

Draft Rookwood Weir Water Supply Scheme Operations Manual

Rookwood Weir Resource Operations Licence

12/09/2022

This publication has been compiled by Water Resources, Sunwater Limited.

© Sunwater Limited, 2022

Sunwater Limited 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 Sunwater Limited 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. Sunwater Limited 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.

Statement of changes made to this manual

Version	Version date	Statement of changes	Approved by
V1-0	September 2022	Initial document created	Draft for consultation

Table of Contents

Chapter 1.	Preliminary	4
1.	Short title	4
2.	Interpretation of words used in this manual	4
3.	Water supply scheme	4
Chapter 2.	Operating rules	5
4.	Operating levels of storages	5
5.	Releases from Rookwood Weir	5
6.	Minimum levels in waterholes	5
Chapter 3.	Water sharing rules	6
7.	Definitions for Chapter 3	6
8.	Taking water under a water allocation	6
9.	Medium priority restriction period	6
10.	High priority restriction period	6
11.	Other Restrictions	6
Chapter 4.	Seasonal water assignment rules	7
12.	Seasonal water assignment rules	7
Attachment 1.	Dictionary	8

Chapter 1. Preliminary

1. Short title

- (1) This operations manual may be cited as the Rookwood Weir Water Supply Scheme Operations Manual.
- (2) Reference in this document to 'this manual' means the Rookwood Weir Water Supply Scheme Operations Manual.
- (3) References to licence holder in this manual are taken to mean the resource operations licence holder for the Rookwood Weir Water Supply Scheme.

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 Rookwood Weir Water Supply Scheme is defined in schedule 4A and 4B of the Water Plan (Fitzroy Basin) 2011.

Chapter 2. Operating rules

4. Operating levels of storages

The minimum operating levels and nominal operating levels for Rookwood Weir, Eden Bann Weir and the Fitzroy Barrage are specified in table 1.

Table 1: Operating levels of storages

Storage	Minimum operating level (m AHD)	Nominal operating level (m AHD)
Rookwood Weir	EL 31.00	Not applicable
Eden Bann Weir	EL 7.25	Not applicable
Fitzroy Barrage	EL -1.20	EL 3.38

5. Releases from Rookwood Weir

- (1) The licence holder for the Rookwood Weir Water Supply Scheme may only release water from the Rookwood Weir if the release is necessary to—
 - (a) supply water to water allocation holders in accordance with subsections (2) to (5);
 - (b) maintain Eden Bann Weir or the Fitzroy Barrage at or above their minimum operating levels;
 - (c) meet the minimum waterhole level requirements in section 6;
 - (d) comply with the environmental management rules prescribed in attachment 2 of the resource operations licence; and
 - (e) give effect to the water sharing rules within the Fitzroy Basin Water Management Protocol for unsupplemented water allocations within the Fitzroy Water Management Area.
- (2) When the water level in Rookwood Weir is above EL 38.93m AHD, the licence holder must make releases from Rookwood Weir to—
 - (a) maintain the Fitzroy Barrage at EL 3.60m AHD if the water level in Eden Bann Weir is greater than or equal to EL 14.40m AHD; or
 - (b) maintain the Fitzroy Barrage at its nominal operating level.
- (3) Despite subsection (2), the licence holder may maintain the Fitzroy Barrage at 0.10 metres below the levels stated in subsection (2)(a) or (2)(b) for not more than 7 days a month.
- (4) When the water level in Rookwood Weir is equal to or below EL 38.93m AHD and above EL 34.80m AHD, the licence holder must make releases from Rookwood Weir to—
 - (a) maintain the water level in the Fitzroy Barrage above EL 0.90m AHD if the water level in Eden Bann Weir is below EL 9.55m AHD; or
 - (b) supply water allocation holders located in zone:
 - (i) Rookwood C if the water level in Eden Bann Weir is below EL 9.55m AHD; and
 - (ii) Rookwood D.
- (5) When the water level in Rookwood Weir is equal to or below EL 34.80m AHD and above minimum operating level, the licence holder must only make releases from Rookwood Weir to supply high priority water allocation holders located in zone Rookwood D.
- (6) Despite subsection (2) to (5), the licence holder may only release or supply water from Rookwood Weir when the water level in Rookwood Weir is above its minimum operating level, unless authorised by the chief executive.

6. Minimum levels in waterholes

For a waterhole within the extent of this water supply scheme—supplemented water must not be taken when the level in the waterhole is more than 0.5 metres below its cease to flow level, unless otherwise authorised by the chief executive.

Chapter 3. Water sharing rules

7. Definitions for Chapter 3

high priority demand pattern means—a demand pattern that is the maximum amount of water that may be supplied under a high priority water allocation for a specified calendar period negotiated with high priority water users, to be implemented when a medium priority restriction period commences; and

specified calendar period means—a specified date, week or month.

