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MARSDEN JACOB ASSOCIATES

Talks Live

Navigating Australian water markets

4 July 2024

Talks Live

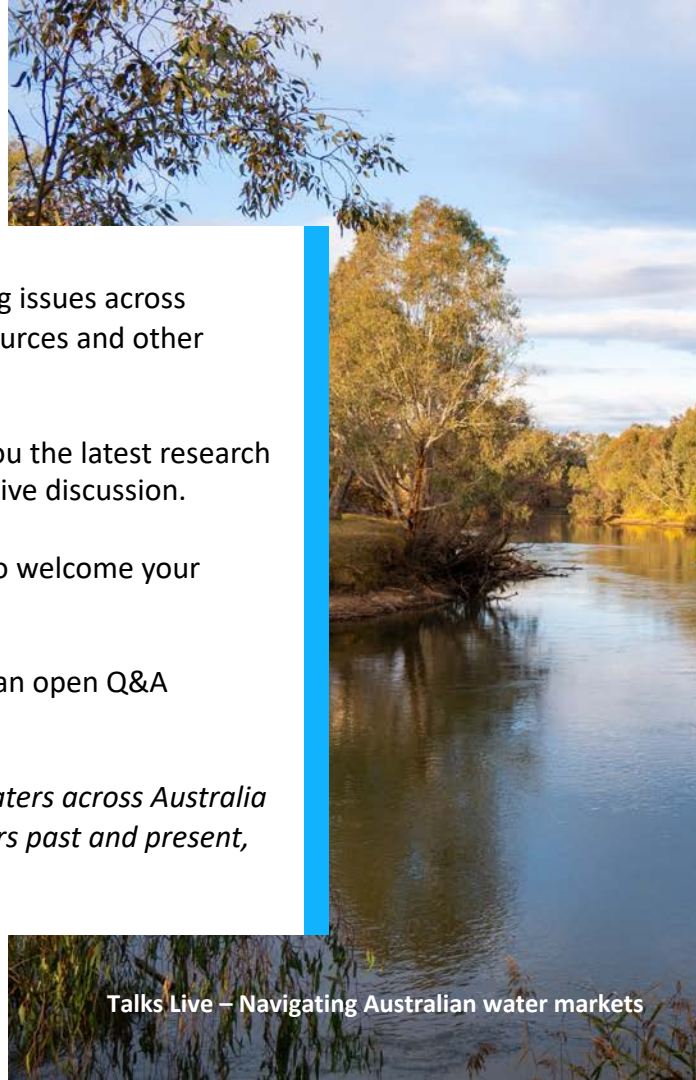
The **Marsden Jacob Talks Live** webinar series brings people together to discuss pressing issues across environment, energy, water, circular economy and recycling, agriculture and earth resources and other sectors in Australia and internationally.

These free webinars are open to everyone. We aim to share best practices and bring you the latest research and thinking. Our focus in these events is on encouraging open, positive and collaborative discussion.

We encourage you to share your questions, opinions, experience and interests. We also welcome your thoughts on future topics for our webinar series.

Each live event includes a presentation hosted by Marsden Jacob experts, followed by an open Q&A session.

Marsden Jacob Associates acknowledge the Traditional Custodians of the lands and waters across Australia where we conduct our business. We also pay our respects to their Ancestors and Elders past and present, and emerging.



Who are we?



Simo Tervonen

Principal

MSc (Economics), MSc (Industrial Management)

- Widely recognised as a leading expert in Australian water markets and water trading rules, with nationwide expertise in all facets of water markets, policy and trade protocols.
- Worked in key policy and market operations roles at one of Australia's leading water brokerage firms.
- Longstanding and trusted networks across industry participants, governments and water authorities.



Erika van 't Veld

Senior Consultant

BSc (Economics, Hons), BSc (Energy & Environmental Policy)

- Extensive experience in market analysis and economics across both water and energy sectors, with a strong focus on the Australian water sector.
- Developed and executed water trading strategies for water supply schemes across Queensland.
- Advises on long-term investment strategies, business cases, and demand assessments for asset-intensive water service providers.



Why this topic? And why now?

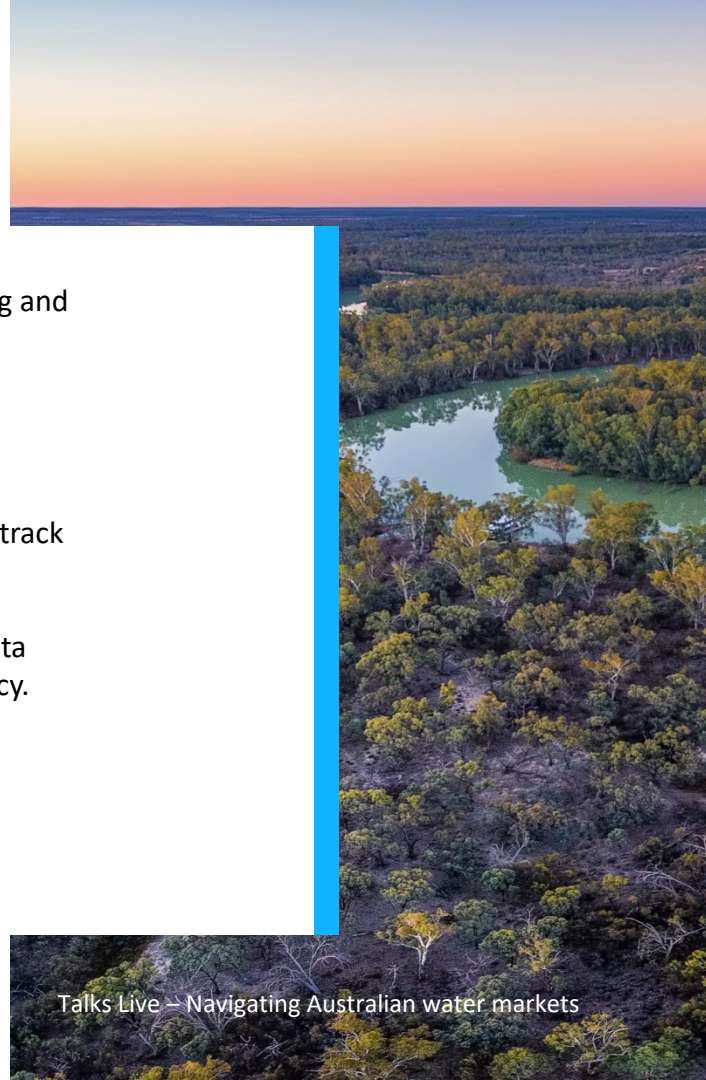
Australia has a dynamic and sophisticated water market. When it comes to water trading and management, making data-driven decisions is becoming increasingly important.

The new water year began on 1 July, making this the ideal time to:

- Reflect on the previous water year.
- Look forward to the new 2024/25 water year.
- Demonstrate Waterflow™ and explore how you can use the platform to manage and track water market data.

Marsden Jacob uses Waterflow™ to analyse water markets, which consolidates trade data from brokerage platforms across Australia to promote market transparency and efficiency.

