



***Safe Drinking Water Act 2003***

**Water Storage Manager  
Annual Report 2013/14**

13 October 2014

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## DOCUMENT STATUS



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## 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 with a report each financial year. This report covers issues relating to the quality of untreated water and its management by SRW.

This 2013/2014 annual report covers the period from 1 July 2013 to 30 June 2014 and was developed in accordance with the Safe Drinking Water Regulation Guidance Note released by the Department of Health in June 2014, and with regulation 15 of the Safe Drinking Water Regulations 2005.

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*.

### 1.0 Introduction

#### 1.1 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 however, no primary contact 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 Water; and,
- Industry including power generation in the Latrobe Valley.

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Lake Glenmaggie and Blue Rock Lake provide raw drinking water to Gippsland Water while Merrimu, Pykes Creek and Rosslynne Reservoirs provide raw drinking 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. Consequently, this report focuses on the supply of untreated water to Gippsland Water and Western Water who are drinking water suppliers.

The Board of SRW approved in May 2005 a raw drinking water policy that sets out what our reservoir based risk management plans are designed to implement. The policy was reviewed and updated in June 2012.

The policy states we shall:

- Take responsibility for our role as a water storage manager in the overall delivery of safe drinking water. We will improve the awareness and performance of our staff to minimise or prevent contamination of water in its storages;
- Use a risk-based approach where potential threats to raw drinking water are identified and managed;
- Report information relating to identified risks and issue to our stakeholders in a timely manner;
- Support research and development activities to improve understanding of water quality issues, especially issues related to catchment management to improve future management decisions;
- Ensure that this policy is understood and maintained by relevant staff and is freely available to all customers and members of the wider community.

During 2013/14, we continued the implementation of our risk management plans for storages harvesting untreated water for drinking.

We maintained our Blue Green Algae (BGA) communication to the public, including detailed BGA web pages, with general information on BGA, an up-to-date alert and media releases web page, as well as a dedicated BGA information line.

## 1.2 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	Storages	Supply points/ Offtakes	Urban Water Supplier
Werribee system	Lake Merrimu (Lerderberg River)	Merrimu Reservoir	Offtake @ tower (valve house)	Western Water
	Lake Merrimu (Goodmans Creek) Lake Merrimu Pykes Creek Reservoir and Werribee River	Pykes Creek Reservoir	Offtake @ tower (valve house)	
Rosslynne system	Rosslynne Reservoir (Jackson Creek)	Rosslynne Reservoir	Offtake @ tower (valve house)	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	Gippsland Water
Blue Rock system	Tanjil River	Blue Rock Lake	Offtake to: Willowgrove @ tower Moondarra Reservoir @ tower Moe @ 15km downstream on Tanjil River	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 Appendices 1 to 4 of this annual report. All systems have associated proclaimed catchments as listed in Table 1 and detailed in the appendices.

## 2.0 Water Treatment and Quality Management Systems

### 2.1 Water treatment

- **15 (2) (d) “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 by the water storage manager, and any issues arising out of the application of these processes”.**
- **15 (2) (e) “a list of all the chemicals and other substances, and any processes, used by a water storage manager to disinfect or treat the water supplied, or to be supplied, by it for drinking purposes;”**

SRW does not supply drinking water. It stores untreated water for water suppliers (Western Water and Gippsland Water), power generating companies in the Latrobe Valley, industry, irrigation and rural purposes. We do not treat the water in anyway prior to its delivery to Western Water and Gippsland Water.

Appropriate notification is provided on licence documents and account statements to advise that water licensed or supplied by SRW is not fit for human consumption, either directly or indirectly, without first being properly treated. In addition, water that is made available to the public from our reservoirs for recreational purposes, including toilet and hand washing facilities, is accompanied by signage to ensure that the public is informed that the water is untreated and not fit for human consumption, refer to Figure 1 for examples of signage.



