Resource Operations Licence

Water Act 2000

Queensland Government

Name of licence
Upper Condamine Water Supply Scheme Resource Operations Licence

Holder
Sunwater Limited

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, including sections of tributaries where supplemented water is accessible.

Table 1 – Use of watercourses for distribution

Watercourse	Description
Sandy Creek	From the upstream extent of the ponded area of Leslie Dam to the confluence of Sandy Creek with the Condamine River (AMTD 20.0 km to AMTD0.0 km)
Condamine River	From the confluence with Sandy Creek downstream to Cecil Plains Weir (AMTD 1077.9 km to AMTD891.1 km)
North Branch Condamine River	From the Yarramalong Diversion pipeline outlet to the end of the supplemented section (AMTD 97.0 km to AMTD10.0 km)

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. Change in rate of release from infrastructure

2.1. 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.

3. Metering

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

4. Monitoring and reporting requirements

4.1. The licence holder must carry out and report on the monitoring requirements as set out in Attachment 2.

4.2. The licence holder must provide any monitoring data required under condition 4.1 to the chief executive within a stated time upon request.

4.3. 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 Standards[1].

4.4. The licence holder must ensure that the transfer of data and reporting are consistent with the Water Monitoring Data Reporting Standards[1].

5. Other conditions

5.1. The operating and supply arrangements and the monitoring requirements 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.

5.2. The licence holder is required to collect and make publicly available through an industry accepted digital channel, updated at least monthly, details of each seasonal water assignment managed under this licence, including the sale price, the volume of water assigned and the location of where the water was assigned to and from.

5.3. The licence holder must provide the chief executive information about seasonal water assignments as directed by the chief executive within the stated time upon request[1].

This Resource Operations Licence is subject to the conditions attached.

Commencement of licence
The licence took effect on 15 December 2008.

Granted on 12 December 2008.
Amended under section 186 of the *Water Act 2000* on 10 January 2022.

Jarrod Cowley-Grimmond
Executive Director, Divisional Support

[1] The Water Monitoring Data Collection Standards and the Water Monitoring Data Reporting Standards can be accessed online at www.business.qld.gov.au

Attachment 1 Infrastructure details for Upper Condamine Water Supply Scheme

Table 1 – Leslie Dam–Sandy Creek at AMTD 8.40 km

Description of water infrastructure	
Description	Mass concrete gravity dam
Full supply level	EL 472.41 m AHD
Minimum operating level	EL 448.44 m AHD
Saddle dam(s)	One earth-fill dam with riprap facing, crest at EL 476 m AHD, length 366 m
Fabridam	Nil
Gates	7 steel radial gates
Storage volume and surface area	
Full supply volume	106 200 ML
Minimum operating volume	2130 ML (volume below the level of the river outlet works at EL 453.66 m). As part of a drought response, the storage may be drawn down to 220 ML (volume below the minimum operating level for the town water supply of EL 448.44 m AHD).
Storage curves/tables	Drawing number: A3-205134 & 5
Spillway arrangement	
Description of works	Ogee crest which is equipped with 7 steel radial gates
Spillway	466.31 m AHD
Spillway width	7 radial gates are 6.64 m high x 12.74 m wide and are hydraulically activated.
Discharge characteristics	Maximum spillway flow/no flow control by gates (before overtopping of dam commences) at 473.63 m AHD is approximately 3920 m^3/s. Reference: Leslie Dam EAP Jan 2006.
River inlet/outlet works and diversion works	
Description of works	Outlet works: River outlet with two 914 mm diameter outlet pipes. Each is equipped with a 914 mm gate valve and a 762 mm regulating valve. One 300 mm diameter outlet pipe (branch line from 914 mm outlet pipes), equipped with two 300 mm gate valves and a 300 mm regulating valve. Town water supply outlet: One 685 mm diameter pipe delivers water to a manifold pipe where the Southern Downs Regional Council has pump suctions located. A 300 mm diameter pipe line branches from the outlet pipe. Trash screens on inlet works for river outlet and for town water supply outlet.
Multi-level off-takes	River outlet: two single level 914 mm off-takes MS pipes with bellmouths. Inlets are protected with concrete baulks and trash screens. A bulkhead gate is used to isolate outlet pipes for maintenance purposes. A trash screen is located in front of the outlet where water is being drawn from. Town Water Supply Outlet: Multi-level outlet structure. A bulkhead gate is used to isolate the desired outlet for maintenance purposes. A trash screen is located in front of the outlet where water is drawn from.
Cease-to-flow levels	River outlet invert: EL 453.98 m AHD Town water supply outlet invert: EL 448.44 m AHD
Discharge characteristics	The estimated maximum discharge capacity of Leslie Dam outlet works is 960 ML/day. Drawing number: A3-64043 Town water supply maximum discharge: dependent on pumping capacity maintained by Southern Downs Regional Council.
Fish transfer system	
Description of works	Nil

