



Applying the data...
Telemetry for
weather, ground
water, soil moisture
and soil salinity

& why it matters...

Felicity Turner

Coorong Tatiara Weather Stations

- Located on Coorong District Council Website

[Home](#) > [Council Services](#) > [Coorong Tatiara Local Action Plan](#) > [Agriculture](#) > Weather Stations

Weather Stations

Weather Stations

Weather Stations Networks

In recent years the prevalence of on farm and regionally based weather stations have increased in number.

These include the;

- NRM Weather Network - [click here](#).

The NRM Weather network displaying current and historical weather data from over 80 weather stations across East NRM, and Alinytjara Wilurara NRM Regions and the Lower Murray Water, and Langhorne Creek Grape a

- Wildeye Weather Station Network - [click here](#)

[Policeman Point](#)

[Taratap](#)

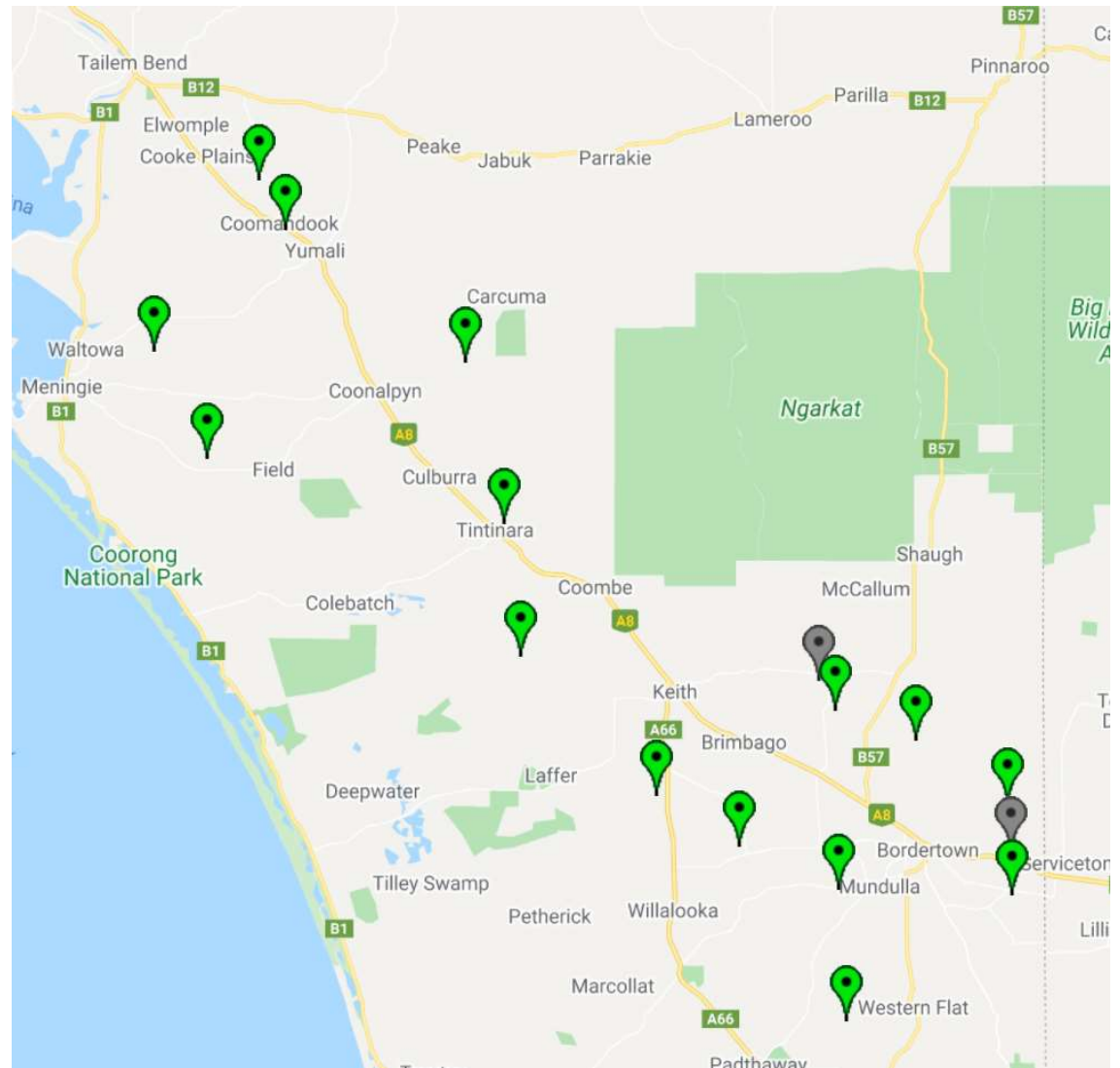
[Laffer](#)

[McCallum](#)

[Archibald](#)

Wildeye Network

- Coorong Tatiara LAP sites
- Tatiara District Council sites
 - Wolseley Ag Bureau
- Landscapes Board Sites
- Private landholders



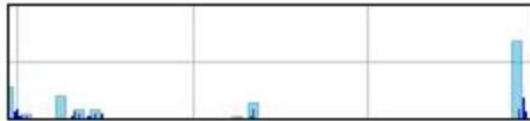
Mt Charles WS (Offline)

Lastest data 32 minutes ago

-

[Click here for more detail \(login\)](#)

