



**Water Storage Manager
Water Quality Annual Report**

2022/23

Safe Drinking Water Act 2003



Version	Description	Date	Author	Approved
3.0	DRAFT	20/09/2023	Catherine Corkill Environmental Advisor	Kate Berg Manager Environment and Climate Adaptation SRW
3.1	FINAL	30/10/2023	Catherine Corkill Environmental Advisor	Cameron Fitzgerald Managing Director SRW

Contents

Foreword	4
Introduction	4
Our Business	4
Our water supply systems	5
Source water protection.....	6
Key Works	7
Water Treatment Process	8
Issues	8
Emergency / Incident Management.....	8
Incidents under Section 22 of the Act.....	8
Other incidents	8
Issues	9
Risk Management Plan Audit Results	9
Undertakings under Section 30 of the Act.....	10
Further information.....	10
Appendices	11
SRW Audit Certificate 2021/22.....	11
Lake Glenmaggie Proclaimed catchment.....	12

Blue Rock Lake and Tanjil River Proclaimed catchment..... 13
Merrimu Reservoir, Pykes Creek Reservoir Proclaimed Catchments..... 0
Rosslynne Reservoir Proclaimed Catchment..... 1

Foreword

Southern Rural Water (SRW), as a water storage manager, is required under Section 26 of the *Safe Drinking Water Act 2003* (the *Act*) to provide the Secretary to the Department of Health (DH) with a report each financial year. This report covers SRW's commitment to the safe drinking water framework, any issues in the current year relating to the quality of untreated water which is managed by SRW, and details that are required by the Safe Drinking Water Regulations 2015 (the Regulations).

This 2022/2023 annual report covers the period from 1 July 2022 to 30 June 2023 and was developed in accordance with the *Safe Drinking Water Regulation Guidance Note* released by the DH in June 2017, and with Regulations 16 and 17 of the Regulations.

Introduction

Our Business

SRW's Headworks business is responsible for the harvest, storage, and delivery of water to customers in accordance with the provisions of the Bulk Entitlement Orders.

We are responsible for harvesting and storing water in seven major storages. These include:

- Lake Glenmaggie, Lake Narracan and Blue Rock Lake, which are located in Gippsland; and,
- Melton, Merrimu, Pykes Creek and Rosslynne Reservoirs which are located to the west of Melbourne.

The Headworks business also manages the recreational facilities at most of these storages. There is no primary or secondary contact water-based recreation permitted at Merrimu and Rosslynne Reservoirs.

SRW stores untreated water which is used for:

- Irrigation and rural purposes;
- Urban water supply to Gippsland Water and Greater Western Water; and,
- Industry, including power generation in the Latrobe Valley.

Under the *Act*, SRW is a water storage manager that supplies water to a water supplier. This report therefore focuses on SRW's role in providing untreated water to Gippsland Water and Greater Western Water.

Lake Glenmaggie and Blue Rock Lake supply raw water to Gippsland Water while Merrimu, Pykes Creek and Rosslynne Reservoirs supply raw water to Greater Western Water. For the purposes of this report, 'raw drinking water' means untreated water harvested in SRW's storages and released to urban water suppliers.

The Board of SRW approved in May 2005 a raw water policy that outlines SRW's commitment to water quality management in its reservoirs. The policy was reviewed and updated in February 2016, 2020 and 2023.

The policy states that we shall:

- Maintain and review safe drinking water Risk Management Plans for each of SRW's storages that provide raw water to water suppliers, and implement actions to mitigate the risks identified within those plans
- Engage regularly with stakeholders from the catchment and water suppliers to promote a coordinated approach to managing risks to drinking water
- Report any identified or suspected issues with raw water quality to stakeholders in a timely manner
- Maintain effective contingency and incident response procedures
- Provide training and support for all SRW staff involved in the supply and management of raw water, including identification of water quality incidents, notification protocols and sampling regimes and requirements.

SRW is committed to working in partnership with stakeholders and relevant agencies to ensure that its decision-making and actions effectively support the supply of safe drinking water by water suppliers, as defined in the *Safe Drinking Water Act 2003*.

Our water supply systems

SRW operates four water supply systems that involve the supply of raw water to water suppliers. Detail of these four systems is included in Table 1.

