

Resource Operations Licence

Water Act 2000

Name of licence

Chinchilla Weir Water Supply Scheme Resource Operations Licence

Holder

SunWater Limited ACN 131 034 985

Water plan

The licence relates to the Water Plan (Condamine and Balonne) 2019.

Water infrastructure

The water infrastructure to which the licence relates is detailed in attachment 1.

Authority to interfere with the flow of water

The licence holder is authorised to interfere with the flow of water to the extent necessary to operate the water infrastructure to which the licence relates.

Authority to use watercourses to distribute water

The licence holder is authorised to use the watercourses listed in table 1 for the distribution of supplemented water.

Table 1: Watercourses to be used for distribution of supplemented water

Watercourse	Description
Condamine River	The Condamine River upstream of Chinchilla Weir to the upstream limit of the Chinchilla Weir Water Supply Scheme (AMTD 743.6 km)
Condamine River	Condamine River downstream of Chinchilla Weir to the downstream limit of the Chinchilla Weir Water Supply Scheme (AMTD 643.7 km), including sections of tributaries where supplemented water is accessible.

Conditions

1. Requirement for operations manual

- 1.1. The licence holder must operate in accordance with an approved operations manual.
- 1.2. The approved operations manual must include—
 - 1.2.1. operating rules for water infrastructure;
 - 1.2.2. water sharing rules; and
 - 1.2.3. seasonal water assignment rules.

2. Pass flows

- 2.1. This condition applies if—
 - 2.1.1. the scheme water level in Chinchilla Weir is less than full supply level; and

- 2.1.2. the scheme water level in Chinchilla Weir is greater than EL 292.71 m AHD; and
- 2.1.3. there is a natural inflow into Chinchilla Weir.
- 2.2. The licence holder must ensure there is a minimum natural flow passing the weir equal to the inflow into the weir up to 122 ML/day.
- 2.3. The licence holder must estimate natural inflow into Chinchilla Weir using the storage inflow derivation technique approved by the chief executive.

3. Change in rate of release from infrastructure

- 3.1. The licence holder must minimise the occurrence of adverse environmental impacts by ensuring that any change in the rate of release of water from a storage occurs incrementally.

4. Metering

- 4.1. The licence holder must meter the taking of water under all water allocations and seasonal water assignments managed under this licence unless an alternative method of measuring the taking of water is approved in writing by the chief executive.

5. Monitoring and reporting requirements

- 5.1. The licence holder must carry out and report on the monitoring requirements set out in attachment 2.
- 5.2. The licence holder must provide any monitoring data required under condition 5.1 to the chief executive within a stated time on request.
- 5.3. The licence holder must ensure that the monitoring, including the measurement, collection, analysis and storage of data, is consistent with the Water Monitoring Data Collection Standards¹.
- 5.4. The licence holder must ensure that the transfer of data and reporting are consistent with the Water Monitoring Data Reporting Standards².

6. Other conditions

- 6.1. Where the operating and supply arrangements and monitoring required under this licence are dependent on those associated with the discharge and subsequent take of treated CSG water from within the Chinchilla Weir Water Supply Scheme, the licence holder must obtain from—
 - 6.1.1. the holder of beneficial use approval ENBU02701811—volumes of treated CSG water discharged into Chinchilla Weir; and
 - 6.1.2. the holder of the water licence authorising the take of treated CSG water—volumes of water taken.
- 6.2. The operating and supply arrangements and the monitoring required under this licence do not apply in situations where implementing the rules or meeting the requirements would be unsafe to a person or persons. In these circumstances the licence holder must comply with the requirements for operational or emergency reporting prescribed in attachment 2.

¹ The Water Monitoring Data Collection Standards can be inspected at any of the department's offices or accessed online at: <www.dnrm.qld.gov.au>

² The Water Monitoring Data Reporting Standards can be inspected at any of the department's offices or accessed online at: <www.dnrm.qld.gov.au>