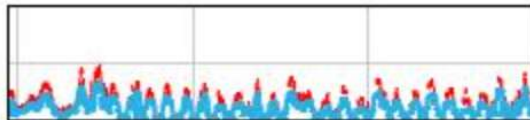
Mt Charles WS - Rainfall



Max. Rain Daily Total:
26.9 #inputunit

Min. Daily Rain Total:
0.0 #inputunit

Mt Charles WS - Wind Speed and Direction



Average: 9.89 #inputunit Last: 16.45 #inputunit

Maximum: 33.73
#inputunit

Minimum: 0.00
#inputunit

Mt Charles WS - Air Temperature

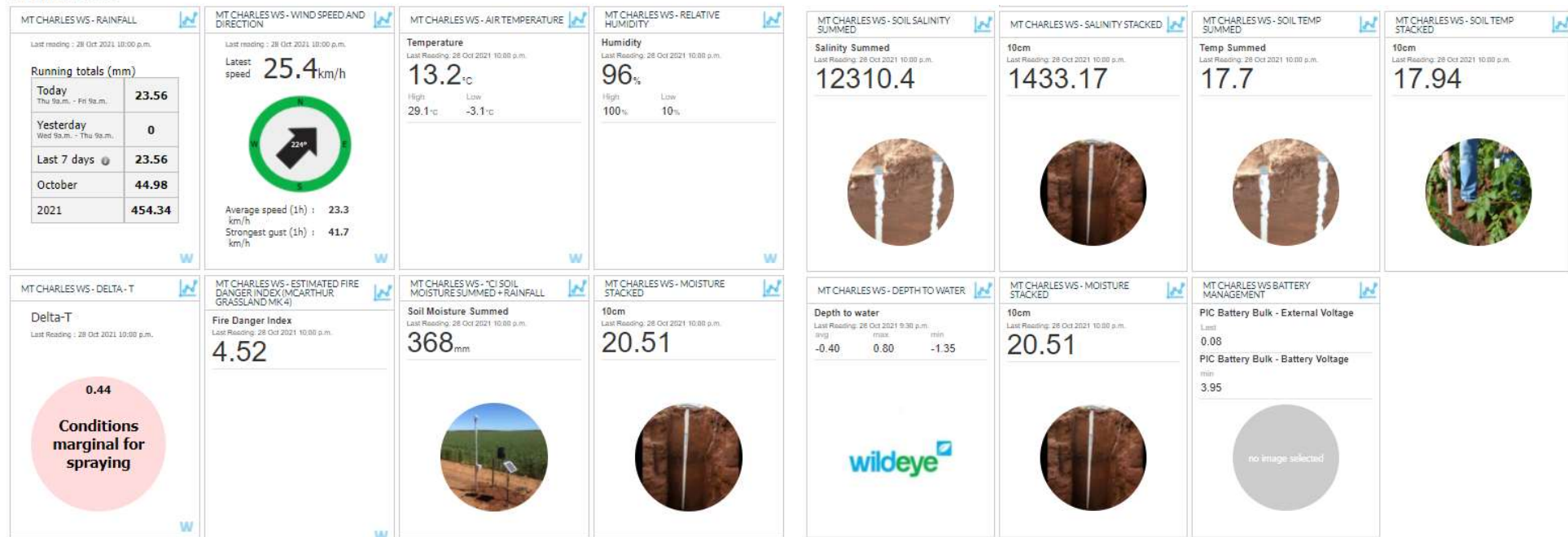


High: 29.1
Low: -3.1

Last: 15.1

