

Hopkins-Corangamite Groundwater Catchment Statement

September 2019

Contents

Purpose of this document	1
Definitions	2
Hopkins-Corangamite Groundwater Catchment	4
Aquifers in the Hopkins-Corangamite Groundwater Catchment	7
Water management arrangements	10
Overarching responsibilities.....	10
Water accounting.....	10
Review	10
Access to information	11
Appendix 1 Bungaree Local Management Plan	12
Objective of the Local Management Plan.....	12
Area description.....	12
Permissible Consumptive Volume	12
Water entitlements.....	13
Restrictions.....	13
Trading	13
New licences	14
Metering	14
Consultation	14
Appendix 2 Cardigan Local Management Plan	15
Objective of the Local Management Plan.....	15
Area description.....	15
Permissible Consumptive Volume	15
Water entitlements.....	16
Restrictions.....	16
Trading	16
New licences	17
Metering	17
Consultation	17
Appendix 3 Colongulac Local Management Plan	18
Objective of the Local Management Plan.....	18

Area description	18
Permissible Consumptive Volume	18
Water entitlements	19
Restrictions	19
Trading.....	19
New licences.....	20
Metering.....	20
Consultation	20
Appendix 4 Gellibrand Local Management Plan	21
Objective of the Local Management Plan	21
Area description	21
Permissible Consumptive Volume	21
Water entitlements	22
Restrictions	22
Trading.....	22
New licences.....	23
Metering.....	23
Consultation	23
Appendix 5 Gerangamete Local Management Plan	24
Objective of the Local Management Plan	24
Area description	24
Permissible Consumptive Volume	24
Water entitlements	25
Restrictions	25
Trading.....	25
Metering.....	26
New licences.....	26
Consultation	26
Appendix 6 Glenormiston Local Management Plan	27
Objective of the Local Management Plan	27
Area description	27
Permissible Consumptive Volume	27
Water entitlements	28
Restrictions	28
Trading.....	28
New licences.....	29

Metering	29
Consultation	29
Appendix 7 Newlingbrook Local Management Plan	30
Objective of the Local Management Plan.....	30
Area description.....	30
Permissible Consumptive Volume	30
Water entitlements.....	31
Restrictions.....	31
Trading	31
New licences	32
Metering	32
Consultation	32
Appendix 8 Paaratte Local Management Plan	33
Objective of the Local Management Plan.....	33
Area description.....	33
Permissible Consumptive Volume	33
Water entitlements.....	35
Restrictions.....	37
Trading	37
New licences	38
Metering	38
Consultation	38
Appendix 9 Warrion WSPA Local Management Plan	39
Statutory Management Plan	39
Area description.....	39
Permissible Consumptive Volume	39
Water entitlements.....	40
Restrictions.....	40
Trading	40
New licences	41
Metering	41
Consultation	41
Appendix 10 South West Limestone GMA Local Management Plan	42
Appendix 11 Hopkins-Corangamite Groundwater Catchment (Areas outside of GMUs)	43
Local Management Plan	

Objective of the Local Management Plan	43
Area description	43
Permissible Consumptive Volume (PCV)	44
Water use and entitlements.....	44
Restrictions	44
New licences.....	45
Groundwater Trade	45
Metering.....	46
Consultation.....	46

Purpose of this document

Victoria has introduced Groundwater Catchments to capture the full extent of connected groundwater resources.

The catchment statement is the first step toward ensuring users and the community have a complete picture of the current management of groundwater in the Hopkins-Corangamite Groundwater Catchment. The objective is, over time, to simplify management of groundwater throughout the catchment and enable users to get access to water for future development. The Hopkins-Corangamite Groundwater Catchment boundary is available at the state government's Central Plan Office (document reference LEGL./12-063).

This document brings together all the plans affecting the licensed use of groundwater in the Hopkins-Corangamite Groundwater Catchment. Water Supply Protection Areas and Groundwater Management Areas exist within the catchment. Statutory management plans apply in some Water Supply Protection Areas and Local Management Plans apply in all other areas.

Management plans included in this statement will be reviewed at least every five years, but reviews may occur earlier if required. Reviews will improve existing management and potentially reduce the number of management areas within the catchments. This will make management less complex, while ensuring equitable sharing and long term sustainability of the resource.



HUGH CHRISTIE

Manager Groundwater & Rivers

18 September 2019

Definitions

Aquifer

An aquifer is a layer of fractured rock, gravel, sand or limestone below the ground surface with enough space between the particles to hold groundwater and allow it to flow through.

Aquitard

An aquitard is a layer of rock or clay below the ground surface that is tightly compacted and so water cannot easily be held within it or flow through it.

Carryover

Allows entitlement holders to retain ownership of unused water allocated or purchased from the current season into the following season in accordance with rules specified in a Ministerial Order made under section 62A of the *Water Act 1989*.

Entitlements

Water entitlements referred to in this report refer to entitlements issued under section 51 of the *Water Act 1989*.

Geological Units (GU)

A geological unit (Victorian Aquifer Framework) is a layer of soil or rock (sand, gravel, clay, limestone, basalt etc) that has been identified and named in geological assessments across Victoria and is in the Australian Stratigraphic Units Database. Each GU is assigned a unique 5 digit number starting from 10000.

Groundwater basins

One or more groundwater catchments within a geological basin. The basin may extend off-shore or across State boundaries. In some cases a basin may be broken into one or more sub-basins to reflect administrative management boundaries.

Groundwater catchments

An area containing a connected groundwater resource(s), bringing together the input (recharge) areas, use (demand) areas and discharge areas.

Groundwater Management Area (GMA)

A Groundwater Management Area (GMA) is a discrete area where groundwater of a suitable quality for irrigation, commercial or domestic and stock use is available or expected to be available.

Groundwater Management Plan (GMP)

The object of a management plan is to make sure that the water resources of the relevant water supply protection area are managed in an equitable manner and so as to ensure the long-term sustainability of those resources (section 32(A)(1), *Water Act 1989*).

Groundwater Management Unit (GMU)

Either a Groundwater Management Area or a Water Supply Protection Area.

Hydrogeological Unit (HGU)

A hydrogeological unit (Victorian Aquifer Framework) consists of one or more geological units (GU) of similar soil or rock types which were formed in a similar geological time period ie Quaternary, and where saturated acts as an aquifer or aquitard. Each HGU is assigned a unique 4 digit number starting from 1000.

Local Management Plans

Local Management Plans describe the resource, management objectives and specific rules such as restrictions, carryover (if applicable) and trade within a specified area. Local Management Plans cannot amend licence conditions.

Permissible Consumptive Volume (PCV)

The total volume of water that can be taken in an area or water system and a period of time. (section 22(A)(1), *Water Act 1989*).

Victorian Aquifer Framework (VAF)

The Victorian Aquifer Framework (v10, DSE, 2012) defines the geological units, and hydrogeological units that make up the aquifers and aquitards in each of the groundwater basins across Victoria by using common terminology.

Victorian Water Accounts

The Victorian Water Accounts document key water resource management issues and provides an overview of water availability and use across Victoria.

Water Supply Protection Area (WSPA)

A Water Supply Protection Area (WSPA) is an area declared under section 27 of the *Water Act 1989* to protect the groundwater or surface water resources through the development of a management plan which aims for equitable management and long-term sustainability.

Hopkins-Corangamite Groundwater Catchment

The Hopkins-Corangamite Groundwater Catchment is located in the Otway Basin in south-western Victoria (Figure 1). Neighbouring groundwater catchments are Portland to the west, Otway-Torquay to the south-east and West Port Phillip Bay to the east. The onshore Otway Basin borders the Goulburn Murray Basin and the Wimmera Mallee Basin to the north and Central Coasts Basin to the east. The basin extends offshore beneath Bass Strait. The Hopkins-Corangamite Groundwater Catchment map is lodged with the Central Plan Office, reference number: LEGL./12-063 HOPKINS-CORANGAMITE GROUNDWATER CATCHMENT. Local Management Plans for sub-areas of the catchment form the basis for groundwater management.

The Local Management Plans do not replace Permissible Consumptive Volumes, approved groundwater management plans or place any additional requirements on the use of groundwater for stock and domestic purposes.

The Local Management Plan details can be found in the appendices.

Local Management Plan Area	Plan Details
• Bungaree Groundwater Management Area	Appendix 1
• Cardigan Groundwater Management Area	Appendix 2
• Colongulac Groundwater Management Area	Appendix 3
• Gellibrand Groundwater Management Area	Appendix 4
• Gerangamete Groundwater Management Area	Appendix 5
• Glenormiston Groundwater Management Area	Appendix 6
• Loddon-Highlands Water Supply Protection Area (in part), included in the Loddon Groundwater Catchment Statement.	
• Newlingbrook Groundwater Management Area	Appendix 7
• Paaratte Groundwater Management Area	Appendix 8
• Warrion Water Supply Protection Area	Appendix 9
• South West Limestone Groundwater Management Area	Appendix 10
• All remaining areas	Appendix 11

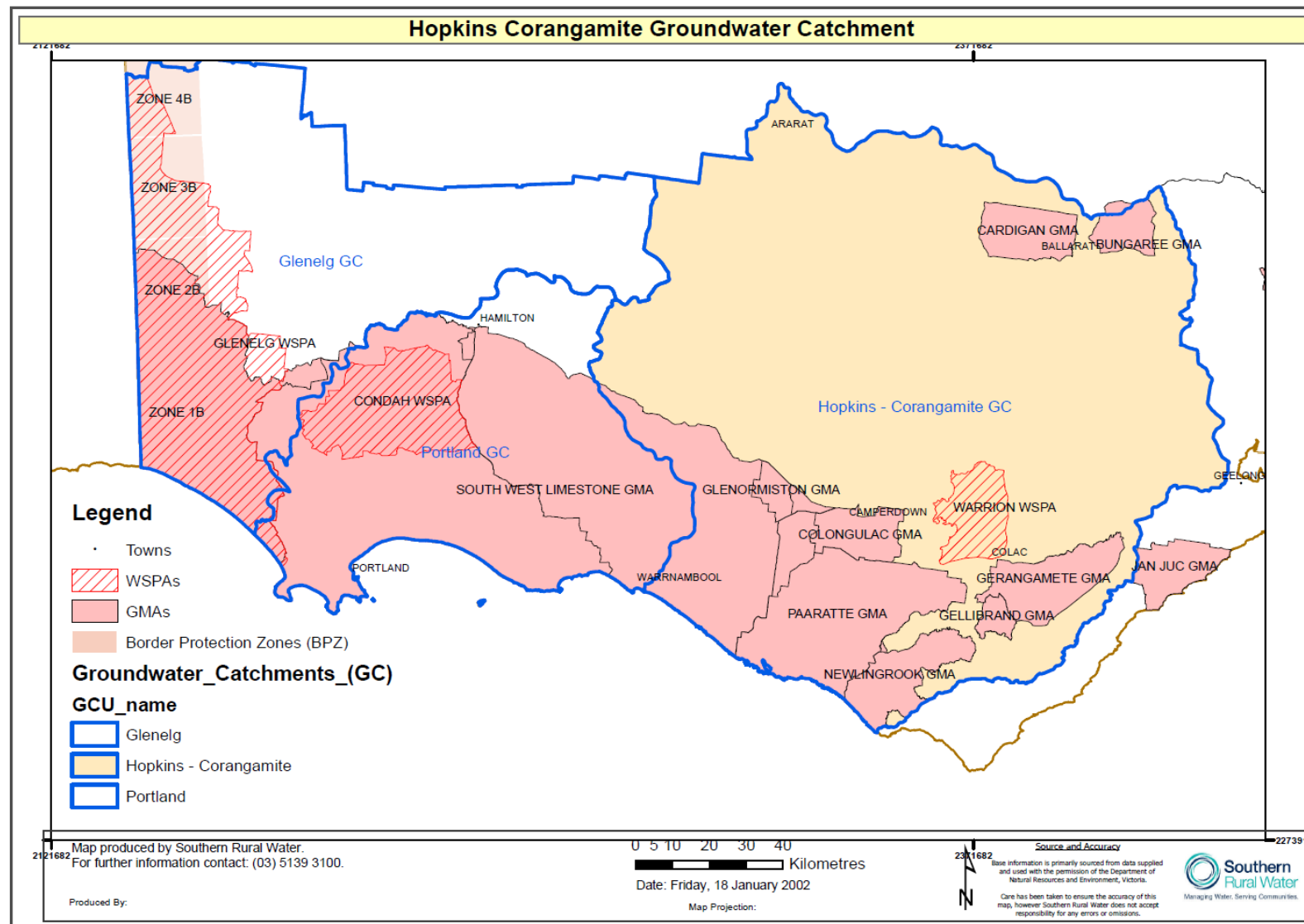


Figure 1 - Location of the Hopkins-Corangamite groundwater catchment and GMA/WSPAs in the neighbouring catchments.

