

Guide to the Lower Limestone Coast Water Allocation Plan

November 2013

The Guide to the Lower Limestone Water Allocation Plan (LLCWAP) is the companion to the plan. It provides useful information on how the plan will affect water users, an executive summary of each chapter of the plan for quick reference, and where you will find answers to frequently asked questions. For a full copy of the LLCWAP please refer to the Natural Resources South East website:

www.senrm.sa.gov.au

HOW THE LOWER LIMESTONE COAST WAP WILL AFFECT USERS

The adoption of the LLCWAP will mean changes for the majority of current and future water licence holders. The plan has several major differences to previous WAP's that operated in the in the Lower Limestone Coast PWA that all licence holders should be aware of.

These include:

- Converting all water allocations to a volume of water from the area based hectare irrigation equivalent system (haIE)
- Changes to trade and transfer criteria
- Farm forestry and commercial forestry policies
- Resource condition triggers and adaptive management approach
- Reducing water allocations in management areas at high or very high risk of unsustainable use
- Providing setback distances from high conservation value Groundwater Dependant Ecosystems (GDEs)

One of the most significant changes in the LLCWAP is the move from the hectare irrigation equivalent allocation to a volumetric based allocation system.

Volumetric conversion (principles section 6, principles 8-33)

The LLC WAP specifies that all water shall be allocated by volume (principle 6). Although many allocations are already expressed as a volume, a significant number of area-based allocations, expressed as hectare irrigation equivalents (haIEs), have also been issued.

As a result, the LLCWAP contains principles for the conversion of all existing area-based allocations to a volume according to a method based on the volumetric conversion model.

HOW WILL VOLUMETRIC ALLOCATIONS BE CALCULATED?

i. Allocations currently expressed as an area
The number of hectare irrigation equivalents (haIE) expressed on a licence will form the basis for its conversion to a volume. The conversion model takes into account:

- The management area referenced on the licence, including its climate (e.g. rainfall) and predominant soil type;
- The irrigation system(s) in place (drip, spray or flood);
- The type of crop grown and whether there have been changes to its known water requirements;
- Any additional water use practices such as frost mitigation for vines, drift control for rotational crops; and
- Whether the licensee requires additional, temporary volumes in order to have time to make adjustments to their existing irrigation system as a consequence of volumetric conversion.

The final volume calculated will be expressed as a tradeable component, and where eligible, one or more of the following additional components:

- Delivery supplement,
- Specialised production requirements
- And/or bridging volume.

All licensees will be issued with a tradeable component. Licensees who meet the eligibility criteria must make a written application (see application cut off dates within the LLCWAP) for any additional components. Tables of the volumes provided in each management area for each of these components can be found in the Appendix of Figures and Tables (pg 151) of the LLCWAP. Licensees operating flood or spray systems in the Designated Area (Border Zone) are subject to additional criteria regarding delivery supplement, which will be issued based on the greatest area irrigated in the period 2006-2012.



An example of the conversion of an area based licence is shown below.

ii. Allocations currently expressed as a volume

Allocations currently expressed as a volume of water, rather than an area that can be irrigated, will remain expressed as a volume. This volume may be eligible for recalculation in some circumstances (see Recalculation of volumetric allocations granted prior to date of adoption (principles 37-41)).

Conversion Example

A licensee holds a water licence of 20 haE in the groundwater management area of Grey, for the purposes of flood irrigation. This licensee does not carry out any practices eligible for additional requirements such as drift control for potatoes. The licensee, however, finds that they require a larger volume of water than the volumetric conversion will provide, and has demonstrated this need for an additional volume of water through Annual Water Use Reports. In order to have time to make adjustments to the irrigation system the licensee will apply for a Bridging Volume. The allocation will be calculated as follows:

Volumetric conversion of a 20 haE licence for flood irrigation in the management area of Grey

	Tradeable component	Delivery supplement	Specialised production requirements	Bridging volume (expires 30 June 2016)	Total volumetric allocation
Conversion factor	5.89 ML/haE	5.71 ML/haE	0.28-4.65 ML/ha of eligible infrastructure or crop	5.28 ML/haE	
Volume allocated	117.8 ML	114.2 ML	0 ML (not eligible)	105.6 ML	337.6 ML (until 30 June 2016) 232 ML (after 30 June 2016)



LOWER LIMESTONE COAST WATER ALLOCATION PLAN EXECUTIVE SUMMARY OF CHAPTERS

Chapter 1- The Lower Limestone Coast Prescribed Wells Area:

This chapter provides historical content leading up to the adoption of the Lower Limestone Coast Water Allocation Plan and explains our underground water resources, surface water resources and some introductory information about the Lower Limestone Coast region such as the climate, landscape and water usage.