Table 2 – Talgai Weir–Condamine River at AMTD 1029.30 km

Description of water infrastructure	
Description	Minimum energy weir
Full supply level	EL 412.07 m AHD
Minimum operating level	EL 408.09 m AHD
Saddle dam(s)	Nil
Fabridam	Nil
Gates	Nil
Storage volume and surface area	
Full supply volume	640 ML
Minimum operating volume	93 ML
Storage curves/tables	Drawing number: 59766
Spillway arrangement	
Description of works	Concrete faced earth-fill
Spillway level	EL 412.00 m AHD
Spillway width	44 m
Discharge characteristics	HYDSYS rating table #2 for GS 422340 (Talgai Weir headwater gauge)
River inlet/outlet works and diversion works	
Description of works	Outlet works consist of a 1650 mm diameter pipe and 1200 mm square penstock control gate. Trash screens on inlet structure control gate— 1200 mm square penstock gate.
Multi-level off-takes	Single level intake
Cease-to-flow levels	Outlet structure sill: EL 408.03 m AHD Outlet Pipe Invert: EL 407.87 m AHD Inlet box sill: EL 408.07 m AHD
Discharge characteristics	The estimated maximum discharge capacity of Talgai Weir outlet works is 740 ML/day. Drawing number: 222351
Fish transfer system	
Description of works	Nil

Table 3 – Yarramalong Weir–Condamine River at AMTD 966.20 km

Description of water infrastructure	
Description	Sheet piling weir
Full supply level	EL 381.00 m AHD
Minimum operating level	EL 378.72 m AHD
Saddle dam(s)	Nil
Fabridam	Nil
Gates	Nil
Storage volume and surface area	
Full supply volume	390 ML
Minimum operating volume	28 ML (volume below level of outlet works at EL 378.72 m AHD)
Storage curves/tables	Drawing number: 85367
Spillway arrangement	
Description of works	3 rows of steel sheet piling
Spillway level	Crest 381.00 m AHD
Spillway width	73.20 m
Discharge characteristics	HYDSYS rating table #5 for GS 422353 (Yarramalong Weir tailwater rating)
River inlet/outlet works and diversion works	
Description of works	A 1650 mm diameter outlet pipe. Control is provided by a 1067 mm square penstock control gate. Trash screens on inlet structure are integrated into the Yarramalong Pump Station.
Multi-level off-takes	Single level intake structure
Cease-to-flow levels	EL 378.5 m AHD
Discharge characteristics	The estimated maximum discharge capacity of Yarramalong Weir outlet works is 560 ML/day. Drawing number: 222352
Fish transfer system	
Description of works	Nil

Table 4 – Lemon Tree Weir–Condamine River at AMTD 943.4 km

Description of water infrastructure	
Description	Minimum energy weir
Full supply level	EL 370.01 m AHD
Minimum operating level	EL 365.94 m AHD
Saddle dam(s)	Nil
Fabridam	Nil
Gates	Nil
Storage volume and surface area	
Full supply volume	300 ML
Minimum operating volume	85 ML
Storage curves/tables	Drawing number: 216375
Spillway arrangement	
Description of works	Concrete-faced earth-fill
Spillway level	Crest EL 370.01 m AHD
Spillway width	43.6 m
Discharge characteristics	HYDSYS rating table #4 for GS 422349 (Lemon Tree Weir headwater gauge)
River inlet/outlet works and diversion works	
Description of works	A 1650 mm diameter outlet pipe. Control is provided by a 1067 mm square penstock control gate. Trash screens on inlet structure.
Multi-level off-takes	Single level intake structure. Inlet structure is 3.00 m wide x 3.58 m long x 5.05 m high
Cease-to-flow levels	EL 365.94 m AHD
Discharge characteristics	The estimated maximum discharge capacity of Lemon Tree Weir outlet works is 830 ML/day. Drawing number: 222353
Fish transfer system	
Description of works	Nil

