LIVESTOCK WATER SECURITY IN SOUTH AUSTRALIA

Coorong Water Security Advisory Group

COORONG
DISTRICT COUNCIL

Coorong Tatiara
Local Action Plan

Coorong Water Security Advisory Group

Aims:

To improve livestock producer water security. Savings made will lead to reinvestment in improved livestock and feed production systems

To advocate for livestock producers to access fit for purpose, dependable, and affordable water supply is critical in creating industry resilience

Livestock producers need to be in charge of their own destiny rather than beholden to a water utility

Coorong Water Security Advisory Group

Aims:

Support the ongoing viability and expansion of livestock industries across SA. A major contributor to the State economy.

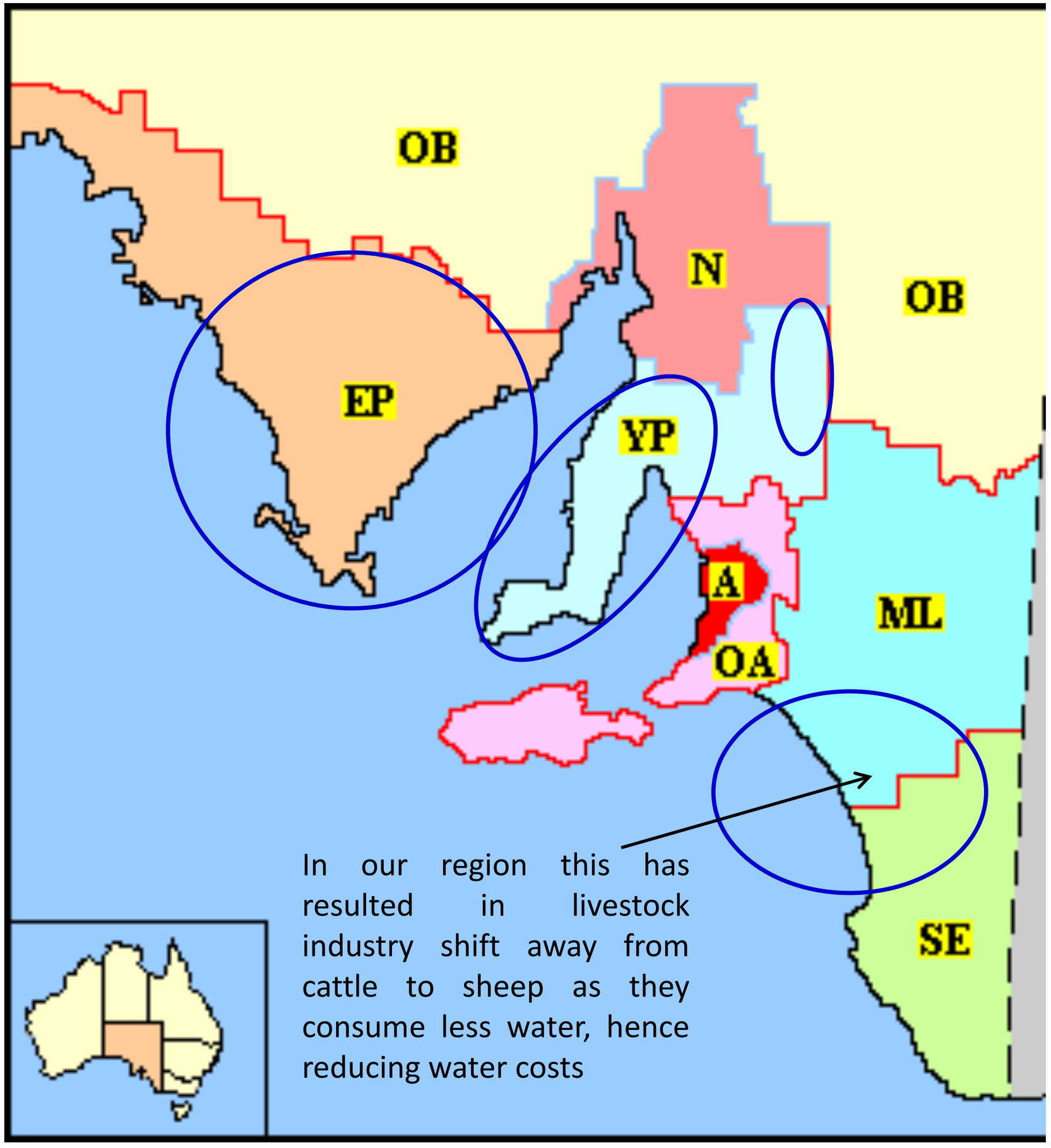
Work with other bodies to achieve these aims such as Livestock SA, Mallee Coorong Natural Resources Management Group ….