*This webinar is not a water markets 101. For a refresher on water market fundamentals, see our **Simplifying Water Markets Talks Live** webinar, hosted by Rod Carr and Stuart Maclachlan (scan QR code).*





Part 1

Looking back: reflecting on the water year that was

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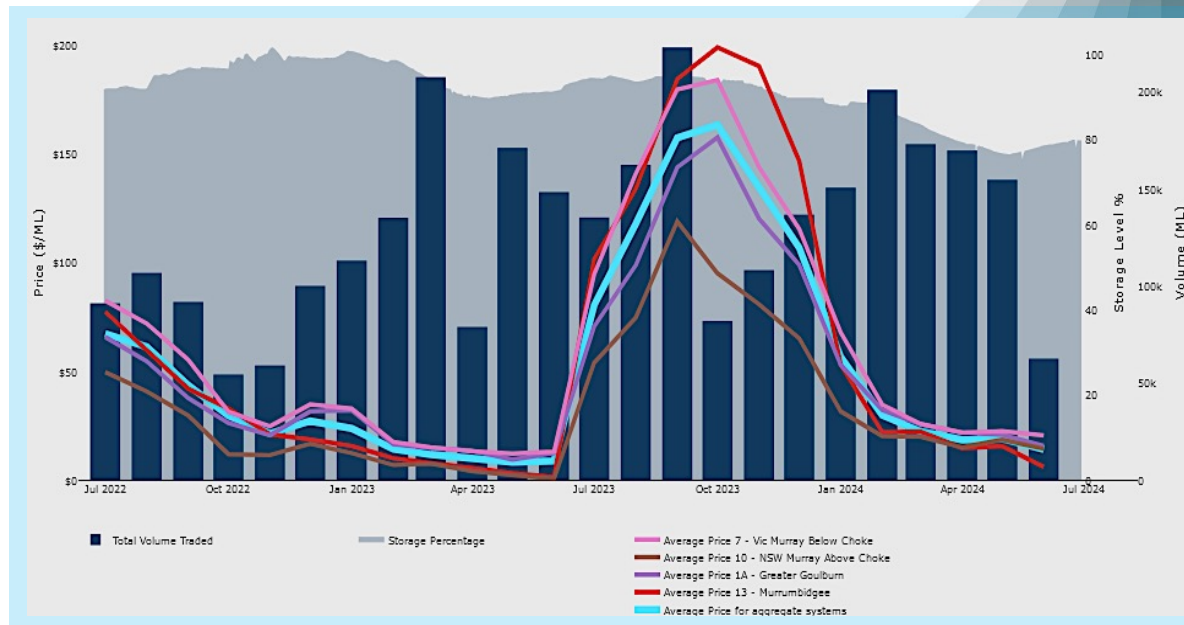
Talks Live – Navigating Australian water markets

2023/24 water year – SMDB allocation market

The key drivers of the SMDB allocation market were water availability and demand, trade restrictions, and sentiment.

- The BoM declared an El Niño on 19 September 2023.
- Monthly average temporary water prices neared \$200/ML (individual trades \$250/ML) in Q1 due to strong demand, below-average rainfall and above-average temperatures.

2023/24 and 2022/23 total storage levels, monthly volumes traded, and average prices per zone



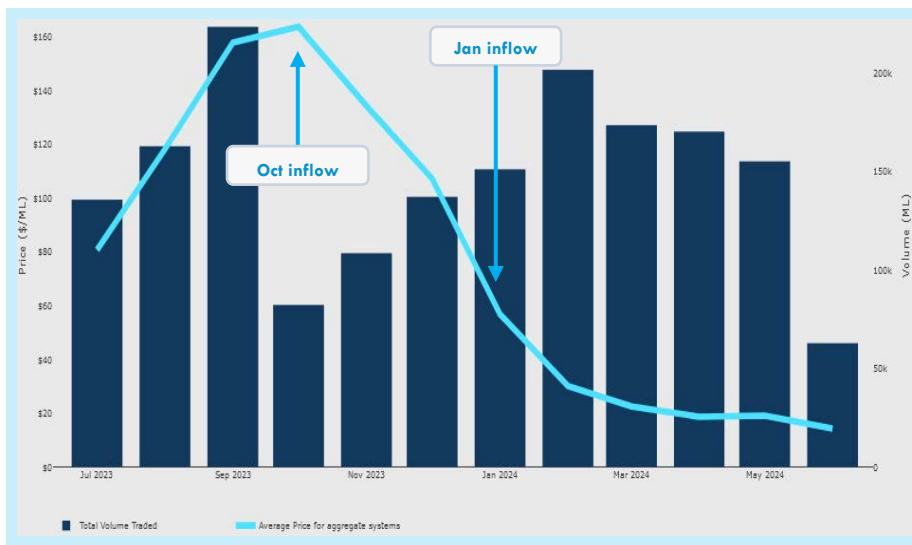
Source: Waterflow™ by Marsden Jacob Associates

2023/24 water year – SMDB allocation market

Significant rainfall events from early October onwards decreased water demand and prices considerably.

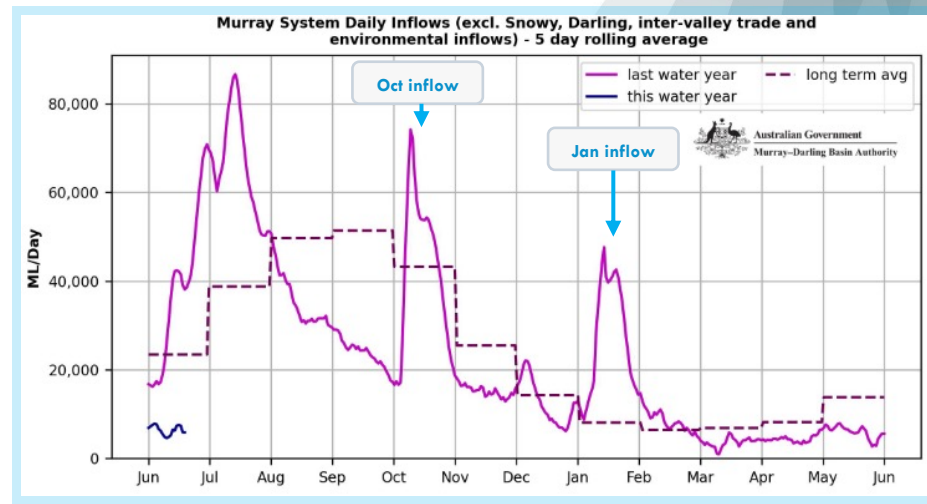
Since January 2024, prices softened rapidly and remained low until the season end.

2023/24 monthly volumes traded and average prices in aggregate



Source: Waterflow™ by Marsden Jacob Associates

Murray System inflows, June 2023 to June 2024 vs long term average

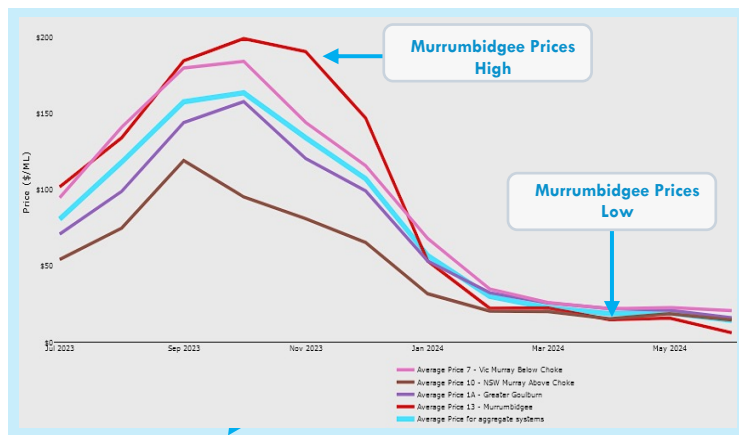


Source: MDBA

2023/24 water year – SMDB allocation market

Trade limits segregated markets and resulted in price differences between zones.

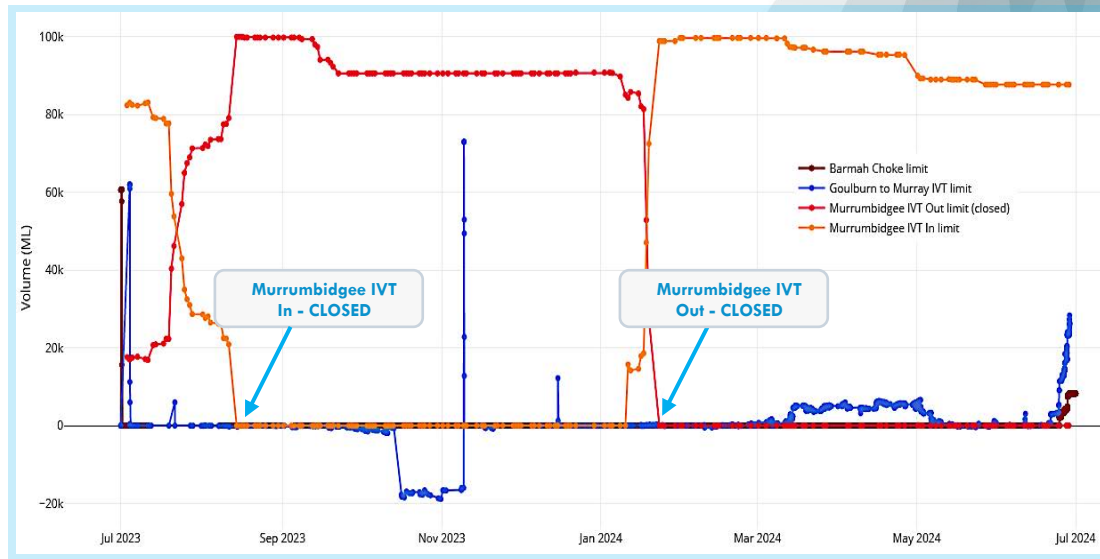
2023/24 average monthly prices per zone and in aggregate



Source: Waterflow™ by Marsden Jacob Associates

- Barmah Choke limit was effectively at capacity the whole year.
- Goulburn to Murray restriction applied for most of the year.
- Murrumbidgee IVT trade was open and closed in both directions.

