

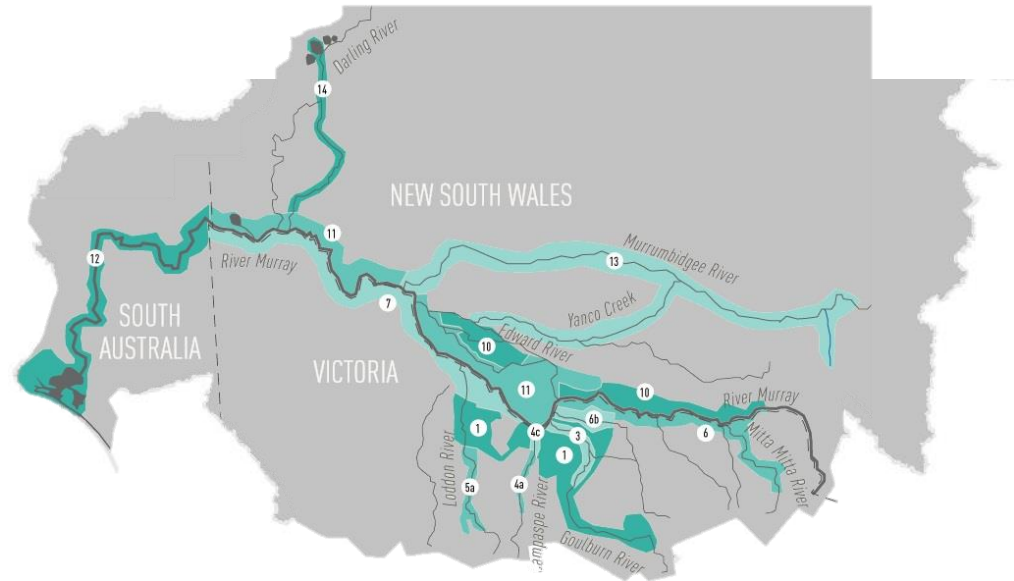
## Water market outlook

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## Presentation outline

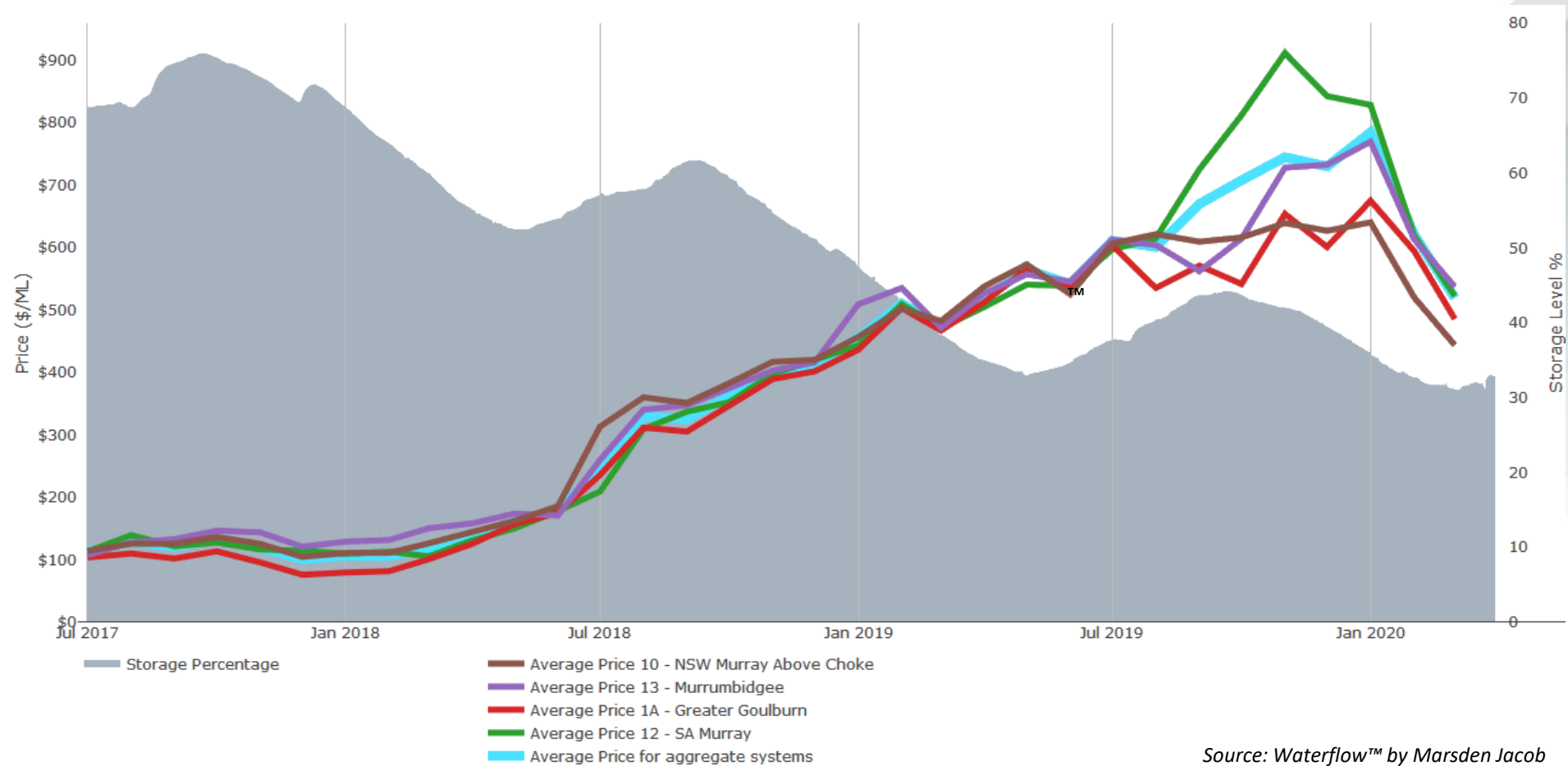
- 2019/20 temporary market recap
- 2020/21 outlook – supply, demand and water prices
- Available products and tools to mitigate water-based risks



