

## Water : Future Security Requires Shifting thinking to asset management and regional solutions

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## Overview

- Water is a business input
- Differential Price Points v Grape Prices
- Don't rely on droughts
- Regulation is here to stay
- Strategies for Regions moving forward

## Water is a Business Input

- Water was a fundamental part of land rights
- Land access linked to water rights – Riparian Rights
- Over use lead to regulation – Unsustainable and free
- 'Economic rationalism' lead to trading
- Market rules were encouraged – Competition Policy
- Availability is only one issue
- Delivery, reliability and cost are key issues
- 'Investment Economics' are relevant

## Water is a Business Input (cont'd)

- Need to budget for water costs
- Treat it like chemicals or labour inputs

## Different Price Points

- Location sensitive
- Source sensitive
- Electricity is a Variable
- Quality Variations
- Reliability Factors – High Security v Low Security

## Water Entitlement Market Prices (Summary) Murray-Darling Basin

Region/ Entitlement	June quarter 2014 VWAP \$/ML	June quarter 2014 25 <sup>th</sup> and 75 <sup>th</sup> percentile \$/ML		Water exchange prices \$/ML Buyer Bid/Seller Offer	
Macquarie GS	1,058	1,050	1,060	No price reported	
Gwydir GS	2,226	2,226	2,226	No price reported	
Namoi GS	1,824	1,700	1,950	No price reported	
Goulburn HR	1,415	1,350	1,448	1,420	1,500
Vic Murray below Barmah Choke HR	1,370	1,350	1,500	1,450	1,550 – 2,000

## Water Entitlement Market Prices (Summary) Murray-Darling Basin (cont)

Region/ Entitlement	June quarter 2014 VWAP \$/ML	June quarter 2014 25 <sup>th</sup> and 75 <sup>th</sup> percentile \$/ML	Water exchange prices \$/ML Buyer Bid/Seller Offer
Vic Murray below Barmah Choke LR	216	184 220	250 – 300
Vic Murray above Barmah Choke HR	1,356	1,250 1,443	1,250 – 1,350 1,350
Vic Murray above Barmah Choke LR	160	150 200	180 190

## Water Entitlement Market Prices (Summary) Murray-Darling Basin (cont)

Region/ Entitlement	June quarter 2014 VWAP \$/ML	June quarter 2014 25 <sup>th</sup> and 75 <sup>th</sup> percentile \$/ML	Water exchange prices \$/ML Buyer Bid/Seller Offer
South Australian Murray Class 3A	1,710	1,500 1,650	1,700 1,750

## Different Price Points - Example

- Clare
- Willunga
- Barossa (BIL)
- Creeks Pipeline
- Central Irrigation Trust

## Current Schemes – Common Feature

- Born from a drought
- Crisis Management
- Opportunities – Solve another problem - Willunga
- Federal Money Available
- Query thought about operational costs
- Linked to Murray

## Regulation

- Permission to Use Water
- Title to Water - Asset
- Access to Infrastructure
  - Third Party Access
  - Water Industry Act 2012
  - Delivery is key
- Think of Water entitlement like a 'share'
- Value can go up and down

## Regulation (cont'd)

- Rights don't change – Value does
- Market forces are real

## Required Solution

- What water is available?
- What water can you import?
- Where does that water come from?
- Can you live with Class 2 water?
- Cost of the Solution is just less than current pricing regime
- Clare is different to Barossa
- Both use River Water – Risk Remains

## Cost of Water

- Creeks Pipeline (2013 - 2014)
  - Langhorne Creek - \$190 ML - \$90 ML
  - Currency Creek - \$220 ML - \$105 ML
- Clare (2014 – 2015) – SA Water - \$3,230 ML
- BIL - \$800 ML + \$500 ML Levy = \$1,300 ML
- Willunga - \$1,300 ML
- Central Irrigation Trust (2014) - \$91 ML
- River Murray – Permanent Trade (week 36) - \$1,840 ML

## Central Irrigation Trust – An Example

- Total Irrigation Charges - \$9,539,766
- Total Irrigation Megalitres – 104,800
- Ave \$/ML - \$91.02
- Total Electricity Costs - \$4,280,781
- Electricity Charges – 44.8%

## Effect of Water Cost on Profit

- Barossa
  - 18.4 ha vineyard
  - 1 ML/ha of water
  - Yield 4.66 T/ha
  - \$23,920 for water
  - 85.74 tonnes of grapes - \$280/Tonne of water
  - Sale price \$1,240/Tonne

## Effect of Water Cost on Profit (cont)

- Riverland
  - 19.2ha vineyard
  - 5.2 ML/ha of water
  - Yield 19.2 T/ha
  - \$9,087 for water
  - 387 tonnes of grapes - \$23/Tonne of water
  - Sale Price \$330/Tonne

## Effect of Water Cost on Profit (cont)

- Clare
  - 19.1ha vineyard
  - 1 ML/ha of water
  - Yield 3.65 T/ha
  - \$61,693 for water
  - 69.7 tonnes of grapes - \$885/Tonne of water
  - Sale Price \$960/Tonne

## Regional Strategies

- Assess water options – River, Recycled
- Assess energy costs
- Storage is key
- Investment Economics for Third Party Provider
- Water Regulation is here to stay – Third Party Access
- Get ahead of the next drought
- Scale is everything in water
- Regional buying power is the model that has worked