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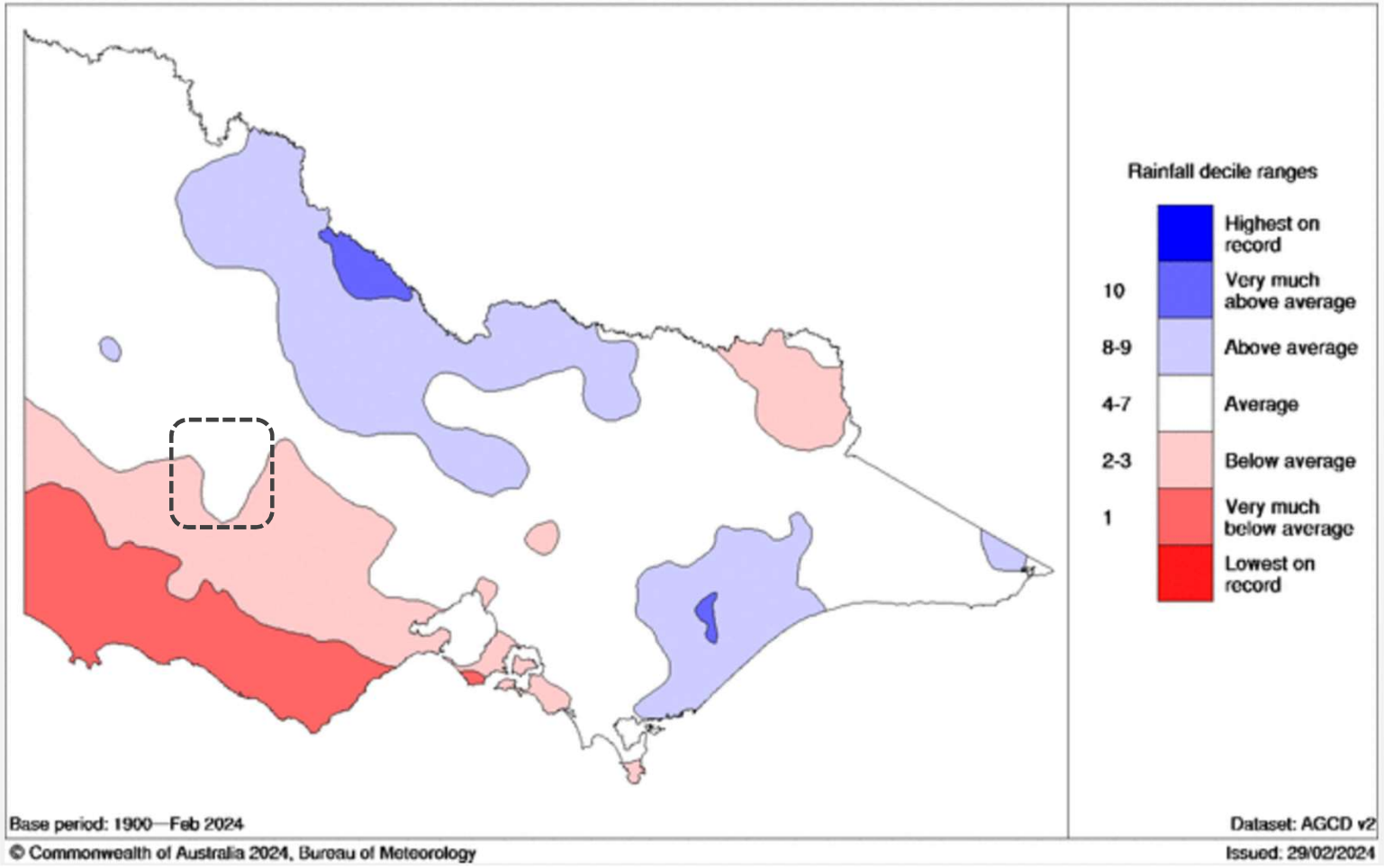
WIMMERA-GLENELG SYSTEM

Water Resource Update and Seasonal Outlook

Scott Smith
Storage Manager

July to February Rainfall



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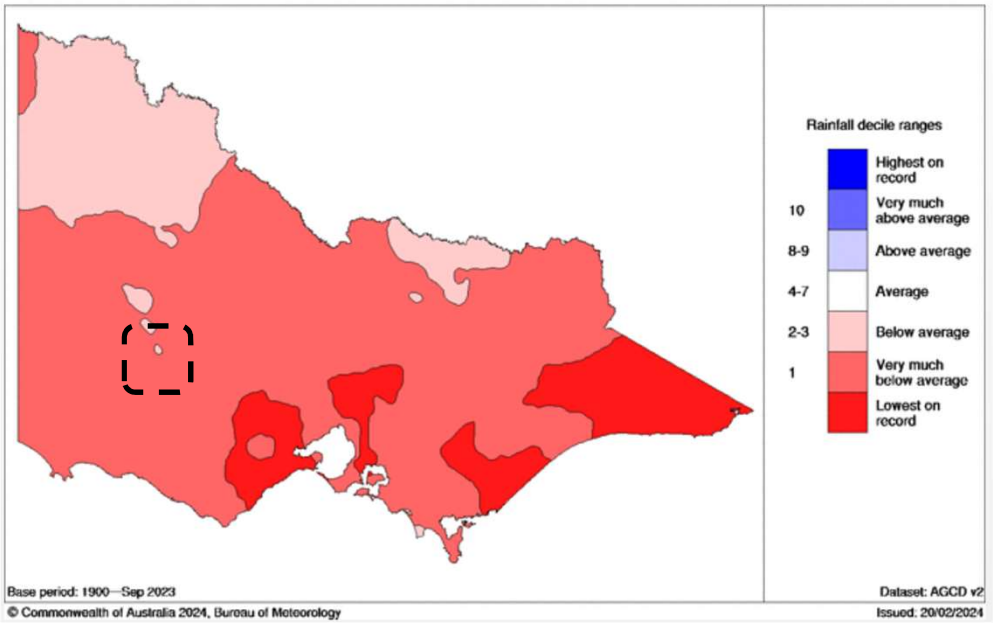
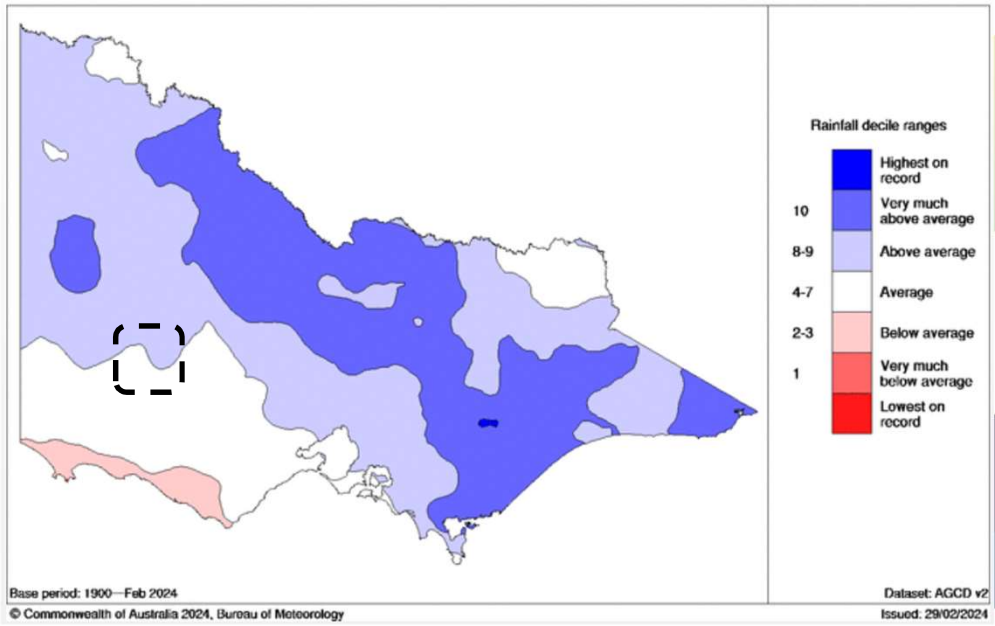
July – September Rainfall



