with Catchment Management Authorities, Local Government, and Goulburn Murray Water to address issues affecting water quality in the catchments from where water is sourced.

GWMWater completes sanitary surveys and vulnerability assessments of source waters to quantify microbial hazards and assesses them against treatment processes following the ADWG. GWMWater has a Hazard Analysis and Critical Control Points (HACCP) Plan for operation of its water treatment plants and supply system it operates to ensure the delivery of safe drinking water. Sanitary surveys, vulnerability assessment and HACCP are continuously reviewed, audited and improved.

Table 1-1 and Table 1-2 provide a summary of the source waters by water supply for both drinking water and regulated water. The populations recorded in these tables are based on GWMWater's residential connections and from Australian Bureau of Statistics census data of the average household size at each location.

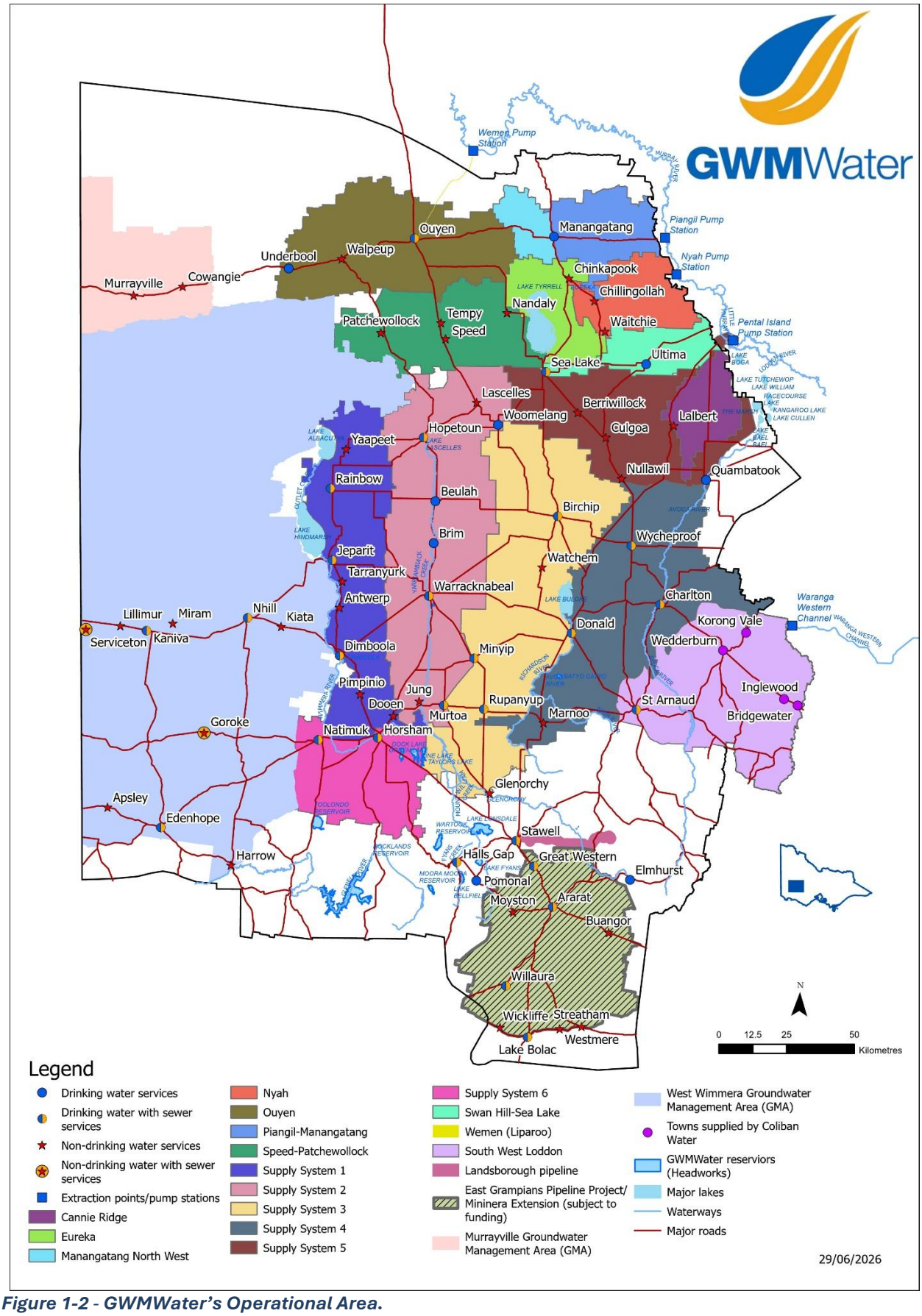

Figure 1-2 - GWMWater's Operational Area.

Table 1-1 - Water Source for Drinking Water Supplies.

Water Sampling Area	Source Water	Water Storages	Treatment Plant	Population
Ararat	Surface water (Lake Fyans, Mt Cole & Langi Ghiran Reservoirs)	Copes Hill and Olivers Gully earthen storages (raw) 1 x lined steel tank (treated) 1 x concrete elevated tank (treated)	Ararat WTP	8,470
Beulah	Grampians Headworks (WMP)	2 x lined steel tanks (treated) 3 x poly tanks (treated)	Warracknabeal WTP	300
Birchip	Grampians Headworks (WMP)	1 x lined earthen storages (raw) 1 x lined steel tanks (treated)	Birchip WTP	810
Brim	Grampians Headworks (WMP)	2 x lined steel tanks (treated) 1 x fibreglass elevated tank (treated)	Warracknabeal WTP	110
Charlton	Grampians Headworks (WMP)	1 x lined earthen storages (raw) 2 x lined steel tanks (treated) 1 x lined steel elevated tank (treated)	Charlton WTP	1,140
Dimboola	Grampians Headworks (WMP)	2 x lined earthen storages (raw) 2 x lined steel tanks (treated)	Dimboola WTP	1,640
Donald	Grampians Headworks (WMP)	2 x lined steel tanks (treated) 1 x lined steel elevated tank (treated)	St Arnaud WTP	1,510
Edenhope	Groundwater (bores)	Fed directly from bores (raw) 1 x concrete tank (treated) 1 x elevated tank (treated)	Edenhope WTP	910
Elmhurst*	Surface water (Hickmans Creek)	1 x earthen storage 1 x lined steel tank	Elmhurst WTP	200
Great Western	Surface water (Lake Fyans)	1 x earthen storage (raw) 1 x lined steel tanks (treated)	Great Western WTP	280
Halls Gap	Surface water (Lake Bellfield, Dairy Creek)	Lake Bellfield and Dairy Creek earthen storages (raw) 1 x concrete tank (treated)	Halls Gap WTP	960
Hopetoun	Grampians Headworks (WMP)	1 x lined earthen storages (raw) 1 x lined steel tank (treated)	Hopetoun WTP	660
Horsham	Surface (Lake Wartook) and back up bore water and (Laharum bores)	1 x earthen storage (raw) 1 x concrete tank (treated) 1 x concrete storage (treated) 1 x concrete elevated tank (treated)	Mt Zero WTP	17,480
Jeparit	Grampians Headworks (WMP)	2 x lined steel tanks (treated)	Rainbow WTP	530
Kaniva	Grampians Headworks (WMP)	3 x lined steel tanks (treated)	Dimboola WTP	870
Lake Bolac	Surface water (Lake Fyans, Mt William Creek, Stony Creek, Masons Creek) and Groundwater (Mt William bores)	2 x lined steel tanks (treated)	Willaura WTP	310
Manangatang	Surface water (Murray River via NMP)	1 x lined steel tank (raw) 1 x lined steel tank (treated) 1 x lined steel elevated tank (treated)	Manangatang WTP	290
Minyip	Grampians Headworks (WMP)	2 x lined steel tanks (treated) 1 x concrete tank (treated)	Murtoa WTP	530
Murtoa	Grampians Headworks (WMP)	2 x lined earthen storages (raw) 2 x lined steel tank (treated) 1 x lined steel elevated tank (treated)	Murtoa WTP	920

Water Sampling Area	Source Water	Water Storages	Treatment Plant	Population
Natimuk	Surface (Lake Wartook) and back up bore water and (Laharum bores)	1 x lined steel tank (treated)	Mt Zero WTP	490
Nhill	Grampians Headworks (WMP)	2 x lined steel tanks (treated) 1x elevated tank (treated)	Dimboola WTP	2,300
Ouyen	Surface water (Murray River via NMP)	2 x earthen storages (raw) 1 x lined steel tank (clarified) 1 x lined steel tank (treated) 2 x lined steel elevated tank (treated)	Ouyen WTP	1,210
Pomonal	Surface water (Lake Bellfield)	1 x concrete tank (treated)	Halls Gap WTP	290
Quambatook	Surface water (Goulburn & Loddon Rivers) via Normanville Pipeline	1 x earthen storage (raw) 1 x steel elevated tank (treated)	Quambatook WTP	240
Rainbow	Grampians Headworks (WMP)	2 x lined earthen storages (raw) 1 x lined steel tank (treated)	Rainbow WTP	640
Rupanyup	Grampians Headworks (WMP)	2 x lined steel tanks (treated) 1 x concrete tank (treated)	Murtoa WTP	450
Sea Lake	Grampians Headworks (WMP)	2 x lined steel tanks (treated) 1 x lined steel tank (treated)	Warracknabeal WTP	780
St Arnaud	Grampians Headworks (WMP)	Volcano lined & St Arnaud earthen storage (raw) 3 x concrete tanks (treated)	St. Arnaud WTP	2,440
Stawell	Surface water (Lake Fyans, Lake Bellfield, Fyans Creek)	3 x earthen storages (raw) 1 x lined steel tank (treated) 2 x elevated tanks (treated)	Stawell WTP	6,560
Ultima	Surface water (Murray River)	2 x lined steel tanks (treated) 2 x lined steel tanks (treated) 1 x elevated steel tank (treated)	Swan Hill WTP	180
Underbool	Surface water (Murray River via NMP)	1 x lined steel tank (raw) 1 x lined steel tank (treated) 1 x elevated tank (treated)	Underbool WTP	230
Warracknabeal	Grampians Headworks (WMP)	2 x lined earthen storages (raw) 2 x lined steel tank (treated) 1 x steel elevated tank (treated)	Warracknabeal WTP	2,510
Willaura	Surface water (Lake Fyans, Mt William Creek, Stony Creek, Masons Creek) and Groundwater (Mt William bores)	2 x earthen storages at Willaura and Mt Pleasant (raw) 1 x lined steel tank (treated) 1 x lined steel tank (treated)	Willaura WTP	420
Woomelang	Grampians Headworks (WMP)	2 x lined steel tanks (treated) 1 x steel elevated tank (treated)	Warracknabeal WTP	200
Wycheproof	Grampians Headworks (WMP)	2 x lined steel tanks (treated) 1 x concrete elevated tank (treated)	Charlton WTP	710

WMP – Wimmera Mallee Pipeline **NMP – Northern Mallee Pipeline**

*Elmhurst was declared drinking water 14 November 2024.

Table 1-2 - Water Source for Regulated Water Supplies.

Water Supply	Source Water	Water Storages	Population
Antwerp	Grampians Headworks (WMP)	2 x poly lined steel tanks	20
Apsley	Groundwater (bores)	1 x elevated steel tank	210
Berriwillock	Grampians Headworks (WMP)	2 x earthen storages	170
Buangor	Surface water (McLeods Creek)	1 x earthen storage	90
Chillingollah	Surface water (Murray River via NMP)	1 x concrete tank	10
Chinkapook	Surface water (Murray River via NMP)	1 x concrete tank	30
Cowangie	Groundwater (bores)	1 x elevated tank	20
Culgoa	Grampians Headworks (WMP)	1 x earthen storage	90
Dooen	Grampians Headworks (WMP)	2 x poly tanks	40
Glenorchy	Grampians Headworks (WMP)	1 x steel tank 1 x elevated steel tanks	120
Goroke	Groundwater (bores)	1 x elevated steel tanks	310
Harrow	Groundwater (bores) & surface water (Glenelg River)	2 x poly lined steel tanks	160
Jung	Grampians Headworks (WMP)	2 x poly lined steel tanks 1 x elevated steel tank	100
Kiata	Groundwater (bores)	2 x poly tanks 1 x elevated steel tank	40
Lalbert	Surface water (Murray River via NMP)	2 x poly lined steel tanks 1 x elevated steel tank	90
Lascelles	Grampians Headworks (WMP)	2 x lined steel tanks	70
Lillimur	Groundwater (bores)	1x elevated steel tank	50
Marnoo	Grampians Headworks (WMP)	1 x steel tank	110
Miram	Groundwater (bores)	1 x elevated steel tank	20
Moyston	Surface water (Mt William, Stony and Masons Creeks) and Groundwater (bores)	1 x earthen storage	220
Murrayville	Groundwater (bores)	1 x lined steel tank	330
Nandaly	Surface water (Murray River via NMP)	1 x concrete tank	30
Nullawil	Surface water (Murray River via NMP)	2 x lined steel tanks	80
Patchewollock	Surface water (Murray River, clarified at Ouyen)	1 x concrete elevated tank	90
Pimpinio	Grampians Headworks (WMP)	2 x lined earthen storages 1 x elevated tank storage	90
Serviceton	Groundwater (bores)	1 x elevated steel tank	70
Speed	Surface water (Murray River, clarified at Ouyen)	1 x concrete tank	60
Streatham	Groundwater (bores)	1 x earthen storage	100
Tarranyurk	Grampians Headworks (WMP)	2 x lined steel tanks	10
Tempy	Surface water (Murray River, clarified at Ouyen)	1 x steel tank 1 x concrete tank	50
Waitchie	Surface water (Murray River via NMP)	1 x concrete tank	10
Walpeup	Surface water (Murray River, clarified at Ouyen)	2 x earthen storages	130
Watchem	Grampians Headworks (WMP)	2 x poly lined steel tanks	160
Westmere	Groundwater (bores)	1 x earthen storage	20
Wickliffe	Surface water (Mt William, Stony and Masons Creeks) and Groundwater (bores)	1 x earthen storage	70
Yaapeet	Grampians Headworks (WMP)	2 x poly lined steel tanks	70

WMP – Wimmera Mallee Pipeline **NMP – Northern Mallee Pipeline**

2 Quality Management System

2.1 Water Treatment

The water treatment processes utilised at the drinking water treatment plants are shown in Table 2-1.