Local Management Plans may (from Policy 3.3, *Western Region Sustainable Water Strategy*, p61):

- document management objectives for the system;
- explain to licence holders (and the broader community) the specific management objectives and arrangements for their water resource and the rules that apply to them as users of that resource;
- be based on existing operational rules, recognising the rights of existing licence holders;
- be consistent with the *Policies for Managing Section 51 Take and Use Licences*;
- document any limits, including water use caps, permissible consumptive volumes (PCVs) or extraction limits that apply to the Groundwater Management Units (GMUs);
- include trading zones and rules;
- clarify water sharing arrangements for all users and the environment, including environmental flow requirements;
- document monitoring and reporting requirements, and
- be periodically reviewed to incorporate new knowledge.

Aquifers in the Hopkins-Corangamite Groundwater Catchment

Groundwater is found in aquifers. An aquifer is a layer of fractured rock, gravel, sand or limestone below the ground that is porous enough to hold groundwater and allow it to flow. An aquitard is a layer of rock or clay that may hold some groundwater but is not porous enough to allow it to flow significantly.

The South West Victoria Groundwater Atlas (SRW 2011) identifies and clearly describes the resources across the catchment. The catchments can be broadly subdivided into three layers; the upper, middle and lower aquifers. The aquifer layers are generally separated from one another by aquitards. A cross section showing the relative position of the aquifer layers is provided in Figure 2.

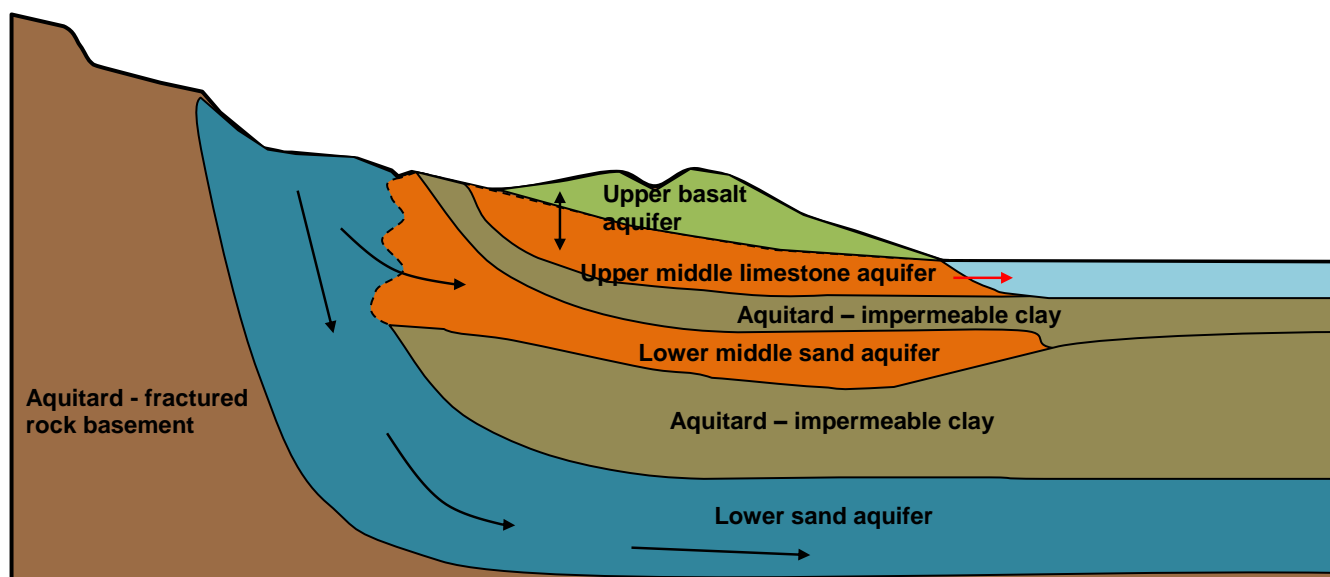


Figure 2 –Cross-section showing the relative position of the aquifer layers (taken from the “South West Victoria Groundwater Atlas”, p45, SRW, 2012)

The Local Management Plans describe the rules for management of all or part of an aquifer (upper, middle or lower). The aquifers comprise layers that have both hydrogeological names (HGU) and primary geological names (GU) as described in the Victorian Aquifer Framework, DSE, 2012. The principal aquifer managed by each Local Management Plan area and the associated hydrogeological and geological names are summarised in Table 1.

Table 1 – Principal aquifer resource managed by the Local Management Plan Area¹

Principal Local Management Plan for the layer (or part layer) and Groundwater catchment ²	Aquifer layer	Hydrogeological layers (HGU - Victorian Aquifer Framework, DSE, 2012)	Geological Layers (GU - Victorian Aquifer Framework, DSE, 2012)
Bungaree , Cardigan, Warrion WSPA, Colongulac, Glenormiston, Loddon Highlands WSPA,	Upper	QA Quaternary	Various aeolian deposits, various fluvial, lacustrine, alluvial and colluvial sediments.
		UTB Upper Tertiary/ Quaternary Basalt Aquifer	Quaternary stoney rises, tuff, undifferentiated. Quaternary basalt (including Newer Volcanics)
Colongulac, Glenormiston, Warrion WSPA		UTAM Upper Tertiary Aquifer (Marine)	Whalers Bluff Formation, Moorabool Viaduct Formation, Hanson Plain Sand, Dorodong Sand, Grange Burn Formation
Bungaree , Cardigan, Loddon Highlands WSPA		UTAF Upper Tertiary Aquifer (Fluvial)	Unnamed duricrust, undifferentiated UTAF
South West Limestone	Middle	UMTA Upper Mid Tertiary Aquifer	Port Campbell Limestone, Portland Limestone, Gambier Limestone, Bochara Limestone, Heywood Marl, Heytesbury Group.
		UMTD Upper Mid Tertiary Aquitard	Gellibrand Marl
Gerangamete, Gellibrand		LMTA Lower Mid-Tertiary Aquifer	Clifton Formation
		LMTD Lower Mid Tertiary Aquitard	Wangoom Sand, Narrawaturk Marl, Upper Mepunga Formation, Sturgess Point Member, Nirranda Group, Demons Bluff Group
	Lower	LTB Lower Tertiary Basalts	Phase 2 Basalts
Gerangamete, Gellibrand, Paaratte, Newlingrook		LTA Lower Tertiary Aquifer	Eastern View Formation, Lower Mepunga Formation, Dilwyn Formation, Yaughar Volcanics, Pembler Mudstone, Pebble Point Formation, Timboon Sand, Rivernook Member, Burrungule Member, Moomowroong Sand Member, Wiridjil Gravel Member, Brucknell Member, Wangerrip Group, Dartmoor Formation, Knight Group
Gellibrand		LTB Lower Tertiary Basalts	Older Volcanic Group (Phase 1)
	Basement	CPS Cretaceous and Permian Sediments	Paarate Formation, Belfast Mudstone, Flaxman Formation, Nullawarre Greensand, Waarre Formation
		BSE Mesozoic and Palaeozoic Bedrock	Permian Glacial Sediments, all Palaeozoic basement rock

Descriptions from: Groundwater Resources Online (DELWP, 2014) Victorian Aquifer Framework, (DSE 2012) and South West Victoria Groundwater Atlas (SRW, 2011).

Note 1: The principal aquifer/s (as described by the Victorian Aquifer Framework) is the primary target for management of groundwater extraction.

Note 2: All other aquifer layers not covered by the Local Management Plans above are covered in the "All remaining areas" Local Management Plan (Appendix 11).

Water management arrangements

Overarching responsibilities

Groundwater management falls within both the jurisdiction of Southern Rural Water (SRW) and the Department of Environment, Land, Water and Planning (DELWP) in ensuring the delivery of government policy on water and the environment. They are jointly responsible for implementing the Western Region Sustainable Water Strategy. The groundwater catchment statements, of which the Hopkins-Corangamite GCS is one, are part of the implementation of this strategy.

The licensing authority for groundwater within the Hopkins-Corangamite Groundwater Catchment is SRW. SRW is responsible for issuing bore construction licences (section 67, *Water Act 1989*) and licensing groundwater extractions under “take and use” licences, section 51 of the Act. See the SRW website (www.srw.gov.au) or the Victorian Water Register (waterregister.vic.gov.au) for more information about these.

DELWP is the department responsible for administration of the *Water Act 1989*, and as such oversees the management of water resources in Victoria.

Sustainable Water Strategies (SWS) and groundwater (or local) management plans are one way that DELWP and SRW ensure the long term sustainability of those resources, and that they are managed equitably.

Monitoring of the groundwater resources (quality and levels) forms a substantive component of this by providing the information to assess the health and availability of the resource. SRW and DELWP undertake extensive monitoring of groundwater in the Hopkins-Corangamite catchment.

Water accounting

Information on the management and use of groundwater within this groundwater catchment is included in the Victorian Water Accounts which are published annually by the DELWP.

Annual reports on WSPAs with groundwater management plans are produced each year by SRW tabulating usage, allocations and entitlements for those areas.

Groundwater entitlements are listed on the Victorian Water Register and are publicly available on the web (waterregister.vic.gov.au).

Review

DELWP may review and evaluate progress on management of groundwater at any time, in collaboration with SRW.

SRW may independently review Local Management Plans. Administrative changes or clarifications may be made without consultation. SRW will consult licence holders and stakeholders on any change that affects their rights.

Access to information

More information on groundwater can be obtained from the websites listed below. This includes information on groundwater levels, the South West Victoria Groundwater Atlas and groundwater resource reports.

Department of Environment, Land, Water and Planning – <http://delwp.vic.gov.au/>

Groundwater Resource Reports (DELWP, 2014):

<http://www.depi.vic.gov.au/water/groundwater/groundwater-resource-reports>

Southern Rural Water – <http://srw.com.au>

South West Victoria Groundwater Atlas (SRW, 2012), available online at:

<http://gwhub.srw.com.au/links-resources>

Victorian Aquifer Framework (DSE, 2012) – <http://data.water.vic.gov.au/monitoring.htm> or

http://www.vvg.org.au/cb_pages/vaf.php

Victorian Water Register – <http://waterregister.vic.gov.au/>

Appendix 1 Bungaree Local Management Plan

Objective of the Local Management Plan

The objective of the Local Management Plan is to make sure that the groundwater resources in the Bungaree Groundwater Management Area (GMA) are managed in an equitable and sustainable manner.

Area description

Bungaree GMA is shown below. The plan is lodged with the Central Plan Office, reference number LEGL./97-224.