October – February Rainfall



2023/24 Water Year Inflow

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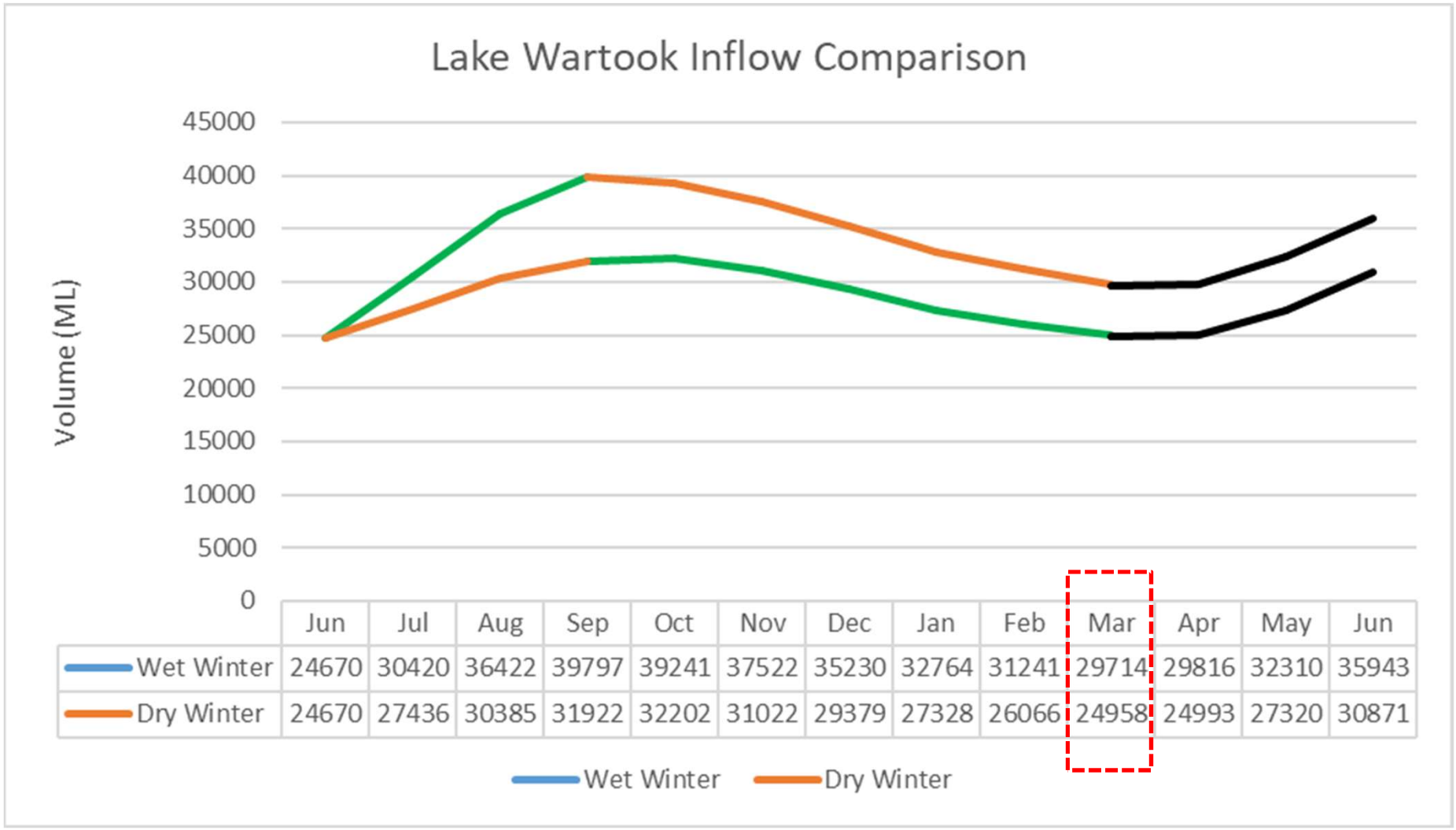
- 52,550 ML excl. Taylors Lake
  - ≈ 30% of historic average inflow
  - ≈ 297,800 ML 2022/23 YTD
- 26,000 ML inflow in July
- 5,000 ML inflow in December & January



	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Wet Winter	24670	30420	36422	39797	39241	37522	35230	32764	31241	29714	29816	32310	35943
Dry Winter	24670	27436	30385	31922	32202	31022	29379	27328	26066	24958	24993	27320	30871