Table 2-1 - Water Treatment Processes and Chemicals in Drinking Water Towns.

Water Sampling Area	Treatment Processes	Chemicals that can be added
Ararat*^	Coagulation, flocculation, dissolved air flotation, filtration, chlorine disinfection, pH correction, fluoridation	Lime, potassium permanganate, powder activated carbon, aluminium sulphate (alum), polymer, chlorine, hydrofluorosilicic acid
Beulah	Receives water from Warracknabeal WTP, booster disinfection	Chlorine
Birchip*	Coagulation, flocculation, dissolved air flotation, filtration, chlorine disinfection, pH correction	Aluminium chlorohydrate (Megapac 23), sodium hydroxide, chlorine
Brim	Receives water from Warracknabeal WTP, booster disinfection	Chlorine
Charlton*	Coagulation, flocculation, dissolved air flotation, filtration, chlorine disinfection	Aluminium chlorohydrate (Megapac 23), chlorine
Dimboola*	Coagulation, flocculation, dissolved air flotation, filtration, chlorine, disinfection, pH correction	Sodium hydroxide, aluminium chlorohydrate (Megapac 23), chlorine
Donald	Receives water from St Arnaud WTP, booster disinfection	Chlorine
Edenhope*	Coagulation, flocculation, dissolved air flotation, filtration, desalination, chlorine disinfection	Aluminium chlorohydrate (Megapac 23), chlorine
Elmhurst*	Coagulation, flocculation, dissolved air flotation, filtration, granular activated carbon filtration, pH correction, chlorine disinfection	Aluminium chlorohydrate (Megapac 23), polymer, calcite, chlorine
Great Western*^	Microfiltration, chlorine disinfection, pH correction	Sulphuric acid, aluminium chlorohydrate (Megapac 23), sodium hydroxide, chlorine
Halls Gap*^	Coagulation, flocculation, dissolved air flotation, filtration, chlorine disinfection, pH correction	Lime, aluminium sulphate (alum), polymer, chlorine
Hopetoun*	Coagulation, flocculation, dissolved air flotation, filtration, chlorine disinfection, pH correction	Aluminium chlorohydrate (Megapac 23), chlorine

Water Sampling Area	Treatment Processes	Chemicals that can be added
Horsham*	Powdered activated carbon dosing, coagulation, flocculation, dissolved air flotation, filtration, chlorine disinfection, pH correction, fluoridation	Lime, aluminium chlorohydrate (Megapac 23), chlorine, carbon dioxide, hydrofluorosilicic acid
Jeparit	Receives water from Rainbow WTP, booster disinfection	Chlorine
Kaniva	Receives water from Dimboola WTP, booster disinfection	Chlorine
Lake Bolac	Receives water from Willaura WTP	None additional to Willaura
Manangatang*	Coagulation, flocculation, dissolved are floatation, multimedia filtration, microfiber filtration (2 µm), chlorine disinfection	Ultrion 44560 coagulant, chlorine
Minyip	Receives water from Murtoa WTP, booster disinfection	Chlorine
Murtoa*	Coagulation, flocculation, dissolved air flotation, filtration, pH correction, chlorine disinfection	Sodium hydroxide, Aluminium chlorohydrate (Megapac 23), chlorine
Natimuk	Receives water from Horsham WTP, booster disinfection	Chlorine
Nhill	Receives water from Dimboola WTP, booster disinfection	Chlorine
Ouyen*	Coagulation, flocculation, dissolved air flotation, Microfiltration, chlorine disinfection, UV disinfection	Aluminium chlorohydrate (Megapac 23), chlorine
Pomonal	Receives water from Halls Gap WTP, booster disinfection	Chlorine
Quambatook*	Coagulation, flocculation, dissolved air flotation, filtration, granular activated carbon filtration, pH correction, chlorine disinfection	Aluminium chlorohydrate (Megapac 23), hydrochloric acid, chlorine
Rainbow*	Coagulation, flocculation, dissolved air flotation, filtration, chlorine disinfection	Aluminium chlorohydrate (Megapac 23), chlorine
Rupanyup	Receives water from Murtoa WTP, booster disinfection	Chlorine
Sea Lake	Receives water from Warracknabeal WTP, booster disinfection	Chlorine
St Arnaud*	Coagulation, flocculation, dissolved air flotation, filtration, pH correction, chlorine disinfection	Aluminium chlorohydrate (Megapac 23), sodium hydroxide, chlorine
Stawell*^	Coagulation, flocculation, dissolved air flotation, filtration, chlorine disinfection, pH correction	Lime, aluminium sulphate (alum), polymer, chlorine

Water Sampling Area	Treatment Processes	Chemicals that can be added
Ultima	Received water treated at Swan Hill WTP by: coagulation, powdered activated carbon, clarification, media filtration, pH adjustment, UV disinfection, chlorine disinfection, fluoridation.	Caustic soda, powdered activated carbon, aluminium chlorohydrate (Megapac 23), polymer, chlorine, fluoride.
Underbool*	Clarified water from Ouyen, coagulation, flocculation, sand filters, pH correction, chlorine disinfection, UV disinfection	Ultrion 44560 coagulant, chlorine
Warracknabeal*	Coagulation, flocculation, dissolved air flotation, filtration, pH correction, chlorine disinfection	Lime, aluminium chlorohydrate (Megapac 23), chlorine
Willaura*	Coagulation, flocculation, dissolved air flotation, microfiltration, pH correction, disinfection by chloramination	Soda ash, calcite, aluminium chlorohydrate (Megapac 23), sodium hypochlorite, carbon dioxide, ammonia
Woomelang	Receives water from Warracknabeal WTP, booster disinfection	Chlorine
Wycheproof	Receives water from Charlton WTP, booster disinfection	Chlorine

^ *Operated by Trility under a BOOT Contract*
* *Water sampling areas with a Water Treatment Plant*

Table 2-2 - Water Treatment Processes and Chemicals in Regulated Towns.

Water Supply	Treatment Processes	Chemicals used in Treatment
Berriwillock*	Coagulation	PolyDADMAC
Culgoa*	Coagulation	PolyDADMAC
Glenorchy	Coagulation	PolyDADMAC
Jung	Coagulation, disinfection	PolyDADMAC, chlorine
Lalbert	Coagulation, disinfection	PolyDADMAC, chlorine
Marnoo	Coagulation	PolyDADMAC
Murrayville	Disinfection	Chlorine
Nandaly	Coagulation, flocculation, dissolved air flotation (at Ouyen)	Aluminium chlorohydrate (Megapac 23)
Nullawil	Coagulation	PolyDADMAC
Speed	Coagulation, flocculation, dissolved air flotation (at Ouyen)	Aluminium chlorohydrate (Megapac 23)
Tempy	Coagulation, flocculation, dissolved air flotation (at Ouyen)	Aluminium chlorohydrate (Megapac 23)
Walpeup	Coagulation, flocculation, dissolved air flotation (at Ouyen), disinfection (at Walpeup)	Aluminium chlorohydrate (Megapac 23), Chlorine
Watchem	Coagulation, disinfection	PolyDADMAC, sodium hypochlorite, hydrochloric acid

**Supply has since been connected to treated water from Warracknabeal WTP as part of future upgrades to drinking water.*

2.2 Water Treatment Changes

Kaniva was a regulated water town that had been supplied untreated water from bores. GWMWater extended the Dimboola-Nhill treated water pipeline to supply Kaniva with fully treated water produced from the Dimboola WTP. New tanks and booster chlorination were installed at Kaniva. The Kaniva reticulation system was cleaned by ice-pigging and flushed, and a comprehensive verification sampling program conducted to confirm that the water was safe for consumption. The regulated status of Kaniva was rescinded on 11 June 2026, from which date Kaniva reverted to a drinking water sampling area.

With construction of the East Grampians Rural Pipeline the primary source of raw water to Willaura WTP was changed to Lake Fyans. It had previously been sourced from Mt William headworks stream diversions and bore fields. This was to alleviate constraints with the volume of water that could be taken from the Mt William headworks. Willaura WTP supplies the towns of Willaura and Lake Bolac.

Works to upgrade the Horsham WTP fluoridation plant were ongoing. As such, fluoridation was turned off for all the 2025 to 2026 reporting period, affecting the towns of Horsham and Natimuk.

There were no other water treatment changes that impacted existing treated water supplies for the 2025 to 2026 year.

2.3 Water Treatment Issues

Issues related to water quality that occurred in 2025/2026 include:

- *E. coli* detected from the Nhill reticulation on 22 July 2026 (section 22 report and section 18 notification). The sample tap was on the customer side of the water meter at a property which had an internal connection to a private tank, with investigation showing the *E. coli* detection was not representative of the supplied drinking water. Even though the detection occurred through sampling error, under the Safe Drinking Water Regulations 2025 the sampling result still required a non-compliance notification.
- Backflow from a fire truck in Ararat on 25 September 2025 (section 22 report). The reticulation area was flushed to remove all potentially impacted water.
- Lead exceedances from Halls Gap on 5 January 2026 (section 18 notification) and Stawell on 7 April 2026 (section 18 notification). These were due to insufficient flushing of sample taps when collecting samples for analysis.

These issues are discussed further in Section 10 Emergency, Incident and Event Management. GWMWater's drinking water sampling area of Ultima receives treated water from Lower Murray Water from the water sampling area of Swan Hill. Lower Murray Water had no relevant water treatment issues or water quality incidents for Swan Hill.

3 Drinking Water Quality Sampling

3.1 Water sampling areas

Every area supplied drinking water must be within a water sampling area. A water sampling area is specified under Regulation 11 and is a discrete area of similar water quality where collected samples represent the drinking water within that defined area. Drinking water quality results are reported for each water sampling area.

New and variations to water sampling areas for 2025/2026 included:

- The addition of Kaniva as a water sampling area as of 11 June 2026.

The boundaries that include all drinking water customers connected to the Kaniva supply are in Figure 3-1 and Table 3-1. For each water sampling area, the source of water is in Table 1-1 and the applied water treatment processes are in Table 2-1.

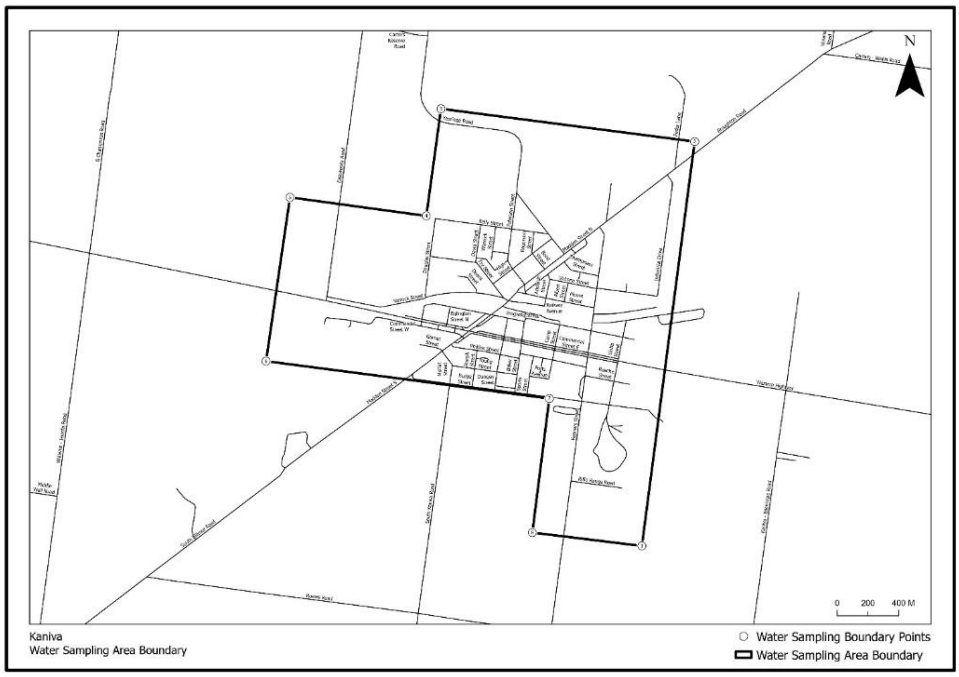

Figure 3-1 - Kaniva water sampling area boundaries.