Trade limit balances for the primary SMDB limits 2023/24

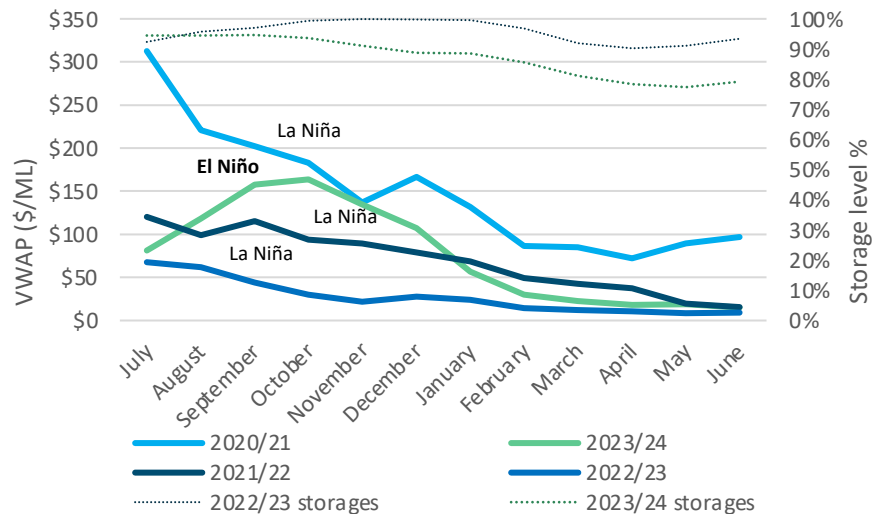


Source: Waterflow™ by Marsden Jacob Associates

2023/24 water year – SMDB allocation market

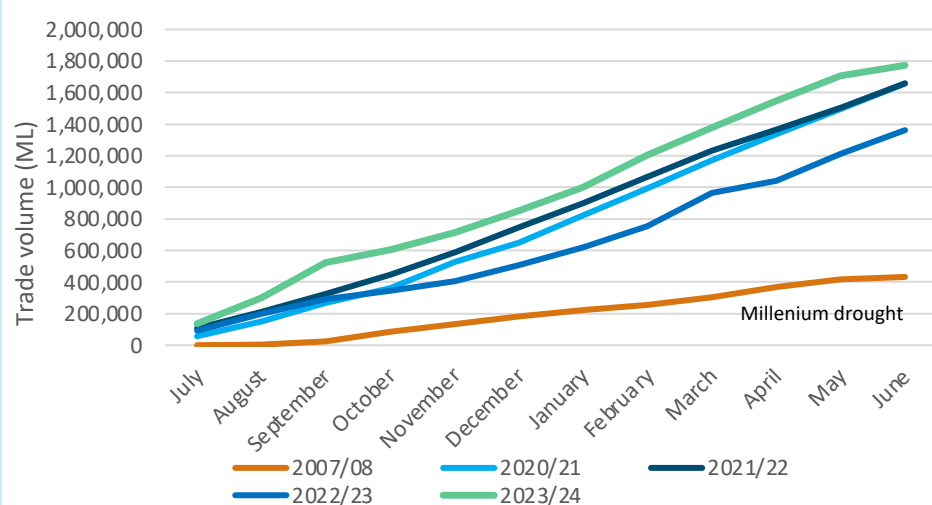
- Q1 of the previous water year started off following an El Niño price pattern.

SMDB monthly allocation prices



- Cumulative trade volumes in 2023/24 were an all-time high by a clear margin.

SMDB cumulative allocation trade volumes



Source: Marsden Jacob Associates

2023/24 water year – SMDB entitlement market

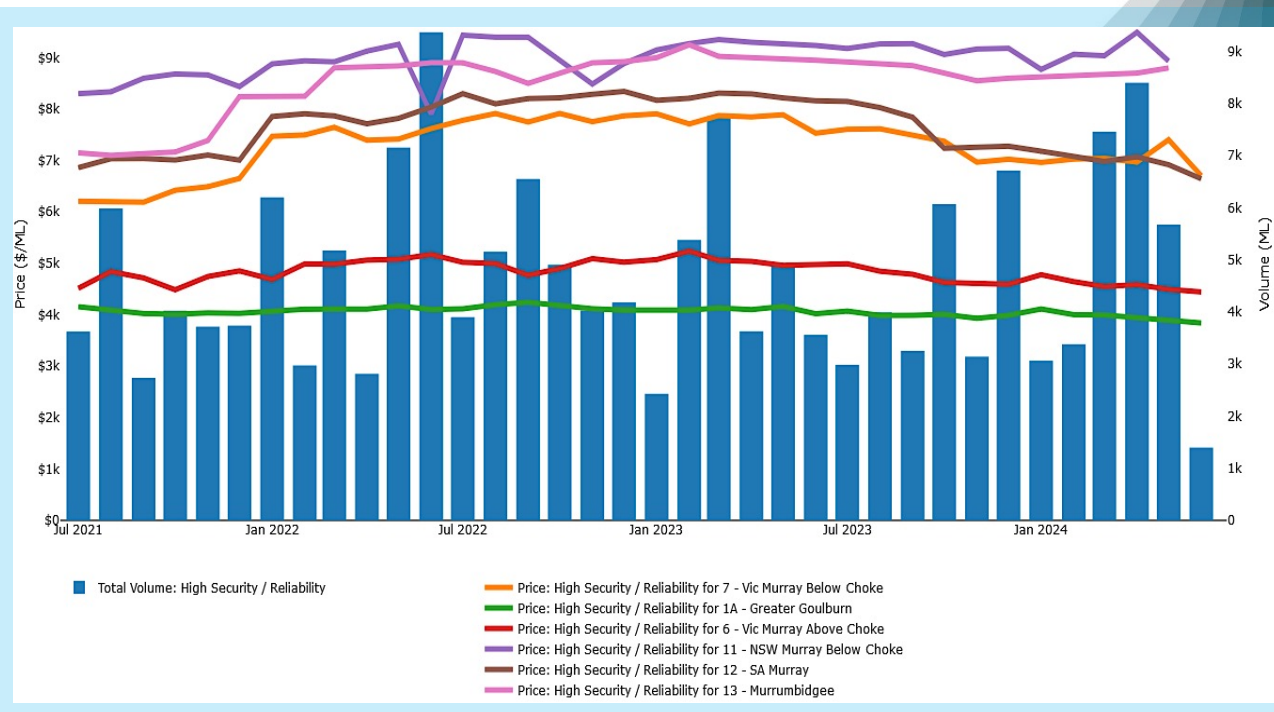
NSW Murray Below Choke
Murrumbidgee

SA Murray
VIC Murray Below Choke

VIC Murray Above Choke
Greater Goulburn

The SMDB entitlement market is driven by longer-term resource availability, commodity markets and agricultural trends.

- Many of the SMDB HS and HR entitlement experienced softening prices in 2023/24.
- Trade volumes were the 2nd lowest since 2007.



