River Murray and Mallee Aboriginal Corporation Climate Change Yarning Circles 2025

1. Acknowledgements

The River Murray and Mallee Aboriginal Corporation acknowledges and respects the significant community input and expertise that has contributed to this project. The Project received funding from the Australian Government's Future Drought Fund.

2. Introduction

From March until June of 2025 River Muray and Mallee Aboriginal Corporation (RMMAC) in partnership with the Murraylands and Riverland Landscape Board, Department for Environment and Water and the SA Drought Hub, coordinated a series of Yarning Circles on the theme of potential climate change impacts to lands and water across the Riverland and mallee region.

Yarning Circles are a culturally appropriate forum for the sharing and transmission of knowledge for First Peoples of the River Murray and Mallee region. The project engaged First People's community members, climate scientists and ecologists in knowledge sharing to enable a greater understanding of climate change among community members, use cultural knowledge to identify climate change risks for culture and people, and discuss the role of the community and RMMAC in addressing these risks.

3. Approach

Three yarning circles were held for community members and Directors to attend and provide a space for discussing local issues and sharing knowledge that will contribute to future planning for RMMAC.

Yarning Circles were held:

- 12th March 2025 at Berri Hotel, 31 Riverview Drive, Berri
- 9th April 2025
- 20th June 2025 at RMMAC Office, 9 Denny Street, Berri

A list of attendees is provided in Table 1. The Yarning Circles were facilitated by Chris Koolmatrie and Candice Love, and included presentations from Peter Hayman (climate science), Annie Kriesl (ecologist), Grace Hodder (ecologist) and Tony Randall (Millenium Drought impacts). Technical support was provided by Jem Tesoriero, Chris Koolmatrie and Isaac Koolmatrie. All Yarning Circles were recorded on video.

Table 1. Attendees at Climate Change Yarning Circles 2025.

Name	Role
Alexandira Giles	**RMMAC Member**
Yasmine Johnson	**RMMAC Member**
Kayleen Pens	**RMMAC Member**
Angus Giles	**RMMAC Member**
Chaniqua Rigney	**RMMAC Member**
Dale Abdulla	**RMMAC Member**
Julie Cook	**RMMAC Director**
Kylie Johnson	**RMMAC Member**
Melissa Johnson	**RMMAC Member**
Nykita Campbell	**RMMAC Member**
Phillip Johnson Snr	**RMMAC Director**
Sonia Johnson	**RMMAC Member**

Susan Cook	**RMMAC Member**
Tahlia Johnson	**RMMAC Member**
Timothy Abdulla	**RMMAC Member**
Travis Wilson	**RMMAC Member**
Sheryl Giles	**RMMAC Director**
Dora Smith	**RMMAC Member**
Loretta Smith	**RMMAC Member**
Winnie Johnson	**RMMAC Member**
Olga Wilson	**RMMAC Member**
Tameira Giles	**RMMAC Member**
Alfred Abdulla	**RMMAC Member**
Latanya Campbell	**RMMAC Member**
Vanessa Cook	**RMMAC Member**
Jason Johnson	**RMMAC Member**
Katrina Abdulla	**RMMAC Member**

4. Outcomes and results

Provided below is a summary of the issues raised by First Peoples across a range of themes throughout the Yarning Circles. The table is summarised based on specific changes, warming, rainfall patters and riverflow. Key discussion with community outlined potential impacts on people, wildlife, land, water and heritage, with discussion of potential actions either on ground or research opportunities. A number of possible actions for the River Murray and Mallee Aboriginal Corporation to consider were proposed and these are summaried in table 5.

Table 2: Change to climate: Warming

Change to climate: Warming	Impacts on People, Wildlife, Land, Water, Heritage	Action: On ground works and research
More fire weather	Changed fire regimes result in disruption of mallee ecosystems. Loss of important species (eg mallee fowl) due to major bushfires. Increased erosion due to loss of vegetation- exposing and damaging heritage sites Ecosystem recovery after a fire- needs rainfall, but harder to recover if there is less rain.	Cultural burning program – mosaic burning could help to prevent catastrophic fires. RMMAC involvement in fire advisory group process to ensure input to protect cultural values when burning of fighting wildfires. Research the emissions benefits of cultural burning.
More heat waves	Direct impact on community health and activities. Impact on terrestrial wildlife. Indirect impact on aquatic wildlife through water temperature Ability to go out on country for activities and knowledge sharing due to the temperature.	Links to Dept of health and heat wave warnings and how to stay safe in heat waves Research the impact of extreme heat on key species and ecosystems Discuss how stories and knowledge can be shared without being on country
Higher average temperatures	People have always been able to undertake certain activities at certain times of the year, but this is changing. Changing breeding cues etc of wildlife. Change in timing of breeding eg ducks and swans. Impacts on undertaking traditional practices such as swan egging.	Utilise partnerships such as with landscape board to increase access to look after sites on private lands. Monitor temperature and rainfall at culturally important sites

	More likely to have pest incursions and pest expansion. Animal stress due to habitat changes e.g. plants not adapting to the increased heat. Therefore, adding pressure on food sources and animal safety.	Seasonal calendar research and documentation- how seasons traditionally were vs. how they are being documented now and adapting cultural practice.