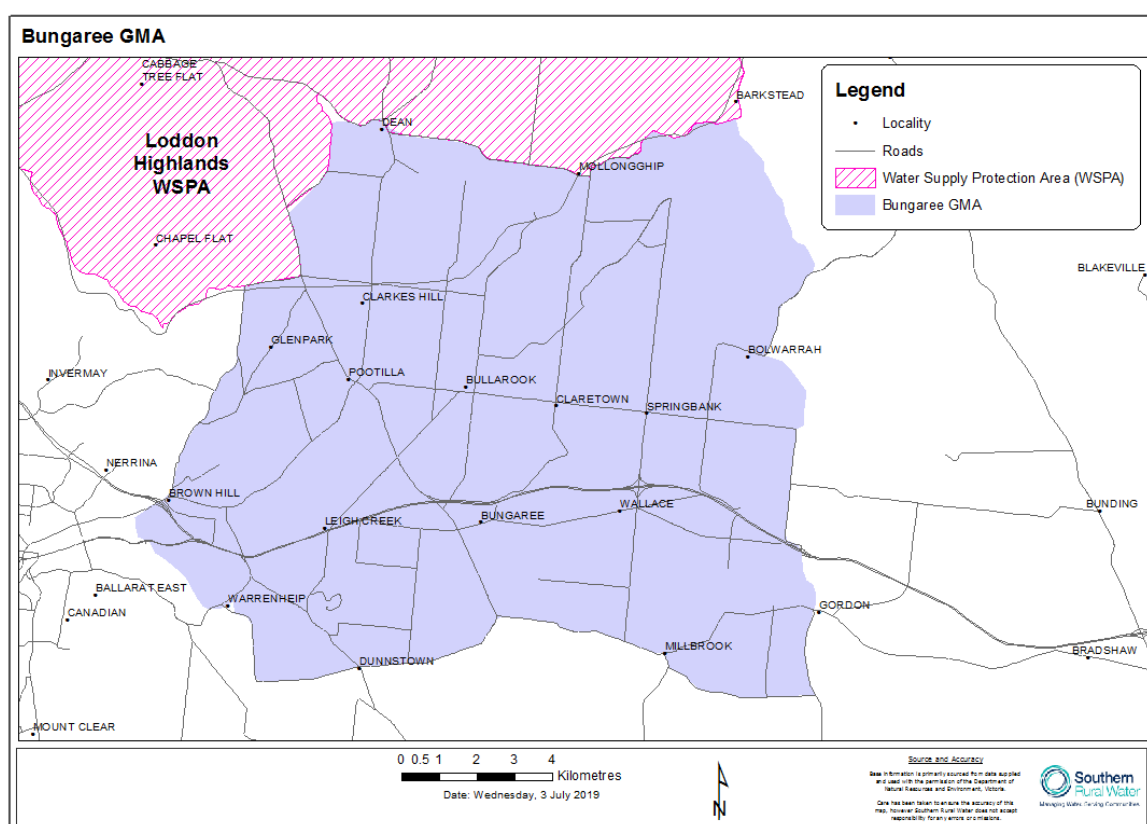


Figure A1-1: Map of Bungaree Groundwater Management Area

Permissible Consumptive Volume

A Permissible Consumptive Volume (PCV) currently applies to the Bungaree GMA. The PCV is a cap on the amount of groundwater allocated in this management unit. The PCV for Bungaree GMA is 5,334 ML/yr.

The PCV applies to the area covered in Figure A1-1, for the Upper aquifer being:

All Quaternary (QA), Upper Tertiary Basalt (UTB) and Upper Tertiary fluvial (UTAF) aquifers from the surface to 50 metres below the base of the Tertiary aged formations or 200 metres from the surface, whichever is the deeper.

Water entitlements

The extraction of groundwater for purposes other than domestic and stock use is authorised under a groundwater licence. There are 107 groundwater licences in the Bungaree GMA that authorise a total of 5,263 ML. Within the Hopkins-Corangamite groundwater catchment there are 92 licences, 15 licences (532 ML) are located in the Loddon groundwater catchment. People have rights to take groundwater for domestic and stock use without a groundwater licence.

Over 90% of groundwater licensed in the Bungaree GMA is for irrigation purposes. Groundwater is also licensed for urban and industrial water uses. Metered groundwater use is less than the total groundwater entitlements, and varies each year according to the seasonal conditions.

Licence holders must not take more than their annual licence volumes.

Restrictions

The PCV determines the maximum volume of water that can be extracted from the Bungaree GMA; however, the local management plan does not place specific restrictions on taking groundwater.

If necessary, SRW is able to temporarily qualify rights to groundwater under section 33AAA of the *Water Act 1989* if a water shortage occurs - for example, if regional drawdown is affecting access to groundwater by users.

Groundwater licences also allow SRW to restrict extraction if required - for example, to minimise the effect of extraction from specific sites if there is a significant impact on nearby users or the aquifer. If restrictions are necessary, SRW will notify licence holders in advance.

Trading

In considering an application to transfer a licence temporarily or permanently, SRW must thoroughly assess the application. An application to transfer a licence is not automatically approved. In deciding whether or not to approve an application, SRW must consider section 40 of the Act, including:

- Availability of water now and in the future;
- Adverse effects that an approval may have on existing users, on waterways and aquifers and on the environment; and
- Existing and projected water quality in the GMA.

When an application is made, SRW will assess whether groundwater extractions at the new site will cause adverse and material interference to any nearby groundwater user. If interference is likely, SRW may set transfer conditions to minimise interference, or it may refuse the application. Approval of an application to transfer may be subject to technical assessments to determine bore interference and impact on surface water bodies.

In the Bungaree GMA:

- Permanent transfers are permitted
- Temporary transfers are permitted for a period of up to five years

New licences

New licences can be issued up to the PCV and in accordance with the *Water Act 1989*, policies on managing take and use licences and SRW policies.

Metering

Southern Rural Water meters new and existing licensed water users. This allows SRW to keep track of how much water is being used and enables licence holders to keep within their allocated volume. This means:

1. All new licences for irrigation or commercial purposes require a meter
2. Existing licences of 10ML or greater require a meter

The meters are supplied by SRW, and the licence holder will be responsible for paying the full cost of the meter and initial installation. The meter remains the property of SRW. SRW is responsible for maintenance and replacement.

Meters are read at least twice per year.

Consultation

SRW will consult with licence holders and relevant stakeholders before making changes to the Local Management Plan, other than administrative changes or clarifications.

The Local Management Plan will be reviewed every 5 years, unless an update is required sooner.

Appendix 2 Cardigan Local Management Plan

Objective of the Local Management Plan

The objective of the local management plan is to make sure that the groundwater resources in the Cardigan Groundwater Management Area (GMA) are managed in an equitable and sustainable manner.

Area description

Cardigan GMA is shown below. The plan is lodged with the Central Plan Office, reference number LEGL./04-504.

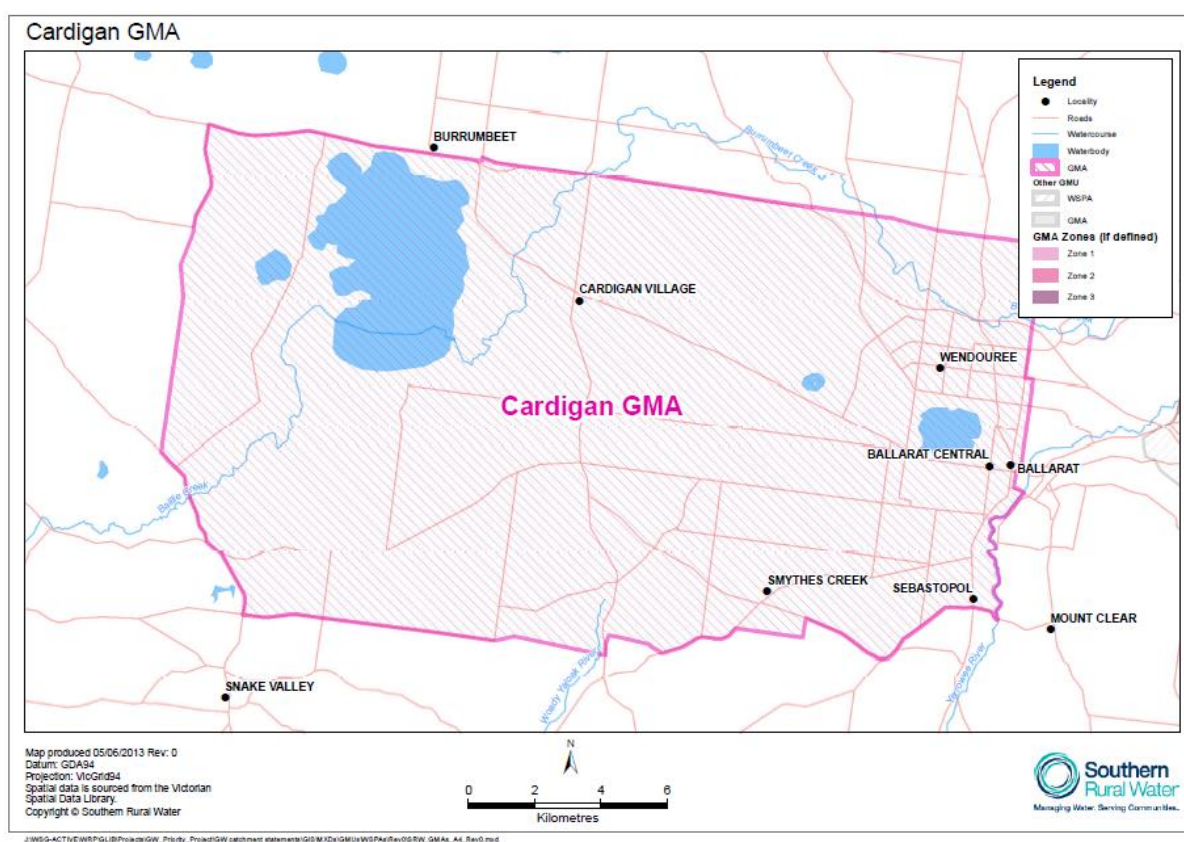


Figure A2-1: Map of Cardigan Groundwater Management Area

Permissible Consumptive Volume

A Permissible Consumptive Volume (PCV) currently applies to the Cardigan GMA. The PCV is a cap on the amount of groundwater allocated in this management unit. The PCV for Cardigan GMA is 3,967 ML/yr.

The PCV applies to the area covered in Figure A2-1, and the Upper aquifer being:

All Quaternary (QA), Upper Tertiary Basalt (UTB) and Upper Tertiary Aquifer Fluvial (UTAF) aquifers from the surface to 50 metres below the base of the Tertiary aged formations or 200 metres from the surface, whichever is the deeper.

Water entitlements

The extraction of groundwater for purposes other than domestic and stock use is authorised under a groundwater licence. There are 25 groundwater licences in the Cardigan GMA that authorise a total of 3,887.1 ML. People have rights to take groundwater for domestic and stock use without a groundwater licence.

Over 70% (up to 3000 ML) is licensed for urban water usage with the remainder licensed for irrigation purposes. Metered groundwater use is less than the total groundwater entitlements, and varies each year according to the seasonal conditions.

Licence holders must not take more than their annual licence volumes.

Restrictions

The PCV determines the maximum volume of water that can be extracted from the Cardigan GMA; however, the Local Management Plan does not place specific restrictions on taking groundwater.

If necessary, SRW is able to temporarily qualify rights to groundwater under section 33AAA of the *Water Act 1989* if a water shortage occurs - for example, if regional drawdown is affecting access to groundwater by users.

Groundwater licences also allow SRW to restrict extraction if required - for example, to minimise the effect of extraction from specific sites if there is a significant impact on nearby users or the aquifer. If restrictions are necessary, SRW will notify licence holders in advance.

Trading

In considering an application to transfer a licence temporarily or permanently, SRW must thoroughly assess the application. An application to transfer a licence is not automatically approved. In deciding whether or not to approve an application, SRW must consider section 40 of the Act, including:

- Availability of water now and in the future;
- Adverse effects that an approval may have on existing users, on waterways and aquifers and on the environment; and
- Existing and projected water quality in the GMA.

When an application is made, SRW will assess whether groundwater extractions at the new site will cause adverse and material interference to any nearby groundwater user. If interference is likely, SRW may set transfer conditions to minimise interference, or it may refuse the application. Approval of an application to transfer may be subject to technical assessments to determine bore interference and impact on surface water bodies.

In the Cardigan GMA:

- Permanent transfers are permitted
- Temporary transfers are permitted for a period of up to five years

New licences

New licences can be issued up to the PCV in accordance with the *Water Act 1989* and the policies on managing take and use licences.

