

Rookwood Weir Water Supply Scheme

Fact Sheet: Proposed Operations Manual for the weir's operational stage

September 2022

Summary

- Rookwood Weir is currently under construction in the Lower Fitzroy River near the town of Gogango with construction due for completion in 2023.
- Sunwater and the Department of Regional Development, Manufacturing and Water (DRDMW) have now commenced consultation on proposed operational rules for the Rookwood Weir Water Supply Scheme (WSS).
- This Fact Sheet describes the proposed Operations Manual for the operation of the weir.
- The proposed rules will maintain existing supply reliability for current water allocations.
- To view the draft Rookwood Weir WSS Operations Manual, visit the project's [Water Plan page](https://bit.ly/RookwoodWaterPlan) (bit.ly/RookwoodWaterPlan).
- To view the draft amendment to the Lower Fitzroy WSS Operations Manual, visit the project's [Water Plan page](https://bit.ly/RookwoodWaterPlan) (bit.ly/RookwoodWaterPlan).
- Public drop-in sessions are being held to provide stakeholders the opportunity to discuss the proposed Rookwood Weir operational rules.
- The proposed operating rules can only take effect once approved by DRDMW.

What is an Operations Manual?

An Operations Manual is a requirement under a Resource Operations Licence (ROL) and outlines the day-to-day management of water within a scheme. An Operations Manual will generally include:

- operational rules for a water supply scheme, e.g. when releases from a storage can be made
- water sharing rules, e.g. how available water supplies are managed between water allocation holders
- temporary trade (seasonal water assignment) rules.

Rules in an Operations Manual must comply with the relevant water plan outcomes, measures and objectives and implement the water plan strategies. An Operations Manual must also be developed in consultation with relevant stakeholders.

Current Fitzroy River operations

The Fitzroy River currently has two water supply schemes in operation servicing the Lower Fitzroy River including Rockhampton (as shown in Figure 1 on the following page).

- The Lower Fitzroy WSS consists of Eden Bann Weir and is owned and operated by Sunwater. The purpose of the scheme is to store water and supply high priority (HP) water to Stanwell Power Station. Water for Stanwell Power Station is released from the Fitzroy Barrage.
- The Fitzroy Barrage WSS is owned and operated by Rockhampton Regional Council (RCC) with the main purpose to store and supply HP town water.

Both schemes also support a small volume of medium priority (MP) allocation for agricultural uses. The two schemes overlap to work as one scheme, with an operating level set in the Fitzroy Barrage which must be maintained through releases from Eden Bann Weir. This ensures serviceability to all water allocations.

Unlike other schemes across Queensland, these two schemes rely on a restriction period methodology for water sharing/access. When the Fitzroy Barrage falls below a level of 0.75m Australian Height Datum (AHD), or approximately 40,500 megalitres (ML), supply to MP water allocations cease until inflows occur. During this restriction period, HP water allocations (Stanwell and RCC) are limited to an amount of water that they can take each quarter. This is to ensure one doesn't take all the water stored in the Fitzroy Barrage, impacting on others during these critical periods.

The Rookwood Weir Water Supply Scheme

Rookwood Weir is owned by the State of Queensland (represented by DRDMW) and Sunwater has been authorised to manage the Rookwood Weir WSS on behalf of DRDMW. The Rookwood Weir WSS will service a mix of HP and MP water users from just above the junction of the Dawson and Mackenzie rivers and down the Fitzroy River to the Fitzroy Barrage. The scheme will overlap the Lower Fitzroy WSS and the Fitzroy Barrage WSS with the proposed operating rules to align with current operations and water sharing methodology.

