

Distributions Operations Licence

Water Act 2000



Name of licence

St George Channel Scheme Distribution Operations Licence.

Holder

Mallawa Irrigation Ltd A.C.N. 616 181 741.

Water plan

The licence relates to the Water Plan (Condamine and Balonne) 2004.

Water infrastructure

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

Authority to take water and interfere with the flow of water

The licence holder is authorised to take water or interfere with the flow of water to distribute water under water allocations.

Authority to use watercourses to distribute water

For the distribution of supplemented and un-supplemented water, the licence holder may use the Thuraggi Watercourse downstream of E J Beardmore Dam (AMTD 0.4 km) to Buckinbah Weir (AMTD 27.4 km).

Conditions

1. Requirement for operations manual

- 1.1. The licence holder must operate in accordance with an approved operations manual made under this licence.
- 1.2. The approved operations manual must include—
 - 1.2.1. operating rules for water infrastructure; and
 - 1.2.2. access and supply arrangements.

2. Environmental management rules

- 2.1. The licence holder must operate and maintain the infrastructure in attachment 1 to minimise adverse impacts on water quality, bed and bank stability and aquatic ecosystems.
- 2.2. The licence holder must monitor the impacts on aquatic ecosystems in accordance with attachment 2, part 1, division 2 of this licence.

3. Metering

- 3.1. The licence holder must meter the volume of water diverted from:
 - 3.1.1. Jack Taylor Weir through the St George Pump Station; and
 - 3.1.2. Thuraggi Watercourse through the Buckinbah Offtake/Pump Station.
- 3.2. The licence holder must meter the volume of water taken from the Thuraggi Watercourse under water allocations to which the distribution operations licence applies.

4. Monitoring and reporting requirements

- 4.1. The licence holder must undertake the monitoring and reporting requirements in accordance with attachment 2.
- 4.2. 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.
- 4.3. The licence holder must ensure that the transfer of data and reporting are consistent with the Water Monitoring Data Reporting Standards².

5. Other conditions

- 5.1. The operating and environmental management rules and monitoring requirements under this licence and the operations manual , 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 reporting requirements for an operational incident or emergency stated in attachment 2.
- 5.2. In accordance with section 155 of the Water Act, the licence holder must provide a document to the water allocation holder on request that outlines the obligations that will apply to a proposed transferee or lessee on becoming the holder of a water allocation that operates under this licence.
- 5.3. The licence holder must only operate Moolabah Weir and Buckinbah Weir in accordance with the requirements of the resource operations licence holder for the St George Water Supply Scheme.
- 5.4. The licence holder must make the necessary arrangements with the resource operations licence holder for the St George Water Supply Scheme to divert water from EJ Beardmore Dam to the Thuraggi Watercourse for the delivery of unsupplemented water allocations in accordance with the announced periods made by the chief executive.

Commencement of licence

The licence took effect on 1 July 2018.

Granted on 19 June 2018

Amended under section 1259 of the *Water Act 2000* on 19 June 2018

David Wiskar
Executive Director, Water Policy

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>

Attachment 1 Infrastructure details for St George Channel Scheme

Table 1 – Moolabah Weir—Thuraggi Watercourse AMTD 14.8 km

Description of water infrastructure	
Description	Earth filled embankment with RC faced earth filled spillway
Full supply level	EL 202.25m AHD
Minimum operating level	EL 197.67m AHD
Saddle dam(s)	Nil
Fabridams	Nil
Gates	Outlet gates
Storage volume and surface area	
Full supply volume	2580 ML (The storage volume at the design full supply level of EL 202.25 m AHD is 3950 ML)
Minimum operating volume	440 ML
Storage curve/tables	Drawing No. F37799
Spillway arrangement	
Description of works	Earth filled spillway with concrete facing on crest, downstream slope and apron with 1220 mm of concrete on upstream side of crest.
Spillway crest level	EL 202.25 m AHD
Spillway width	122 m
Discharge characteristics	NA
River inlet/outlet works	
Description of works	Outlet works: 2 x 1525 mm pipes controlled by vertical sluice gates set in reinforced concrete outlet structure, which is 4880 mm wide x 3505 mm long with 45° wing walls extending 3965 mm on either side.
Multi-level off-take	Single level off-takes only
Levels	Invert of outlet pipe: EL 197.12 m AHD Sill of inlet structure: EL 197.67 m AHD
Cease to flow level	EL 197.67 m AHD
Discharge characteristics	Estimated maximum discharge capacity is 1400 ML/day with both gates open
Fish transfer system	
Description of works	Nil