The livestock water price security issue & the impacts

Broad estimate of areas facing the same water security pressures as our region

Reliant on River Murray mains water

Plus other regions reliant on SA Water during dry periods when surface water dries up



Annual mains water bills for livestock producers are now regularly over $100,000

An undetected mains water leak can easily cost over $10,000 *difficult to locate in our deep sandy soils*

This is a dryland agriculture issue

Mains water is far too expensive to irrigate with

Groundwater is either absent or hyper-saline and not an option for livestock use

Livestock Water Security - SA Water Price Increase

- 2008 approx $0.97- $1.16
- 2012/13 $2.42 k/L
- 2013/14 $2.26 k/L
- 2016/17 $3.24 - $3.33 k/L
- July 2018 $3.37 k/L
- February 2019 $3.44 k/L

Water Consumption

1 kilolitre = 1000 litres

Average cattle unit water consumption
per day = 100 litres

This 22,000 litre tank holds enough water for 1 cow for a year

@ 2008 prices = $21.34 / year / cow

@ 2017 prices = $73.26 / year / cow

@ 2017 prices = $121.54 / year / cow & calf unit

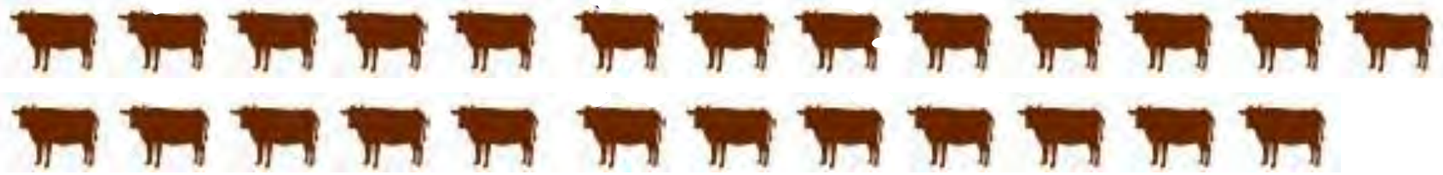
Dry ewe water consumption per day = 10L

Cornish Pastoral Mains Water Costs

2005/2006 was approx $21,000

14

2008/2009 was approx $41,000



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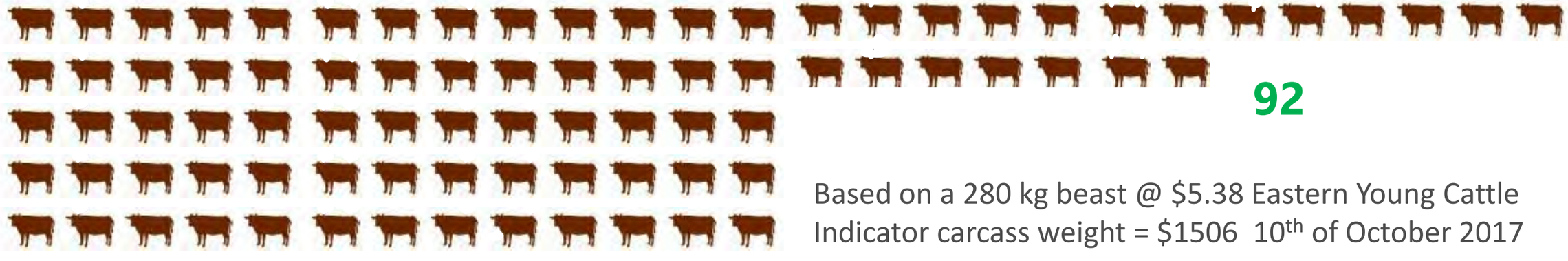
2011/2012 was approx $97,000

