

# **Whitsunday**

## **Proserpine River Water Supply Scheme Operations Manual**

**January 2022**



This publication has been compiled by Water Policy, Department of Regional Development, Manufacturing and Water.

© State of Queensland, 2022

The Queensland Government supports and encourages the dissemination and exchange of its information. The copyright in this publication is licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence.



Under this licence you are free, without having to seek our permission, to use this publication in accordance with the licence terms. You must keep intact the copyright notice and attribute the State of Queensland as the source of the publication.

Note: Some content in this publication may have different licence terms as indicated.

For more information on this licence, visit <https://creativecommons.org/licenses/by/4.0/>.

The information contained herein is subject to change without notice. The Queensland Government shall not be liable for technical or other errors or omissions contained herein. The reader/user accepts all risks and responsibility for losses, damages, costs and other consequences resulting directly or indirectly from using this information.

**Interpreter statement:**

The Queensland Government is committed to providing accessible services to Queenslanders from all culturally and linguistically diverse backgrounds. If you have difficulty in understanding this document, you can contact us within Australia on 13QGOV (13 74 68) and we will arrange an interpreter to effectively communicate the report to you.



# Contents

Chapter 1	Preliminary .....	iv
1	Short title .....	iv
2	Interpretation of words used in this manual .....	iv
3	Water supply scheme.....	iv
Chapter 2	Operating rules.....	v
4	Operating levels of Peter Faust Dam.....	v
Chapter 3	Water sharing rules.....	vi
5	Announced allocation .....	vi
6	Calculation of announced allocation for high priority and medium priority water allocations .....	vii
7	Calculation of announced allocation of water allocations changed from priority group A1 to priority group A .....	vii
8	Carry over.....	x
9	Taking water under a water allocation .....	x
Chapter 4	Seasonal water assignment rules .....	xi
10	Maximum water use .....	xi
11	Seasonal water assignment rules .....	xi
<b>Attachment 1</b>	<b>Dictionary .....</b>	<b>xii</b>

# Chapter 1 Preliminary

## 1 Short title

- (1) This operations manual may be cited as the Proserpine River Water Supply Scheme Operations Manual.
- (2) Reference in this document to 'this manual' means the Proserpine River Water Supply Scheme Operations Manual.

## 2 Interpretation of words used in this manual

The dictionary in attachment 1 defines particular words used in this manual.

## 3 Water supply scheme

The extent of the Proserpine River Water Supply Scheme is defined in the Water Resource (Whitsunday) Plan 2010.

## Chapter 2 Operating rules

### 4 Operating levels of Peter Faust Dam

- (1) The operating levels for Peter Faust Dam are specified in attachment 1 of the resource operations licence.
- (2) The licence holder must not release water from the dam unless the release is necessary to supply water to a water allocation holder or a distribution operations licence holder; and
- (3) Despite subsection (2) the licence holder must not release or supply water from the dam when the water level in the dam is at or below its minimum operating level.

## Chapter 3 Water sharing rules

### 5 Announced allocation

- (1) The licence holder must—
  - (a) determine an announced allocation for each priority group for use in defining the share of water available to be taken under water allocations in that priority group;
  - (b) use the water sharing rules specified in this part, to calculate announced allocations throughout the water year;
  - (c) calculate and set the announced allocation for each priority group to take effect on the first day of each water year;
  - (d) following the commencement of a water year—
    - (i) recalculate the announced allocation for priority group A to take effect no later than five business days following the first day of every month, except where the announced allocation for priority group A has already been announced as being 100 per cent since the commencement of the water year; and
    - (ii) recalculate the announced allocation for priority group A1 to take effect no later than five business days following the first day of every month, except where the announced allocation for priority group A1 has already been announced as being 100 per cent since the commencement of the water year; and
    - (iii) recalculate the announced allocation for priority group A2 to take effect no later than five business days following the first day of every month, except where the announced allocation for priority group A2 has already been announced as being 90 per cent since the commencement of the water year; and
    - (iv) recalculate the announced allocation for priority group A3 to take effect no later than five business days following the first day of every month, except where the announced allocation for priority group A3 has already been announced as being 75 per cent since the commencement of the water year; and
    - (v) reset the announced allocation if a recalculation indicates that the calculated announced allocation would—
      - (A) increase by five or more percentage points; or
      - (B) increase to 100 per cent for priority groups A or A1; or
      - (C) increase to 90 per cent for priority group A2; or
      - (D) increase to 75 per cent for priority group A3;
  - (e) make public, using the licence holder's website, the details of the announced allocation, including parameters for determining the announced allocation, for the Proserpine River water supply scheme, within five business days of—
    - (i) setting an announced allocation under subsection (1)(c); or
    - (ii) the first calendar day of every month when resetting the announced allocation under subsection (1)(d).
- (2) The announced allocation must—
  - (a) not be less than zero; and

- (b) for priority group A and A1, not be greater than 100 per cent; and
- (c) for priority group A2, not be greater than 90 per cent; and
- (d) for priority group A3, not be greater than 75 per cent; and
- (e) be rounded to the nearest per cent; and
- (f) not be reduced during a water year.