Commencement of licence

The licence took effect on 15 December 2008

Granted on 12 December 2008,

Amended on 3 August 2012, 18 August 2014 and 22 February 2019

David Wiskar

Executive Director, Water Policy

Attachment 1 Infrastructure details for Chinchilla Weir Water Supply Scheme

Table 1 – Chinchilla Weir–Condamine River at AMTD 697.0 km

Description of water infrastructure	
Description	Minimum energy weir
Full supply level	EL 295.74 m AHD
Minimum operating level	EL 287.51 m AHD
Saddle dam(s)	Nil
Fabridam	Nil
Gates	Nil
Storage volume and surface area	
Full supply volume	9780 ML
Minimum operating volume	120 ML
Storage curves/tables	Drawing number: 42642
Spillway arrangement	
Description of works	Concrete-faced earth-filled embankment
Spillway level	EL 295.74 m AHD
Spillway width	213 m (approximately)
Discharge characteristics	HYDSYS rating table #1 for GS 422358 (Chinchilla Weir headwater gauge)
River inlet/outlet works and diversion works	
Description of works	Single 1200 mm outlet pipe located off centre on the right hand side under main embankment. Outlet pipe bifurcates at the downstream end and discharges into an outlet box. One bifurcation is equipped with 2 x 862 mm gate valves. One bifurcation provides a 150 mm low flow outlet equipped with 2 x 150 mm valves discharging to the outlet box.
Multi-level off-takes	Single level off-take
Cease-to-flow levels	EL 287.52m AHD corresponding to the sill level of the inlet box.
Discharge characteristics	Estimated maximum discharge capacity is 410 ML/day. Drawing No: 222354
Fish transfer system	
Description of works	Nil

Attachment 2 Licence holder monitoring and reporting

Part 1 Monitoring requirements

Division 1 Water quantity

1 Stream flow and storage water level data

- (1) The licence holder must record storage water level and flow data in accordance with attachment 2, table 1.
- (2) Storage inflows may be determined based on an inflow derivation technique supplied by the licence holder and approved by the chief executive.
- (3) Infrastructure tailwater flows may be determined based on a technique supplied by the licence holder and approved by the chief executive.

Table 1 – Locations where continuous time series storage water level data and height and flow data are required

Location	Continuous time series storage water level data	Continuous time series height and flow data	Continuous time series flow data
Chinchilla Weir headwater	✓		
Chinchilla Weir inflow		✓	
Discharge of treated CSG water into Chinchilla Weir			✓
Chinchilla Weir tailwater			✓

2 Releases from water storages

- (1) This section applies to Chinchilla Weir for both scheme water and treated CSG water.
- (2) The licence holder must measure and record for the storage outlet—
 - (a) the daily volume released;
 - (b) the release rate, and for any change in the release rate—
 - (i) the date and time of the change; and
 - (ii) the new release rate; and
 - (c) the reason for each release.

3 Announced allocations

The licence holder must record—

- (a) details of the announced allocation determinations for—
 - (i) high priority water allocations; and
 - (ii) medium priority water allocations;
- (b) the date announced allocations are determined; and
- (c) the value of each parameter applied for calculating the announced allocation.

4 Water taken by water users

The licence holder must measure and record for each water allocation and for each zone as follows—

- (a) the total volume of scheme water taken;
- (b) the total volume of scheme water entitled to be taken; and
- (c) the basis for determining the total volume of scheme water entitled to be taken.

5 Seasonal water assignment of a water allocation

The licence holder must record details of seasonal water assignment arrangements including—

- (a) the name of the assignee, volume and location of water that has been seasonally assigned by an assignor;
- (b) the name of the assignor, volume and location of water that has been seasonally assigned to an assignee; and
- (c) the effective date of the seasonal water assignment.

6 Reconciliations for the treated CSG water and scheme water accounts

The licence holder must record details of each reconciliation determination for—

- (a) the treated CSG water account; and
- (b) the scheme water account.

7 Treated CSG water taken by water users

The licence holder must record the total volume of treated CSG water taken for each zone as follows—

- (a) the total volume of treated CSG water taken each month; and
- (b) the total volume of treated CSG water scheduled to be taken each month.

Division 2 Impact of infrastructure operation on natural ecosystems

8 Water quality

In accordance with condition 5.3, the licence holder must monitor and record water quality in relation to the relevant infrastructure listed in attachment 1.

9 Bank condition

- (1) The licence holder must inspect banks for evidence of collapse and/or erosion within the ponded areas and downstream of the storage listed in attachment 1, following instances of—
 - (a) rapid water level change; or
 - (b) large flows through storages; or
 - (c) other occasions when collapse and/or erosion of banks may be likely.
- (2) For subsection (1), downstream of the relevant infrastructure means the distance of influence of storage operations.