Data being collected

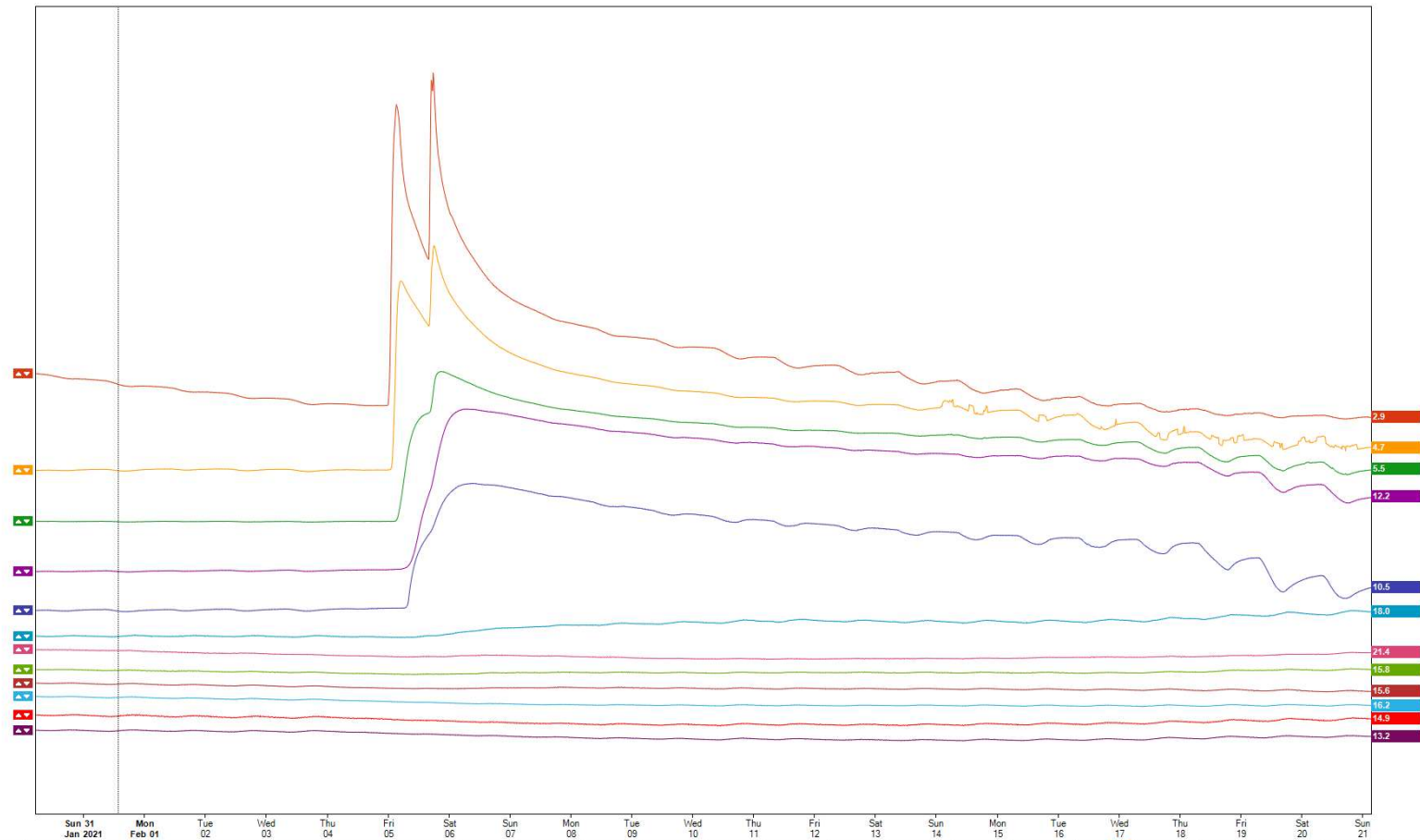
MT CHARLES WS



Soil Moisture data 101 - Wetting front

Turner,F - Maurlee WS - Lucerne Moisture Stacked

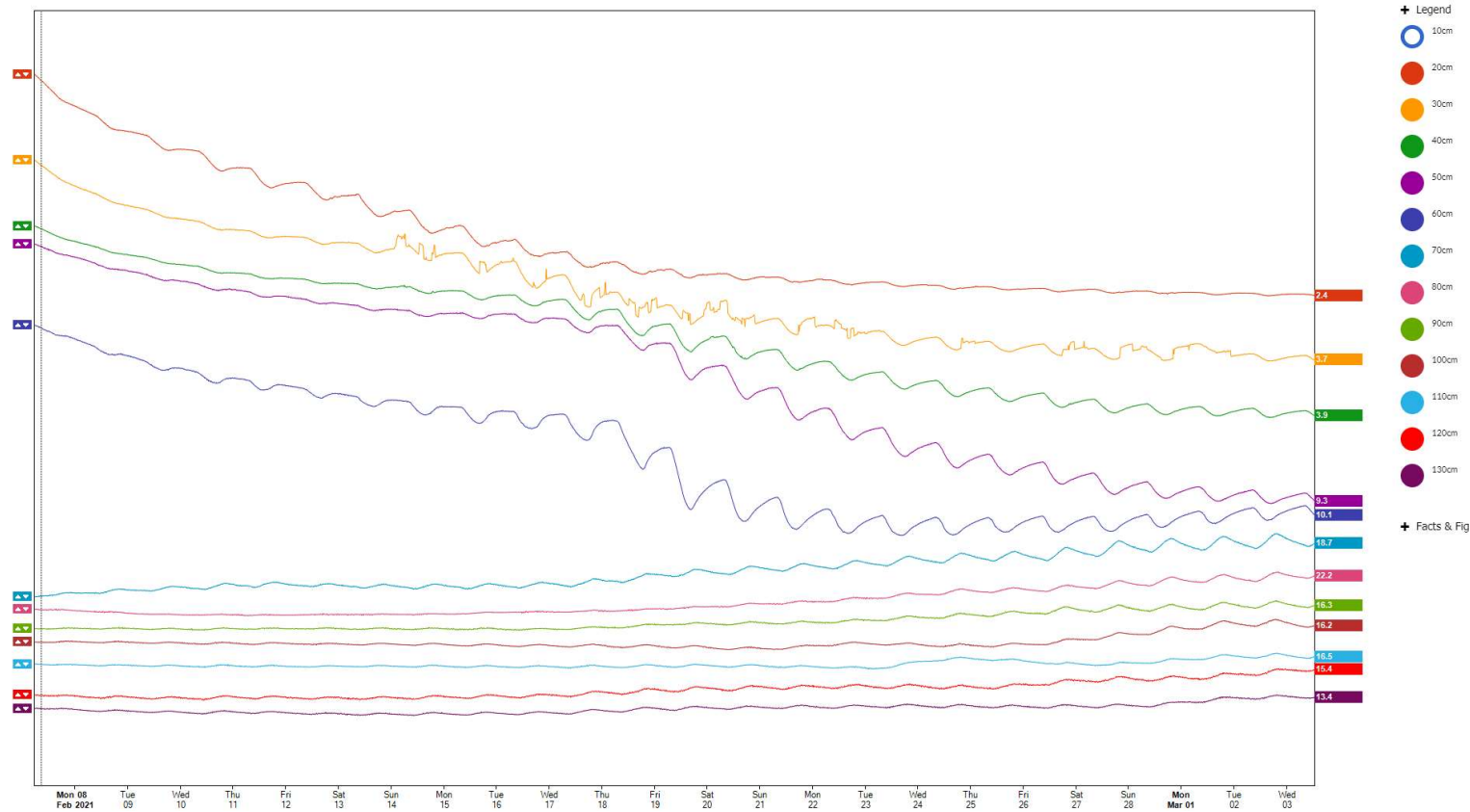
Last 60 days ▾



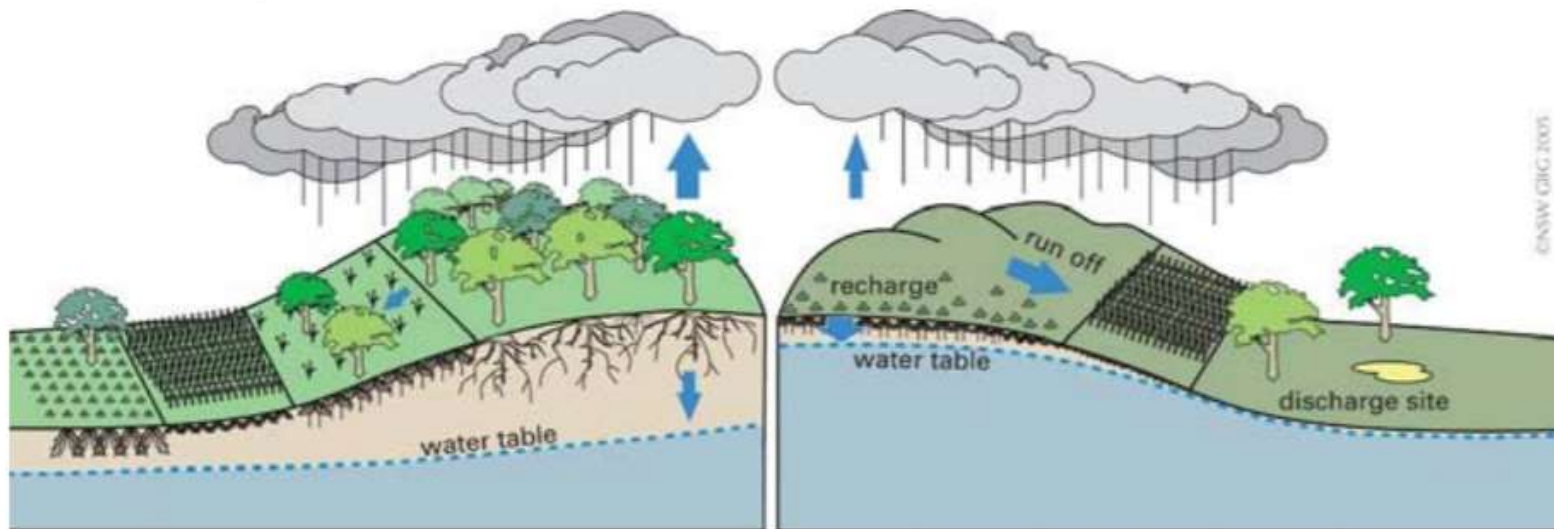
Soil Moisture data 101 - Drawdown by plants

Turner,F - Maurlee WS - Lucerne Moisture Stacked

Last 30 days



What is causing dryland salinity issues?



