



Margooya Lagoon

CULTURAL FLOWS MANAGEMENT PLAN

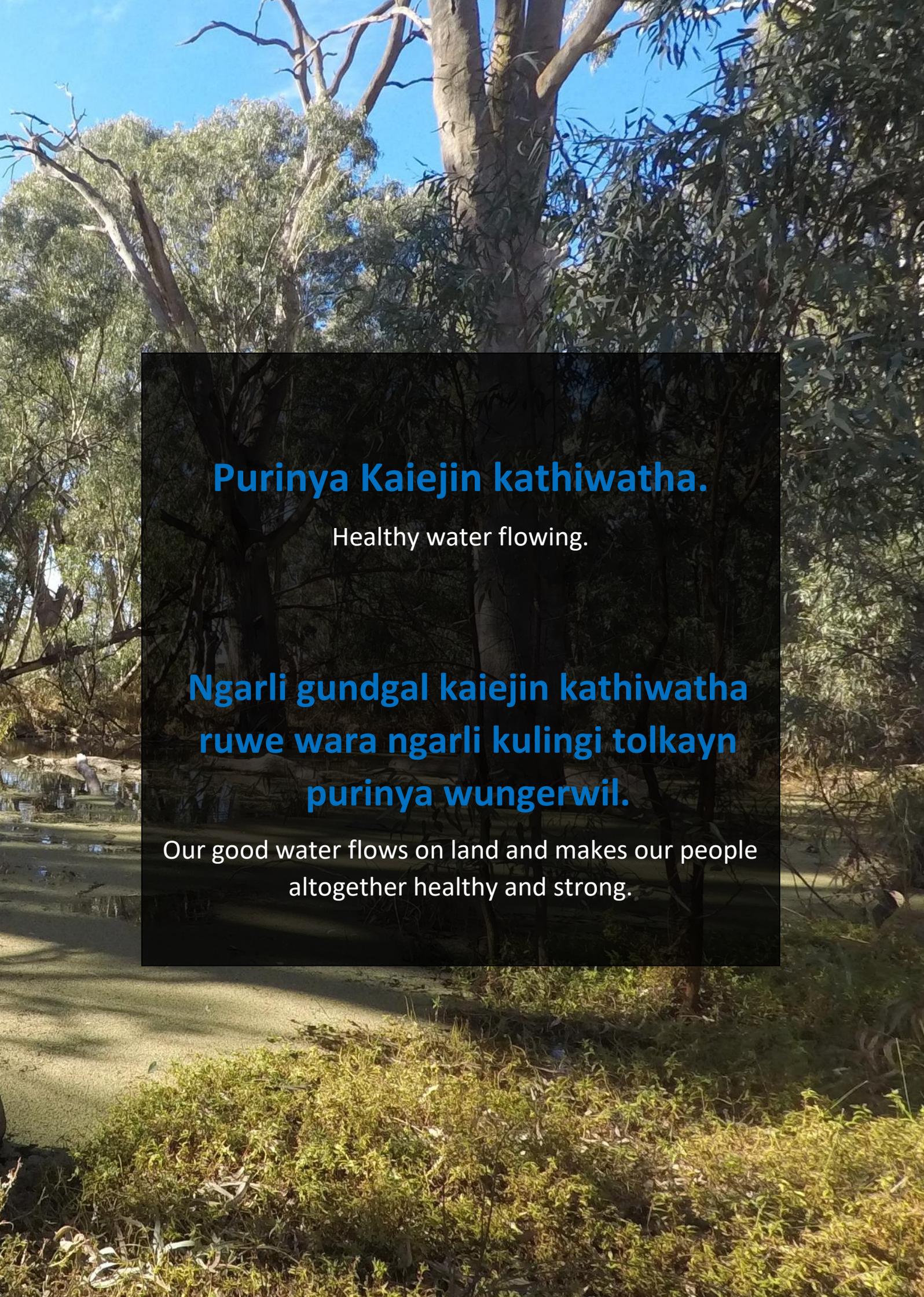


Produced by



TATI TATI
KAIEJIN

2021

A photograph of a lush green landscape. In the foreground, there is a sandy bank with dense, low-lying green vegetation. A river flows through the middle ground, surrounded by tall, leafy trees. The background shows more trees and a clear blue sky. The overall scene is bright and vibrant, suggesting a healthy natural environment.