## 6 Calculation of announced allocation for high priority and medium priority water allocations

- (1) A water allocation belonging to—
  - (a) priority group A is a high priority water allocation;
  - (b) priority group A1 is a medium priority water allocation;
  - (c) priority group A2 is a medium priority water allocation; and
  - (d) priority group A3 is a medium priority water allocation.
- (2) The licence holder must determine the announced allocation for each priority group using the formulas set out in Table 1 as follows—
  - (a) priority group A water allocations—formula 1;
  - (b) priority group A1 water allocations—formula 2;
  - (c) priority group A2 water allocations—formula 3; and
  - (d) priority group A3 water allocations—formula 4.
- (3) The parameters used in the formula in subsection (2) are defined in Table 2.

**Table 1 – Announced allocation formulae**

Formula number	Formula
1	$100 \times \frac{(UV - TOAH - CO + DIVH)}{H}$
2	$100 \times \frac{(UV - H - RE - TOA - CO + DIV)}{M}$
3	$90 \times \frac{(UV - H - RE - TOA - CO + DIV)}{M}$
4	$75 \times \frac{(UV - H - RE - TOA - CO + DIV)}{M}$

## 7 Calculation of announced allocation of water allocations changed from priority group A1 to priority group A

- (1) This section applies to water allocations that have changed, under section 23 of the water management protocol, from priority group A1 to priority group A since the announced allocation for priority group A1 allocations was last at 100 per cent.
- (2) Despite section 6, the licence holder must determine the announced allocation for the water allocations applicable to this section as if those water allocations mentioned in subsection (1) were not changed from the priority group A1.

**Table 2– Announced allocation parameters**

<b>Parameter</b>	<b>Definition</b>
<b>UV</b>	<p>UV is the usable storage volume of Peter Faust Dam after seepage/evaporation losses and the minimum operating volume have been taken into account.</p> <p><math>UV = AV - MOV</math></p> <p>AV is the Adjusted Storage Volume after taking into account seepage and evaporation losses. AV is the volume represented on the storage curve at the Adjusted Storage Level (ASL). The storage curve for Peter Faust Dam that is to be used is listed in attachment 1 of the resource operations licence.</p> <p>ASL is the Current Storage Level (CSL) less the projected Storage Loss Depth for the remainder of the water year (SLD). (<math>ASL = CSL - SLD</math>). CSL is the current standing water level (AHD) in the storage. The SLD to be used for each month is given in Table 3.</p> <p>MOV is the Minimum Operating Volume of Peter Faust Dam as listed in attachment 1 of the resource operations licence.</p>
<b>RE</b>	<p>RE is 1.8 times the total nominal volume of high priority water allocations. RE is the volume of water reserved to provide future water supply of high priority water allocations. This reserve includes provision for storage and river transmission losses. The total RE is sufficient to provide 12 months supply of high priority water allocations beyond the end of the current water year.</p>
<b>CO</b>	<p>CO is the volume of water carried over from the unused portion of entitlements at the end of the previous water year. CO must be set back to zero once any of the triggers in section 8(6).</p>
<b>TOAH</b>	<p>TOAH is an allowance for the transmission and operational losses expected to occur in delivering high priority water allocations through the system to the end of the water year. TOAH is determined using Table 4.</p>
<b>TOA</b>	<p>TOA is an allowance for the transmission and operational losses expected to occur in delivering both high and medium priority allocations through the system to the end of the water year. TOA varies with the announced allocation for the medium priority water allocations. Table 5 figures are to be used for all medium priority groups (Priority group A1, A2 and A3). Determining TOA is to be done by making a linear interpolation of the figures in Table 5.</p>
<b>DIVH</b>	<p>DIVH is the volume of water taken under high priority water allocations in a water year up to the time of assessment of the announced allocation.</p>
<b>DIV</b>	<p>DIV is the total volume of water taken under high and medium priority water allocations in a water year up to the time of assessment of the announced allocation.</p>
<b>H</b>	<p>H is the total nominal volume of high priority water allocations. High priority water allocations belong only to priority group A.</p>
<b>M</b>	<p>M is the total nominal volume of medium priority water allocations belonging to priority groups A1, A2 and A3 which can be supplied under announced allocation. M is the sum of:</p> <ul style="list-style-type: none"> <li>a) 100% of the total nominal volumes for priority group A1; and</li> <li>b) 90% of the total nominal volumes for priority group A2; and</li> <li>c) 75% of the total nominal volumes for priority group A3.</li> </ul>



**Table 3 – Projected storage loss depths**

<b>Month in which announced allocation is calculated</b>	<b>Projected storage loss depth in millimetres until end of water year for Peter Faust Dam</b>
July	2089
August	1965
September	1819
October	1648
November	1442
December	1225
January	998
February	784
March	602
April	414
May	253
June	116

**Table 4 – Transmission and operational allowance for high priority water allocations**

<b>Transmission and operation allowance (TOAH) (ML)</b>											
<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>
7333	6747	6160	5573	4913	4253	3593	2933	2347	1760	1173	587