Source: Waterflow™ by Marsden Jacob Associates

2023/24 water year – SMDB entitlement market

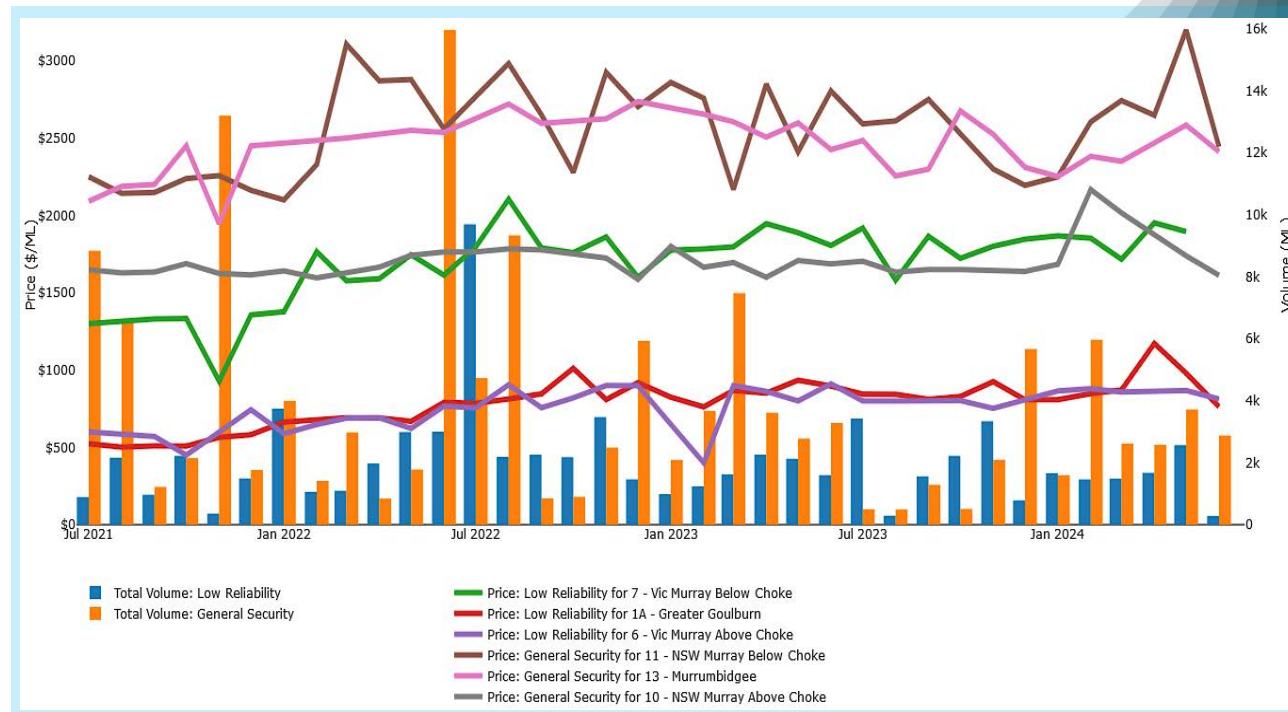
NSW Murray Below Choke
Murrumbidgee

NSW Murray Above Choke
VIC Murray Below Choke

VIC Murray Above Choke
Greater Goulburn

The SMDB GS market recorded the lowest annual trade volumes since 2008.

- Murrumbidgee GS market activity increased during the second half of the year.



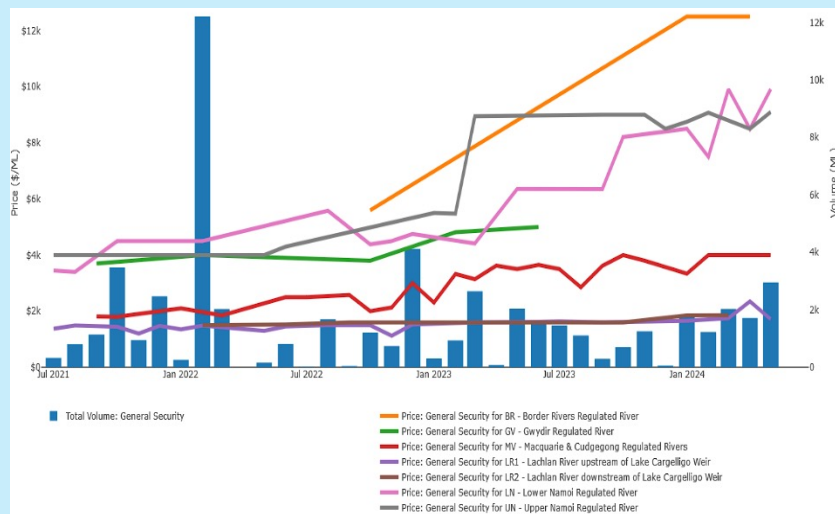
Source: Waterflow™ by Marsden Jacob Associates

2023/24 water year – Northern MDB markets

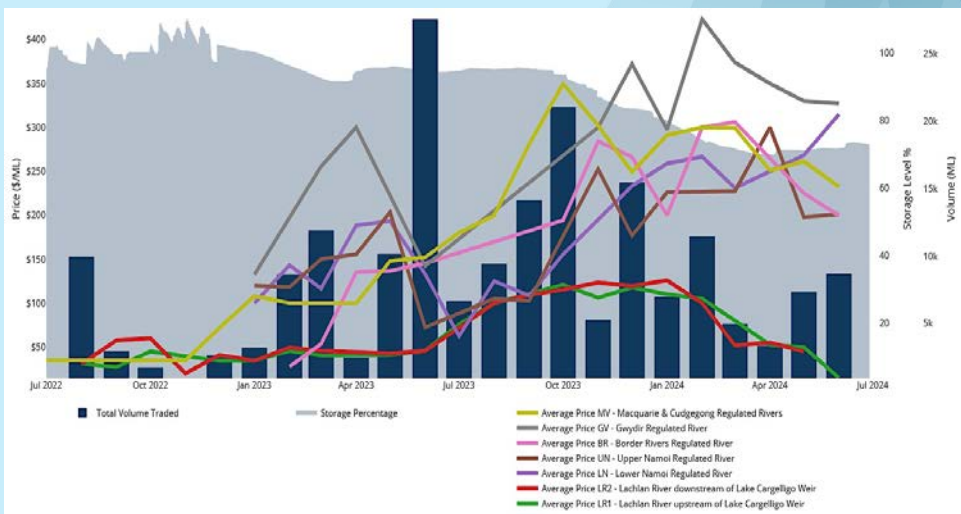
In the Northern NSW GS market, prices in all catchments have increased in recent years.

- In the Namoi and Border Rivers catchments this increase has been very strong.
- The Northern NSW allocation market prices in 2023/24 were stronger than in the year before due to increased demand. Resource availability has changed more than in the SMDB, but overall storage levels are still healthy compared to drought years.

NMDB GS monthly volumes traded and average prices per zone



NMDB total storage levels, allocation volumes traded, and average prices per zone