Metering

Southern Rural Water meters new and existing licensed water users. This allows SRW to keep track of how much water is being used and enables licence holders to keep within their allocated volume. This means:

1. All new licences for irrigation or commercial purposes require a meter
2. Existing licences of 10ML or greater require a meter

The meters are supplied by SRW, and the licence holder will be responsible for paying the full cost of the meter and initial installation. The meter remains the property of SRW. SRW is responsible for maintenance and replacement.

Meters are read at least twice per year.

Consultation

SRW will consult with licence holders and relevant stakeholders before making changes to the Local Management Plan, other than administrative changes or clarifications.

The Local Management Plan will be reviewed every 5 years, unless an update is required sooner.

Appendix 3 Colongulac Local Management Plan

Objective of the Local Management Plan

The objective of the Local Management Plan is to make sure that the groundwater resources in the Colongulac Groundwater Management Area (GMA) are managed in an equitable and sustainable manner.

Area description

Colongulac GMA is shown below. The plan is lodged with the Central Plan Office, reference number LEGL./04-129. The Colongulac GMA partially overlies the South West Limestone GMA.

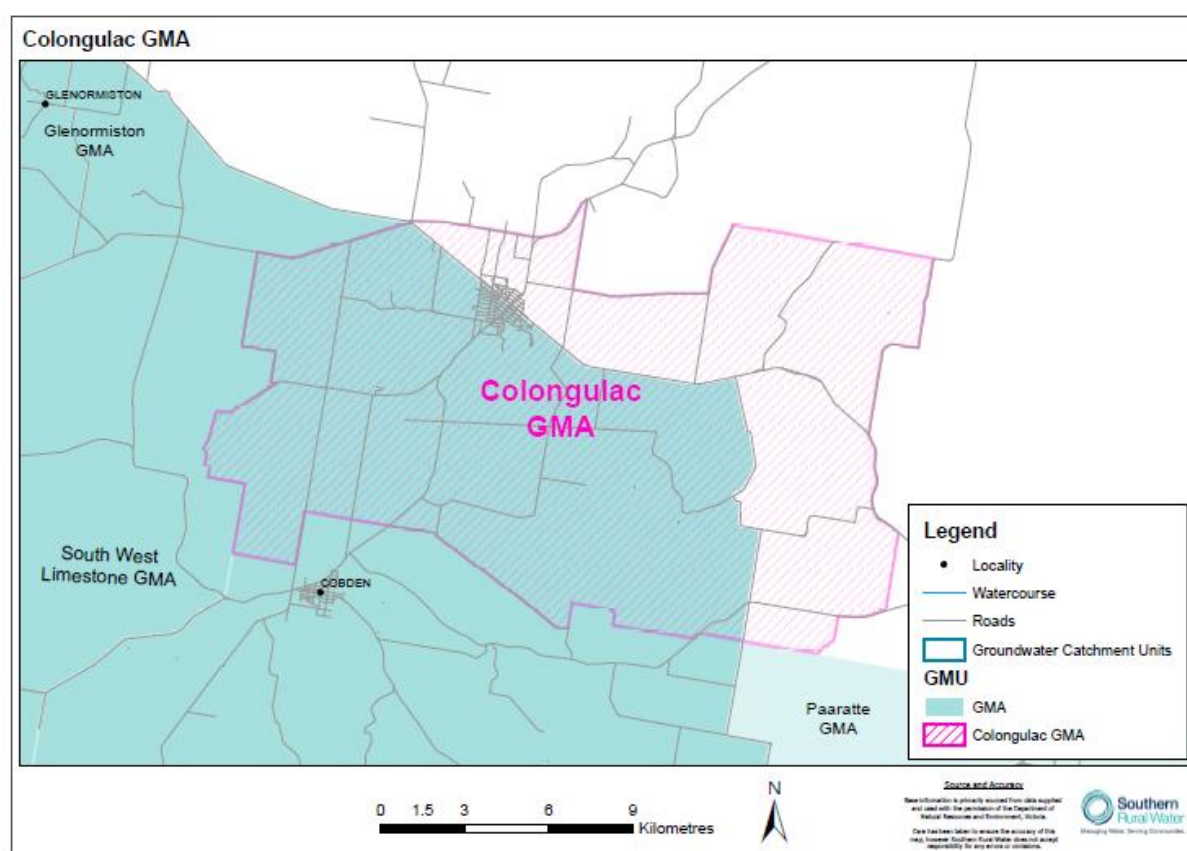


Figure A3-1: Map of Colongulac Groundwater Management Area

Permissible Consumptive Volume

A Permissible Consumptive Volume (PCV) currently applies to the Colongulac GMA. The PCV is a cap on the amount of groundwater allocated in this management unit. The PCV for Colongulac GMA is 4,695 ML/yr.

The PCV applies to the area covered in Figure A3-1, and the Upper aquifer being:

All Quaternary (QA) Upper Tertiary Basalt (UTB) and Upper Tertiary Aquifer Marine (UTAM) aquifers.

Water entitlements

The extraction of groundwater for purposes other than domestic and stock use is authorised under a groundwater licence. There are 68 groundwater licences in the Colongulac GMA that authorise a total of 4,067.9 ML. People have rights to take groundwater for domestic and stock use without a groundwater licence.

Groundwater is used in dairies for cooling and wash-down, and for irrigation purposes. Metered groundwater use is less than the total groundwater entitlements, and varies each year according to the seasonal conditions.

Licence holders must not take more than their annual licence volumes.

Restrictions

The PCV determines the maximum volume of water that can be extracted from the Colongulac GMA; however, the Local Management Plan does not place specific restrictions on taking groundwater.

If necessary, SRW is able to temporarily qualify rights to groundwater under section 33AAA of the *Water Act 1989* if a water shortage occurs - for example, if regional drawdown is affecting access to groundwater by users.

Groundwater licences also allow SRW to restrict extraction if required - for example, to minimise the effect of extraction from specific sites if there is a significant impact on nearby users or the aquifer. If restrictions are necessary, SRW will notify licence holders in advance.

Trading

In considering an application to transfer a licence temporarily or permanently, SRW must thoroughly assess the application. An application to transfer a licence is not automatically approved. In deciding whether or not to approve an application, SRW must consider section 40 of the Act, including:

- Availability of water now and in the future;
- Adverse effects that an approval may have on existing users, on waterways and aquifers and on the environment; and
- Existing and projected water quality in the GMA.

When an application is made, SRW will assess whether groundwater extractions at the new site will cause adverse and material interference to any nearby groundwater user. If interference is likely, SRW may set transfer conditions to minimise interference, or it may refuse the application. Approval of an application to transfer may be subject to technical assessments to determine bore interference and impact on surface water bodies.

In the Colongulac GMA:

- Permanent transfers are permitted
- Temporary transfers are permitted for a period of up to five years

New licences

New licenses can be issued up to the PCV in accordance with the *Water Act 1989* and the policies for managing take and use licences.

Metering

Southern Rural Water meters new and existing licensed water users. This allows SRW to keep track of how much water is being used and enables licence holders to keep within their allocated volume. This means:

1. All new licences for irrigation or commercial purposes require a meter
2. Existing licences of 10ML or greater require a meter

The meters are supplied by SRW, and the licence holder will be responsible for paying the full cost of the meter and initial installation. The meter remains the property of SRW. SRW is responsible for maintenance and replacement.

Meters are read at least twice per year.

Consultation

SRW will consult with licence holders and relevant stakeholders before making changes to the Local Management Plan, other than administrative changes or clarifications.

The Local Management Plan will be reviewed every 5 years, unless an update is required sooner.

Appendix 4 Gellibrand Local Management Plan

Objective of the Local Management Plan

The objective of the Local Management Plan is to make sure that the groundwater resources in the Gellibrand Groundwater Management Area (GMA) are managed in an equitable and sustainable manner.

Area description

Gellibrand GMA is shown below. The plan is lodged with the Central Plan Office, reference number LEGL./04-129.

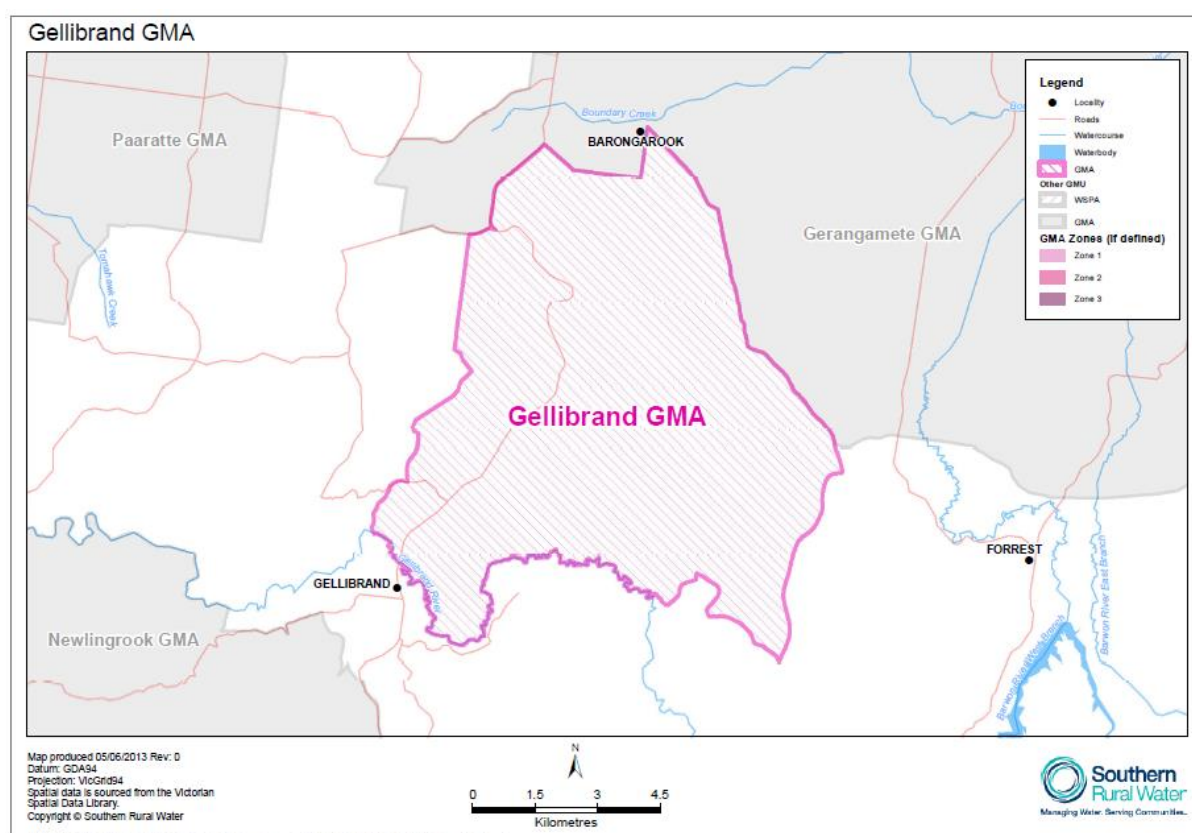


Figure A4-1: Map of Gellibrand Groundwater Management Area

Permissible Consumptive Volume

A Permissible Consumptive Volume (PCV) currently applies to the Gellibrand GMA. The PCV is a cap on the amount of groundwater allocated in this management unit. The PCV that applies to the Gellibrand GMA is 0 ML.

The PCV applies to the area covered in Figure A4-1 and the Middle and Lower aquifers being:

Lower Mid Tertiary (LMTA), Lower Tertiary Basalts (LTB) and Lower Tertiary Aquifer (LTA) from the surface to 50 metres below the base of the Tertiary aged formations or 200 metres from the surface, whichever is the deeper.

Water entitlements

The extraction of groundwater for purposes other than domestic and stock use is authorised under a groundwater licence. There are no licensed extractions from groundwater from this GMA. People have rights to take groundwater for domestic and stock use without a groundwater licence.

Restrictions

The PCV determines the maximum volume of water that can be extracted from the Gellibrand GMA. The PCV was previously set at zero pending resource assessments of this GMA.

If necessary, SRW is able to temporarily qualify rights to groundwater under section 33AAA of the *Water Act 1989* if a water shortage occurs - for example, if regional drawdown is affecting access to groundwater by users.

