



Water Storage Manager
Water Quality Annual
Report 2020/21

*Safe Drinking Water
Act 2003*

Version	Description	Date	Author	Approved
1.0	DRAFT	3 October 2021	Ryan Wilson <i>Manager Environment & Climate Adaptation Southern Rural Water</i>	Ryan Wilson <i>Manager Environment & Climate Adaptation Southern Rural Water</i>
	DRAFT	18 October 2021	Renwick Chan <i>Senior Technical Compliance Officer Department of Health</i>	NA
2.0	FINAL	26 October 2021	Ryan Wilson <i>Manager Environment & Climate Adaptation Southern Rural Water</i>	Elisa Hunter <i>General Manager Strategy & Performance Southern Rural Water</i>
2.1	FINAL	28 October 2021	Ryan Wilson <i>Manager Environment & Climate Adaptation Southern Rural Water</i>	Cameron Fitzgerald <i>Managing Director Southern Rural Water</i>

Contents

Foreword	3
Introduction	4
Our business.....	4
Our water supply systems	5
Source water protection	6
Water Treatment processes	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
Appendix	11
SRW 2020 Audit Certificate.....	12
SRW 2020 Audit Certificate – amendment of audit period date.....	13
Lake Glenmaggie Proclaimed Catchment.....	14
Blue Rock Lake and Tanjil River Proclaimed Catchment.....	15
Merrimu Reservoir, Pykes Creek Reservoir and Proclaimed Catchments.....	17
Rosslynne Reservoir Proclaimed Catchment.....	18

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 2020/2021 annual report covers the period from 1 July 2020 to 30 June 2021 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 Western Water¹; 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 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 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 and 2020.

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

¹ Please note that as of 1 July 2021, Western Water and City West Water will be amalgamated into one water corporation, Greater Western Water.

- 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	Storage	Supply points/ Offtakes	Treat- ment	Urban Water Supplier	Catch- ment Manage- ment Authority
Werribee system	Lake Merrimu (Lerderderg River)	Merrimu Reservoir	Offtake @ tower (valve house)	No	Western Water	Melbourne Water / Port Phillip Westernport CMA
	Lake Merrimu (Goodmans Creek)	Pykes Creek Reservoir	Offtake @ tower (valve house)	No		
	Lake Merrimu Pykes Creek Reservoir and Werribee River					
Rosslynne system	Rosslynne Reservoir (Jacksons Creek)	Rosslynne Reservoir	Offtake @ tower (valve house)	No	Western Water	
Thomson / Macalister system	Lake Glenmaggie	Lake Glenmaggie	Offtake to: Glenmaggie/ Coongulla @ Coongulla (in storage variable depth offtake line) 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.

No major changes have been made to the arrangements for water supply during the 2020/21 period.

Source water protection

SRW has developed Eastern and Western Storages Sustainability Plans 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. Following a detailed review in 2019/20, SRWs risk management plans were audited as per the requirements of the Act in 2020/21. Further details on the audit are provided in this report. In 2020/21, 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. The catchment inspections will form the basis of the next major risk management plan review, to be finalized in 2021/22.

SRW, Western Water (WW) 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, WW and GW in 2020/21 included:

- Gippsland Water & Western Water undertaking routine monitoring of:
 - Physical/chemical parameters and metals within the storages; and
 - Sub-surface water samples for 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 2020/21 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). In particular, SRW contributed to the review of the new Moorabool Shire Council DWMP.
 - Fulfilling SRWs 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 2020/21, SRW and Western Water successfully objected to an inappropriate development (subdivision) in the Pykes Creek Reservoir water supply catchment.
 - Working with Melbourne Water on stream frontage improvement projects and weed and pest control works to improve catchment condition and water quality, in particular deer control in the Merrimu Reservoir catchment.
 - Ongoing works with the West Gippsland CMA and Gippsland Water on stormwater management from the Willow Grove township area to Blue Rock Lake.
 - Inspection of SRWs catchment areas for its drinking water storages to identify new risks, and to inform contemporary assessment of existing risks. The outcomes of this work will feed into a review of SRWs risk management plans in 2021/22.
 - Discussion with the Department of Environment, Land, Water & Planning (DELWP) on fire prevention and management as it relates to SRWs drinking water catchments. In particular, dialogue has been opened on joint fire prevention opportunities at Blue Rock Lake.
 - Participation in the industry-wide review of risks to water quality, including water storages being opened to new or increased public recreation, and changes to the Regulated Watercourse Land Regulations.
 - Investment in two Water Research Australia projects investigating matters pertaining to blue-green algae risk and management. The projects are planned for 2021/22.
 - Liaison with GW and WW prior to and during periods of high flows into SRW storages in June 2021. This included monitoring waterbodies during and after flows.
 - Initiated a review of the Memorandum of Understanding (MoUs) between SRW and GW and WW (leading into WWs amalgamation with City West Water to become Greater Western Water in July, 2021). The review is to consider information sharing and a focus on incident management and communications.