2019/20 water year

What has happened in the temporary water market?

# Temporary market trends & drivers – Southern Connected System



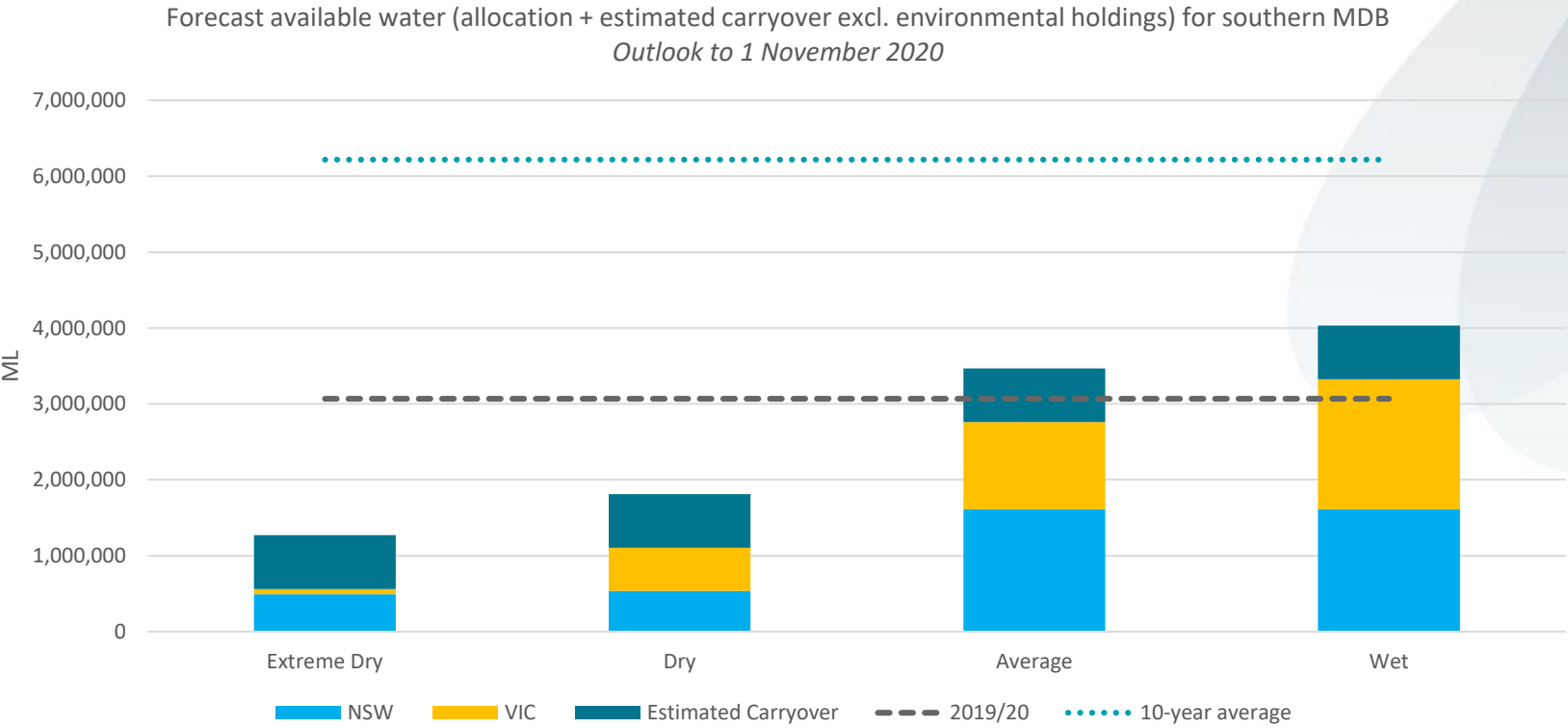
Source: Waterflow™ by Marsden Jacob

## 2020/21 outlook

What should I be prepared for in terms of water availability and prices?

