

Webinar: Emerging water market products

What products are available for me to manage water market risks?

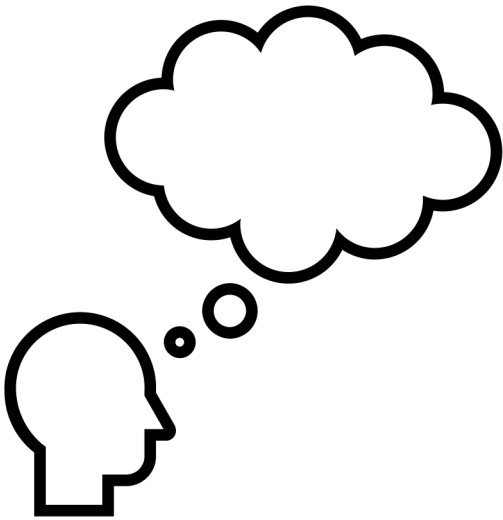
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What are the risks of water market products?

In order to manage a risk, it's essential to know what types of risk are associated with water market products. Risk components can be divided in four main groups:

1. **Allocation risk** – allocation yield not sufficient for watering requirements
2. **Rules-based deliverability risk** – trade rules and regulations impeding the delivery of water
3. **Rules-Based spill risk** – Account limits (NSW) or Spill events (VIC) reducing your carryover allocation.
4. **Price risk** – the costs of entering the temporary or permanent water market to meet your watering requirements.



What market products can support your planning?

Primary products – still a viable option

Temporary water

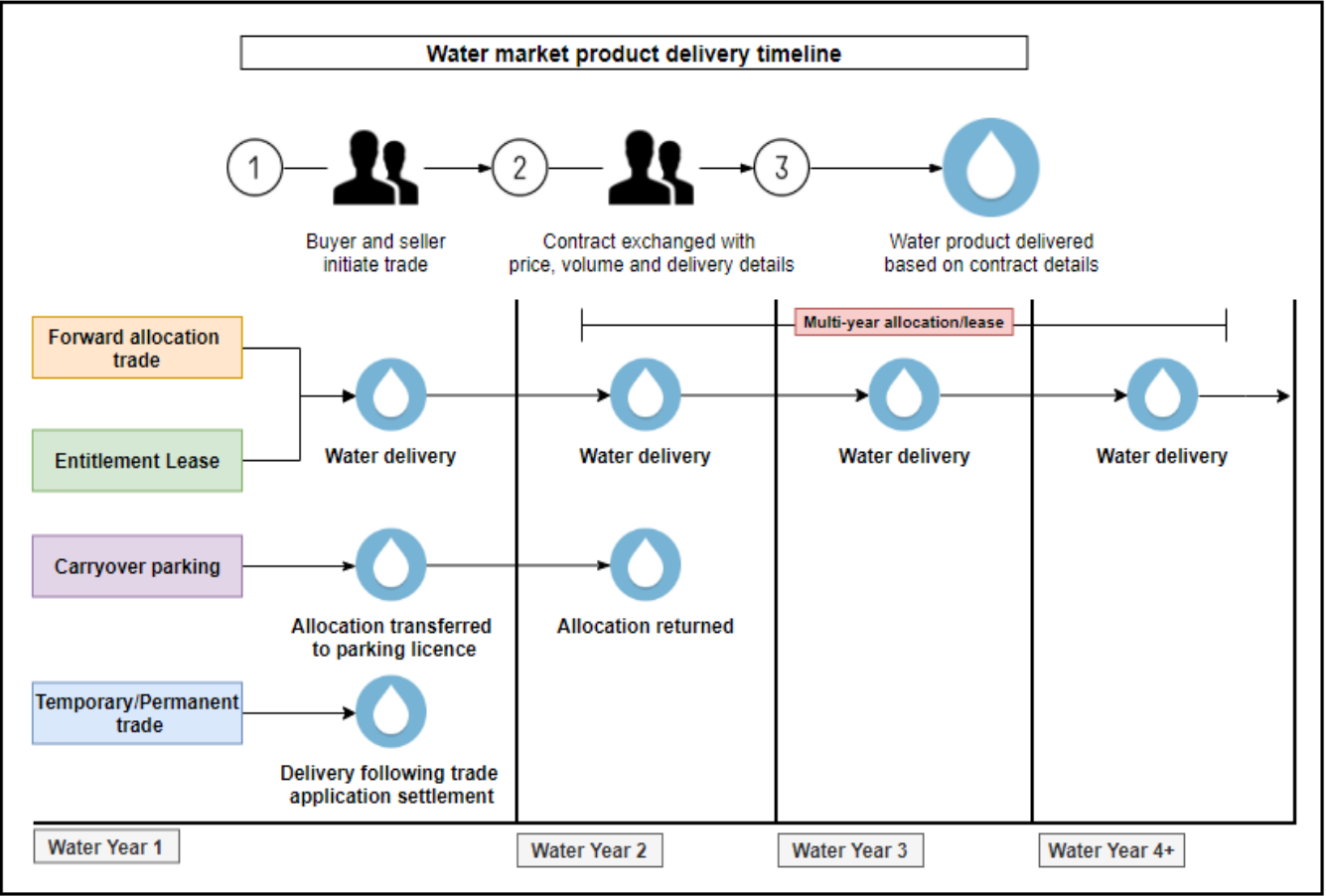
- typically always available on the market, BUT the price risk may be significant in years of low resource availability