Groundwater licences also allow SRW to restrict extraction if required - for example, to minimise the effect of extraction from specific sites if there is a significant impact on nearby users or the aquifer. If restrictions are necessary, SRW will notify licence holders in advance.

Trading

In considering an application to transfer a licence temporarily or permanently, SRW must thoroughly assess the application. An application to transfer a licence is not automatically approved. In deciding whether or not to approve an application, SRW must consider section 40 of the Act, including:

- Availability of water now and in the future;
- Adverse effects that an approval may have on existing users, on waterways and aquifers and on the environment; and
- Existing and projected water quality in the GMA.

When an application is made, SRW will assess whether groundwater extractions at the new site will cause adverse and material interference to any nearby groundwater user. If interference is likely SRW may set transfer conditions to minimise interference or it may refuse the application. Approval of an application to transfer may be subject to technical assessments to determine bore interference and impact on surface water bodies.

In the Gellibrand GMA:

- Permanent transfers are permitted
- Temporary transfers are permitted for a period of up to five years

New licences

New licences can be issued in accordance with the *Water Act* 1989 and the Policies for Managing Take and Use Licenses.

Metering

Southern Rural Water meters new and existing licensed water users. This allows SRW to keep track of how much water is being used and enables licence holders to keep within their allocated volume. This means:

1. All new licences where water is taken under the licence and used for irrigation or commercial purposes require a meter
2. Existing licences of 10ML or greater require a meter

The meters are supplied by SRW, and the licence holder will be responsible for paying the full cost of the meter and installation initially. The meter remains the property of SRW. SRW is responsible for maintenance and replacement.

Meters are read at least twice per year.

Consultation

SRW will consult with licence holders and relevant stakeholders before making changes to the Local Management Plan, other than administrative changes or clarifications.

The Local Management Plan will be reviewed every 5 years, unless an update is required sooner.

Appendix 5 Gerangamete Local Management Plan

Objective of the Local Management Plan

The objective of the Local Management Plan is to make sure that the groundwater resources in the Gerangamete Groundwater Management Area (GMA) are managed in an equitable and sustainable manner.

Area description

Gerangamete GMA is shown below. The plan is lodged with the Central Plan Office, reference number LEGL./04-135.

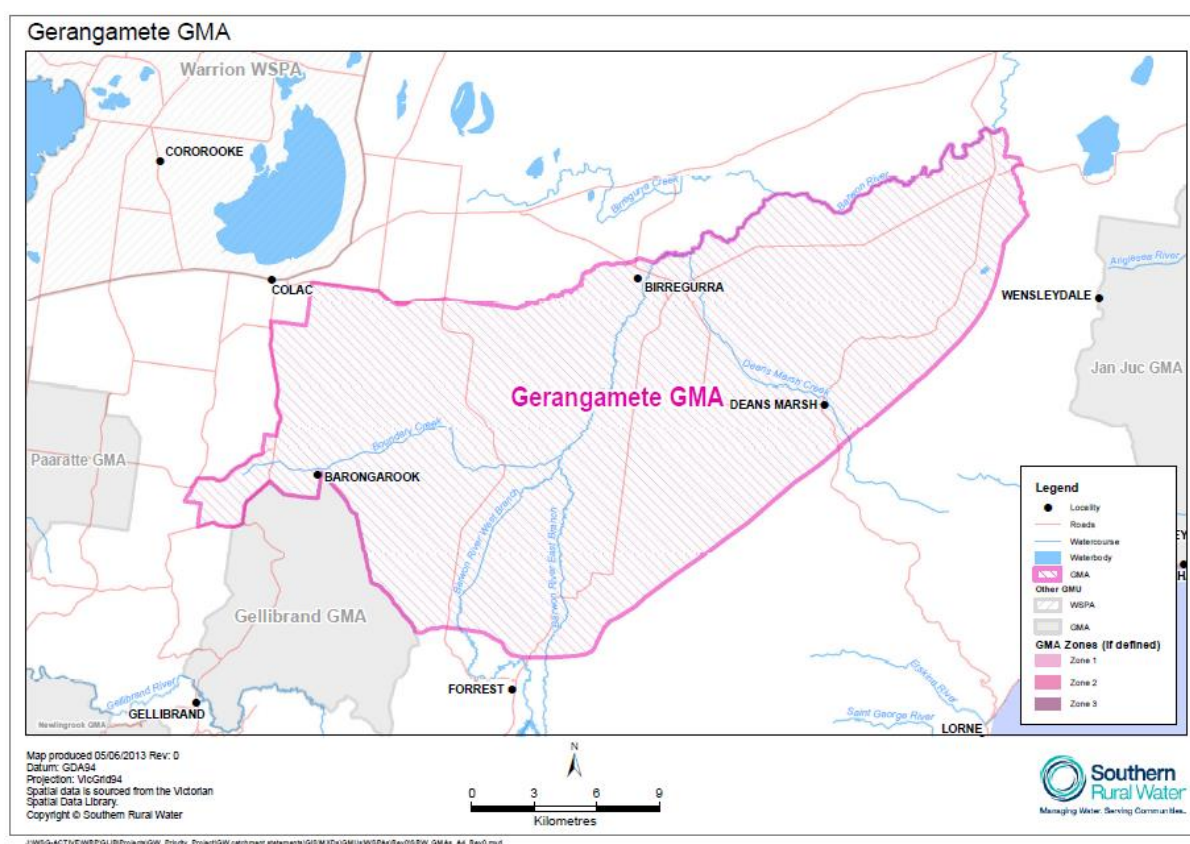


Figure A5-1: Map of Gerangamete Groundwater Management Area

Permissible Consumptive Volume

A Permissible Consumptive Volume (PCV) currently applies to the Gerangamete GMA. The PCV is a cap on the amount of groundwater allocated in this management unit. The PCV for Gerangamete GMA is 239 ML/year.

The PCV applies to the area covered in Figure A5-1, for the Middle and Lower aquifers being:

All Lower Mid Tertiary (LMTA) and Lower Tertiary (LTA) Aquifers to 50 metres below the base of the Tertiary aged formations or 200 metres from the surface, whichever is the deeper.

Water entitlements

The extraction of groundwater for purposes other than domestic and stock use is authorised under a groundwater licence. There are three allocations in the Gerangamete GMA totalling 239 ML, which forms the basis for the PCV.

The historic Barwon Water licences were not renewed and have now expired.

People have rights to take groundwater for domestic and stock use without a groundwater licence.

Restrictions

The PCV determines the maximum volume of water that can be extracted from the Gerangamete GMA; however, the Local Management Plan does not place specific restrictions on taking groundwater.

If necessary, SRW is able to temporarily qualify rights to groundwater under section 33AAA of the *Water Act 1989* if a water shortage occurs - for example, if regional drawdown is affecting access to groundwater by users.

Groundwater licences also allow SRW to restrict extraction if required - for example, to minimise the effect of extraction from specific sites if there is a significant impact on nearby users or the aquifer. If restrictions are necessary, SRW will notify licence holders in advance.

Trading

In considering an application to transfer a licence temporarily or permanently, SRW must thoroughly assess the application. An application to transfer a licence is not automatically approved. In deciding whether or not to approve an application, SRW must consider section 40 of the Act, including:

- Availability of water now and in the future;
- Adverse effects that an approval may have on existing users, on waterways and aquifers and on the environment; and
- Existing and projected water quality in the GMA.

When an application is made, SRW will assess whether groundwater extractions at the new site will cause adverse and material interference to any nearby groundwater user. If interference is likely SRW may set transfer conditions to minimise interference or it may refuse the application. Approval of an application to transfer may be subject to technical assessments to determine bore interference and impact on surface water bodies.

In the Gerangamete GMA:

- Permanent transfers are permitted
- Temporary transfers are permitted for a period of up to five years

Metering

Southern Rural Water meters new and existing licensed water users. This allows SRW to keep track of how much water is being used and enables licence holders to keep within their allocated volume. This means:

3. All new licences where water is taken under the licence and used for irrigation or commercial purposes require a meter
4. Existing licences of 10ML or greater require a meter

The meters are supplied by SRW, and the licence holder will be responsible for paying the full cost of the meter and installation initially. The meter remains the property of SRW. SRW is responsible for maintenance and replacement.

Meters are read at least twice per year.

New licences

New licences can be issued up to the PCV in accordance with the *Water Act 1989* and policies for managing take and use licences.

Consultation

SRW will consult with licence holders and relevant stakeholders before making changes to the Local Management Plan, other than administrative changes or clarifications.

The Local Management Plan will be reviewed every 5 years, unless an update is required sooner.

Appendix 6 Glenormiston Local Management Plan

Objective of the Local Management Plan

The objective of the Local Management Plan is to make sure that the groundwater resources in the Glenormiston Groundwater Management Area (GMA) are managed in an equitable and sustainable manner.

Area description

Glenormiston GMA is shown below. The plan is lodged with the Central Plan Office, reference number LEGL./04-137. The Glenormiston GMA wholly overlays the South West Limestone GMA.

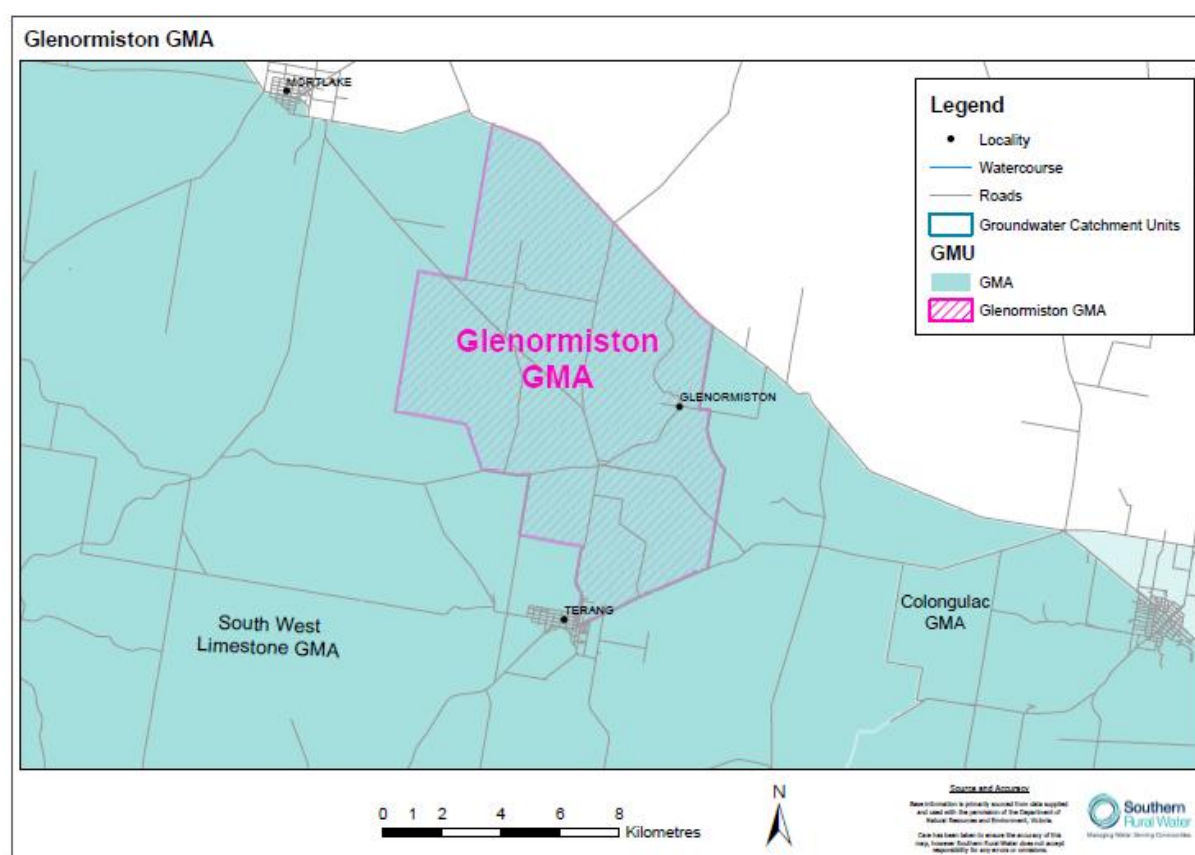


Figure A6-1: Map of Glenormiston Groundwater Management Area

Permissible Consumptive Volume

A Permissible Consumptive Volume (PCV) currently applies to the Glenormiston GMA. The PCV is a cap on the amount of groundwater allocated in this management unit. The PCV for Glenormiston GMA is 2,698 ML/year

The PCV applies to the area covered in Figure A6-1, for the Upper aquifer being:

All Quaternary (QA), Upper Tertiary Basalts (UTB) and Upper Tertiary Marine (UTAM) aquifers.