Table 3-1 – Kaniva water sampling area boundaries.

ID	Latitude	Longitude	Easting	Northing
1	-36.3909	141.2498	522398.8698	5972662.8600
2	-36.3672	141.2535	522741.4016	5975288.8644
3	-36.3653	141.2351	521095.3227	5975502.0708
4	-36.3716	141.2341	521000.3673	5974806.3447
5	-36.3706	141.2242	520115.5013	5974926.8381
6	-36.3802	141.2225	519960.3631	5973862.9106
7	-36.3823	141.2430	521798.1900	5973620.2600
8	-36.3901	141.2418	521688.1144	5972749.8045

3.2 Sampling Program

The water sampling program is risk based and follows the ADWG, considering specific risks, historical data and operational changes from catchment to tap. Minimum sampling requirements defined in Regulation 14(2)(b) include weekly *Escherichia coli*, weekly Turbidity, monthly pH and monthly trihalomethanes. The water sampling sites within a water sampling area are designed to ensure that the samples collected are representative of the town supply. Samples are sent to a National Association of Testing Authorities (NATA) accredited laboratory for analysis. If a sample result is at the limit of detection the conservative approach outlined in 'Guidance – Drinking Water Quality Standards' of adopting the detection limit without the less than qualifier is used in this report.

The sampling program is reviewed periodically and as risk changes. The review of the sampling program involves risk assessing each parameter based on the frequency that it is expected to exceed limits at that location and the consequence of the parameter exceeding that limit. This is conducted over all regulated and drinking water systems from catchment to tap, and a conclusion made on the frequency of sampling required to appropriately manage identified risks. Any changes to the sampling program compared with the previous year are noted in Table 3-2.

Table 3-2 – Changes in water quality sampling (2024/2025 compared with 2025/2026).

Parameter(s)	Town(s)	Change	Reason
E. coli, Turbidity, pH, Free Chlorine	Kaniva	Implemented weekly	Became a drinking water sampling area.
Arsenic, Iron	Kaniva	Implemented fortnightly	Became a drinking water sampling area.
Aluminium, Electrical Conductivity, Trihalomethanes	Kaniva	Implemented monthly	Became a drinking water sampling area.
Lead	Kaniva	Implemented quarterly	Became a drinking water sampling area.
Hardness, Alkalinity	Kaniva	Implemented annually	Became a drinking water sampling area.

4 Health Parameters

Regulation 16(2) requires the water supplier to ensure that the drinking water does not contain any *Escherichia coli*, a characteristic that exceeds the health guideline value of Table 10.6 of the ADWG, or a microbial, physical or chemical substance at the levels that may pose a risk to human health.

4.1 Escherichia coli (*E. coli*)

E. coli is used as a specific indicator of faecal contamination and hence is a measure used to determine the drinking water safety. The health impacts of *E. coli* are described in the ADWG. There should be no *E. coli* in a sample of drinking water. If detected, immediate action is taken.

4.1.1 Results

A sample from Nhill recorded 29 *E. coli*/100 mL on the 22 July 2025. The Department of Health (DH) was provided with a section 22 report and a section 18 notification. The cause of the *E. coli* result was sampling from a tap on the customer's side of the water meter that was connected to a private tank. The result was not representative of water supplied to Nhill. GWMWater has installed new dedicated sampling taps so that sampled water is more representative of the water consumed by customers. Please refer to Section 10 Emergency, Incident and Event Management for further details.

All other samples met the standard for the reporting period.

Table 4-1 –Escherichia coli results for 2025/2026. All samples must contain no E. coli/100 mL.

Water Sampling Area	Sampling Frequency	No. of Samples	Maximum (*E. coli*/100 mL)	No. of samples where standard was not met (S 18)
Ararat*	Weekly (2)	104	0	0
Beulah	Weekly	52	0	0
Birchip	Weekly	52	0	0
Brim	Weekly	52	0	0
Charlton	Weekly	52	0	0
Dimboola	Weekly	52	0	0
Donald	Weekly	52	0	0
Edenhope	Weekly	52	0	0
Elmhurst	Weekly	52	0	0
Great Western	Weekly	52	0	0
Halls Gap	Weekly	52	0	0
Hopetoun	Weekly	52	0	0
Horsham*	Weekly (2)	104	0	0
Jeparit	Weekly	52	0	0
Kaniva#	Weekly	4	0	0
Lake Bolac	Weekly	52	0	0
Manangatang	Weekly	52	0	0
Minyip	Weekly	52	0	0
Murtoa	Weekly	52	0	0
Natimuk	Weekly	52	0	0

Water Sampling Area	Sampling Frequency	No. of Samples	Maximum (*E. coli*/100 mL)	No. of samples where standard was not met (S 18)
Nhill^	Weekly	52	29	1
Ouyen	Weekly	52	0	0
Pomonal	Weekly	52	0	0
Quambatook	Weekly	52	0	0
Rainbow	Weekly	52	0	0
Rupanyup	Weekly	52	0	0
Sea Lake	Weekly	52	0	0
St. Arnaud	Weekly	52	0	0
Stawell*	Weekly (2)	104	0	0
Ultima	Weekly	52	0	0
Underbool	Weekly	52	0	0
Warracknabeal	Weekly	52	0	0
Willaura	Weekly	52	0	0
Woomelang	Weekly	52	0	0
Wycheproof	Weekly	52	0	0

**Due to the population size two sites are collected from every sampling visit.*
#Declared drinking water 11 June 2026.
^29 E. coli/100 mL were detected in a private system and was not representative of the drinking water supply.

4.2 Trihalomethanes (THMs)

Trihalomethanes (THMs) are a disinfection by-product present in drinking water, principally as the result of a reaction between organic and inorganic material in the water with chlorine, and to a lesser extent chloramine. The fact sheets in the ADWG provide a detailed account of the health considerations relating to THMs.

Based on health considerations the concentration of THMs, either individually or in total, in drinking water should not exceed 0.25 mg/L.

4.2.1 Results

All THM results met the standard for this reporting period.

Table 4-2 –Trihalomethanes (THMs) results for 2025/2026. THMs should not exceed 0.25 mg/L.

Water Sampling Area	Sampling Frequency	No. of Samples	Max (mg/L)	Average (mg/L)	No. of samples where standard was not met (S 18)
Ararat*	Monthly (2)	24	0.083	0.061	0
Beulah	Monthly	12	0.077	0.050	0
Birchip	Monthly	12	0.068	0.037	0
Brim	Monthly	12	0.061	0.052	0
Charlton	Monthly	12	0.094	0.060	0
Dimboola	Monthly	12	0.061	0.039	0
Donald	Monthly	12	0.087	0.069	0
Edenhope	Monthly	12	0.160	0.125	0
Elmhurst	Monthly	12	0.100	0.055	0

Water Sampling Area	Sampling Frequency	No. of Samples	Max (mg/L)	Average (mg/L)	No. of samples where standard was not met (S 18)
Great Western	Monthly	12	0.120	0.094	0
Halls Gap	Monthly	12	0.075	0.056	0
Hopetoun	Monthly	12	0.093	0.046	0
Horsham*	Monthly (2)	24	0.130	0.094	0
Jeparit	Monthly	12	0.069	0.053	0
Kaniva#	Monthly	1	0.050	0.050	0
Lake Bolac	Monthly	12	0.008	0.004	0
Manangatang	Monthly	12	0.046	0.030	0
Minyip	Monthly	12	0.051	0.042	0
Murtoa	Monthly	12	0.057	0.047	0
Natimuk	Monthly	12	0.150	0.132	0
Nhill	Monthly	12	0.059	0.045	0
Ouyen	Monthly	12	0.046	0.031	0
Pomonal	Monthly	12	0.077	0.066	0
Quambatook	Monthly	12	0.170	0.126	0
Rainbow	Monthly	12	0.062	0.035	0
Rupanyup	Monthly	12	0.074	0.050	0
Sea Lake	Monthly	12	0.082	0.067	0
St. Arnaud	Monthly	12	0.092	0.053	0
Stawell*	Monthly (2)	24	0.070	0.054	0
Ultima	Monthly	12	0.045	0.029	0
Underbool	Monthly	12	0.050	0.036	0
Warracknabeal	Monthly	12	0.089	0.052	0
Willaura	Monthly	12	0.008	0.004	0
Woomelang	Monthly	12	0.099	0.062	0
Wycheproof	Monthly	12	0.070	0.052	0

**Due to the population size two sites are collected from every sampling visit.*
#Declared drinking water 11 June 2026.

4.3 Chlorine

Chlorine is used widely as a disinfectant for drinking water supplies. The fact sheets in the ADWG provide a detailed account of the health considerations relating to chlorine.

In addition to chlorine sampling in the reticulation, chlorine contact times are calculated for each drinking water town to ensure the water delivered to customers has sufficient disinfection. Critical alarms are adjusted at the WTP to meet this chlorine contact time and customer aesthetic expectations. Based on health considerations, the guideline value for chlorine in drinking water is 5 mg/L, the ADWG also gives general guidance that chlorine should be at least 0.2 mg/L at the end of the reticulation system. GWMWater aims to meet this guidance by providing adequate chlorine dose at the WTP.

4.3.1 Results

Free chlorine was measured in water sampling areas treated by chlorination, and total chlorine was measured in water sampling areas treated by chloramination systems. All results met the standard for the reporting period.

Table 4-3 – Chlorine results for 2025/2026. Chlorine should not exceed 5 mg/L.

Water Sampling Area	Sampling Frequency	No. of Samples	Max (mg/L)	Average (mg/L)	No. of samples where standard was not met (S 18)
Ararat*	Weekly (2)	104	2.01	0.70	0
Beulah	Weekly	52	1.97	1.11	0
Birchip	Weekly	52	1.42	0.87	0
Brim	Weekly	52	1.28	0.75	0
Charlton	Weekly	52	1.64	0.65	0
Dimboola	Weekly	52	1.59	0.94	0
Donald	Weekly	52	1.86	1.00	0
Edenhope	Weekly	52	1.33	0.85	0
Elmhurst	Weekly	52	1.30	0.81	0
Great Western	Weekly	52	1.36	0.62	0
Halls Gap	Weekly	52	1.39	0.94	0
Hopetoun	Weekly	52	1.34	0.76	0
Horsham*	Weekly (2)	104	4.20	0.98	0
Jeparit	Weekly	52	1.50	0.92	0
Kaniva#	Weekly	4	0.95	0.83	0
Lake Bolac (Total Chlorine)	Weekly	52	2.51	1.62	0
Manangatang	Weekly	52	1.41	0.95	0
Minyip	Weekly	52	1.10	0.85	0
Murtoa	Weekly	52	4.80	0.78	0
Natimuk	Weekly	52	1.43	0.67	0
Nhill	Weekly	52	1.33	0.97	0
Ouyen	Weekly	52	1.80	1.02	0
Pomonal	Weekly	52	0.95	0.48	0
Quambatook	Weekly	52	2.18	1.02	0
Rainbow	Weekly	52	1.63	0.91	0
Rupanyup	Weekly	52	1.62	0.94	0
Sea Lake	Weekly	52	1.62	1.11	0
St. Arnaud	Weekly	52	2.80	0.98	0
Stawell*	Weekly (2)	104	1.56	0.59	0
Ultima	Weekly	52	1.84	1.35	0
Underbool	Weekly	52	1.75	1.01	0
Warracknabeal	Weekly	52	1.11	0.70	0
Willaura (Total Chlorine)	Weekly	52	2.20	1.86	0
Woomelang	Weekly	52	1.50	0.91	0

Water Sampling Area	Sampling Frequency	No. of Samples	Max (mg/L)	Average (mg/L)	No. of samples where standard was not met (S 18)
Wycheproof	Weekly	52	1.54	0.81	0

**Due to the population size two sites are collected from every sampling visit.*
#Declared drinking water 11 June 2026.

4.4 Fluoride

Fluoride is added to some water supplies to help protect teeth against dental decay. Based on health considerations, the concentration of fluoride in fluoridated drinking water supplies should not exceed 1.5 mg/L and under section 5(3) of the *Health (Fluoridation) Act 1973*, fluoride added to drinking water must not result in an average optimum concentration of over 1 mg/L. A detailed description of fluoride and its implications in a water supply can also be found by reference to the ADWG.