64

2014/2015 was approx $139,000



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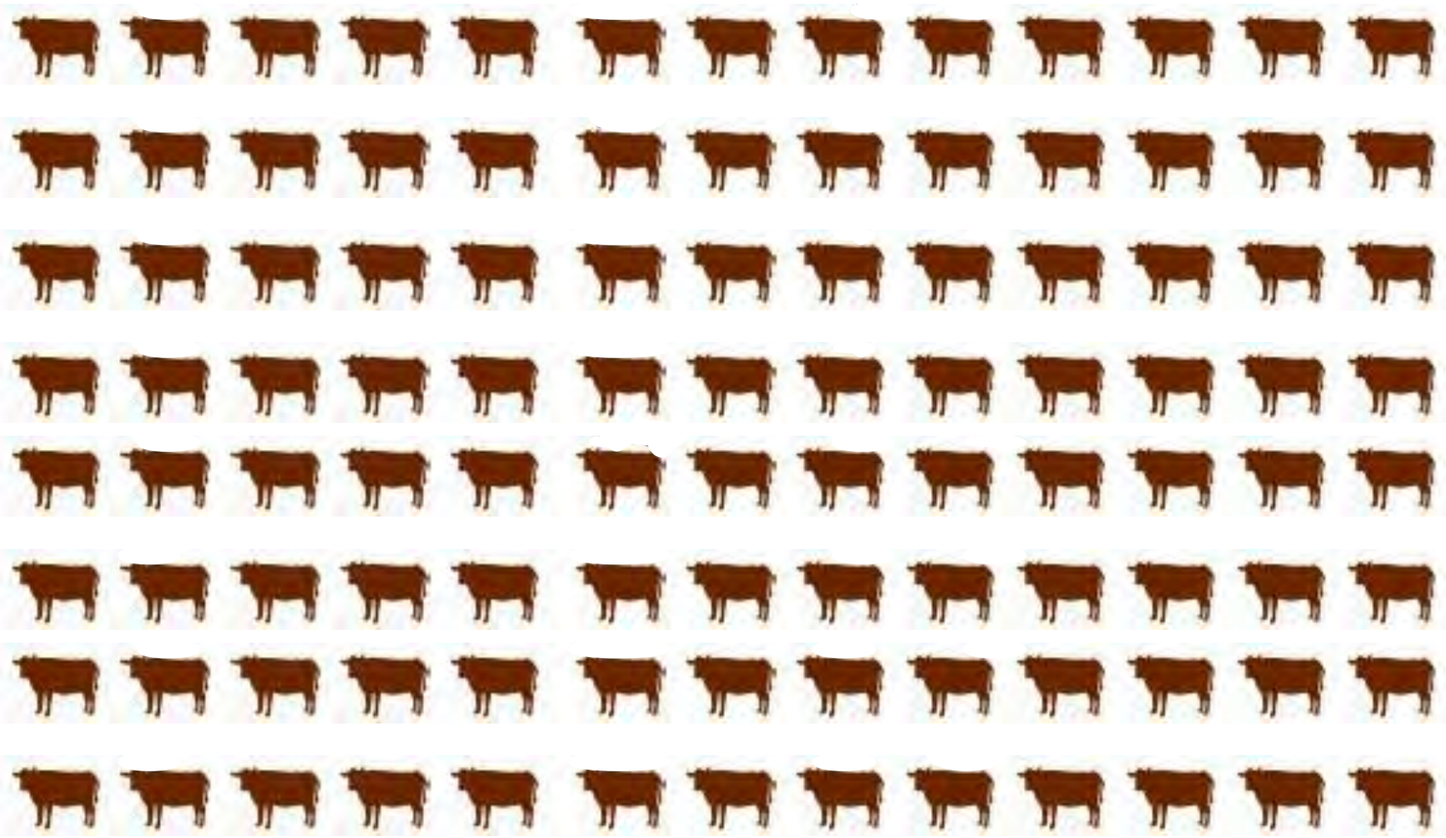
Based on a 280 kg beast @ $5.38 Eastern Young Cattle
Indicator carcass weight = $1506 10th of October 2017

