Resource Operations Licence
Water Act 2000

Queensland Government

Name of licence
Baroon Pocket Water Supply Scheme Resource Operations Licence

Holder
Queensland Bulk Water Supply Authority

Water plan
The licence relates to the Water Plan (Mary Basin) 2006.

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.

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. Environmental management and other rules
The licence holder must comply with the requirements as detailed in attachment 2.

3. Metering
The licence holder must meter the taking of water under all water allocations and seasonal water assignments managed under this licence.

4. Monitoring and reporting requirements
4.1. The licence holder must carry out and report on the monitoring requirements as set out in attachment 3.

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].

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

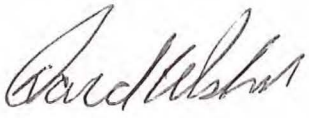
5. Other conditions

5.1. 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 3.

Commencement of licence

The licence took effect on 5 September 2011.

Granted on 5 September 2011
Amended under section 1259 of the *Water Act 2000* on 6 April 2021



David Wiskar

Executive Director, Water Policy

Attachment 1 Infrastructure details for Baroon Pocket Water Supply Scheme

Table 1 – Baroon Pocket Dam—Obi Obi Creek AMTD 26.4 km

Description of water infrastructure	
Description	An existing earth and rockfill embankment, concrete spillway
Full supply level	EL 217.0 m AHD
Saddle dam(s)	Earth and rock fill saddle dam
Storage capacity	
Full supply volume	61 000 ML
Minimum operating volume	4500 ML
Storage curves/tables	Not available at the time of publication
Spillway arrangement	
Description of works	Concrete with flip bucket
Levels	EL 217.0 m AHD
Spillway width	32 m
Discharge characteristics	Not available at the time of publication
Inlet/outlet works	
Inlet works description (Lander's Shute Water Treatment Plant)	Dry well intake tower—reinforced concrete structure housing nine inlets at EL 214.5 m, 212 m, 209.5 m, 207 m, 204.5 m, 202 m, 199 m, 196 m and 193 m AHD
Inlet works location (Lander's Shute Water Treatment Plant)	The inlet is located in Baroon Pocket Dam, 2 km upstream of the dam wall at the western end of Mill Hill Road
Inlet works description (Obi Obi Creek)	Wet well intake structure housing four inlets at EL 213 m, 208 m, 202 m and 193 m AHD
Inlet works location (Obi Obi Creek)	The intake tower is located in Baroon Pocket Dam, just upstream of the wall
Outlet works description (Lander's Shute Water Treatment Plant)	Multi-level inlet connects to a 1086 mm diameter pipe through 2.5 km long tunnel leading to Lander's Shute Water Treatment Plant
Outlet works description (Obi Obi Creek)	Valve house—reinforced concrete structure housing a 500 mm diameter pipeline equipped with a 300 mm diameter cone valve. Water is piped from the wet well intake structure to the valve house
Outlet works location (Obi Obi Creek)	The valve house is located immediately downstream of the wall
Cease to flow levels	EL 193.5 m AHD
Discharge characteristics (Lander's Shute Water Treatment Plant)	Maximum outlet capacity: 2.1 m^3/sec Provisions for selective release: The outlet capacity is regulated by the Francis turbine and the control valve for flows over 1.1 m^3/sec at the treatment plant inlet
Discharge characteristics (Obi Obi Creek)	Maximum outlet capacity: cone valve: 1.3 m^3/sec Provisions for selective release: The cone valve can be operated to regulate the rate of release between 0 m^3/sec to 1.3 m^3/sec
Fish transfer system	
Description of works	None installed

Attachment 2 Environmental management and other rules

1 Quality of water released

When releasing water from Baroon Pocket Dam, the licence holder must draw water from the inlet level that optimises the quality of water released.

2 Change in rate of release from infrastructure

The licence holder must minimise the occurrence of adverse environmental impacts by ensuring that any reduction or increase in the rate of release of water from Baroon Pocket Dam occurs incrementally.

3 Low flow release strategy for Baroon Pocket Dam

(1) When the water level in Baroon Pocket Dam is at or above EL 193.5 metres AHD and the flow recorded at Gardeners Falls gauging station (gauging station number 138120A) is less than 5 megalitres/day, the licence holder must release 1.5 megalitres of water from Baroon Pocket Dam per day.