Water entitlements

The extraction of groundwater for purposes other than domestic and stock use is authorised under a groundwater licence. There are 42 groundwater licences in the Glenormiston GMA that authorise a total of 2,691.4 ML. People have rights to take groundwater for domestic and stock use without a groundwater licence.

Over 60% groundwater licensed in the Glenormiston GMA is for irrigation purposes. Groundwater is also used in dairies for cooling and wash-down. Metered groundwater use is less than the total groundwater entitlements, and varies each year according to the seasonal conditions.

Licence holders must not take more than their annual licence volumes.

Restrictions

The PCV determines the maximum volume of water that can be extracted from the Glenormiston GMA; however, the local management plan does not place specific restrictions on taking groundwater.

If necessary, SRW is able to temporarily qualify rights to groundwater under section 33AAA of the *Water Act 1989* if a water shortage occurs - for example, if regional drawdown is affecting access to groundwater by users.

Groundwater licences also allow SRW to restrict extraction if required - for example, to minimise the effect of extraction from specific sites if there is a significant impact on nearby users or the aquifer. If restrictions are necessary, SRW will notify licence holders in advance.

Trading

In considering an application to transfer a licence temporarily or permanently, SRW must thoroughly assess the application. An application to transfer a licence is not automatically approved. In deciding whether or not to approve an application, SRW must consider section 40 of the Act, including:

- Availability of water now and in the future;
- Adverse effects that an approval may have on existing users, on waterways and aquifers and on the environment; and
- Existing and projected water quality in the GMA.

When an application is made, SRW will assess whether groundwater extractions at the new site will cause adverse and material interference to any nearby groundwater user. If interference is likely, SRW may set transfer conditions to minimise interference, or it may refuse the application. Approval of an application to transfer may be subject to technical assessments to determine bore interference and impact on surface water bodies.

In the Glenormiston GMA:

- Permanent transfers are permitted
- Temporary transfers are permitted for a period of up to five years

New licences

New licences can be issued up to the PCV in accordance with the *Water Act 1989* and the policies for managing take and use licences.

Metering

Southern Rural Water meters new and existing licensed water users. This allows SRW to keep track of how much water is being used and enables licence holders to keep within their allocated volume. This means:

1. All new licences for irrigation or commercial purposes require a meter
2. Existing licences of 10ML or greater require a meter

The meters are supplied by SRW, and the licence holder will be responsible for paying the full cost of the meter and initial installation. The meter remains the property of SRW. SRW is responsible for maintenance and replacement.

Meters are read at least twice per year.

Consultation

SRW will consult with licence holders and relevant stakeholders before making changes to the Local Management Plan, other than administrative changes or clarifications.

The Local Management Plan will be reviewed every 5 years, unless an update is required sooner.

Appendix 7 Newlingrook Local Management Plan

Objective of the Local Management Plan

The objective of the Local Management Plan is to make sure that the groundwater resources in the Newlingrook Groundwater Management Area (GMA) are managed in an equitable and sustainable manner.

Area description

Newlingrook GMA is shown below. The plan is lodged with the Central Plan Office, reference number LEGL/04-153. The Newlingrook GMA is partially overlain by the South West Limestone GMA.

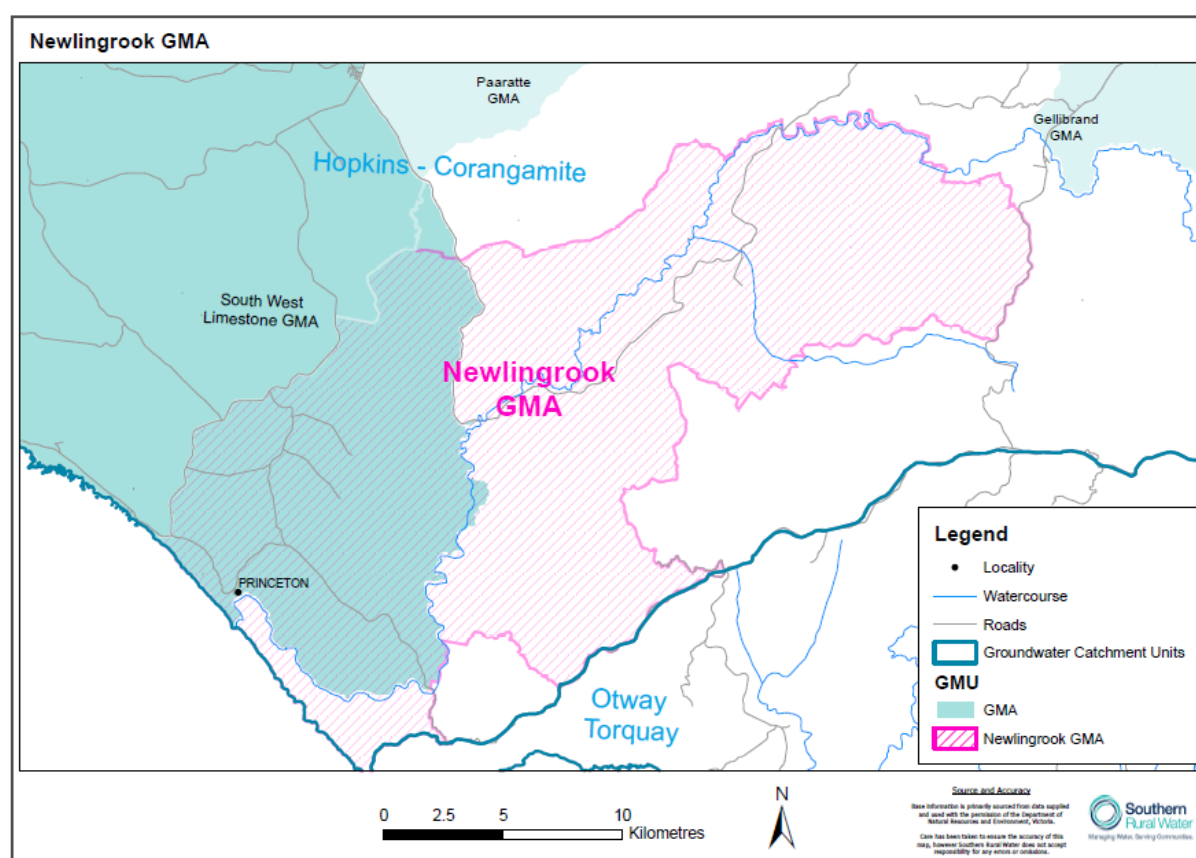


Figure A7-1: Map of Newlingrook Groundwater Management Area

Permissible Consumptive Volume

A Permissible Consumptive Volume (PCV) currently applies to the Newlingrook GMA. The PCV is a cap on the amount of groundwater allocated in this management unit. The PCV for Newlingrook GMA is 1,977 ML/year.

The PCV applies to the area covered in Figure A7-1, for the Lower aquifer being:

All Lower Tertiary (LTA) aquifers to 50 metres below the base of the Lower Tertiary formations or 200 metres from the surface, whichever is the deeper.

Water entitlements

The extraction of groundwater for purposes other than domestic and stock use is authorised under a groundwater licence. There are 6 groundwater licences in the Newlingrook GMA that authorise a total of 1,957.5 ML. People have rights to take groundwater for domestic and stock use without a groundwater licence.

The predominant use of groundwater in the Newlingrook GMA is for urban water use (1,800 ML/yr) with the remaining 5 licences being for irrigation and dairy use. Metered groundwater use is less than the total groundwater entitlements, and varies each year according to the seasonal conditions.

Licence holders must not take more than their annual licence volumes.

Restrictions

The PCV determines the maximum volume of water that can be extracted from the Newlingrook GMA; however, the Local Management Plan does not place specific restrictions on taking groundwater.

If necessary, SRW is able to temporarily qualify rights to groundwater under section 33AAA of the *Water Act 1989* if a water shortage occurs - for example, if regional drawdown is affecting access to groundwater by users.

Groundwater licences also allow SRW to restrict extraction if required - for example, to minimise the effect of extraction from specific sites if there is a significant impact on nearby users or the aquifer. If restrictions are necessary, SRW will notify licence holders in advance.

Trading

In considering an application to transfer a licence temporarily or permanently, SRW must thoroughly assess the application. An application to transfer a licence is not automatically approved. In deciding whether or not to approve an application, SRW must consider section 40 of the Act, including:

- Availability of water now and in the future;
- Adverse effects that an approval may have on existing users, on waterways and aquifers and on the environment; and
- Existing and projected water quality in the GMA.

When an application is made, SRW will assess whether groundwater extractions at the new site will cause adverse and material interference to any nearby groundwater user. If interference is likely, SRW may set transfer conditions to minimise interference, or it may refuse the application. Approval of an application to transfer may be subject to technical assessments to determine bore interference and impact on surface water bodies.

In the Newlingrook GMA:

- Permanent transfers are permitted
- Temporary transfers are permitted for a period of up to five years

New licences

New licences can be issued up to the PCV in accordance with the *Water Act 1989* and the policies for managing take and use licences.

Metering

Southern Rural Water meters new and existing licensed water users. This allows SRW to keep track of how much water is being used and enables licence holders to keep within their allocated volume. This means:

1. All new licences for irrigation or commercial purposes require a meter
2. Existing licences of 10ML or greater require a meter

The meters are supplied by SRW, and the licence holder will be responsible for paying the full cost of the meter and initial installation. The meter remains the property of SRW. SRW is responsible for maintenance and replacement.

Meters are read at least twice per year.

Consultation

SRW will consult with licence holders and relevant stakeholders before making changes to the Local Management Plan, other than administrative changes or clarifications.

The Local Management Plan will be reviewed every 5 years, unless an update is required sooner.

Appendix 8 Paaratte Local Management Plan

Objective of the Local Management Plan

The objective of the Local Management Plan is to make sure that the groundwater resources in the Paaratte Groundwater Management Area (GMA) are managed in an equitable and sustainable manner.

Area description

Paaratte GMA is shown below. The plan is lodged with the Central Plan Office, reference number LEGL./18-090. The Paaratte GMA is partially overlain by the South West Limestone GMA.

