



***Safe Drinking Water Act 2003***

**Water Storage Manager Annual  
Report 2012/13**

2 October 2013

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## DOCUMENT STATUS



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Name of Document:	Annual Safe Drinking Water Storage Manager's Report 2012/13
File Name:	Safe Drinking Water Annual report 2012_13 (Final)
Document Version:	1
Date of issue:	2/10/2013
Approved by:	Clinton Rodda, Managing Director

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## DOCUMENT HISTORY

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Issue	Revision	Prepared By	Reviewed By	Date
First draft	1	Richard Mannix	Craig Smith	11/9/2013
Final draft	2	Richard Mannix	Craig Smith	23/9/2013
Final draft	3	Richard Mannix	David Sheehan (DoH)	1/10/2013
Final	4	Richard Mannix	Craig Smith	2/10/2013

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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 2012/2013 annual report covers the period from 1 July 2012 to 30 June 2013 and was developed in accordance with the Drinking Water Regulation Guidance Note released by the Department of Health in May 2013, 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 and storage of water and delivery to customers in accordance with the provisions of the Bulk Entitlement Orders.

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

- Glenmaggie, Narracan and Blue Rock; located in Gippsland
- Melton, Merrimu, Pykes Creek and Rosslynne; 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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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 2012/13, our Headwork's business continued the implementation of its risk management plans for storages harvesting untreated water for drinking.

We maintained our Blue Green Algae communication to the public, including detailed Blue Green Algae Web Pages, with general information on Blue Green Algae, an up-to-date Alert and Media Releases Web Page, as well as a dedicated Blue Green Algae Information Line.

## **1.2 Our surface water supply systems**

SRW operates four specific surface water supply systems, listed in Table 1.

**Table 1: SRW surface water supply systems**

<b>System</b>	<b>Catchments</b>	<b>Storages</b>
Werribee system	Lake Merrimu (Lerderderg River) Pykes Creek Reservoir and Werribee River Lake Merrimu (Goodmans Creek) Lake Merrimu	Merrimu Reservoir Pykes Creek Reservoir
Rossllynne system	Rossllynne Reservoir (Jackson Creek)	Rossllynne Reservoir
Thomson/Macalister system	Lake Glenmaggie	Lake Glenmaggie
Blue Rock system	Tanjil River	Blue Rock Lake

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. 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.

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.



**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
- 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 Plan 2 – Water quality improvement projects**

With fire in the catchments surrounding some of our storages being identified as an extreme risk, SRW participated in Fire Operations Planning meetings with the Department of Environment and Primary Industries (DEPI) during 2012/13. 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 attended two briefings in early 2013 run by a DEPI appointed Bushfire Rapid Risk Assessment Team (BRRAT) whose purpose was to assess various impacts of the Aberfeldy-Donnely (Heyfield complex) fire and recommend treatment options to mitigate the risk of the impacts occurring. SRW attended the BRRAT briefing to obtain an understanding of implications to water quality arising from the fire which burnt a large area of the water supply catchment supplying Lake Glenmaggie.

SRW was consulted by Gippsland Water during the planning and construction phase of the Coongulla sewerage pipeline project. The purpose of the pipeline is to service townships surrounding Lake Glenmaggie. This new infrastructure will reduce potential impacts to water quality (i.e. septic leaks/ failure) originating from populated areas surrounding Lake Glenmaggie and within the Lake Glenmaggie catchment.

SRW initiated a review of its routine water quality monitoring program for in-storage testing in mid-2012. The review identified improvements to our existing program (e.g. regularity & duplication of sampling, scheduling sampling to occur prior to public holidays and long weekends). The improvements have enhanced SRW's ability to meet regulatory requirements as well as improving the health and safety of recreational users at SRW storages.

SRW unveiled its Sustainability Plans for Eastern and Western storages during the course of Water Plan 2. These two plans incorporate the existing Safe Drinking Water Risk Management Plans for all of SRW's drinking water storages. The Sustainability Plans build on this information and also consider the social and economic values associated with each of SRW's drinking water storages. The Sustainability Plans 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.

Some on-ground works that were completed throughout Water Plan 2 include the construction of a filtration zone at Blue Rock reservoir, erection of fencing around Glenmaggie to keep stock out of the water, targeting access via adjacent private property.

SRW has undertaken regular risk reviews with Western Water and Gippsland Water. A detailed review in 2010 and a review of risks planned for late 2013 ensures that SRW is maintaining the relevance of our plans and ensures we are continually improving the way we do things.