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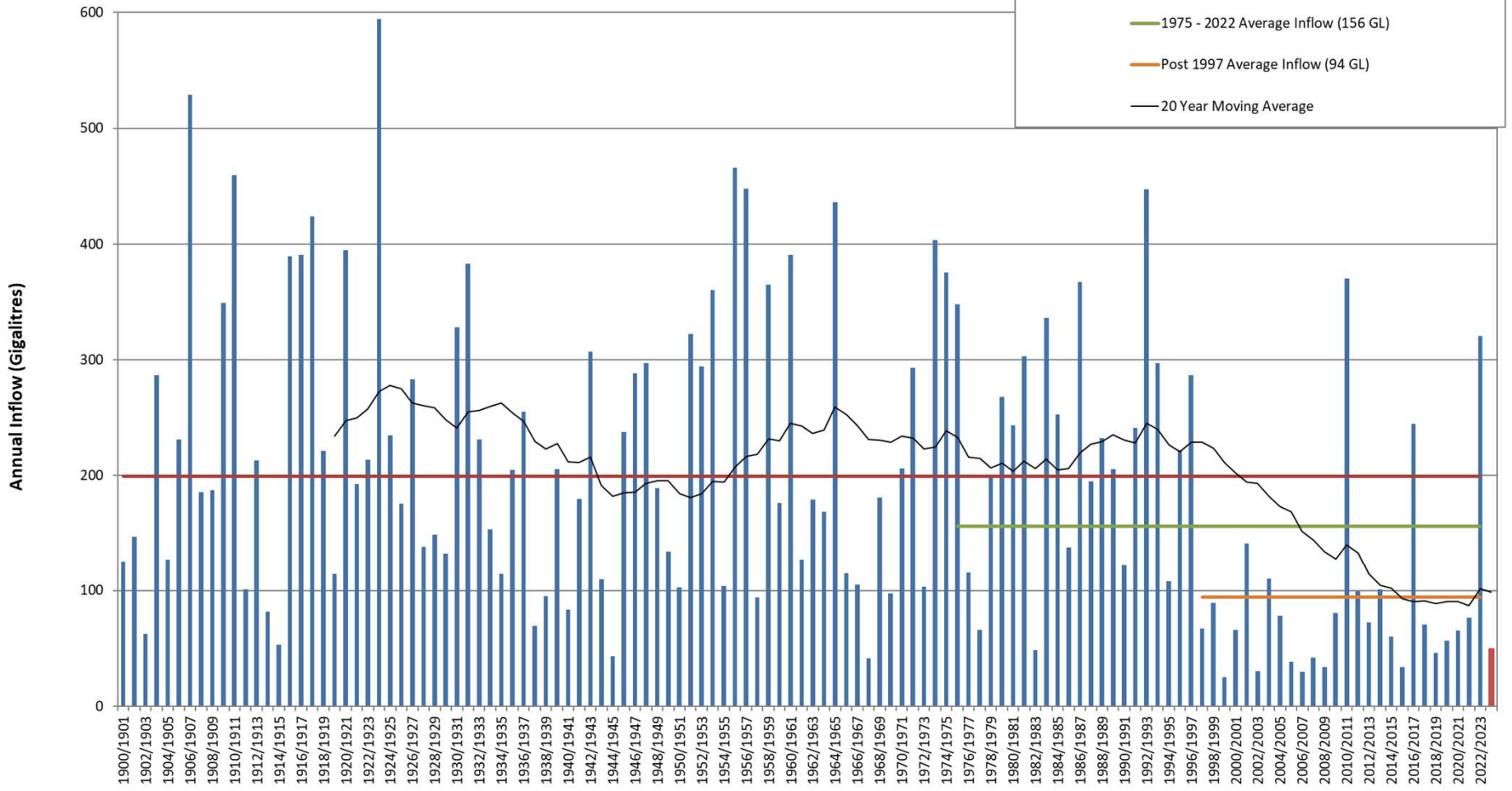
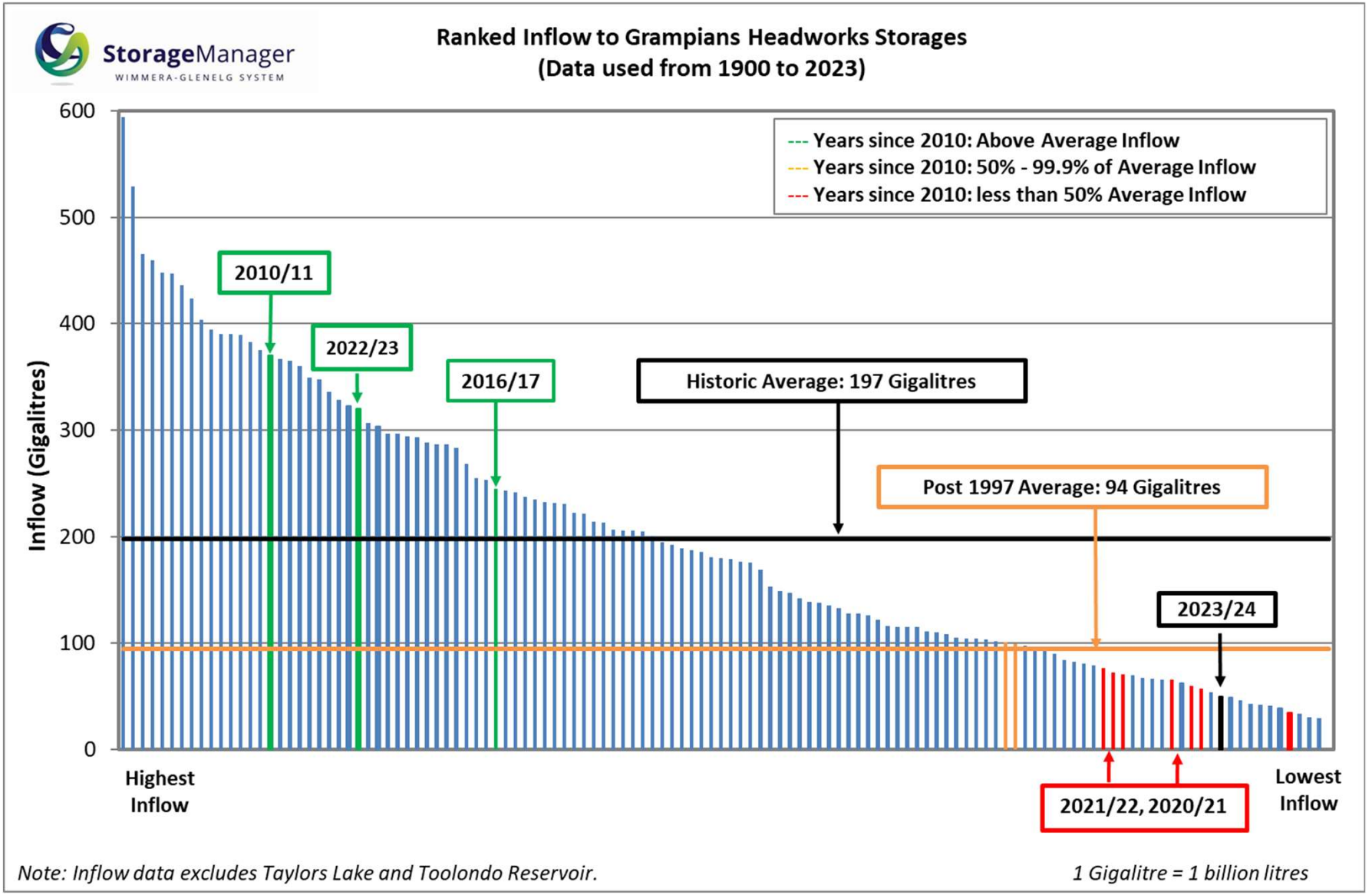
Inflow to Headworks Storages
(Data used from 1900 to 2023)