Table 1: SRW water supply systems

System	Catchments /Source Water	Storage	Supply points/ Offtakes	Treat-ment	Urban Water Supplier	Catchment Management Authority
Werribee system	Lake Merrimu (Lerderderg River)	Merrimu Reservoir	Offtake @ tower (valve house)	No	Greater Western Water	Melbourne Water
	Lake Merrimu (Goodmans Creek)					
	Lake Merrimu (Pyrites Creek)	Pykes Creek Reservoir	Offtake @ tower (valve house)	No		
	Pykes Creek Reservoir and Werribee River					
Ross-lynnne system	Rosslynnne Reservoir (Jacksons Creek)	Rosslynnne Reservoir	Offtake @ tower (valve house)	No	Greater Western Water	

Thomson/ Mac- alister system	Lake Glenmaggie (Macalister River)	Lake Glenmaggie	Offtake to: Maffra, Stratford & Boisdale @ 15 km downstream of storage on Macalister River	No	Gippsland Water	West Gippsland CMA
Blue Rock system	Tanjil River	Blue Rock Lake	Offtake to: Willow Grove @ tower Moondarra Reservoir @ tower Moe @ 15km downstream on Tanjil River	No	Gippsland Water	

Each supply system, from catchment to the offtake to water supplier, is detailed in its related risk management plan. Maps of each SRW specific system have been reproduced in the appendices of this annual report. All systems have associated proclaimed catchments as listed in Table 1 and detailed in the appendices.

During the 2021/22 period, Gippsland Water undertook works to pipe the water supply for Coongulla from the Heyfield Treatment Plant. Drinking water for residents of Coongulla and Glenmaggie were previously sourced directly from Lake Glenmaggie. Gippsland Water implemented plans to install a pipeline from Heyfield (sourced from the Thomson River) as a more reliable water supply. As such, the Coongulla Treatment Plant is no longer in operation and Gippsland Water is not directly extracting water from Lake Glenmaggie. The offtake for the Maffra Treatment Plant downstream along the Macalister River and the Heyfield Treatment Plant downstream of the Thomson River remain.

Source water protection

SRW has developed its Safe Drinking Water Management Plans, one each for the Eastern and Western storages, that cover its drinking water storages. These plans include SRWs Safe Drinking Water Risk Management Plans for each storage in accordance with the requirements of the Act and the Regulations. Each risk management plan contains a detailed description of the system of supply, identification, and assessments of the risks to the quality of the water, and a description of the steps currently taken and those that could be taken to manage those risks.

The risk management plans are regularly reviewed and updated. SRWs risk management plans were audited in March 2023 as per the requirements of the Act for an auditable period of January 2021 – December 2022. Further details on the audit are provided in this report. In 2022/23, SRW conducted catchment inspections for its drinking water storages. The inspections were undertaken to ensure the risks identified in SRWs risk management plans, and the assessment of those risks, remain contemporary.

SRW, Greater Western Water (GWW) and Gippsland Water (GW) maintain and adhere to a Memorandum of Understanding (MOU) for the collection and sharing of water quality data, and other

information pertinent to the protection of drinking water. The information sharing involves, among other things, the sharing of Safe Drinking Water Annual Reports and the results of water quality monitoring as requested by either party. Water quality monitoring undertaken by SRW, GWW and GW in 2022/23 included:

- GW & GWW undertaking routine monitoring of:
 - Physical/chemical parameters and metals within the storages; and
 - Sub-surface water samples for blue green algae (BGA) biovolume at their offtake
- SRW undertaking:
 - Visual inspections and surface water quality monitoring for BGA biovolume and species according to SRW's BGA Incident Management Plan; and
 - Ad hoc monitoring of physical/chemical parameters and metals in the event of an incident within the storage or in the water supply catchment.

In line with the 'catchment to tap' approach to water quality risk management, SRW recognises that actions within the greater catchment can have a direct impact on its storages. SRW works with local councils, Catchment Management Authorities (CMA's) and other agencies to influence and facilitate appropriate management to protect the quantity and quality of water captured in our storages.