Chapter 2 – Assessment of the needs of Water Dependent Ecosystems:

The focus of this section is an assessment of the quantity and quality of water needed by the ecosystems that depend on the underground water resource and the periods during which, those ecosystems will need that water. This section describes various water dependent ecosystems and summarises the policy response to meet the needs of water dependent ecosystems and setback distances for commercial forestry and wells.

There are 13 priority wetland complexes that have been identified for immediate protection due to their dependency on underground water and their potential for degradation due to the taking and using of water.

Chapter 3 – Assessment of the effects on other water resources:

This chapter provides an assessment as to whether the taking or use of water from the resource will have a detrimental effect on the quantity or quality of water that is available from any other water resource. It considers the potential for impacts upon streams, springs, rivers, wetlands, drains and other surface water bodies, and the possibility of impacts arising from the relationship between the two aquifers.

There are a number of water bodies reliant on water from the Lower Limestone Coast Prescribed Wells Area (LLCPWA). Specific water resources within the LLCWAP that may be impacted by the taking of water include:

- Rising springs, as listed in Section 2 (*Assessment of the needs of water dependent ecosystems*), including Piccaninnie Ponds, Ewens Ponds;
- The Glenelg River;
- Lakes Complex; and
- Lakes Leake and Edward in the Mount Burr Range.

- Morambro, Naracoorte, Mosquito and Yelloch Creeks;
- Streams including Eight Mile Creek, Deep Creek and Fifty Four Foot Drain;
- The Blue Lake and Valley Lake;
- Lake Bonney;
- Lakes St Clair, Eliza, George and Robe, located in the Robe to Beachport Coastal Lakes Complex

In addition, there are numerous wetland areas in the LLCWAP, as well as an extensive system of drains, some of which are believed to drain underground water as well as surface water.

Chapter 4 – Assessment of the capacity of the resource to meet demands:

This chapter focuses on the assessment of the capacity of the resource to meet demands and explains the concept of resource condition triggers and how these triggers are used. A risk assessment for Lower Limestone Coast underground water is contained in this chapter. This chapter includes an explanation of Target.

Management Levels (TML's) and how they are set for different management areas.

This chapter also covers other issues, such as climate change and underground water salinity. Another topic of interest is past and future water usage in the region for different sectors, ranging from recreational use to irrigation, horticulture, industry, mining, commercial forestry and others.

Chapter 5 – Definitions and abbreviations:

Definitions and abbreviations of common and technical terms, words, acronyms and concepts used within the LLCWAP.

Chapter 6 – Water Allocation Criteria – Unconfined Aquifer:

The purpose of this chapter is to explain the allocation criteria for unconfined aquifers for licence holders, industry, mining and forestry. By having criteria and conditions for allocation, this chapter provides the allocation policy framework for the unconfined underground water resource. The policies are aimed at providing the sustainable allocation of the unconfined aquifer for current and future social, cultural, economic and environmental needs.



The chapter states the objectives and principals behind allocation criteria and that allocation is now based on volumes and not hectare irrigation equivalents. Any licence holder with a hectare irrigation equivalent licence will be converted to volumetric based allocation. The criteria for tradeable components are also outlined with an explanation of hydrological assessments also in this chapter.

The issue of commercial forestry plantations and the allocation criteria and conditions for them are outlined in detail and the chapter concludes by explaining the topics of 'Adaptive Principles/Ongoing Risk Assessment'. This relates to how reductions to water allocation may be implemented if criteria and conditions warrant it and those allocations that are exempt from reductions.

Chapter 7 – Transfer Criteria - Unconfined Aquifer:

This chapter explains the criteria for transfers in the unconfined aquifer and set outs the objectives and principles behind the criteria. This chapter also includes important practical information on piping water, transfer criteria in management areas subject to water allocation reductions and the transfer criteria of a water allocation to a forest water licence.

Chapter 8 – Water Allocation Criteria – Confined Aquifer:

The focus of this chapter is criteria for allocations to the Confined Aquifer and the objective and principles behind the criteria. This chapter explains the conversion of allocations expressed in hectare irrigation equivalents to volumetric conversion and looks at the tradable component specifically for the confined aquifer.