GWMWater has four fluoridated water supplies, including Ararat, Horsham, Natimuk and Ultima. Fluoridation was installed at the Horsham WTP in November 2006 and Ararat WTP in August 2016. Natimuk receives treated water from Horsham. Ultima receives treated water from Swan Hill. The fluoride dosing plant at Horsham WTP is undergoing renewals that are expected to be completed by the end of 2026. This has included replacement of the filling, storage, and transfer system to ensure the Code of Practice for Fluoridation of Drinking Water Supplies is being met.

4.4.1 Results

The sampling of fluoride is based on ADWG recommendations, the Code of practice for fluoridation of drinking water supplies, risks, historical data and any operational changes.

The average fluoride concentration in Horsham and Natimuk for 2025/2026 was less than the Department of Health specified target of 0.8 mg/L. This was due the fluoride dosing system at Horsham WTP that supplies both Horsham and Natimuk being taken offline for renewals. There was a temporary shut down of fluoride dosing at Swan Hill WTP supplying Ultima and operated by Lower Murray Water, however the average fluoride in Ultima was still within the target range for the year.

No water supplies exceeded the ADWG health-based guideline value for fluoride, and the average fluoride concentration delivered did not exceed 0.1 mg/L over the Department of Health specified target designated by the *Health (Fluoridation) Act 1973*.

Table 4-4 - Fluoride results for 2025/2026. Fluoride should not exceed 1.5 mg/L.

Water Sampling Areas	Sampling Frequency	No. of Samples	Max (mg/L)	Average (mg/L)	Specified Target Concentration (mg/L)	No. of samples where standard was not met (S 18)
Ararat*	Weekly (2)	104	0.98	0.83	0.9	0
Horsham*	Weekly (2)	104	0.05	0.05	0.8	0
Natimuk	Weekly	52	0.05	0.05	0.8	0
Ultima	Weekly	52	0.81	0.71	0.8	0

**Due to the population size two sites are collected from every sampling visit.*

4.5 Chloroacetic acids

Chloroacetic acids (monochloroacetic acid, dichloroacetic acid and trichloroacetic acid) are produced in drinking water as disinfection by-products (DBPs) of the reaction between chlorine and naturally occurring dissolved organic carbon, specifically humic and fulvic acids. The fact sheets in ADWG detail the health impacts and other considerations relating to chloroacetic acids.

Membrane filtration is less effective at removing dissolved organic carbon then conventional water treatment plants that have a clarification or dissolved air flotation stage. As such, GWMWater takes a risk-based approach to typically only monitor for chloroacetic acid at drinking water areas supplied from membrane filtration plants.

4.5.1 Results

All results for chloroacetic acids met the standard for the reporting period.

Table 4-5 - Monochloroacetic acid results for 2025/2026. Monochloroacetic acid should not exceed 0.15 mg/L.

Water Sampling Areas	Sampling Frequency	No. of Samples	Results (mg/L)		No. of samples where standard was not met (S 18)
			Max	Average	
Great Western	Monthly	12	0.005	0.005	0
Ouyen	Quarterly	4	0.005	0.005	0
Ultima	Quarterly	4	0.005	0.005	0

Table 4-6 - Dichloroacetic acid results for 2025/2026. Dichloroacetic acid should not exceed 0.1 mg/L.

Water Sampling Area	Sampling Frequency	No. of Samples	Results (mg/L)		No. of samples where standard was not met (S 18)
			Max	Average	
Great Western	Monthly	12	0.056	0.030	0
Ouyen	Quarterly	4	0.026	0.012	0
Ultima	Quarterly	4	0.007	0.006	0

Table 4-7 - Trichloroacetic acid results for 2025/2026. Trichloroacetic acid should not exceed 0.1 mg/L.

Water Sampling Area	Sampling Frequency	No. of Samples	Results (mg/L)		No. of samples where standard was not met (S 18)
			Max	Average	
Great Western	Monthly	12	0.053	0.034	0
Ouyen	Quarterly	4	0.010	0.007	0
Ultima	Monthly	4	0.012	0.007	0

4.6 Nitrite, Nitrate and N-nitrosodimethylamine (NDMA)

A detailed description of nitrite, nitrate and NDMA and its implications in a water supply can be found in the ADWG. Nitrite, nitrate and NDMA were measured in the chloramination system of Willaura and Lake Bolac. All other GWMWater towns are chlorination only, and so not considered a risk for nitrite, nitrate or NDMA to be present.

Nitrite: Based on health considerations, the concentration of nitrite in drinking water should not exceed 3 mg-NO_2/L, equivalent to 0.913 mg N/L. Nitrite can be formed by nitrifying bacteria in reticulations of chloramination systems.

Nitrate: Based on health considerations, the concentration of nitrate in drinking water should not exceed 50 mg-NO_3/L, equivalent to 11.3 mg N/L. Nitrate can be formed by nitrifying bacteria in reticulations of chloramination systems.

NDMA: Based on health considerations NDMA in drinking water should not exceed 0.0001 mg/L. NDMA forms when nitrates and nitrites are present and cross react with amines and can be a by-product of chloramination.

4.6.1 Results

All results met the standard for this reporting period.

Table 4-8 - Nitrite results for 2025/2026. Nitrite should not exceed 3 mg-NO_2/L (0.913 mg N/L).

Water Sampling Area	Sampling Frequency	No. of Samples	Max (mg N/L)	Average (mg N/L)	No of samples where standard was not met (S 18)
Lake Bolac	Monthly	12	0.470	0.111	0
Willaura	Monthly	12	0.007	0.003	0

Table 4-9 - Nitrate results for 2025/2026. Nitrate should not exceed 50 mg-NO_3/L (11.3 mg N/L).

Water Sampling Area	Sampling Frequency	No. of Samples	Max (mg N/L)	Average (mg N/L)	No of samples where standard was not met (S 18)
Lake Bolac	Monthly	12	0.820	0.230	0
Willaura	Monthly	12	0.330	0.144	0

Table 4-10 - N-nitrosodimethylamine (NDMA) results for 2025/2026. NDMA should not exceed 0.0001 mg/L.

Water Sampling Area	Sampling Frequency	No. of Samples	Max (mg/L)	Average (mg/L)	No of samples where standard was not met (S 18)
Lake Bolac	Quarterly	4	0.000014	0.000007	0
Willaura	Quarterly	4	0.000011	0.000006	0

4.7 Arsenic

The concentration of arsenic should not exceed 0.01 mg/L in drinking water based on health consideration. Arsenic is naturally occurring element, which can be present in ground water and introduced into water through dissolution of minerals and ore from industrial effluent and atmospheric deposition. A detailed description of arsenic and its implications in a water supply can be found in the ADWG.

The risk of arsenic only occurs when the source water for the town is ground water that contains arsenic. For GWMWater's drinking water towns, this is only the case for Edenhope, with the arsenic from the ground water removed through the treatment process. Kaniva was historically ground water however the current source water is from Lake Bellfield, which contains no arsenic. Arsenic is still sampled at Kaniva due to its historic presence in the reticulation.

4.7.1 Results

All samples for arsenic met the standard for the reporting period.

Table 4-11 - Arsenic results for 2025/2026. Arsenic should not exceed 0.01 mg/L.

Water Sampling Area	Sampling Frequency	No. of Samples	Max (mg/L)	Average (mg/L)	No. of samples where standard was not met (S 18)
Edenhope	Monthly	12	0.005	0.002	0
Kaniva	Fortnightly	2	0.002	0.002	0

4.8 Lead

Lead can be present in drinking water because of dissolution from natural sources or leaching from plumbing systems containing lead. If present in the source water lead concentrations can be reduced by conventional methods of water treatment using coagulants or lime softening.

Based on health considerations, the guideline value of lead in drinking water should not exceed 0.005 mg/L. The fact sheets in the ADWG provide a detailed account of the health impacts and other considerations relating to lead.

4.8.1 Results

A sample from Halls Gap in January 2026 had 0.008 mg/L and from Stawell in April 2026 had 0.018 mg/L of lead. Each had a section 18 notification submitted to DH. The service lines were copper with a brass tap. Water sitting against the fittings for a prolonged period would have had lead leached into water. The sample taps were not flushed for long enough to allow turnover of the small volume of impacted water within the sample tap fittings. GWMWater has installed new dedicated sampling taps that can enable better flushing so that sampled water is more representative of the water consumed by customers. Please refer to Section 10 Emergency, Incident and Event Management for further details.

Table 4-12 - Lead results for 2025/2026. Lead should not exceed 0.005 mg/L.

Water Sampling Area	Sampling Frequency	No. of Samples	Max (mg/L)	Average (mg/L)	No. of samples where standard was not met (S 18)
Ararat*	Quarterly (2)	8	0.001	0.001	0
Beulah	Quarterly	4	0.002	0.001	0
Birchip	Quarterly	4	0.001	0.001	0
Brim	Quarterly	4	0.002	0.001	0
Charlton	Quarterly	4	0.001	0.001	0
Dimboola	Quarterly	4	0.001	0.001	0
Donald	Quarterly	4	0.001	0.001	0
Edenhope	Quarterly	4	0.001	0.001	0
Elmhurst	Quarterly	4	0.001	0.001	0
Great Western	Quarterly	4	0.001	0.001	0
Halls Gap	Quarterly	4	0.008	0.003	1
Hopetoun	Quarterly	4	0.001	0.001	0
Horsham*	Quarterly (2)	8	0.001	0.001	0
Jeparit	Quarterly	4	0.001	0.001	0
Kaniva#	Quarterly	1	0.001	0.001	0
Lake Bolac	Quarterly	4	0.001	0.001	0

Water Sampling Area	Sampling Frequency	No. of Samples	Max (mg/L)	Average (mg/L)	No. of samples where standard was not met (S 18)
Manangatang	Quarterly	4	0.002	0.001	0
Minyip	Quarterly	4	0.001	0.001	0
Murtoa	Quarterly	4	0.001	0.001	0
Natimuk	Quarterly	4	0.002	0.001	0
Nhill	Quarterly	4	0.001	0.001	0
Ouyen	Quarterly	4	0.001	0.001	0
Pomonal	Quarterly	4	0.001	0.001	0
Quambatook	Quarterly	4	0.002	0.001	0
Rainbow	Quarterly	4	0.001	0.001	0
Rupanyup	Quarterly	4	0.001	0.001	0
Sea Lake	Quarterly	4	0.004	0.003	0
St. Arnaud	Quarterly	4	0.004	0.002	0
Stawell*	Quarterly (2)	8	0.018	0.003	1
Ultima	Quarterly	4	0.001	0.001	0
Underbool	Quarterly	4	0.001	0.001	0
Warracknabeal	Quarterly	4	0.001	0.001	0
Willaura	Quarterly	4	0.001	0.001	0
Woomelang	Quarterly	4	0.002	0.001	0
Wycheproof	Quarterly	4	0.001	0.001	0

**Due to the population size two sites are collected from every sampling visit.*
#Declared drinking water 11 June 2026.

4.9 Algal toxins, pesticides and radiological parameters

The sampling of algal toxins, pesticides and radiological parameters is risk-based. All tests of pesticides, algal toxins or radiological parameters in drinking water supplies were well within ADWG values.

5 Aesthetic Parameters

Apart from Turbidity, there were no standards for aesthetic parameters for 2025/2026. Individual monitoring results for 2025/2026 that exceed the aesthetic guideline value set out in ADWG are highlighted in the tables in this section.

5.1 Turbidity

Turbidity is caused by the presence of very fine suspended matter, such as clay, silt, colloidal particles, plankton and other microscopic organisms in water. High turbidity can result in a water sample having a 'muddy' or 'milky' appearance.

Turbidity is a measurement of the light scattering property of water, and the degree of scattering is dependent on the amount, size and composition of the suspended matter.

The ADWG fact sheet contains a detailed account of turbidity and its implications for water supply. The ADWG also recommends turbidity should not exceed 5 NTU for aesthetic purposes. As a standard, the Regulations require that the 95th percentile of results for samples in any 12-month period must not exceed 5 Nephelometric Turbidity Units (NTU).

5.1.1 Results

All water sampling areas met the standard for turbidity for the reporting periodTable 5-1.

Table 5-1 –Turbidity results for 2025/2026. The 95th percentile of Turbidity in any 12-month period must be less than or equal to 5.0 NTU.