Water Treatment processes

17(e) if the water storage manager operates or maintains a drinking water treatment process –

- (i) A summary of the process by which the water supplied by the water storage manager is disinfected or treated and any other processes applied to the water, and any issues arising out of the application of those processes; and**
- (ii) A list of all the chemicals and other substance, and any processes, used to disinfect or treat the water supplied, or to be supplied, by it for drinking purposes**

SRW does not treat the water prior to its receipt by Western Water and Gippsland Water.

Issues

Not applicable.

Emergency / Incident Management

17(a) information about actions taken by the water storage manager in respect of each emergency, incident or event that has arisen that has affected –

- (i) The quality of water supplied generally; and**
 - (ii) The quality of water supplied where that supply posed a risk to human health; and**
- (b) any issues that may have arisen out of the actions referred to in paragraph (a)**

Incidents under Section 22 of the Act

SRW had no reportable incidents in 2020/21 under Section 22 of the Act.

Other incidents

Blue-green Algae

Under the Department of Environment, Land, Water and Planning's (DELWP) Algal Bloom Response Plan (2017) and Victorian Blue-Green Algae Circular (2018), SRW is obliged to notify agencies such as urban water suppliers, DH, the Environment Protection Authority (EPA) and DELWP 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.

Southern Rural Water 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 Gippsland Water, Western Water, DELWP 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 DELWP's Algal Response Plan (2017) and Victorian Blue-Green Algae Circular (2018) there were three reportable blooms in drinking water storages over 2020/21 as follows;

- An ongoing low-level bloom in Lake Glenmaggie from December 2020 to June 2021.
- Two low-level blooms at Pykes Creek Reservoir, December 2020 and April - May 2021.

In all instances, Gippsland Water and Western Water were able to manage the BGA effectively through treatment processes.

Issues

There were no significant issues pertaining to raw water quality during 2020/21.

Risk Management Plan Audit Results

17(d) a summary of the findings of the most recent risk management plan audit and any issues that the approved auditor raised during the risk management plan audit.

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 May, 2020. However, due to the impacts and restrictions on movement imposed due to the COVID-19 pandemic, the audit was not finalized until July 2020. Hence, the audit outcome was required to be reported under SRWs 2020/21 annual report.

The audit concluded that SRWs risk management plans were fully compliant with the requirements of the *Act* and the Regulations, with one Opportunity for Improvement (OFI) identified. The OFI related to the ability to clearly interpret SRWs response to identified hazards within its risk management plan. Importantly, the controls relating to hazards were deemed appropriate by the auditor.

The OFI was addressed immediately after the audit by;

- providing additional explanation within the risk management plan document to aid interpretation of the hazard and control table. This instruction allows the reader to clearly understand where controls apply to multiple risks.
- Seeking assurance from SRWs auditor that the action taken addressed the issue satisfactorily. This was confirmed by the auditor.

Furthermore, SRW will consider the audit feedback in its review of its risk management plans in 2021/22, as part of its ongoing review and improvement practices. SRWs intent is to improve the overall readability of its risk management plan during this update.

SRWs 2020 audit certificate is provided in the appendices. SRW has also provided a letter from the auditor regarding required amendment of audit dates provided with the original audit certificate in the appendices.

Undertakings under section 30 of the Act

17 (c) a summary of every written undertaking by the water storage manager accepted by the Secretary 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 SRW's previous annual reports, responsibilities for BGA reporting, routine monitoring that is undertaken, current alerts and media releases, together with general information can all be found at SRW's 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 directly during business hours by email srw@srw.com.au or by telephone (03) 5139 3100.

Appendix

SRW 2020 Audit Certificate

Risk Management Plan Audit Certificate

SCHEDULE 1

Safe Drinking Water Regulations 2015

Regulation 10

Risk Management Plan Audit Certificate

Certificate Number: **1340-2020**

Audit period: **1st of May 2018 to April 28th, 2020**

To: **Ryan Wilson, Manager Environment, Southern Rural Water**

3/307 Maroondah Highway, Ringwood VIC

Australian Business Number (ABN): **70 801 473 421**

I, Nicholas Alan O'Connor, after conducting a risk management plan audit of the
(print full name of approved auditor)

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.