Permanent entitlement

- prices have been at historical highs (across much of the sMDB), so would need capital to buy more AND there's still allocation risk in dry years (depending on the entitlement purchased)

Secondary products may be an attractive option to secure water and manage risk

| Product | Product Definition |
|--------------------------|---|
| Entitlement Lease | An Entitlement Holder (Lessor) transfers complete access to the Entitlement to a second party (Lessee) for a specified period of time - one or more water years. At the end of that period, the access to the Entitlement returns to the Lessor. |
| Forward Allocation Trade | Allocation water is traded with a future delivery date at an agreed price. The date of delivery may be in the current water year or over multiple water years. |
| Carryover Parking | Certain types of Entitlements can allow unused Allocation water to be 'carried over' from one water year to another. In a Carryover Parking contract a party with excess Allocation water (' Placer ') rents carryover space from an Entitlement Holder to carry water over. The 'parked' Allocation water is returned to the Placer in the following water year. |



What can secondary products do for me (as a buyer or seller)?

Forwards

- give Buyers certainty of the volume of water they will have available upon transfer and the price they will pay
- provide Buyers an efficient risk management tool against allocation risk
- allow Sellers to lock in their future returns.

Leases

- offer a long-term solution for both parties:
 - longer-term water security without capital expenses to the Lessee (albeit potentially comes with an allocation risk to the Lessee)
 - longer-term financial return for the Lessor.

Carryover Parking

- affordable product with clear and tangible benefits
 - allows for the protection of Placer's carryover water
 - generates returns on Holder's unused carryover space
- Spill risk bearer depends on the contract type.

Things to consider before using Secondary Products

- **Forward water** - A price premium compared to the current temporary water price.

| Zone | Spot Price | Forward Price |
|----------------|------------|------------------------------------|
| Vic Murray - 7 | \$250/ML | \$500, delivered July 2020 onwards |

- **Entitlement leases:** Lease terms are up from 3 years – what is the average temporary water price going to be over that time and what will the reliability be?

| Zone | Entitlement Type | Lease Price | Term | Spot VWAP over last 4 years |
|----------------|------------------|-------------|-----------------|-----------------------------|
| VIC Murray - 7 | High Reliability | \$350/ML | Up from 3 years | ~\$310/ML |

- **Carryover parking** - product is typically cheap but a If you don't have excess water, you need to buy it from the temporary market this year and you lose 5% on evaporation if you carry water over in Victoria

| Zone | Entitlement Type | Unit Price |
|----------------|------------------|------------|
| VIC Murray - 7 | Low Reliability | \$50-60/ML |

Further on Carryover Parking

Carryover characteristics vary across NSW and Victorian entitlements and these are important to understand