Water Sampling Area	Sampling Frequency	No. of Samples	Max (NTU)	Max 95th percentile in any 12 months (NTU)	No. of 95th percentile of results in any 12 months above standard (S 18)
Ararat*	Weekly (2)	104	1.0	0.5	0
Beulah	Weekly	52	0.3	0.3	0
Birchip	Weekly	52	0.8	0.3	0
Brim	Weekly	52	1.6	0.9	0
Charlton	Weekly	52	3.0	0.4	0
Dimboola	Weekly	52	0.4	0.2	0
Donald	Weekly	52	0.4	0.2	0
Edenhope	Weekly	52	5.0	0.6	0
Elmhurst	Weekly	52	0.7	0.2	0
Great Western	Weekly	52	0.1	0.1	0
Halls Gap	Weekly	52	6.3	0.4	0
Hopetoun	Weekly	52	12.0	0.2	0
Horsham*	Weekly (2)	104	4.8	0.4	0
Jeparit	Weekly	52	0.8	0.2	0
Kaniva	Weekly	4	0.4	0.4	0
Lake Bolac	Weekly	52	3.7	0.8	0
Manangatang	Weekly	52	0.1	0.1	0
Minyip	Weekly	52	8.6	0.3	0
Murtoa	Weekly	52	0.4	0.2	0

Water Sampling Area	Sampling Frequency	No. of Samples	Max (NTU)	Max 95th percentile in any 12 months (NTU)	No. of 95th percentile of results in any 12 months above standard (S 18)
Natimuk	Weekly	52	2.8	0.4	0
Nhill	Weekly	52	1.4	0.3	0
Ouyen	Weekly	52	0.1	0.1	0
Pomonal	Weekly	52	1.8	0.3	0
Quambatook	Weekly	52	0.7	0.4	0
Rainbow	Weekly	52	0.3	0.2	0
Rupanyup	Weekly	52	3.0	0.3	0
Sea Lake	Weekly	52	0.7	0.3	0
St. Arnaud	Weekly	52	0.3	0.2	0
Stawell*	Weekly (2)	104	1.1	0.2	0
Ultima	Weekly	52	0.2	0.2	0
Underbool	Weekly	52	1.1	0.2	0
Warracknabeal	Weekly	52	3.9	0.2	0
Willaura	Weekly	52	0.3	0.1	0
Woomelang	Weekly	52	0.3	0.3	0
Wycheproof	Weekly	52	1.2	0.9	0

**Due to the population size two sites are collected from every sampling visit.*
#Declared drinking water 11 June 2026.

5.2 pH

The aesthetic parameter, pH is a measure of the hydrogen ion concentration of water. It is measured on a logarithmic scale from 0 to 14. A pH of seven is neutral, while a pH greater than seven is alkaline, and a pH less than seven is acidic.

The ADWG suggests that based on reducing corrosion and encrustation in pipework drinking water should have a pH value between pH 6.5 and pH 9.2, allowing for pH increase from cement reticulation pipes.

5.2.1 Results

Eight sample results across six water sampling areas did not satisfy the aesthetic guideline values for pH of the ADWG. There was one result below the guidelines and seven results above the guidelines across all samples. The pH varies in the reticulation due to reaction with the pipeline, particularly when water usage is low. There were no water quality complaints that could be associated with the pH of the water.

Table 5-2 - pH results for 2025/2026. pH should be between 6.5 and 9.2.

Water Sampling Area	Sampling Frequency	No. of Samples	Max pH	Min pH	Average pH
Ararat*	Weekly	104	7.9	7.3	7.5
Beulah	Weekly	52	7.5	6.5	6.9
Birchip	Weekly	52	7.4	6.5	6.9
Brim	Weekly	52	9.8	6.5	7.5

Water Sampling Area	Sampling Frequency	No. of Samples	Max pH	Min pH	Average pH
Charlton	Weekly	52	9.3	6.9	7.6
Dimboola	Weekly	52	7.5	6.6	7.1
Donald	Weekly	52	9.2	7.1	7.7
Edenhope	Weekly	52	8.3	7.7	8.0
Elmhurst	Weekly	52	8.5	7.3	7.7
Great Western	Weekly	52	7.9	7.3	7.7
Halls Gap	Weekly	52	8.4	7.2	7.5
Hopetoun	Weekly	52	8.4	6.7	7.3
Horsham*	Weekly	104	7.3	6.7	7.0
Jeparit	Weekly	52	9.3	6.5	7.2
Kaniva#	Weekly	4	7.8	6.9	7.4
Lake Bolac	Weekly	52	9.2	7.4	8.3
Manangatang	Weekly	52	7.7	7.0	7.4
Minyip	Weekly	52	9.3	7.0	7.2
Murtoa	Weekly	52	7.4	7.0	7.2
Natimuk	Weekly	52	9.6	6.6	7.4
Nhill	Weekly	52	7.5	6.6	7.1
Ouyen	Weekly	52	8.0	7.6	7.8
Pomonal	Weekly	52	7.9	7.2	7.4
Quambatook	Weekly	52	8.4	7.5	7.9
Rainbow	Weekly	52	7.4	6.4	6.9
Rupanyup	Weekly	52	8.8	6.8	7.1
Sea Lake	Weekly	52	8.0	6.5	7.0
St Arnaud	Weekly	52	8.9	7.3	7.6
Stawell*	Weekly	104	8.2	7.2	7.5
Underbool	Weekly	52	8.0	7.2	7.5
Warracknabeal	Weekly	52	8.0	7.5	7.7
Willaura	Weekly	52	9.1	6.7	7.3
Woomelang	Weekly	52	8.2	7.2	7.6
Wycheproof	Weekly	52	7.5	6.7	7.1

**Due to the population size two sites are collected from every sampling visit.*
#Declared drinking water 11 June 2026.

5.3 Aluminium

Aluminium chlorohydrate is a coagulant used in water treatment to remove turbidity, natural organic matter (including colour), microorganisms and many inorganic chemicals. Under normal operation minimal aluminium passes through clarification and filtration steps and is present in the final drinking water.

The ADWG recommends acid-soluble aluminium should not exceed 0.2 mg/L based on aesthetic considerations. There are no health-based guideline values set for aluminium.

5.3.1 Results

Charlton, Dimboola, Edenhope, Underbool and Wycheproof all had samples that exceeded the ADWG recommended value. These were due to coagulant dose not being sufficiently optimised at the WTPs, partial failures of the filter systems, and disturbance of built-up settled material in the reticulation. Each exceedance was investigated and resolved by flushing in the reticulation and rectifying the process at the water treatment plant.

Table 5-3 – Aluminium acid-soluble results for 2025/2026. Aluminium acid-soluble should not exceed 0.2 mg/L.

Water Sampling Area	Sampling Frequency	No. of Samples	Max (mg/L)	Average (mg/L)	No. of samples where standard was not met
Ararat*	Monthly (2)	24	0.10	0.06	0
Beulah	Monthly	12	0.03	0.02	0
Birchip	Monthly	12	0.08	0.02	0
Brim	Monthly	12	0.05	0.02	0
Charlton	Monthly	12	0.28	0.04	1
Dimboola	Monthly	12	0.40	0.06	1
Donald	Monthly	12	0.07	0.02	0
Edenhope	Monthly	12	0.45	0.06	1
Elmhurst	Monthly	12	0.06	0.02	0
Great Western	Monthly	12	0.03	0.02	0
Halls Gap	Monthly	12	0.03	0.02	0
Hopetoun	Monthly	12	0.07	0.02	0
Horsham*	Monthly (2)	24	0.07	0.03	0
Jeparit	Monthly	12	0.07	0.03	0
Kaniva#	Monthly	1	0.05	0.05	0
Lake Bolac	Monthly	12	0.06	0.02	0
Manangatang	Monthly	12	0.01	0.01	0
Minyip	Monthly	12	0.03	0.02	0
Murtoa	Monthly	12	0.08	0.02	0
Natimuk	Monthly	12	0.08	0.04	0
Nhill	Monthly	12	0.08	0.03	0
Ouyen	Monthly	12	0.05	0.02	0
Pomonal	Monthly	12	0.04	0.02	0
Quambatook	Monthly	12	0.11	0.04	0
Rainbow	Monthly	12	0.09	0.03	0
Rupanyup	Monthly	12	0.06	0.02	0
Sea Lake	Monthly	12	0.04	0.02	0
St. Arnaud	Monthly	12	0.07	0.02	0
Stawell*	Monthly (2)	24	0.11	0.05	0
Ultima	Monthly	12	0.03	0.02	0
Underbool	Monthly	12	0.34	0.10	1
Warracknabeal	Monthly	12	0.05	0.02	0
Willaura	Monthly	12	0.02	0.01	0

Water Sampling Area	Sampling Frequency	No. of Samples	Max (mg/L)	Average (mg/L)	No. of samples where standard was not met
Woomelang	Monthly	12	0.04	0.02	0
Wycheproof	Monthly	12	0.56	0.06	1

**Due to the population size two sites are collected from every sampling visit.*
#Declared drinking water 11 June 2026.

5.4 Electrical Conductivity

Electrical Conductivity (EC) is caused by inorganic salts and small amounts of organic matter that are dissolved in water. Electrical conductivity mostly comprises sodium, potassium, calcium, magnesium, chloride, sulphate, bicarbonate, carbonate, silica, organic matter, fluoride, iron, manganese, nitrate (and nitrite) and phosphate.

High EC values may be associated with excessive scaling in pipes, fittings and household appliances.

The ADWG sets a guideline value for Total Dissolved Solids (TDS) of 600 mg/L and approximates that the TDS is 0.64 times the electrical conductivity value, giving an EC of 940 µS/cm. As it is more cost effective to monitor electrical conductivity than total dissolved solids routine samples are analysed for electrical conductivity.

5.4.1 Results

Samples over 940 µS/cm were checked for TDS to confirm compliance. This occurred at Edenhope in April (TDS of 440 mg/L) and May (TDS of 590 mg/L). Hence, all samples met the standard for the reporting period.

Table 5-4 - Electrical Conductivity (EC) results for 2025/2026. EC should be less than 940 µS/cm.

Water Sampling Area	Sampling Frequency	No. of Samples	Max (µS/cm)	Average (µS/cm)
Ararat*	Monthly (2)	24	210	195
Beulah	Monthly	12	110	98
Birchip	Monthly	12	110	96
Brim	Monthly	12	110	101
Charlton	Monthly	12	120	107
Dimboola	Monthly	12	100	95
Donald	Monthly	12	130	111
Edenhope	Monthly	12	1000	904
Elmhurst	Monthly	12	210	192
Great Western	Monthly	12	210	205
Halls Gap	Monthly	12	150	133
Hopetoun	Monthly	12	110	100
Horsham*	Monthly (2)	24	150	132
Jeparit	Monthly	12	110	103
Kaniva#	Monthly	1	100	100
Lake Bolac	Monthly	12	220	168
Manangatang	Monthly	12	140	94

Water Sampling Area	Sampling Frequency	No. of Samples	Max (µS/cm)	Average (µS/cm)
Minyip	Monthly	12	100	99
Murtoa	Monthly	12	100	98
Natimuk	Monthly	12	160	141
Nhill	Monthly	12	99	96
Ouyen	Monthly	12	190	160
Pomonal	Monthly	12	150	133
Quambatook	Monthly	12	670	620
Rainbow	Monthly	12	120	100
Rupanyup	Monthly	12	120	103
Sea Lake	Monthly	12	110	101
St Arnaud	Monthly	12	110	108
Stawell*	Monthly (2)	24	210	158
Ultima	Monthly	12	190	116
Underbool	Monthly	12	200	163
Warracknabeal	Monthly	12	110	99
Willaura	Monthly	12	220	162
Woomelang	Monthly	12	110	101
Wycheproof	Monthly	12	110	98

**Due to the population size two sites are collected from every sampling visit.*
#Declared drinking water 11 June 2026.

5.5 Hardness

Hardness is the sum of calcium and magnesium ions. Alkalinity is the sum of carbonate, bicarbonate and hydroxide content. High total hardness may be a problem for supplies reliant on groundwater. Surface waters can generally be expected to have acceptable values.

The ADWG suggest that to minimise build-up of scale in hot water systems total hardness in drinking water should not exceed 200 mg $CaCO_3$/L. The ADWG discusses ramifications of hardness and what constitutes hard and soft water. Alkalinity has no ADWG guideline value.

5.5.1 Results

There was one sample from Edenhope taken April 2026 that exceeded the limit with 210 mg $CaCO_3$/L. Edenhope is supplied from groundwater bores, which commonly have higher hardness than surface waters. While this has no health implications, this can increase the level of scale and deposit build-up in customer's systems and can also increase the amount of soap and detergent required for cleaning. To reduce hardness, supply from the bore with the lowest hardness has been increased comparative to the other bores. An additional bore is also planned for Edenhope to improve supply. All other samples for hardness met the standard for the reporting.

Table 5-5 – Hardness and Alkalinity results for 2025/2026. Hardness should not exceed 200 mg/L. The ADWG sets no recommendation for Alkalinity.