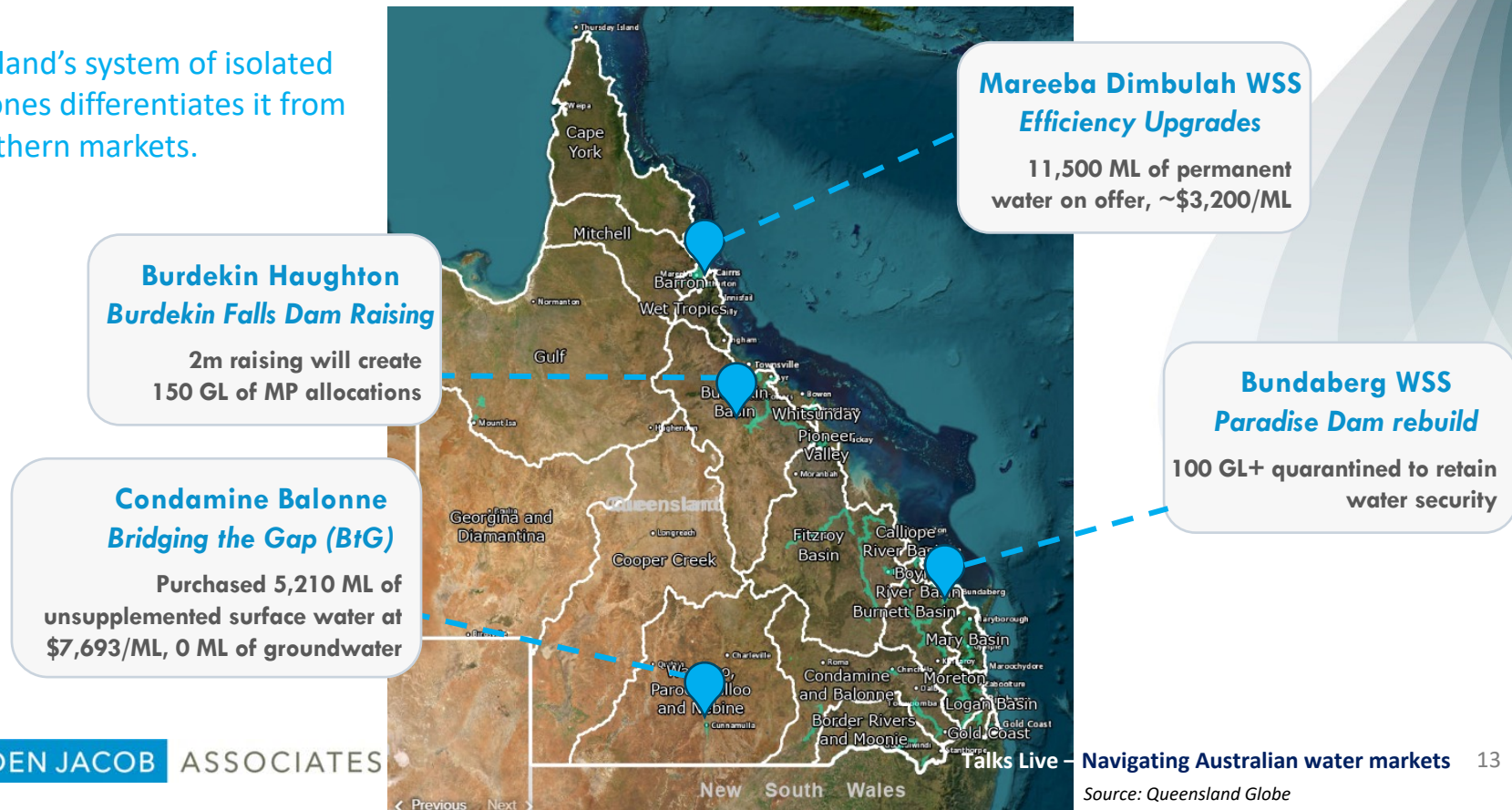


Source: Waterflow™ by Marsden Jacob Associates

2023/24 water year – key events in Queensland

Queensland's system of isolated trade zones differentiates it from the southern markets.

Map of Queensland, water plan areas, and water supply schemes (WSS)





Part 2

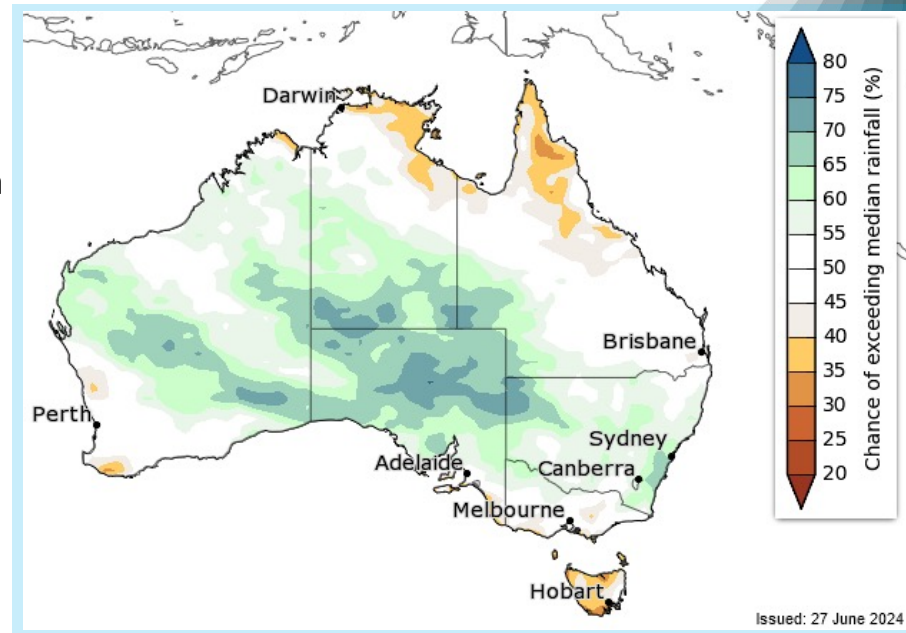
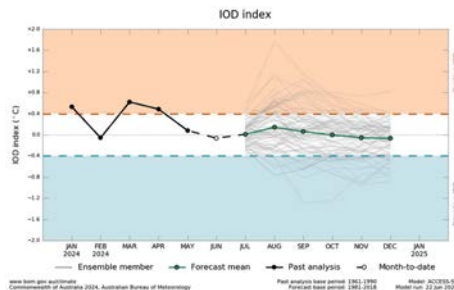
Looking forward: water market outlook

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2024/25 water year – climate outlook

- Current storage levels – especially in the SMDB – are still very healthy.
- The BoM's ENSO outlook is at La Niña 'Watch', meaning about an equal chance of either ENSO neutral or a La Niña developing. La Niña typically results in increased rainfall for northern and eastern Australia including the MDB.
- Indian Ocean Dipole (IOD) is currently neutral.
- The 3-month rainfall outlook (Jul-Sep) is indicating typical conditions for the majority of the MDB, but some areas may receive below average rainfall in July-August.



Source: BoM

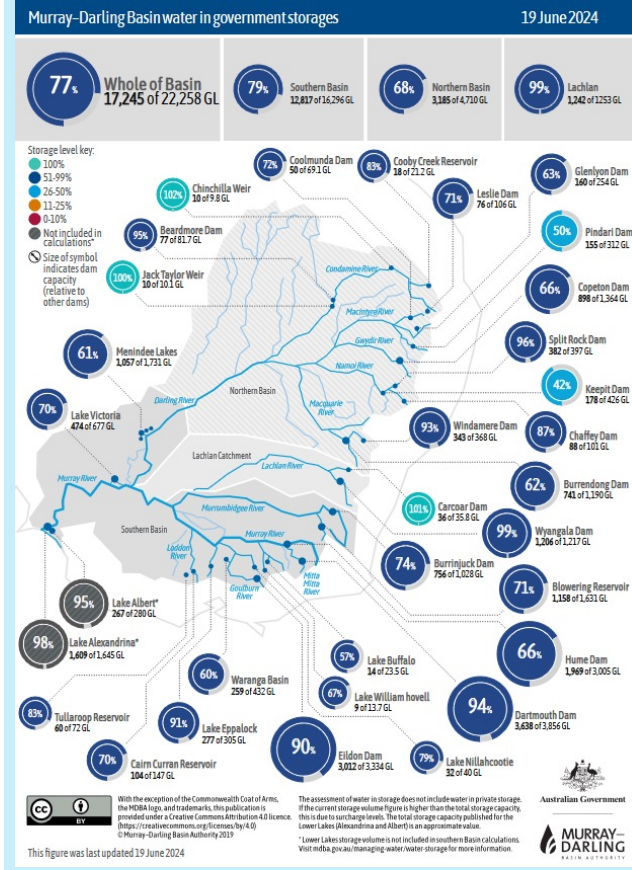
2024/25 water year – water availability

Opening allocations across the MDB

Entitlement →	LR/GS		HR/HS	
Catchment ↓	1-Jul-24	1-Jul-23	1-Jul-24	1-Jul-23
Vic Goulburn	0%	0%	69%	100%
Vic Murray	0%	0%	63%	80%
NSW Murray	35%	55%	97%	97%
NSW Murrumbidgee	28%	37%	95%	95%
SA Murray	n.a.	n.a.	100%	100%

Entitlement →	GS/GS-A		GS Carryover		HS	
Catchment ↓	1-Jul-24	1-Jul-23	1-Jul-24	1-Jul-23	1-Jul-24	1-Jul-23
Lachlan	0%	0%	107%	121%	100%	100%
Macquarie	0%	0%	84%	82%	100%	100%
Upper Namoi	100%	100%	n.a.	n.a.	100%	100%
Lower Namoi	0%	0%	123%	195%	100%	100%
Gwydir	0%	0%	91%	142%	100%	100%
NSW Border Rivers	10%	6%	13%	8%	100%	100%