In the west, SRW has worked with the Moorabool Shire on an audit of septic systems in 2010. This provided valuable information about how many systems exist and how well they are performing. This audit formed the basis for appropriate corrective actions undertaken by the shire and also meant that suitable permit conditions could be developed for future approvals.

A Memorandum of Understanding between SRW and Gippsland Water was struck during the course of Water Plan 2 for the exchange of water quality data

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(for Blue Rock Lake and Lake Glenmaggie) as well as agreement on notification triggers for specific parameters.

SRW undertook a program for staff to gain Certificate 4 and Diploma in Water Operations training (accredited by Chisholm Institute) which included a compulsory environmental module. Water sampling training and the development of environmental management plans were key components of this initiative. This is an ongoing program throughout 2013.

### **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

- ***“information about actions taken by the water storage manager in respect of each emergency, incident or event that has arisen that has affected –***
  - ***The quality of the water supplied for drinking purposes generally; and***
  - ***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 Blue Green Algae (BGA) blooms in storages and water bodies where we have Local Water Manager Responsibilities, as defined in the BGA Circular 2012/13 distributed by the 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.

In practical terms, the water supplier as the authority responsible for water treatment notifies the Department of Health of any treatment needed to make the water fit for drinking. For this reason, SRW has not provided Section 22 notification to the Department of Health for the period outlined in this report. SRW, does however, provide the Department of Health with an email alert when BGA alert thresholds are triggered.

Notwithstanding this, there were seven incidents (four at Merrimu Reservoir and three at Pykes Creek Reservoir) during the reporting period where SRW experienced BGA blooms at sufficient level (i.e. Section 22 criteria as specified in the DEPI BGA Circular) to activate our notification process to stakeholders including Western Water. It is worth noting that 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 be made.

Table 2 collates the details of these BGA blooms and reports SRW's management actions used in response to the incidents.

**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 leeward sampling site	BGA Bloom Alert Level 2	Bacchus Marsh and Melton townships	10/9/2012 – 17/9/2012  1 week	Routine notification sent to DEPI, MW and WW. Additional weekly sampling was conducted. Fortnightly sampling continued as part of routine monitoring program once bloom ceased.
Merrimu outlet and leeward sampling sites	BGA Bloom Alert Level 2	Bacchus Marsh and Melton townships	17/12/2012 – 31/12/2012  1 week	Routine notification sent to DEPI, MW and WW. Additional weekly sampling not conducted due to Christmas holiday period. Fortnightly sampling continued as part of routine monitoring program.
Merrimu outlet and leeward sampling sites	BGA Bloom Alert Level 2	Bacchus Marsh and Melton townships	11/3/2013 – 18/3/2013  1 week	Routine notification sent to DEPI, MW and WW. Additional weekly sampling was conducted until bloom ceased. Monthly sampling continued as per routine monitoring program.
Merrimu leeward sampling site	BGA Bloom Alert Level 2	Bacchus Marsh and Melton townships	13/5/2013 – 20/5/2013  1 week	Routine notification sent to DEPI, MW and WW. Additional weekly sampling was conducted. Monthly sampling continued as part of routine monitoring program.

Location of Incident	Nature of Incident	Drinking water supply potentially affected	Date and Duration of Incident	Actions taken in response to incident (including communications)
Pykes Creek outlet and leeward sampling sites	BGA Bloom Alert Level 2	Myrning township	11/3/2013 – 18/3/2013  1 week	Routine notification sent to DEPI, MW and WW. Additional weekly sampling was conducted. Monthly sampling continued as part of routine monitoring program.
Pykes Creek outlet sampling site	BGA Bloom Alert Level 2	Myrning township	25/3/2013 – 1/4/2013  1 week	Routine notification sent to DEPI, MW and WW. Additional weekly sampling was conducted. Monthly sampling continued as part of routine monitoring program.
Pykes Creek outlet and leeward sampling sites	BGA Bloom Alert Level 2	Myrning township	11/6/2013 – 17/6/2013  1 week	Routine notification sent to DEPI, MW and WW. Additional weekly sampling was conducted. Monthly sampling continued as part of routine monitoring program.

1 DEPI – Department of Environment and Primary Industries  
2 MW – Melbourne Water  
3 WW – Western Water

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.

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### **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.