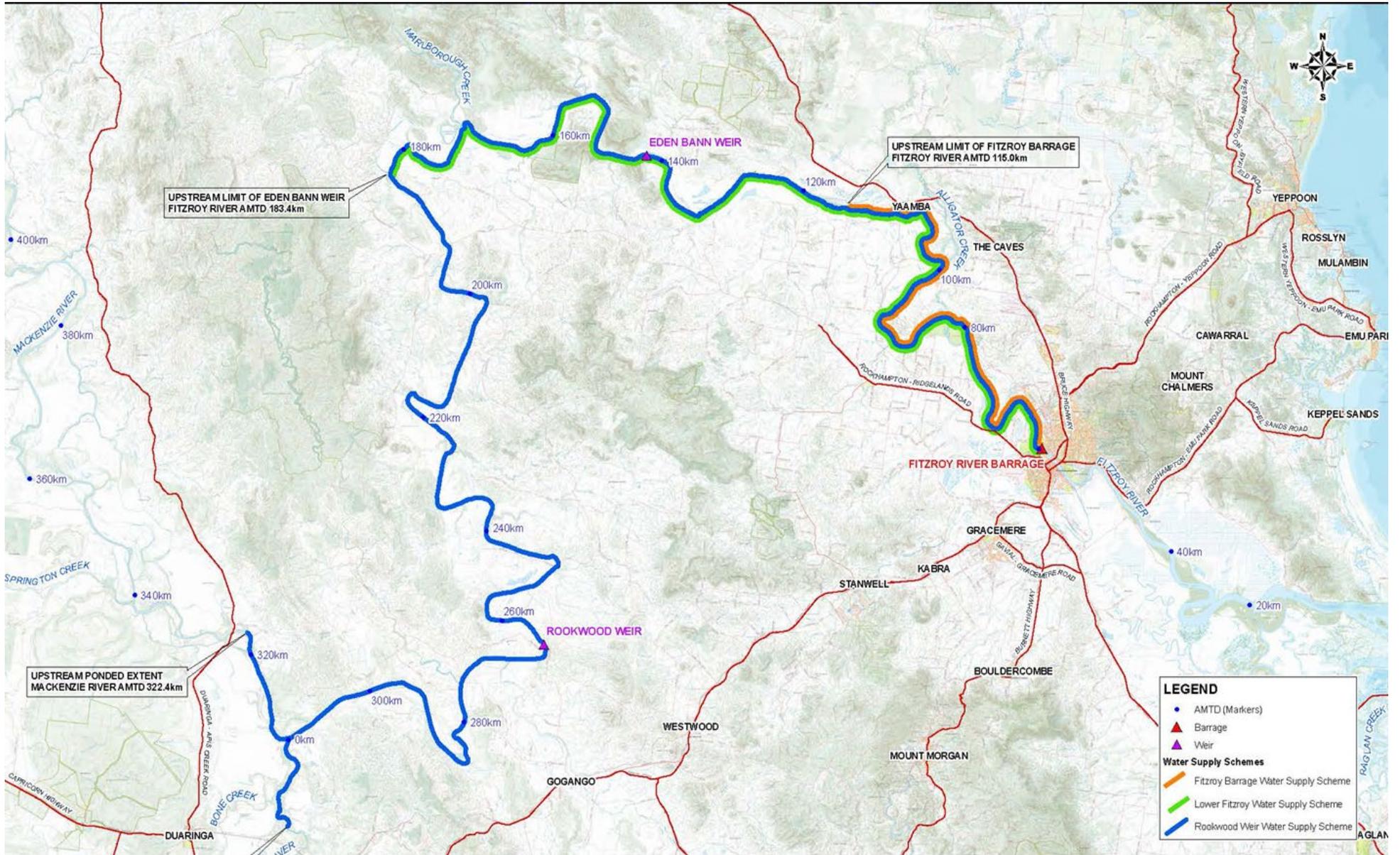


Figure 1: Fitzroy River Water Supply Schemes.

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Rookwood Weir Operations Manual

As the Rookwood Weir WSS will overlap two existing supply schemes, the proposed operating rules have been designed to align and support the current operations and to limit changes for existing water users. The proposed rules will protect all water allocations at current performance levels.

The Rookwood Weir WSS will increase HP supply from Fitzroy Barrage with a requirement for HP water allocations to be granted to Livingstone Shire Council and Gladstone Area Water Board. Due to this large reliance for critical water supply from the Fitzroy Barrage, the Rookwood Weir WSS operating rules are designed so that Fitzroy Barrage is the first storage to fill and last to empty.

Operating levels and release rules

The Rookwood Weir WSS Operations Manual will state release rules and associated operating levels which must be met to ensure serviceability of existing and new water allocations and for environmental purposes. Rookwood Weir must not make releases outside of these rules. These rules and associated operating levels are summarised in Figure 2.