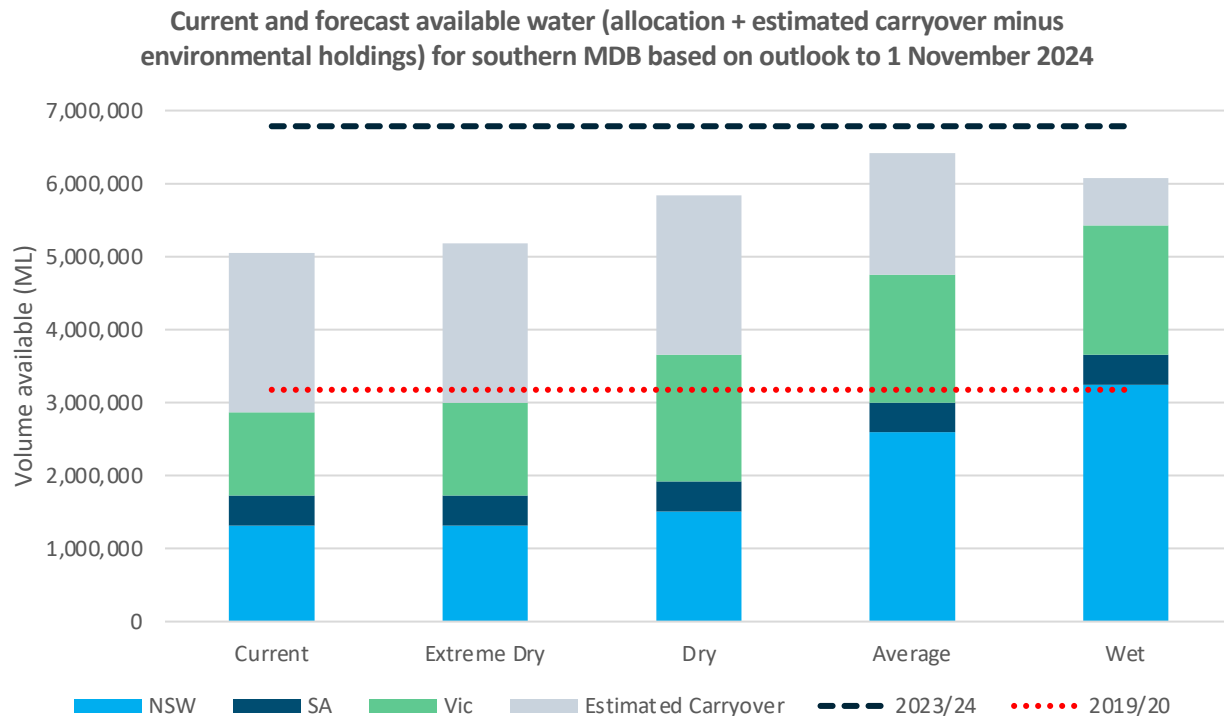
Source: VIC, SA and NSW Governments



Source: MDBA

2024/25 water year – SMDB water availability

- The big picture availability in the SMDB is unlikely to change materially this year.
- Compared to most recent very dry years, there is plenty of water allocated.
 - Current, 'Extreme Dry', 'Dry' and 'Average' scenarios include water that is on VIC spillable accounts.
 - 'Average' and 'Wet' scenarios assume some carryover water in VIC and NSW will be lost due to spills and accounting rules.
 - Assumes no VIC LR allocations to be announced by 1 Nov 2024 except in the Campaspe under a 'Wet' scenario.



Source: Marsden Jacob Associates, State Governments

2024/25 water year – SMDB allocation prices

- Initial trade prices at \$65-150/ML; not a whole lot of activity yet.
- Multiple trade limits impacting the market.

Trade Limit	Status	Balance
Barmah Choke	CLOSED	0 ML
Goulburn to Murray IVT	CLOSED	0 ML
Murrumbidgee IVT Out	CLOSED	1,300 ML
Murrumbidgee IVT In	OPEN	98,700 ML
NSW to VIC spill-risk limit	OPEN	272 ML

Source: Waterflow™ by Marsden Jacob Associates

1A GREATER GOULBURN

Last traded 4th Jul

[^ Hide last 5 Trades](#)

Date	Price / ML	Volume
4th Jul 2024	\$100	20 ML
28th Jun 2024	\$20	50 ML
28th Jun 2024	\$30	26 ML
28th Jun 2024	\$30	60 ML
28th Jun 2024	\$30	40 ML

11 NSW MURRAY BELOW CHOKE

Last traded 3rd Jul

[^ Hide last 5 Trades](#)

Date	Price / ML	Volume
3rd Jul 2024	\$140	250 ML
3rd Jul 2024	\$130	6 ML
1st Jul 2024	\$126	220 ML
26th Jun 2024	\$18	40 ML
26th Jun 2024	\$18	128 ML

7 VIC MURRAY BELOW CHOKE

Last traded 4th Jul

[^ Hide last 5 Trades](#)

Date	Price / ML	Volume
4th Jul 2024	\$150	10 ML
4th Jul 2024	\$150	2 ML
4th Jul 2024	\$150	1 ML
4th Jul 2024	\$150	20 ML
3rd Jul 2024	\$143	100 ML

13 MY ZONE MURRUMBIDGEE

Last traded 2nd Jul

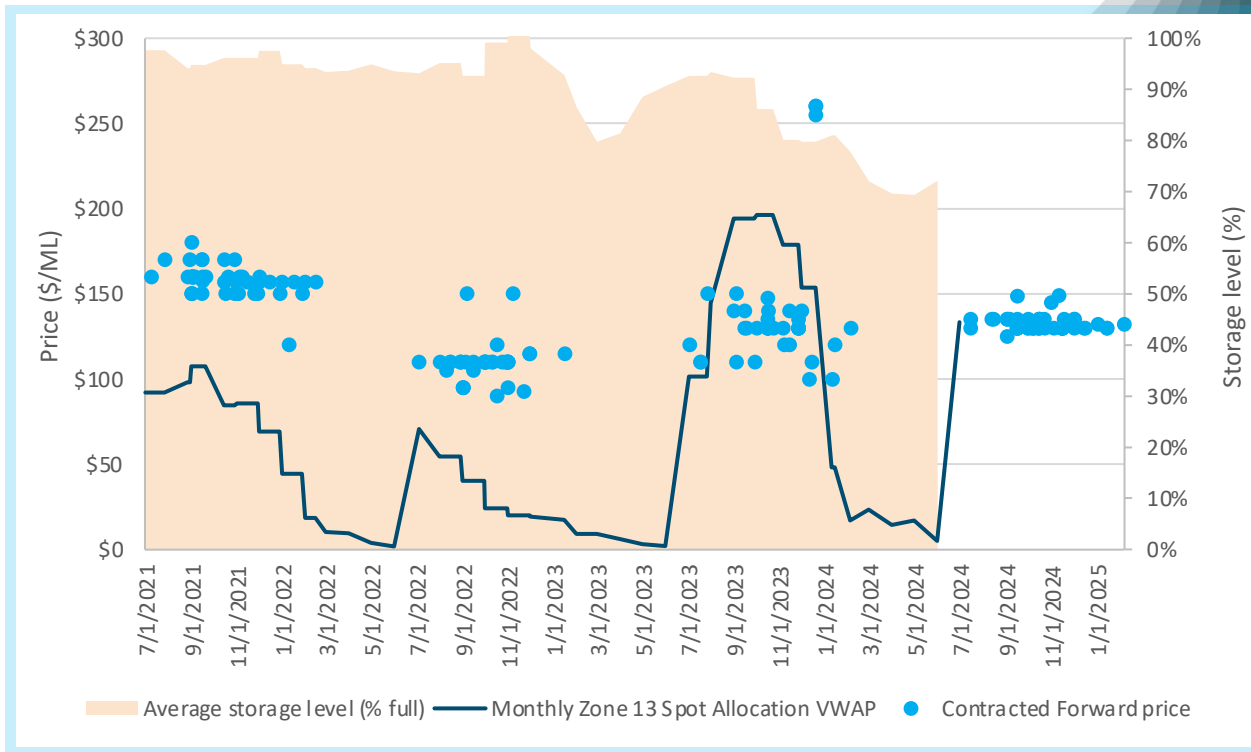
[^ Hide last 5 Trades](#)

