



**StorageManager**  
WIMMERA-GLENELG SYSTEM

# Water Resource Update and Seasonal Outlook

Scott Smith  
Storage Manager





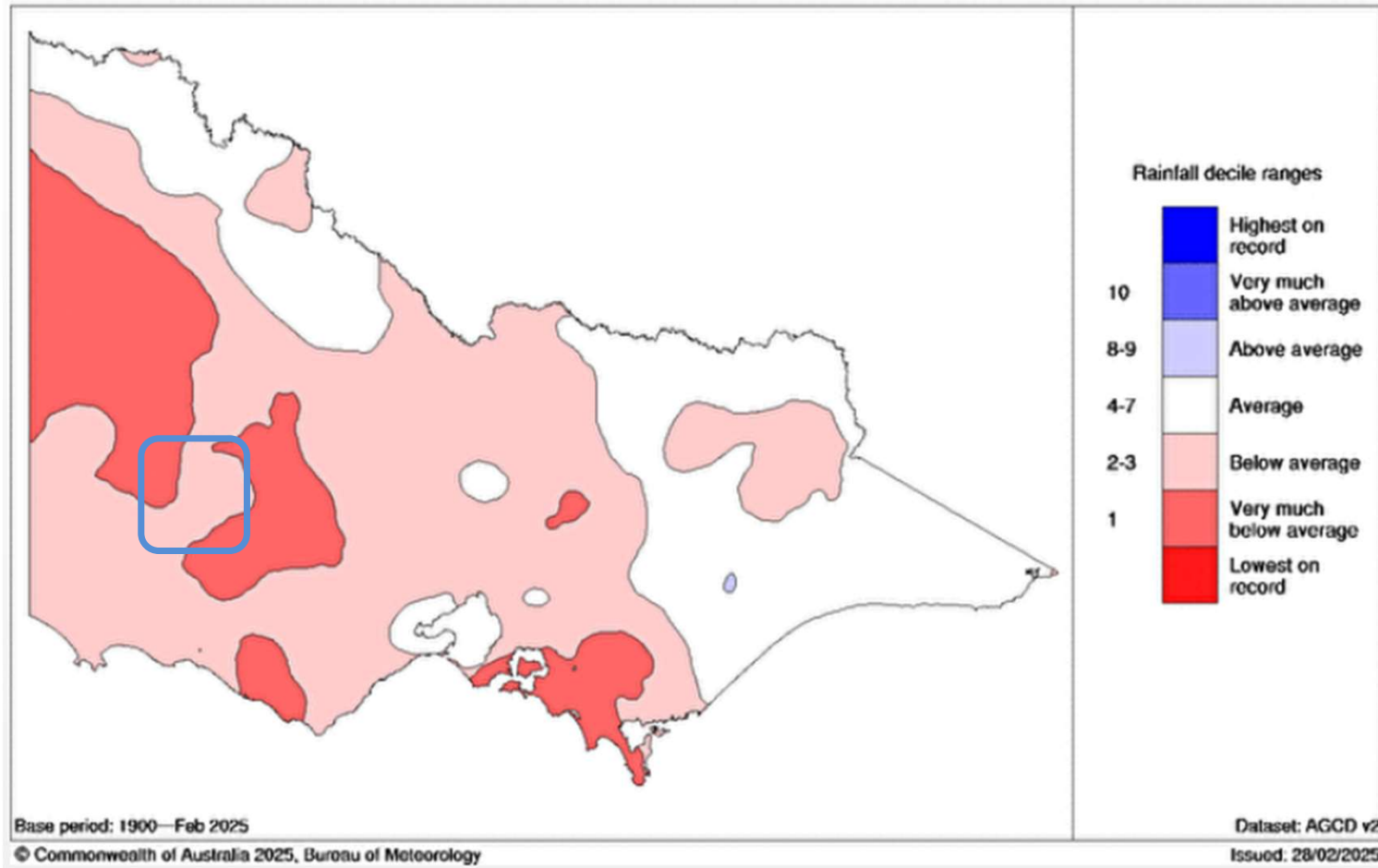
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# System Performance



# 2024/25 Rainfall

Eight-monthly rainfall deciles for Victoria 01/07/2024 – 28/02/2025



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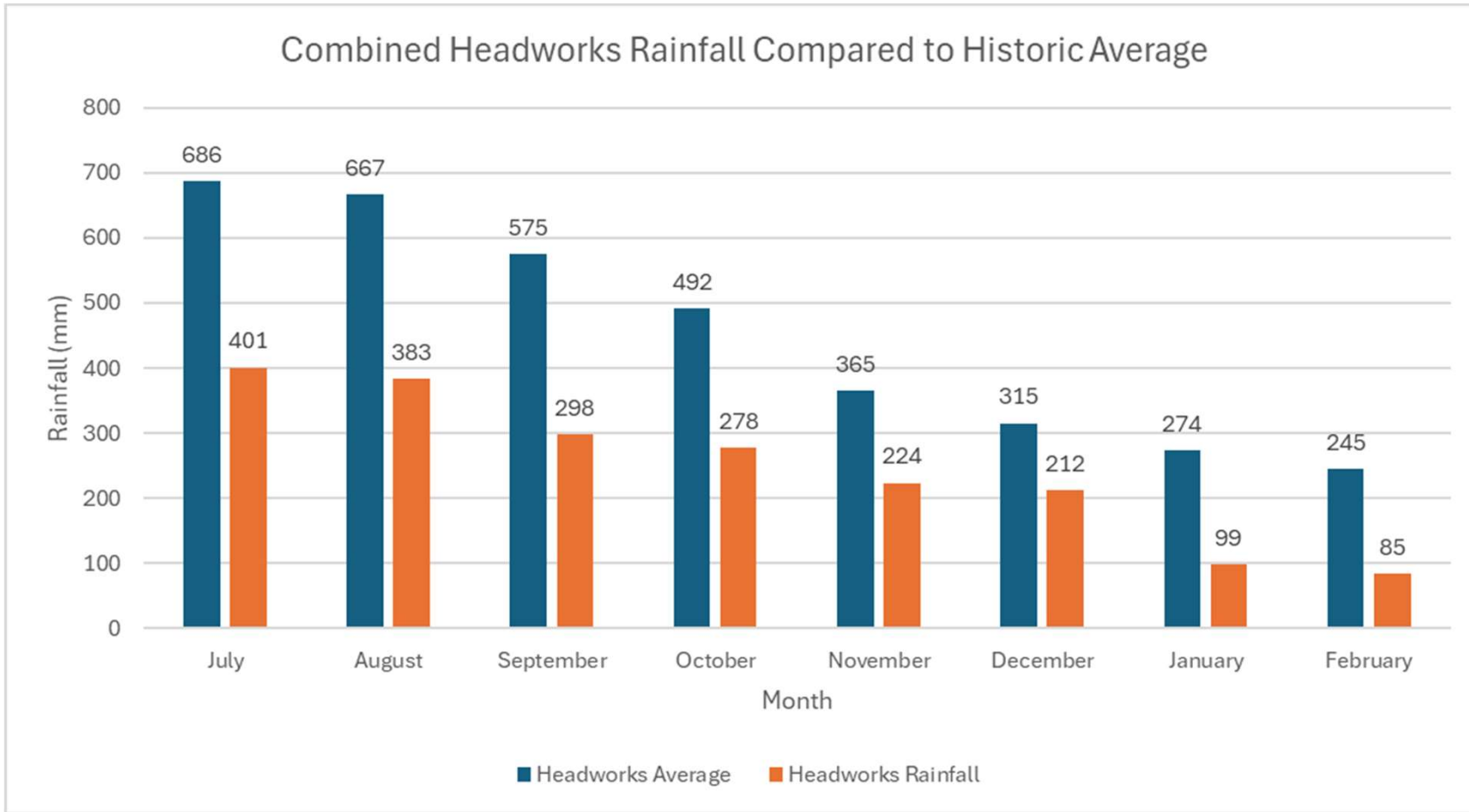




