



# Carnarvon Artesian Basin water management plan: Addendum 2011

## 1 Introduction

### 1.1 Background

This addendum amends the *Carnarvon Artesian Basin water management plan*. It is to be referred to when using the plan.

The amendments were identified through the 2009 and 2011 evaluations of the plan. They are presented in the evaluation statements, which assessed the performance of the plan and found that amendments were required to improve the way the plan is implemented. They were identified by the department in consultation with licensees and the Carnarvon Artesian Basin advisory group.

### 1.2 What is an addendum?

The addendum is a change to the *Carnarvon Artesian Basin water management plan*. It forms part of our commitments to maintaining transparency in the allocation planning process. It provides a clear record of changes to the plan that need to be applied before the plan is replaced.

The addendum documents these changes, but does not alter the intent or purpose of the plan. The plan remains valid and will continue to be applied in the Carnarvon Artesian Basin (CAB) together with this addendum.

## 2 Addendum

### 2.1 Why is an addendum needed?

The *Carnarvon Artesian Basin water management plan 2007* described the department's approach to licensing and the method for applying for a licence that included direction on monitoring and metering for all licensees. It stated that holders of all groundwater licences were to install a department approved flow meter on each bore and that water use and salinity data were to be submitted to the department each year as part of the licence condition reporting.

The licence conditions (codes) that may be applied to a licence for metering and monitoring were listed in Appendix 1 of the plan. These licence conditions were applied as required to licences to manage groundwater abstraction and use.

The information submitted by licensees as part of their reporting on the metering and monitoring data was used, where applicable, by the department in understanding changes to the resource and to improve modelling used in the plan area.

In implementing the plan the metering, monitoring and reporting approach was applied to all licences in the Carnarvon Artesian Basin upon renewal or transfer. This included the licence conditions listed in Appendix 1 of the plan.

During the implementation of the plan licensees and the Carnarvon Artesian Basin Advisory Group raised several issues that needed to be resolved in how the metering and monitoring approach was to be applied into the future. The issues raised are documented in *Evaluation statement for 2009 for the Carnarvon Artesian Basin water management plan* and in *Carnarvon Artesian Basin water management plan: Evaluation statement 2009-2011*.

After careful consideration of the issues raised our response was to develop this addendum. The addendum alters how the metering and monitoring approach and the associated licence conditions are applied, while still maintaining the intent and purpose of the plan.

## 2.2 What will the addendum do?

The addendum modifies the plan. Specifically it applies to the following sections of the *Carnarvon Artesian Basin water management plan*:

- Section 5.4 – Applying for a licence:
  - Licence fees (page 24)
  - Licence conditions and compliance (page 27)
- Section 5.5 – Water use management requirements: Monitoring and metering program (page 29)
- Section 5.7 – Annual reporting for licensees (page 31)
- Appendix 1 – Carnarvon Artesian Basin resource fact sheet:
  - Licensing conditions for the CAB (page 39)
  - General licence conditions and codes (page 40–41).

Under these sections the addendum affects the licensing approach, assessment process and conditions associated with licensed non-intensive stock watering and domestic purposes and may affect licensees abstracting less than 50 000 kL/yr where applicable.

These changes will have the following effects:

- The licence administration fees, as described in the plan, under the Rights in Water and Irrigation Act Regulations 2007 was repealed and disallowed in parliament. This means that the only fees associated with licences that are applied in the plan area are those listed in Schedule 1 of the *Rights in Water and Irrigation Act 1914*.
- It is no longer compulsory for flow meters to be installed on each bore associated with a licence for non-intensive stock watering and domestic purposes.
- It is no longer compulsory to measure groundwater salinity twice annually from each bore associated with a licence for non-intensive stock watering and domestic purposes.
- Licences with an allocation of less than 50 000 kL/yr are only required to install and read a flow meter or measure groundwater salinity twice annually from each bore where the draw is likely to affect the resource, neighboring use or the environment. If there is a need for metering or increased monitoring it will be assessed as part of the licensing process and incorporated into an operating strategy.
- In line with the changes to the licensing policies each affected licence in force will be updated and may include new licence conditions.

The changes are in line with the position statement, objectives and principles for licensing in the Carnarvon Artesian Basin (Section 5.1 and 5.2, pages 21–22, of the plan). We will review the need for increased metering and monitoring for all groundwater use in the plan area as part of the next plan.

## 2.3 The changes to the plan in this addendum

The addendum to the plan, including original (shaded in grey) and new text, is described below.

The department uses a consistent approach when applying licence conditions in the plan area. Licence conditions are regularly reviewed to ensure that they continue to meet our objectives for water allocation in the plan area. While of specific conditions may commonly be applied to similar licences, the department applies licence conditions on a case-by-case basis.

While the management intent of the conditions presented in the plan remains the same, the codes and specific wording may change over time. Hence, the tables containing the licence conditions and codes listed in *Appendix 1 of the plan – Carnarvon Artesian Basin resource fact sheet* in the plan were removed (see Table 1).