Table 5 – Cecil Plains Weir–Condamine River at AMTD 891.1 km

Description of water infrastructure	
Description	Mass concrete weir
Full supply level	EL 350.87 m AHD
Minimum operating level	EL 347.67 m AHD
Saddle dam(s)	Nil
Fabridam	Nil
Gates	Nil
Storage volume and surface area	
Full supply volume	700 ML
Minimum operating volume	49 ML (volume below the level of the outlet works at EL 347.67 m AHD)
Storage curves/tables	Drawing number: 28359
Spillway arrangement	
Description of works	Central ogee profile spillway section.
Spillway level	Crest 350.87 m AHD
Spillway width	23.77 m
Discharge characteristics	HYDSYS rating table #51 for GS 422316 (Cecil Plains Weir headwater gauge)
River inlet/outlet works and diversion works	
Description of works	305mm pipe and gate valve. (Not operational at the commencement of the resource operations plan.)
Multi-level off-takes	Single level off-take with direct intake
Cease-to-flow levels	Spillway crest: EL 350.87 m AHD Pipe Invert: EL 347.67 m AHD
Discharge characteristics	0 ML/day (due to non-operative gate valve)
Fish transfer system	
Description of works	Nil

Table 6 – Melrose Weir–Condamine River North Branch at AMTD 50.0 km

Description of water infrastructure	
Description	Earth overshot weir
Full supply level	EL 370.75 m AHD
Minimum operating level	EL 369.20 m AHD
Saddle dam(s)	Nil
Fabridam	Nil
Gates	Nil
Storage volume and surface area	
Full supply volume	160 ML
Minimum operating volume	20 ML
Storage curves/tables	Drawing number: 125153
Spillway arrangement	
Description of works	Concrete central overflow section
Spillway level	EL 370.75 m AHD
Spillway width	270 m
Discharge characteristics	Not available
River inlet/outlet works and diversion works	
Description of works	A 1650 mm outlet pipe and outlet structure. Outlet structure—1800 mm diameter pipe x 2.4 m long, set vertically. Control is provided by a 1200 mm penstock gate. Trash screens on inlet structure.
Multi-level off-takes	Single level intake structure, which is 2.0 m wide x 5.8 m long x 3.5 m high with 1200 mm penstock gate.
Cease-to-flow levels	EL 369.2 m AHD (for the inlet structure)
Discharge characteristics	346 ML/day (4 m^3/s)
Fish transfer system	
Description of works	Nil

Table 7 – Wando Weir–Condamine River North Branch at AMTD 37.0 km

Description of water infrastructure	
Description	Earth overshot weir
Full supply level	EL 365.72 m AHD
Minimum operating level	EL 364.00 m AHD
Saddle dam(s)	Nil
Fabridam	Nil
Gates	Nil
Storage volume and surface area	
Full supply volume	310 ML
Minimum operating volume	30 ML
Storage curves/tables	Drawing number: 126924
Spillway arrangement	
Description of works	Rock-fill mattress central overflow section.
Spillway level	Crest 365.72 m AHD
Spillway width	40 m
Discharge characteristics	Not available
River inlet/outlet works and diversion works	
Description of works	A 1200 mm outlet pipe equipped with a 1200 mm penstock regulating gate fitted to the inlet structure. Outlet structure—1650 mm diameter pipe x 2.4 m long, set vertically. Intake structure is 2.0 m wide x 5.8 m long x 3.5 m high with 1200 mm penstock gate. Trash screens on inlet structure.
Multi-level off-takes	Single level intake structure
Cease-to-flow levels	Sill: EL 364.0 m AHD Invert: EL 363.0 m AHD
Discharge characteristics	Approximately 346 ML/day
Fish transfer system	
Description of works	Nil

Table 8 – Nangwee Weir–Condamine River North Branch at AMTD 17.0 km

Description of water infrastructure	
Description	Concrete-faced earth-fill weir
Full supply level	EL 357.00 m AHD
Minimum operating level	EL 355.70 m AHD
Saddle dam(s)	Nil
Fabridam	Nil
Gates	Nil
Storage volume and surface area	
Full supply volume	80 ML
Minimum operating volume	10 ML
Storage curves/tables	Drawing number: 125342
Spillway arrangement	
Description of works	Concrete-faced earth-fill.
Spillway level	Crest 357.00 m AHD
Spillway width	50 m
Discharge characteristics	Not available
River inlet/outlet works and diversion works	
Description of works	Outlet works includes 4 x 525 mm RC pipes discharging directly into river channel. Reinforced concrete intake structure, which is 4.6 m wide x 1.5 m deep x 1.4 m high with 1.06 m x 1.40 m penstock gate. Trash screens on inlet structure.
Multi-level off-takes	Single level intake structure
Cease-to-flow levels	EL 355.7 m AHD
Discharge characteristics	Approximately 200 ML/day
Fish transfer system	
Description of works	Nil

Table 9 – Yarramalong Pump

Infrastructure	
Description	Pumping station located on the right bank of the Condamine River and diversion to North Branch
Diversion rate	
Maximum diversion rate	346 ML/day

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 water level and stream flow data in accordance with Attachment 2, Table 1.