Purinya Kaiejin kathiwatha.

Healthy water flowing.

**Ngarli gundgal kaiejin kathiwatha
ruwe wara ngarli kulingi tolkayn
purinya wungerwil.**

Our good water flows on land and makes our people
altogether healthy and strong.

CONTENTS

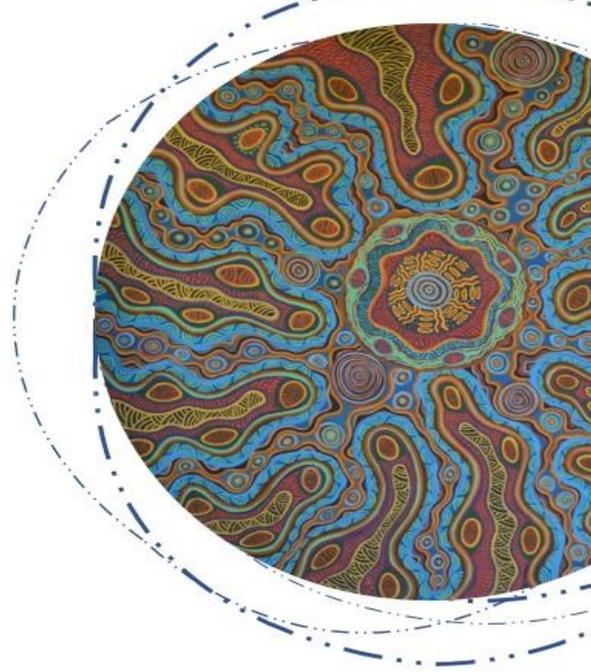


Tati Tati Wadi Wadi Nation Statements.....	6
Declaration of Sovereignty.....	6
Cultural Flows Project Statement.....	6
Echuca declaration.....	7
Part I - Defining Cultural Flows and Cultural Flow Outcomes	7
Part II – Mechanisms for Delivering Cultural Flow Outcomes.....	8
Part III – Determining the Quantity of Cultural Flows.....	9
Values.....	10
Objectives.....	12
Flows and connectivity.....	12
Culturally significant species	12
Outcomes and Aspirations.....	16
Timeline	17
Margooya Lagoon Background	18
Cultural Character.....	18
Ecological features	19
Native animals	19
Land & waterways	21
Cultural significance	22
Threats	24
Infrastructure.....	24
Invasive Species	25

Human Impact	25
Watering requirements	26
For Culture	26
For Country.....	27
Margooya Lagoon Test Flow – 2020.....	28
Overview.....	28
Process.....	29
Outcomes	30
Key issues.....	31
Recommendations and Next Steps	32
Cultural Flows	32
Engagement.....	32
Acknowledgements	33



Tati Tati Wadi Wadi Nation Statements



Declaration of Sovereignty

**Tati Tati Wadi Wadi kulingurra thangurra kaiejin parram
parram tyalingi wangu warripa tharrayamu thangi nga
thiti thalekatha kulingi kungatha delki thangi.**

We, Tati Tati Wadi Wadi, are the **sovereign** nation that carries the responsibilities of caring for our Country, including all waterways, landscapes, wildlife, ancestral sites, totemic species, and cultural heritage, as well as language, lore, song, dance, ceremony, and customs. Our inherent right as Traditional Owners is our connection to place, land, and animals dating back over 2000 generations.

We, Tati Tati Wadi Wadi, state we have **never ceded sovereignty**, nor ever relinquished, given, or traded our **inherent right to Country and culture** to any foreign individuals, parties, or governments. Tati Tati Wadi Wadi **does not consent** to any foreign individuals, parties, or governments to act on our behalf in managing Country. Our involvement in any capacity does not, and should not, be misinterpreted as Tati Tati Wadi Wadi's consent for decision-making or management on our behalf.

We are, and will forever be, the rightful people to care for our Country.