Note: Inflow data excludes Taylors Lake and Toolondo Reservoir.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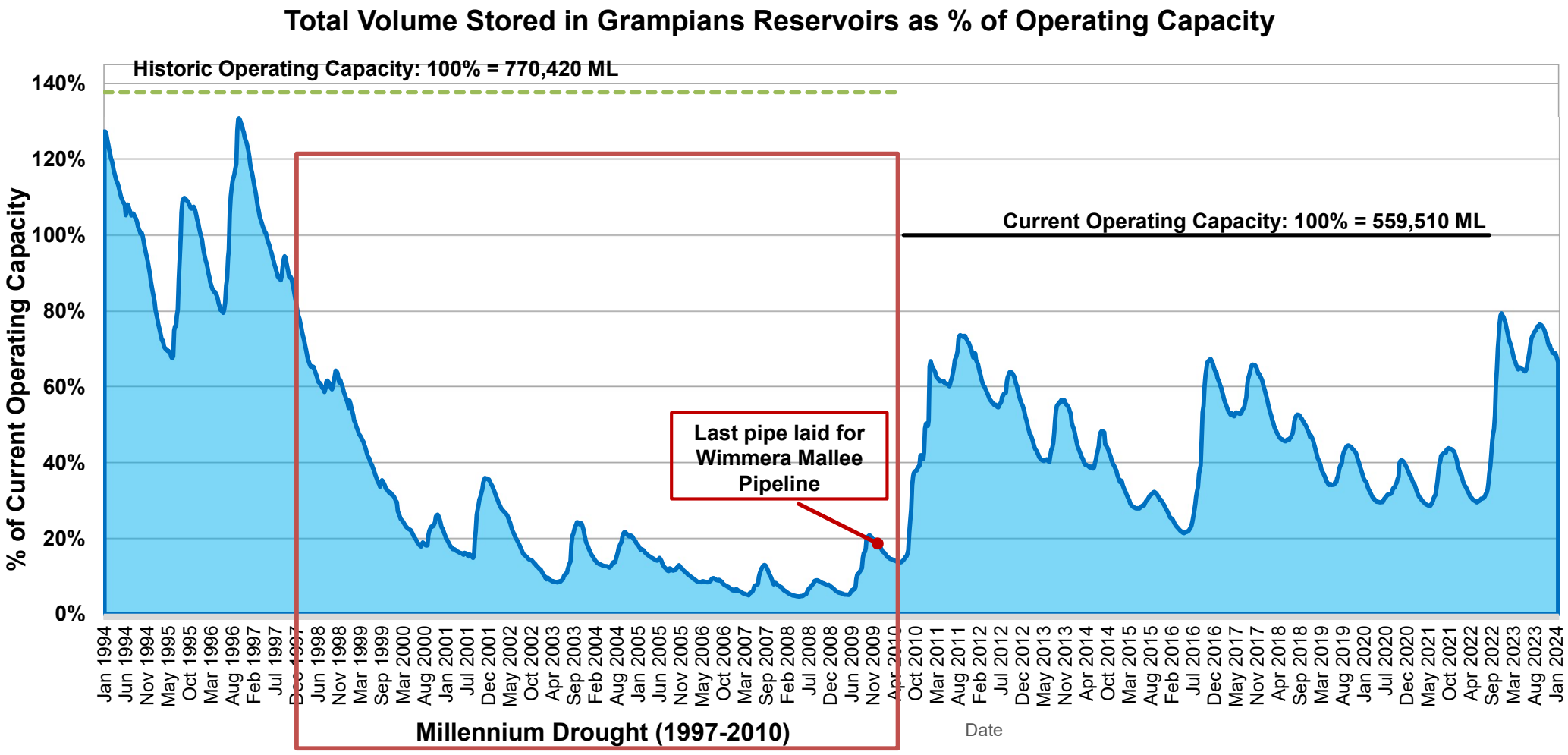
Ranked Inflow to Grampians Headworks Storages
(Data used from 1900 to 2023)
--- Years since 2010: Above Average Inflow
--- Years since 2010: 50% - 99.9% of Average Inflow
--- Years since 2010: less than 50% Average Inflow
Inflow (Gigalitres)
600
500
400
300
200
100
0
2010/11
2022/23
2016/17
Historic Average: 197 Gigalitres
Post 1997 Average: 94 Gigalitres
2023/24
2021/22, 2020/21
Highest Inflow
Lowest Inflow
Note: Inflow data excludes Taylors Lake and Toolondo Reservoir.
1 Gigalitre = 1 billion litres


Total Volume Stored in Grampians Reservoirs as % of Operating Capacity
Historic Operating Capacity: 100% = 770,420 ML
Current Operating Capacity: 100% = 559,510 ML
Last pipe laid for Wimmera Mallee Pipeline
Millennium Drought (1997-2010)
% of Current Operating Capacity
140%
120%
100%
80%
60%
40%
20%
0%
Jan 1994
Jun 1994
Nov 1994
May 1995
Oct 1995
Mar 1996
Aug 1996
Feb 1997
Jul 1997
Dec 1997
Jun 1998
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Jan 2020
Jul 2020
Dec 2020
May 2021
Oct 2021
Apr 2022
Sep 2022
Mar 2023
Aug 2023
Jan 2024
Date