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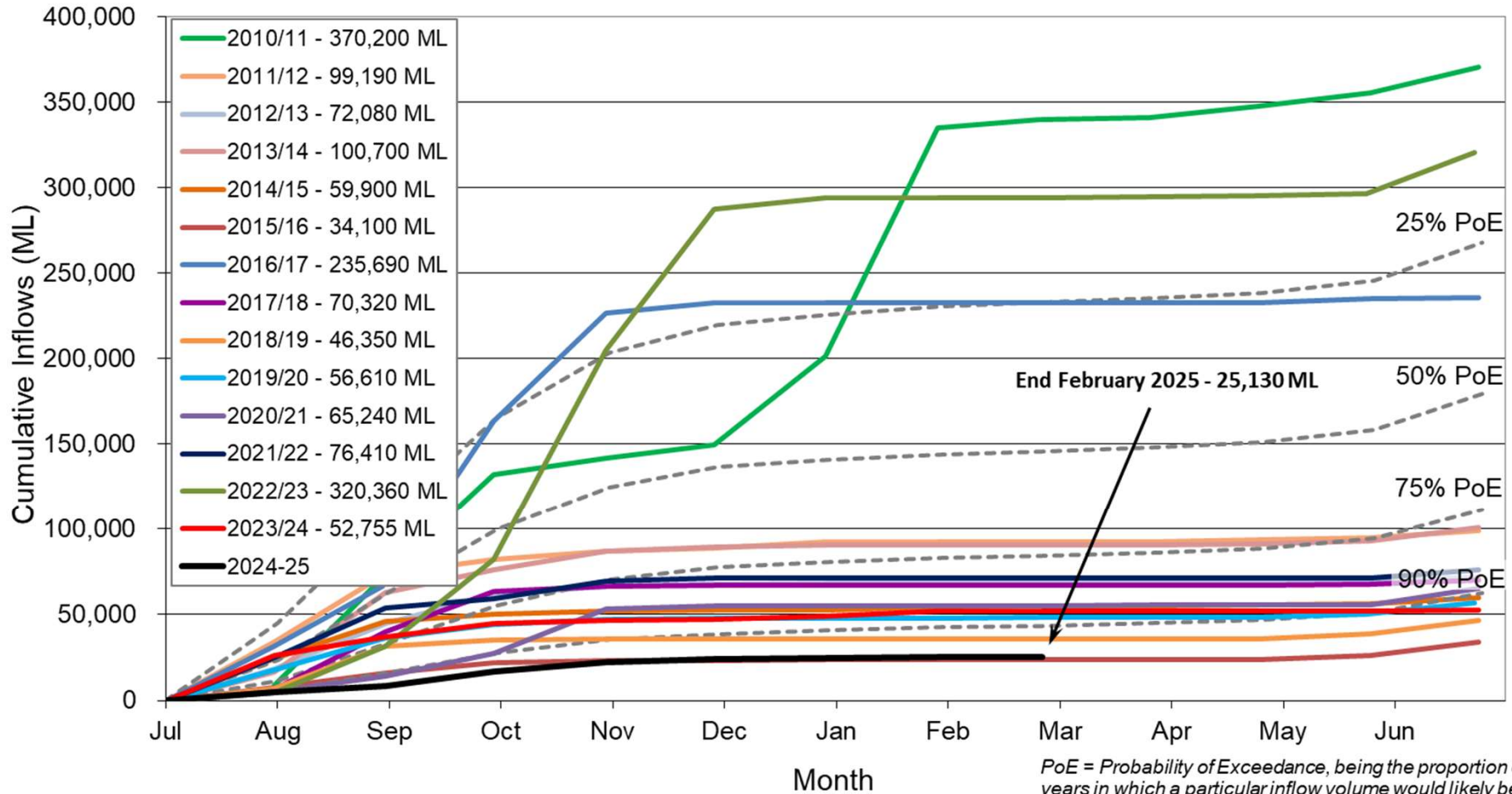
### Combined Headworks Rainfall Compared to Historic Average



# 2024/25 Water Year Inflow

- **25,131 ML excl. Taylors Lake**
  - 14.6% of historic average inflow
  - ~86% of inflow historically occurs between July - February
  - Currently ranked second worst inflow year on record (2006/07 - 29,757 ML).
- **Very similar trace to 2015/16 (34,059 ML)**
  - 5<sup>th</sup> lowest inflow year on record (1900-2024).

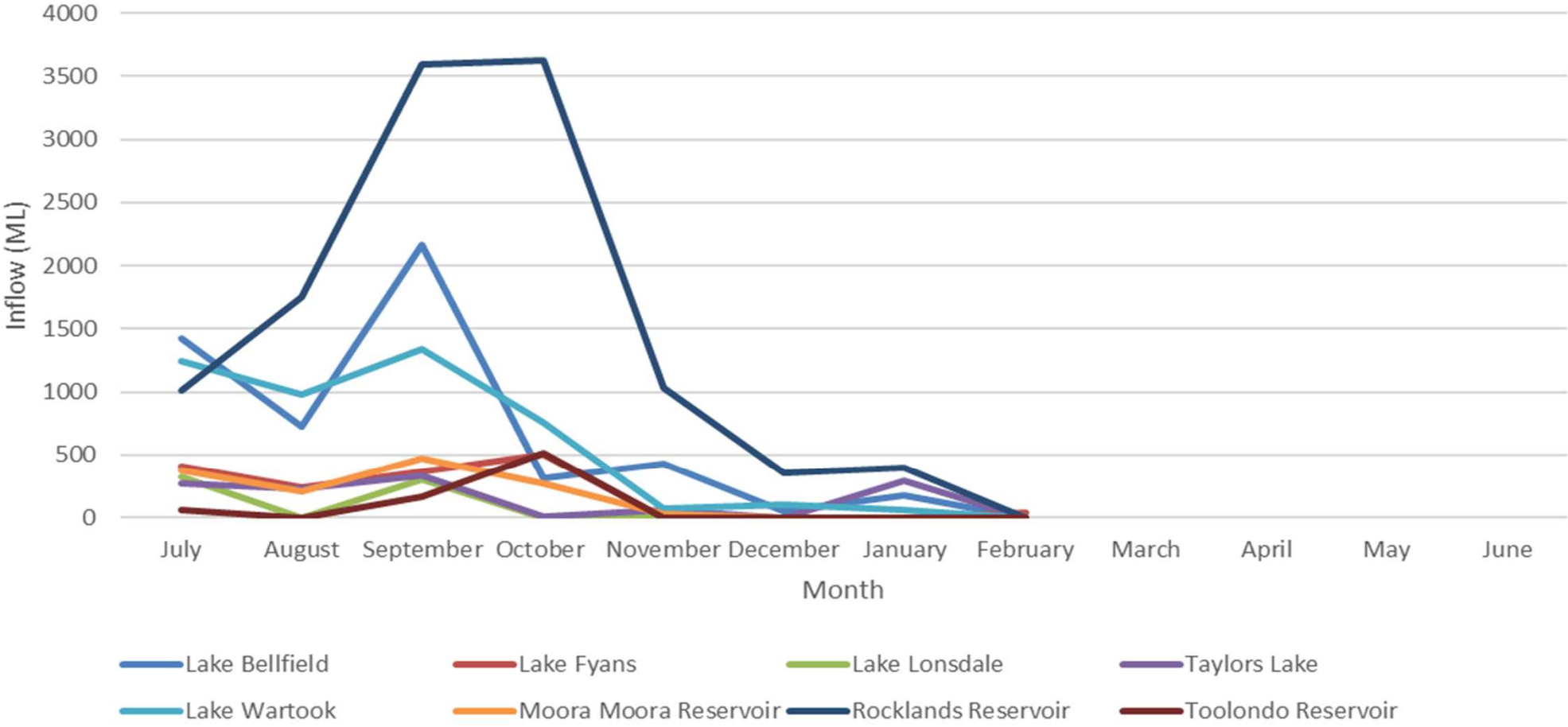
## Cumulative Natural Inflows to Water Storages (excluding Lower Headworks)



*PoE = Probability of Exceedance, being the proportion of years in which a particular inflow volume would likely be exceeded, based on the full historic record.*