Cultural Flows Project Statement

All information and knowledge gathered and reported are offered by Tati Tati Wadi Wadi peoples' to learn and share knowledge of Country. We also share the knowledge freely for the health and well-being of waterways, land, culture, and peoples in the hopes of connecting with others to further our goals, practices, and values.

Through the continuation and attainment of Cultural Flows, we demand and aspire to achieve sovereign control of water management on Country to uphold our responsibilities of caring for Country.



Echuca Declaration



The Echuca Declaration RECOGNISES and REAFFIRMS that each of the Indigenous Nations represented within Murray and Lower Darling Rivers Indigenous Nations is and has been, since time immemorial, sovereign over its own lands and waters and that the people of each Indigenous Nation obtain and maintain their spiritual and cultural identity, life and livelihood from their lands and waters.

It further **RECOGNISES and AFFIRMS** that water has a right to be recognised as an ecological entity, a being, and a spirit and must be treated accordingly. For the Indigenous Nations water is essential to creation and many of Dreaming and other ancestral beings are created by and dwell within water.

Part I - Defining Cultural Flows and Cultural Flow Outcomes

Article 1 – Defining Cultural Flows

"Cultural Flows" are water entitlements that are legally and beneficially owned by the Indigenous Nations of a sufficient and adequate quantity and quality to improve the spiritual, cultural, environmental, social and economic conditions of those Indigenous Nations. This is our inherent right.

Cultural Flows are water rights that we hold in our own name and are not held in trust by Government AND provide us with enough clean water to improve all parts of our lives.

Article 2 – Defining Cultural Flow Outcomes

The environmental, social and economic conditions of the Indigenous nations will be improved by the achievement of the cultural flow outcomes, namely:

- i. Survival and sustainable health of the rivers and waterways through the restoration of natural flow regimes;
- ii. Improved and strengthened spiritual, physical and mental health of the Indigenous people whose beliefs, cultures, identities, prosperity and physical well-being are inseparable from the environment and whose lifeblood is the waterways;

iii. To protect and restore ecosystems such that native plants and animals and their habitats are able to be used and managed in accordance with the cultural practices of the Indigenous Nations including but not limited to:

- a.** Propagation and harvesting of plant species for medicine, timber, food sources, and material for manufacture of tools, clothing and housing;
- b.** Protecting, hunting and killing animal species for food, medicine, clothing and all other cultural uses;
- c.** Spiritual, ceremonial, cultural and social activities;
- d.** Use of earth and minerals for spiritual, cultural and social purposes including economic purposes,
- e.** tool making and medicinal purposes;
- f.** Use of the water for drinking, hygiene, recreation, spiritual and ceremonial purposes;
- g.** Use of the whole of the environment for educational purposes including the recording and transmission of Indigenous science and knowledge;
- h.** Improved economic opportunities and prosperity;

iv. Recognition by the Commonwealth and States of Australia and non-Indigenous Australians of the inherent rights of the Indigenous Nations and the need to give full weight and value to Indigenous Science, Knowledge and Practices.

v. The cultural flow outcomes are outcomes that the Indigenous Nations have been able to record or measure and determine whether the outcomes have been achieved.

Part II – Mechanisms for Delivering Cultural Flow Outcomes

Article 3

The Commonwealth and the States must identify funding and non-monetary mechanisms for the allocation of the water entitlements to the Indigenous Nations.

Article 4

In the acquisition and allocation of water entitlements to Indigenous Nations as cultural flows the Commonwealth and State Governments must:

- i.** Adhere to the principle that the free and fully informed prior consent ("consent") of the Indigenous Nations is necessary, desirable and best practice;
- ii.** Seek the consent of the Indigenous Nations in respect of the water acquisition for cultural flows;
- iii.** Seek the consent of the Indigenous Nations in respect of any proposed restriction on cultural flow outcomes;

iv. Transfer water entitlements to such incorporated body as the Indigenous Nations may nominate.

Article 5

With respect to the management and decision making in respect of releases of cultural flows the Commonwealth and States of Australia, the Murray Darling Basin Commission, the National Water Commission and their successors should ensure that the Indigenous Nations have access to technical and scientific support as and when required and that proposed cultural flow releases are able to be co-ordinated with other releases and events so as to achieve maximum efficiency and effectiveness and implementation of cultural flow outcomes.