10 Fish stranding

The licence holder must record and assess reported instances of fish stranding in watercourses and ponded areas associated with the operation of the infrastructure in

attachment 1 to determine if any instance is associated with the operation of that infrastructure.

Part 2 Reporting requirements

11 Reporting requirements

The licence holder must provide—

- (a) Annual reports;
- (b) Operational reports when required; and
- (c) Emergency reports when required.

Division 2 Annual reporting

12 Annual report

- (1) The licence holder must submit an annual report to the chief executive within three months after the end of each water year.
- (2) The annual report must include—
 - (a) water quantity as described in section 13;
 - (b) details of the impact of infrastructure operation on natural ecosystems as required under section 14; and
 - (c) discussion on any issues that arose as a result of the implementation and application of the rules and requirements of this licence.

13 Water quantity reporting

- (1) The licence holder must include in the annual report—
 - (a) a summary of announced allocation determinations including—
 - (i) an evaluation of the announced allocation procedures and outcomes; and
 - (ii) the date and value for each announced allocation;
 - (b) the total annual volume of scheme water taken by all water users, specified by zone and for the scheme, including—
 - (i) the total volume of supplemented water taken;
 - (ii) the total volume of supplemented water entitled to be taken; and
 - (iii) the basis for determining the total volume entitled to be taken;
 - (c) the total quarterly volume of water taken by each water user as follows—
 - (i) the volume of water taken for each zone;
 - (ii) the total volume entitled to be taken for each zone; and
 - (iii) the basis for determining the total volume of water entitled to be taken.
 - (d) stream flow and storage water level—all records referred to in section 1;
 - (e) releases from storage—all records referred to in section 2;
 - (f) details of seasonal water assignments, including—
 - (i) the total number of seasonal water assignments; and
 - (ii) the total volume of water seasonally assigned.
 - (g) total volume of treated CSG water for beneficial use released and spilt from Chinchilla Weir for downstream take;

- (h) total volume of treated CSG water for beneficial use supplied from the ponded area of Chinchilla Weir;
 - (i) total volume of metered take of treated CSG water for beneficial use;
 - (j) total volume of treated CSG water for beneficial use scheduled to be taken;
 - (k) total estimated storage losses, and the volume adjustments made to apportion losses to the scheme water account and treated CSG water for beneficial use account.
- (2) The annual report must also include—
- (a) all details of changes to the storage and delivery infrastructure or the operation of the storage and infrastructure that may impact on compliance with this licence; and
 - (b) details of any new monitoring devices used such as equipment to measure stream flow.
 - (c) a discussion on any other issues that arose as a result of the implementation and application of the resource operations licence.

14 Impact of infrastructure operation on natural ecosystems

The licence holder must include in the annual report—

- (a) a summary of environmental considerations made by the licence holder in making operational and release decisions;
- (b) a summary of the environmental outcomes of the decision including any adverse environmental impacts;
- (c) a summary of bank condition and fish stranding monitoring and assessment including—
 - (i) results of investigations of bank slumping and/or erosion identified in ponded areas and/or downstream of the storages;
 - (ii) results of any investigations of fish stranding downstream of the storages; and
 - (iii) changes to the operation of the storage to reduce instances of bank slumping and/or erosion or fish stranding; and
- (d) a discussion and assessment of water quality issues; and
- (e) water quality – all records referred to in section 8.

Division 3 Operational reporting

15 Operational reporting

- (1) The licence holder must notify the chief executive within one business day—
- (a) upon becoming aware of any of the following operational incidents—
 - (i) a non-compliance by the licence holder with this licence or with the operating and supply arrangements in the approved operations manual for this licence; and
 - (ii) instances of fish stranding or bank slumping within ponded areas associated with the infrastructure of the licence holder or downstream of the infrastructure to which this licence relates;
 - (b) upon determining an initial announced allocation and/or its revisions;
 - (c) of any arrangements for addressing circumstances where the licence holder is unable to supply water allocations; and
 - (d) upon becoming aware of instances where the take of supplemented water from a waterhole results in the waterhole being drawn down to more than 0.5 metres below its natural cease to flow level.

- (e) of non-compliance with conditions on a water licence granted to take treated CSG water from the Chinchilla Weir Water Supply Scheme;
- (2) The licence holder must provide a report to the chief executive, on request and within the timeframe requested, which includes details of—
- (a) the incident;
 - (b) conditions under which the incident occurred; and
 - (c) any response or activities carried out as a result of the incident.

