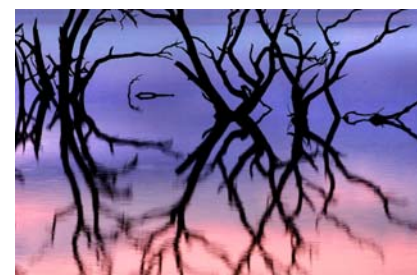




Toolondo Reservoir Operating Rules

Toolondo Reservoir is an off-stream reservoir with a Full Supply Level (FSL) of 164.93 m AHD or 92,430 ML. Its purpose post construction of the Wimmera Mallee Pipeline (WMP) is for water supply via Taylors Lake, and to provide recreation value as identified as part of the Future Use of Reservoirs (FUoR) project completed by GWMWater in 2008. Amendments to the Wimmera-Glenelg Bulk Entitlements (BE) largely adopted the FUoR outcomes as part of the modelled supply configuration.

Being an off-stream reservoir (although supplied from a very small catchment of its own via Mt Talbot Creek), Toolondo is reliant on transfers from Rocklands Reservoir. Toolondo has a very large dead storage. Figure 1 shows Toolondo in relation to nearby reservoirs.



Both the FUoR and BE amendment assumed Toolondo had a Maximum Operating Level (MOL) of 50% of the current FSL, or 46,200 ML (161.01 m).

The purpose of this revised level was to limit the volume taken from the Glenelg River system to deliver the environment's share of water savings from the Wimmera-Mallee Pipeline, while still providing reasonable recreation and water supply values.

Because of the revised maximum operating level and large dead storage capacity, careful consideration needs to be made in deciding when water will be transferred from Rocklands to Toolondo Reservoir.

Toolondo Reservoir is primarily used as a balancing storage, in conjunction with Rocklands Reservoir, to maximise the efficiency of harvesting from the upper Glenelg River catchment.

Transfers from Rocklands to Toolondo are controlled by reservoir targets linked to a level in Rocklands Reservoir. A trigger level in Rocklands commencing at 116,000 ML (or 33% of FSL) was assumed in the Future Use of Reservoirs study and in preparing the post Wimmera-Mallee Pipeline bulk entitlements. However, entitlement holders are undertaking further work to determine an optimum trigger level that takes into account:

- the need to maximise the reliability of supply to entitlement holders;
- Toolondo has better storage characteristics (i.e. less evaporation) than Rocklands over much of its operating range, however, there is more operational flexibility if water is kept in Rocklands;
- It is expensive to transfer water stored in Toolondo to entitlement holders because much of this water will need to be pumped out due to the large dead storage;
- Water stored in Toolondo cannot be returned to Rocklands; and
- Balancing opportunities for recreation in both Toolondo and Rocklands.

Obligations to supply entitlement holders from Rocklands have priority over the transfer of water to Toolondo Reservoir.