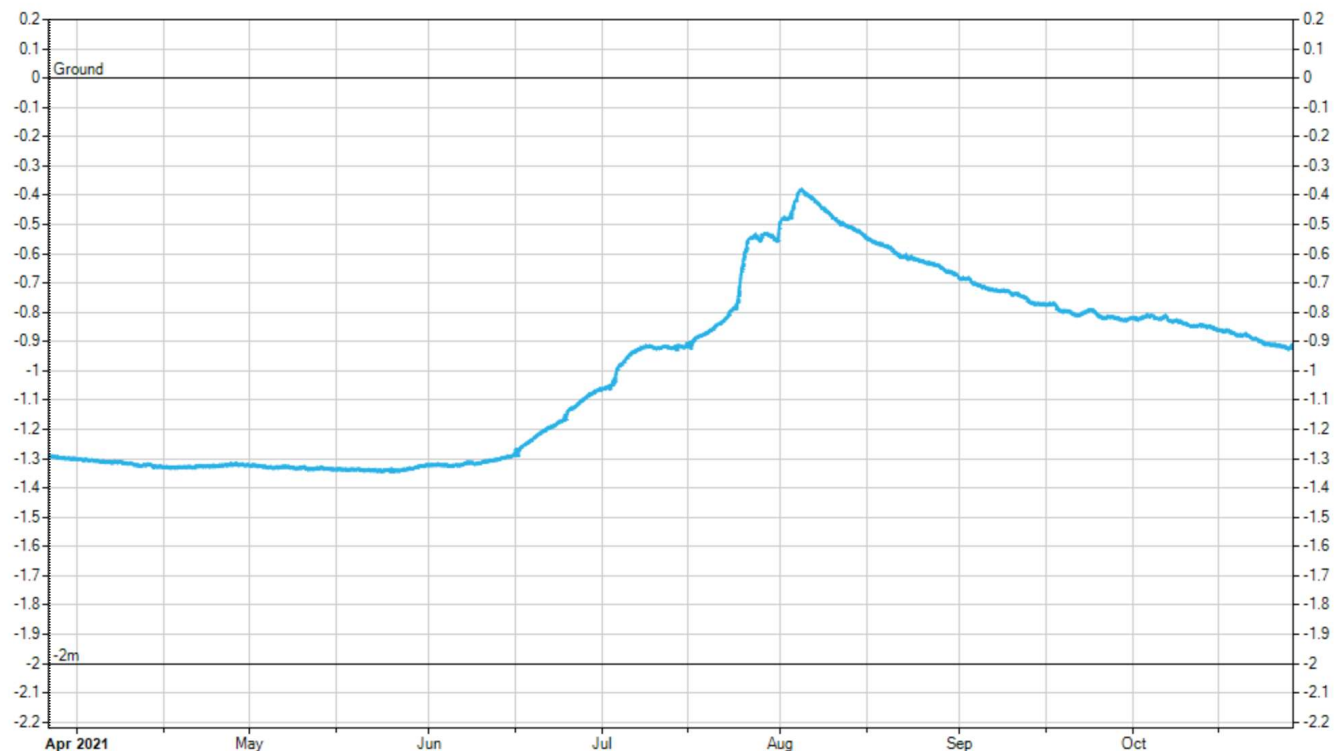
Trees, deep-rooted perennials and native vegetation use most of the water that enters the soil resulting in reduced leakage past the plant root zone.

Removing native vegetation, growing shallow-rooted annuals and long fallowing of paddocks increases leakage to the groundwater system. Watertable rise brings salt to the root zone and the soil surface. Other soil constraints including sodicity may also develop as a result of altered landuse.

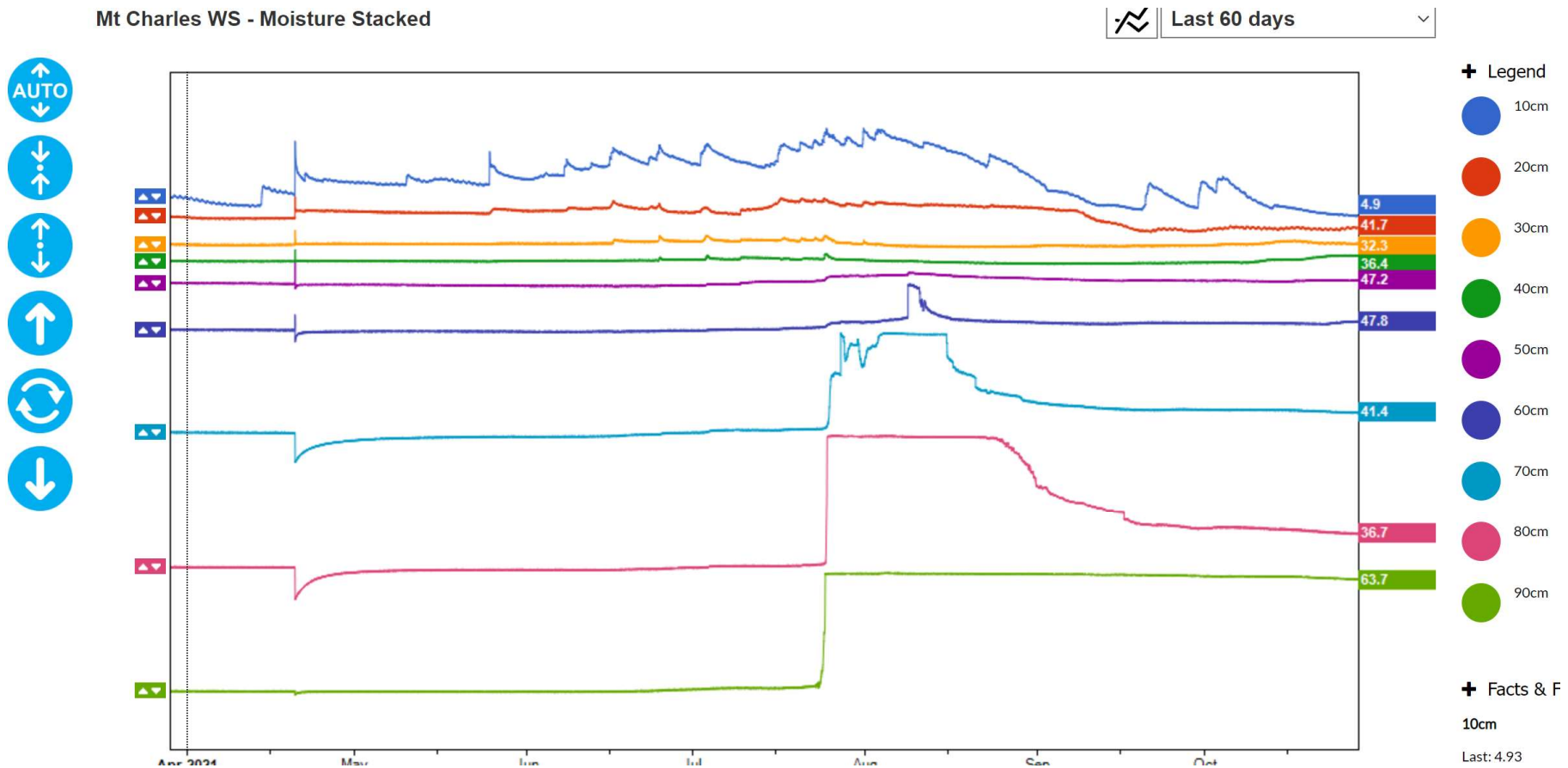
What is happening at Mt Charles?