Division 4 Emergency reporting³

16 Emergency reporting

For any emergency where, as a result of the emergency, the licence holder cannot comply with the conditions of this licence, the licence holder must—

- (a) notify the chief executive upon discovery of the emergency; and
- (b) provide a report to the chief executive within five business days of notification, including—
 - (i) details of the emergency;
 - (ii) the conditions under which the emergency occurred;
 - (iii) any responses or activities carried out as a result of the emergency; and
 - (iv) any rules and requirements under this licence that the licence holder is either permanently or temporarily unable to comply with due to the emergency.

³ This does not preclude requirements for dam safety under the Water Act 2000 and any other applicable legislation.

Attachment 3 Dictionary

Term	Definition
AHD	The Australian Height Datum, which references a level or height to a standard base level.
AMTD	Adopted Middle Thread Distance, is the distance in kilometres, measured along the middle of a watercourse, from a specific point in the watercourse to the watercourse's mouth, the watercourse's junction with the main watercourse or the border between the State and New South Wales.
Announced allocation	For a water allocation managed under a resource operations licence, announced allocation means a number, expressed as a percentage, which is used to determine the maximum volume of water that may be taken in a water year under the authority of a water allocation.
Assignee	The person or entity to whom an interest or right to water is being transferred – for example, seasonally assigned.
Assignor	The person or entity who transfers an interest or right in water to an assignee – for example, a seasonal assignment.
BUA	The beneficial use approval granted under section 66F of the <i>Environmental Protection (Waste Management) Regulation 2000</i> for treated CSG water.
Cease to flow level	For a waterhole, the level at which water stops flowing from a waterhole over its downstream control.
CSG water licence	The water licence granted under the <i>Water Act 2000</i> for the take of treated CSG water from the Chinchilla Weir Water Supply Scheme [Condamine River (AMTD 743.6 km—AMTD 643.7 km)].
Discharge/discharged	For the purposes of treated CSG water, means 'released' as used in an authority for water that has been treated and approved as a resource under the <i>Environmental Protection (Waste Management) Regulation 2000</i> .
EL	Elevation level.
Fish stranding	When fish are stranded or left out of the water on the bed or banks of a watercourse, on infrastructure such as spillways and causeways or left isolated in small and/or shallow pools, from which they cannot return to deeper water. This also applies to other aquatic species such as platypus and turtles.
Full supply volume	This is the volume of water in storage that corresponds to the full supply level.
Inlet	Infrastructure comprised of an entrance channel, intake structure and gate or valve, which allows for water to be taken from the ponded area of a dam, weir or barrage and discharged via an outlet into the watercourse downstream of the storage.
Licence holder	The holder of the resource operations licence for the Chinchilla Weir Water Supply Scheme
Megalitre (ML)	One million litres.
Minimum operating level	This is the level below which water cannot be used to supply customers, either because there is insufficient hydraulic gradient or because of poor water quality and for environmental reasons.
Minimum operating volume	This is the storage volume corresponding to the minimum operating level.

Term	Definition
Multi-level off-take	An off-take arrangement on a dam or weir that allows stored water to be released downstream from selected levels below the stored water surface.
Natural flow	A flow in the Condamine River resulting from natural inflow.
Natural inflow	For the purposes of the Chinchilla Weir Water Supply Scheme, means water entering the water supply scheme from upstream of the upstream boundary of the water supply scheme or via precipitation or tributary inflows.
Outlet	An arrangement on a dam or weir that allows stored water to be released downstream.
Ponded area	Area of inundation at full supply level of a storage.
Release	Water from a dam or weir that passes downstream from the dam or weir through the dam or weir outlet works.
Scheme water	For the purposes of the Chinchilla Weir Water Supply Scheme, means the water in the scheme water account which results from natural inflow that is managed on behalf of supplemented water allocation holders. This volume does not include the minimum operating volume of Chinchilla Weir.
Storage inflow derivation technique	A basic quantitative model that uses inflows from gauging stations combined with actual levels in scheme storages to determine the volume of inflow into a water supply scheme.
Treated CSG water	Water produced during the extraction of gas from coal seams, which is treated and delivered by the Kenya to Chinchilla Weir Pipeline for beneficial use in the Chinchilla Weir Water Supply Scheme.
Water user	The holder of a valid water entitlement.
Water year	The water year is the 12 month period beginning 1 July and ending 30 June.