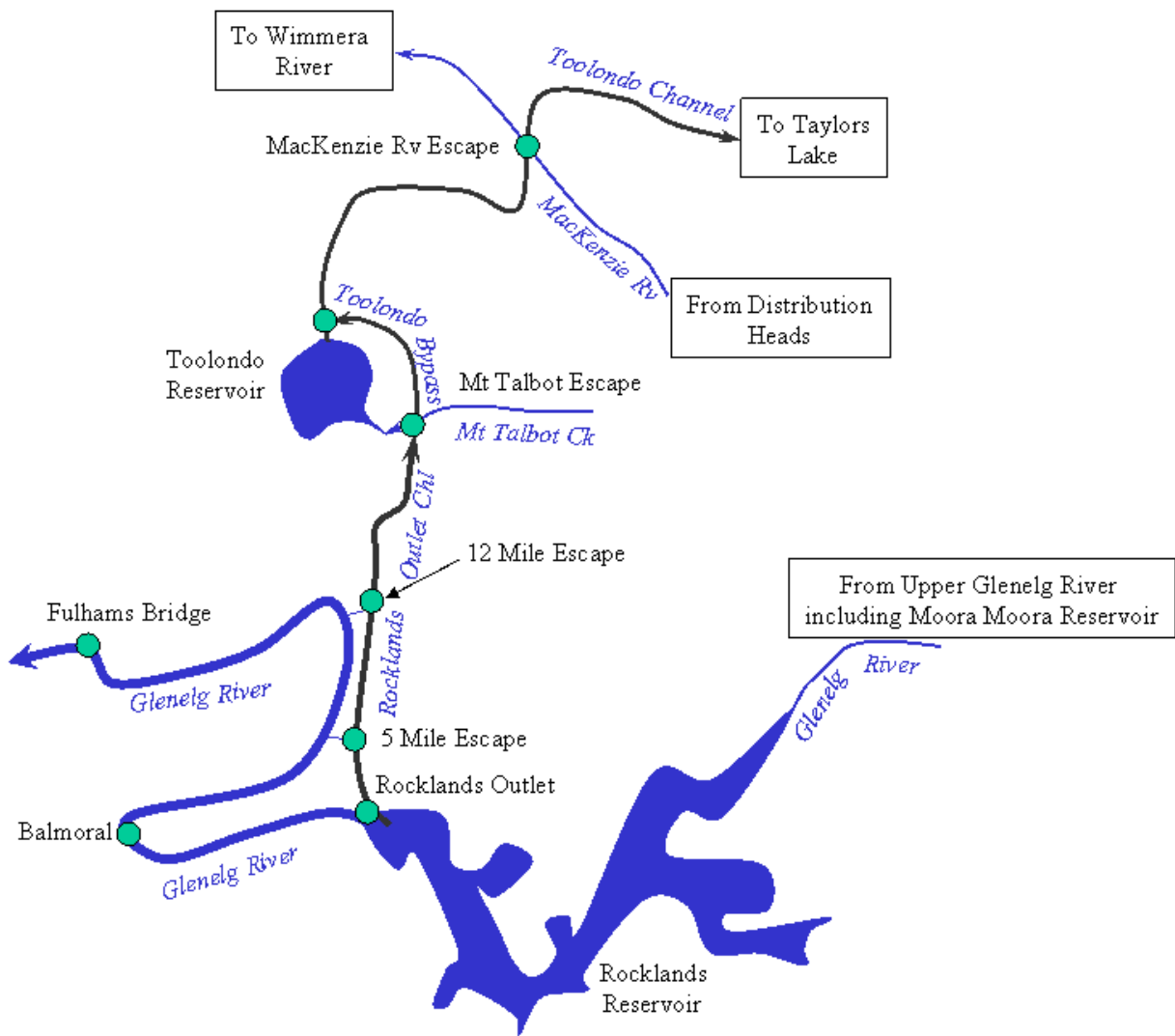


Figure 1: General layout of Toolondo Reservoir

Toolondo Reservoir Facts & Figures	
Maximum Operating Level	161.01 m AHD
Maximum Operating Volume	46,200 ML
Full Supply Level	164.93 m AHD
Full Supply Volume	92,430 ML
Dead Storage	37,420 ML
Maximum Discharge	360 ML/d
Catchment Area	9,900 Ha
Surface Area when Full	1,400 Ha
Major Tributary	Mt Talbot Creek

Current Operating Rules for Toolondo Reservoir

- > To be operated to its MOL. *
- > To receive water from Rocklands Reservoir if Rocklands is holding 116,000 ML or more.

Proposed Operating Rules for Toolondo Reservoir

- > To be operated to its MOL. *
- > To develop a trigger to transfer water to Toolondo from Rocklands Reservoir (this work is underway by entitlement holders).
- > When filling from empty, sufficient water must first be held within Rocklands to ensure a usable volume can be transferred to Toolondo.

Glossary

AHD – Australian Height Datum, used for altitude measurement. Zero is the mean sea level for the period 1966-68.

Dead storage – The volume of water below the lowest outlet.

Freeboard - Height between normal maximum operating level and the top of the bank or spillway.

Full Supply Level - The normal maximum operating level of a reservoir behind a dam.

* – these rules are not subject to negotiation as they are necessary for water supply purposes.