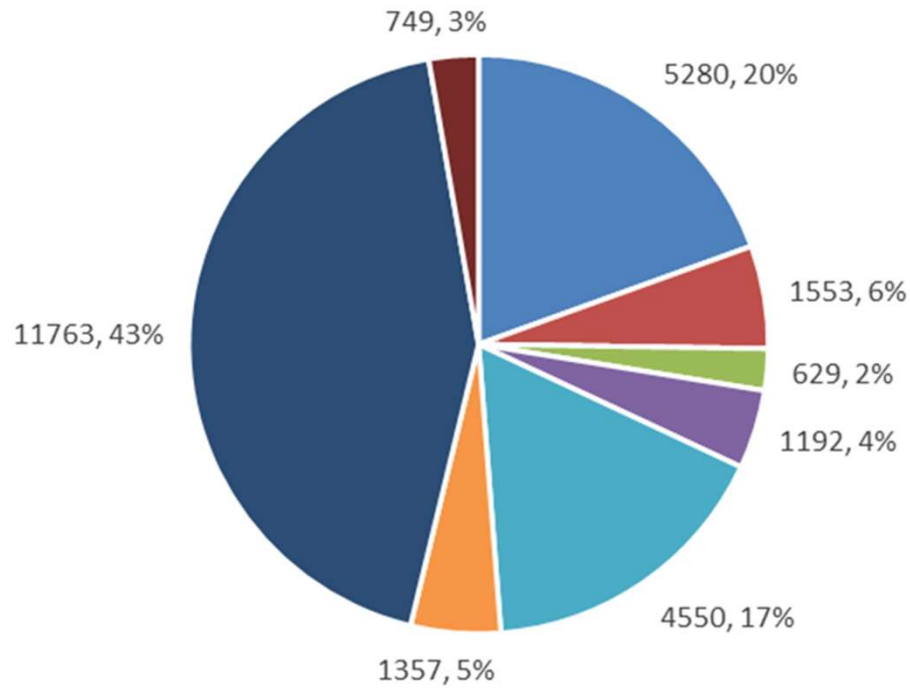


2024/25 - Individual Storage Inflow





## 2024/25 Storage Inflow



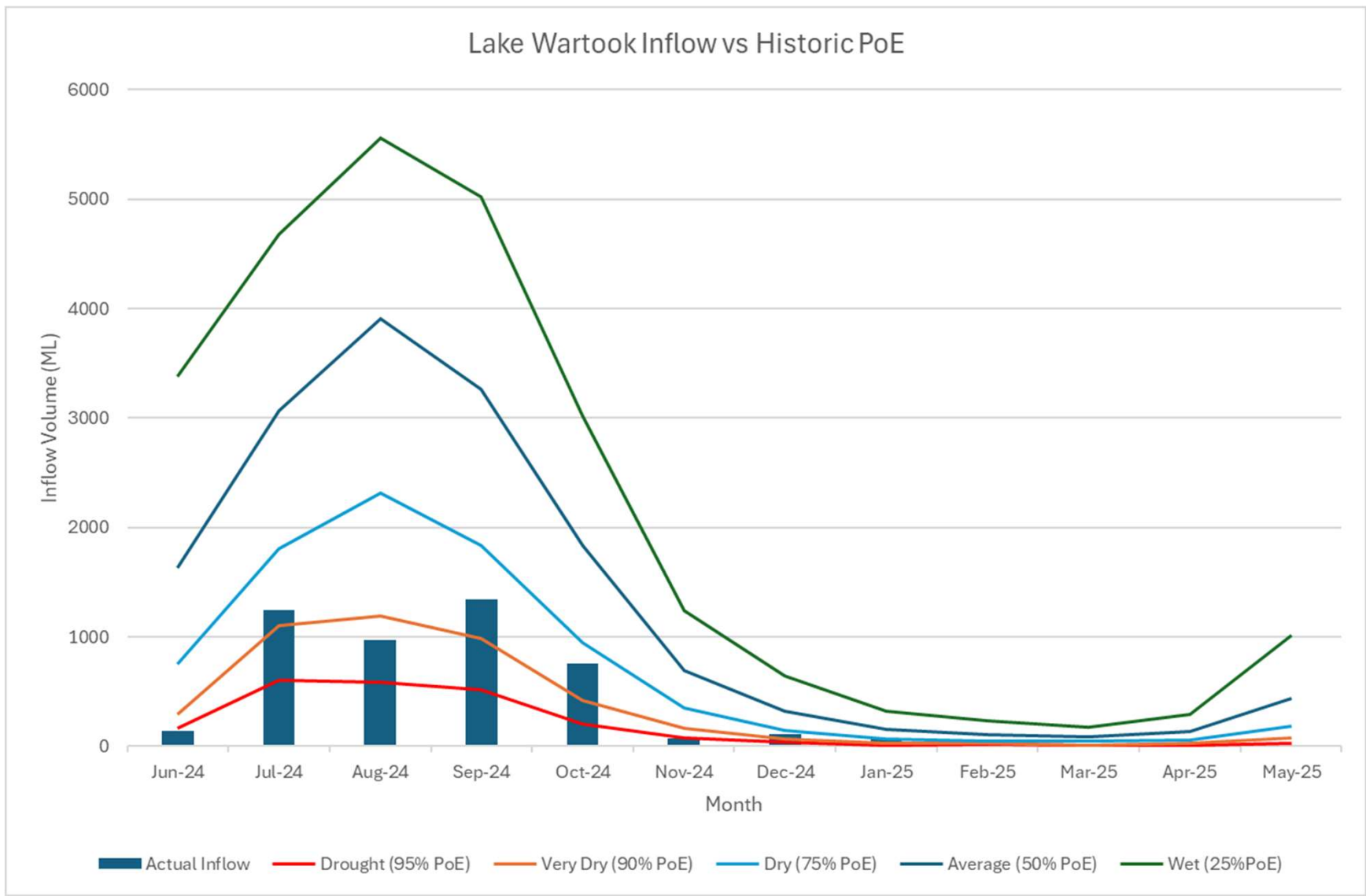
- Lake Bellfield
- Lake Fyans
- Lake Lonsdale
- Taylors Lake
- Lake Wartook
- Moora Moora Reservoir
- Rocklands Reservoir
- Toolondo Reservoir