Audit finding: **COMPLIANT**

Signature of approved auditor: 

Date: **21 / July / 2020**

SRW 2020 Audit Certificate – amendment of audit period date



Ecos Environmental Consulting P/L (ABN 11 086 102 383)
64 Milne Street, Templestowe, Victoria 3106 Australia m. PO Box 1064G North Balwyn Victoria 3104 Australia
t. +61 408 520 579 e. ecos@ecosec.com.au w. www.ecosec.com.au

Wednesday, 9 December 2020

Suzie Sarkis,
Manager, Water
Department of Health and Human Services
Victoria
e. suzie.sarkis@dhhs.vic.gov.au

Dear Suzie,

Re: Amendment of audit period date on Southern Rural Water 2020 audit certificate

The submitted risk management plan audit certificate for Southern Rural Water dated 21 July 2020 contained the incorrect audit period. The incorrect audit period was 1st of May 2018 to April 28th, 2020. The corrected audit period is 18th of April 2018 to July 21st, 2020.

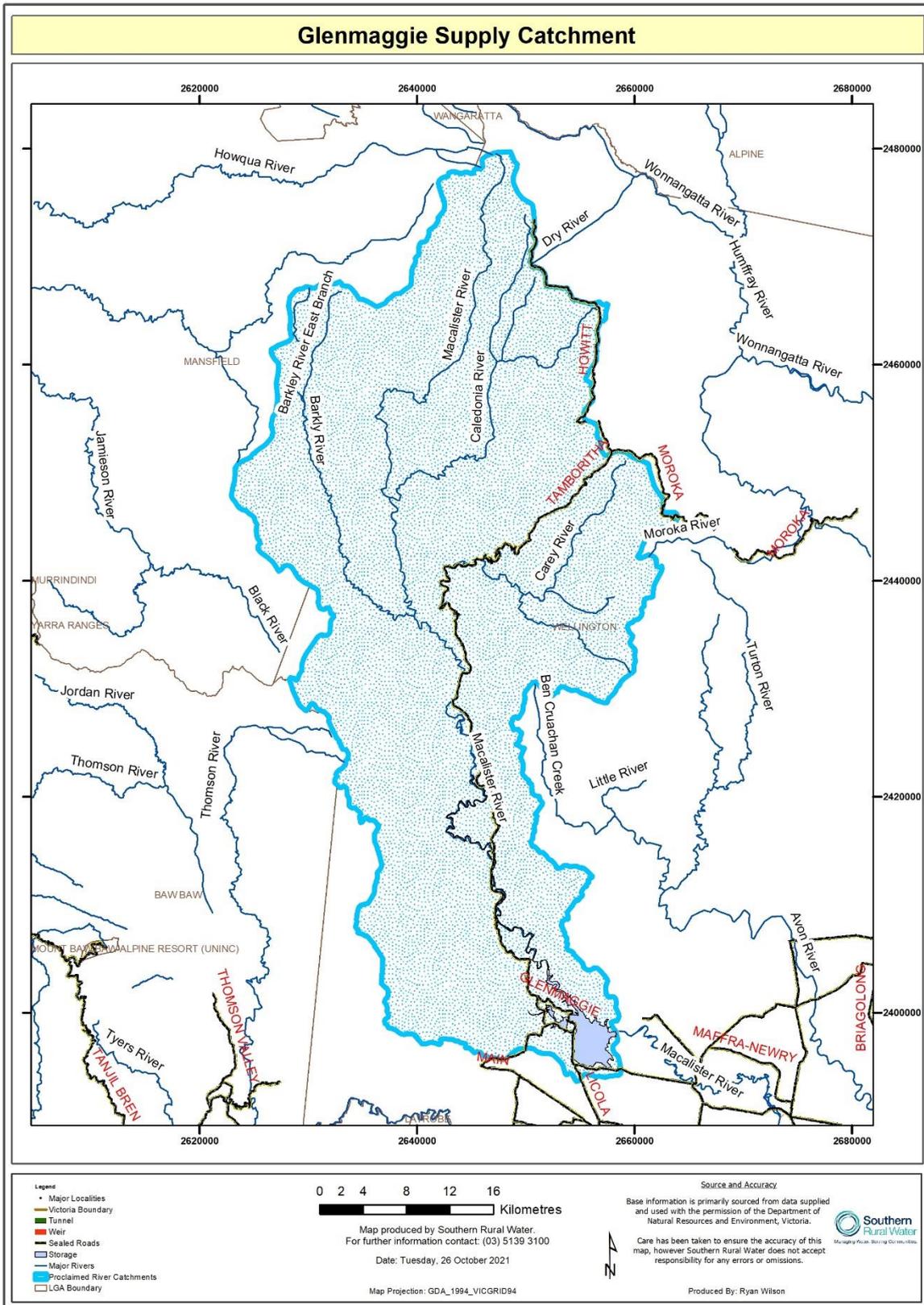
Please treat the certificate as having been amended accordingly.