Amendment to Eden Bann Weir operating rules

To ensure the successful operations of the three water supply schemes in the Fitzroy River and to service the increase in HP water allocations, a small amendment is required to the Lower Fitzroy WSS operation levels and release rules. The amendment will mean that when Eden Bann Weir is below elevated level 9.55m AHD (\approx 11,100 ML), releases must be made to ensure Fitzroy Barrage is maintained above elevated level 1.0m AHD (approximately 43,200 ML). The elevated level has increased from -0.5m AHD (approximately 28,000 ML).

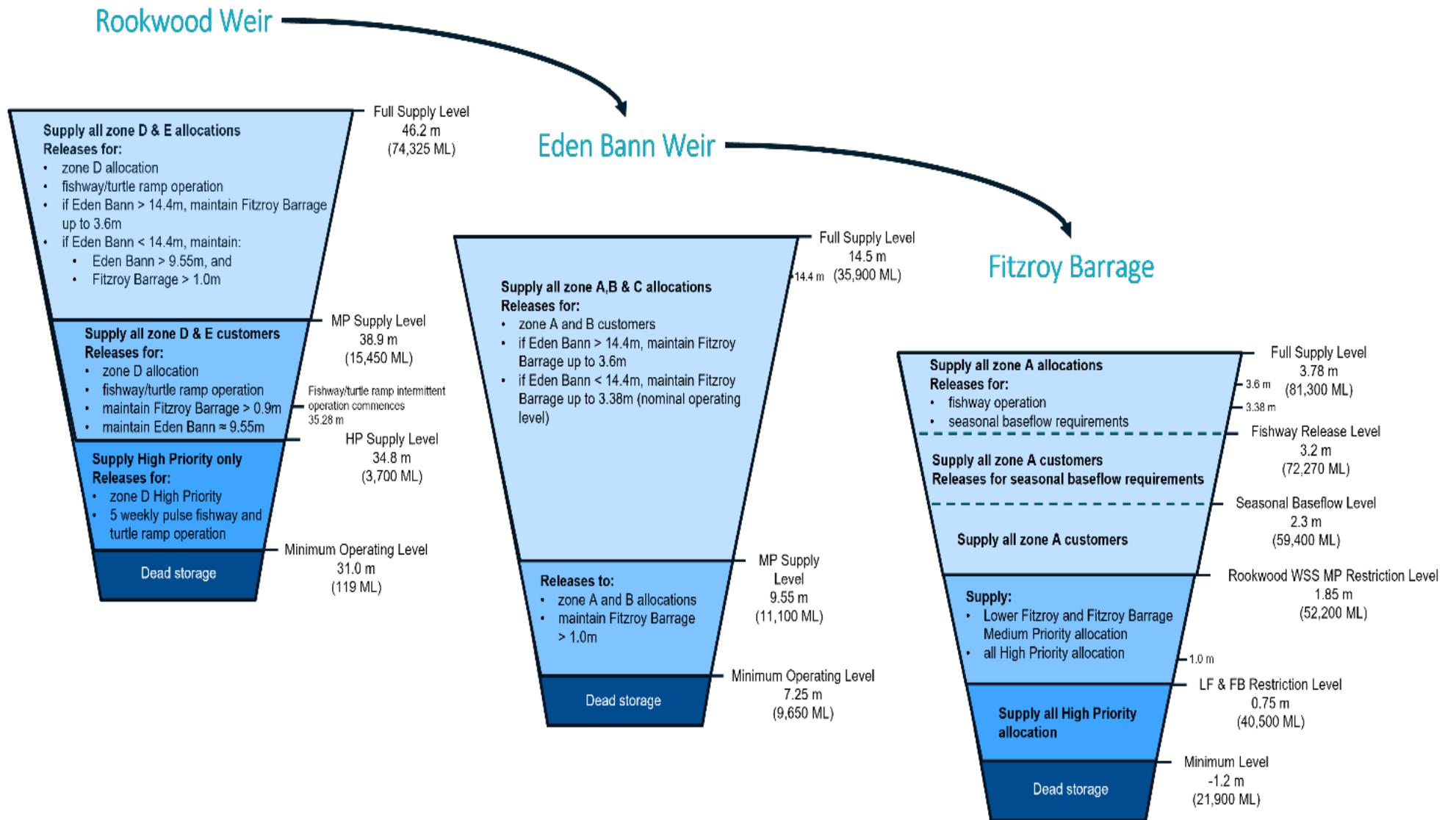


Figure 2: Rookwood Weir, Eden Bann Weir and Fitzroy Barrage operating levels and associated release rules.