(2) When the water level in Baroon Pocket Dam is at or above EL 193.5 metres AHD and the flow recorded at Gardeners Falls gauging station (gauging station number 138120A) is equal to or greater than 5 megalitres/day and less than 10 megalitres/day, the licence holder must release 5 megalitres of water from Baroon Pocket Dam per day.

(3) When the water level in Baroon Pocket Dam is at or above EL 193.5 metres AHD and the flow recorded at Gardeners Falls gauging station (gauging station number 138120A) is equal to or greater than 10 megalitres/day, the licence holder must release 15 megalitres of water from Baroon Pocket Dam per day.

4 Releases for downstream landowners on Obi Obi Creek

(1) This section applies when the storage level in Baroon Pocket Dam is at or above EL 193.5 metres AHD.

(2) When requested by the Obi Obi Creek Water Advisory Committee, the licence holder must release water from Baroon Pocket Dam into Obi Obi Creek to meet the requirements of downstream landowners on Obi Obi Creek.

(3) Releases under subsection (2) must be made on the next business day following a request from the Obi Obi Creek Water Advisory Committee.

(4) The volume of water released under subsection (2) must not exceed 2000 megalitres per water year.

(5) Details of releases made under subsection (2) must be recorded as stipulated in attachment 3, section 5.

5 Relationship between section 3 and section 4 of this licence

The volume of water released in accordance with section 3 may be included as water released to supply downstream landholders under section 4.

Attachment 3 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 volume and stream flow data in accordance with attachment 3, 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.

(3) Tailwater flows may be estimated using the release curve developed for the discharge works that has been supplied by the licence holder and approved by the chief executive.

Table 1 – Locations where continuous water data recording required

Location	Water level and volume data	Daily flow data
Baroon Pocket Dam inflow		✓
Baroon Pocket Dam headwater	✓	
Baroon Pocket Dam tailwater		✓

2 Releases from storages

The licence holder must measure and record for each release of water from Barron Pocket Dam—

(a) the daily volume released and component volumes for each release;

(b) the release rate, and for each change in release rate—

(i) the date and time of the change; and

(ii) the new release rate;

(c) the device used for each release;

(d) for storages with a multi-level off-take, the inlet level used for each release; and

(e) the reason for each release.

3 Seasonal water assignment of a water allocation

The licence holder, upon consent to a seasonal water assignment, 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—

(i) from which it was assigned; and

(ii) to which it was assigned; and

(d) the effective date of the seasonal water assignment.

4 Water taken by water users

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

(a) the total volume of water taken each quarter;

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

(c) the basis for determining the total volume of water entitled to be taken any time.

5 Monitoring requirements for releases for downstream landowners on Obi Obi Creek

The licence holder must record particulars of requests made under attachment 2, section 4, including—

(a) the total volume and dates of supply requested;

(b) date of the request;

(c) name of person making the request; and

(d) user/s that the water is intended for.

Division 2 Impact of storage operation on natural ecosystems

6 Water quality

The licence holder must monitor and record water quality data in relation to infrastructure to which this licence applies.

7 Bank condition

(1) The licence holder must inspect banks for evidence of collapse and/or erosion within the ponded area and downstream of the infrastructure to which this licence applies following instances of—

(a) rapid water level changes; or

(b) large flows through infrastructure; or

(c) other occasions when collapse and/or erosion of banks may be likely.

(2) The distance downstream is the distance of influence of storage operations.

(3) Any instances of bank slumping or erosion observed must be investigated to determine if the instability was associated with the nature or operation of the infrastructure.

8 Fish stranding

The licence holder must record and assess reported instances of fish stranding in watercourses and ponded areas associated with the operation of infrastructure to which this licence applies to determine if any instance of fish stranding is associated with the operation of that infrastructure.

Part 2 Reporting requirements

9 Reporting requirements

The licence holder must provide the following reports in accordance with this part—

(a) quarterly reports;

(b) annual reports;

(c) operational or emergency reports.