Table 3: Change to climate: Rainfall patterns

Change to climate: Rainfall patterns	Impacts on People, Wildlife, Land, Water, Heritage	Action: On ground works and research
Change to local rainfall, winter rainfall decline - drier but more extreme events	Disruption of mallee ecosystems. Mallee plants put on fresh growth during winter - what will be the impact of shorter, dryer winters on the vegetation and key wildlife (eg Mallee fowl?) Changes in flowering of mallee plants may affect nectar supply across the year for wildlife. Reduced water to maintain the level of mallee soaks eg Butchers Soak. 'Small reductions in rainfall = big reductions in run-off'. Reduction in surface water run-off into rock holes. Heritage sites being exposed or buried by erosion and deposition. Freshwater soaks that rely on rainfall becoming mores saline and impacting native vegetation.	Program to maintain rock holes – eg keep clean to ensure they operate to provide water to wildlife. Organising access to private land would be key. Filling of rock holes could become worse with increased sand erosion. Revegetate around rock holes to protect from sediment being blown in to them. May need to look at introducing reveg species that are more suited to future conditions. Research into artificial watering of the mallee eg providing watering points for wildlife. A concept discussed by Grace Hodder and the group.
Changes in soil condition – increased salinity and changed PH, changed moisture	Salinised soils result in loss of vegetation and habitat Increases in salinity and extreme PH in either direction destroys heritage materials in soil.	Links to DEW soil condition and groundwater salinity monitoring. Explore role of liming to reduce acidity and planting salt tolerant species to limit localised salinity

Table 4: Changle to climate: River flow

Change to climate: River flow	Impacts on People, Wildlife, Land, Water, Heritage	Action: On ground works and research
Change to river flows, more low flows, occasional extreme flows	Changed flows, water temps etc likely to impact fish breeding cycles. Concern about the loss of freshwater mussels that has occurred. Changes in erosion and deposition of riverbed could impact fish e.g. Ponde laying eggs into sandbanks, clay in gills etc. Heritage sites having low flow destroying soil's structure and veg cover and then large floods causing erosion. Heritage sites also threatened by i) increased construction of wetland regulators, blocking banks and changes to water flow across floodplains. ii) increased erosion along creek banks destroying heritage eg recent example at Kat Creek (Craig Westell). Large sinkholes appeared on floodplains after the last big floods eg around Jane Eliza. Erosion after floods as occurred at Cape Horn.	Need to fight for water to be allocated, including lobbying government for water. Continue to reinvigorate cultural practices with young people. Continue and expand Aboriginal Waterways Assessment program. Utilise partnerships such as with landscape board to increase access to look after sites on private lands.
Impacts on river and floodplain vegetation	Strong connection First Peoples have with old river red gums. Loss of trees with hollows will impact species that rely on hollows.	Protect and managed important basket weaving rush sites. Regenerating gum trees hare used for making spears and clapsticks. Actively grow weaving rushes.

	Loss of basket weaving rushes/sedges due to erosion of their growing areas – this is already being seen. Loss of culturally modified river red gums and black box trees. Particularly black box that grow higher on the floodplain and are more impacted by reduced flows. Loss of scarred trees is risk of losing an entire class of heritage site. Loss of trees used for traditional carving and losing ability to practice and pass down this practice. Putcheda / river coobar which is a key carving species is quite resilient but is declining.	Research water needs for culturally significant species eg weaving rushes. Unis? SARDI? First Peoples to actively propagate / transplant floodplain trees to ensure recruitment. Establish a broad culturally modified tree health monitoring program across the Riverland to inform wetland and floodplain watering etc. Continue to improve how cultural values such as weaving rushes are incorporated into the way wetlands are managed.

Table 5: Potential actions for RMMAC

Type of action (Mitigation / Adaptation)	Action	Notes
Climate change general	Need to educate the govt and wider community about the impacts of climate change on First Peoples.	

	Continue to reinvigorate cultural practices with young people.	
Mitigation	RMMAC reduce emissions (carbon neutral org?) model to others / walk the talk	
Mitigation	RMMAC position statement on climate change	
Mitigation	Actively and visibly promote / advocate RMMAC position and likely impacts – to govt, activism etc.	
Mitigation	Look for opportunities such as groups in NT have with cultural burning and carbon credits.	
Adaptation	Incorporate climate change impacts and responses into AWAs.	
	Actively extend distribution and abundance of vulnerable cultural species such as basket weaving rushes.	RMMAC rangers to establish a weaving rush mapping and monitoring program. RMMAC establish a photo point program on key sites. Research into weaving rushes. Where are they growing? Where are they growing long and thick? What hydrological regime in wetlands will promote their growth? Record scar trees so there is a record for future generations. Protect and managed important basket weaving rush sites.

		Actively grow weaving rushes.
	Address compounding threats such as pest plants and animals	
	Research issues to better understand impacts and mitigation options eg soaks	
	Monitor key indicators / species eg soaks, bush tucker fruiting time, swans, pelicans.	

Conclusion

The community gave positive feedback about the yarning circles being a valuable tool to inform and start a conversation about the future impacts of climate change to First Peoples. The Yarning Circles are a part of a broader conversation about climate change and impacts to First Peoples. It is important to acknowledge there have been many conversations prior to these Yarning Circles and there will likely be many more in the future.

RMMAC Climate Change Yarning Circle Video:

https://vimeo.com/1147146743/230e4739bc



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