Article 6

Specific mechanisms must be developed for the urgent and immediate acquisition of water entitlements identified for economic outcomes.

Part III – Determining the Quantity of Cultural Flows

Article 7

The overriding objective in determining the type and location of water entitlements acquired and transferred to the Indigenous Nations for cultural flows must be sufficient to ensure that the Indigenous Nations, through their legal and beneficial ownership of the water entitlements, can achieve substantial and measurable cultural flow outcomes.

Article 8

In the first instance water entitlements transferred to Indigenous Nations as cultural flows must be at least the equivalent of water entitlements acquired by the Commonwealth and States of Australia or their agencies in respect of "environmental flows".

Article 9

Water entitlements allocated as cultural flows for direct economic outcomes must at least match water entitlements for cultural flows for non-economic outcomes.

Adopted by MLDRIN Delegates on 14 November 2007



Values



In 2018, Tati Tati Wadi Wadi engaged MLDRIN to undertake a Cultural and Biodiversity assessment of Margooya Lagoon, a watering-place that we determined as suitable for receiving water and undergoing a cultural flows assessment. The Cultural and Biodiversity assessment aimed to identify our values and aspirations for Margooya Lagoon, allowing us to address components of Stage 1 of the cultural flows methodology (Describe values and set cultural flow objectives).

Figure 1 depicts the values of Tati Tati Wadi Wadi at Margooya Lagoon. These values protect, sustain, and enhance Margooya Lagoon and are represented as a 'web' of interconnected elements.