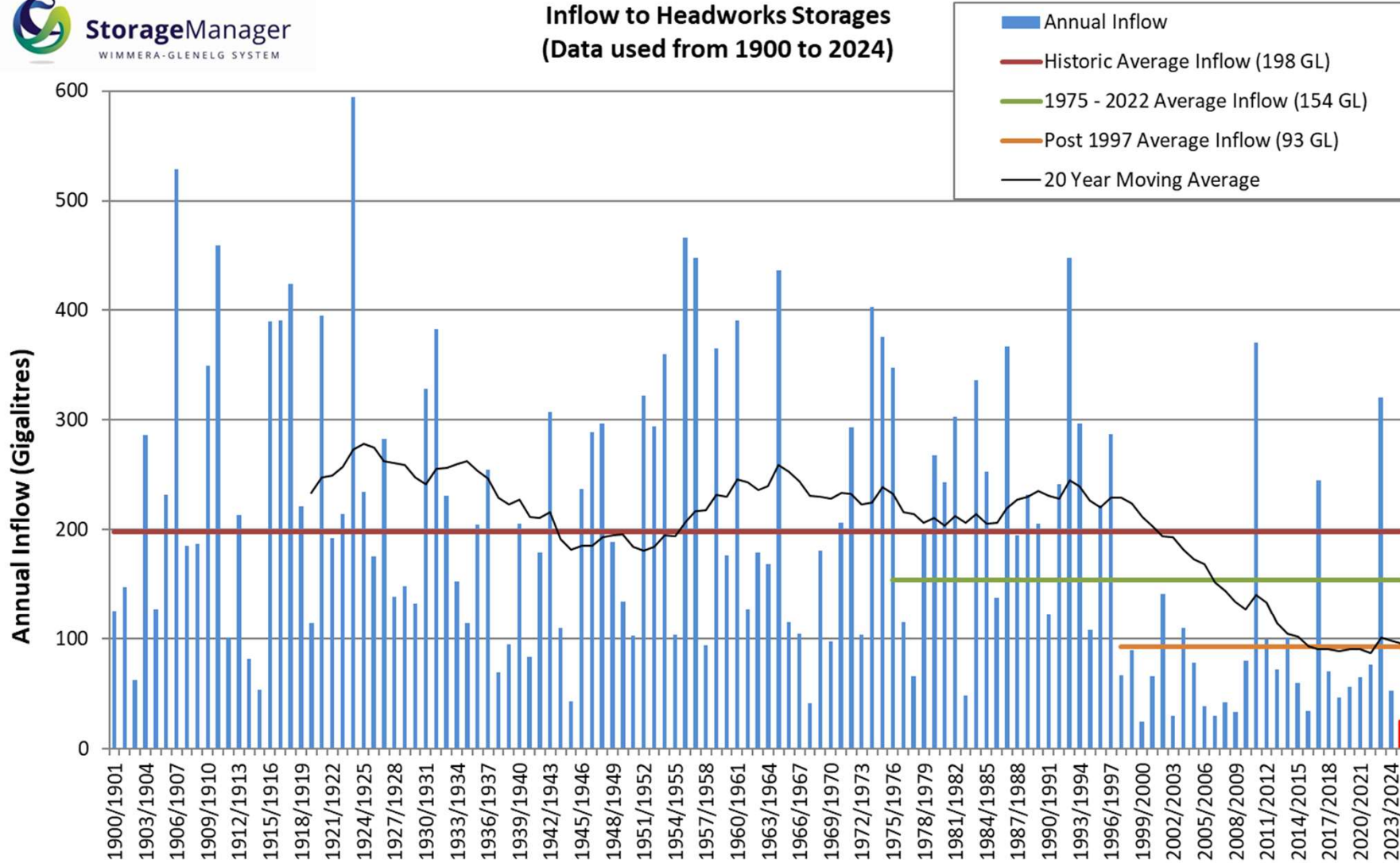




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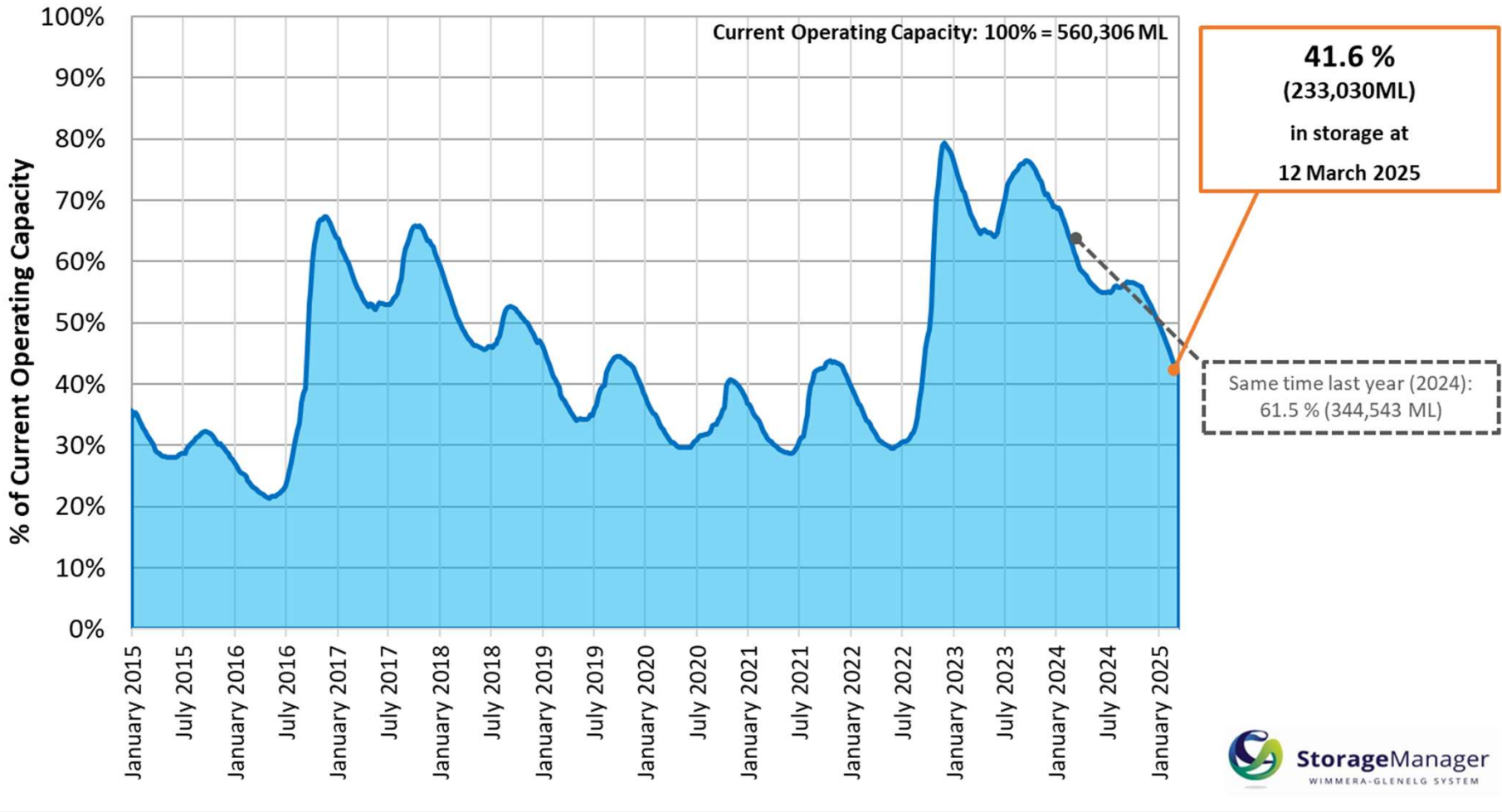
### Inflow to Headworks Storages (Data used from 1900 to 2024)



Note: Inflow data excludes Taylors Lake and Toolondo Reservoir.

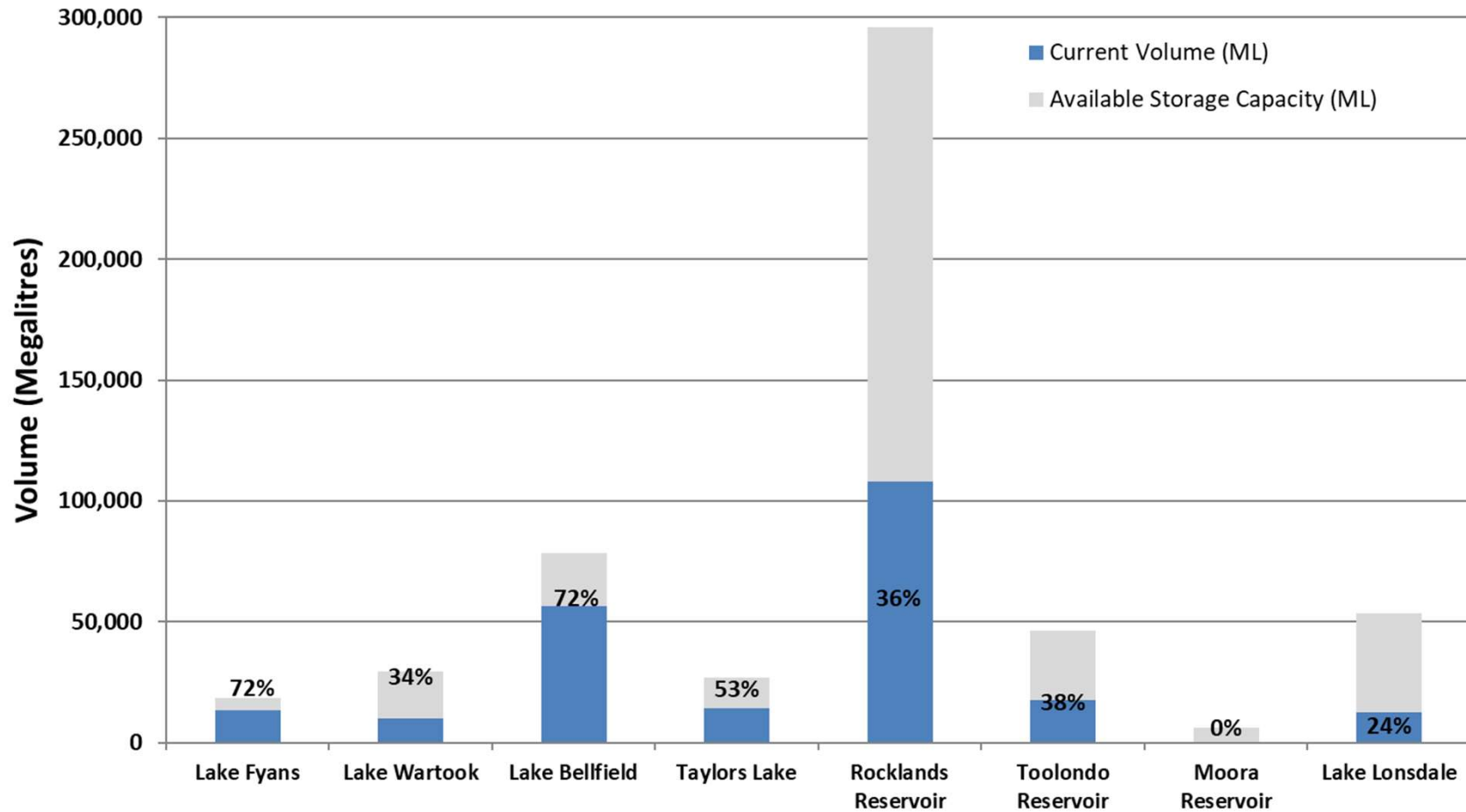


### Total Volume Stored in Grampians Reservoirs as % of Operating Capacity





### Current Volume and Percentage held in Headworks Storages





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# Allocations and Resource Availability