Mt Charles WS - Depth to Water

All data



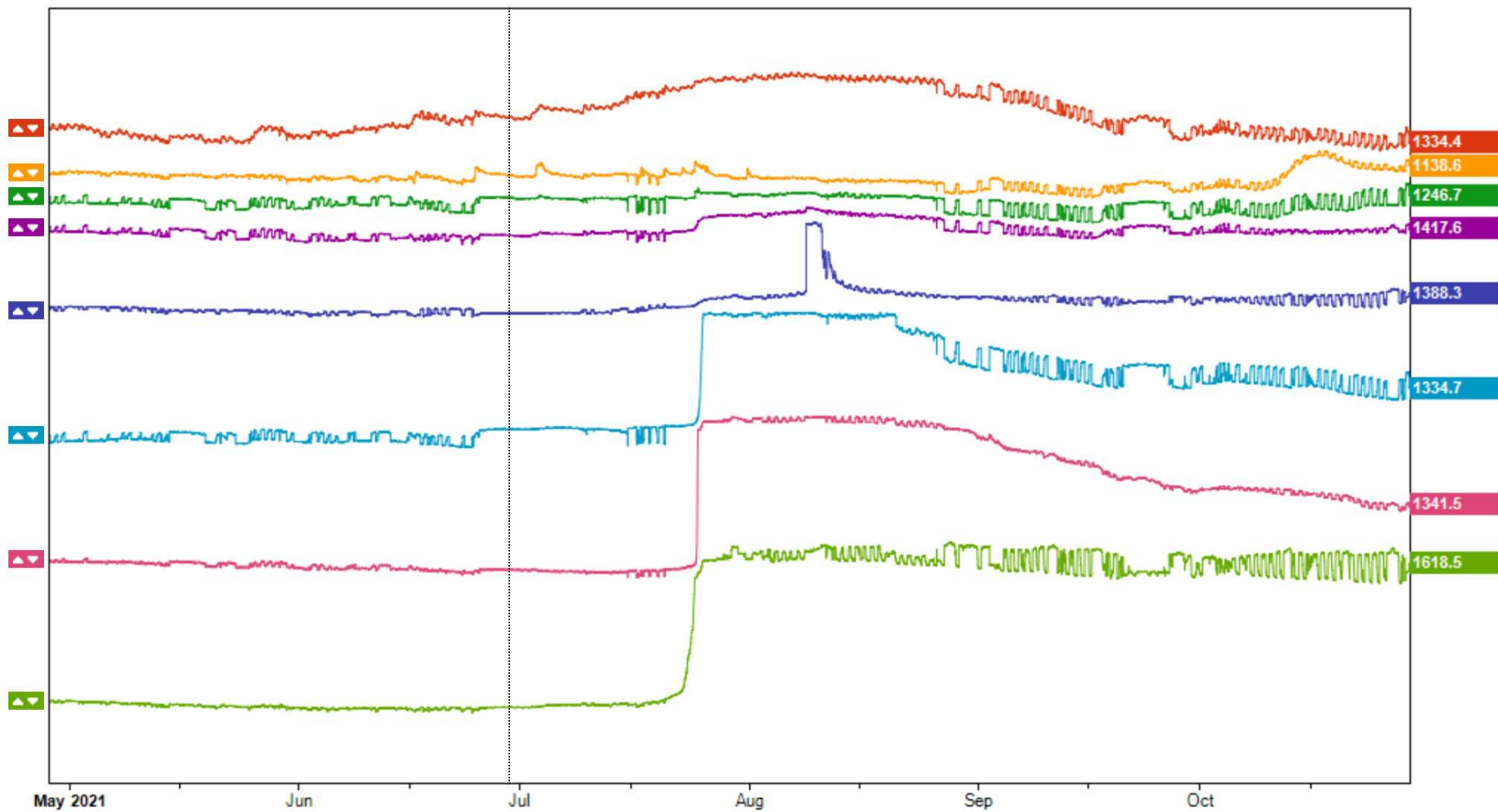
What is happening at Mt Charles?



Mt Charles WS - Salinity Stacked



Last 60 days



+ Legend

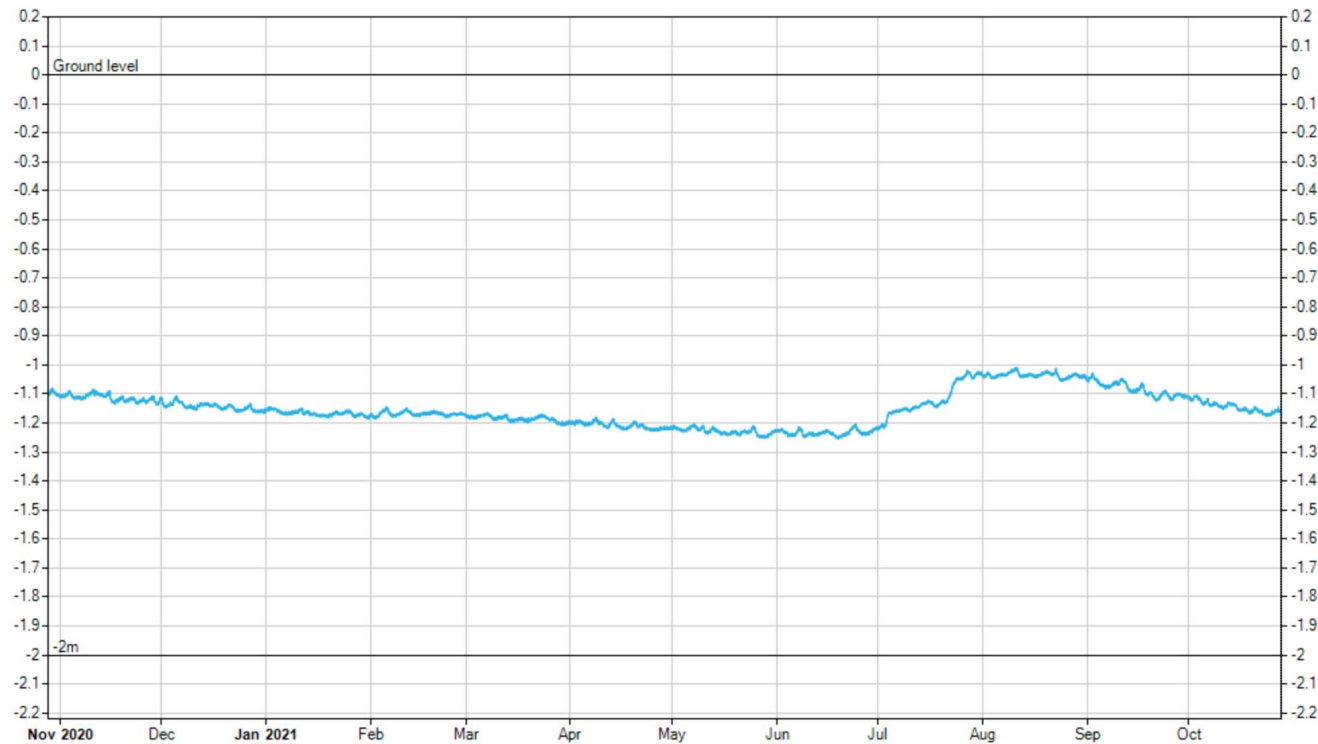
- 10cm
- 20cm
- 30cm
- 40cm
- 50cm
- 60cm
- 70cm
- 80cm
- 90cm