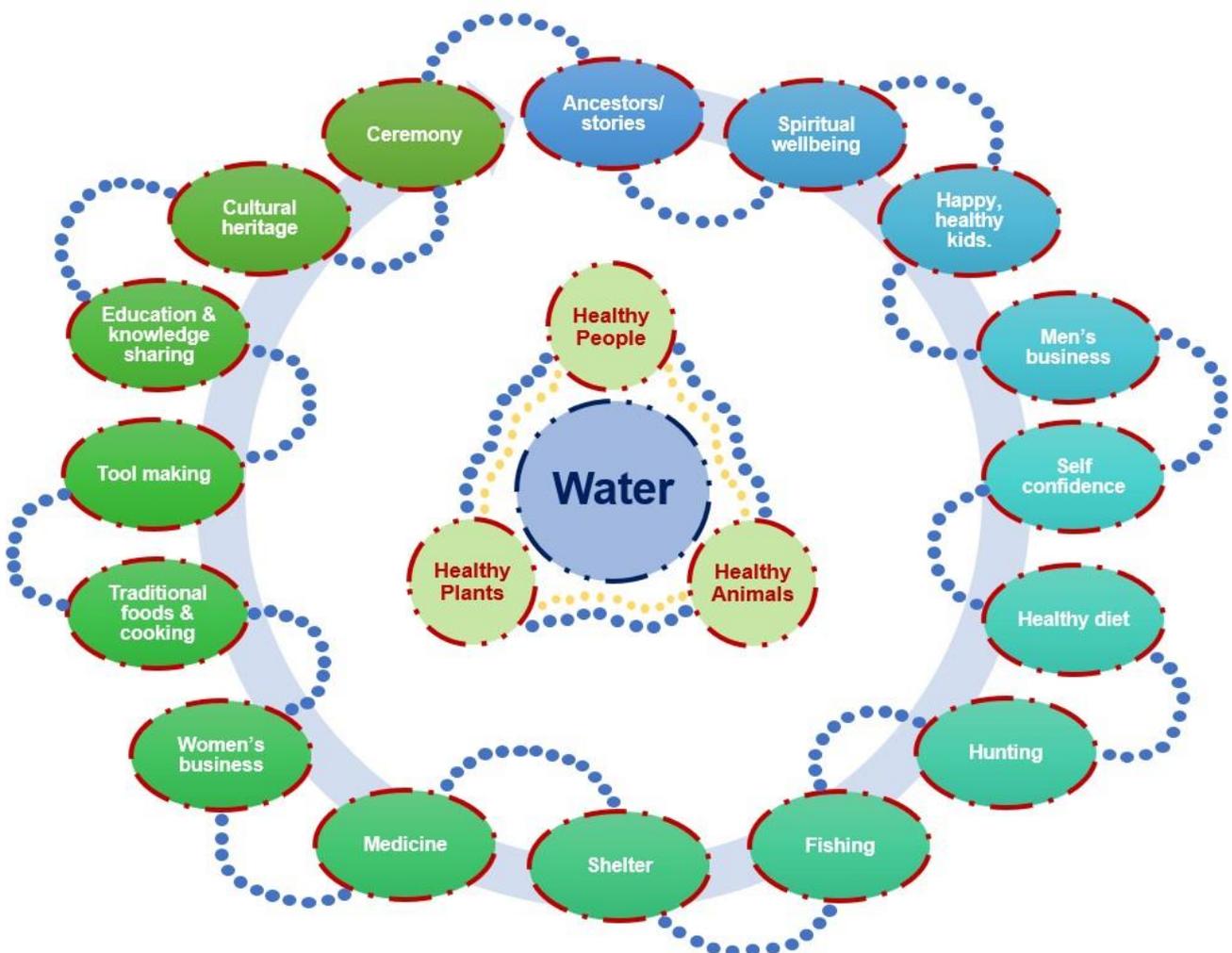


Figure 1: Tati Tati Wadi Wadi interconnected values at Margooya Lagoon.

These values are inherently interconnected and mutually reinforcing; rather than focusing on what each element of the system can provide, a holistic approach outlines how each element is interconnected in a more extensive web. Each component supports and influences the next. At the centre of the 'web' are the corresponding values of healthy plants, healthy animals, and healthy people - these are all fundamentally supported by adequate quality and quantity of water at Margooya. Organised around the core values are the other fundamental values that we have identified, all interconnected and mutually reinforcing.

Figure 2 is a collection of Tati Tati Wadi Wadi Traditional owner expressions of the meaning and impact of Cultural Flows.

