

Critical Water Supply Arrangements

Boyne River and Tarong Water Supply Scheme

The Boyne River and Tarong Operations Manual details the critical water supply arrangements during periods of critical water shortage. Stage 1 of the critical water supply arrangement commences when the storage level in Boondooma Dam is estimated to be less than, or equal to EL 268.67m (approximately 70,000ML). The arrangements that are in place during stage 1 are as follows:

- a) announced allocation percentages for high priority and medium priority water allocations will be calculated in accordance with Section 7 of the Operations Manual
- b) high priority water allocations will be supplied
- c) medium priority access will be suspended except for water that can be accessed through bed sands and/or waterholes in accordance with Section 5 of the Operations Manual.

These arrangements will be in place until the announced allocation for medium priority water allocations, calculated in accordance with the Operations Manual, is greater than 0% and the storage level in Boondooma Dam is greater than EL268.7m AHD (approximately 70,000ML).

Medium priority water access from bed sands and/or waterholes

Once the trigger to cease releases for medium priority allocation occurs, water allocation holders may take water from waterholes if the level is above the mark which is 0.5 metres below where the waterhole naturally overflows. Otherwise, when the Department of Natural Resources, Mines and Energy Chief Executive is satisfied that the taking of water will not adversely affect the cultural and environmental values of the waterhole.

The *Water Regulation 2016*, made under the Water Act, declares water in the aquifer underlying the Boyne River and Tarong Water Supply Scheme to be water in the respective watercourses. When Sunwater cannot supply any supplemented water, water allocation holders may take water from the bed sands of the respective watercourses. The total volume of water taken in the relevant water year, including both announced allocation water released from the dam and the bed sands water, must not exceed the holder's water allocation nominal volume.

Customers wishing to access water from bed sands are advised to contact the Department of Natural Resources, Mines and Energy Water Services, Bundaberg on 07 4131 2374 for the appropriate permitting arrangements prior to excavation works and pumping of water from the bed sands.

How does Sunwater calculate medium priority allocations in the Boyne River and Tarong Water Supply Scheme?

Sunwater must comply with the water sharing rules in the [Boyne Tarong Water Supply Scheme Operations Manual](#). Medium priority announced allocations are calculated using the 'usable volume' of water available above the Boondooma Dam cut-off level (\approx 70,000 ML) plus medium priority use (diversions).

Current storage capacity, minus the volume below the cut-off level ($\approx 70,000$ ML), minus storage loss (evaporation and seepage), minus amount required for high priority use, minus transmission and operating losses.

- to calculate storage loss, Sunwater uses the monthly figure assigned in Table 3 of the Operations Manual with the approved Boondooma Dam Storage Curve
- to calculate the amount required for high priority use, Sunwater makes an assumption based on historical use and engagement with high priority customers
- to calculate transmission and operating losses, Sunwater uses the figures assigned in Table 4 of the Operations Manual
- medium priority use (diversions) – including bed sands – are added back in to calculate the usable volume, as this water is no longer needed to be supplied from Boondooma Dam
- if a medium priority allocation is above zero per cent (0%) then the high priority allocation will be 100 per cent (100%)

Current allocation volumes which share the usable volume from the dam

High Priority	33,920 ML
Medium Priority	9,458 ML

How was this calculated for the medium priority allocation announced on 1 July 2020

- The 618 ML (usable volume) + 0 ML (diversion) = 618 ML total usable volume above cut-off shared between medium priority holders = Zero per cent medium priority announced allocation
 - current storage capacity: 71,159 ML
 - the volume below the cut-off level: 69,943 ML
 - storage loss (whole dam): 12,851
 - storage loss (before cut-off): 599
 - amount required for high priority use: 2,827 ML (based on historical demand use pattern)
 - transmission and operating losses: Zero (no TOL as AA for MP is zero)