+ Facts & F

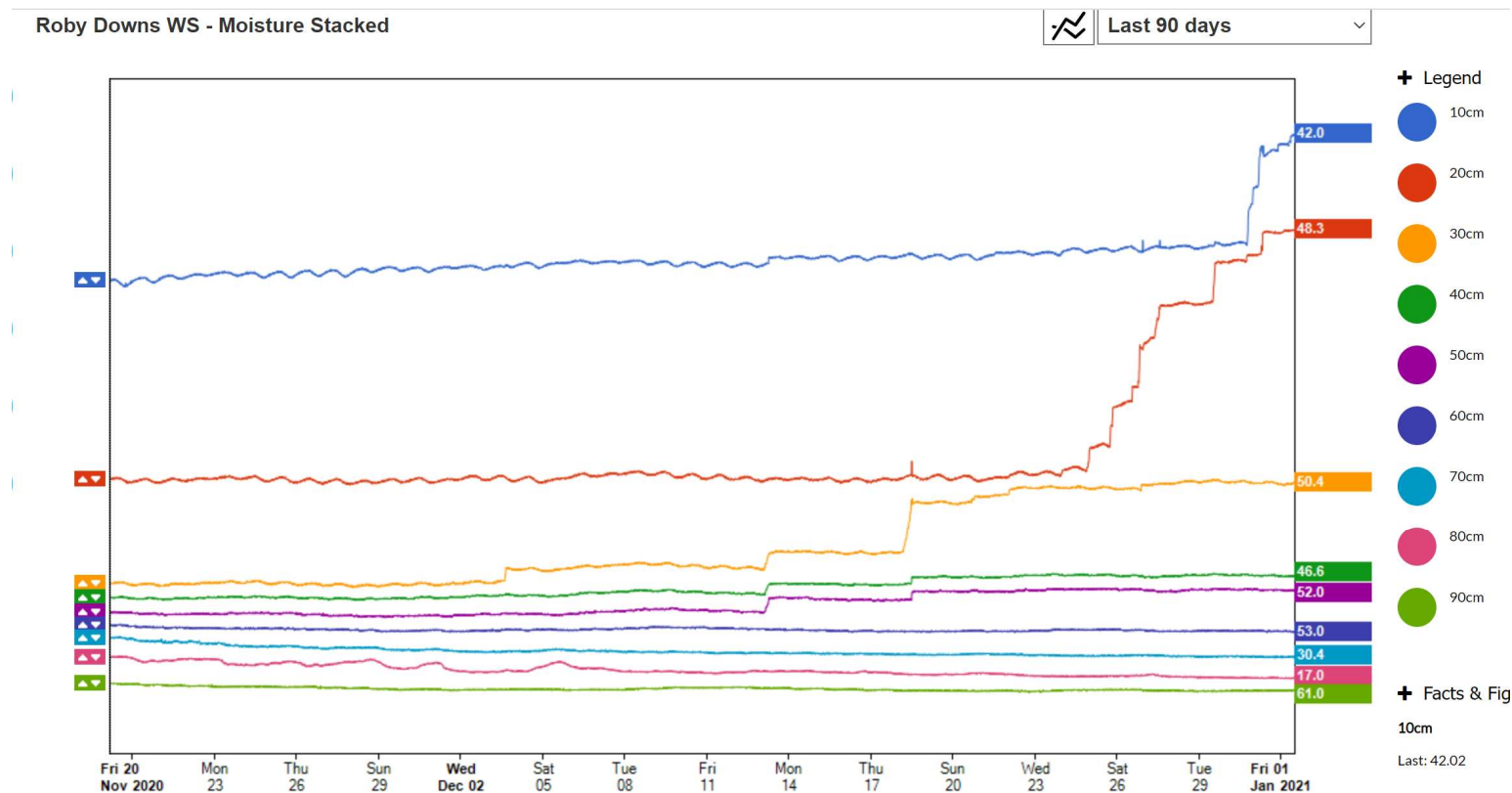
Is this consistent with what is happening around the district?