**Figure 1: Examples of non-potable water notification at SRW sites**

In 2009, SRW developed a communication strategy for informing customers and the public that the water we harvest and provide from our reservoirs and channels and the water we license for extraction from groundwater and rivers should not be considered fit for human consumption. The strategy incorporates a combination of new and existing measures designed to maximise customer and public awareness that they should not consider our water safe for human consumption. Measures include:

- Ensuring 'no-drinking' signs are in place at stand pipes adjacent to our channels.
- Providing information in our customer newsletters advising that the water we manage, including the water we provide, is untreated and should not be considered safe for human consumption without proper treatment.
- Advising new irrigation customers that the water we provide is untreated and should not be considered safe for human consumption without proper treatment. And,
- Advising customers who may provide the water to third parties that they should treat the water or advise the third party that the water is untreated and should not be considered safe for human consumption without proper treatment.

## **2.2 Water quality improvement/ protection initiatives**

SRW has undertaken/ continued initiatives in 2013/14 that aim to protect the quality of water we provide to stakeholders.

SRW reviews and updates its Sustainability Plans for Eastern and Western storages on a bi-annual basis. These two plans incorporate the Safe Drinking Water Risk Management Plans for all of SRW's drinking water storages which identify risks to water quality and include actions to manage these risks as well as including management actions to protect the social, economic and environmental values of each storage. SRW last reviewed its Sustainability Plans in March 2014 which included consultation with Western Water and Gippsland Water. This continual review process ensures that SRW is maintaining the relevance of our plans and ensures we are continually improving the way we do things.

With fire in the catchments surrounding some of our storages being identified as an extreme risk, SRW continued its active involvement in fire management planning with the Department of Environment and Primary Industries (DEPI) during 2013/14. This involved SRW participating in DEPI's Strategic Bushfire Management Planning workshop for the East Central Bushfire Landscape which

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encapsulates Blue Rock Lake and surrounding catchment. This provided an opportunity for information sharing and planning between agencies. Water storage managers and water suppliers were able to give valuable feedback regarding water quality considerations associated with controlled burning programs within our catchments.

SRW also considered water quality and yield implications resulting from logging activity within its catchment areas. This involved SRW providing feedback to VicForests on its proposed Timber Release Plans (TRP) for the Central Highlands and East Gippsland TRP regions which encapsulate Blue Rock Lake and Lake Glenmaggie respectively. SRW considered the proposed VicForests TRP program for the next three years and confirmed with VicForests that while we (SRW) appreciate the risks to water quality and yield associated with logging in forested catchments, the size and scale of logging activity in the proposed TRP's, specifically activity within the Tanjil and Macalister River catchments, was of low risk to our operations. However, it was indicated to VicForests that SRW was keen to stay involved in the consultation process with VicForests and other Water Corps to remain abreast of activity in our catchments and to ensure any future TRP amendments are carefully considered.

As part of their weekly routine, SRW headworks staff conduct both general and detailed visual inspections of the storage embankment, structure, outlet, spillway and mechanical / electrical equipment. Visual Inspections are conducted daily, with reports executed weekly. Daily inspections ensure that any issues are found and dealt with quickly so any risk to water quality is minimised.

SRW continued its program for staff to gain Water Industry Training Certificates III, IV and Diplomas in Water Operations and Management (accredited by Chisholm Institute). Environmental management is a compulsory component of this training, with SRW environmental staff and external providers running such courses. Water sampling training and the development of environmental management plans were key components of this initiative.

### **2.3 Issues**

SRW does not use chemicals, substances or any process to disinfect or treat the water that it stores or supplies into its irrigation districts. Consequently, there are no issues to report.

### 3.0 Emergency / Incident Management

- **15(2)(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 the water supplied for drinking purposes generally; and*
  - ii. The quality of the water supplied where that supply posed a risk to human health.”*

#### 3.1 Actions – Including Stakeholder Incident Notification

SRW must notify agencies such as urban water suppliers, the Environment Protection Authority (EPA) and DEPI of BGA blooms in storages and water bodies where we have Local Water Manager responsibilities, as defined in the BGA Circular 2013/14 distributed by DEPI. In addition, the Department of Health must be notified under Section 22 of the *Safe Drinking Water Act 2003* (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.