# Allocations – 7<sup>th</sup> March 2025



## Seasonal Allocation for March 2025

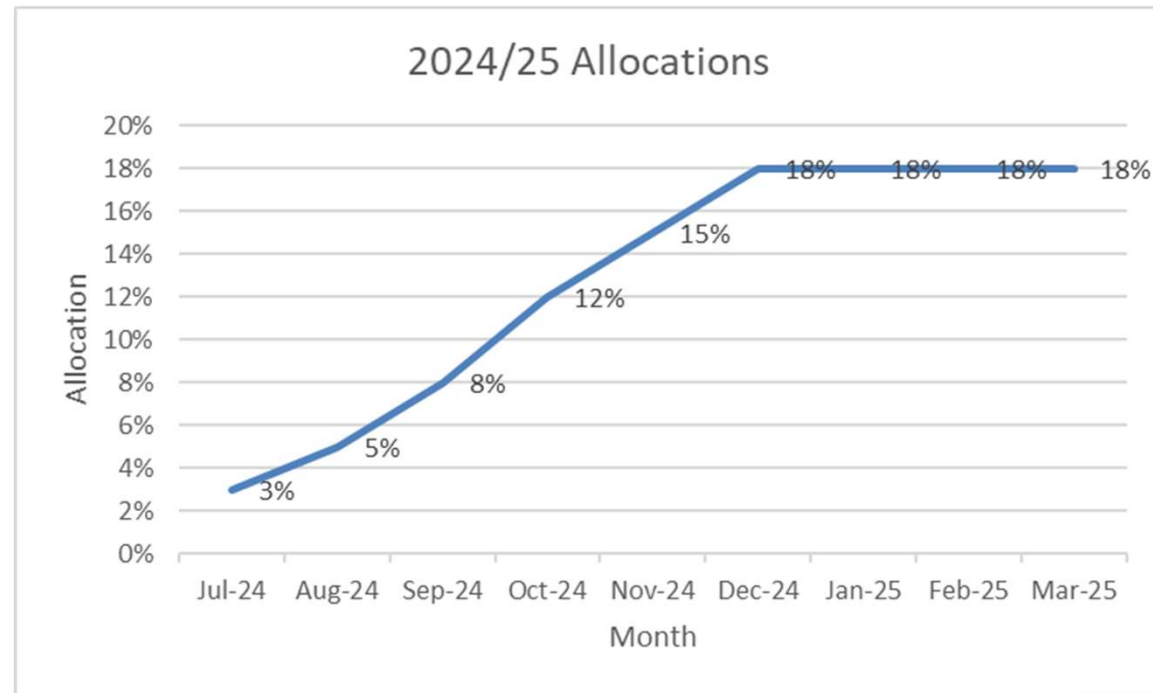
	Entitlement (Megalitres)	Announced Allocation	Volume Available (Megalitres)
<b>Grampians Wimmera Mallee Water</b>			
Commonwealth Environmental Water Office	28,000	0.0%	16,118
Glenelg Compensation Flow	3,300	0.0%	4,409
Recreation	3,090	0.0%	3,585
Wimmera Mallee Pipeline Product	44,720	18.0%	93,455
<b>Coliban Water</b>			
Wimmera Mallee Pipeline Product	300	18.0%	420
<b>Wannon Water</b>			
Wimmera Mallee Pipeline Product	2,120	18.0%	7,844
<b>Victorian Environmental Water Holder</b>			
Wimmera Mallee Pipeline Product	40,560	18.0%	66,010
Wetlands	1,000	0.0%	1,047

### Notes to this Table

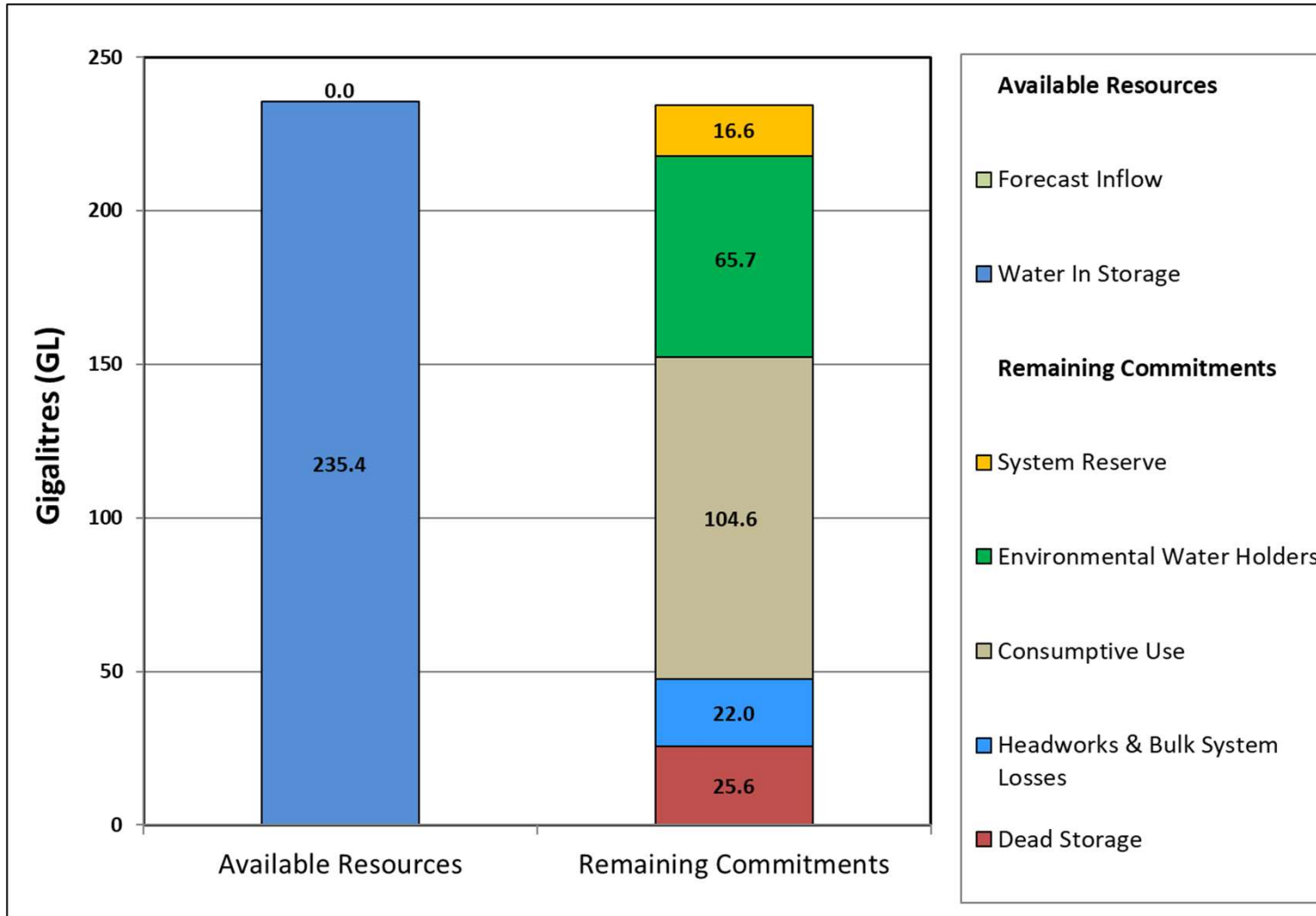
This table presents the announced allocations for Wimmera-Glenelg system entitlements for the month shown on the table. The volumetric allocation is equivalent to the Entitlement (Megalitres) multiplied by the Announced Allocation percentage.