In late June 2013, parts of eastern Victoria received heavy rain, which resulted in minor flood levels being reached in two SRW managed water storages (Lake Narracan and Lake Glenmaggie). Airspace was created by controlled releases in the lead up to predicted heavy rains as a flood mitigation measure. Media publications and SRW's website explained the need for controlled releases to the community and interested parties. All potential floods that were triggered from minor flood levels at river gauging stations at the top of the respective catchments were managed through SRW's Corporate Incident Management Plan. This involved the formation of an incident management team which was made up of duty officers, managers, communications and headworks staff. Depending on the severity (or potential severity) of the flood event, other agencies such as VicPol and SES may be involved in managing a flood but this was not required in this instance. In spite of the significant changes to inflows and storage capacity, SRW did not observe a drastic change to water quality during the reporting period.

#### **4.0 Audit Findings**

***(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 not required to undertake a regulatory audit during 2012-13.

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**5.0 Exemptions under section 8 of the Act**

***(c) a summary of every—***

***(i) exemption under section 8 of the Act and any condition imposed in relation to every exemption; and***

There were no section 8 exemptions in place during the reporting period.

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**6.0 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; and***

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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## 7.0 Further Information

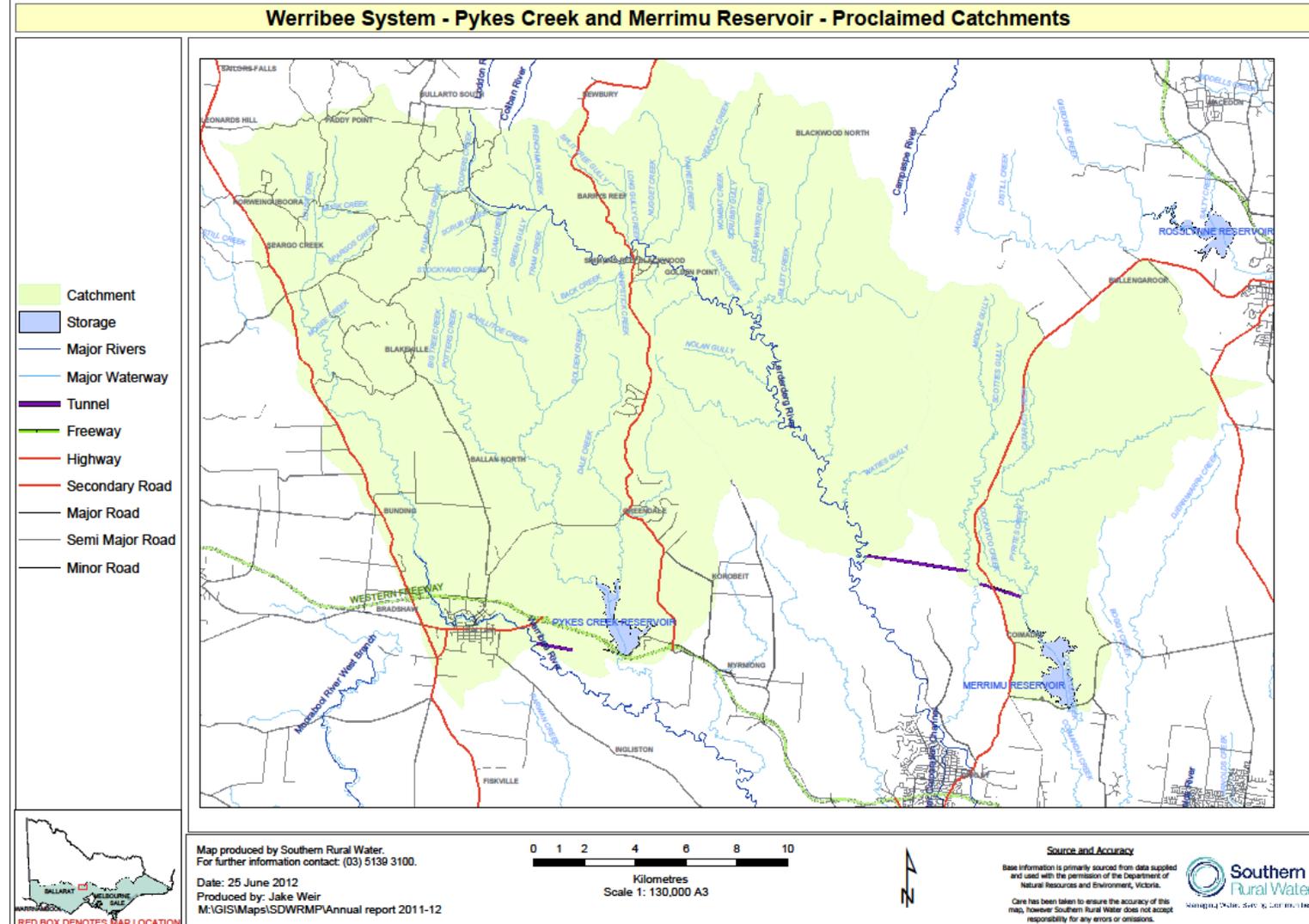
Throughout 2012/13 SRW finalised new Sustainability Plans for Eastern and Western Storages. These plans replace the outdated safe drinking water risk management plans that SRW agreed to overhaul post the previous audit in 2009. The plans take a holistic approach to water storage management and although 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, 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.