Cornish Pastoral Mains Water Costs

2017/2018 was approx $148,280

106



2018/2019 was approx $216,000

196

Based on a 280 kg beast @ $5.38 Eastern Young Cattle Indicator = $1506 10th of October 2017

Based on a 280 kg beast @ $3.93 Eastern Young Cattle Indicator = $1100 17th of March 2019

The stakeholders and why they are interested in Water Security

Water Users / Graziers

Want to secure fit for purpose and affordable water supply to underpin the future growth of their businesses
Maintain equity in property

Coorong District Council

To maintain property prices, the rates base, and population

Coorong Tatiara Local Action Plan

Concerned that land use change *(grazing>cropping)* will lead to increased dryland salinity & wind erosion

State & Regional Economy

Increased economic activity
Taxation and levies
Stamp Duty on agricultural land

State and Federal Government

- Stimulate economic activity
- Increase taxation revenue
- Create regional jobs
- Stimulate export potential
- **Save Murray Darling Basin Water**
  - **Create a positive news story!**

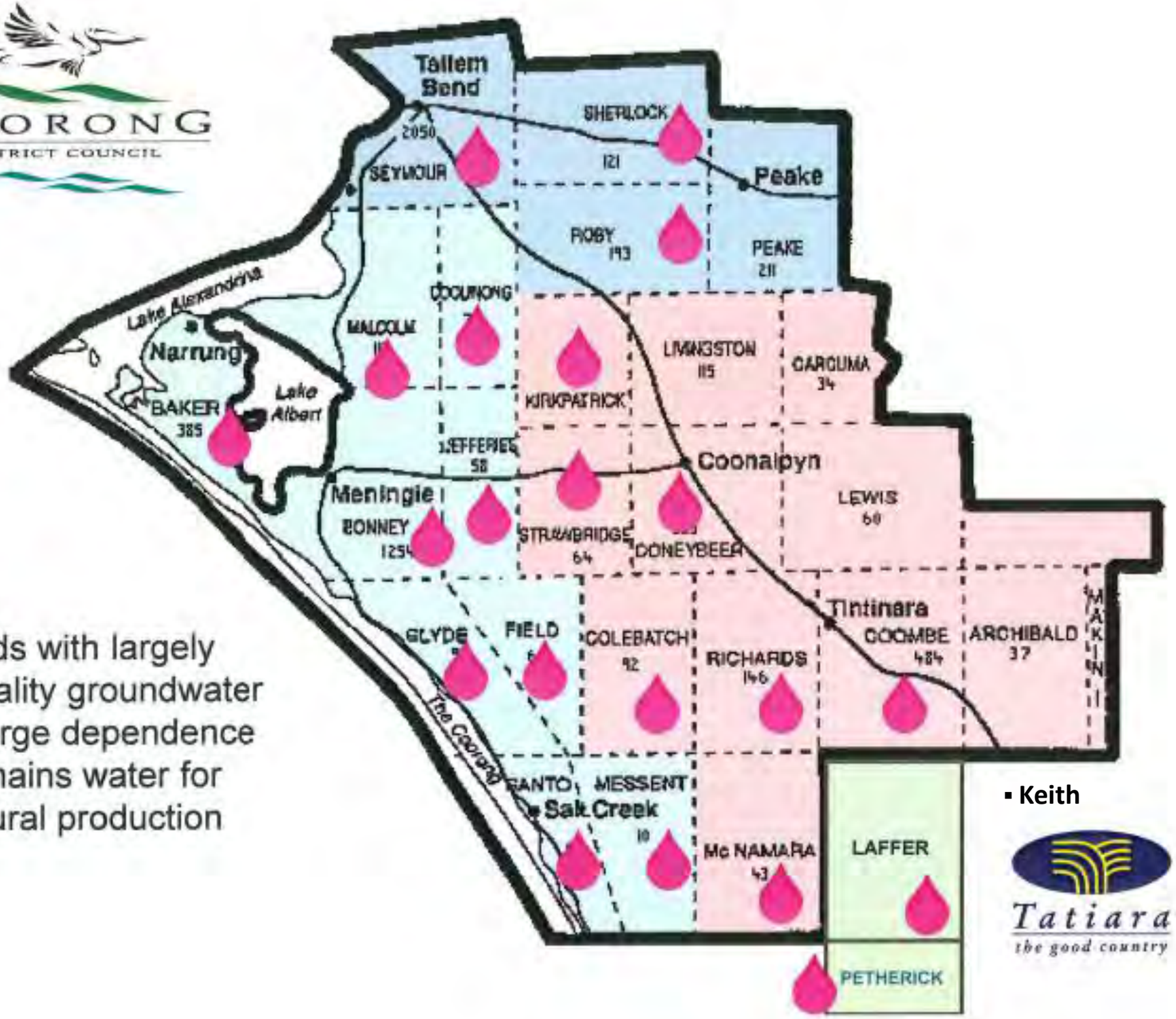
SA Water

Protect business
Optimal use of an existing asset
Long term decline in revenue

Tailem Bend Keith Pipeline

- 143 km long & feeds 800 km of branch mains
- Was the last of the major pipelines completed at the end of the 1960's
- Services an area of approximately 751,919 hectares including the Narrung Peninsula, and extends into the Tatiara & Kingston District Councils
- Opened up this country to agricultural production

COORONG
DISTRICT COUNCIL



Hundreds with largely poor quality groundwater and a large dependence on SA mains water for agricultural production

- Keith

Tatiara
the good country

Water for livestock production vs irrigation