Table 1 2011 Addendum to the Carnarvon Artesian Basin water management plan

Pg	Section	Original text	New text
24	<b>5.4 Applying for a licence:</b> <i>Licence fees</i>	<p>As of 1 July 2007, water administration fees apply to water licences greater than 1500 kL per year. Application fees apply to new licence applications; applications to amend; trade or transfer existing licences; and applications for new bore construction licences or permits to interfere with bed and banks. There are also annual and other fees.</p> <p>The water licence administration fees are split into seven classes, which were calculated according to the time it takes to administer a water licence.</p> <p>Further information and the fee schedule are available on the department's website (<a href="http://www.water.wa.gov.au">www.water.wa.gov.au</a>) by clicking on Licences and industry support – Licensing - Fees.</p>	<p><i>Section is removed.</i></p> <p>All fees listed in the <i>Rights in Water and Irrigation Act 1914</i>, Schedule 1 apply in the plan area.</p>

Pg	Section	Original text	New text
27	<b>5.4 Applying for a licence: Licence conditions and compliance</b>	<p>To manage and regulate groundwater use in Western Australia, licences to construct or alter a well (26D licence) and to take water (5C licence) contain licence conditions, which can be enforced by the department.</p> <p>Licence conditions set out the activities and requirements that must be undertaken by the licensee under the agreement that is formed by a groundwater licence. This ensures that abstraction and use of water is efficient, purposeful and monitored so that the department can manage the resource appropriately.</p> <p>Licence conditions are applied on a case-by-case basis depending on the total volume of groundwater abstraction, groundwater usage and the location of groundwater abstraction. Conditions likely to be part of a licence are described in Appendix 1.</p> <p>Non-compliance with all licence conditions (including monitoring and reporting) may result in the review and amendment or revocation of a licence.</p>	<p>Water users in the Carnarvon Artesian Basin area require a water licence to lawfully take groundwater under section 5C of the <i>Rights in Water and Irrigation Act 1914</i>. In granting a water licence the department considers the allocation plan, as well as clause 7 (2) of Schedule 1 of the Act.</p> <p>A licence to construct a bore is required to obtain groundwater in the plan area under Section 26D of the Act.</p> <p>The department may apply terms, conditions and restrictions to licences under clause 7 (1) of Schedule 1 of the <i>Rights in Water and Irrigation Act 1914</i>. This may include an operating strategy.</p> <p>The department's requirements for altering any licence condition are specified under clause 24 (1) of Schedule 1 of the <i>Rights in Water and Irrigation Act 1914</i>. The rights of licensees are covered under clause 26.</p> <p>The <i>Rights in Water and Irrigation Act 1914</i> requires people and organisations to acquire appropriate authorisation to take groundwater. If the appropriate authorisations are not obtained or the conditions of a licence are breached the department will take appropriate enforcement action. This may include revoking a licence or issuing a fine.</p>

Pg	Section	Original text	New text
29	<b>5.5 Water use management requirements:</b> <i>Monitoring and metering program</i>	<p>The licensee will establish a groundwater monitoring regime, to monitor the impacts of their abstraction on groundwater levels. This monitoring regime will be established as part of the application process and to the department's satisfaction. Monitoring requirements will not necessarily be restricted to the development area associated with a licence.</p> <p>The department may also request off-site monitoring of impacts if large volumes of groundwater are abstracted. This information is used to ensure protection of neighbouring groundwater users, minimise resource degradation and maintain the long-term sustainability of the aquifer system. It is expected that all uncontrolled bores will progressively be decommissioned or rehabilitated.</p> <p>All groundwater licences require department approved flow meters and the ability to measure static artesian head levels (i.e. attach pressure gauge) on each bore. All licensees will be required to submit the following information to the department within two months of the end of each water accounting year:</p> <ul style="list-style-type: none"> <li>• volume of groundwater abstracted from each bore at the end of every three-month period</li> <li>• artesian pressure readings from each bore at the end of every three-month period</li> </ul>	<p>Licence conditions may be included on a groundwater licence that require the licensee to measure, monitor or report on changes for each production bore. The frequency of measurements, monitoring and reporting is listed in the conditions associated with the groundwater licence. Additional reporting requirements may be included in an operating strategy associated with a licence.</p> <p>Where a licensee is required to report on monitoring data the information must be submitted to the department at the end of each water accounting year. Generally reporting includes:</p> <ul style="list-style-type: none"> <li>• volume of groundwater abstracted</li> <li>• static artesian pressure head level readings</li> <li>• salinity of bore water</li> <li>• type and area of activity of water use.</li> </ul> <p>Monitoring requirements will not necessarily be restricted to the development area associated with a licence. Off-site monitoring of impacts may be required if large volumes (&gt;500 000 kL/yr) of groundwater are abstracted. This minimises potential impacts associated with the abstraction on neighbouring groundwater users and the water resource.</p>