**Table 5 – Transmission and operational allowance for medium priority water allocations**

<b>Announced allocation (%)</b>	<b>Transmission and operation allowance (TOA) (ML)</b>											
	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>
0	7333	6747	6160	5573	4913	4253	3593	2933	2347	1760	1173	587
20	9205	8562	7882	7146	6486	5545	4267	3420	2758	2022	1286	643
40	11077	10378	9604	8718	8058	6836	4941	3907	3170	2284	1398	699
60	12949	12193	11326	10290	9630	8128	5615	4393	3582	2546	1510	755
80	14820	14009	13048	11862	11202	9419	6289	4880	3994	2808	1623	811
100	16692	15825	14770	13435	12775	10771	6962	5367	4406	3070	1735	867

## 8 Carry over

- (1) The licence holder may, subject to this section, allow a water user to carryover part of the water user's unused water from one water year to the next water year.
- (2) Carry over of medium priority water is permitted if at the start of the water year, the level in Peter Faust Dam is at, or above, EL 75.5m AHD.
- (3) The total volume of unused water for the scheme that is permitted to be carried over to the next water year must be the lesser of—
  - (a) 25 per cent of the total nominal volume for the scheme; and
  - (b) 90 per cent of the total volume of unused water for the scheme at the end of the water year.
- (4) The licence holder must make public, using the holder's website, the methodology for determining the volume of water permitted to be carried over by each water user in the event that the volume determined under subsection (3)(b) exceeds the volume determined under subsection (3)(a) of this section.
- (5) The volume of water that may be carried over by a water user must not be more than 90 per cent of the water user's unused volume at the end of the water year.
- (6) Any volume of water that is carried over into a water year, and that is unused at the date of any of the following events, must be deducted from the volume of water available to the water user—
  - (a) after six months into the commencement of the water year; or
  - (b) when Peter Faust Dam spills.

## 9 Taking water under a water allocation

- (1) The total volume of water taken under a water allocation in a water year must not exceed the nominal volume of the water allocation multiplied by the announced allocation and divided by 100.
- (2) Subsection (1) does not include the volume of water permitted to be carried over from the previous water year as specified in section 8.

## Chapter 4 Seasonal water assignment rules

### 10 Maximum water use

For this chapter—

- (a) the maximum volume of water that may be taken in a zone in a water year for the Proserpine River water supply scheme is the maximum allowable water use volume indicated in Table 6 for each zone; and
- (b) the total water use in a zone is the total volume of water used under water allocations for all priority groups managed and distributed by the licence holder and distribution operation licence holder for the zone.

**Table 6 – Maximum allowable water use volumes**

<b>Zone</b>	<b>Maximum allowable water use volumes (ML)</b>
Proserpine A	43 783
Proserpine B	51 785
Proserpine C	4500
Proserpine D	15 000

### 11 Seasonal water assignment rules

- (1) The holder of a water allocation to which this chapter applies may enter into an arrangement for a seasonal water assignment in relation to the water allocation under section 61 of the Water Regulation 2016 only if—
  - (a) the total water use in a water year for each zone does not exceed the maximum allowable water use volume specified in Table 6 for each zone;
  - (b) the holder of the resource operations licence consents to the arrangement; and
  - (c) the water to which the allocation relates is distributed to the allocation holder by a distribution operations licence holder—the holder of the distribution operations licence consents to the arrangement.
- (2) The licence holder must notify the other scheme licence holder(s) of when consent of any seasonal water assignment is given in accordance with subsection (1) if—
  - (a) the water allocation being seasonally assigned is from Proserpine Zone A or Proserpine Zone B; and
  - (b) the location of the seasonal assignment is either Proserpine Zone C or Proserpine Zone D.
- (3) water taken under a seasonal water assignment may be used for any purpose.

# Attachment 1 Dictionary

Term	Definition
AHD	The Australian Height Datum (AHD) adopted by the National Mapping Council of Australia for referencing a level or height back to a standard base level.
Announced allocation	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.
Carryover	The volume of water permitted to be carried over from the unused portion of the water entitlement at the end of the previous water year. The volume available to the entitlement holder is adjusted to account for storage losses.
Elevation (EL)	The elevation of a geographic location is its height above a fixed reference point, often the mean sea level.
Location	For a water allocation, location means the zone from which water under the water allocation can be taken.
Megalitre (ML)	One million litres.
Minimum operating level	As specified in attachment 1 of the resource operations licence.
Other Scheme licence holder	For this operations manual, the term 'other scheme licence holder' means— a) the distribution operations licence holder within the Proserpine River water supply scheme for Six Mile Creek Irrigators Co-operative; and b) the distribution operations licence holder within the Proserpine River water supply scheme for Kelsey Creek Water Co-operative.
Unused water	The volume of water available to a water user under an announced allocation at the end of the water year minus the volume of water used by the water allocation holder in the water year.
Water user	The holder of a water allocation associated with the resource operations licence for this manual.
Water use	The actual consumption of water.
Zone	A geographic location defined by a reach of a watercourse. Zones define the location of a water allocation and operational arrangements under this licence. Zones are defined in the Water Resource (Whitsunday) Plan 2010.