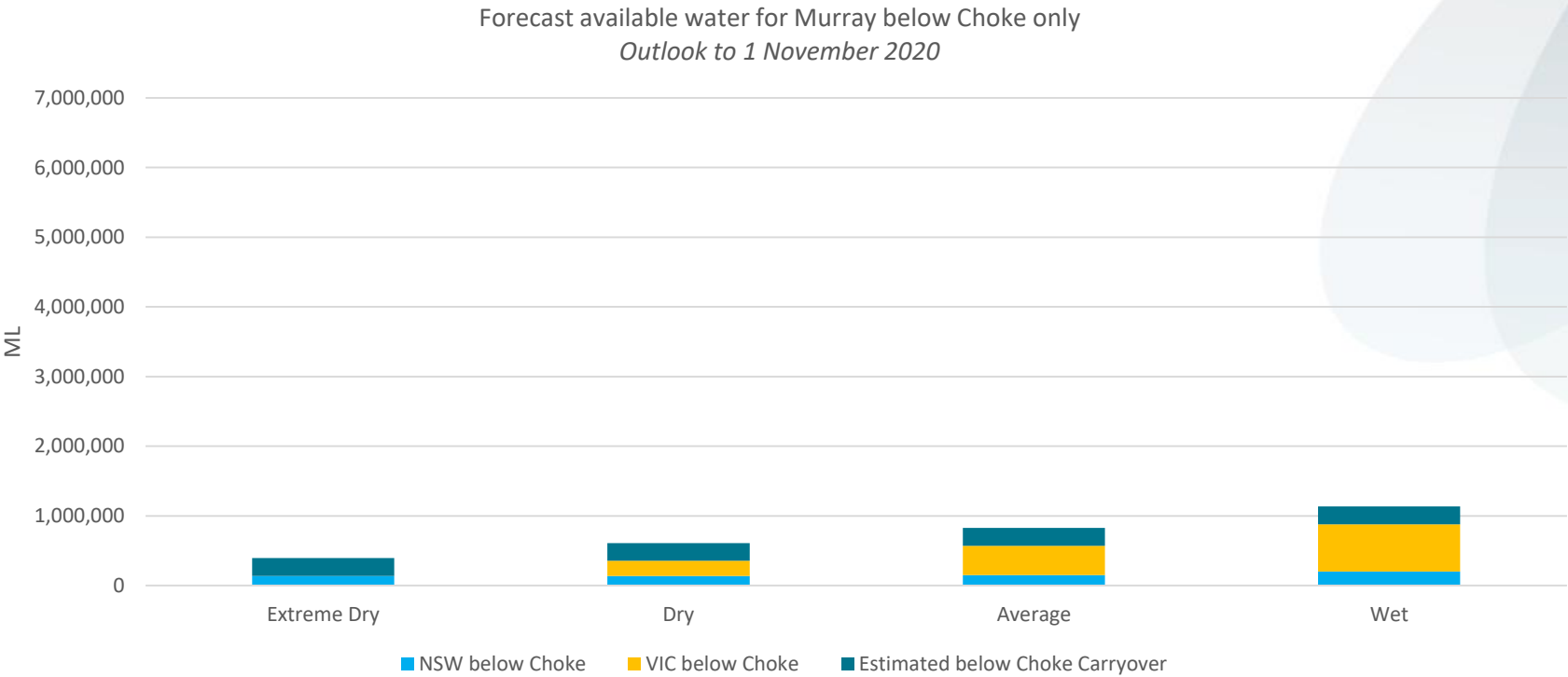
# Supply side

## Current allocation outlook in the sMDB = low water availability



# Supply side