However DEPI's BGA Circular 2013/14 acknowledges that since water storage managers do not generally treat and supply drinking water to the public in Victoria, they may not be best placed to determine whether BGA levels pose a public health at risk to drinking water supplies. This means that the water supplier (as defined under the SDWA) may be the most appropriate entity to notify the Department of Health of BGA incidents under Section 22.

SRW provides Gippsland Water, Western Water and the Department of Health with the results of its BGA monitoring program.

There were two incidents in 2013/14 where BGA blooms exceeded level 2 levels for drinking water. These are summarized in Table 2.

Both Western Water and the Department of Health were notified of the incidents. However, Western Water advised that suitable operational procedures (e.g. sourcing alternative supply, altering the off-take level) and/or treatment processes were used which effectively negated the need for a Section 22 notification to the Department of Health.

**Table 2: Incidents where notification was made to stakeholders**

Location of Incident	Nature of Incident	Drinking water supply potentially affected	Date and Duration of Incident	Actions taken in response to incident (including communications)
Merrimu outlet sampling site	BGA Bloom Alert Level 2*	Bacchus Marsh and Melton townships	3/9/2013 – 10/9/2013  1 week	Routine notification sent to DEPI <sup>1</sup> , MW <sup>2</sup> and WW <sup>3</sup> . Additional weekly sampling was conducted until bloom ceased. Fortnightly sampling continued as part of routine monitoring program.
Rosslynne outlet and leeward sampling sites	BGA Bloom Alert Level 2*	Sunbury and Gisborne townships	31/03/2014 – 7/04/2014  1 week	Routine notification sent to DEPI, MW and WW. Additional weekly sampling was conducted until bloom ceased. Fortnightly sampling continued as part of routine monitoring program.
BGA Bloom Alert Level 2 is a Level 2 Drinking Water trigger specified in DEPI's BGA Circular 2013/14 and adopted in SRW's BGA Incident Management Plan.				

SRW undertakes a range of other water quality monitoring initiatives. For instance: SRW undertakes continuous recording of turbidity upstream of Lake Glenmaggie (Macalister River at Licola) and Cowwarr Weir (Thomson River at Upstream of Cowwarr Weir) which is jointly funded by Gippsland Water and SRW. The monitoring indicates when slugs of dirty water emanate from within the Thomson and Macalister catchment. These sites provide early warning to Gippsland Water of elevated turbidity levels upstream of the storage or weir.

SRW has other regulatory responsibilities, such as public notification to recreational users that are not detailed within this Safe Drinking Water Annual Report.

### 3.2 Other Incidents / Issues / Events

There were no incidents/issues/ events during the reporting period that impacted on the quality of untreated water in SRW storages.

<sup>1</sup> Department of Environment and Primary Industries

<sup>2</sup> Melbourne Water

<sup>3</sup> Western Water

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#### 4.0 Audit Findings

***15(2)(f) a summary of the findings of the most recent risk management plan audit and any issues that the approved auditors raised during the risk management plan audit.***

SRW was audited in March 2014 and was deemed to be compliant in all areas. This is the third straight statutory audit in which SRW has been assessed as fully compliant with its Safe Drinking Water obligations.

The most recent risk management plan audit:

- a) Identified one opportunity for improvement in which the auditor suggested that SRW reference existing radiological monitoring results or use relevant authoritative references to support its judgment that radiological exceedance posed a low risk to water quality at its water storages.
- b) Did not identify any non-conformances (minor or major); and,
- c) Reinforced that SRW's level of system and RMP implementation was comprehensive and effective. Concluding remarks from the auditor were:

*'It is clear to the auditor that Southern Rural Water has made a strong corporate commitment to the development and implementation of risk management systems including those directed at ensuring compliance with the Safe Drinking Water Act 2003 and Safe Drinking Water Regulations 2005. The extent of quality management system documentation, staff awareness and support for the system and the general level of implementation were very impressive.'*

A copy of the most recent risk management audit certificate is included in Appendix 5.