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Water sharing rules

Water sharing rules describe the arrangements under which access to water is managed.

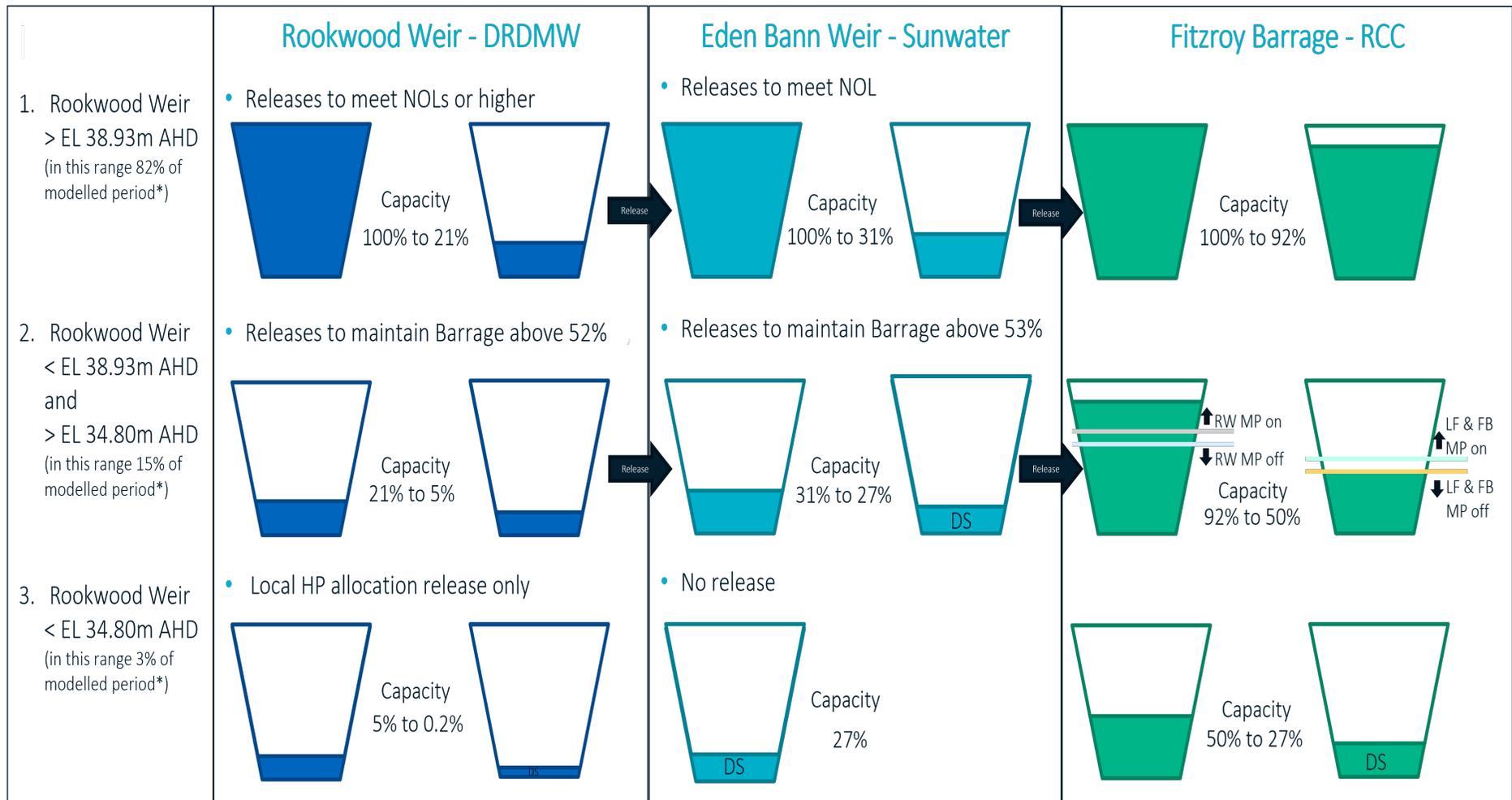
Restriction period methodology

To align with the water sharing rules for the Lower Fitzroy WSS and Fitzroy Barrage WSS, it is proposed Rookwood Weir WSS will also adopt the restriction period methodology. This will mean that MP allocation holders will be able to take water up to their nominal volume (for each water year) when the storage level in the Fitzroy Barrage is above elevated level 1.85m AHD (approximately 52,200 ML). If Fitzroy Barrage falls below elevated level 1.85m AHD, then MP allocations will not be able to take water until inflows occur and water levels at the Fitzroy Barrage rise above elevated level 1.95m AHD (approximately 53,500 ML).