Yours sincerely

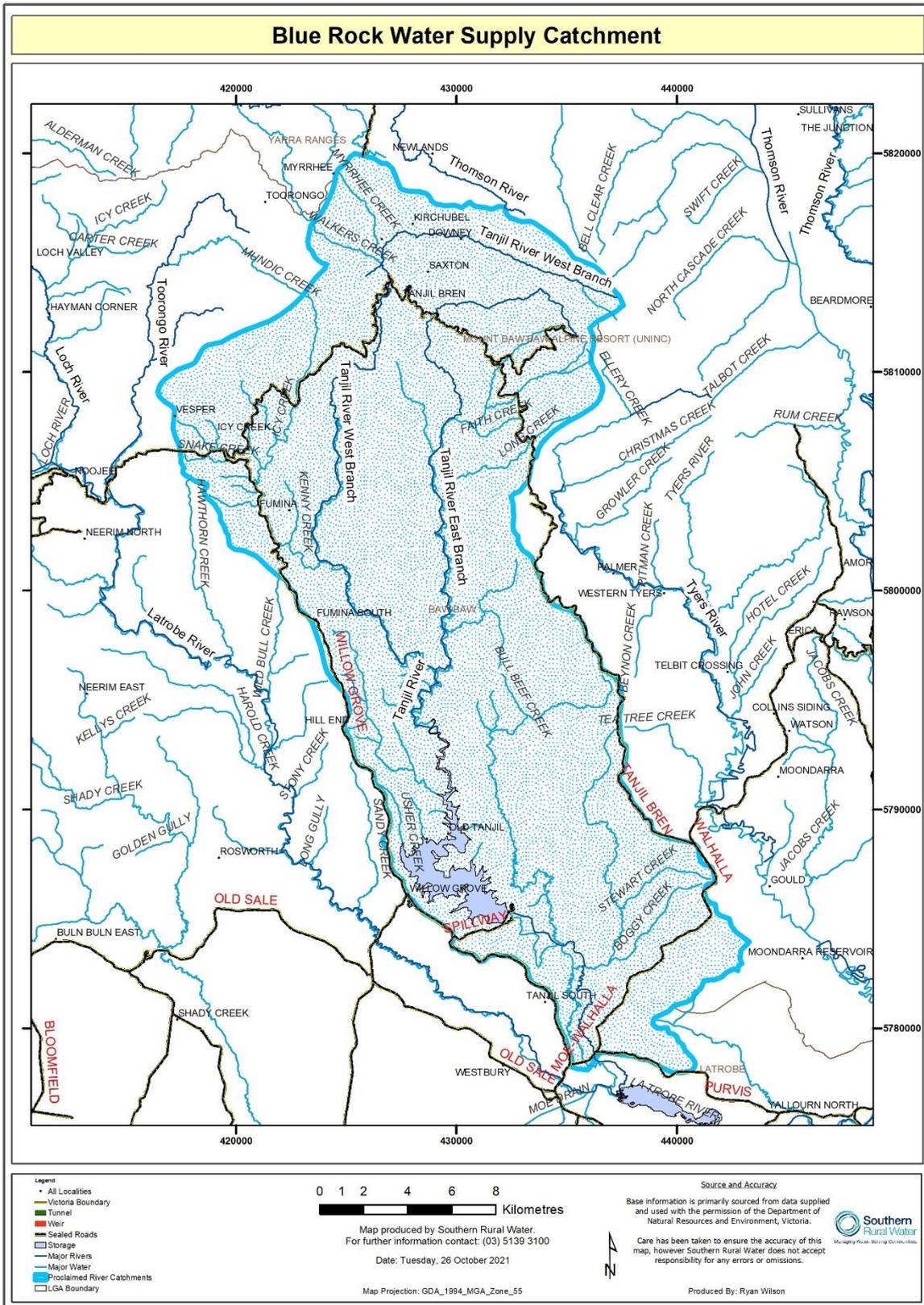
A handwritten signature in black ink, appearing to read "Nick O'Connor".