Key Works

Examples of the works undertaken by SRW in 2022/23 to protect source waters include (but are not limited to);

- Ongoing support for and implementation of Domestic Wastewater Management Plan's (DWMP) in relevant municipalities (Moorabool, Macedon Ranges, Baw Baw and Wellington).
- SRW's role as a referral authority under the *Planning and Environment Act 1987*, including assessment of applications against the *Ministerial Guidelines for Planning Permits in Open Potable Water Supply Catchment Areas 2012*. In 2022/23, SRW and GWW successfully objected to an inappropriate development (subdivision) in the Rosslynne Reservoir water supply catchment area.
- Inspection of SRW's catchment areas for its drinking water storages to identify new risks, and to inform contemporary assessment of existing risks. The outcomes of this work feed into the review and update of SRW's risk management plans.
- Discussion with the Department of Environment, Energy and Climate Action (DEECA) on fire prevention and fuel reduction as it relates to SRW's drinking water catchments.
- Receiving information from Water Research Australia projects that SRW provided investment into, investigating matters pertaining to BGA risk and management.

- Continuing review of the Memorandums of Understanding between SRW and GW and GWW. The review is to consider information sharing and focus on incident management and communications.
- Updated the BGA and *E. coli* incident management plans for its drinking water storages.
- Working with Melbourne Water on reservoir frontage improvement projects and weed and pest control works to improve catchment condition and water quality, in particular revegetation at Rosslynne Reservoir and deer control in the Merrimu Reservoir catchment.

Water Treatment Process

SRW does not treat the water prior to its receipt by GW and GWW

Issues

Not applicable

Emergency / Incident Management

Incidents under Section 22 of the Act

No incidents occurred under Section 22 of the Act during the 2022/2023 monitoring period.

Other incidents

Under the Department of Environment, Energy and Climate Action's (DEECA) Algal Bloom Response Plan (2019) and Algal Management Framework - Victorian Blue-Green Algae Circular (2023), SRW is obliged to notify agencies such as urban water suppliers, DH, the Environment Protection Authority (EPA) and DEECA of BGA blooms in storages and water bodies where SRW are defined as the Local Waterway Manager. In addition, DH must be notified under section 22 of the *Act* if contamination, such as a BGA bloom or a high turbidity event, occurs in a water body providing drinking water supply, where that event or bloom is likely to pose a health risk or cause widespread complaint.

SRW do not treat and supply drinking water to the public in Victoria. Therefore, SRW are not best placed to determine whether BGA levels pose a public health risk to drinking water supplies.

Additionally, surface water sampling for BGA may return different results to the water quality sampling at depth taken by urban water suppliers. This means that the water supplier (as defined under the Act) may be the most appropriate entity to notify DH of BGA incidents under section 22.

SRW provides GW, GWW, DEECA and DH with the results of its BGA monitoring program and communicates the presence of a bloom in its drinking water storages.

In accordance with DEECA's Algal Response Plan (2019) and Algal Management Framework – Victorian Blue-Green Algae Circular (2023) there were five reportable blooms in drinking water storages over 2022/23 as follows:

- In Pykes Creek Reservoir: one level 1 (b) local bloom in Pykes Creek Reservoir from 16th January to 27th February 2023 and one level 1 (a) local bloom from 13th March to 27th March 2023.
- In Lake Glenmaggie: one level 1 (a) local bloom from 19th December to 22nd January 2023 and two level 1 (b) local blooms from 27th February to 27th March and 17th April to 5th June 2023.

In all instances, GW and GWW were able to manage the BGA effectively through treatment process.

Issues

There were no significant issues pertaining to raw water quality during 2022/23.

Risk Management Plan Audit Results

On request from the Secretary of DH under the powers of section 11 of the Act, SRW initiated a statutory audit of its risk management plans in March 2023 with an auditable period of January 2021 – December 2022.

SRW has complied with the obligations imposed by section 8(1) of the *Safe Drinking Water Act* during the audit period. No Opportunities for Improvement (OFI) were identified during the audit. There was one OFI identified during the 2018-2020 audit relating to the ability to clearly interpret SRWs response to identified hazards within its risk management plans. This was addressed in 2022 and closed during the 2021/22 audit.

SRW will consider the audit feedback in its review of its risk management plans in 2023/24, as part of its ongoing review and improvement practices. SRWs intent is to update the Safe Drinking Water Management Plans, review the BGA monitoring program and ensure all relevant staff are informed of Section 22 obligations and process.

SRWs 2021/22 audit certificate is provided in the appendices.

Undertakings under Section 30 of the Act

SRW did not have any undertakings under Section 30 of the Act with DH during the reporting period.