7 megalitres per hectare per year is required to irrigate lucerne under a centre pivot

It would cost $23,000 / ha to irrigate with mains water to produce 1 ha of irrigated lucerne

Background work done

Championing Water Security

Coorong District Council added 3 new photos — with **Julianne Hein.**

Posted by Tracey Strugnell

Yesterday at 10:30 AM ·

The Coorong Tatiara LAP celebrated some real water security innovators in our district yesterday. Thanks to the landholders who opened up their properties, and to all who attended this targeted event. Inbox me for further information. (Tracey)

4 events

400 people in attendance

minimal advertising for 7 events

Web Site and Fact Sheets

www.coorong.sa.gov.au/watersecurity

www.coorong.sa.gov.au/waterharvest

- On Farm Piping Projects

Fact Sheets:

- Calculating Livestock Water Supply Needs
- Tanks & Roof Runoff
- Planning Requirements for Piping Water and Water Harvesting
- Water Harvesting and Lined Catchments

Lined Water Catchments - Drone Footage

Please find below Drone footage of two lined water catchments that have bee

Click on the link or image below and it will take you to the You Tube video.

Lined Water Catchments - Drone footage

Coorong Water Transportation Scheme Project

Livestock Water Surveys

- Water Security Forum participant survey 2012 *& 3 tour surveys*
- Water Security Technology Survey 2015
- Coorong Water Transportation Scheme - Expression of Interest 2017
- On Farm Water Security Alternatives Survey 2017
- PIRSA Livestock Water Survey 2017

PRIMARY INDUSTRIES & REGIONS SA
PIRSA

LIVESTOCK WATER ISSUES:

CONSULTATION REPORT

PIRSA

February 2018

PREMIUM FOOD AND WINE FROM OUR CLEAN ENVIRONMENT

SOUTH AUSTRALIA

Government of South Australia
Primary Industries and Regions SA

Interest in On Farm Water Security alternatives (non SA Water)