System Water Balance

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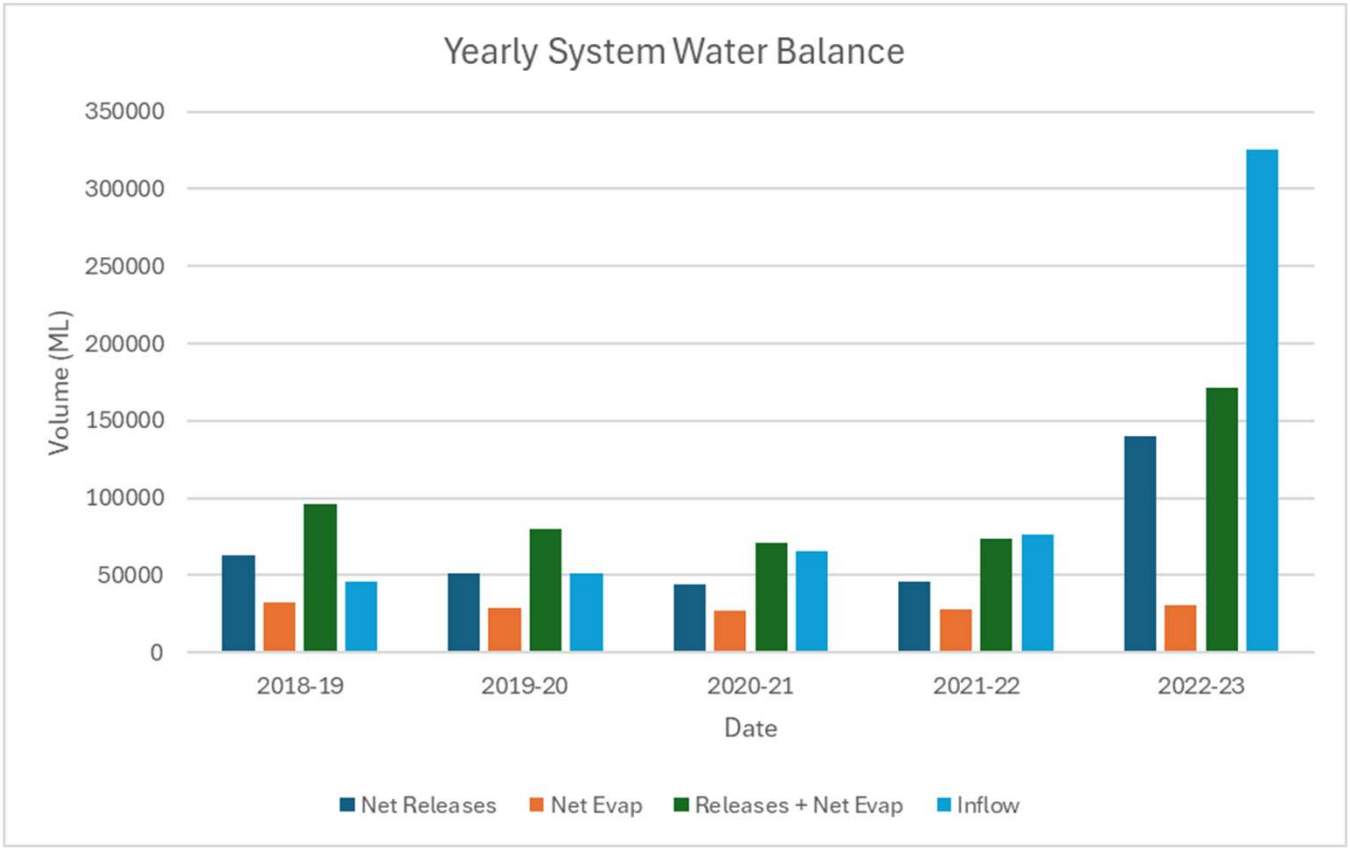
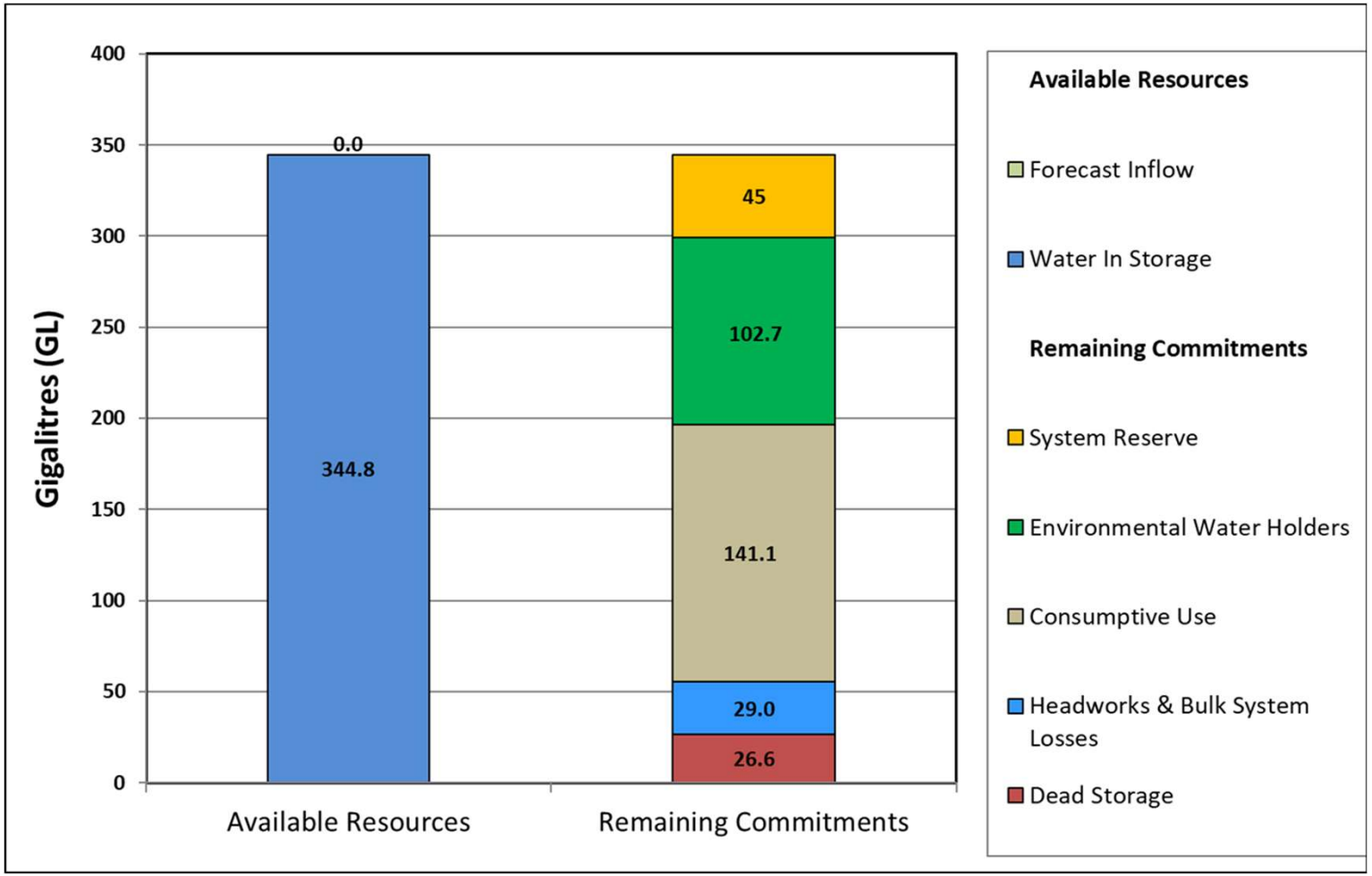


Resources & Commitments (6th March 2024)



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Seasonal Allocation for March 2024

	Entitlement (Megalitres)	Announced Allocation	Volume Available (Megalitres)
Grampians Wimmera Mallee Water			
Commonwealth Environmental Water Office	28,000	0.0%	21,725
Glenelg Compensation Flow	3,300	49.0%	5,187
Recreation	3,090	46.0%	3,868
Wimmera Mallee Pipeline Product	44,720	87.0%	121,539
Coliban Water			
Wimmera Mallee Pipeline Product	300	87.0%	601
Wannon Water			
Wimmera Mallee Pipeline Product	2,120	87.0%	8,844
Victorian Environmental Water Holder			
Wimmera Mallee Pipeline Product	40,560	87.0%	83,001
Wetlands	1,000	49.0%	1,501