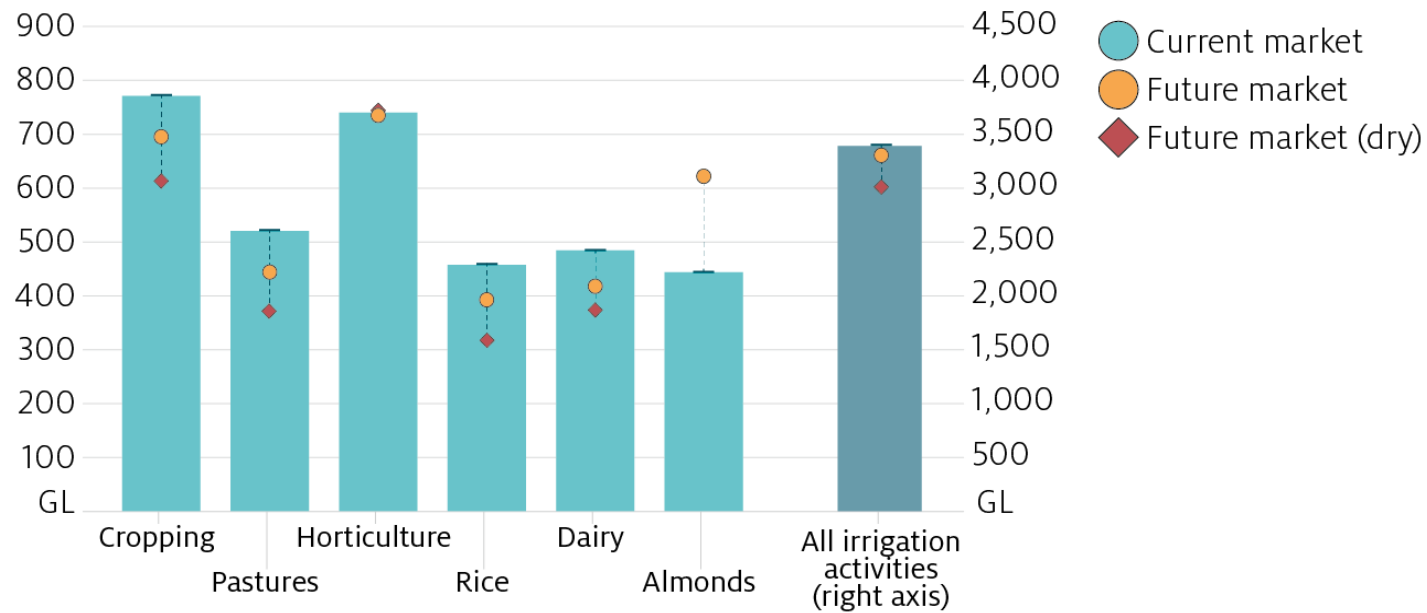
..and trade limits can reduce the water that is available in the Murray below Choke areas (including SA Murray) even further



