

Resource Operations Licence

Water Act 2000



Name of licence

Pioneer River Water Supply Scheme Resource Operations Licence

Holder

Sunwater Limited

Water plan

The licence relates to the Water Plan (Pioneer Valley) 2002.

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
Pioneer River	The part of the Pioneer River between the tidal limit of the river and the confluence of the river and Blacks Creek, including the impounded areas of Dumbleton Rocks Weir, Marian Weir and Mirani Weir
Blacks Creek	The part of Blacks Creek between the confluence of the creek and the Pioneer River and the confluence of the creek and Teemburra Creek
Teemburra Creek	The part of Teemburra Creek between the confluence of the creek and Blacks Creek, up to and including the impounded area of Teemburra Dam
Cattle Creek	The part of Cattle Creek between the confluence of the creek and the Pioneer River and Palm Tree Creek
Palm Tree Creek	The part of Palm Tree Creek between the confluence of the creek and Cattle Creek and the Palm Tree Creek diversion pipeline outlet

Distribution of water allocations

The licence holder may use the infrastructure of the Eton Water Supply Scheme detailed in the Eton Water Supply Scheme Resource Operations Licence Attachment 1 to distribute water allocations for the Pioneer River Water Supply Scheme, provided the Water Allocation Security Objective of water allocations associated with Eton Water Supply Scheme is not affected.

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:
 - 1.1.1. operating rules for water infrastructure;
 - 1.1.2. water sharing rules; and
 - 1.1.3. seasonal water assignment rules.

2. Environmental management rules

- 2.1. The licence holder must comply with the requirements as detailed in Attachment 2.

- 3. Metering**
 - 3.1. The licence holder must meter the taking of water under those water allocations and seasonal water assignments to which the licence holder distributes water.
- 4. Notification requirements**
 - 4.1. The licence holder must comply with the requirements as detailed in Attachment 3.
- 5. Monitoring and reporting requirements**
 - 5.1. The licence holder must carry out and report on the monitoring requirements as set out in Attachment 4.
 - 5.2. The licence holder must provide any monitoring data required under condition 5.1 to the chief executive within a stated time upon 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 Standards ¹.
- 6. Other conditions**
 - 6.1. 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 reporting requirements for operational or emergency prescribed in Attachment 4.
 - 6.2. The licence holder may at any time submit an interim program or an amendment to an existing program to the chief executive for approval in accordance with Attachment 5, if the holder proposes to operate in a way that does not meet the requirements of this licence.
 - 6.3. Where there is conflict between the requirements of this licence and an approved program, the program prevails for the time it is in place.
 - 6.4. 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.
 - 6.5. The licence holder must provide the chief executive information about seasonal water assignments as directed by the chief executive within the stated time upon request¹.

This Resource Operations Licence is subject to the conditions attached.

Commencement of licence

The licence took effect on 17 June 2005.

Granted on 17 June 2005.

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 Pioneer River Water Supply Scheme

Table 1 - Teemburra Dam- Teemburra Creek AMTD 20.5 km

Description of water infrastructure	
Description	Concrete lined rock fill dam
Full supply level	EL 290.00 AHD
Saddle dam(s)	2
Storage capacity	
Full supply volume	147 500 ML
Dead storage level	EL 264.35 m AHD (8 300 ML)
Storage curves/tables	Drawing no: 203284 and 203285
Spillway arrangement	
Description of works	Ogee crest
Spillway level	EL 290.00 m AHD.
Spillway width	60 m
River inlet/outlet works	
Maximum discharge rate	600 ML/day
Palm Tree Creek Pipeline Outlet	The maximum discharge rate of the Palm Tree Creek Pipeline Outlet is 240 ML/day

Table 2 - Mirani Weir-Pioneer River AMTD 45.7 km

Description of water infrastructure	
Description	Weir, mass concrete
Full supply level	EL 47.00 m AHD
Storage capacity	
Full supply volume	4 660 ML
Dead storage level	EL 40.01 m AHD (410 ML)
Storage curves/tables	Drawing no: 220722
Spillway arrangement	
Description of works	Mass concrete with fabric dam
Spillway level	EL 47.00 m AHD
Fixed crest level	EL 45.20 m AHD (2 730 ML)
Spillway width	120 m
Discharge characteristics	Not available
River inlet/outlet works	
Maximum discharge rate	300 ML/day