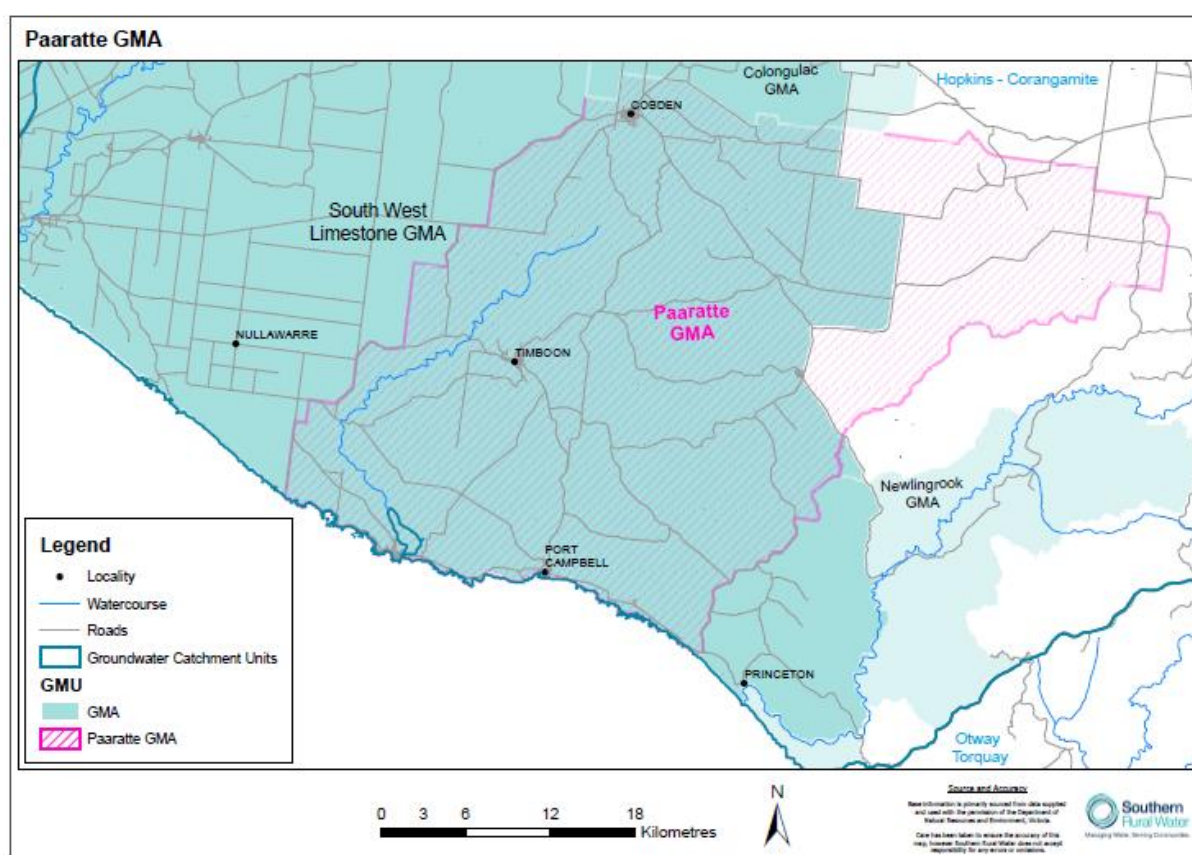


Figure A8-1: Map of Paaratte Groundwater Management Area

Permissible Consumptive Volume

A Permissible Consumptive Volume (PCV) currently applies to the Paaratte GMA. The PCV is a cap on the amount of groundwater allocated in this management unit. The PCV for Paaratte GMA is 4,606 ML/yr.

The extraction of groundwater for purposes other than domestic and stock use is authorised under a groundwater licence. There are 6 groundwater licences in the Paaratte GMA that

authorise a total of 3,211.1 ML. People have rights to take groundwater for domestic and stock use without a groundwater licence.

Approximately 70% of groundwater (3,179 ML) in the Paaratte GMA is licensed for urban usage. The remaining groundwater licenses are for irrigation and dairy use. Metered groundwater use is less than the total groundwater entitlements, and varies each year according to the seasonal conditions.

Licence holders must not exceed their annual licence volumes.

The PCV applies to the area covered in Figure A8-1, for the Lower aquifer being:

- (i) a geographical area as shown by the Geographical Boundary on Sheets 1 and 2 (figures A8-2 and A8-3) of the Plan; and
- (ii) geological formations (which form the groundwater system) with upper and lower surfaces (upper and lower elevation boundaries) as shown by Contour Lines on Sheets 1 and 2 of the Plan respectively, where:

Victoria Government Gazette G 18 3 May 2018 859

- a) the upper boundary of the Paaratte Groundwater Management Area for any Point within the Geographical Boundary where a Point in sheet 1 of the Plan is located:
 - in an area coloured blue on the Plan, the upper boundary is the ground surface; or
 - on a Contour Line, the elevation of the upper boundary is the elevation of the Contour Line; or
 - within one encapsulating Contour Line or between a Contour Line and the Geographical Boundary of the area but not between two Contour Lines, the elevation of the upper boundary is the elevation of the Contour Line nearest to the Point; or
 - between two Contour Lines, the elevation of the upper boundary is determined by the Formula, (see below);
- b) The lower boundary of the Paaratte Groundwater Management Area for any Point within the Geographical Boundary where a Point in sheet 2 of the Plan is located:
 - in an area coloured orange on the Plan, the lower boundary is unlimited in elevation; or
 - on a Contour Line, the lower boundary is the elevation of the Contour Line; or
 - within one encapsulating Contour Line or between a Contour Line and the Geographical Boundary but not between two Contour Lines, the elevation of the lower boundary is the elevation of the Contour Line nearest to the Point; or
 - between two Contour Lines, the lower boundary is determined by the Formula, (see below).

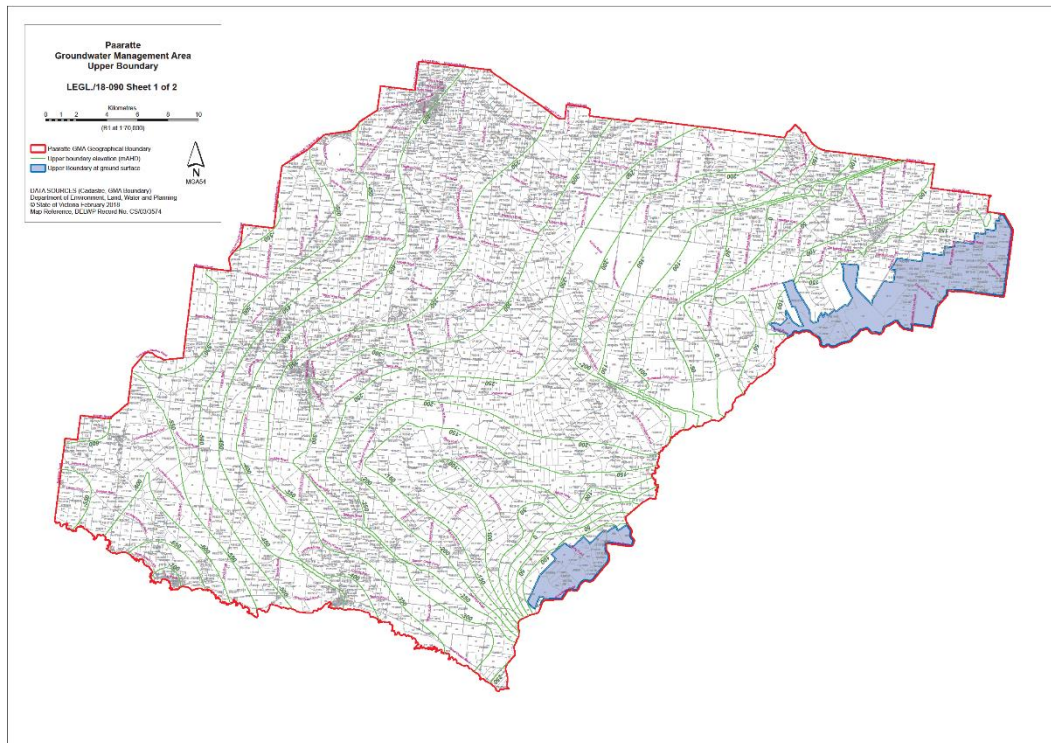


Figure A8-2: Sheet 1 - Paaratte Groundwater Management Area Upper Boundary

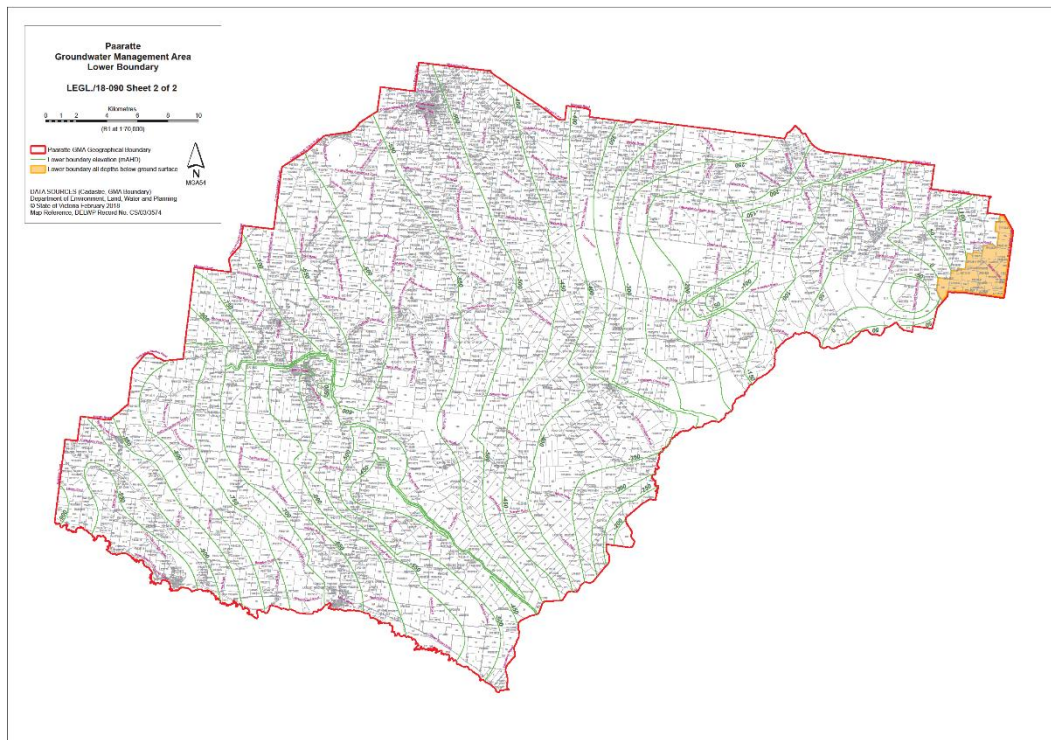


Figure A8-3: Sheet 2 - Paaratte Groundwater Management Area Lower Boundary

‘formula’ means $((((A - B) / L) \times S) + B)$ where: A = is the highest elevation of the Contour Line (in metres AHD) on the respective sheet of the Plan nearest to the Point; B = is the lowest elevation of the Contour Line (in metres AHD) on the respective sheet of the Plan nearest to the Point; L = is the shortest distance of a straight line (in metres) between the nearest highest and nearest lowest elevation Contour Lines on the respective sheet of the Plan and intersecting the Point; S = is the shortest distance of a straight line (in metres) between the nearest lowest elevation Contour Line on the respective sheet of the Plan and the Point;

Restrictions

The PCV determines the maximum volume of water that can be extracted from the Paaratte GMA; however, the local management plan does not place specific restrictions on taking groundwater.

If necessary, SRW is able to temporarily qualify rights to groundwater under section 33AAA of the *Water Act 1989* if a water shortage occurs - for example, if regional drawdown is affecting access to groundwater by users.

Groundwater licences also allow SRW to restrict extraction if required - for example, to minimise the effect of extraction from specific sites if there is a significant impact on nearby users or the aquifer. If restrictions are necessary, SRW will notify licence holders in advance.

Trading

In considering an application to transfer a licence temporarily or permanently, SRW must thoroughly assess the application. An application to transfer a licence is not automatically approved. In deciding whether or not to approve an application, SRW must consider section 40 of the Act, including:

- Availability of water now and in the future;
- Adverse effects that an approval may have on existing users, on waterways and aquifers and on the environment; and
- Existing and projected water quality in the GMA.

When an application is made, SRW will assess whether groundwater extractions at the new site will cause adverse and material interference to any nearby groundwater user. If interference is likely, SRW may set transfer conditions to minimise interference, or it may refuse the application. Approval of an application to transfer may be subject to technical assessments to determine bore interference and impact on surface water bodies.

In the Paaratte GMA:

- Permanent transfers are permitted
- Temporary transfers are permitted for a period of up to five years

New licences

New licences can be issued up to the PCV in accordance with the *Water Act 1989* and the policies for managing take and use licences.

Metering

Southern Rural Water meters new and existing licensed water users. This allows SRW to keep track of how much water is being used and enables licence holders to keep within their allocated volume. This means:

1. All new licences for irrigation or commercial purposes require a meter
2. Existing licences of 10ML or greater require a meter

The meters are supplied by SRW, and the licence holder will be responsible for paying the full cost of the meter and initial installation. The meter remains the property of SRW. SRW is responsible for maintenance and replacement.

Meters are read at least twice per year.