Currently dependant on the Tailem Bend to Keith pipeline

Landholders interested in installing lined catchments	30
Potential investment in lined catchments	$3.9m - $7.5m
Landholders interested in installing desalination	29
Potential investment in desalination	$3.7m
Landholders interested in private pipeline projects	30
Potential investment in private pipeline projects	$2.4m - $16.3m
Landholders interested in leak detection units	70
Potential investment in leak detection units	$105,000 - $210,000

Lined Catchment

Captures rainfall and dew on the lined catchment above the dam

Would represents a total regional investment of:
$3.9m- $7.5m

Number of landholders interested: 30

Cost range of local individual projects:
$130,000 - $250,000

Businesses involved in delivery:
Earthmovers, polyliner manufacturers and welders, fencing contractor, purchase of pumps, pipes, fittings etc

Desalination of hyper saline groundwater

Would represents a total regional investment of: $3.7m

Number of landholders interested: 25

Cost range of local projects: $130,000

Businesses involved in delivery:

Desalination unit businesses, solar power expertise, electricians, remote monitoring equipment, earthmovers, polyliner manufacturers, purchase of pumps, pipes, fittings etc

Large Scale Piping Projects

Sourced from inland Upper South East aquifers outside of the Murray Darling Basin

Would represent a total regional investment: $2.4m - $16.3m

Number of landholders interested: 30

Cost range of local projects: $150,000 - $550,000

Businesses involved in delivery:

System design, underground service finding, rocksaw, earthworks, solar power expertise, remote monitoring equipment, hire of pipe welder, purchase of pumps, pipes, fittings etc