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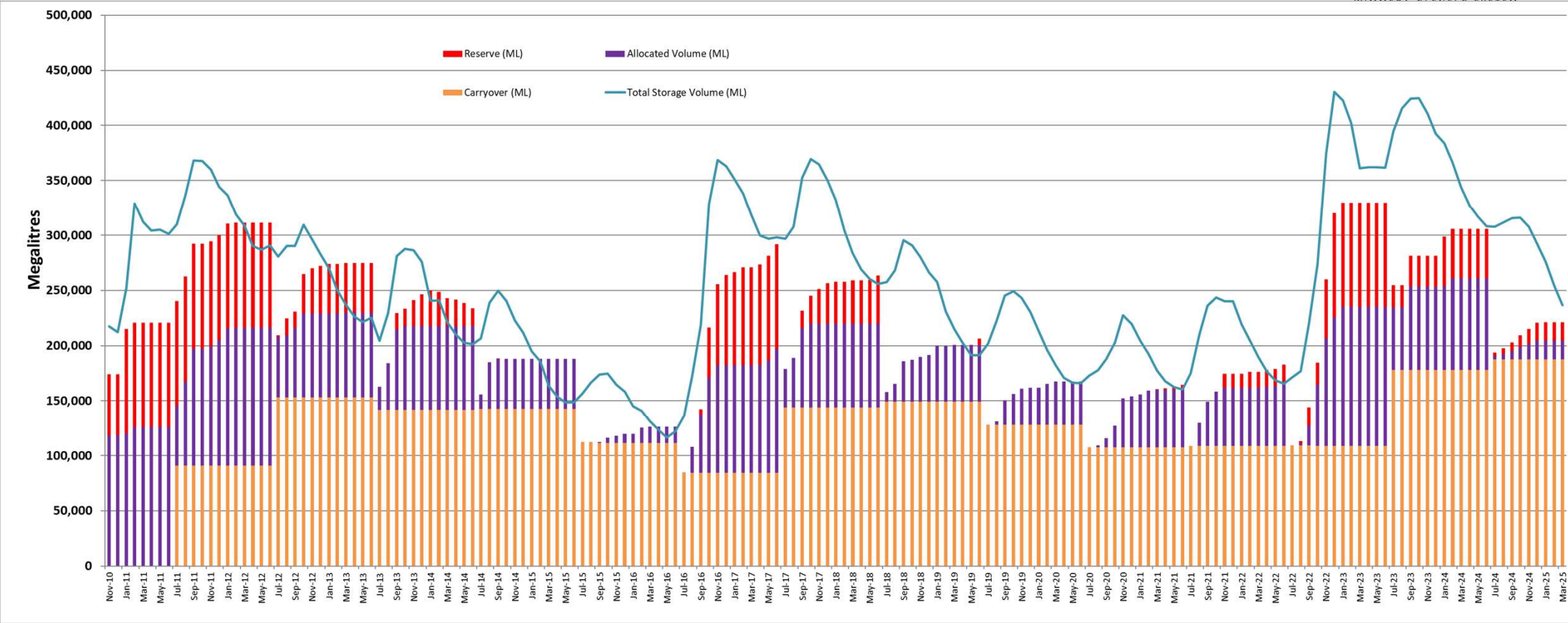
# Resources & Commitments (5th March 2025)



# Resource Allocation History – 2010 to 2025



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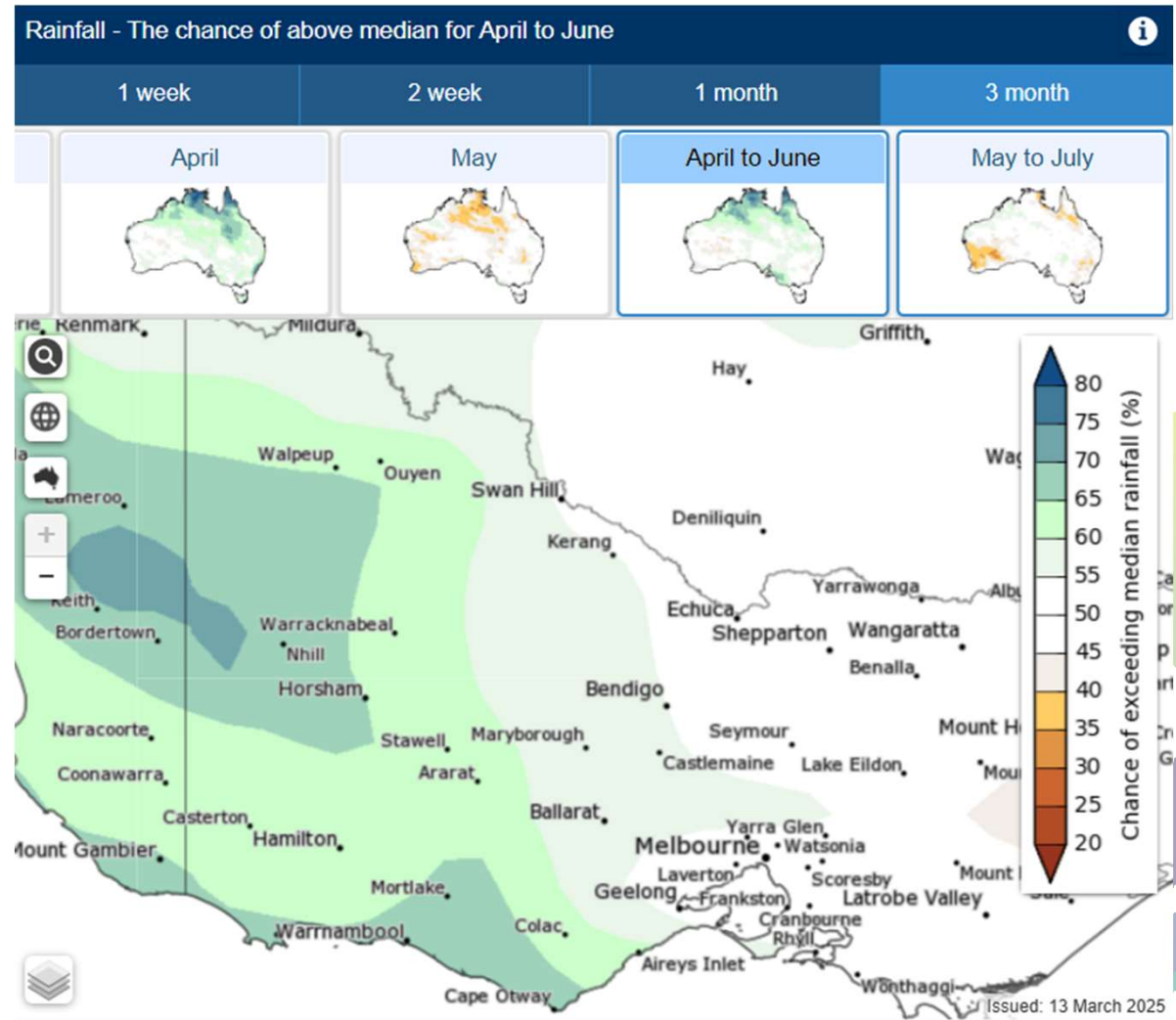
# Climate Outlook



# Rainfall Outlook

April to June 2025

60-70% chance of exceeding median rainfall across the Wimmera – Glenelg Headworks System