Table 2 – Buckinbah Weir and diversion works to Buckinbah Main Channel—Thuraggi Watercourse AMTD 27.4 km

Description of water infrastructure	
Description	Earth filled embankment
Full supply level	EL 198.44 m AHD
Minimum operating level	EL 194.93 m AHD
Saddle dam(s)	Nil
Fabridams	Nil
Gates	Nil
Storage volume and surface area	
Full supply volume	5120 ML
Minimum operating volume	780 ML
Storage curve/tables	Drawing No. F37881
Spillway arrangement	
Description of works	Grassed two-level spillway
Spillway level	Primary spillway: 198.44 m AHD Secondary spillway: 199.2 m AHD
Spillway width	Primary spillway: 244 m wide Secondary spillway: 610 m wide
Discharge characteristics	NA
River inlet/outlet works	
Description of works	Buckinbah Off-take Regulator and Buckinbah Pump Station: Reinforced concrete structure with walkway located between the Buckinbah Weir storage and Buckinbah Main Channel. Works have 4 x 1830 mm x 1830 mm penstock gates installed. Structure integrated with pump station (four pumps). Inlet and off-take works are the same structure. Trash racks installed.
Multi-level off-take	Single level off-take only
Levels	Invert of gate EL 196.30 m AHD
Cease to flow level	EL 194.93 m AHD
Discharge characteristics	Maximum of approximately 480 ML/day with all four pumps in operation and gates fully open.
Fish transfer system	
Description of works.	Nil

Table 3 – St George pump station-Balonne River AMTD 229.9 km

Description of water infrastructure	
Location	Pumping station located on the left bank of the Balonne River and diversion to St George Main Channel.
Maximum diversion rate	120 ML/day

Table 4 – Beardmore low-level pump station-Balonne River AMTD 252.0 km

Description of water infrastructure	
Location	Pumping station located on the left bank of the Balonne River and diversion into Thuraggi Watercourse.
Maximum diversion rate	550 ML/day

Table 5 – Buckinbah pump station-Thuraggi Watercourse AMTD 25.2 km

Description of water infrastructure	
Location	Pumping station located on the right bank of the Thuraggi Watercourse and diversion to Buckinbah Main Channel.
Maximum diversion rate	480 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 volume data in accordance with attachment 2, table 1.
- (2) Infrastructure inflows may be determined based upon an infrastructure inflow derivation technique supplied by the licence holder and approved by the chief executive.

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

Water level and volume data
Moolabah Weir headwater
Buckinbah Weir headwater

2 Releases from storages

- (1) The licence holder must measure and record for each release of water from storages listed in attachment 2, table 1—
 - (a) the daily volume released; and
 - (b) the release rate, and for any change in release rate—
 - (i) the date and time of the change; and
 - (ii) the new release rate; and
 - (c) the reason for each release.

3 Water diversions

- (1) The licence holder must measure and record the daily volumes of supplemented water diverted by the —
 - (a) St George Pump Station; and
 - (b) Buckinbah Distribution Channel Off-take.
- (2) The licence holder must measure and record the daily volumes of water diverted from EJ Beardmore Dam to the Thuraggi Watercourse for —
 - (a) the delivery of supplemented water allocations during announced periods; and
 - (b) overcoming normal watercourse transmission losses incurred in distributing the supplemented water allocations during an announced period.

- (3) The licence holder must record the daily volumes of water diverted from EJ Beardmore Dam to the Thuraggi Watercourse for —
 - (a) the delivery of unsupplemented water allocations during announced periods;
 - (b) overcoming normal watercourse transmission losses incurred in distributing the unsupplemented water allocations during an announced period; and
 - (c) relocation water.
- (4) The methodology for determining the volume diverted must be approved by the chief executive.

4 Water taken by water users

- (1) The licence holder must record the total volume of supplemented water, including distribution loss water, taken in each quarter under each water allocation from the Thuraggi Watercourse and through the St George pump station.
- (2) The licence holder must—
 - (a) for each unsupplemented water allocation taken from the Thuraggi Watercourse and through the St George pump station during announced periods, measure and record for each announced period—
 - (i) the volume of water entitled to be taken at any time; and
 - (ii) the total volume of water taken;
 - (b) record the basis for determining the information in subsection (a).

Division 2 Impact of infrastructure operation on natural ecosystems

5 Water quality

The licence holder must monitor and record water quality data in relation to relevant infrastructure listed in attachment 1.

