# *Water-saving initiatives for wineries and getting smarter with water sourcing in the face of climate change.*

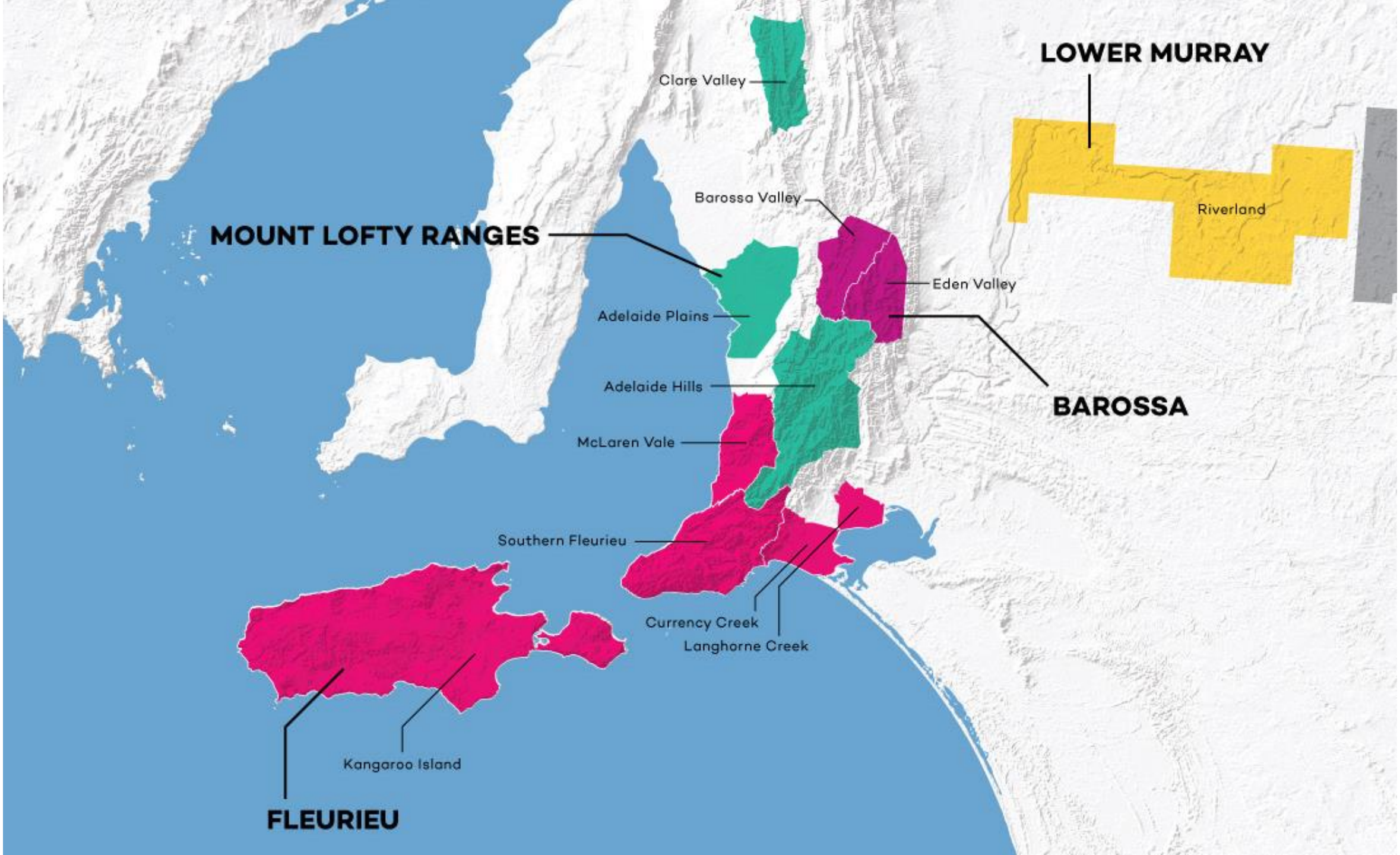
A trip to Adelaide, South Australia

Great Wine Capitals Knowledge Exchange

# Project Goals

Investigate ways of reducing water use in wineries

Investigate potential for alternative water sources to help negate the effects of climate change