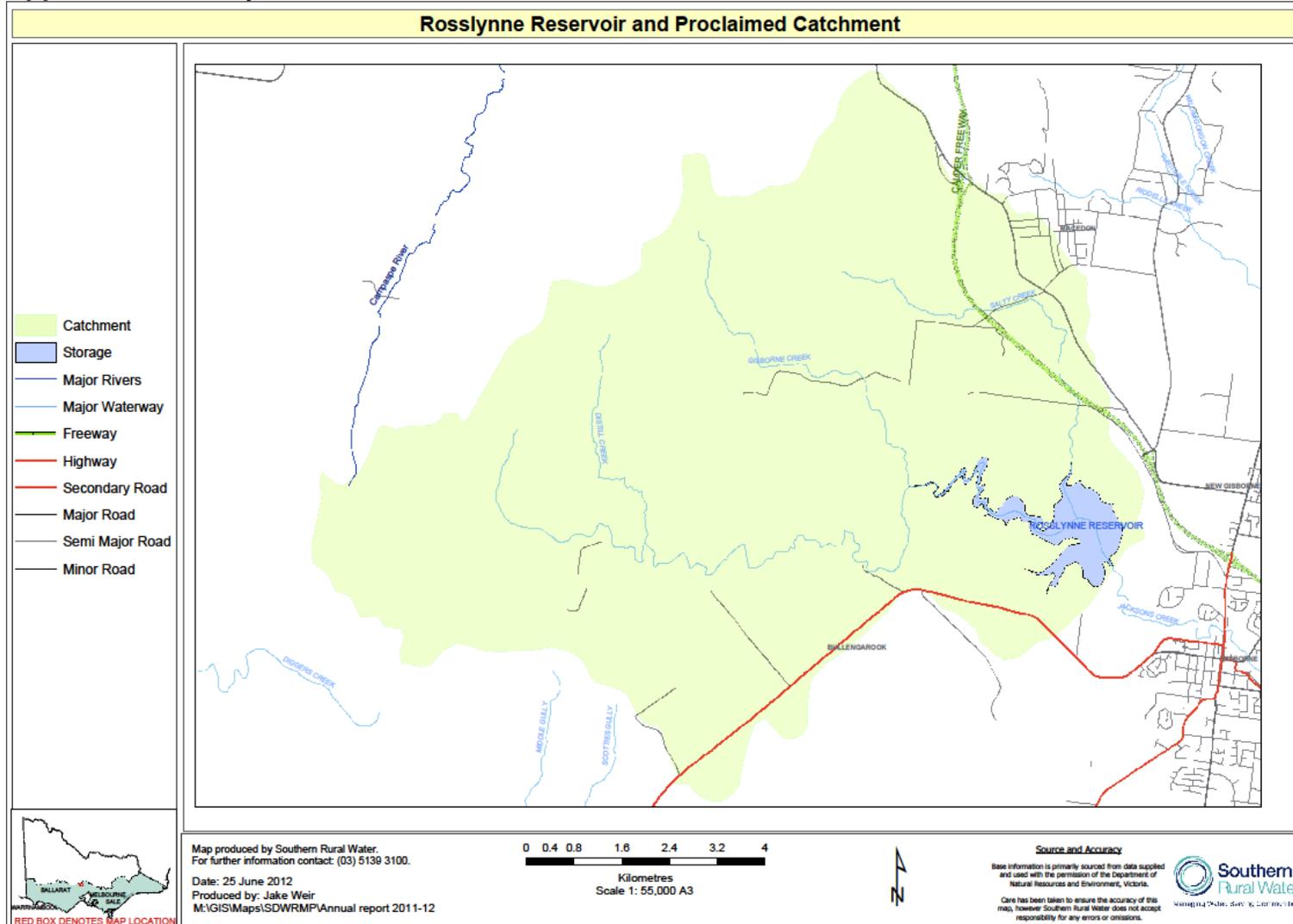
SRW undertakes a scheduled monitoring program at each of its storages for Blue Green Algae with results communicated to stakeholders in accordance with the DEPI Circular trigger levels and agreed levels with Gippsland water and Western Water.