## **5.0 Undertakings under section 30 of the Act**

***(c) a summary of every—***

***(ii) 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 the Department of Health during the reporting period.

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## 6.0 Further Information

In March 2014 SRW reviewed and updated its Sustainability Plans for Eastern and Western Storages. The plans take a holistic approach to water storage management and although the majority of the plan is focused on safe drinking water risk management they also encapsulate a wider range of sustainability issues (e.g. recreation, biodiversity). To this extent the plans not only address the protection of water quality but also consider social, economic and environmental needs relating to the storages.

SRW's Environmental Management System (EMS) includes requirements from our risk management plans and Safe Drinking Water regulations. Our EMS is a driving force for ensuring implementation, for undertaking regular audits and reviews, and includes an in-built continual improvement mechanism for our organisation. Throughout 2013/14, Environmental staff have conducted 'refresher' training sessions throughout the business to ensure that SRW's EMS is understood and that environmental aspects and impacts associated with each part of the business, particularly those related to water quality in drinking water storages are well known.

SRW undertakes a scheduled monitoring program at each of its storages for BGA with results communicated to stakeholders in accordance with the DEPI Circular trigger levels and agreed levels with Gippsland water and Western Water.

Further information regarding SRW's responsibilities for BGA reporting, routine monitoring that is undertaken, current alerts and media releases, together with general information can all be found at our website [www.srw.com.au](http://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](mailto:srw@srw.com.au) or by telephone (03) 5139 3100.

### **Southern Rural Water's Dam Safety Emergency Plan Exercises**

In 2003, SRW implemented a comprehensive dam safety program to ensure emergency awareness and readiness of staff and to verify that emergency plans are relevant, inclusive and practical. In addition, both ICOLD (International Commission on Large Dams) and ANCOLD (Australian National Committee on Large Dams) emphasise the importance of planned systematic dam safety programs.