LOWER MURRAY
Riverland
Clare Valley
Barossa Valley
MOUNT LOFTY RANGES
Eden Valley
Adelaide Plains
Adelaide Hills
BAROSSA
McLaren Vale
Southern Fleurieu
Currency Creek
Langhorne Creek
Kangaroo Island
FLEURIEU

# Wineries Visited

**McLaren Vale**

Mollydooker

Yangarra

Oliver and Press (Olivers Taranga, Hither & Yon)

**Barossa**

Treasury Wine Estate (Penfolds, Wolf Blass, …)

Yalumba

# Mollydooker

1400T Crush (2024)

Majority red wine production (Shiraz, Cabernet Sauvignon, Durif and Merlot)

3100 Barrels (American Hogsheads) only used for 3 years

# Mollydooker Water Profile

Water supply: mains water ($2.126-3.035/kL)

Ground water unsuitable for winery use due to high salt content

Waste water: Settled then irrigated to tree lot

Water use:

2022 5.95L/L wine produced,

2023 7.45L/L

2024 5.6 L/L

# Yangarra

Jackson Family Wines

Biodynamic and organic certified

500T Crush (70% red/30% white)

Grenache, Shiraz, Roussanne

French oak barriques, puncheons and foudres (2500L, 4800L)

Ceramic eggs and amphoras

# Yangarra Water Profile

Water Supply: rain water (general use), ground water (floors and non wine use)

500kL rain water storage

Must buy spring water via tanker if rain water runs out ($80/kL)

Waste water: Settled, sand/gravel filter, reed beds and pH correction then irrigated to tree lot

Water use: 4L/L


HICKINBOTHAM

# Oliver and Press

Contract facility (ex Gemtree site)

Production for Oliver's Taranga, Hither & Yon

2000T Crush

Tank capacity 5 million litres

3500 barrels

# Oliver and Press Water Profile

Water supply: Rain water, 440kL storage

Waste water: Full treatment and then irrigated to grazing lot or oats (used for cattle feed)

Water Use 2.4L/L

Chemical reuse programme (caustic IBC)

Floats in wash tubs to cut water per wash cycle


DANGER
CONFINED SPACE
ENTRY BY PERMIT ONLY
SQ10
SQ9

# Treasury Wine Estate

Original Wolf Blass production site (Est 1975)

30 Ha site

Crush 60,000T (2024)

Fully automated red barrel hall with capacity for 130,000 barrels

Automatic barrel fill/empty and clean

Bottling for all TWE wines

New no/lo facility being built

Substantial waste water treatment plant

# TWE Water Profile

Water supply: Mains water for process water ($2.90/kL)