Further information

Further information regarding SRWs previous annual reports, responsibilities for BGA reporting, routine monitoring that is undertaken, current alerts and social media notifications, together with general information can all be found at SRWs website www.srw.com.au. This information is updated as required.

Members of the public can also access current bloom information by calling our dedicated BGA information line on 1300 781 806.

In addition, SRW can be contacted during business hour by email srw@srw.com.au or by telephone (03) 5139 3100.

Appendices

SRW Audit Certificate 2021/22

Risk management plan audit certificate

Safe Drinking Water Regulations 2015 - Regulation 10

Certificate Number: 201

Audit period: 1 January 2021 to 31 December 2022

To: Catherine Corkill, Environmental Advisor

Southern Rural Water, PO Box 153, Maffra, 3860

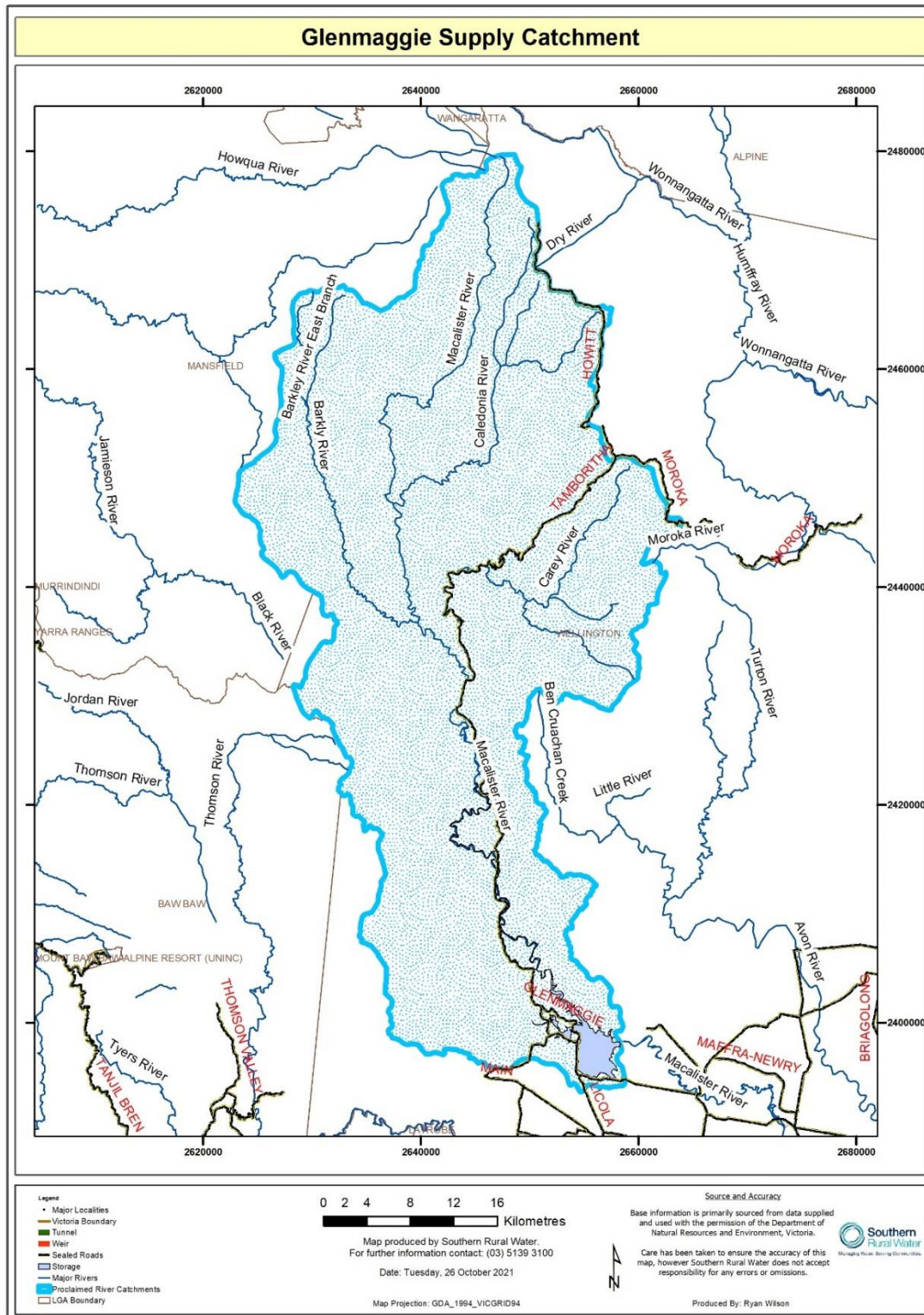
Australian Business Number (ABN): 70 801 473 421