8. Taking water under a water allocation

The volume of water taken under a water allocation in a water year must not exceed the nominal volume.

9. Medium priority restriction period

- (1) The licence holder must cease supply of water to medium priority water allocations when the water level in the Fitzroy Barrage is below EL 1.85m AHD.
- (2) The licence holder must recommence supply of water to medium priority water allocations when the water level in the Fitzroy Barrage is above EL 1.95m AHD.

10. High priority restriction period

- (1) The licence holder must—
 - (a) commence a high priority restriction period during the water year when the water level in the Fitzroy Barrage is below EL 0.75m AHD; and
 - (b) cease a high priority restriction period when the water level in the Fitzroy Barrage is above EL 0.85m AHD.
- (2) During a high priority restriction period, the licence holder must—
 - (a) for each high priority water allocation —
 - (i) assign a high priority demand pattern; and
 - (ii) restrict supply of water to high priority water allocations based on the assigned high priority demand pattern; and
 - (b) For the period stated in column 1 of table 2, the combined total of the high priority demand patterns for all high priority water allocations must not exceed the percentage limit in the adjacent column 2 in table 2.

Table 2: Maximum percentage of total high priority water allocation that may be assigned to specified calendar period

Period	Percentage of total high priority allocation (%)
July to September	31
October to December	34
January to March	34
April to June	31

11. Other Restrictions

- (1) The licence holder may implement further restrictions to the supply of high priority water allocations during a high priority restriction period in consultation with holders of high priority water allocations.

Chapter 4. Seasonal water assignment rules

12. Seasonal water assignment rules

- (1) The holder of a water allocation may enter into an arrangement for a seasonal water assignment in relation to the allocation under section 61 of the *Water Regulation 2016* only if—
 - (a) the potential take volume for each zone for a priority group in table 3 is—
 - (i) less than or equal to the maximum volume for the zone for the priority group; and
 - (ii) greater than or equal to the minimum volume for the zone for the priority group
 - (b) for a seasonal water assignment from a medium priority water allocation—the supply of water must cease during restriction periods in accordance with section 9; and
 - (c) for a seasonal water assignment from a high priority water allocation—
 - (i) a high priority demand pattern defined in section 10 must be assigned to the seasonal assignment from a high priority water allocation;
 - (ii) the high priority demand pattern for the original high priority water allocation must be adjusted to account for the seasonal assignment; and
 - (iii) the combined high priority demand pattern for the seasonal assignment and original high priority water allocation must not exceed the high priority demand pattern for the original high priority water allocation.
- (2) Despite subsection (1)(a), the licence holder may only approve a seasonal water assignment of a volume of water where the assignment is from—
 - (a) Rookwood Zone E to another Rookwood zone, if the volume made available is reduced by multiplying by a factor of 0.9; and
 - (b) Another Rookwood zone to Rookwood Zone E, if the volume made available is increased by dividing by a factor of 0.9.
- (3) Water supplied under a seasonal water assignment may be used for any purpose.
- (4) In this section—

potential take volume, for a priority group in a supplemented zone, means the volume calculated using the formula—

$$NV_z + SWA_{in} - SWA_{out}$$

Where—

- NV_z = the sum of the nominal volumes for all water allocations located within a zone for the priority group at the start of the water year.
- SWA_{in} = the volume seasonally assigned into the zone for the priority group for the current water year.
- SWA_{out} = the volume seasonally assigned out of the zone for the priority group for the current water year.

Table 3: Minimum and maximum volumes for seasonal water assignments

Priority group	Volume	Rookwood A	Rookwood B	Rookwood C	Rookwood D	Rookwood E
High	Minimum (ML)	20,850	0	0	0	0
	Maximum (ML)	22,100	0	0	450	1000
Medium	Minimum (ML)	7560	0	0	0	15,000
	Maximum (ML)	21,560	12,000	12,000	17,500	28,550

Attachment 1. 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 the watercourse, that a specific point in the watercourse is from— <ul style="list-style-type: none"> the watercourse's mouth; or if the watercourse is not a main watercourse—the watercourse's confluence with its main watercourse.
Barrage	A barrier constructed across a watercourse to prevent the inflow of tidal water.
Cease to flow level	For a waterhole, the level at which water stops flowing from a waterhole over its downstream control.
EL	Elevation level.
Full supply level	The specified maximum volume of water within the ponded area of a dam, weir or barrage, which corresponds to the full supply level.
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.
Nominal volume	Nominal volume means the volume of water, in megalitres, that represents the share of the water available to be taken by holders of water allocations in a priority group or a water allocation group.
Ponded area	Area of inundation at full supply level of storage.
Priority group	A grouping of water allocations for taking supplemented water from a water supply scheme with the same Water Allocation Security Objective (WASO).
Release	Water from a dam or weir that passes downstream from the dam or weir either through the dam or weir outlet works or over the dam spillway.
Water user	The holder of a valid water entitlement.