## Demand side

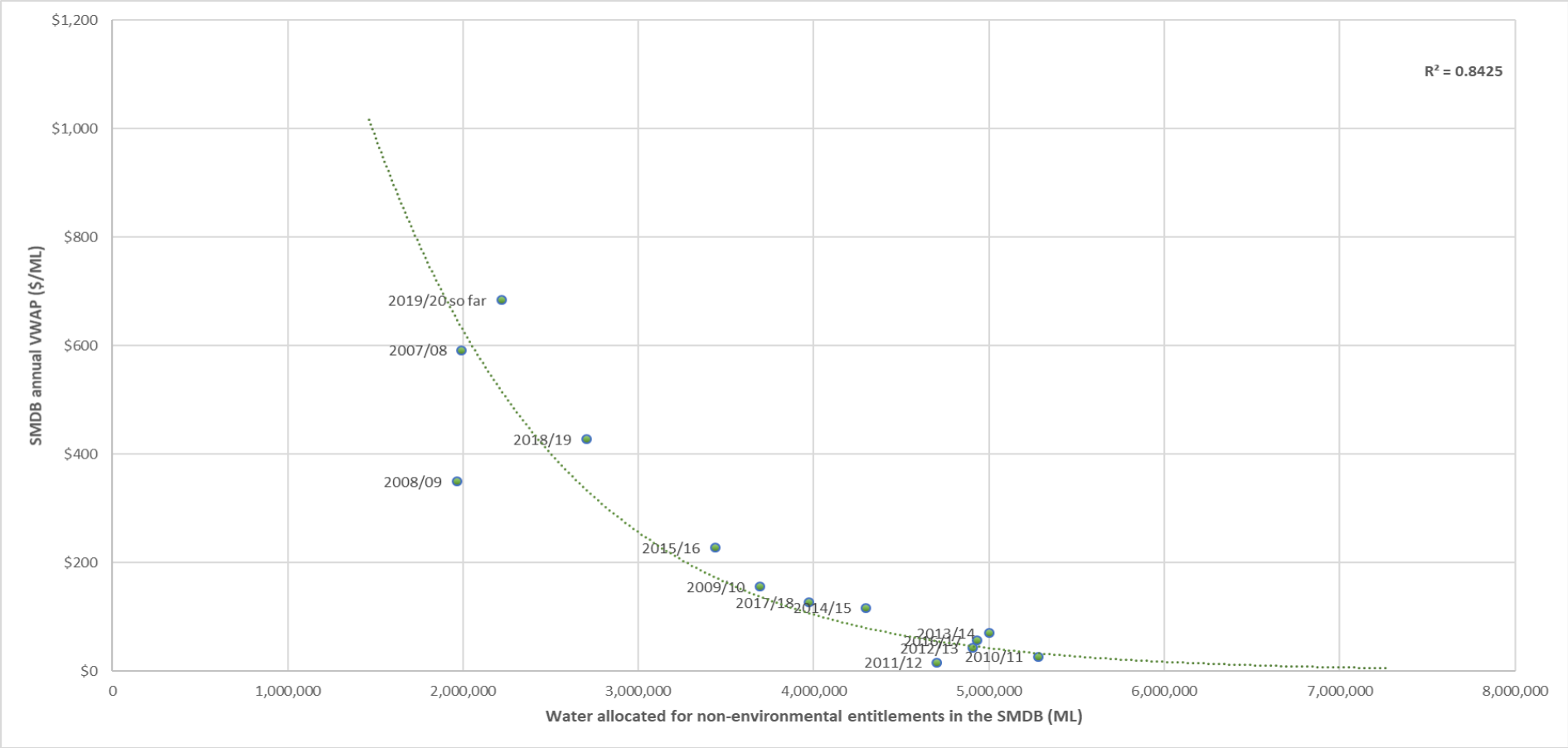
Water demand from agriculture in the sMDB is estimated to be ~3,400GL