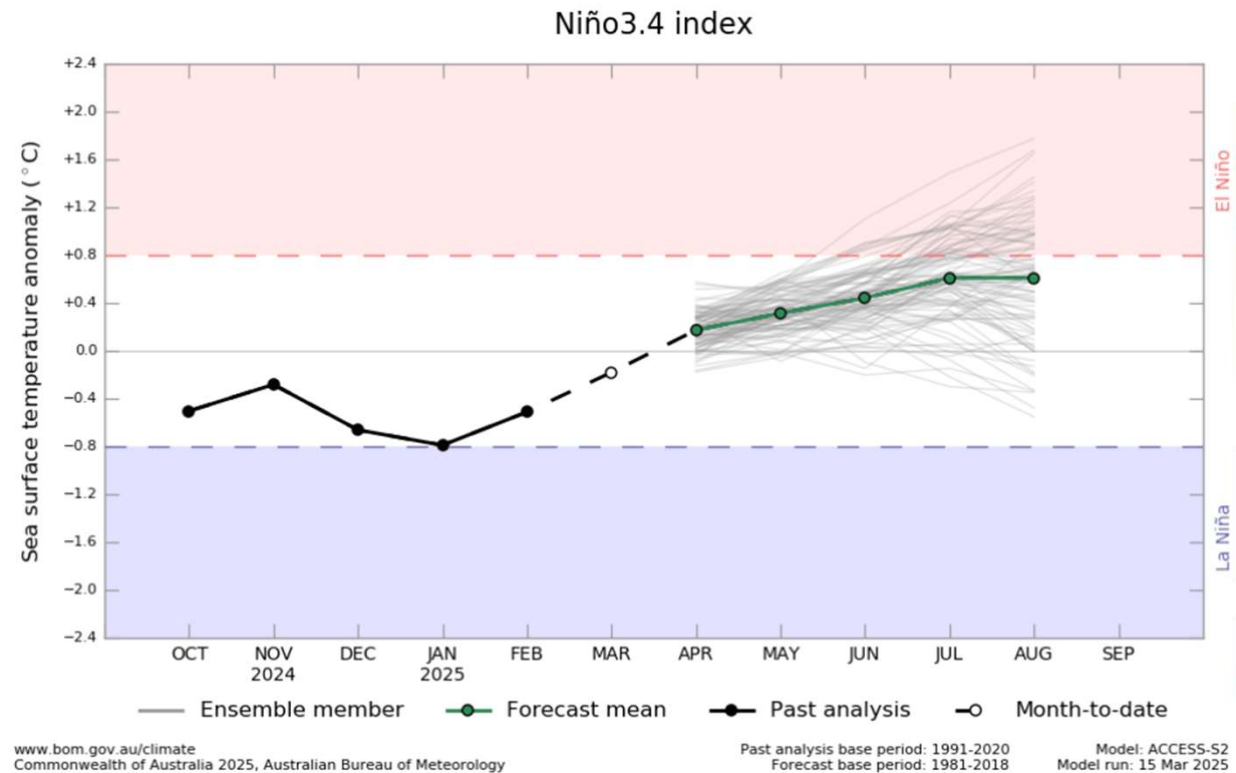
Courtesy of Bureau of Meteorology

# El Niño / La Niña (ENSO) Outlook



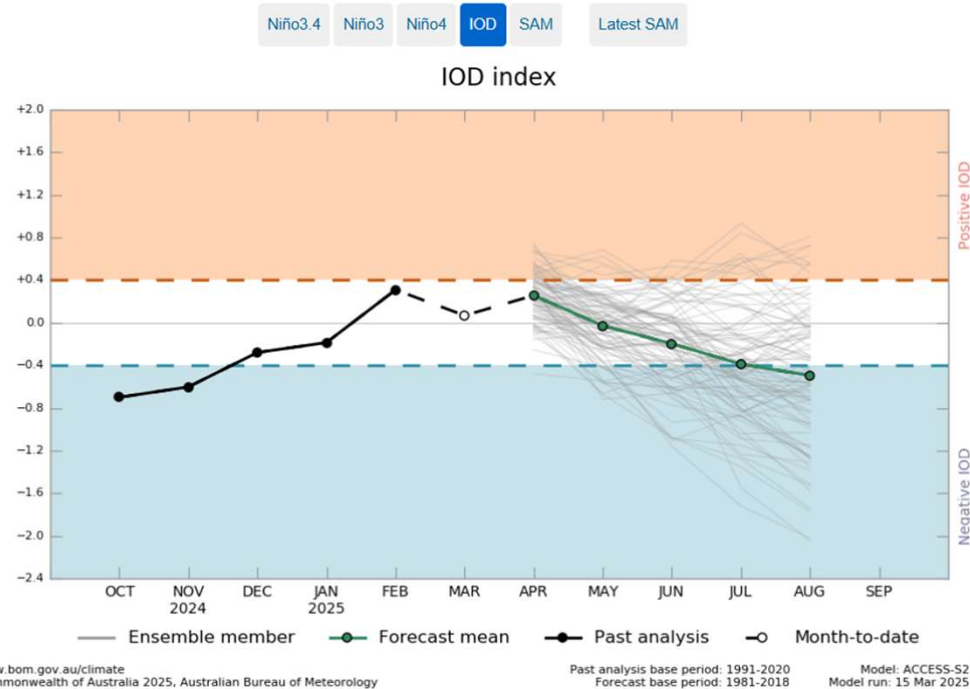
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- Bureau of Meteorology indicates ENSO remains neutral and likely to remain so until at least July.
- La Niña events typically effect winter-spring rainfall in eastern parts of Australia.



# Indian Ocean Dipole (IOD) Outlook

- Indian Ocean Dipole (IOD) is currently neutral.
- The IOD typically has little association with Australian climate from December to April.



## Indian Ocean Dipole years

1960 1961 1963 1967 1972 1975 1990 1992 1994 1996 1997 1998 2006 2010 2015 2016 2019 2022

Since 1960, when reliable records of the IOD began, to 2023, there have been 9 moderate to strong **negative IOD** events and 9 moderate to strong **positive IOD** events.



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# Storage Manager Operations



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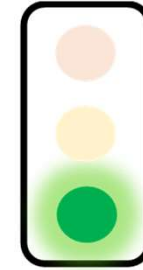
- Water availability is expected to be sufficient to satisfy all entitlement holder demand (some challenges may exist for Lake Wartook & smaller systems).
- Blue Green Algae (BGA) is becoming more common with storages reducing in volume (Lake Lonsdale, Taylors Lake, Green Lake – Horsham).
- Allocations are expected to remain low unless significant inflow is received to storages.
- Fire restricted access to Headworks storages and increased the risk of silt and sediment getting washed into key storages.
- Early planning for the 2025/26 water year is expected to commence soon.

# Water Security Outlook for GWMWater

**Scott Smith**  
Manager Water Resources

# All Systems

**Status: General Monitoring**



- Very high demand has been experienced at a number of towns throughout 2024/25.
- Sufficient volumes are currently available from Grampians Storages.
- 100 % allocation received on the Goulburn and Murray Systems.
- No groundwater resource issues expected (Edenhope remains under increased monitoring).
- High security of supply in both the Elmhurst and Buangor systems.



# All Systems

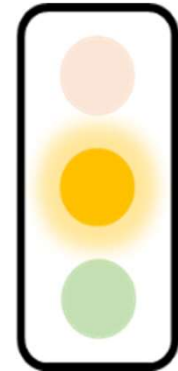
**Status: Heightened Awareness**

## Lake Wartook:

- Lake Wartook currently holds 9.97 GL or 34% of its maximum operating capacity.
- Current projections indicated that under 'drought' and 'very dry' climate scenarios Lake Wartook will reach 8.8 GL or 30% by 30 June 2025 (similar to 2019/20 volume).

## East Grampians Urban System (Willaura & Lake Bolac):

- Very dry conditions restricted storage recovery throughout 2024/25.
- Unprecedented demand and supply interruptions caused by the fires and power outages placed additional strain on the system through the summer period.
- Extensive water carting and augmentation works have been undertaken to secure supply.
- Connection to the East Grampian Pipeline is expected to greatly increase water security.



# GWMWater Urban Rural Water Strategy 2022

The last Urban Rural Water Strategy was completed in 2022 and identified emerging issues which could impact GWMWater's water supply into the future.

## Key Points:

- A 63% decline in the average inflow to Grampians reservoirs other the period since 1997.
- Future increases in demand could have the ability to impact water security over a 50 years period.
- Potential augmentation options were identified for further investigation.

# Water Supply Security Augmentation

In response, GWMWater have undertaken a Water Supply Security Augmentation – Strategic Options Assessment, looking at potential augmentation works, delivering on the following objective:

- Provides new water into the system (either through identification of new resources, connecting to adjoining systems or through water savings from the existing system).

This assessment reviewed, but was not limited to, the following options:

- Interconnecting pipelines – Murray and Goulburn Systems to Grampians System (Additional supply dependant on capacity of design ~8 – 11 GL/year)
- Piping Mt Zero Channel from Dad and Dave to Horsham WTP (Saving of ~0.5 – 0.6 GL/year)
- Piping Rocklands Channel to Toolondo Reservoir (Saving of ~1.17 GL/year)
- Piping Moora Channel from Moora Moora Reservoir to Distribution Heads (Saving of ~0.47 GL/year)
- Identify additional groundwater resources for East Grampians, West Grampians and Edenhope (Additional supply of ~0.1 GL to 1 GL/year).