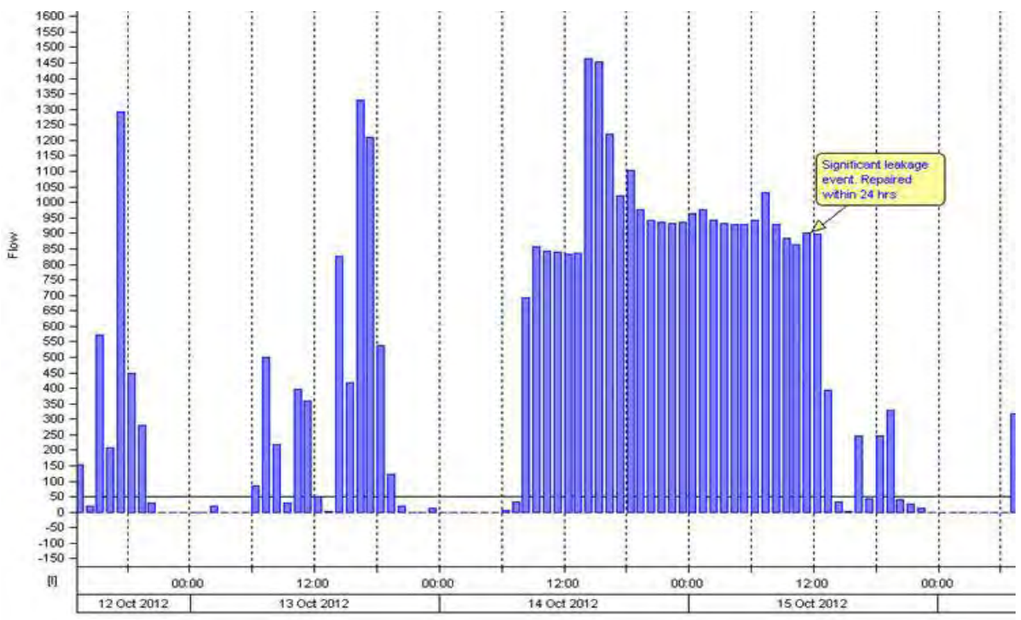
Leak detection units

Would represent a total regional investment of: $105k - $210k

Number of landholders interested: 70

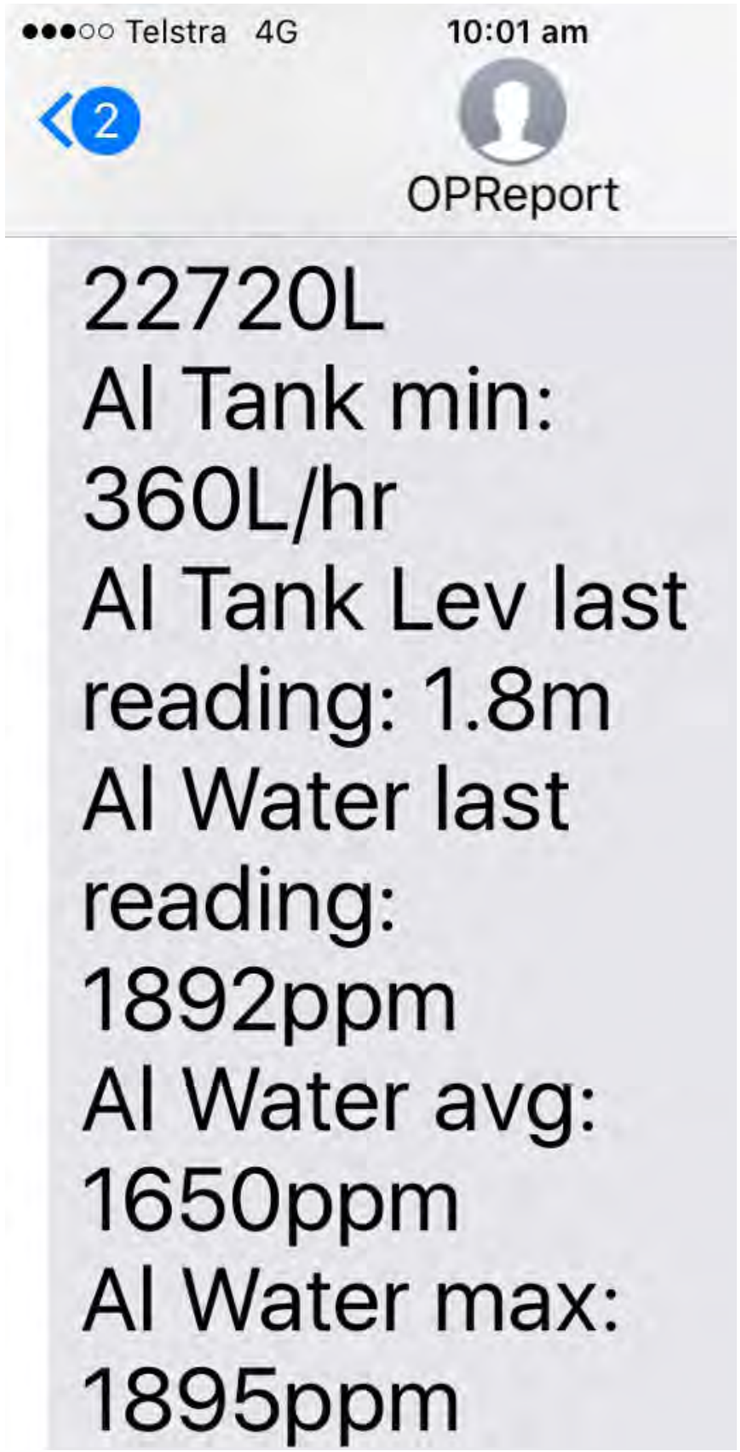
Cost range of local projects: $1000 - $4000

20 to 25% of water purchased through the SA Water meter is lost in on-farm leaks. Some estimate as much as 50%



Businesses involved in delivery:

Leak Detection Unit Providers



Stock journal

But in Queensland, South Australia and the ACT farmers can apply for funding to upgrade their infrastructure in return for their water entitlements.

Basin Plan upwater recovery fund offers $1.5b to farmers, states

Mike Foley
@micksfoley

13 Jul 2018, 1:30 p.m.