Division 1 Quarterly reporting

10 Quarterly reporting by the licence holder

(1) The licence holder must submit a quarterly report to the chief executive after the end of each 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) daily volumes released from storages referred to in section 2;

(c) water quality—all records referred to in section 6;

(d) a summary of bank condition monitoring and incidences of slumping carried out in accordance with section 7;

(e) for each quarter, the total volume of water—

(i) taken for each zone; and

(ii) entitled to be taken for each zone;

(f) the particulars of requests made by the Obi Obi Creek Water Advisory Committee for releases for downstream water users—all records referred to in section 5.

Division 2 Annual reporting

11 Annual report

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

(2) The annual report must include—

(a) water quantity monitoring results required under section 12;

(b) details of the impact of storage operation on water quality required under section 13; and

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

12 Water quantity monitoring

The licence holder must include in the annual report under section 11—

(a) for the water year, the total annual volume of water taken by each water user, specified by zone, namely—

(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 volume entitled to be taken;

(b) details of seasonal water assignments, namely—

(i) the total number of seasonal water assignment arrangements; and

(ii) the total volume of water seasonally assigned;

(c) all details of changes to infrastructure or the operation of infrastructure that may impact on compliance with the rules in this licence; and

(d) details of any new monitoring devices used, such as equipment to measure stream flow.

13 Impact of storage operation on natural ecosystems

The licence holder must include in the annual report under section 11—

(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 or erosion identified in ponded areas or downstream of infrastructure;

(ii) results of investigations of fish stranding downstream of infrastructure; and

(iii) changes to the operation of infrastructure to reduce instances of bank slumping, erosion or fish stranding;

(d) a discussion and assessment of the following water quality issues—

(i) thermal and chemical stratification in each water storage associated with infrastructure;

(ii) contribution of the water storage and its management to the quality of water released;

(iii) cumulative effect of successive water storages associated with infrastructure on water quality;

(iv) cyanobacteria population changes in response to stratification in each water storage; and

(v) any changes to the monitoring program as a result of evaluation of the data.

Division 3 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) a non-compliance by the licence holder with the rules given in this licence; and

(ii) instances of fish stranding or bank slumping within the ponded area or downstream of Barron Pocket Dam or watercourses associated with the operation of this water supply scheme;

(b) upon making a decision relating to details of any arrangements for addressing circumstances where they are unable to supply water allocations;

(c) 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 the chief executive with a report which includes details of—

(a) the incident or emergency;

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

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

(d) in relation to an emergency only—

(i) notify the chief executive on discovery of the emergency; and
(ii) report 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 provide the chief executive with a summary of any other non-compliances by the licence holder with the rules given in this licence.

[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.

Attachment 4 Glossary

Term	Definition
AHD	The Australian Height Datum which references a level or height to a standard base level.
AMTD	Adopted Middle Thread Distance. The distance in kilometres, measured along the middle of a watercourse, from the mouth or junction.
Assignee	The person or entity to whom an interest or right to water is being transferred (e.g. seasonally assigned).
Assignor	The person or entity who transfers an interest or right in water to an assignee (e.g. a seasonal assignment).
Component volumes	The volume of water associated with a particular release. For example, a component volume may be released via a fish way or valve.
EL	Elevation level.
Fish stranding	Refers to fish that are stranded or left out of water on the bed or banks of a watercourse, on infrastructure such as spillways and causeways, or isolated in small and or shallow pools, from which they cannot return to deeper water. This also applies to other aquatic species.
Inlet	Infrastructure comprised of an entrance channel, intake structure and gate or valve, which allow for water to be taken from the storage and discharged into the watercourse downstream of the storage.
Location	For water allocation, means the zone from which water under the water allocation can be taken. For a water licence, means the section of the watercourse, lake or spring abutting or contained by, the land described on the water licence at which water may be taken.
Megalitres (ML)	One million litres.
Minimum operating volume	The specified minimum volume of water within the ponded area of a storage, dam, or weir below which water cannot be released or taken from the infrastructure under normal operating conditions.
Multi-level inlet	An inlet arrangement on a dam or weir that allows stored water to be released downstream from selected levels below the stored water surface.
Ponded area	Area of inundation at full supply level of storage.
Tailwater	The flow of water immediately downstream of a dam or weir. Tailwater includes all water passing the water storage, for example controlled releases and uncontrolled overflows.