Consultation

SRW will consult with licence holders and relevant stakeholders before making changes to the Local Management Plan, other than administrative changes or clarifications.

The Local Management Plan will be reviewed every 5 years, unless an update is required sooner.

Appendix 9 Warrion WSPA Local Management Plan

Statutory Management Plan

The Warrion WSPA is managed via a Groundwater Management Plan. The plan was finalised in 2010, and is available to download from the SRW website, at:

http://www.srw.com.au/Page/Page.asp?Page_Id=1113

The plan documents all the local management rules pertaining to the Warrion WSPA, including rules on trade, metering, groundwater monitoring, licenses and consultation.

Area description

Warrion WSPA is shown below. The plan is lodged with the Central Plan Office, reference number LEGL./97-252.



Figure A9-1: Map of Warrion Water Supply Protection Area.

Permissible Consumptive Volume

A Permissible Consumptive Volume (PCV) currently applies to the Warrion WSPA. The PCV is a cap on the amount of groundwater allocated in this management unit. The PCV for Warrion WSPA has been amended from the GMP value of 13,836 ML/year to 14,086 ML/year.

The PCV applies to the area covered in Figure A10-1, for the. Upper aquifer being:

All Quaternary (QA) and Upper Tertiary Basalt (UTB) aquifers.

Water entitlements

The extraction of groundwater for purposes other than domestic and stock use is authorised under a groundwater licence. There are 137 groundwater licences in the Warrion WSPA that authorise a total of 14,081 ML. People have rights to take groundwater for domestic and stock use without a groundwater licence.

Groundwater licenses are for irrigation, commercial and dairy use. Metered groundwater use is less than the total groundwater entitlements, and varies each year according to the seasonal conditions.

Licence holders must not exceed their annual licence volumes.

Restrictions

The PCV determines the maximum volume of water that can be extracted from the Warrion WSPA; however, the local management plan does not place specific restrictions on taking groundwater.

If necessary, SRW is able to temporarily qualify rights to groundwater under section 33AAA of the *Water Act 1989* if a water shortage occurs - for example, if regional drawdown is affecting access to groundwater by users.

Groundwater licences also allow SRW to restrict extraction if required - for example, to minimise the effect of extraction from specific sites if there is a significant impact on nearby users or the aquifer. If restrictions are necessary, SRW will notify licence holders in advance.

Trading

In considering an application to transfer a licence temporarily or permanently, SRW must thoroughly assess the application. An application to transfer a licence is not automatically approved. In deciding whether or not to approve an application, SRW must consider section 40 of the Act, including:

- Availability of water now and in the future;
- Adverse effects that an approval may have on existing users, on waterways and aquifers and on the environment; and
- Existing and projected water quality in the GMA.

When an application is made, SRW will assess whether groundwater extractions at the new site will cause adverse and material interference to any nearby groundwater user. If interference is likely, SRW may set transfer conditions to minimise interference, or it may refuse the application. Approval of an application to transfer may be subject to technical assessments to determine bore interference and impact on surface water bodies.

In the Warrion WSPA:

- Permanent transfers are permitted
- Temporary transfers are permitted for a period of up to five years

New licences

New licences can be issued up to the PCV in accordance with the *Water Act 1989* and the policies for managing take and use licences.

Metering

Southern Rural Water meters new and existing licensed water users. This allows SRW to keep track of how much water is being used and enables licence holders to keep within their allocated volume. This means:

3. All new licences will require a meter irrespective of the volume authorised to be taken from the bore.
4. Existing licences of 10ML or greater require a meter

The meters are supplied by SRW, and the licence holder will be responsible for paying the full cost of the meter and initial installation. The meter remains the property of SRW. SRW is responsible for maintenance and replacement.

Meters are read at least twice per year.

Consultation

SRW will consult with licence holders and relevant stakeholders before making changes to the Local Management Plan, other than administrative changes or clarifications.

The Local Management Plan will be reviewed every 5 years, unless an update is required sooner.

Appendix 10 South West Limestone GMA Local Management Plan

Please refer to the South West Limestone Local Management Plan published separately at SRW's website: [srw.com.au \ Publications \ Management rules and plans](http://www.srw.com.au/Publications/Management%20rules%20and%20plans/), or through the web link: http://www.srw.com.au/Page/Page.asp?Page_Id=1113

Appendix 11 Hopkins-Corangamite Groundwater Catchment (Areas outside of GMUs) Local Management Plan

Objective of the Local Management Plan

The objective of the Local Management Plan is to make sure that the groundwater resources in Hopkins-Corangamite Groundwater Catchment are managed in an equitable and sustainable manner.

Area description

The remaining region of the Hopkins-Corangamite Groundwater Catchment comprises all areas excluding:

Bungaree Groundwater Management Area	Appendix 1
Cardigan Groundwater Management Area	Appendix 2
Colongulac Groundwater Management Area	Appendix 3
Gellibrand Groundwater Management Area	Appendix 4
Gerangamete Groundwater Management Area	Appendix 5
Glenormiston Groundwater Management Area	Appendix 6
Loddon-Highlands Water Supply Protection Area (in part), included in the Loddon Groundwater Catchment Statement.	
Newlingrook Groundwater Management Area	Appendix 7
Paaratte Groundwater Management Area	Appendix 8
Warrion Water Supply Protection Area	Appendix 9
South West Limestone Groundwater Management Plan	Appendix 10

An area of about 9.3% of Loddon-Highlands Water Supply Protection Area is located within the Hopkins-Corangamite Groundwater Catchment following introduction of the catchment boundaries (Figure 1). The Loddon-Highlands WSPA covers Quaternary and Upper Tertiary aged basalts (UTB) and Upper Tertiary aged Calivil Formation (UTAF) aquifers. There are 51 licenced bores that authorise a total of 3869 ML located in the Loddon-Highlands WSPA that are within the Hopkins-Corangamite GC.

The remaining area of the Hopkins-Corangamite Groundwater Catchment is managed by SRW between the surface to 200m below the natural surface or 50 metres below the base of the Tertiary aged formations (whichever is the greater, refer Figure A11-1).

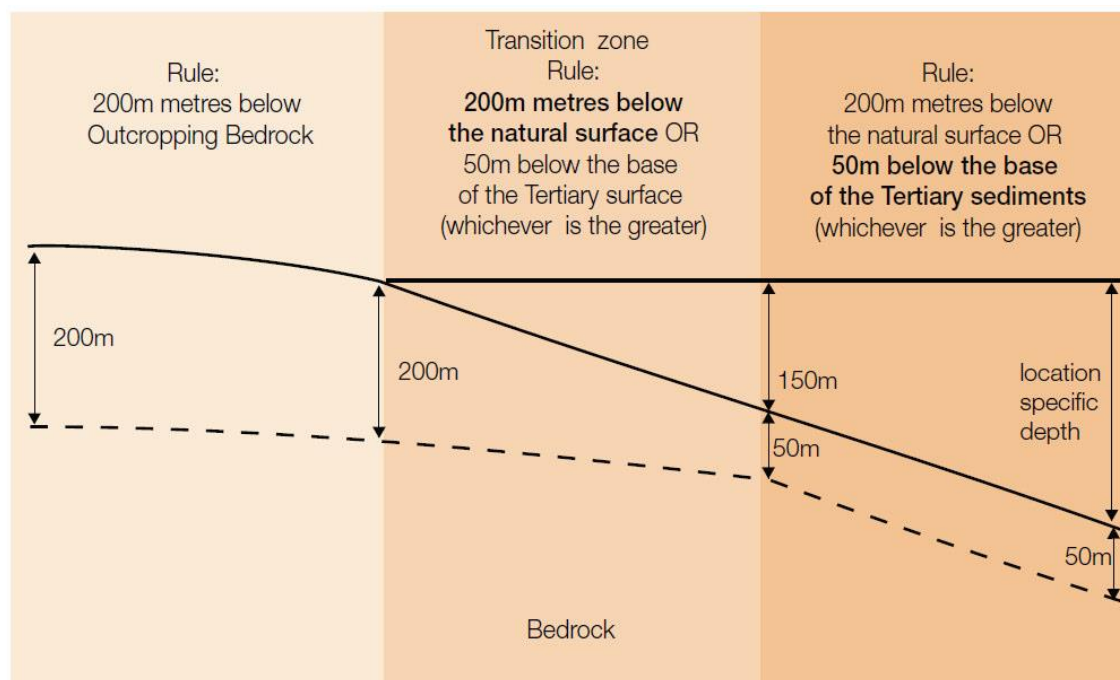


Figure A11-1: Depth defined management Rules

Permissible Consumptive Volume (PCV)

There are no PCVs that currently apply to this area or its zones.

Water use and entitlements

The extraction of groundwater for purposes other than domestic and stock use is authorised under a groundwater licence. People have the right to take groundwater for domestic and stock use without a groundwater licence. This applies for the entire area and all zones.

Guidelines on the rights to take and use groundwater under section 51 of the Act are available on the water register site (www.waterregister.vic.gov.au).

Restrictions

This Local Management Plan does not place any restrictions on taking groundwater.

If necessary, SRW is able to temporarily qualify rights to groundwater under section 33AAA of the *Water Act 1989* if a water shortage occurs - for example, if regional drawdown is affecting access to groundwater by users.

Groundwater licences also allow SRW to restrict extraction if required - for example, to minimise the effect of extraction from specific sites if there is a significant impact on nearby users or the aquifer. If restrictions are necessary, SRW will notify licence holders in advance.

New licences

Unconfined or semi-confined aquifers in the areas outside of GMUs will be managed to protect the rights of existing users, Domestic & Stock supply, and the environment, including recharge areas for the confined aquifers.

New allocation in unconfined and semi-confined aquifers shall only be considered where there is no practical alternative to secure water AND hydrogeological assessment shows that there is negligible impact to surrounding users and the environment.

SRW will encourage groundwater access through trade for new or expanded licensed use from the same aquifer when unconfined or semi-confined aquifers are targeted.

For deep confined aquifers outside of GMUs (eg LTA), SRW's standard management and assessment procedures will apply (i.e. new allocation may be available).

In considering an application for a groundwater licence, SRW must undertake a thorough assessment. An application is not automatically approved. In deciding whether or not to approve an application SRW must consider:

- Availability of water now and in the future;
- Adverse effects that an approval may have on existing users, on waterways and aquifers and on the environment; and
- Existing and projected water quality.

When an application is made, SRW will assess whether groundwater extractions at the new site will cause adverse and material interference to any nearby groundwater user. If interference is likely, SRW may set conditions to minimise interference, or it may refuse the application. Approval of an application may be subject to technical assessments to determine water availability, bore interference and impact on surface water bodies.

These rules do not take precedence over Permissible Consumptive Volumes (PCVs) and Water Supply Protection Areas (WSPAs).

Groundwater Trade

There are no trading rules in this Local Management Plan area.

In considering an application to transfer a licence temporarily or permanently, SRW must thoroughly assess the application. An application to transfer a licence is not automatically approved. In deciding whether or not to approve an application, SRW must consider section 40 of the Act, including:

- Availability of water now and in the future;
- Adverse effects that an approval may have on existing users, on waterways and aquifers and on the environment; and

- Existing and projected water quality in the area.

When an application is made, SRW will assess whether groundwater extractions at the new site will cause adverse and material interference to any nearby groundwater user. If interference is likely, SRW may set transfer conditions to minimise interference, or it may refuse the application. Approval of an application to transfer may be subject to technical assessments to determine bore interference and impact on surface water bodies.

Metering

Southern Rural Water meters new and existing licensed water users. This allows SRW to keep track of how much water is being used and enables licence holders to keep within their allocated volume. This means:

1. All new licences for irrigation or commercial purposes require a meter
2. Existing licences of 10ML or greater require a meter

The meters are supplied by SRW, and the licence holder will be responsible for paying the full cost of the meter and initial installation. The meter remains the property of SRW. SRW is responsible for maintenance and replacement.

Meters are read at least twice per year.

Consultation

SRW will consult with licence holders and relevant stakeholders before making changes to the Local Management Plan, other than administrative changes or clarifications.

The Local Management Plan will be reviewed every 5 years, unless an update is required sooner.