Date	Price / ML	Volume
2nd Jul 2024	\$135	48 ML
2nd Jul 2024	\$135	70 ML
2nd Jul 2024	\$130	50 ML
26th Jun 2024	\$5	332 ML
26th Jun 2024	\$5	64 ML

Source: Waterflow™ by Marsden Jacob Associates

2024/25 water year – SMDB allocation prices

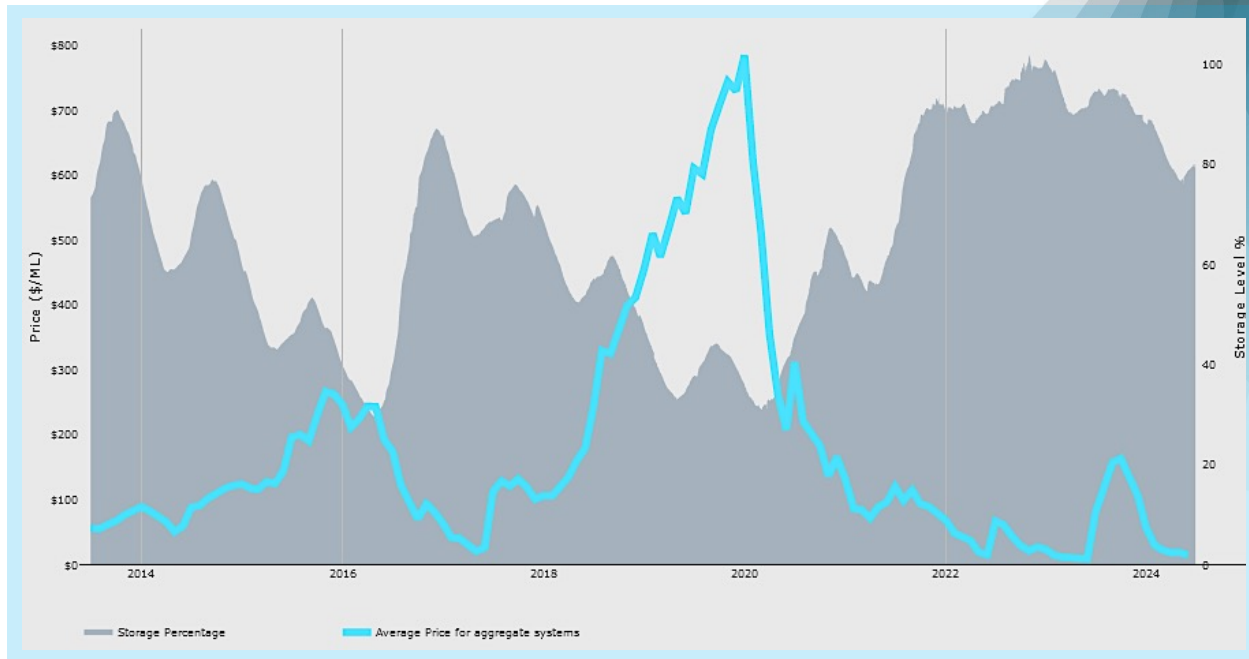
- The early days of the spot allocation market in the new year tend to be heavily influenced by the forward water market:
 - Example: Murrumbidgee forward market vs. spot allocation prices.
- After that, the usual drivers shape the market – availability, demand, trade restrictions and sentiment.
- Navigating through all of this requires up-to-date data and information to make good decisions.



Source: Waterflow™ by Marsden Jacob Associates

2024/25 water year – SMDB allocation prices

- Water markets are sensitive to many supply and demand drivers.
- Overall resource availability is good – this indicates that allocation prices should not reach the drought year levels in 2024/25.
- Price differences between catchments will emerge because of trade restrictions.
- In a dynamic market, changes can occur quickly, thus market transparency is pivotal.
- Technology and information resources can help to understand and reduce risk when interacting with the water market.



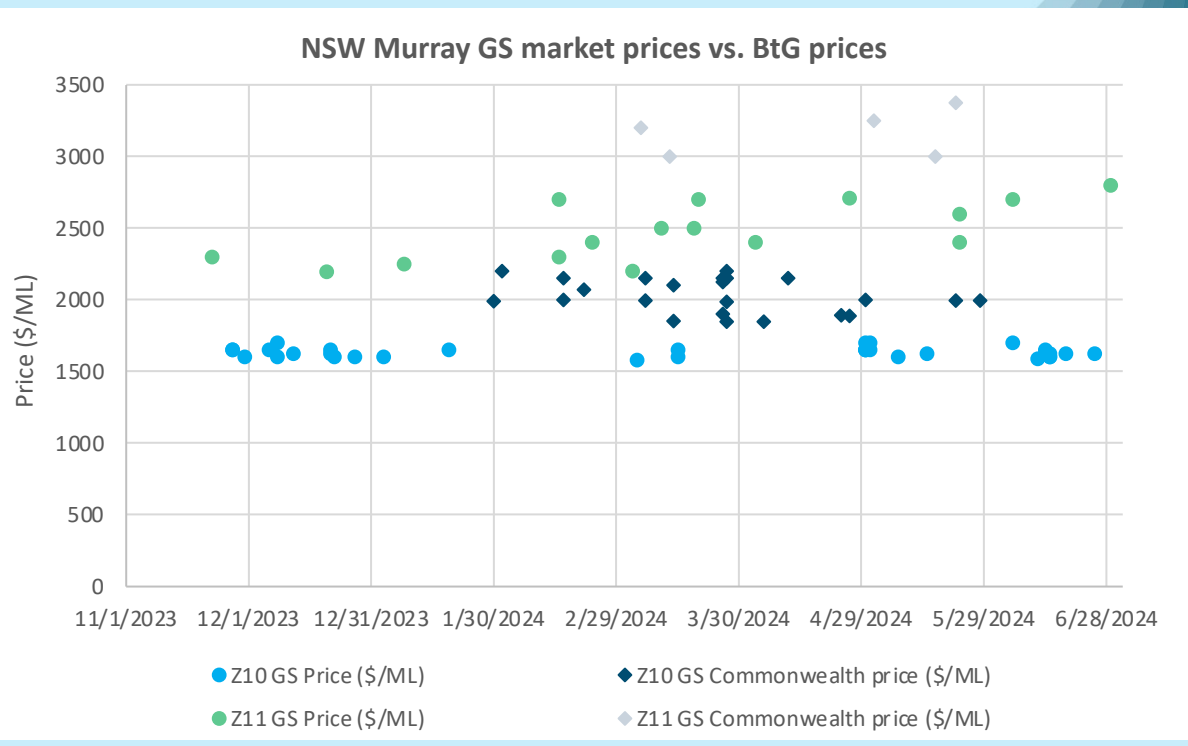
Source: Waterflow™ by Marsden Jacob Associates

2024/25 water year – SMDB entitlement market

- All eyes are on the Commonwealth buybacks – when, where, how, and how much?
- Example: NSW Murray GS market

Entitlement	Total VWAP	VWAP ex. BtG
10 Murray GS	\$1,906	\$1,629
11 Murray GS	\$2,778	\$2,578

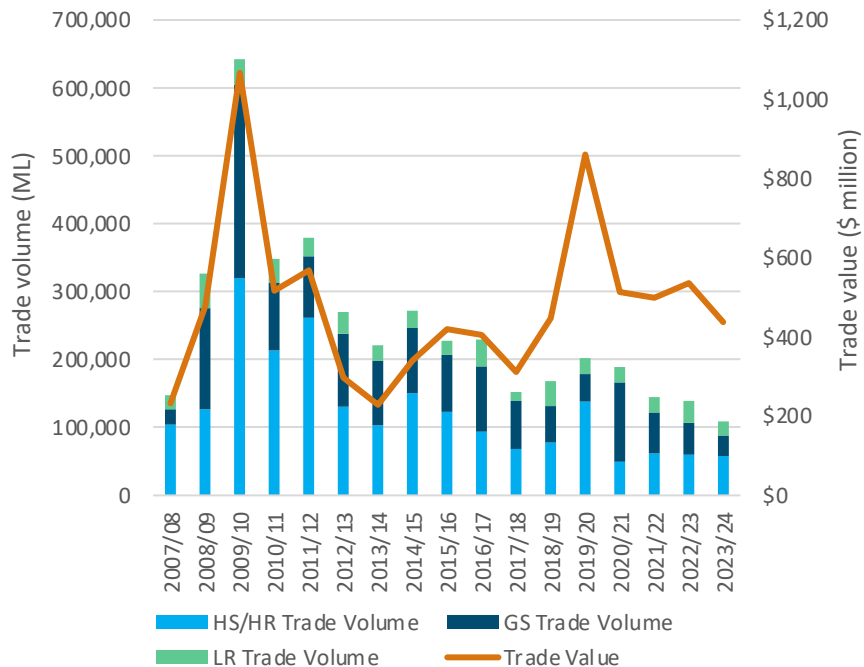
- The rest of the market has not taken the BtG prices as the new market price benchmark for these entitlements.
- BtG was a one-off tender; if the subsequent tenders are running for a more extended period, then the market behaviour might be different.
- *Note:* time lags apply in the register data.