Water Sampling Area	Sampling Frequency	No. of Samples	Max Hardness (mg $CaCO_3$/L)	Max Alkalinity (mg $CaCO_3$/L)
Ararat*	Annually (2)	2	36	18
Beulah	Annually	1	18	7
Birchip	Annually	1	14	4
Brim	Annually	1	19	7
Charlton	Annually	1	19	9
Dimboola	Annually	1	15	9
Donald	Annually	1	17	11
Edenhope	Quarterly	4	210	150
Elmhurst	Annually	1	33	24
Great Western	Annually	1	28	24
Halls Gap	Annually	1	28	8
Hopetoun	Annually	1	14	9
Horsham*	Annually (2)	2	18	7
Jeparit	Annually	1	16	5
Kaniva#	Annually	1	18	7
Lake Bolac	Annually	1	16	15
Manangatang	Annually	1	24	24
Minyip	Annually	1	14	9
Murtoa	Annually	1	14	11
Natimuk	Annually	1	22	7
Nhill	Annually	1	15	7
Ouyen	Annually	1	41	40
Pomonal	Annually	1	30	8
Quambatook	Annually	1	140	120
Rainbow	Annually	1	16	5
Rupanyup	Annually	1	15	8
Sea Lake	Annually	1	16	7
St Arnaud	Annually	1	16	11
Stawell*	Annually (2)	2	36	15
Ultima	Annually	1	24	22
Underbool	Annually	1	37	36
Warracknabeal	Annually	1	26	15
Willaura	Annually	1	12	12
Woomelang	Annually	1	16	7
Wycheproof	Annually	1	16	4

**Due to the population size two sites are collected from every sampling visit.*

#Declared drinking water 11 June 2026.

5.6 Iron

Iron can occur naturally in water sources from soils and rocks and increase in supplied water if transferred through rusting iron pipes. Iron can impart a taste at high concentrations and give a rusty-brown appearance to the water.

The ADWG recommends iron should not exceed 0.3 mg/L for aesthetic purposes.

5.6.1 Results

All water sampling areas met the standard for iron in the reporting period.

Table 5-6 – Iron results for 2025/2026. Iron should not exceed 0.3 mg/L.

Water Sampling Area	Sampling Frequency	No. of Samples	Max (mg/L)	Average (mg/L)	No. of samples where standard was not met
Kaniva[#]	Fortnightly	2	0.03	0.01	0

[#]*Declared drinking water 11 June 2026.*

5.7 Ammonia

In chloramination disinfection, ammonia is added to chlorine to form chloramines. Ammonia residual can remain in the water from this disinfection process. A detailed description of ammonia and its implications in a water supply can be found in the ADWG.

Based on aesthetic considerations, ammonia in drinking water should not exceed 0.5 mg-NH_3/L. Presence of ammonia can increase nitrification (nitrite and nitrate formation).

5.7.1 Results

Ammonia was measured in the chloramination system of Willaura and Lake Bolac.

The concentration of ammonia in both Willaura and Lake Bolac was above the ADWG aesthetic guideline value of 0.5 mg/L, which is based on minimising corrosion in copper pipes and fittings. All results in these water sampling areas were below the ADWG stated threshold that ammonia is detectable in water of 1.5 mg/L; and there were no related water quality customer complaints for either Willaura or Lake Bolac.

Table 5-7 - Ammonia in results for 2025/2026. Ammonia should not exceed 0.5 mg-NH_3/L (0.41 mg N/L).

Water Sampling Area	Sampling Frequency	No. of Samples	Max (mg N/L)	Average (mg N/L)	No of samples where standard was not met
Lake Bolac	Monthly	12	0.55	0.36	8
Willaura	Monthly	12	0.56	0.47	10

6 Analysis of Results

6.1 Meeting Regulatory Sampling Requirements

To ensure that GWMWater meets its risk-based sampling program and requirements under the Regulations, GWMWater uses a Water Information System, supported by procedures, manual checks, and training. There were no issues with meeting the regulatory sampling requirements for the 2025/2026 reporting period.

6.2 Water Quality

Analysis of drinking water quality results for this reporting period (2025/2026) with the last two reporting periods is summarised in There was one sample from Edenhope in April 2026 with hardness of 210 mg $CaCO_3$/L exceeding the guideline of 200 mg $CaCO_3$/L for aesthetic purposes. To reduce hardness, supply from the bore with the lowest hardness has been increased comparative to the other bores. An additional bore is also planned for Edenhope to improve supply.

Table 6-1.

There was an *E. coli* detection in Nhill in July 2025, meaning this water sampling area did not comply with the standards for 2025/2026. Investigation found that the sample was taken from a customer's tap connected to a private tank rather than GWMWater's reticulation system. Unlike in previous years where this result could be considered a false-positive, a change in regulation means that despite it not being representative of the drinking water supply the *E. coli* result was still considered a non-compliance.

There were exceedances of lead from one sample each in Halls Gap and Stawell. Metals leached into stagnant water in the copper alloy service lines and the brass tap fittings. The sample taps were not flushed for long enough to allow turnover of the small volume of impacted water within the fittings. GWMWater has installed new dedicated sampling taps to help sampled water be more representative of the water consumed by customers.

In 2025/2026, eight pH samples did not meet the 6.5-9.2 range recommended in the ADWG for aesthetic purposes. Reaction with pipes while water is being distributed leads to variation in pH and is the main cause for pH not meeting the recommended range. There were less pH results that did not meet the guidelines than in 2023/2024 (14 results) and in 2024/2025 (16 results). Overall, the average pH in the reticulation of all water sampling areas was within the ADWG limits and there were no customer complaints that could be linked to pH at any water sampling area.

There was an increase in the amount of water sampling areas that had samples that did not meet the aluminium guidelines value for aesthetic purposes. Charlton, Dimboola, Edenhope, Underbool and Wycheproof all had samples that exceeded the standard. These were due to the coagulant dose rate not being sufficiently optimised at the WTPs, partial failures of the filter systems, and disturbance of settled material in the reticulation. Each exceedance was investigated and resolved by flushing in the reticulation and optimising the water treatment plant.

The concentration of ammonia in both Willaura and Lake Bolac was above the ADWG aesthetic guideline value of 0.5 mg-NH_3/L, as was the case in previous reporting periods. This ADWG value is based on minimising corrosion in copper pipes and fittings. All results in these water sampling areas were below the ADWG stated odour threshold for ammonia in water of 1.5 mg-NH_3/L, and there were no related customer water quality complaints at either Willaura or Lake Bolac.

There was one sample from Edenhope in April 2026 with hardness of 210 mg $CaCO_3$/L exceeding the guideline of 200 mg $CaCO_3$/L for aesthetic purposes. To reduce hardness, supply from the bore with the lowest hardness has been increased comparative to the other bores. An additional bore is also planned for Edenhope to improve supply.

Table 6-1 - Comparison of drinking water quality results from 2023/2024 to 2025/2026.

	Parameters	2023/2024		2024/2025		2025/2026	
		Water sampling areas that met standard (%)	Customers supplied drinking water that met standard (%)	Water sampling areas that met standard (%)	Customers supplied drinking water that met standard (%)	Water sampling areas that met standard (%)	Customers supplied drinking water that met standard (%)
Health Parameters	Escherichia coli	100	100	100	100	97.1	96.0
	Trihalomethanes	100	100	97.1	99.6	100	100
	Chlorine	100	100	100	100	100	100
	Fluoride	100	100	100	100	100	100
	Monochloroacetic acid	100	100	100	100	100	100
	Dichloroacetic acid	100	100	100	100	100	100
	Trichloroacetic acid	100	100	100	100	100	100
	Nitrite	100	100	100	100	100	100
	Nitrate	100	100	100	100	100	100
	NDMA	100	100	100	100	100	100
	Arsenic	100	100	100	100	100	100
	Lead	100	100	100	100	94.3	86.9
Aesthetic Parameters	Turbidity	100	100	100	100	100	100
	pH	81.8	94.4	79.4	90.6	82.9	94.0
	Aluminium acid-soluble	97.0	97.1	100	100	85.7	91.9
	Electrical conductivity	100	100	100	100	100	100
	Hardness	97.0	98.4	100	100	97.1	98.4
	Ammonia	93.9	98.7	94.1	98.7	98.4	98.7
	Iron	Not included in sampling program.				100	100

7 Complaints

7.1 Complaints and Responses

GWMWater's Customer Complaints and Disputes Policy recognises the customer's rights, including the right to complain. GWMWater systematically records all complaints in a register and investigates them to determine the cause and significance. Responses to complaints vary depending on the nature of the complaint but can include further customer consultation and corrective actions such flushing. Operational changes or capital improvements which optimise treated water quality may be implemented in response to customer complaints.

Table 7-1 and
Table 7-2 summarises the complaints received during the reporting period for both drinking water and regulated water supplies, respectively.

Table 7-3 and Table 7-4 provide a detailed breakdown of the total number of complaints received from customers supplied with drinking and regulated water, respectively.

Table 7-1 – Drinking Water Quality Complaints comparison 2023/2024 to 2025/2026.

Type of Complaint	Number of complaints			Comparison with previous reporting periods
	2023/2024	2024/2025	2025/2026	
Discoloured	45	70	86	16 (23%) more complaints Due to occurrences of dirty water at Ararat.
Taste/Odour	7	25	23	2 (8%) less complaints
Other	1	3	7	There are typically only scattered complaints categorised as other.
Total	53	98	116	18 (18%) more complaints. Due to occurrences of dirty water at Ararat.

Table 7-2 – Regulated Water* Quality Complaints comparison 2023/2024 to 2025/2026.

Type of Complaint	Number of complaints			Comparison with previous reporting periods
	2023/2024	2024/2025	2025/2026	
Discoloured	46	27	30	3 (11%) more complaints.
Odour	22	14	4	10 (71%) less complaints. Odour occurrences from stagnate storage water did not occur.
Other	2	3	2	There are typically only scattered complaints categorised as other.
Total	70	44	36	8 (18%) less complaints. There were no water quality events in regulated towns that led to a large number of complaints.

**Regulated water is water that is not intended for drinking.*

7.2 Analysis of Issues

Customer complaints for drinking water supplies over 2025/2026 increased compared with the previous two reporting periods. Ararat had 59 complaints, 41 more than the previous year. Fifty-one (51) of Ararat's complaints were due to dirty water. Complaints generally occurred in clusters due to disturbance of the reticulation from planned work and un-planned mains breaks. With Ararat having multiple pressure zones and aging reticulation assets it is particularly prone to changes in system flow causing disturbance of settled material leading to turbid water at

customers taps. GWMWater renewals program for replacement of aging drinking water reticulation mains and valves is continuing to address this issue.

Complaints at Horsham (18) were generally spread throughout the year and not attributable to any single reason. With most of the Horsham complaints being for dirty water (15) they could be resolved by flushing of the reticulation and checking that the clarity had reduced to expected levels. No other towns had a notable number of customer complaints, with scattered complaints typically resolved through customer consultation, flushing, and testing of reticulation water quality as needed.

Customer complaints for regulated water supplies over 2025/2026 decreased compared with the previous year as there were no major water quality events in regulated towns this reporting period. Harrow had seven complaints, Streatham six complaints, Westmere four complaints and Wickliffe three complaints. These are all bore supplied towns for which discolouration and odour occur when the water stagnates due to bacterial growth. Tanks were installed at Wickliffe and the raw storage bypassed, keeping the water fresher. Tanks are also planned for Streatham and Westmere. Increased frequency of preventative flushing at these towns are also planned to keep the water turned over. Kaniva had four water quality complaints before being declared drinking water, which has been a typical number of complaints for Kaniva. These complaints were due to the introduction of treated chlorinated water softening mineral deposits in the reticulation pipes and causing colour at customer taps.. There was a low level of complaints from other regulated towns, with risk based periodic flushing and storage cleaning conducted to maintain water quality.

Table 7-3 - Water Quality Complaints for Drinking Water Towns.

Water Sampling Area	Population	Number of Complaints			
		Colour	T&O^	Other	Total
Ararat	8,470	51	6	2	59
Beulah	300				
Birchip	810		2		2
Brim	110				
Charlton	1,140		1		1
Dimboola	1,640				
Donald	1,510				
Edenhope	910	2		1	3
Elmhurst	200	1			1
Great Western	280				
Halls Gap	960	3			3
Hopetoun	660		3		3
Horsham	17,480	15	3		18
Jeparit	530	1		1	2
Kaniva*	870				
Lake Bolac	310		3		3
Manangatang	290				
Minyip	530				
Murtoa	920	1			1
Natimuk	490				
Nhill	2,300	3		1	4
Ouyen	1,210		1		1
Pomonal	290				
Quambatook	240	1			1
Rainbow	640			1	1
Rupanyup	450				
Sea Lake	780			1	1
St Arnaud	2,440	1	1		2
Stawell	6,560	4	1		5
Ultima	180		1		1
Underbool	230	1			1
Warracknabeal	2,510		1		1
Willaura	420	1			1
Woomelang	200				
Wycheproof	710	1			1
Total	57,550	86	23	7	116

^ Taste and Odour (T&O).

** Kaniva was declared drinking water 11 June 2026. Only complaints after then are included as drinking water complaints.*

Table 7-4 - Water Quality Complaints for Regulated Supplies.