(2) Storage inflows may be determined based upon an inflow derivation technique supplied by the licence holder and approved by the chief executive.

(3) Infrastructure tailwater flows may be determined based upon 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
Leslie Dam headwater	✓	
Leslie Dam tailwater		✓
Talgai Weir headwater	✓	
Lemon Tree Weir headwater	✓	
Cecil Plains Weir headwater	✓	

2 Releases from water storages

(1) This section applies to Leslie Dam.

(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;

(c) the reason for each release; and

(d) for the multi-level off-take, the inlet level used and reason for deciding to release from that particular inlet level.

3 Announced allocations

The licence holder must record—

(a) details of the announced allocation determinations for—

(i) high class A priority water allocations;

(ii) high class B priority water allocations;

(iii) medium priority water allocations; and

(iv) risk class B 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 water taken;

(b) the total volume of water entitled to be taken; and

(c) the basis for determining the total volume of 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 and the assignor;

(b) the volume of the assignment;

(c) the location—

(v) from which it was assigned;

(vi) to which it was assigned;

(d) the effective date of the assignment; and

(e) the sale price.

6 Water diversions

The licence holder must measure and record the daily volume of water delivered to the North Branch of the Condamine River from the Condamine River via the Yarramalong Pump Station.

Division 2 Impact of infrastructure operation on natural ecosystems

7 Water quality

In accordance with condition 4.3, the licence holder must monitor and record water quality in relation to the relevant infrastructure listed in Attachment 1.

8 Bank condition

(1) The licence holder must inspect banks for evidence of collapse and/or erosion within the ponded areas and downstream of each 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.

9 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

10 Reporting requirements

The licence holder must provide—

(a) annual reports for the previous water year; and

(b) operational or emergency reports.

Division 1 Annual reporting

11 Annual report

(1) The licence holder must submit an annual report to the chief executive within three months after the end of the water year.

(2) The annual report must include—

(a) water quantity as described in section 12;

(b) details of the impact of infrastructure operation on natural ecosystems as required under section 13;

(c) discussion on any issues that arose as a result of the implementation and application of the rules and requirements of this licence; and

(d) a summary of sale price disclosure information and other seasonal water assignment information as per Attachment 2, Part 1, Division 1(5).

12 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 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 of 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) water diversions – all records referred to in section 6;

(g) details of seasonal water assignments, including—

(i) the total number of seasonal water assignments; and

(ii) the total volume of water seasonally assigned;

(h) for each seasonal water assignment-

(i) the location of the assignor and the assignee; and

(ii) the volume of water made available for take under the seasonal water assignment.

(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;

(b) details of any new monitoring devices used such as equipment to measure stream flow; and

(c) discussion on any other issues that arose as a result of the implementation and application of the resource operations licence.

13 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 the following water quality; and

(e) water quality – all records referred to in section 7.

Division 2 Operational or emergency reporting

14 Operational or emergency reporting[2]

(1) The licence holder must notify the chief executive—

(a) within one business day of becoming aware of any of the following operational incidents—

(i) non-compliance by the licence holder with the conditions of this licence;

(ii) instances when a waterhole is drawn down 0.5 m below cease to flow level;

(iii) instances of fish stranding, cyanobacterial growth or bank slumping within ponded or downstream of the infrastructure to which this licence relates; and

(iv) a decision being made to introduce a reduced full supply level under section 399B of the *Water Supply (Safety and Reliability) Act 2008*; and

[2] This does not preclude requirements for dam safety under the *Water Supply (Safety and Reliability) Act 2008, Water Act 2000* and any other applicable legislation.

(b) of an emergency where, as a result of the emergency, the licence holder cannot comply with the conditions of the licence.

(2) The licence holder must provide to the chief executive, upon request and within the timeframe requested, a report which includes details of—

(a) the incident or emergency;

(b) the conditions under which the incident or emergency occurred;

(c) any responses or activities carried out as a result of the incident or emergency; and

(d) in relation to an emergency only, any requirements under this licence that the licence holder is either permanently or temporarily unable to comply with due to the emergency.

(3) The licence holder must—

(a) notify the chief executive within one business day—

(i) upon setting an initial announced allocation or resetting an announced allocation during the water year; and

(ii) with details of any arrangements for addressing circumstances where they are unable to supply water allocations;

(b) provide the chief executive with relevant supporting information used in making any decision under subsection (a)(i) and (ii).

Glossary

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.
Cease to flow level	For a waterhole, the level at which water stops flowing from a waterhole over its downstream control.
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 Upper Condamine 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.
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.
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.
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.
Water year	The water year is the 12 month period beginning 1 July and ending 30 June.