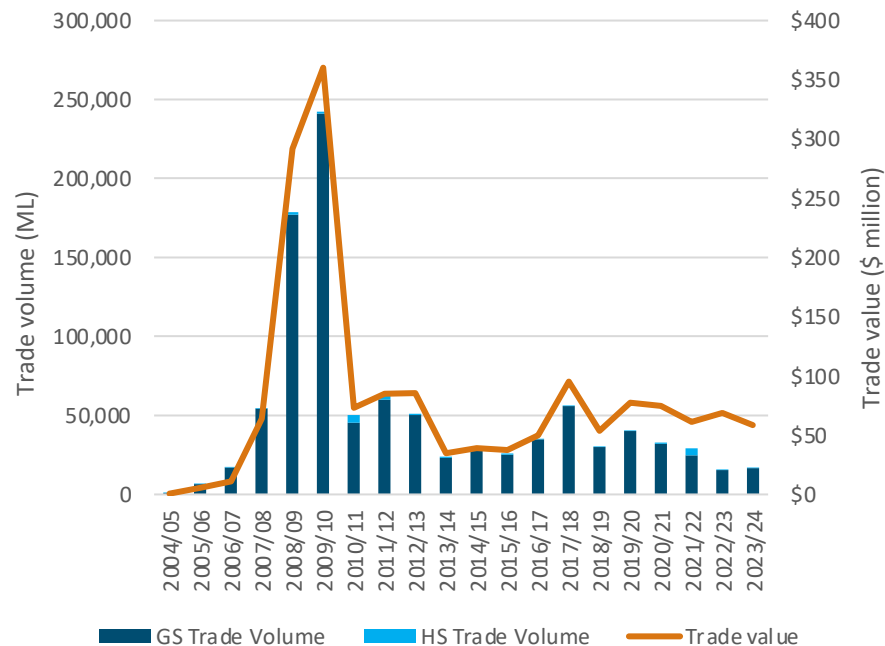
Source: Marsden Jacob Associates, NSW Water Register, MIL, AusTender

2024/25 water year – MDB entitlement market

SMDB annual entitlement trade volumes and value



Northern NSW annual entitlement trade volumes and value



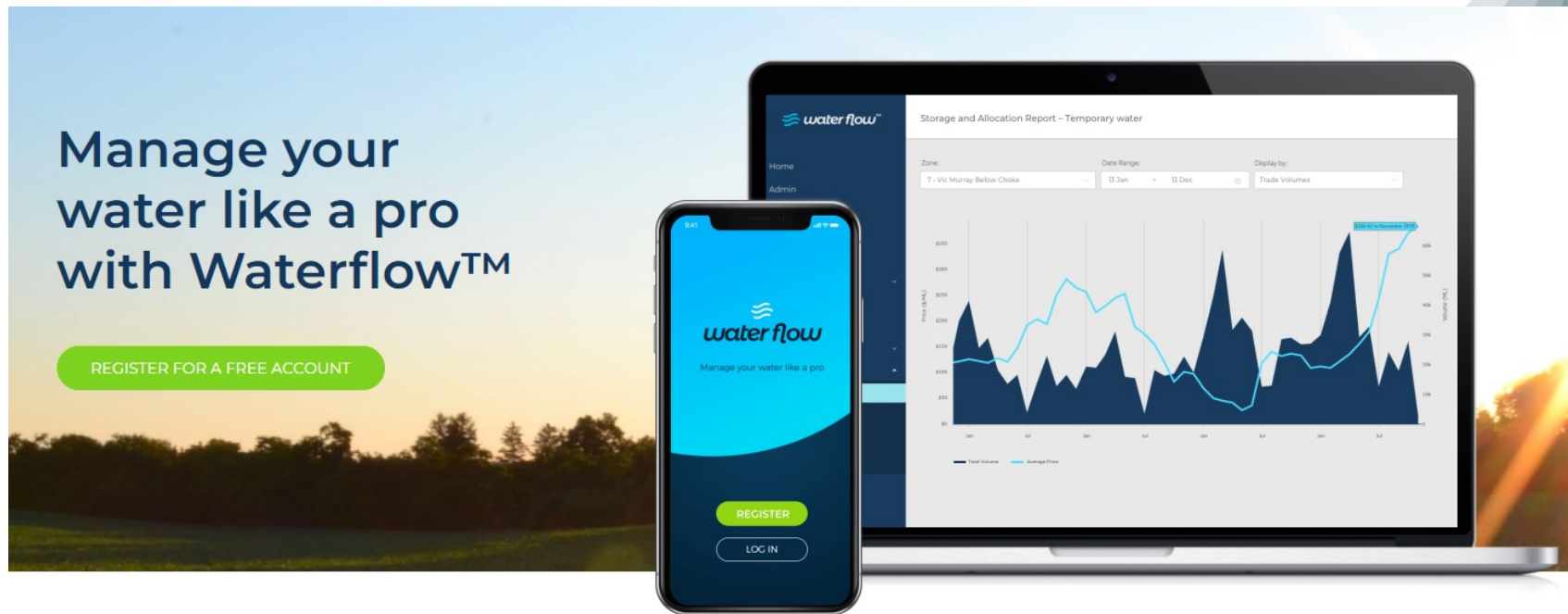
Source: Marsden Jacob Associates



Part 3

Waterflow™ demo – the tool you need to navigate water markets

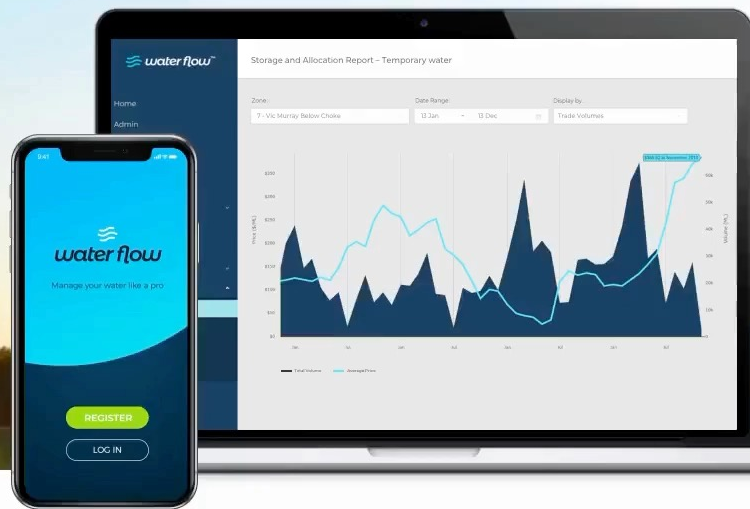
Waterflow™ overview





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Professional water market information at your fingertips. For free.

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Zone 11: NSW Murray Below Choke
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Some parting insights

Looking back:

1. The key drivers of the SMDB allocation market were water availability and demand, trade restrictions, and sentiment. 2023/24 recorded a new all-time high in annual trade volumes.
2. Despite the El Niño declaration, rainfall events decreased water prices considerably.
3. The SMDB entitlement market is driven by longer-term resource availability, commodity markets and agricultural trends.
4. In the Northern NSW GS market, prices in all catchments have gradually increased in recent years.

Looking forward:

1. Current storage levels – especially in the SMDB – are still very healthy.
2. The BoM's ENSO outlook and other climate drivers are indicating neutral conditions.
3. Overall resource availability is good – this indicates that allocation prices should not reach the drought year levels in 2024/25.
4. Navigating through water markets requires up-to-date data and information to make good decisions.



Q&A Time



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The team

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