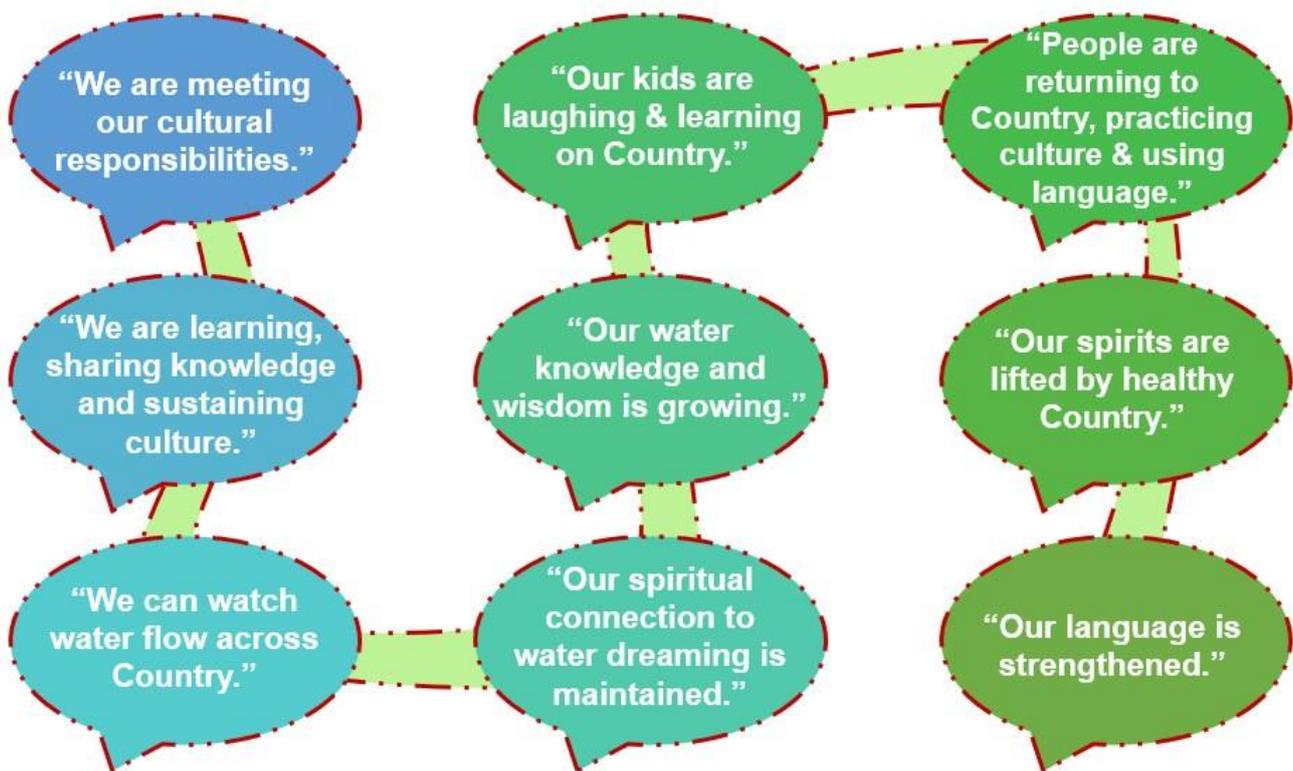


Figure 2: Tati Tati Wadi Wadi statements on what Cultural Flows will mean for culture and Country.





Objectives

In 2018-19, Tati Tati Wadi Wadi members participated in several workshops to determine nation objectives around Cultural Flows and the health of waterways and Country. A total of 16 main objectives were outlined across water, animals, plants, and people – all of which are considered interconnected and central to cultural understandings of Country.

Flows and connectivity

1. Restore connectivity between Margooya Lagoon, the natural inlets upstream and east of the Lagoon, and the Murray River by 2025. Flows are to inundate these inlets and fill Margooya Lagoon once every two years. The timing of these flows is to be informed by Tati Tati Wadi Wadi Traditional Owners. These flows will support building community water knowledge.
2. Restore seasonal wetting and drying cycles to Margooya Lagoon by 2030, guided and informed by the Tati Tati Wadi Wadi Wadi Seasonal Calendar project outcomes.
3. Restore water quality conditions remembered by our Elders and revitalise traditional water purification techniques in Margooya Lagoon by 2028.

Culturally significant species

4. Improve the abundance and condition of water species for food sources in Margooya Lagoon by 2030, including:
 - Warnmarn (River mussels, *Velesunio ambiguous*)
 - Yapi (Yabby, *Cherax destructor*)
 - Shrimps (*Paratya australiensis*)

River mussels and yabbies can be harvested and eaten as part of a traditional diet, supporting a revitalised cultural economy.



Image sourced.

5. Improve abundance and condition of key culturally significant fish species at Margooya Lagoon by 2025 to support traditional diet, cultural fishing practices, men's business, and revival of a cultural economy, including:

- Pandyl (Murray Cod, *Maccullochella peelii*),
- Wiringul (Golden Perch, *Macquaria ambigua*),
- Catfish (*Tandanus tandanus*).

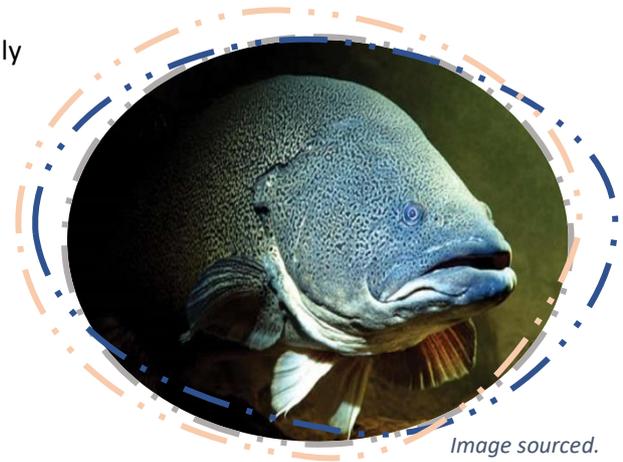


Image sourced.

6. Improve abundance and diversity of birds and waterbirds at Margooya Lagoon by 2025 by providing appropriate inundation, food sources, and nesting habitat, including:



Image sourced.