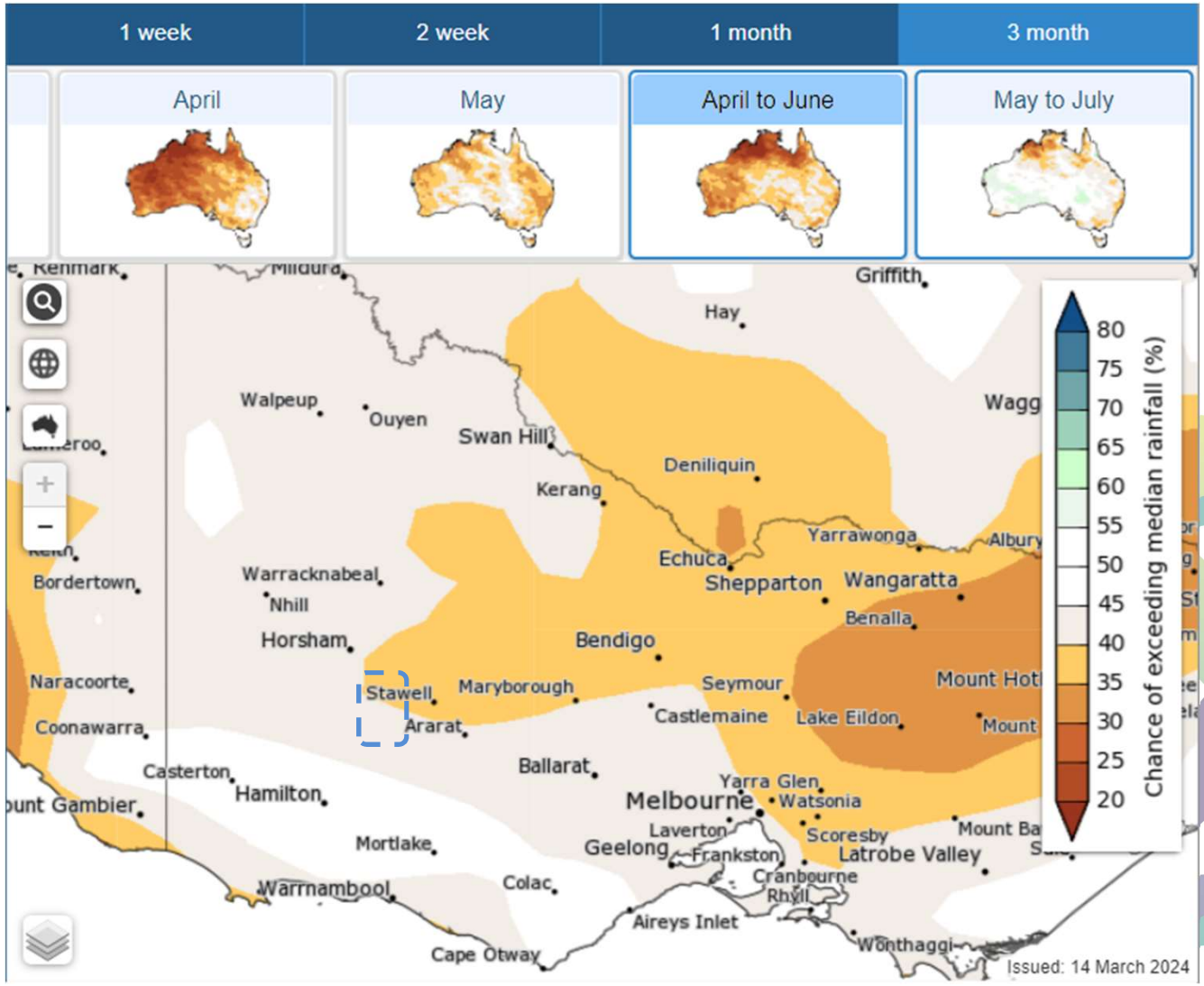
Notes to this Table

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.

Rainfall Outlook

April to June 2024

35-45% 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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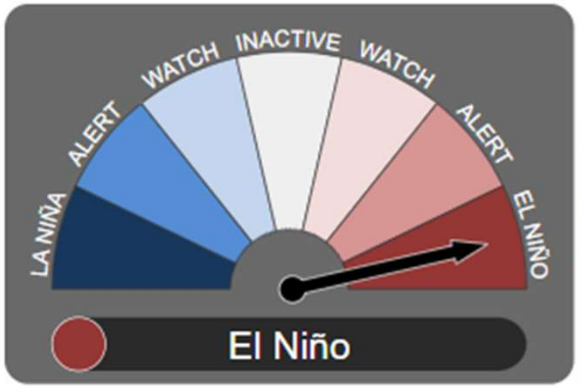
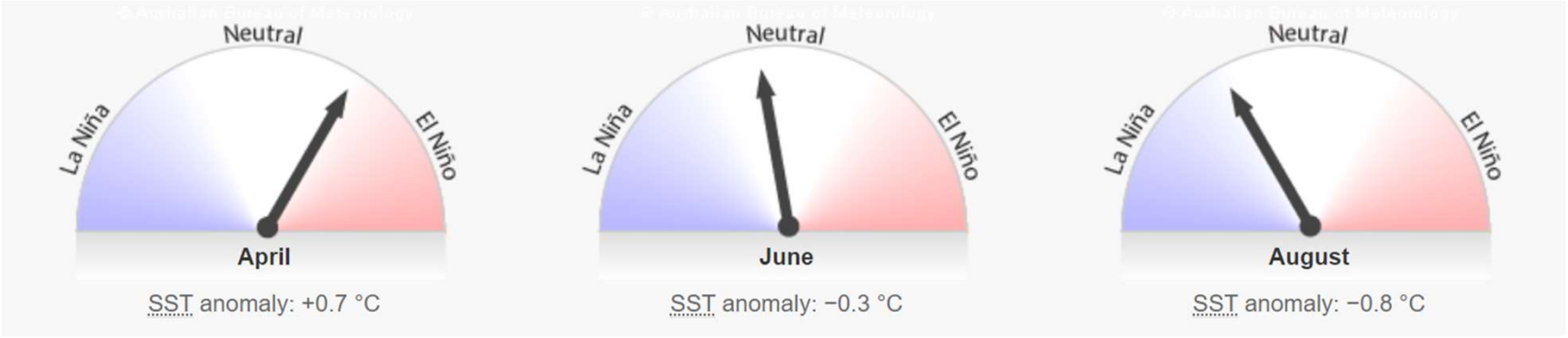
- Bureau of Meteorology suggest El Niño has peaked, indicating a return to neutral in Autumn 2024.
- El Niño events typically effect winter- spring rainfall in eastern parts of Australia.





Indian Ocean Dipole (IOD) Outlook

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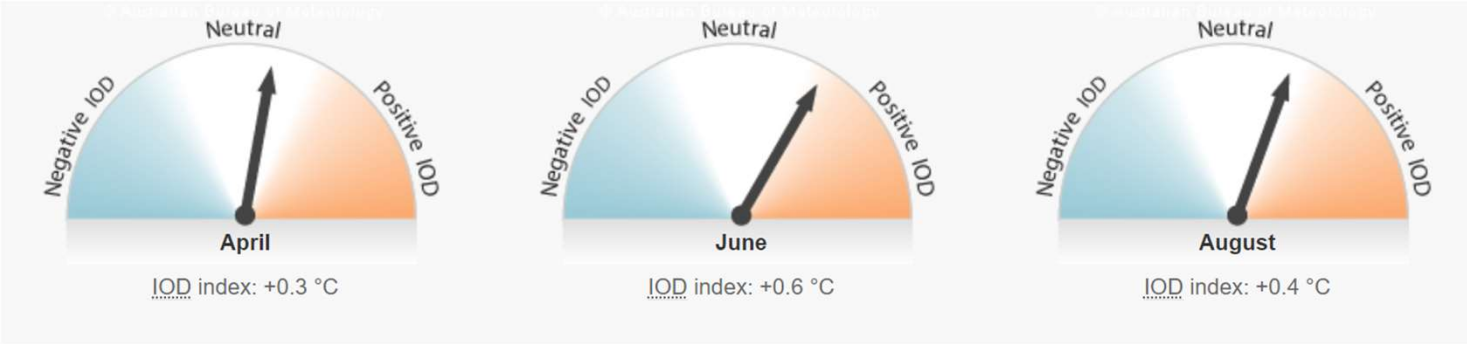
- Indian Ocean Dipole (IOD) is currently neutral and unlikely to form between December to April.