Pg	Section	Original text	New text
		<ul style="list-style-type: none"> <li>• salinity of bore water</li> <li>• type of activity of water use</li> <li>• area of activity of water use.</li> </ul> <p>The department will use this information together with the water level and quality information to help manage the regional impact of groundwater abstraction and update the CAB Groundwater Model.</p> <p>The department has recently developed a meter installation guide, following the requirements under the Rights in Water and Irrigation (Approved Meters) Order 2003. The guide outlines how to install meters and the standards required for Western Australian water meters. All new meters installed on artesian bores within the CAB must comply with the requirements of the RIWI Act (Approved Meters) Order 2003 (see Appendix 2).</p> <p>An Australian metering standard is currently being developed as part of the NWI. The new standard will be consistent with Western Australia's current metering requirements and is being coordinated by a metering expert group with assistance from the department.</p> <p>It is important to note that a licensee may be required to re-calibrate water meters if results are not considered to be accurate.</p>	<p>Groundwater licences &gt; 50 000 kL/yr require installation of a department approved flow meter on each production bore. This includes the ability to measure static artesian head levels (i.e. attach a pressure gauge).</p> <p>Metering may be applied to a licence &lt; 50 000 kL/yr. This will be determined during the licence assessment process and incorporated into an operating strategy or licence condition.</p> <p> Holders of licences for non-intensive stock watering and domestic purposes are not required to install a department approved flow meter on each production bore. However, if a bore is already metered the readings should be submitted to the department or may be collected by the department from time to time.</p> <p>All meters must comply with the requirements of the Rights in Water and Irrigation (Approved Meters) Order 2009 and the department's <i>Guidelines for water meter installation</i>. A licensee may be required to recalibrate a meter if results are considered inaccurate.</p>

Pg	Section	Original text	New text
31	<b>5.7 Annual reporting for licences</b>	<p>Within two months of the end of each water accounting year, licensees are required to submit a monitoring report to the department. Reports are to be prepared according to department guidelines (available from regional offices).</p> <p>For groundwater management planning and annual reporting, the water accounting year in the Gascoyne Region begins on 1 January and ceases on 31 December. All management decisions and monitoring practices undertaken by the department will be based on this accounting period.</p> <p>Monitoring and regular reporting by licensees should ensure that any emerging issues are quickly identified and dealt with during the first review of this plan (any issues should be sent to the Carnarvon Regional office). Monitoring will be carried out with respect to the conditions applied to a licence.</p> <p>The monitoring report will be used to provide the department with information on the status of the groundwater resources in terms of quantity and quality.</p> <p>The information will include all observations to the end of the water accounting year, and identify any emerging issues relevant to access and use of the groundwater resources in the CAB.</p>	<p>The water accounting year for the Carnarvon Artesian Basin is 1 January to 31 December. Reporting of monitoring data by licensees must be submitted to the department before 7 January each year. Licensees are encouraged to contact the department if the required information cannot be submitted on time. All monitoring must be carried out in accordance with the licence conditions.</p> <p>Annual monitoring reports are to be prepared according to department guidelines (available from regional offices). Information submitted must include all observations to the end of the water accounting year.</p> <p>We will use the monitoring and measurement data to determine the status of the groundwater resources and make appropriate water management decisions. The information will also be used to update and calibrate the Carnarvon Artesian Basin groundwater model.</p>



Pg	Section	Original text	New text
		<p>The information will also be used to update and calibrate the CAB Groundwater Model. Receipt of the report will be acknowledged in writing and the licensee contacted if any clarification is required.</p> <p>Large licences may have separate monitoring requirements established in their licence or through an attached operating strategy.</p>	
39 40- 41	<b>Appendix 1 – Carnarvon Artesian Basin resource fact sheet</b>	<p><i>Licence conditions for the CAB [Table]</i></p> <hr/> <p><i>General licence conditions and codes [Table]</i></p>	<p><i>Tables regarding licence conditions and codes in Appendix 1 of the plan are removed.</i></p>

## 3 Implementation and evaluation

This section describes how the department will implement, evaluate and replace the addendum to the *Carnarvon Artesian Basin water management plan*.

### 3.1 How will the addendum be implemented?

The addendum to the *Carnarvon Artesian Basin water management plan* will come into effect from the date that the Minister for Water endorses it. This addendum applies to all water licences granted under section 5C of the *Rights in Water and Irrigation Act 1914* in the plan area from this date.

### 3.2 Evaluating and replacing the plan and its addendum

The evaluation of the addendum will be reported in the annual evaluation statement for the *Carnarvon Artesian Basin water management plan*. If the evaluation identifies that the addendum needs to be altered or that additional changes are required a new version of the addendum will be released with the statement. Once endorsed, the new version will replace this version. Any changes to this addendum will be reported in the annual evaluation statement.

The addendum and the plan will be replaced together. The plan is scheduled to be replaced after 2012, or earlier if recommended in the evaluation statement. The addendum to the plan does not initiate a replacement of the plan. It is an amendment and will be embedded into the next plan.