Regulated Town	Population	Number of Complaints			
		Colour	Odour	Other	Total
Antwerp	20				
Apsley	210				
Berriwillock	170				
Buangor	90	1			1
Chillingollah	10				
Chinkapook	30	1			1
Cowangie	20				
Culgoa	90		1		1
Dooen	40				
Glenorchy	120	1			1
Goroke	310	1			1
Harrow	160	7			7
Jung	100				
Kaniva	870	4			4
Kiata	40				
Lalbert	90				
Lascelles	70				
Lillimur	50				
Marnoo	110				
Miram	20				
Moyston	220				
Murrayville	330				
Nandaly	30				
Nullawil	80				
Patchewollock	90	2			2
Pimpinio	90				
Serviceton	70				
Speed	60				
Streatham	100	5	1		6
Tarranyurk	10				
Tempy	50				
Waitchie	10				
Walpeup	130	1			1
Watchem	160	2	1	1	4
Westmere	20	3	1		4
Wickliffe	70	2		1	3
Yaapeet	70				
Total	4,200	30	4	2	36

**Kaniva was declared drinking water 11 June 2026. Only complaints prior to then are included as regulated water complaints.*

8 Risk Management Plan Audit

A risk management plan audit was conducted by Viridis Consultants Pty Ltd in February 2023 in accordance with section 11 of the Act. The period audited was from 1 January 2021 to 31 December 2022. Under section 9 of the Act, the auditor determined that GWMWater:

- complied with the obligations imposed by section 7 (1) of the *Safe Drinking Water Act 2003*, and
- complied with the obligations imposed by section 8 (1) of the *Safe Drinking Water Act 2003*.

There were 12 opportunities for improvements identified in the audit which are summarised in Table 7-1.

Table 8-1 - Summary of audit actions and status.

OPPORTUNITY FOR IMPROVEMENT	PROPOSED ACTIONS	STATUS
Outline clearly the risk management activities/assessments/plans and strategies which are being implemented in the role as the Storage Manager, in relation to supply of water to a water supplier (e.g. Coliban Water and Wannon Water). This can be as a section in the Water Quality Management System and should reference the various risk management measures, monitoring and communication protocols, as relevant (but not limited to these). Consider any linkages and overlaps with GWMWater's Storage Manager role under the Water Act.	Allocate and define the storage manager role in line with the Act.	Completed
Document the step to verify accuracy of the process flow diagrams/schematics during reviews of the site-specific risk assessments and management plans, including the process for it (e.g. discussion with operators or field verification and signing off).	Outline in CMS/2166 Water Quality Management System the site-specific risk management process. Add additional relevant staff to the CMS document review process of the site-specific risk management plans.	Completed
Maintain attendance records for the risk team involved in risk assessments and risk assessment workshops to demonstrate that the composition reflects section 2.1 of the Water Quality Management System.	Review the participants and process of their involvement in risk assessments. This includes using the Site Management Plan process for consultation with operating staff at the front end of the risk assessments and then using the CMS document review process to include relevant additional staff in the site specific RMPs. Document in CMS/2166 Water Quality Management System.	Completed
Undertake refresher training for staff conducting treated water tank inspections on key aspects to be cautious of in relation to rainwater/vermin ingress potential.	Put a training pack together. Deliver to Regional meetings and link an instruction or the training presentation to the existing scheduled work orders. Include training on a list of regular key activity refreshers for Service Delivery staff.	Completed

OPPORTUNITY FOR IMPROVEMENT	PROPOSED ACTIONS	STATUS
Review the requirement for filter inspection frequency at every 12 months against the risk assessment done for missing a filter inspection (CMS 3024). Clarify need/justification for variations, as needed, in relevant documents (e.g. WTP Maintenance Plan, Filter Inspection Work Instruction).	Update CMS/32343 Filter Inspection Work Instruction and CMS/3558 Water Treatment Plant Maintenance Plan to reflect risk assessed frequency of inspections. Provide training on updated procedure. Update the work order schedule for filter inspection frequency.	Completed
Document the competency and/or training requirements for internal auditors of the Water Quality Management System.	Review training requirements for internal audits. Update CMS/3301 Drinking water internal audit procedure based on determined training requirements.	Completed
Review reference and use of 'Specification of water sampling localities and water sampling points - July 2006 published by DHHS - July 2006' in water sampling program documents (e.g. Selection of Water Sampling Sites Procedure, Water Quality Sampling Tap Site Locations spreadsheet, WQMS). This 2006 guidance note has been superseded by "Appendix A - Water Sampling Program 2015".	Update reference in CMS/2743 Selection of Water Sampling Sites Procedure. Complete an assessment of the number of sampling location requirements in drinking water reticulations based on updated procedure.	Completed
Review the Water and Wastewater Quality Sample Scheduling Procedure to include the actions/steps to undertake when an issue is identified with the monthly checks on compliance against the sampling schedule.	In CMS/3679 Water and Wastewater Quality Sample Scheduling Procedure, document the current process which includes conducting a risk assessment and notifying DH if necessary.	Completed
Discuss with the operators on record keeping requirements in relation to the pH and specific gravity testing undertaken onsite upon receipt of the coagulant.	Provide refresher of requirements for coagulant receival as per CMS/2672 Work Instruction - Water Treatment Chemical Delivery. Include this in a list of regular key activity refreshers for Water Treatment staff.	Completed
Review the Chemical Introduction Risk Assessment Form. AS4020 certification is for products and materials, chemicals may be better assessed against the ADWG Chapter 8 guidance. Maintain AS4020 checks for products and materials.	Update the reference in CMS/2004 Chemical Introduction Risk Assessment Form.	Completed
Review how the recent Chapter 5 of the ADWG Microbial Quality of Drinking Water may be considered within the "Methodology for the Quantification of Microbiological Hazards in Drinking Water Supplies work instruction" and update the work instruction accordingly as relevant.	Review CMS/3182 Methodology for the Quantification of Microbiological Hazards in Drinking Water Supplies work instruction to incorporate any relevant information from the updated ADWG.	Completed

OPPORTUNITY FOR IMPROVEMENT	PROPOSED ACTIONS	STATUS
Document the process undertaken to periodically verify land-use changes that can impact on the sanitary survey and vulnerability assessment outcomes.	GWMWater has an existing process of referral review under the Planning Act. Add steps to ensure water quality risks are considered in this process. Clearly document how information for any land use changes are fed into the Sanitary Survey.	Completed

Table 8-2 – Remaining opportunities for improvement from previous audit covering 28 March 2018 to 26 August 2020.

OFI	ACTIONS	STATUS
Track all risk reduction measures through from identification to completion. Identify a target completion date and a status for the required actions.	A tracking process is being implemented through TechnologyOne to track risk reduction measures.	GWMWater track risk reduction measures through regular review of external and internal audit actions, site management plan and identified high risks. A full module for managing risk in TechnologyOne is being commissioned, with expected completion in 2026.

9 Undertakings under section 30 of the Act

There were no undertakings during the reporting period.

10 Regulated Water

Regulated water is water that is not intended for drinking, but which could reasonably be mistaken as drinking water. This could be the case when such water is, for example, delivered to households through a piped reticulation system.

Section 6 of the Act allows the Minister for Health to declare certain water as regulated. The Minister for Health declared rural water pipelines constructed at the time, other than the WMP, as regulated supplies in the Victorian Government Gazette No. S 36 on Monday 23 February 2009.

GWMWater must manage risks in relation to water that is not intended for drinking, as part of its normal business practices. GWMWater is required to:

- Prepare a Risk Management Plan for the regulated water that contains the matters specified in the Regulations.
- Have the Plan audited by an approved auditor.
- Take all reasonable steps to minimise the likelihood of the water being mistaken as drinking water.
- Include a summary of the management activities for regulated water supply in the Annual Report.

GWMWater had a total of 36 towns supplied with water classified as 'regulated water' under section 6 of the Act during the reporting period. The regulated water supplies are listed in Table 1-2.

Under section 25 of the Act, water suppliers are required to report on the steps taken to make the public aware of regulated water (non-drinking water). GWMWater informs their customers in towns with a regulated water supply are advised of the water quality through:

a) 'Do not drink the water' symbol notices on their water bills, - four bills per annum.
b) Issue 'Untreated Water Supply' newsletters annually.
c) Provide 'Do not drink the water' signage/stickers to Local Government to place on publicly accessible taps in each town.
d) Provide information on GWMWater's website.

11 Emergency, Incident and Event Management

Water quality incidents are notifiable to Department of Health (DH) under section 18 and 22 of the Act. Section 22 reports give DH an early warning notification of any known or suspected contamination, whereas section 18 notifications are given when the water quality standard has not been met.

For the year, in regard to drinking water sampling areas, GWMWater:

- provided DH with three notifications for section 18 of the Safe Drinking Water Act 2003, and
- provided DH with two reports for section 22 of the *Safe Drinking Water Act 2003*.

11.1 Nhill detection of *Escherichia coli* – section 22 report and section 18 notification

A sample collected on the 22 July 2025 had a detection of 29 *E. coli*/100 mL and negligible chlorine. A section 22 report and section 18 notification were submitted to DH.

Response included pre-flush sampling, flushing of the reticulation, post-flush sampling, inspection of tank integrity, confirmation WTP barriers were intact and investigation for adverse issues in the reticulation. Verification sampling was also conducted in the following days.

Investigation found that a private water tank was connected to the internal property plumbing. The sample was taken from the customer's tap connected to this tank explaining the low chlorine and the *E. coli* detection. As the cause of the *E. coli* result was from a non-representative sampling tap no further action was required. GWMWater has installed dedicated sampling taps to reduce the risk of receiving non-representative sample results.

11.2 Ararat firefighting backflow – section 22 report

In September 2025 after a house fire in Ararat, a GWMWater operator noticed foamy water coming from their taps. Samples confirmed the presence of foam with a positive detection of anionic surfactant (soap) and a section 22 notification was provided to DH.

During the house fire, the pressure in the reticulation was too low to provide enough flow to effectively fight the fire. Other fire trucks boosted carted water into the fire truck fighting the fire while it was still connected to the reticulation. Boosting led to water being pushed back into the reticulation. While foam was not used directly on the fire, there may have been some residual foam left in one of the supporting trucks.

Flushing occurred shortly after the foam was observed by the GWMWater operator and continued throughout the day. As the back-flow event occurred at the end of the reticulation the potentially contaminated water could be rapidly flushed out of the system. Post-flush samples and follow up verification samples showed the foam had been removed. The foam was PHOS-CHEK WD881, which was assessed to only be an irritant and have low toxicity when in its concentrated form. At the diluted concentrations present in the reticulation water the event was deemed to be low risk to public health.

GWMWater has been engaging with the wider water industry to tackle backflow prevention for firefighting trucks.

11.3 Halls Gap Lead exceedance – section 18 notification

A sample collected 5 January 2026 from Halls Gap returned a lead result of 0.008 mg/L, exceeding the limit of 0.005 mg/L. A section 18 notification was submitted to DH.

A sample on the same day from Pomonal (a sample area connected to the Halls Gap reticulation) was compliant, indicating that the issue was site specific. In response, the reticulation near the sample tap was flushed and the treated water storage and reticulation were sampled, including re-sampling of the impacted site. The response sample results had lead at or below the lower limit of detection.

Brass taps, components in water meters, and other fittings can leach lead into water, with concentrations increasing the longer the water is in contact with the fitting. The service line to the sample tap was copper with a brass tap. The likely cause of the lead exceedance was that the tap was not flushed for long enough to clear out stagnant water before sampling. Samplers were reminded to flush the sample tap according to GWMWater's procedure.

11.4 Stawell Lead exceedance – section 18 notification

A sample taken 7 April 2026 from Stawell had 0.018 mg/L of lead, exceeding the limit of 0.005 mg/L. A section 18 notification was submitted to DH.

A sample on the same day from a different reticulation site within Stawell had lead below the limit of detection, indicating that the issue was site specific. In response, the reticulation near the sample tap was flushed and the treated water storage and reticulation were sampled, including re-sampling of the impacted site. The response sample results all had lead below the lower limit of detection.

The service line was copper with a brass tap. Water sitting against the fittings for a prolonged period would have had lead leached into water. The sample tap was too small and not flushed for long enough to allow sufficient turn over of the small volume of impacted water within the sample tap fittings. GWMWater has installed new dedicated sampling taps that can enable better flushing to sample water more representative of the water consumed by customers.

12 Water Storage Manager

In addition to being a water supplier for the purposes of the Regulations, GWMWater is also a water storage manager. This arises when a water corporation owns reservoirs or major headworks assets that supply water to other water corporations that are water suppliers. Other water corporations may in turn use the water to supply drinking water to various water sampling areas.

GWMWater is a water storage manager for some of the water used by Wannon Water and Coliban Water. To address GWMWater's obligations as a water storage manager a Memorandum of Understanding (MoU) exists between GWMWater and both these corporations, GWMWater has developed a risk management framework for the headworks storages under its control, meet with Coliban Water and Wannon Water on an annual basis, and conducts water quality monitoring with results made available to the other water corporations.

In management of reservoirs in the Wimmera catchment, GWMWater liaise with the Wimmera CMA, and liaise with the Glenelg Hopkins CMA for management of Rocklands and Moora Moora Reservoirs.