Table 3 - Marian Weir- Pioneer River AMTD 32.0 km

Description of water infrastructure	
Description	Weir, mass concrete
Full supply level	EL 31.91 m AHO
Storage capacity	
Full supply volume	3 980 ML
Dead storage level	EL 26.54 m AHO (110 ML)
Storage curves/tables	Drawing no: 210667
Spillway arrangement	
Description of works	Ogee crest in two sections of 73.2 m and 25.6 m at different levels
Spillway level	EL 31.91 m AHO
Spillway width	186 m
Discharge characteristics	Drawing no: 13094
River inlet/outlet works	
Maximum discharge rate	121 ML/day
Fish transfer system	
Description of works	A weir/pond type (not operational)

Table 4 - Dumbleton Rocks Weir-Pioneer River AMTD 16.5 km

Description of water infrastructure	
Description	Weir, mass concrete
Full supply level	EL 16.00 m AHO
Fabridam	Yes
Storage capacity	
Full supply volume	8 840 ML
Dead storage level	EL 5.7 m AHO (130 ML)
Storage curves/tables	Drawing no: 36702A
Spillway arrangement	
Description of works	Mass concrete and two fabridams
Spillway level	EL 16.00 m AHO
Fixed crest level	EL 14.00 m AHO
Spillway width	145.6 m
Discharge characteristics	Not available
River inlet/outlet works	
Maximum discharge rate	95 ML/day
Fish transfer system	
Description of works	Fish lock and lifting frame

Attachment 2 Environmental management rules

1 Quality of water released

When making a release from Teemburra Dam or Mirani Weir, the licence holder must draw water from the inlet level that optimising the quality of water released.

2 Change in rate of release

The licence holder must minimise the occurrence of adverse environmental impacts (e.g. fish stranding and bank slumping, etc.) by ensuring that any reduction or increase in the rate of release of water from Teemburra Dam, Marian Weir, Mirani Weir and Dumbleton Rocks Weir to the Pioneer River occurs incrementally.

3 Minimum flow rates

- (1) The licence holder must ensure that the minimum flow rates for the Pioneer River at Node A, as specified in Attachment 2, Table 1, are met.
- (2) The licence holder may meet the minimum flow rates by utilising a combination of the following-
 - (a) natural flows; and
 - (b) releasing water from storages listed in Attachment 1, subject to infrastructure limitations.
- (3) Notwithstanding subsection 2, the maximum volume of water that may be released from Teemburra Dam in any water year for the purpose of meeting the minimum flow rates is specified in Attachment 2, Table 2.
- (4) Notwithstanding subsection 1, where stage 3, 4 or 5 water level classifications determined under the Pioneer Valley Water Supply Scheme Operations Manual section 13 are in effect, the licence holder is not required to meet minimum flow rates at Node A.

Table 1 - Minimum flow rates at Node A of the Pioneer River-AMTD 15.5 km

Season	Teemburra Dam storage volume	
	Greater than 73 630 ML	Less than 73 630 ML
December to March	Greater than 60 ML/day for at least 95 days	Greater than 5 ML/day for at least 105 days
	Greater than 5 ML/day for at least 105 days	
April to July	Greater than 5 ML/day for at least 105 days	Greater than 5 ML/day for at least 105 days
	Greater than 500 ML/day for at least 10 days before the end of June	
August to November	Greater than 5 ML/day for at least 105 days	Greater than 5 ML/day for at least 105 days
	Greater than 115 ML/day for at least 20 days before the end of August	
	Greater than 20 ML/day for at least 100 days (with at least 51 days occurring before the end of September)	

Table 2 - Maximum release volume from Teemburra Dam for minimum flow rates

Teemburra Dam storage volume at first day of each water year		
Greater than 117 800 ML	Less than 117 800 ML and greater than 73 630 ML	Less than 73 630 ML
9 000 ML	1700 ML	360 ML