2020/21 forecast water availability exceeds demand from horticultural planting, but temporary (allocation) water will be in high demand under dry scenarios





# Strong relationship between prices and water availability (allocation)

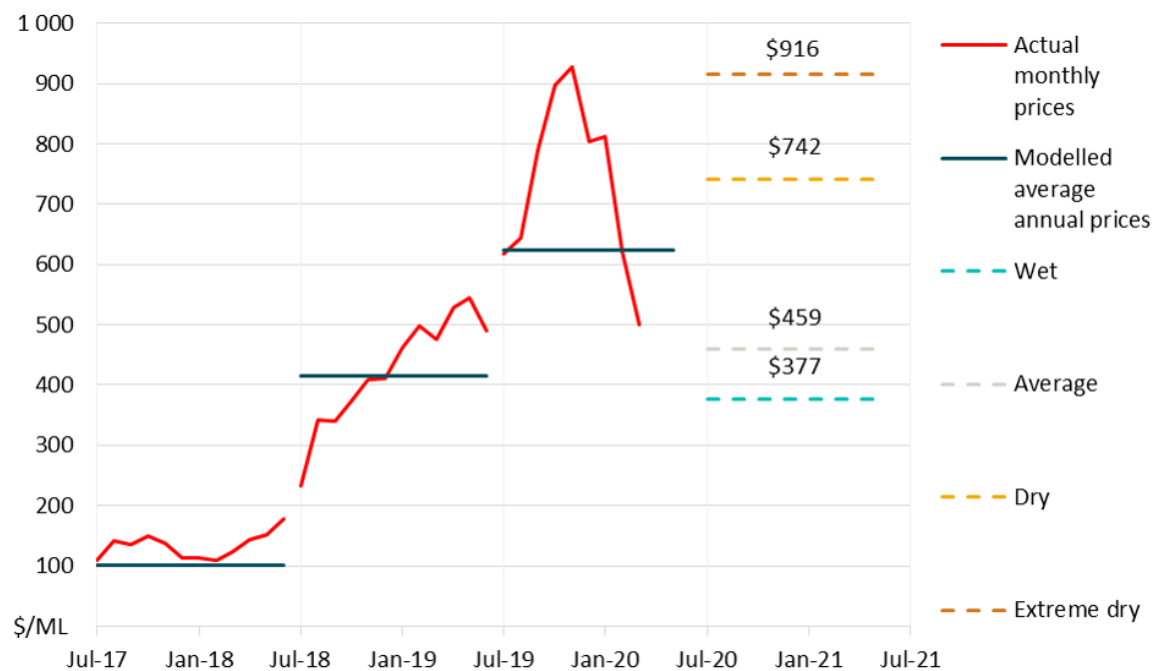


Source: Marsden Jacob analysis, 2020


## Conclusion: temporary water prices will be high in 2020/21

### But how high?

Prices could be similar or higher in 2020/21, as those witness this year, depending on water availability



Source: ABARES, 2020



Planning ahead for another dry season

What products are available to secure water  
for next year?