It also covers criteria for additional components such as the delivery supplement, special production requirements, and bridging volume. Allocation criteria for industry, mining, public water supply and petroleum production is covered.

The chapter concludes with specific restrictions on use of underground water from the confined aquifer and the issue of over-allocation in the Kingston confined management area.

Chapter 9 – Transfer Criteria – Confined Aquifer:

Though it covers similar topics to chapter 7, this chapter specifically looks at the criteria for water transfer in confined aquifer and as with previous chapters, outlines the principles and objectives and practical applications.

Chapter 10 - Permits:

This chapter outlines when a permit or licence is required for water affecting activities and gives background information into the objectives and principles of permits. The types of water affecting activities covered includes: wells, underground water access trenches, excavations which intercept underground water and draining or discharging of water into a well.

Chapter 11 – Monitoring, evaluation and planning:

Monitoring, evaluation and reporting is part of the systematic process of optimising performance, through measurements against an agreed reference point. For the LLCWAP, these reference points relate to the effectiveness of the policies and health of the underground water resource.

Therefore, there is a need to monitor and evaluate the effectiveness of the LLCWAP's policies and the health and sustainability of the underground water resource.

Reporting and monitoring of underground water extraction by individual licensees is required to ensure that licensees do not use water in excess of the volume allocated on their water licences (or forest water licences), or use water in contravention of the conditions of their licence.

This chapter explains how this monitoring will occur and who is responsible. Licence holders (including forest water licensees) are required to submit annual water use reports, in addition monitoring and evaluation of the underground water resources will be conducted by Natural Resources South East staff.

The results of monitoring and evaluation will determine if changes are required to allocation of underground water resources.

WHERE TO FIND INFORMATION IN THE LLCWAP IF YOU WANT TO:

Know how my setback distance for a new or replacement well is calculated	Page 22, section 2.3.1
Calculate my volumetric allocation	Page 60, section 4.2.3
Understand terms and acronyms used in the LLCWAP	Page 76
Know my reporting requirements	Page 145, section 11.3
Know the allocation criteria for unconfined aquifers	Page 85, section 6
Pipe water for a distance of at least 2.25 kilometres from unconfined aquifer	Page 115, section 7.2.145
Know which management areas are at risk of underground water degradation	Page 59, Table 4.6
Know if I have commercial plantation or a farm forest	Page 78
Understand the LLCWAP Risk Assessment	Page 57, section 4.2.2
	Page 69, section 4.5
Know about temporary transfer and carryover of allocation	Page 133 and 132
Understand the rules in the Hydro-geological test	Page 96
Understand the criteria for Specialised Production Requirements	Page 90 and 124
Learn more about the indigenous and cultural needs of water	Page 55, section 4.1.3.4
Learn more about confined aquifers	Page 63, section 4.3
Understand karst ecosystems, streams and wetlands	Page 11, section 2.1.1
Transfer water from unconfined aquifer to manage Seasonal variability	Page 115, section 7.2.143
Transfer from confined aquifer in management areas that are subject to allocation reductions	Page 134, section 9.2.18

FURTHER INFORMATION ON THE LOWER LIMESTONE COAST WATER ALLOCATION PLAN AND ASSISTANCE IS AVAILABLE FROM:

Natural Resources Centre South East

11 Helen Street Mount Gambier, SA, 5290

08 8735 1177

reception@senrm.sa.gov.au

A series of factsheets is also available on the Natural Resources South East website: www.senrm.sa.gov.au

This guide to the Lower Limestone Coast Water Allocation Plan 2013 (LLCWAP) does not form part of the 2013 Water Allocation Plan for the Lower Limestone Coast Prescribed Wells Area (PWA), or any other plan under the Natural Resources Management Act 2004.

This document should not be taken as constituting legal advice on the application or construction of the Natural Resources Management Act 2004 and no liability will be accepted for any such reliance on its contents.

FURTHER READING:

Guide to the WAP

Factsheet 1 -	Sustaining our region through water allocation planning
Factsheet 2 -	Changes to how water is allocated
Factsheet 3 -	Forest water use
Factsheet 4 -	Protecting vulnerable water resources
Factsheet 5 -	Water trade and transfer
Factsheet 6 -	Protecting groundwater dependent ecosystems
Factsheet 7 -	Managing the confined aquifer
Factsheet 8 -	Managing water in the Border Zone
Factsheet 9 -	Farm forestry