Attachment 3 Notification requirements

1 Notification of distribution operations licence holder

- (1) The licence holder must notify the distribution operations licence holder for the Pioneer River Water Supply Scheme within two business days—
 - (a) of the start and end of any stream flow period
 - (b) the licence holder receives an application for a seasonal water assignment that requires the consent of the licence holder and distribution operations licence holder;
- (2) The licence holder must notify the distribution operations licence holder within one business day after becoming aware of any operational incident or emergency that may impact the distribution operations licence holder.

Attachment 4 Licence holder monitoring and reporting

Part 1 Monitoring requirements

Division 1 Water quantity

1 Stream flow and storage water level data

The licence holder must record storage water level and flow data in accordance with Attachment 4, Table 1.

Table 1 - Locations where continuous water data recording required

Continuous time series storage water level data	Continuous time series height and flow data
Teemburra Dam Headwater	-
-	Teemburra Dam Tailwater up to the maximum discharge rate of the river inlet/outlet works
Mirani Weir Headwater	-
-	Mirani Weir Tailwater
Dumbleton Rocks Weir Headwater	-
-	Dumbleton Rocks Weir Tailwater
Marian Weir Headwater	-

2 Releases from storages

- (1) The licence holder must record for each release of water from Teemburra Dam, Mirani Weir and Dumbleton Rocks Weir-
 - (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.
- (2) The licence holder must record the daily volume of water released to-
 - (a) Palm Tree Creek from the Palm Tree Creek Outlet; and
 - (b) Teemburra Creek for the River Outlet for Teemburra Dam.
- (3) In addition to the requirements under subsection 1, for each storage outlet with multi-level inlets the licence holder must record-
 - (a) the inlet level used for each release of water; and
 - (b) the reason for deciding to release from that particular inlet level.

3 Operation of fabridams

The licence holder must record for the Dumbleton Rocks Weir and Mirani Weir fabridams-

- (a) the date and time when each fabridam deflates and inflates; and
- (b) the time taken to deflate and inflate.

4 Waterholes

- (1) Where the water level in Dumbleton Rocks waterhole is more than 0.5 metres below the natural cease to flow level, the licence holder must record the level on a daily basis.
- (2) The licence holder must identify and record the natural cease to flow level (AHO) annually, or when a change is identified.

5 Announced allocations

The licence holder must record details-

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

6 Water taken by water users

The licence holder must on an annual basis record the total volume of water taken by each water user for each zone as follows-

- (a) the total volume of water taken;
- (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 at any time.

7 Seasonal water assignment of a water allocation

The licence holder that approves 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;
 - (ii) to which it was assigned;
- (d) the effective date of the seasonal water assignment; and
- (e) the sale price.

8 Restrictions

The licence holder must record details of any restrictions on the supply of high class A water including-

- (a) the dates of restrictions;
- (b) the nature of restrictions;
- (c) the basis for determining restrictions including-
 - (i) the minimum allocation for high priority urban users; and
 - (ii) the critical levels for any high priority reserves.

Division 2 Impact of infrastructure operation on natural ecosystems

9 Water quality

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

10 Bank condition

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 changes; or
- (b) large flows through storage, or
- (c) other occasions when collapse and/or erosion of banks may be likely.

11 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 listed in Attachment 1 to determine if any instance is associated with the operation of that infrastructure.

Part 2 Reporting requirements

12 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

13 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 Attachment 4, section 14;
 - (b) details of the impact of storage operation on natural ecosystems as required under Attachment 4, section 15;
 - (c) a 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 4, Part 1, Division 1(7).