Rain water: fire, gardening, tree lots

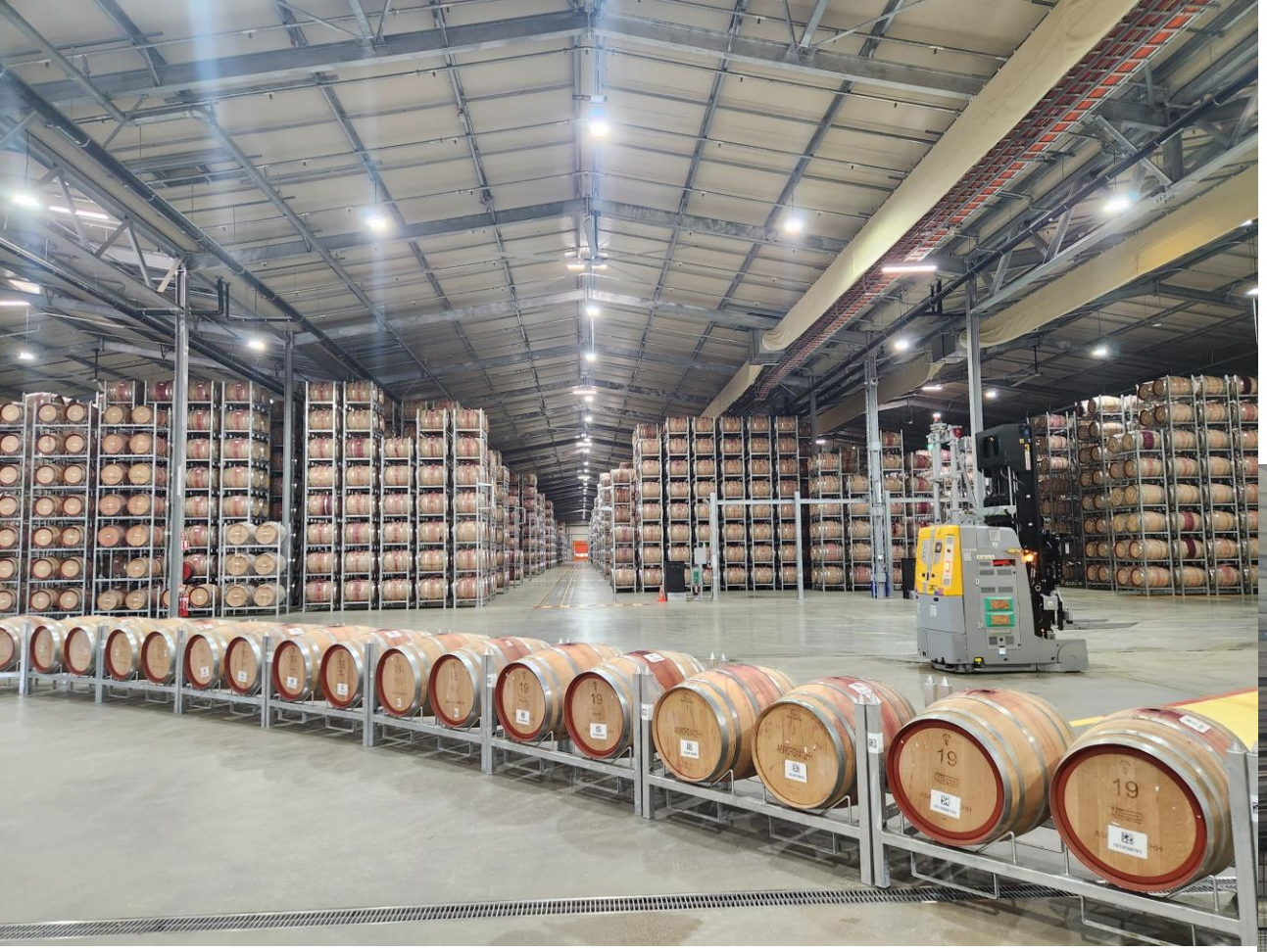
Water use: 4.28L/L