Table 12-1 – Summary of water supply systems and relevant GWMWater infrastructure.

Source Water	Relevant Transfer Systems	Treatment	Water Receivers
Lake Bellfield	Supply System 4, Wimmera Mallee Pipeline	Nil	Coliban Water
Waranga Western Channel	South West Loddon Pipeline	Nil	Coliban Water
Willaura Headwork (Mt William and Stoney Creek or bore field)	Glenthompson Pipeline	Nil	Wannon Water
Lake Fyans	East Grampians Rural Pipeline	Nil	Wannon Water
Rocklands Reservoir	Pipeline	Nil	Wannon Water

12.1 Coliban Water

Coliban Water treats the raw water from GWMWater for water sampling areas of Bridgewater, Inglewood, Korong Vale, Laanecoorie, and Wedderburn. Coliban Water also untreated supplies water from GWMWater to regulated water towns Borung and Wychitella.

In winter GWMWater predominately supplies water from Lake Bellfield in the Grampians National Park. Taylors Lake provides an emergency back-up if Lake Bellfield water is not available. Between November and April the raw water to Coliban Water can be switched to the Waranga Basin via the Waranga Western Channel, which gets it water from the Goulburn River. The supply was from the Grampians Headworks at all times during the 2025/2026 period as there was sufficient capacity from Lake Bellfield and better water quality.

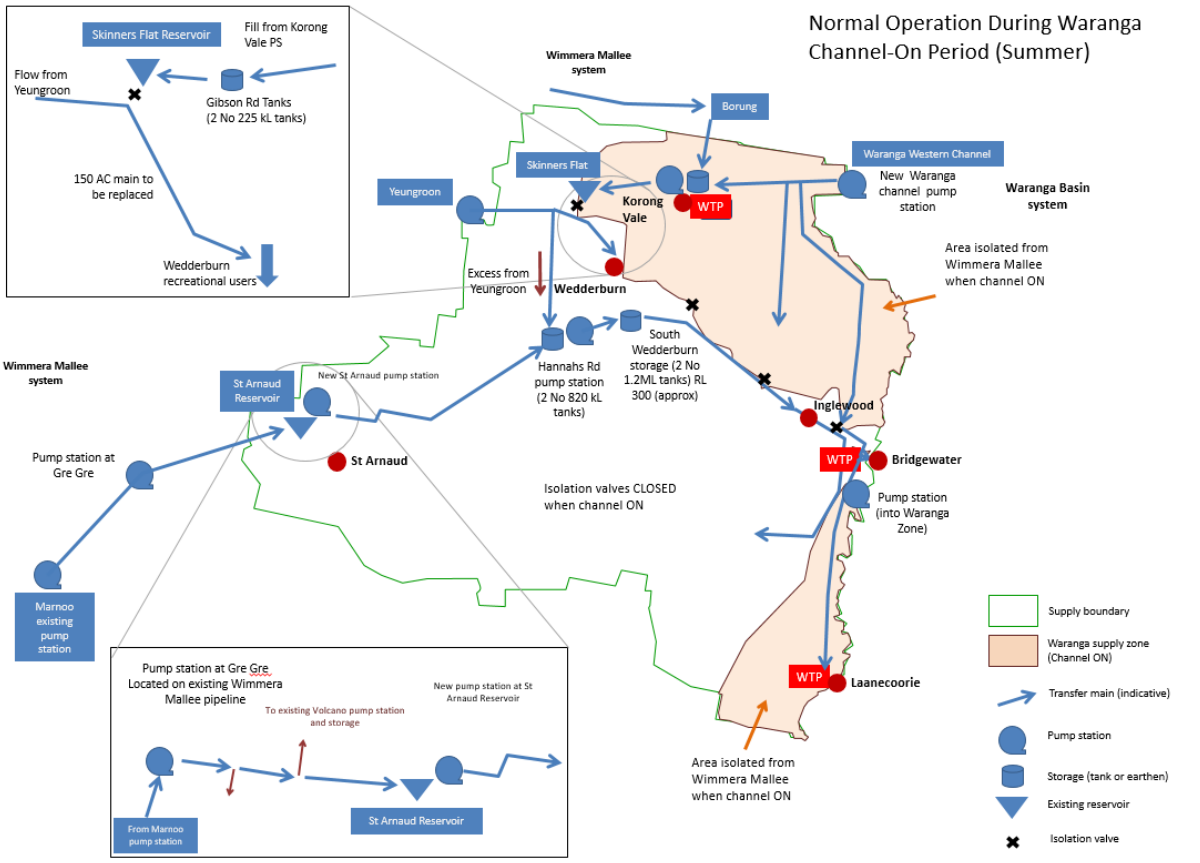

Figure 12-1 - Schematic showing supplies to Coliban Water from Bellfield and Waranga Western Channel (during summer).

12.2 Wannon Water

Wannon Water treats the raw water from GWMWater for water sampling areas of Glenthompson, Hamilton and Balmoral.

The water for Glenthompson is primarily sourced from Lake Fyans through the newly constructed East Grampians Rural Pipeline. Water can also be sourced from Willaura Headworks, which consists of stream diversion (June and December) and groundwater bores (January to May) in the Grampians National Park.

The water for Hamilton and Balmoral is taken directly from Rocklands Reservoir. Rocklands Reservoir is located between the Grampians National Park and Black Range State Park.

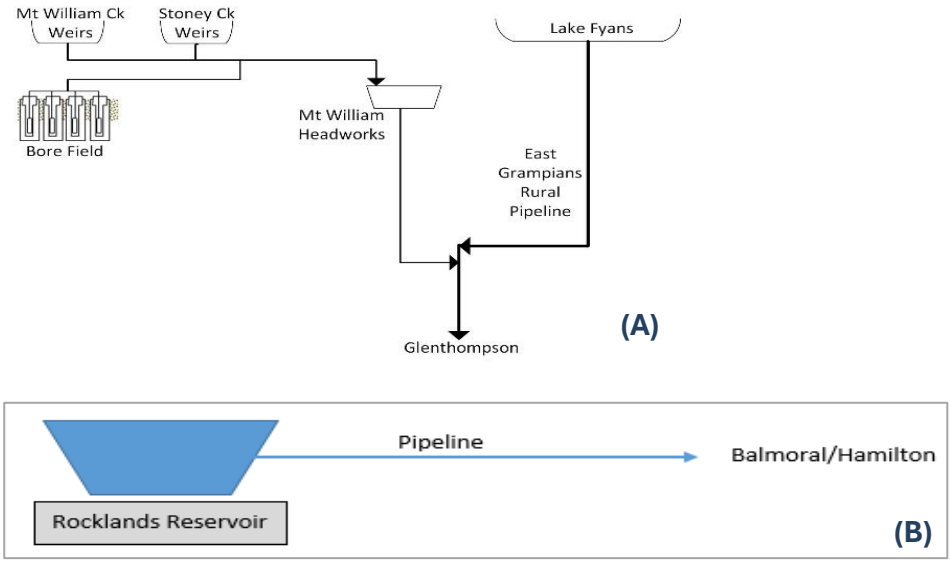

Figure 12-2 - Simplified schematic showing supplies to Wannon Water. (A) To Glenthompson from the Mt. William Headworks and Lake Fyans. (B) To Balmoral and Hamilton from Rocklands Reservoir.

12.3 Water Storage Manager: Emergency, Incident and Event Management

No incidents occurred for the Lake Bellfield, Lake Fyans, Rocklands Reservoir or Willaura Headworks supplied water. GWMWater did not take from the West Waranga Channel at any point for the year.

GWMWater is responsible as water storage manager for reservoirs within the Grampians National Park which had bushfires the previous year in 2024/2025, continued monitor showed no major water quality impacts on water delivered to Coliban Water or Wannon Water.

13 Glossary of Terms

Terms and abbreviations used in this report have been collated into a Glossary to provide clarity.

Term/Abbreviation	Description
ADWG, 2011:	The Australian Drinking Water Guidelines provide a framework for the management of drinking water supplies designed to ensure safety at the point of use.
Alum:	Aluminium sulphate as used as a coagulant in the water treatment process.
BGA:	Blue Green Algae.
BOOT:	Build, Own, Operate and Transfer. A form of commercial contract associated with the provision of treated water at privately-owned water treatment plants.
Bore:	Conduit for extracting groundwater from an aquifer to the surface for use in a town water supply.
CCP:	Critical Control Point in the Risk Management Plan.
Chlorination:	Process of adding chlorine to water as a disinfectant.
Coagulation:	The clumping together of solids so they can more easily be settled out or filtered out of water. A chemical called aluminium sulphate (alum) or aluminium chlorohydrate (Megapac 23) is generally used to aid coagulation in water treatment.
Concentration:	A measure of how much of a given substance there is mixed with another substance (in this case water), usually expressed as a weight to volume, e.g. milligrams per litre (mg/L).
CWS:	Clear Water Storage.
DEEECA:	Department of Energy, Environment and Climate Action
DH:	Department of Health.
DBP:	Disinfection by-product – a reaction of natural organic material with the disinfectant medium producing by-products via reaction.
Disinfection-only	Water supplies that have disinfection as their only form of treatment.
Dissolution:	A form of chemical weathering in which water molecules, sometimes in combination with acid or another compound in the environment, attract and remove oppositely charged ions or ion groups from a mineral or rock.
Distribution system:	The system of pipes delivering water from the water treatment plant to the reticulation system.
Drinking water:	Legislatively defined as water intended for human consumption or associated with purposes for human consumption. Also known as a potable supply.
EC:	Electrical conductivity as measured in micro Siemens per centimetre (µS/cm).
Flocculation:	The water treatment process after coagulation that uses gentle stirring to cause suspended particles to form larger, aggregated masses (floc). The aggregates are removed from the water by a separation process (e.g. sedimentation, flotation, or filtration).
Fluoridation:	The act of adding fluoride to a water supply in accordance with the *Health (Fluoridation) Act 1973*.
Fully-treated water supplies:	Water supplies that have coagulation, filtration and disinfection.
GWMWater:	Grampians Wimmera Mallee Water Corporation (trading as GWMWater).
Hardness:	Caused by the presence of calcium and magnesium ions in water and can contribute to scale build up in pipes and appliances.
HU:	Scientific units for true colour measurements – Hazen Units.
kL:	Kilolitre (1,000 L).
L:	Litre
Megapac 23:	Aluminium chlorohydrate as used as a coagulant in the water treatment process.
mg/L:	Scientific units for the concentration of a parameter given as milligrams per litre. Also known as parts per million (ppm).
ML:	Megalitre (1,000,000 L).
NATA:	National Association of Testing Authorities, Australia. National Accredited Testing Authority.
NMP:	Northern Mallee Pipeline drawing its water from the Murray River.
Notifications:	Pursuant to sections 18 and 22 of the *Safe Drinking Water Act,* 2003.
NTU:	Scientific units for turbidity measurements – Nephelometric Turbidity Units.
Orgs/100 mL:	Organisms per 100 mL. A measure of the number of *E. coli*.

pH:	The measure of the concentration of hydrogen ions in a sample related to a logarithmic scale between 1 (acidic) and 14 (basic).
PS:	Pump Station.
Regulated water:	Water not intended for human consumption, but that could easily be mistaken as such. Also known as non-potable supply. This term is defined in the *Safe Drinking Water Act,* 2003.
Reticulation system:	The system of pipes delivering water to the customers tap from the entry point of the system.
RMP:	Risk Management Plan pursuant to the *Safe Drinking Water Act 2003*.
Safe Drinking Water Act 2003:	Legislative framework for assuring drinking water quality in Victoria.
Safe Drinking Water Regulations 2025:	Regulations made subsequent to the *Safe Drinking Water Act 2003* that give effect to key aspects of the Act.
Sampling:	The process of collecting a representative amount of water to analyse and compare against the ADWG Standards.
T&O:	Taste and odour.
THMs:	Trihalomethanes – disinfection by-products formed when using chlorine as a disinfectant. Take the form of trichloromethane, bromodichloromethane, dibromochloromethane and tribromomethane.
Undertakings:	Legally binding commitment made pursuant to section 30 of the *Safe Drinking Water Act* 2003.
WMP:	Wimmera Mallee Pipeline.
WTP:	Water treatment plant.
95th Percentile:	The value for which 95 percent of the time the data is below.

14 References

a) **Australian Drinking Water Guidelines 2011**, National Health and Medical Research Council, Canberra, 2011

b) ***Safe Drinking Water Act 2003*** (Act No. 46/2003), 11 June 2003, Parliament of Victoria.

c) **Safe Drinking Water Regulations 2025** (S/R No. 60/2025), 24 June 2025, Parliament of Victoria.

d) ***Health (Fluoridation) Act 1973***, (Act No. 8506/1973), 1 July 1973, Parliament of Victoria.

e) **Code of practice for fluoridation of drinking water supplies**, Second edition, Department of Health and Human Services, Victoria, 2018.

f) **Guidance – Drinking Water Quality Standards,** Department of Health, Victoria, 2026.