14 Water quantity monitoring

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 the initial announced allocation and for each change made to an announced allocation;
- (b) details of seasonal water assignments, including-
 - (i) the total number of seasonal water assignments for each zone; and
 - (ii) the total volume of water seasonally assigned for each zone;
- (c) for the water year, a summary of water taken by each supplemented water user, specified by zone, as follows-
 - (i) the total volume of water taken under entitlements;
 - (ii) the total volume of volume of water entitled to be taken under the announced allocation; and
 - (iii) the basis for determining the total volume of water entitled to be taken;
- (d) for the water year, the total annual volume of water taken by all supplemented water users, specified by zone, as follows-
 - (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 of supplemented water entitled to be taken;
- (e) details of the cease to flow level of Dumbleton Rocks waterhole in accordance with Attachment 4, section 4;
- (f) all details of changes to storages and delivery infrastructure or the operation of storages and delivery infrastructure that may impact on compliance with rules and requirements of this licence;
- (g) details of any new monitoring devices used, such as equipment to measure stream flow.

15 Impact of infrastructure operation on natural ecosystems

The licence holder must include in their annual report-

- (a) a summary of the 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 the 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 issues-
 - (i) thermal and chemical stratification in the storage;
 - (ii) the impact of the storage and its management on the quality of water released;

- (iii) cyano-bacterial population changes in response to stratification in the storage; and
- (e) any proposed changes to the monitoring program as a result of evaluation of the data.

Division 2 Operational or emergency reporting

16 Operational or emergency reporting²

- (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 of fish stranding, cyanobacterial growth or bank slumping in the ponded areas or downstream of the water infrastructure to which this licence relates;
 - (iii) a decision being made to introduce a reduced full supply level under section 399B of the *Water Supply (Safety and Reliability) Act 2008*; and
 - (b) 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;
 - (ii) of the start and end of any stream flow period;
 - (iii) with details of any arrangements for addressing circumstances where they are unable to supply water allocations; and
 - (b) provide the chief executive with relevant supporting information used in making any decision under subsection (a)(i) and (ii).
- (4) The licence holder must on approval of any seasonal assignment, transfer information to the chief executive, including-
 - (a) the name and location of assignees and assignors; and
 - (b) the zone or zones where water is being seasonally assigned to and from.

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 5 Interim programs

1 Submission of interim program

The licence holder may, at any time, submit an interim program to the chief executive for approval, including a timetable for returning to full compliance with the licence and interim arrangements.

2 Implementing and publishing interim program

Following approval of the program by the chief executive, the licence holder-

- (a) must implement and operate in accordance with the interim program;
- (b) make public details of the interim program on its internet site; and
- (c) notify the distribution operations licence holder of the interim program.

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 the watercourse, that a specific point in the watercourse is from the watercourse's mouth; or-if the watercourse is not a main watercourse-the watercourse's confluence with its main watercourse.
Announced allocation	For a water allocation managed under a resource operations licence, 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.
Dead storage	For a dam or weir, the specified minimum volume of water within the ponded area of the storage that cannot be released or used from the storage under normal operating conditions.
Distribution operations licence holder	Distribution operations licence holder for the Pioneer River water supply scheme.
Discharge	Discharge is the rate at which a volume of water passes a point in a stream or pipeline per unit of time. This could be measured in litres per second (L/s), cubic meters per second (m ³ /s) or in megalitres per day (ML/day).
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.
Fixed crest level	The part of a dam or weir, the level of which cannot be easily altered due to its nature of construction, over which water flows are designed to spill from the ponded storage.
Full supply level	The specified maximum volume of water within the ponded area of a dam or weir, which corresponds to the full supply level.
Inlet	Infrastructure comprised of an entrance channel, intake structure, and gate or valve which allow for water to be taken from the ponded area of a dam or weir and discharged via an outlet into the watercourse downstream of the storage.
Licence holder	The holder of the resource operations licence for the Pioneer River Water Supply Scheme
Location	For a water allocation, means the zone from which water under the water allocation can be taken.
Megalitre (ML)	One million litres.
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.
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 .
Stream flow	The total daily flow in megalitres measured at a given point along a watercourse. This includes both natural stream flow and water released from an upstream storage, which contributes to flow at that point.
Tailwater	The flow of water immediately downstream of a dam or weir. Tailwater includes all water passing the infrastructure - for example, controlled releases and uncontrolled overflows.
Water user	The holder of a valid water entitlement.