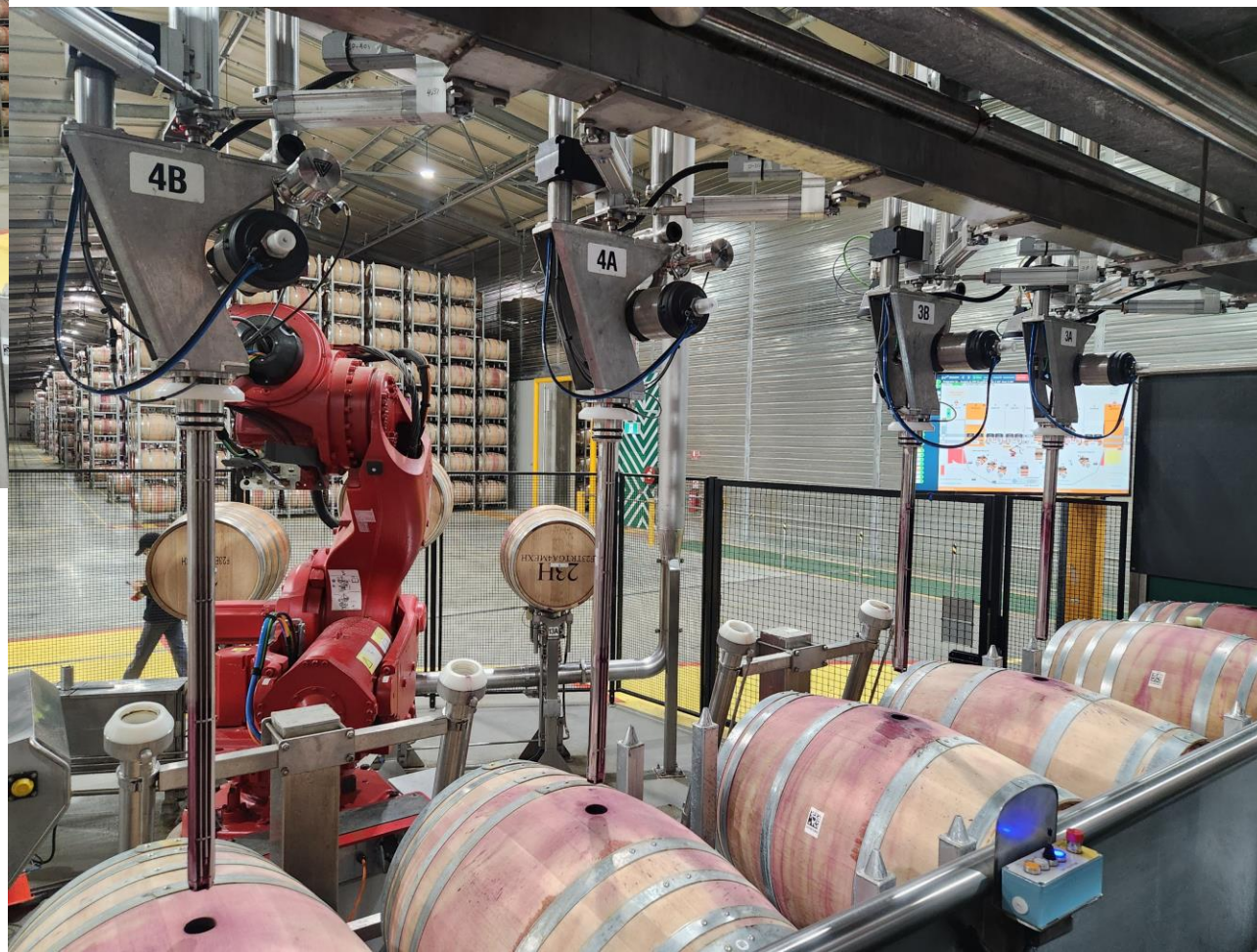
Waste water: Post treatment to vineyard and golf course