During these critical restriction periods, all HP allocations are limited to approximately 30 per cent of their nominal volume per quarter to ensure equity between HP water users. Further restrictions can be applied to HP allocations with consultation to protect water for critical needs, e.g., urban water security. Figure 3 shows the three stages of Rookwood Weir releases, the percentage of time these levels are expected, the MP restriction period for the Rookwood Weir WSS and the MP restriction period for Lower Fitzroy WSS and Fitzroy Barrage WSS.

Key for acronyms used in Figure 3

- NOL – nominal operating level
- WSS –water supply scheme
- MP – medium priority (water allocation)
- HP – high priority (water allocation).



* Modelled period - means the period from 1 January 1900 to 31 December 2007 as simulated in the Fitzroy Basin Water Plan IQQM model.

Figure 3: Rookwood Weir, Eden Bann Weir and Fitzroy Barrage stages indicating restriction periods.

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Temporary trading rules

The Rookwood Weir WSS will facilitate trading throughout the Rookwood Weir scheme. Seasonal water assignments (temporary trades) will be allowed, subject to approval within the Rookwood Weir WSS. Applications for trades will be assessed based on trading zone caps which ensure that a trade will not impact on other water users and operations. There will be a minimum cap which will be assessed when moving out of a zone, and a maximum cap which must not be exceeded when moving into a zone. HP and MP restriction periods will still apply to temporary trades.

Additionally, if a trade is moving out of the Rookwood Weir ponded area (Zone E) then a multiplication of a 0.9 conversion is applied, whereas for a trade moving into Zone E, a division of a 0.9 conversion is applied. For example:

- if 100 ML of water is being traded from Zone E to Zone A, the volume available at farm is 90 ML
- if 100 ML of water is being traded from Zone A to Zone E, the volume available at farm is 110 ML.

Regulatory considerations

It will be a requirement of the Rookwood Weir WSS ROL to have an Operations Manual. Under section 197 of the *Water Act 2000* (Qld) (the Act), the owner of Rookwood Weir must prepare an Operations Manual and submit it to DRDMW for approval. Whilst Rookwood Weir is owned by the State (represented by DRDMW), DRDMW has provided Sunwater consent to action on their behalf an application for the Rookwood Weir WSS Operations Manual. Sunwater will prepare the Operations Manual and amendment to the Lower Fitzroy WSS Operations Manual under section 200 of the Act. DRDMW must assess the following considerations before determining the applications:

- compliance with the Fitzroy Basin Water Plan outcomes and measures
- compliance with the Fitzroy Basin Water Plan water allocation security objectives and environmental flow objectives
- demonstration that the application developed in consultation with all affected persons.

Next steps

Consultation

Sunwater and DRDMW have now commenced consultation with interested individuals and organisations to discuss the proposed Rookwood Weir WSS operational rules.

As part of the consultation, the following drop-in information sessions will be held to provide groups the opportunity to share their views, ask questions and raise concerns regarding the proposed Rookwood Weir WSS operating rules:

Location	Date	Time
Duaranga - Rural Fire Brigade, 5 Edward Street	20 September 2022	9:00am-12:00pm
Gogango - Gogango Town Hall, 12 Willis Street	20 September 2022	1:00pm-4:00pm
Alton Downs Hall - 1569 Ridgeland Road (Cnr Nicholson Road)	21 September 2022	9:00am-12:00pm
Rockhampton - Level 2, 220, Quay Street	21 September 2022	1:00pm-4:00pm

Once the consultation concludes on 10 October 2022, Sunwater will consider any issues raised before making a formal application to DRDMW. Approval for the ROL and Operations Manual is required before the construction of Rookwood Weir is completed in 2023.

Submitting feedback

To discuss the proposed operating rules further, please contact the Rookwood Weir Project hotline on 1800 423 213 or submit feedback to rookwood.weir@sunwater.com.au.