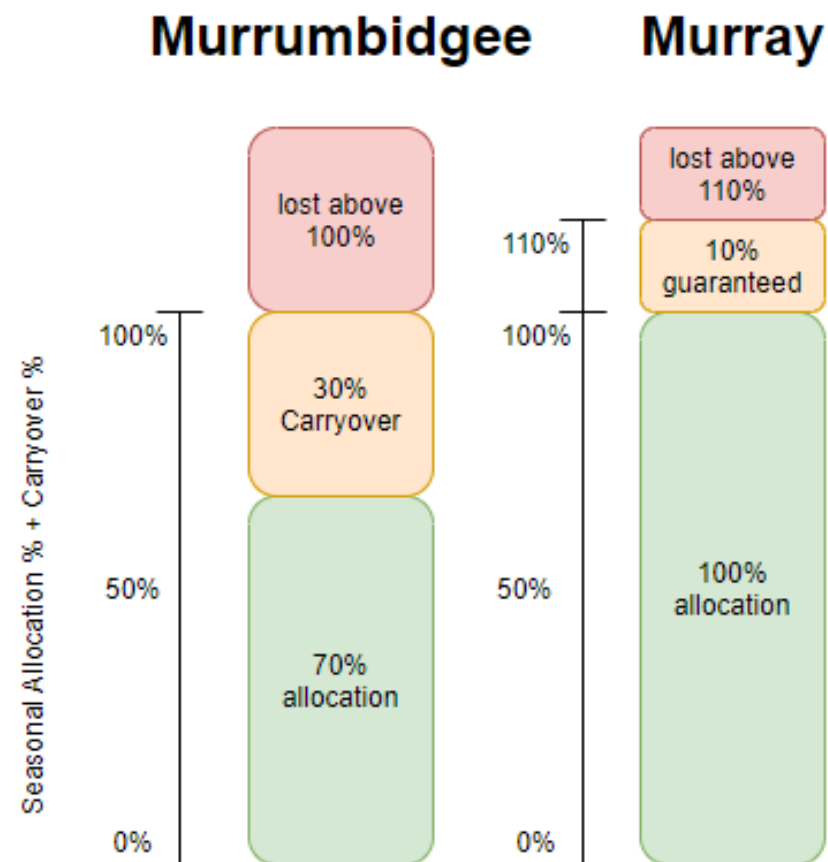
NSW – Murray General Security

- Up to 50% of the entitlement can be used to carryover allocation water
- Allocation + carryover cannot exceed 110% of entitlement volume

NSW – Murrumbidgee General Security

- Up to 30% of the entitlement can be used to carryover allocation water
- Allocation + carryover cannot exceed 100% of entitlement volume

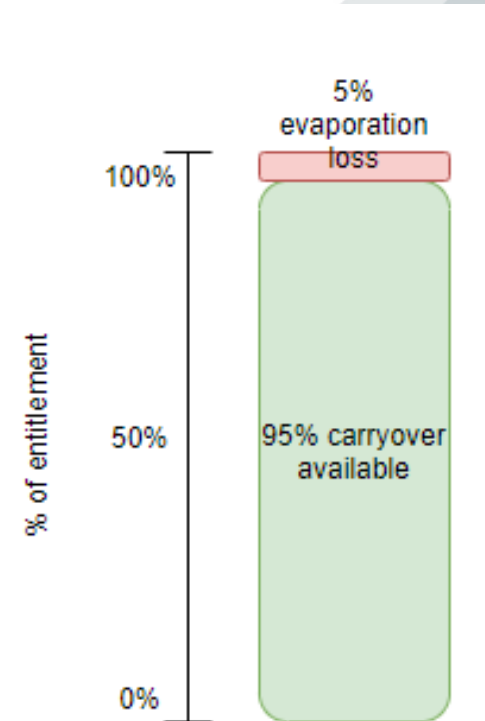
➤ **Important to recognize risk of account ‘spill’ with carryover parking. Parking contracts determine who bears the spill risk – the Placer or the Holder.**



Further on Carryover Parking

Entitlements in the Victorian Goulburn and Murray can carry over water, but spill risk varies between High and Low Reliability

- 100% of the entitlement can be used to carry over water
 - If allocation + carryover volume exceeds 100% of your water share, the excess volume goes to a spillable account that can only be accessed when a low risk (<10%) of spill is declared for Hume Dam
 - 5% of carryover water will be lost to evaporation
 - Given High Reliability entitlements are generally yielding allocations, the volume of carryover being subject to spill risk is higher than that of Low Reliability
- **Important to recognize risk of 'spill' with carryover parking. Parking contracts determine who bears the spill risk – the Placer or the Holder.**



Conclusions

Access to interstate water via market products is a significant benefit to SA irrigators

Provides opportunities for SA irrigators to access carryover capacity or allocation water from interstate.
However, need to consider:

- Deliverability – can you get allocation water delivered to your SA account?
- Cost of products – what is the right one for you?
- Risk of spill in relation to carryover – some entitlements offer better protection, but is such carryover space available from the market?
- Broader availability outlook – is there a shift towards a wetter pattern underway?

It is pivotal to be able to access reliable and independent information to support decision-making!

Let's talk more



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