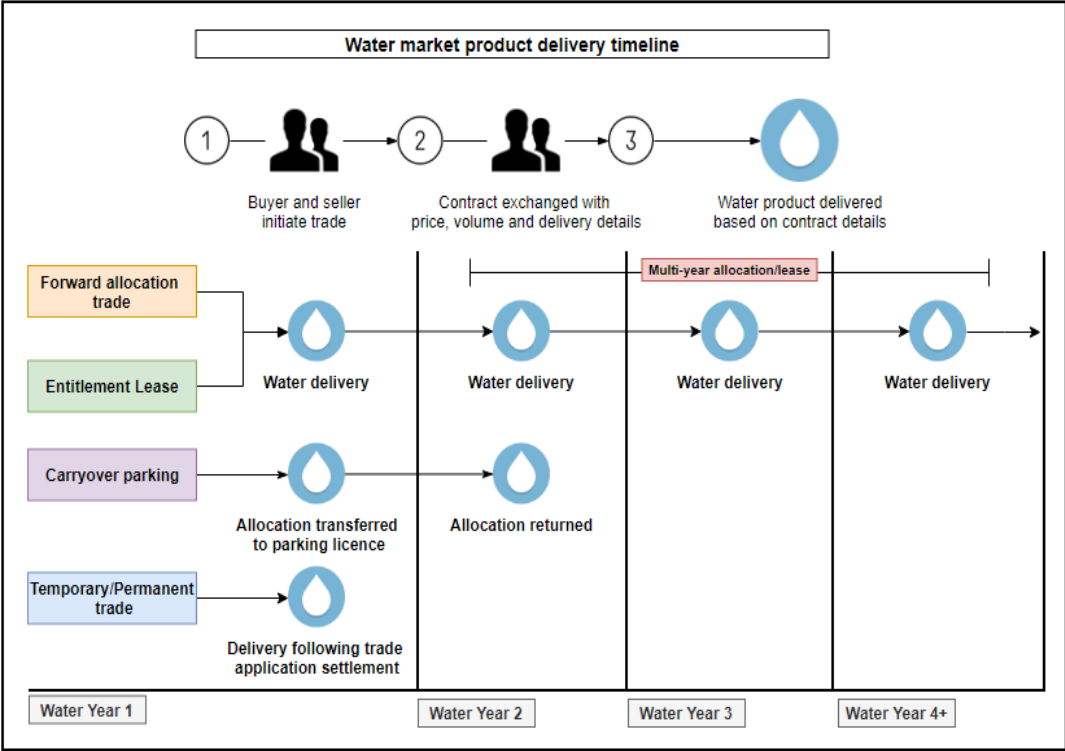
# There are many water market products to support your planning

## Primary products – temporary and permanent water – may still be viable options

- Temporary water is typically always available on the market, BUT the price risk may be significant in years of low resource availability
- Permanent entitlement prices are at all time high (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)
- You can also use your SA Murray carryover capacity

# Secondary products may be an attractive option to secure water

Product	Product Definition
Entitlement Lease	An Entitlement Holder ( <b>Lessor</b> ) transfers complete access to the Entitlement to a second party ( <b>Lessee</b> ) 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 (' <b>Placer</b> ') rents carryover space from an Entitlement <b>Holder</b> to carry water over. The 'parked' Allocation water is returned to the Placer in the following water year.



# Ability to have water delivered to South Australia is important

Under the current trading rules, temporary water can be *always* traded to SA Murray from Victorian zones 6B & 7 and NSW zone 11



Source: Waterflow™ by Marsden Jacob

# Secondary products have pros and cons

## Each water market product is subject to some risk

- **Forward water:** contracted volume is guaranteed, so no allocation risk – you contract 100ML, you get 100ML. You also don't need to pay for the water in full; 20% deposit is typically required up front **reducing the immediate financial burden.**
  - However, there's a price premium compared to the current temporary water price – currently forwards for 2020/21 delivery are available at \$700-800/ML
- **Entitlement leases:** longer-term solution, but subject to **allocation risk**. Entitlements such as NSW High Security water or Class 1 water in SA would be required to provide guaranteed water at the beginning of the season.
  - Lease prices currently up from \$400/ML for SA Murray Class 3 or Zone 7 HR in Victoria, and up from \$500/ML for Zone 11 HS in NSW
  - Lease terms are up from 3 years – what is the average temporary water price going to be over that time?
- **Carryover parking** product is typically cheap – currently around \$40-50/ML to park water on a Victorian LR entitlement. Under the current outlook the risk of spill for carryover is low.
  - However if you don't have excess water, you need to buy it from the temporary market this year – current prices around \$440/ML, so total cost at the moment is ca. \$500/ML
  - You will also lose 5% on evaporation if you carry water over in Victoria