Nick O'Connor, B.Sc. (Hons), Ph.D.
Director and Principal Consultant
Ecos Environmental Consulting P/L

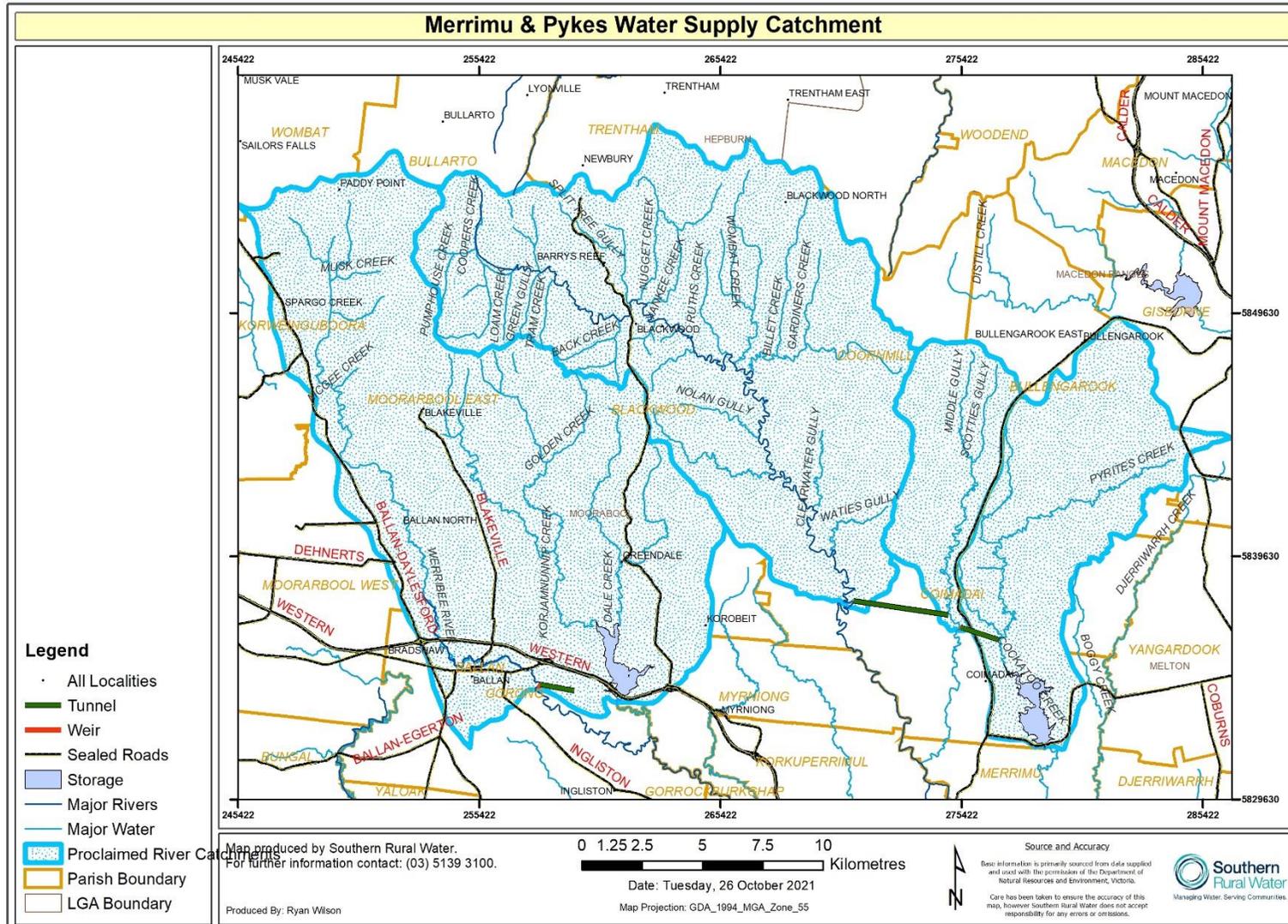
Lake Glenmaggie Proclaimed Catchment



Blue Rock Lake and Tanjil River Proclaimed Catchment



Merrimu Reservoir, Pykes Creek Reservoir and Proclaimed Catchments



Roslynne Reservoir Proclaimed Catchment