I, Dr Daniel Deere, after conducting a risk management plan audit of the water supplied by Southern Rural Water am of the opinion that -

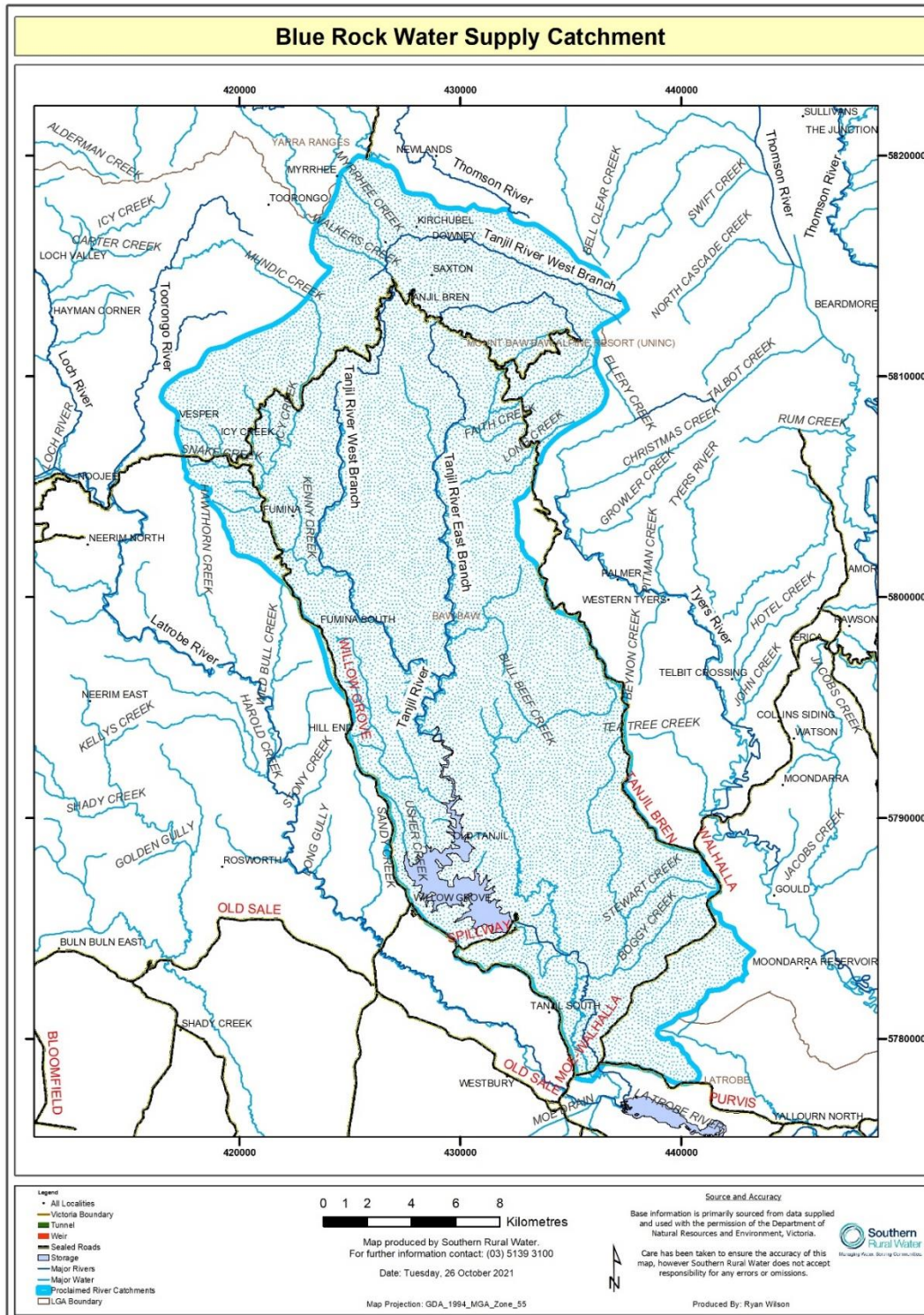
Southern Rural Water has complied with the obligations imposed by section 8(1) of the *Safe Drinking Water Act 2003* during the audit period.