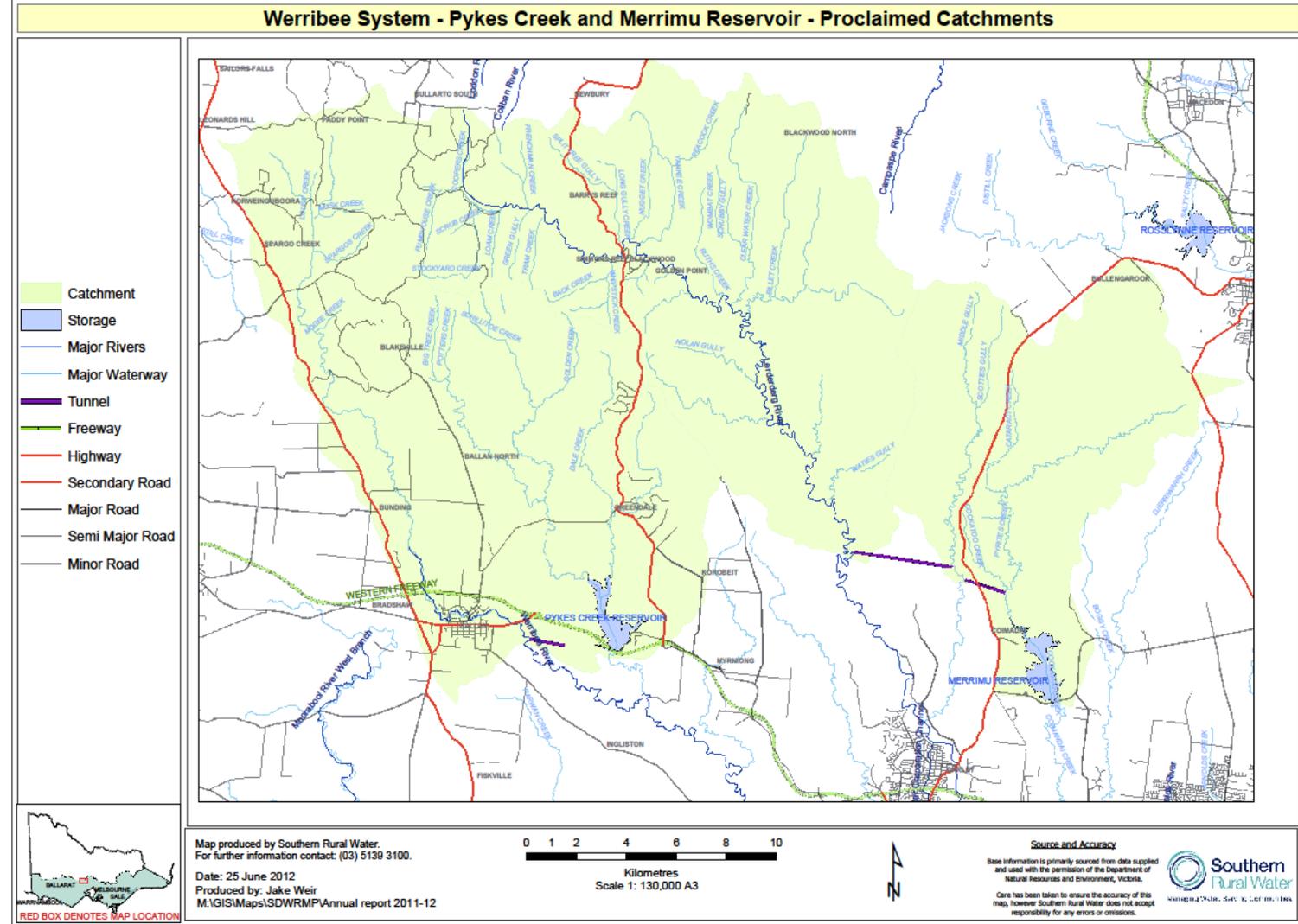
To test SRW's Dam Safety Emergency Plans (DSEP), desktop exercises are run with other emergency management agencies (i.e. SES, VicPol, CFA, MFB, Department of Health, Local Government, Water Authorities, etc) based on various emergency scenarios. The focus of these exercises, which are run regularly, is the efficiency of communication and flow of information within SRW and between other stakeholder agencies involved during the scenario.

At a recent SRW DSEP exercise (which SRW's Environmental team participated in); the focus of one emergency scenario was a hazardous chemical spill at Pykes Creek Reservoir. This hazard is included as a high risk to water quality within SRW's Western Storages Sustainability Plan for Pykes Creek Reservoir.