Further information regarding SRW's responsibilities for Blue Green Algae 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 Blue Green Algae 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.

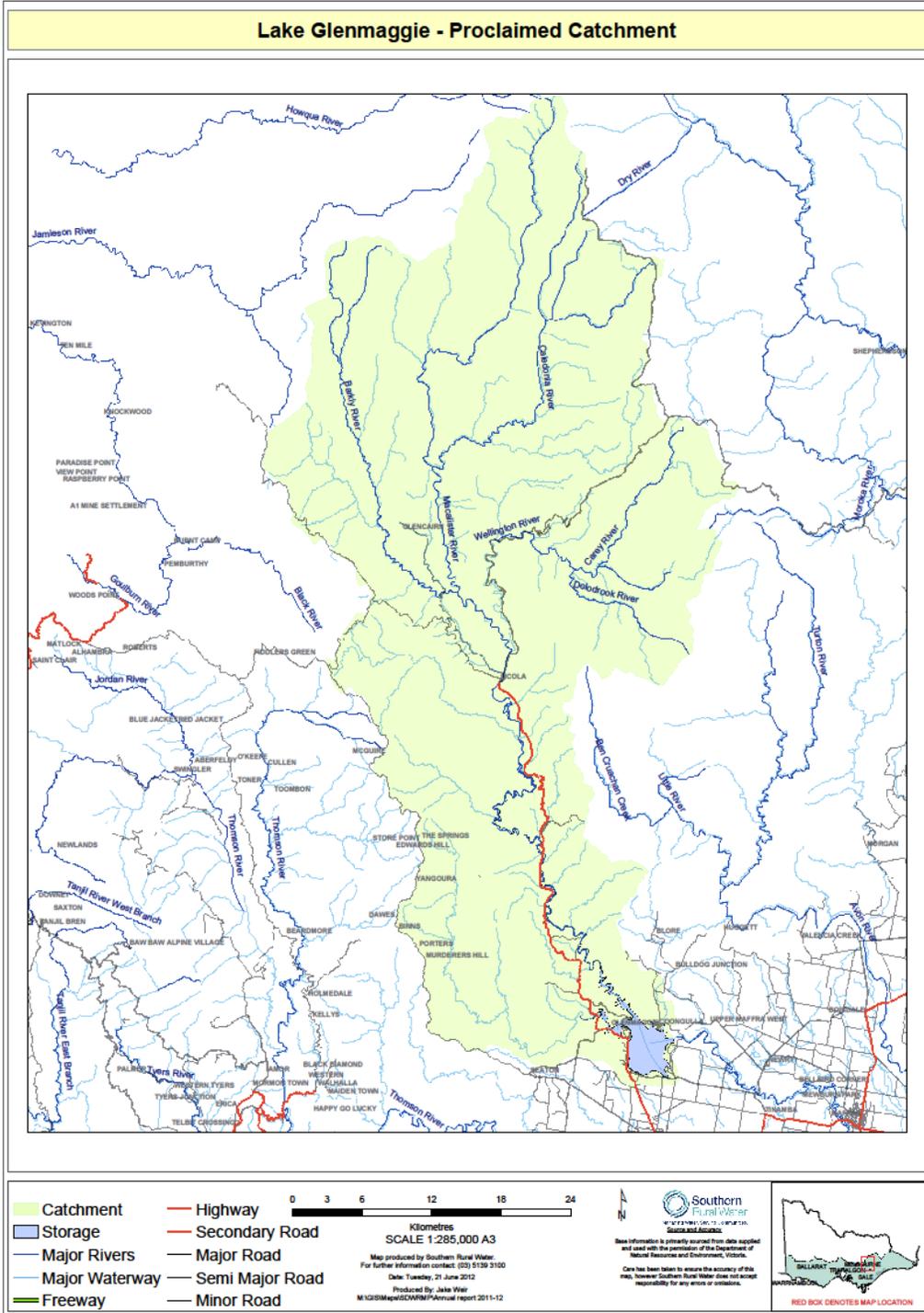
## Appendix 1: Merrimu Reservoir, Pykes Creek Reservoir and associated Proclaimed Catchments



## Appendix 2: Rosslyne Reservoir and its Proclaimed Catchments



### Appendix 3: Lake Glenmaggie Proclaimed Catchment



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