6 Bank condition

- (1) The licence holder must inspect banks for evidence of collapse and/or erosion identified within ponded areas and downstream of each storage listed in attachment 1, following instances of—
 - (a) rapid water level changes; or
 - (b) large flows through storage, 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 infrastructure operations.

7 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 of the licence holder to determine if any instance is associated with the operation of that infrastructure listed in attachment 1.

Division 3 Data transfer

8 Data transfer to the resource operations licence holder

- (1) The licence holder must provide the resource operations licence holder for the St George Water Supply Scheme with:—
 - (a) monitoring data under attachment 2, sections 1(1) and 2(1)(a) daily; and
 - (b) monitoring data under section 4(1) within 3 business days after the end of the month, or another timeframe if agreed to by the resource operations licence holder.
- (2) The licence holder must, when requested by the resource operations licence holder for the St George Water Supply Scheme, transfer all data measured, collected and recorded to the resource operations licence holder—
 - (a) that is reasonably required for the resource operations licence holder to comply with the rules and requirements of attachment 2, part 2 of the resource operations licence; and
 - (b) within 15 business days of a request being made, or another timeframe if agreed to by the licence holder and resource operations licence holder.

9 Data transfer to the chief executive

The licence holder must transfer any monitoring data under attachment 2, section 4(2) to the chief executive within five business days of an announced period ceasing or upon request and within the time requested.

Part 2 Reporting requirements

10 Reporting requirements

The licence holder must provide—

- (a) quarterly reports;
- (b) annual reports for the previous water year; and
- (c) operational or emergency reports.

Division 1 Quarterly reporting

11 Quarterly report

- (1) The licence holder must submit a quarterly report to the chief executive within—
 - (a) three months after the end of each of the first three quarters of every water year;
 - (b) and two months after the end of the final quarter of every water year.
- (2) The report must contain the following data—
 - (a) stream flow and storage water level—all records referred to in section 1;
 - (b) releases from storage—all records referred to in section 2;
 - (c) water diversions—all records referred to in section 3;
 - (d) the total quarterly volume of water taken under each water allocation and for that take to be reported against the Thuraggi Watercourse Offtake and the St George Pump Station—all records referred to in section 4;
 - (e) water quality—all records referred to in section 5; and

- (f) a summary of bank condition monitoring and instances of slumping carried out in accordance with section 6.

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 the water year.
- (2) The annual report must include—
 - (a) a summary of the impact of infrastructure operation on aquatic ecosystems including—
 - (i) the environmental considerations made by the licence holder in delivering unsupplemented and supplemented water;
 - (ii) the environmental outcomes of the delivery of unsupplemented and supplemented water, including the results of any investigations of bank slumping, erosion or fish stranding; and
 - (iii) changes to the operation of infrastructure to reduce instances of bank slumping, erosion or fish stranding or environmental impacts.
 - (b) a discussion of any issues that arose as a result of the implementation and application of the rules in this licence;
 - (c) all details of changes to the delivery infrastructure or the operation of the delivery infrastructure that may impact on compliance with the rules of this licence; and
 - (d) details of any new monitoring devices used such as equipment to measure stream flow.

Division 3 Operational and emergency reporting

13 Operational or emergency reporting³

- (1) The licence holder must notify the chief executive within one business day of becoming aware of—
 - (a) any of the following incidents
 - (i) a non-compliance by the licence holder with the rules in this licence; and
 - (ii) details of any arrangements for addressing circumstances where they are unable to supply water allocations; or
 - (b) an emergency where, as a result of the emergency, the licence holder cannot comply with this licence.
- (2) The licence holder must provide to the chief executive upon request, and within the timeframe requested, a report which includes—
 - (a) details of 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; and

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

- (e) a summary of any other non-compliances by the licence holder with the rules given in this licence.

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 period	A period of time during which water may be taken under a water entitlement as announced by the chief executive, adjusted for the location of the water entitlement relative to the location where the announcement is made.
Channel system	A system of channels, canals, pumps and pipelines and other works used for the distribution of water to water users in a water supply scheme.
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	The specified maximum volume of water within the ponded area of a dam, weir or barrage, which 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	Distributions operations licence holder for the St George Channel Scheme.
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.
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.
Resource operations licence holder	The holder of the resource operations licence for the St George Water Supply Scheme
Supplemented water	Means water supplied under a resource operations licence or other authority to operate water infrastructure
Unsupplemented water	Means water that is not supplemented water
Water user	The holder of a valid water entitlement.
Water year	The water year for water managed in the St George Water Supply Scheme is the 12 month period beginning 1 July and ending 30 June.