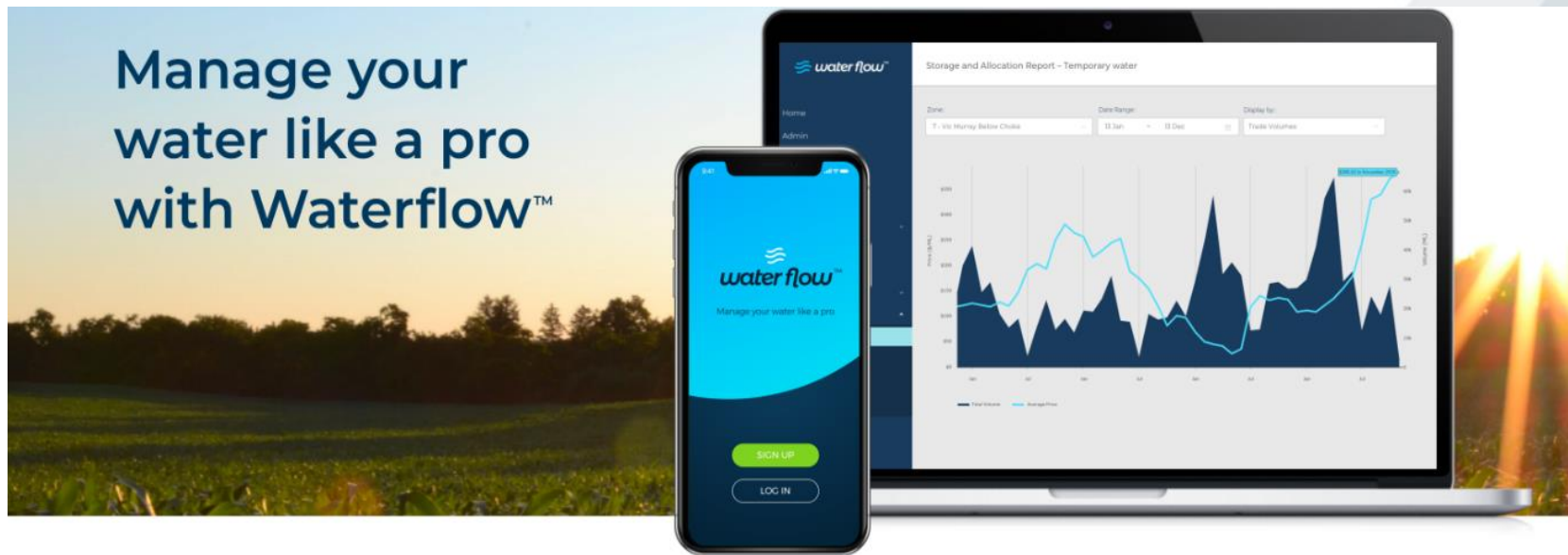
## Secondary products – key features

Product	Contract features	Allocation Risk	Rules-based Delivery Risk	Rules-Based Spill Risk	Price Risk	Risk Bearer
<b>Entitlement lease</b>	Duration	Yes	-	Yes	(Yes)	Lessee (buyer) unless hybrid
	Price					
	How allocation is transferred (term transfer vs. separate allocation trades)					
	Who pays ongoing fees					
	Downside risk capped or not (“hybrid lease”)					
	Price adjusted or not (e.g. via an index)					
<b>Forward allocation trade</b>	Price	-	Yes	-	(Yes)	Buyer and seller
	Delivery date					
	Duration (multi-year forwards)					
	Price					
	Buyer deposit					
<b>Carryover parking</b>	Price	-	Yes	Yes	(Yes)	Holder (seller)/ placer (buyer)
	Who pays storage fees					
	Who bears spill risk					



# Where to from here?

Using technology to support market participants



# Conclusions

## Water markets are sensitive to many supply and demand drivers

- Water **availability** continues to drive the allocation markets
- 2019/20 we saw continued **dry conditions** leading to below average inflows, low announced allocations and high temporary market prices, peaking at above \$1000/ML in November
- 2020/21 is **shaping to be similar, if not drier** with trade limits potentially reducing water available below the Choke
- **Secondary Market Products** such as Carryover Parking, Entitlement Leases and Forwards are available to help manage allocation risks, their pros and cons need to be considered
- **Technology** and information resources can help you to understand and reduce your risk when interacting with the water market

# Let's talk more



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## Question and Answer session