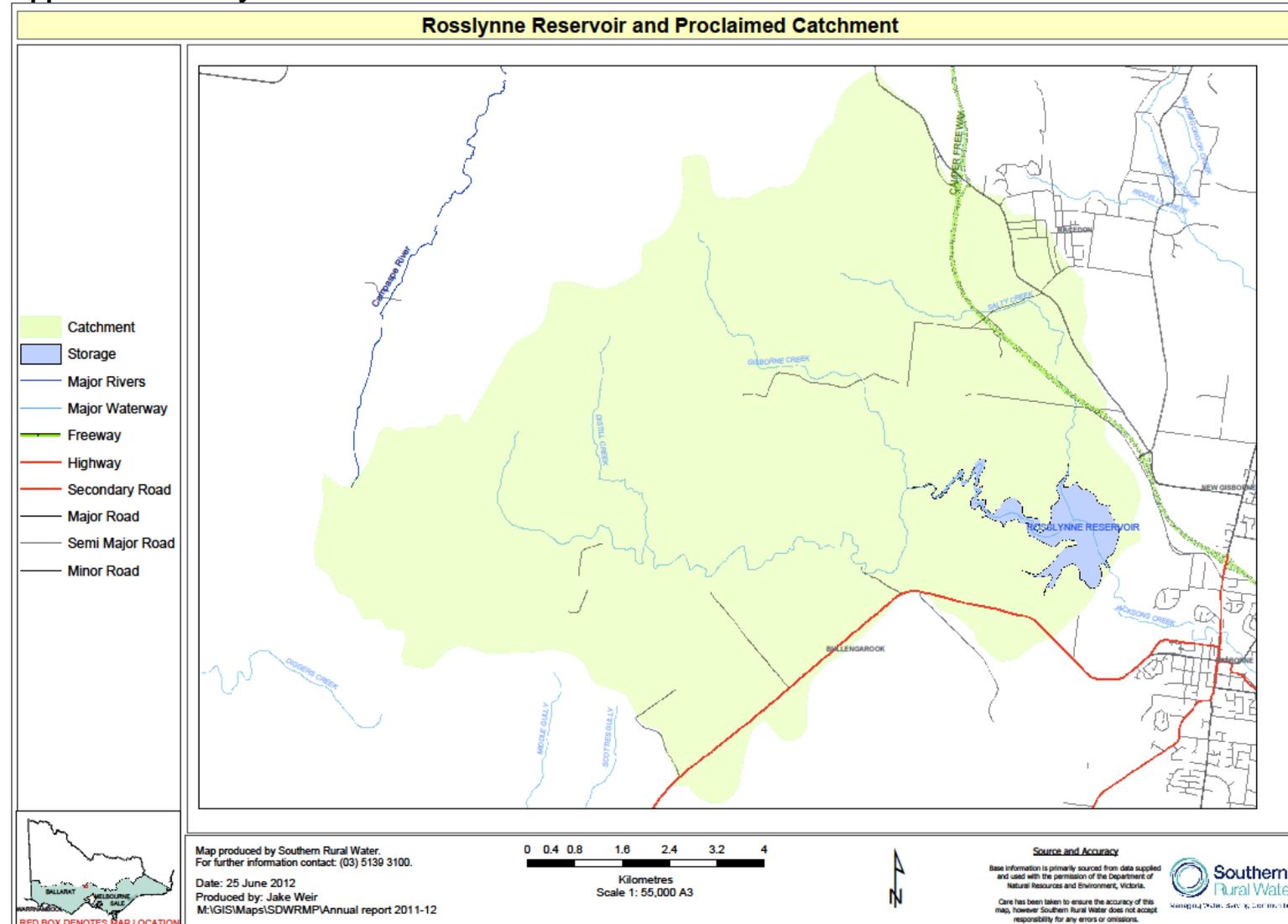
The scenario involved the rollover of a tanker carrying potassium cyanide on the Ballarat Road overpass near the Pykes Creek outlet tower with the chemical spilling into the water storage. Given the location of the spill and the toxicity of the spilt chemical, several agencies were immediately involved in information gathering, communication and management of the emergency; these included but were not limited to SRW, Department of Health, VicPol, CFA/ MFB, SES, Western Water and DEPI.

Input from agency representatives was provided during the scenario with a core focus being impacts to water quality and human health. Running through scenarios during DSEP exercises where water quality is a major theme, provides SRW with a simulated approach on how to effectively manage such incidents when/ if they occur. Through this initiative, SRW is able to expose its staff to emergency situations and ensure the appropriate actions (and sequence of actions) are taken to limit impacts to water quality and human health which complements SRW's approach to meeting its legislative and regulatory requirements under the *Safe Drinking Water Act 2003* and *Safe Drinking Water Regulations 2005*.