Caustic neutralisation/rinse review

Sanitisation only for low alc

Pigging for finished wine and premium

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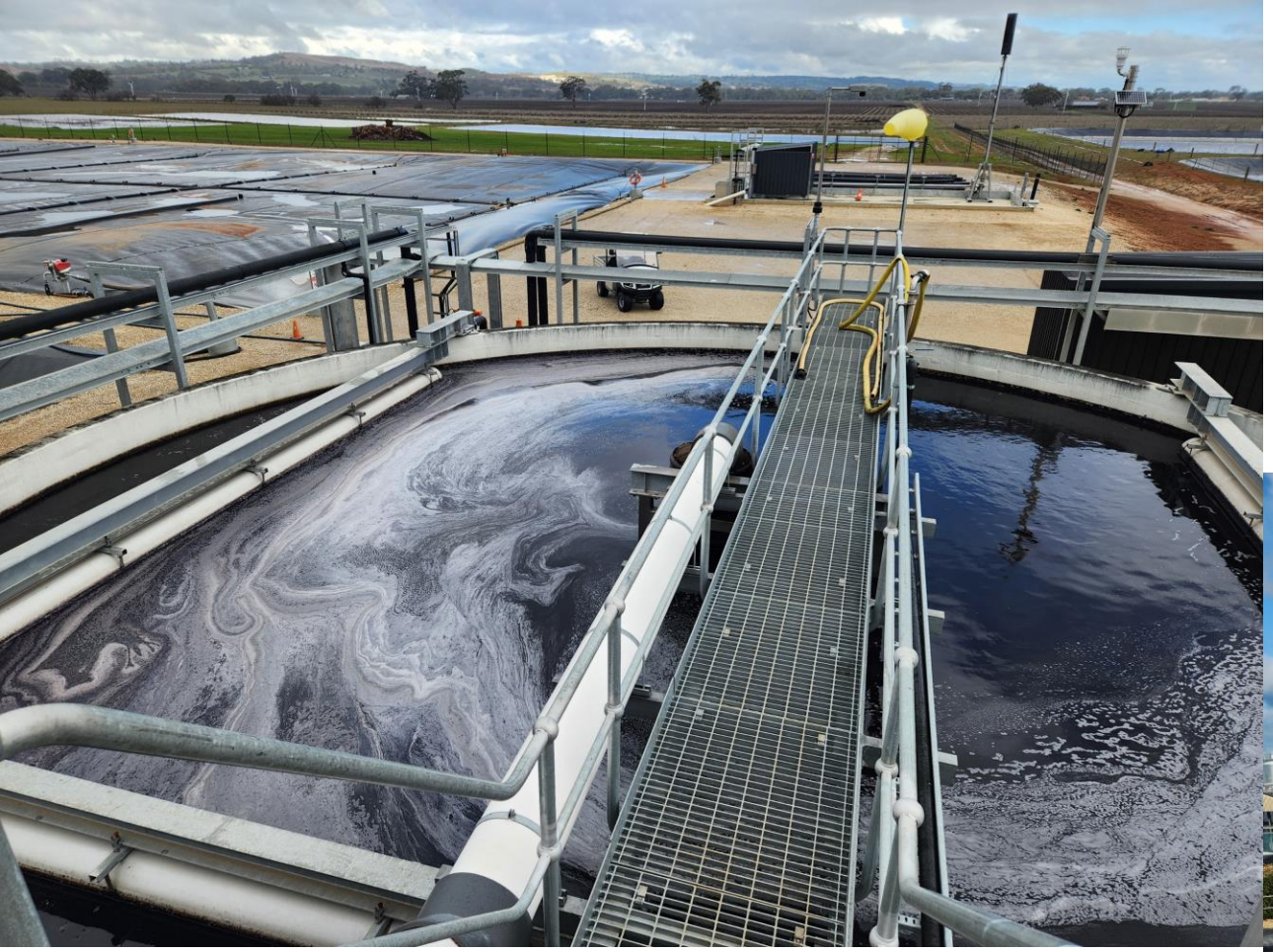

# Yalumba Angaston

Not visited but an honourable mention

Est. 1849

10,000T

Reticulated Caustic System

Crusher water reuse program

# Comparison

| Winery | Tonnage Processed (2024) | Bottling plant onsite | Water use efficiency (L water/L wine) | Average NZ water use for similar winery (2023) |
|---|---|---|---|---|
| Mollydooker | 1400 | No | 5.6 | 2.8 |
| Yangarra | 500 | No | 4 | 2.7 |
| Oliver and Press | 2000 | No | 2.4 | 2.8 |
| Treasury Wine Estate Barossa | 59100 | Yes | 4.28 | 2.1 |
| Yalumba Angaston | 11000 | Yes | 6 | 2.1 |

# Different Issues, Same Solutions

Reducing a love affair with ground water and rain water utilisation

*If they can do it with 600mm, imagine what we could do with 800mm*

Future Infrastructure projects

Adelaide water recycling project (irrigation)

25 million liters/day, $1.47/kL