Roby Downs WS - Depth to Water

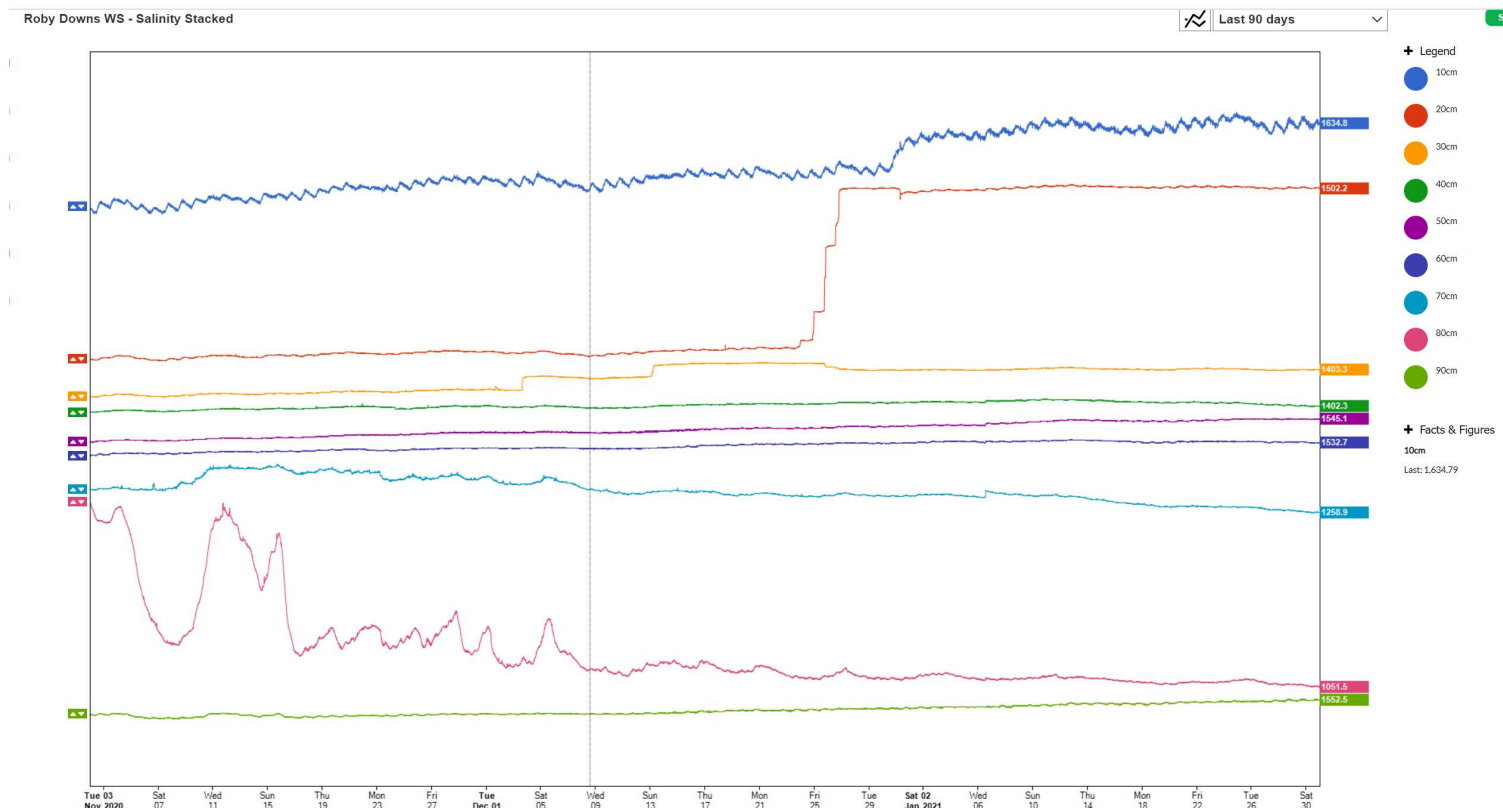
Last 365 days



Coomandook: “Wicking over summer”



Coomandook – Soil Salinity



Why is this important?

		WATERLOGGING LEVEL				
		Low		High		
SALINITY LEVELS	dS/m					
Slightly Saline	2-4			Balansa clover Persian clover Shaftal clover		
Moderately Saline	4-8	Barrel Medic Snail Medic Sphere Medic	Burr Medic		Bokhara clover / white sweetclover	Messina
Highly Saline	8-16					
Severely Saline	16-32					
Extremely Saline	>32					

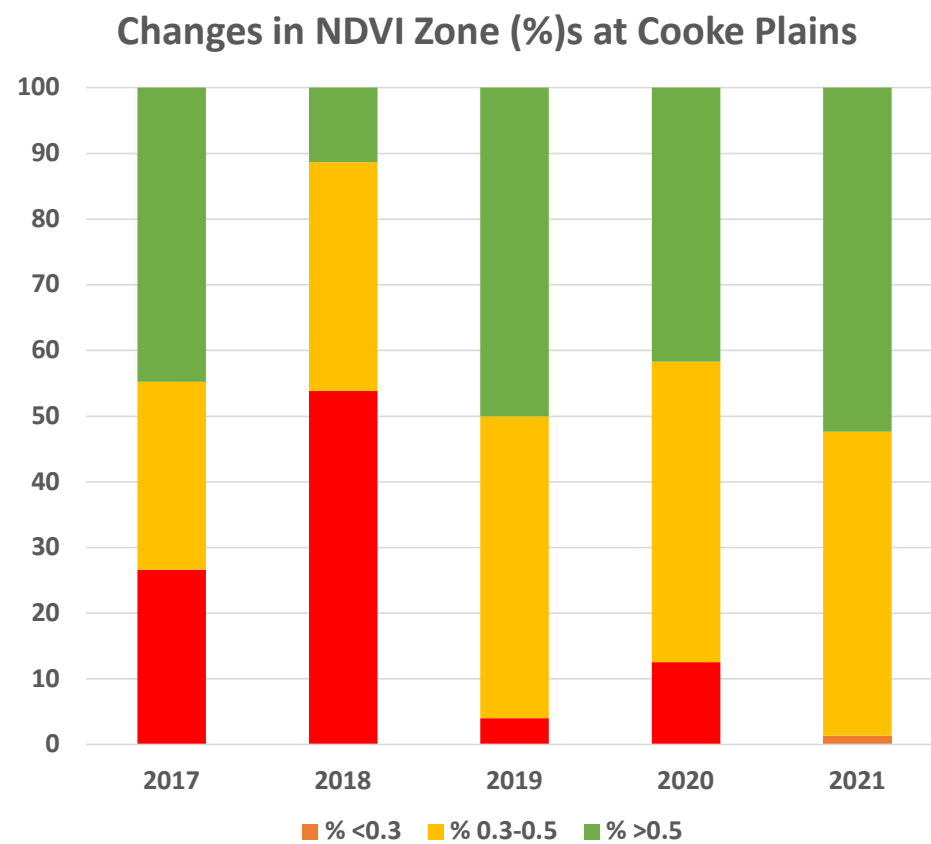
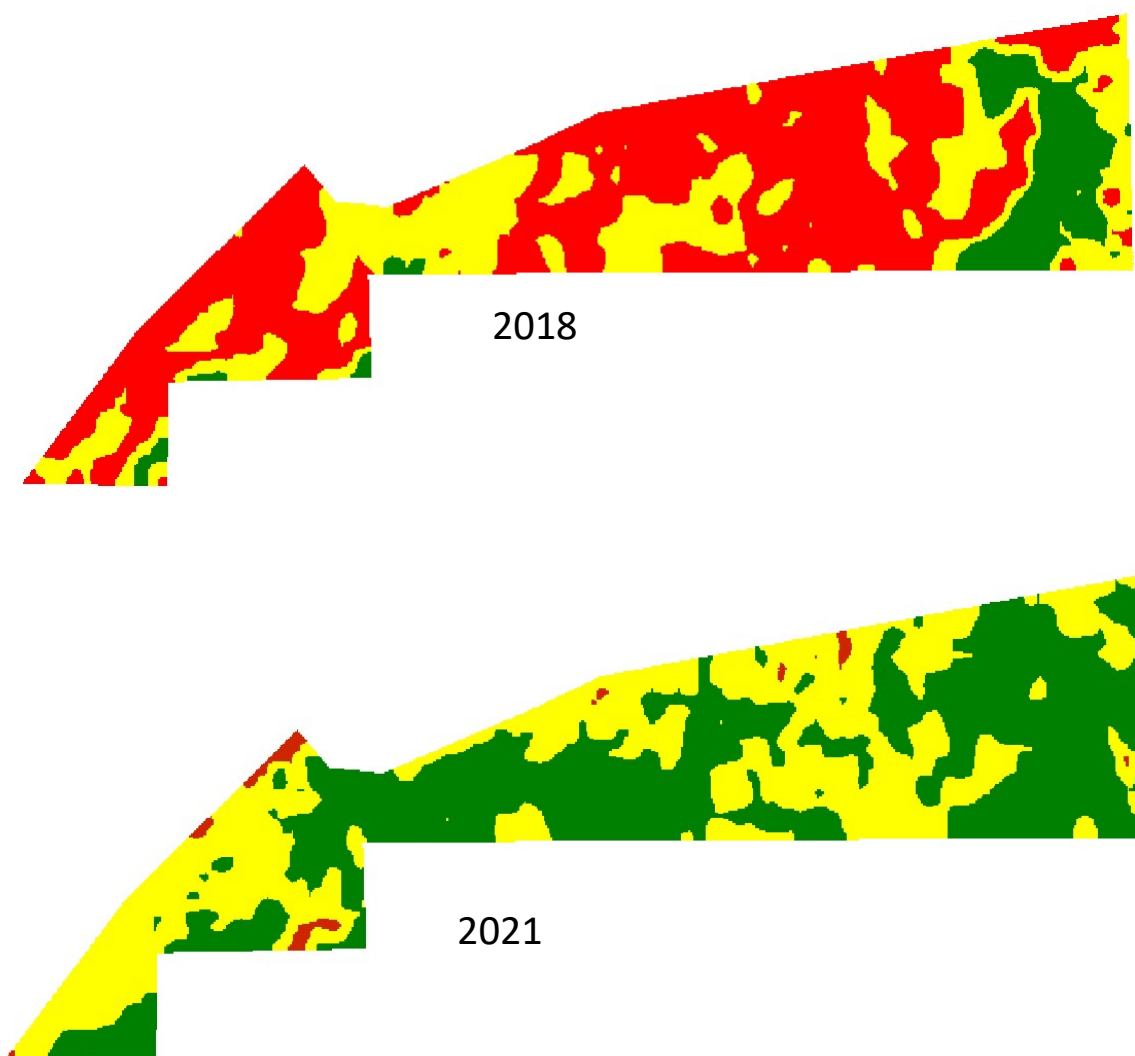
Remediation: What's been achieved