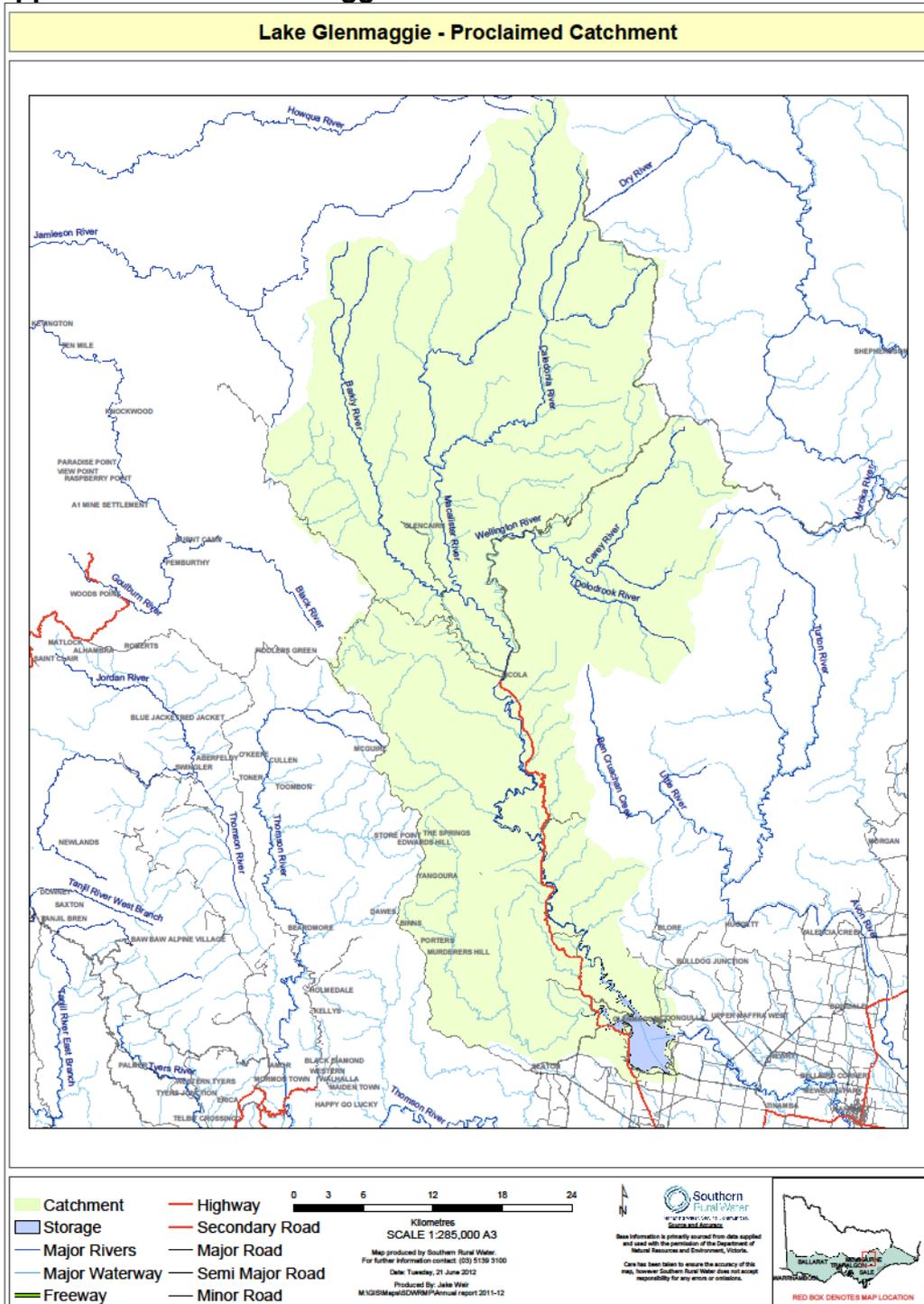
**Appendix 1: Merrimu Reservoir, Pykes Creek Reservoir and associated Proclaimed Catchments**