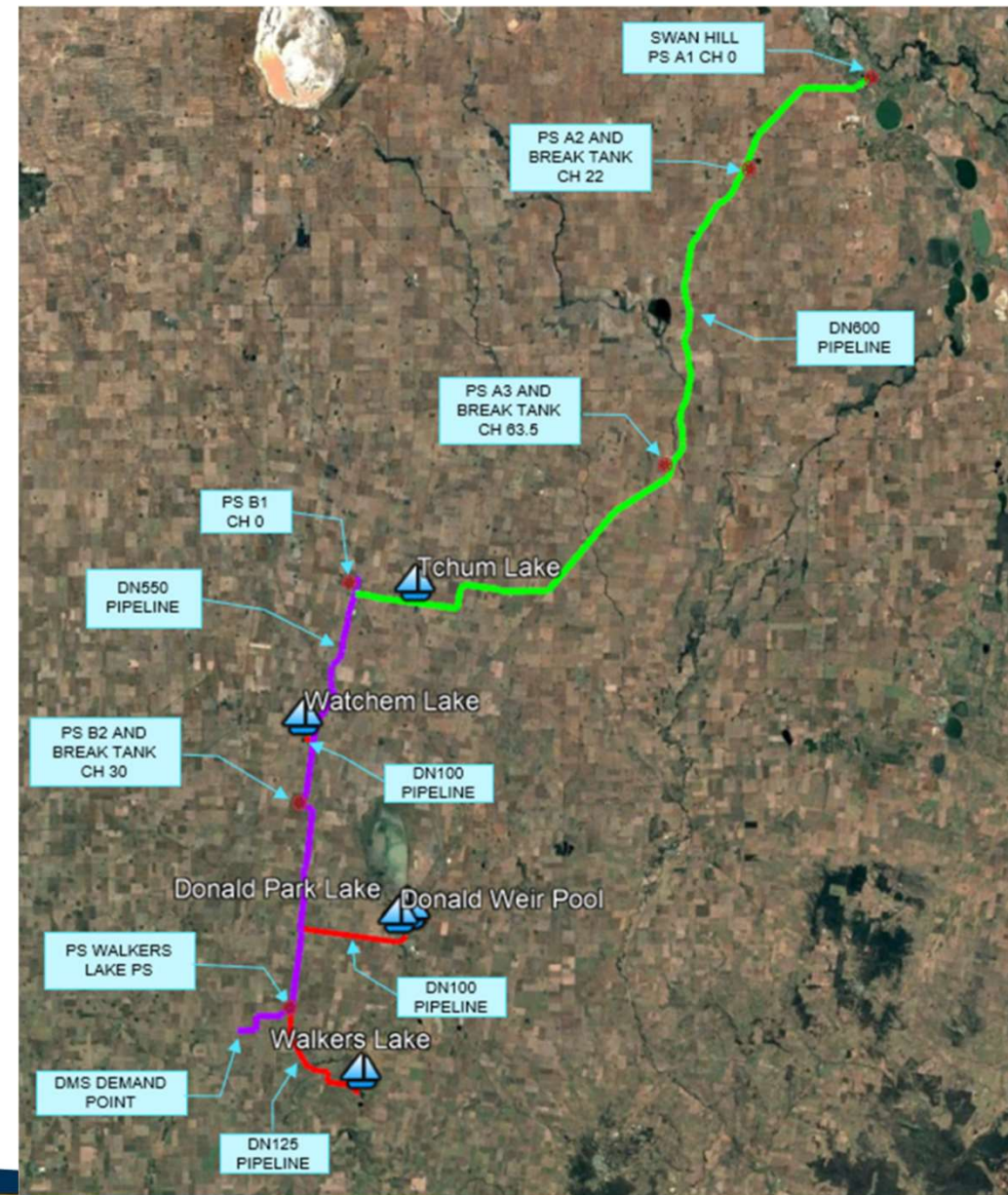
# Interconnecting Pipeline – Murray System

Designed flow ~ 22 – 31 ML/day

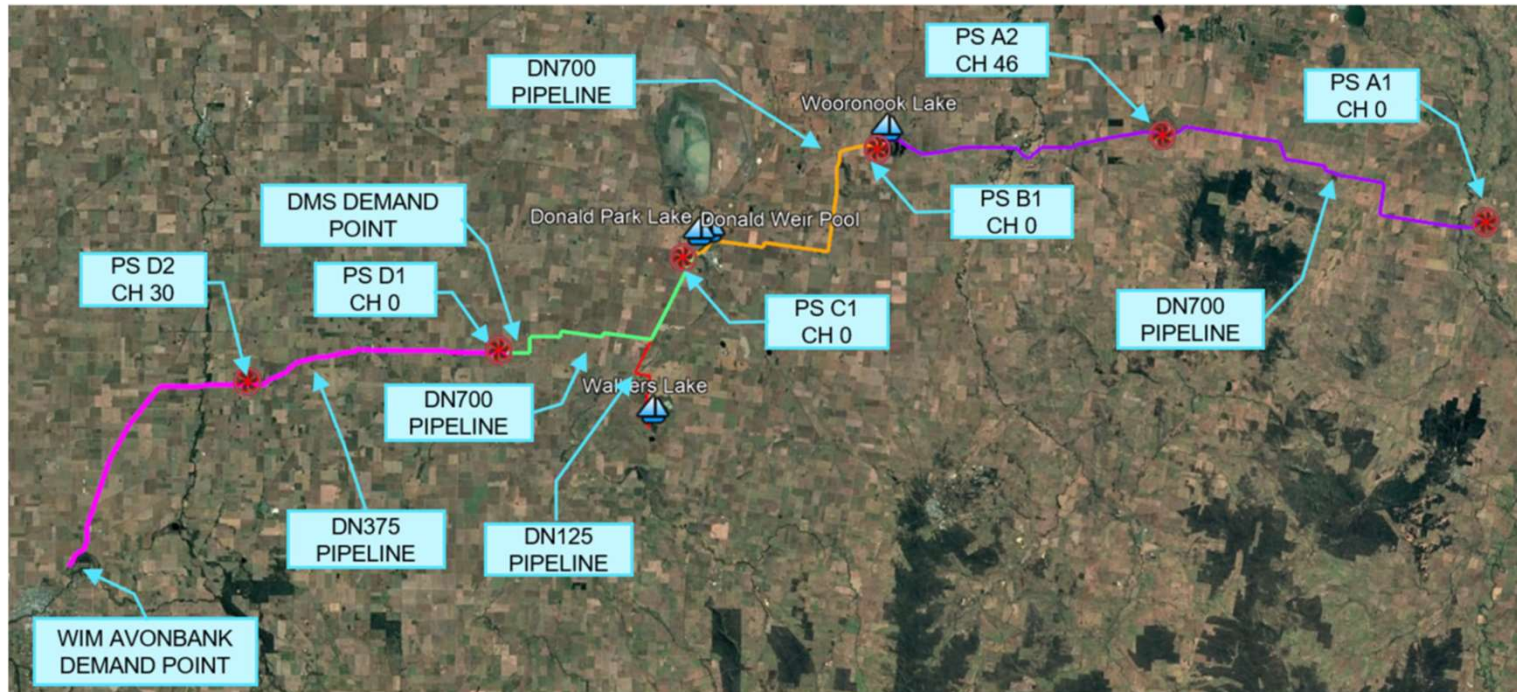
Supply volume ~ 8 – 11.5 GL/year

**Advantages:** Large supply volume, water considered fit-for-purpose, supply source relatively secure (HRWS)

**Disadvantages:** Capital investment, Implementation timeframe



# Interconnecting Pipeline – Goulburn System



**Designed flow** ~ 22 – 31 ML/day

**Supply volume** ~ 8 – 11.5 GL/year

**Advantages:** Large supply volume, water considered fit-for-purpose, supply source relatively secure (HRWS)

**Disadvantages:** Capital investment, Implementation timeframe

# Water Supply Security Augmentation

Further review of option assessment, likely to focus on:

- Volume of water gained.
- Cost (Capital and Operational).
- Implementation timeframe.
- Strategic value of the water (does it service critical demand?)

Once well understood, options can feed into GWMWater's pricing submission.