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.

Climate Forecast

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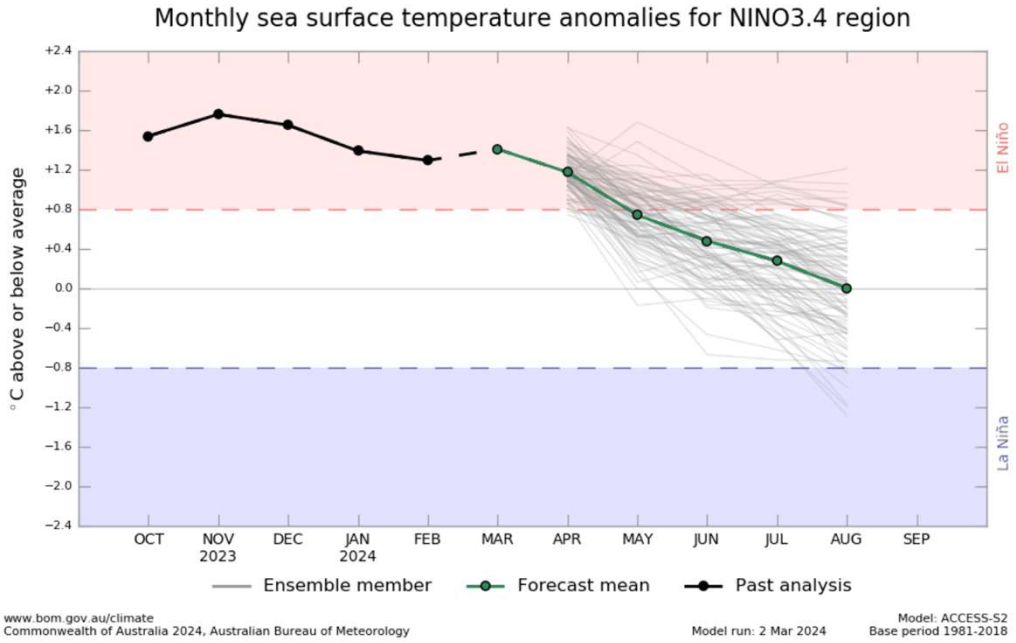
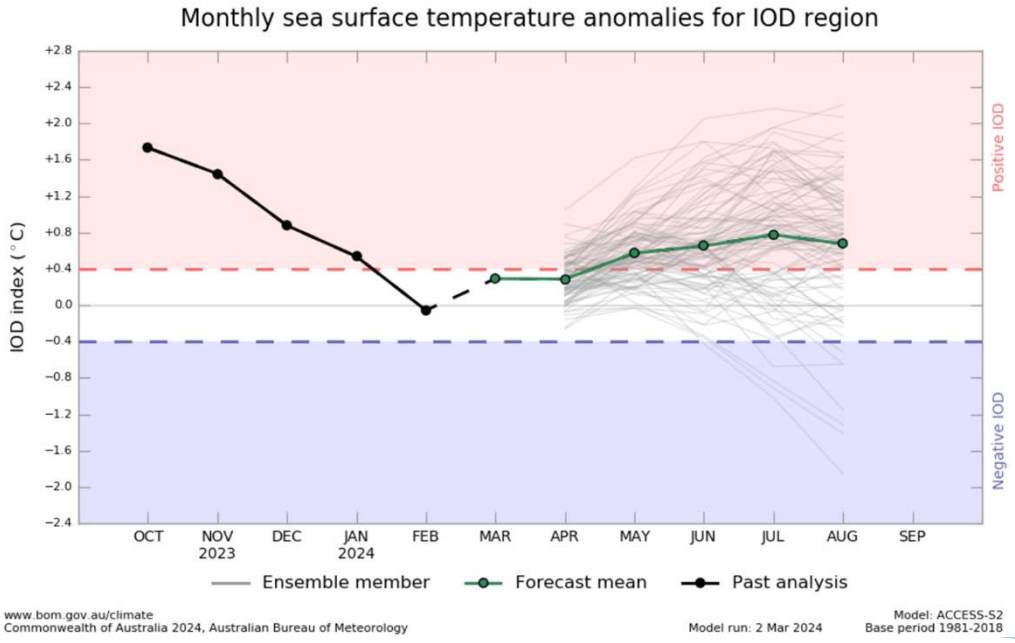
ENSO



IOD

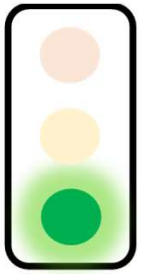


Water Security Outlook for GWMWater

Scott Smith
Manager Water Resources (Acting)

All Systems

Status: General Monitoring



- Large volumes available from the Grampians system.
- Full 2023/24 allocation received in Goulburn and Murray Systems, allocation to LRWS has commenced, meaning 2024/25 HRWS also at 100%.
- Eastern Grampians urban system currently drawing down. Increased monitoring due to Mt Cole fire.
- No groundwater resource issues foreseen.

Figure 11: Comparison of estimated water availability and projected urban and rural pipeline demand to 2070 for Grampians supplied systems (no supply to large commercial users)