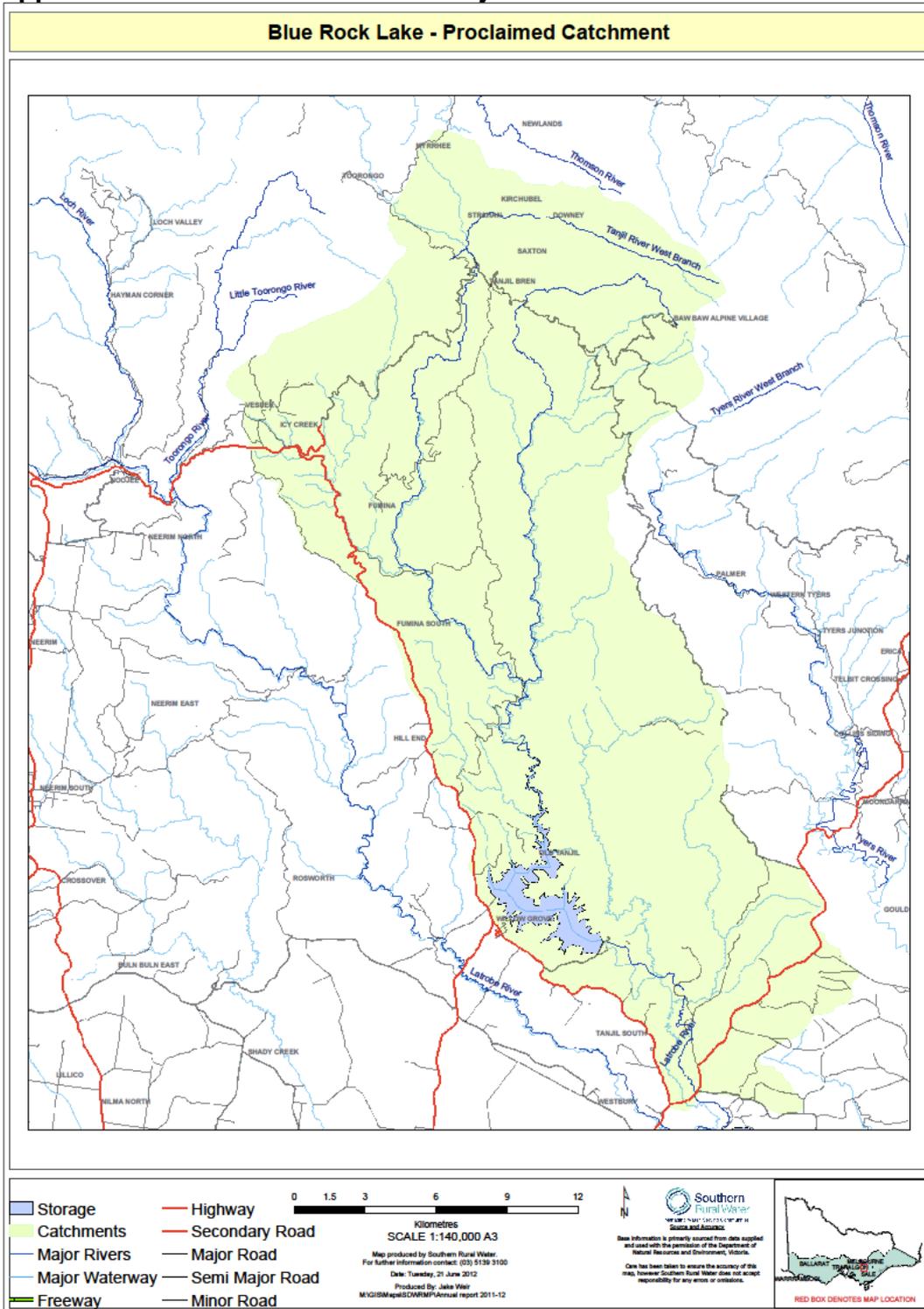
## Appendix 2: Rosslynne Reservoir and its Proclaimed Catchments



### Appendix 3: Lake Glenmaggie Proclaimed Catchment



### Appendix 4: Blue Rock Lake and Tanjil River Proclaimed Catchment



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## Appendix 5: Risk Management Plan Audit Certificate



**Risk Management Plan Audit Certificate**  
**SCHEDULE 1**  
Safe Drinking Water Regulations 2005, Regulation 8  
**Risk Management Plan Audit Certificate**

Certificate Number: 95

Audit period: 13<sup>th</sup> April 2012 to March 12<sup>th</sup> 2014

To: Mr Clinton Rodda  
Managing Director  
Gippsland and Southern Rural Water Corporation  
PO Box 153  
Maffra VIC 3860

Australian Business Number (ABN): 70 801 473 421

I, Nicholas Alan O'Connor, 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:



13 March 2014