Signature of approved auditor: *D Deere* Date: 29 April 2023

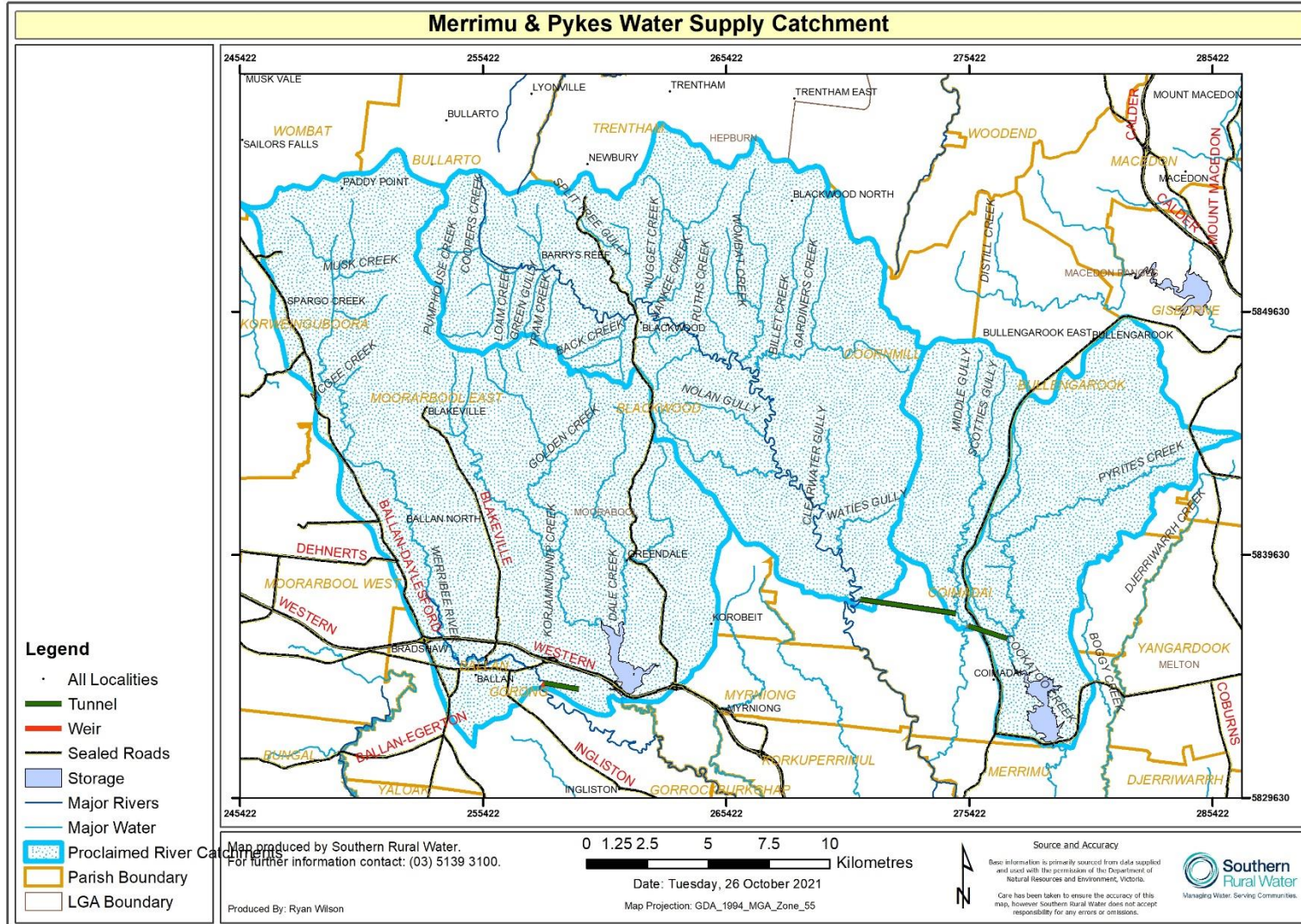
Lake Glenmaggie Proclaimed catchment



Blue Rock Lake and Tanjil River Proclaimed catchment



Merrimu Reservoir, Pykes Creek Reservoir Proclaimed Catchments



OFFICIAL

Rosslynne Reservoir Proclaimed Catchment