2017



2021



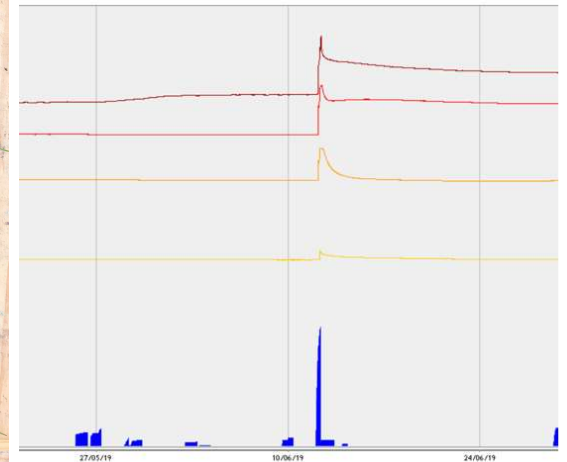
Key Messages



**Maintain
groundcover at all
costs**



Diversity



Flush effect

Know your soil salinity levels

Prevention better than cure

Decision Making... Saltland Genie



Open navigation menu

About Saltland Genie

The Genie

Saltland Genie provides the latest information on profitable saltland solutions for your property. The App brings together decision making tools, on-farm case studies, industry research and resources into one place to help you find the best management solution for your saline land. The Web App is integrated with the Department of Primary Industries and Regional Development's (DPIRD) website which provides the most up to date information.

The Research

Saltland Genie was developed from the original and now defunct Saltland Genie website as part of the Gillamii Centre's Productive Saltland Pastures for Southern WA Project, a collaboration with the Department of Primary Industries and Regional Development, supported by funding from the Western Australian Government's State NRM Program. Saltland Genie content has been developed from a substantial body of research and the highly successful national Sustainable Grazing on Saline Lands (SGSL) initiative. Many organisations are continuing to invest in saltland research and development: the Department of Primary Industries and Regional Development; the Australian Federal Government; CSIRO; Meat & Livestock Australia; the Grains Research & Development Corporation; many associated organisations, Grower and Landcare Groups. Saltland Genie will incorporate the results of this work as it becomes available.

The Legacy

The original Saltland Genie website was the combined vision of the late Kim Mitchell (Currie Communications Pty Ltd) and Warren Mason (RPC Solutions). The majority of the development work was conducted by Warren Mason, Bruce Munday (Clear Connections), Gabrielle Sheehan (Currie Communications Pty Ltd), Ed Barrett-Lennard (Department of Agriculture and Food, Western Australia (DAFWA)/Future Farm Industries Cooperative Research Centre) and Nick Edwards (South Australian Research & Development Institute (SARDI)/FFI CRC).

Saltland Genie – Solutions Explorer

Solution Explorer

Saltland Genie can determine which of the Saltland Solutions will match your particular saltland site. After you have answered 4 questions (and Genie can help you with the question about salinity and waterlogging), Genie will recommend how each of the Saltland Solutions would work on your saltland site. If there are several promising options, Genie can help you explore them further, or you can always jump straight to the full information on any Saltland Solution and examine the detail.

Answering these questions guides you to the most suitable Solution(s) for your saltland



First, choose your state and then select your region below

[Click here for region map](#)

WESTERN
AUSTRALIA

SOUTH
AUSTRALIA

ADVICE: As you answer questions 1-4 the corresponding traffic lights below each Solution against the question

OR

Compare Solutions by selecting 'COMPARE' for those of Interest

<div><div>1234</div><div>COMPARE <input type="checkbox"/></div><div>Solution 1</div><div>Set Aside</div></div>	<div><div>1234</div><div>COMPARE <input type="checkbox"/></div><div>Solution 2</div><div>Saltbush and Managed Volunteer Pasture</div></div>	<div><div>1234</div><div>COMPARE <input type="checkbox"/></div><div>Solution 3</div><div>Saltbush and Understorey</div></div>
<div><div>1234</div><div>COMPARE <input type="checkbox"/></div><div>Solution 4</div><div>Perennial Grasses</div></div>	<div><div>1234</div><div>COMPARE <input type="checkbox"/></div><div>Solution 5</div><div>Annual Systems</div></div>	<div><div>1234</div><div>COMPARE <input type="checkbox"/></div><div>Solution 6</div><div>Environmental Plantings</div></div>

Solution Comparisons

In a Nutshell

Tick compare next to one or more solutions to see more here

Acknowledgements



Murraylands River Murray
Landscapes Board



Farmer Participants
Agribusiness Sponsors