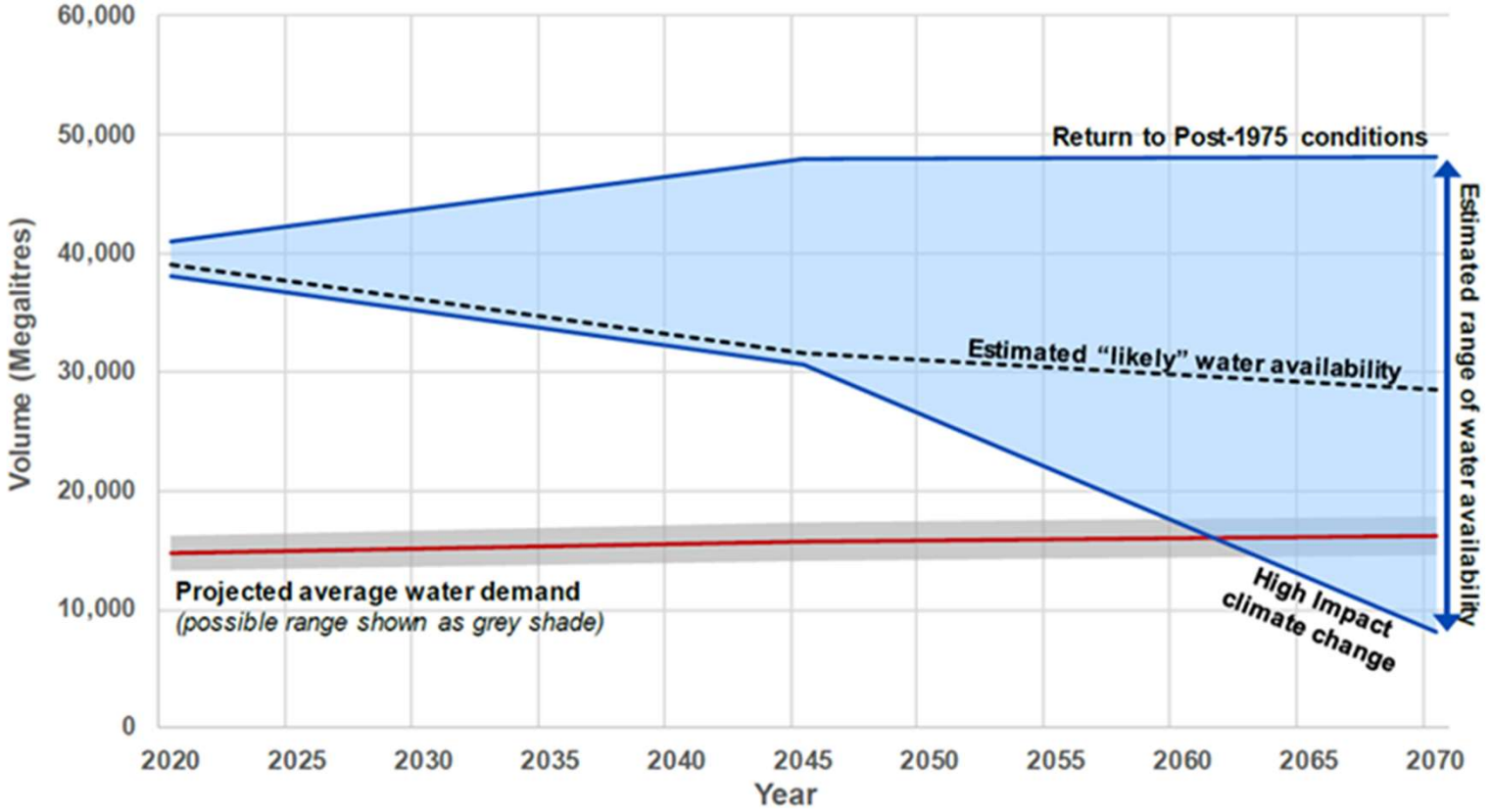
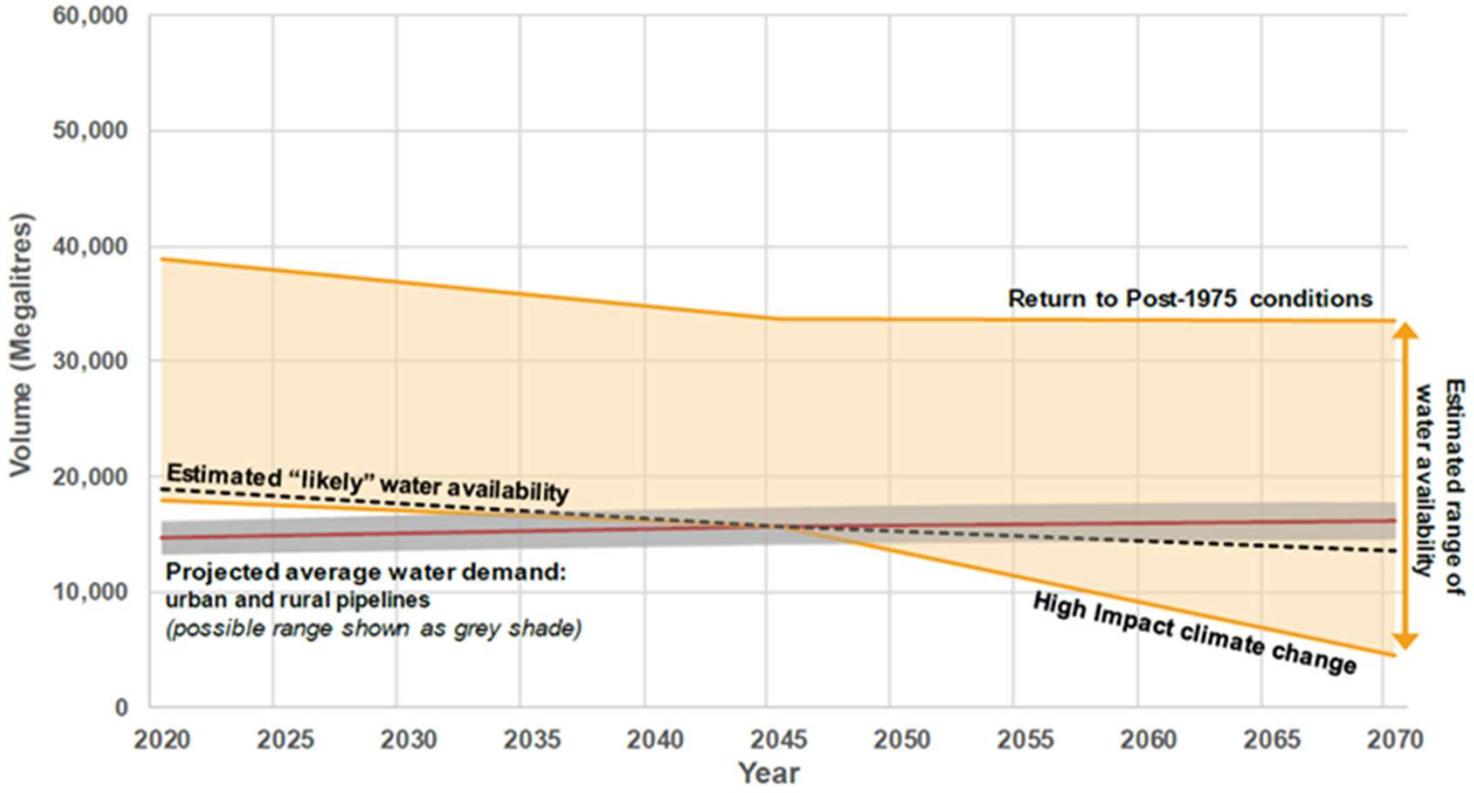


Figure 12: Comparison of estimated water availability and projected urban and rural pipeline demand to 2070 for Grampians supplied systems under full supply to large commercial users and sale of all Growth Water



Options being Investigated

Project Feasibility Study:

- Augmentation (identify new sources of water)
- System efficiency upgrades (piping open channels)
- Cross connection with external systems (Murray / Goulburn)