- Pathangal (Pelican, *Pelecanus conspicillatus*),
- Kunuwar (Black Swan, *Cygnus atratus*),
- White-bellied Sea Eagle (*Haliaeetus leucogaster*),
- Taramang (Wood duck, *Chenonetta jubata*)
- Wirpil (Wedge-tailed Eagle, *Aquila audax*)
- Cormorant/Pied Shag (*Phalacrocorax varius*),
- Great Cormorants (*Phalacrocorax carbo*)

7. Improve abundance of key hunting species at Margooya Lagoon by 2025 to revive traditional practices of hunting and cooking and support restoration of community health and well-being. Including:

- Karrwingi (Emu, *Dromaius novaehollandiae*),
- Kurangi (Eastern grey kangaroo, *Macropus giganteus*).

8. Restore Margooya Lagoon to a state that supports the return of Marti population (Platypus,



Artwork: Karrwingi, artist: Brendan Kennedy.

Ornithorhynchus anatinus). Investigate options by 2023 for re-establishing a platypus population at Margooya Lagoon.

9. Maintain the health of culturally significant and modified trees (including birthing trees, ring trees, and scar trees) at Margooya Lagoon and improve their condition by 2030 to support sharing culture and traditions such as men's and women's business.

10. Maintain the condition of cultural features such as oen mounds, middens and artefact scatters at Margooya Lagoon and improve their protection, including through culturally-informed water delivery by 2030. This will support and improve opportunities to share knowledge, maintain connection and identity.

11. Improve the health and abundance of culturally significant fibre plant species, including sedges, rushes, reeds, perennial grasses, and flax lily in Margooya Lagoon by 2030 for weaving to support sharing and teaching knowledge and women's business.



12. Improve the abundance and condition of key culturally significant medicinal plant species such as culturally significant food plant species in Margooya Lagoon by 2025 to support health, well-being, and revitalising a cultural economy. Includes:

- Nardoo (*Marsilea drummondii*)
- Cumbungi (*Typha latifolia*)
- Murnong (*Microseris lanceolate*)
- Pigface (*Carpobrotus glaucescens*)
- Mallee Red Gum (*Eucalyptus dwyeri*)
- Old Man Weed (*Centipeda cunninghami*)
- Ruby saltbush (*Enchylaena tomentosa*)
- Saltbush (*Rhagodia preissii*)
- Yams (*Dioscorea alata*)

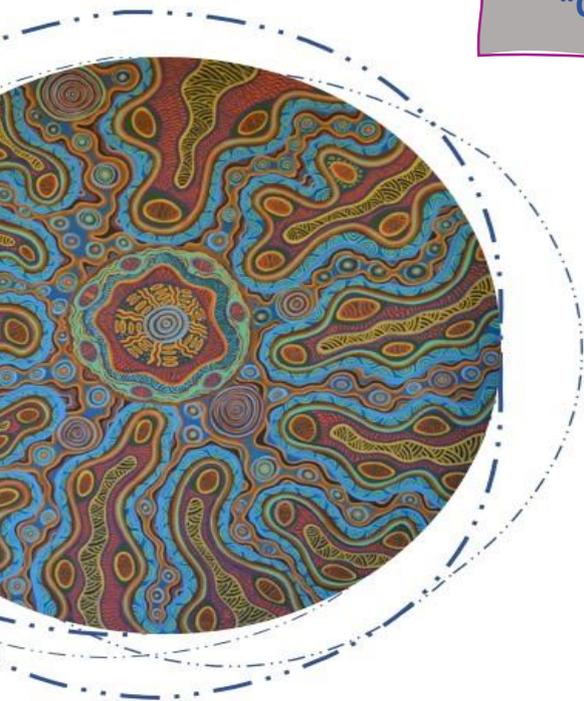




People and culture

13. Tati Tati Wadi Wadi people hold gatherings at Margooya Lagoon at least once a year to coincide with water delivery events. By 2023, Tati Tati Wadi Wadi visits Margooya Lagoon more frequently. These gatherings will support men's and women's business, cultural knowledge sharing, and restores cultural connection to Country.
14. Tati Tati Wadi Wadi people's cultural knowledge, values, and objectives are recognised and included in all water planning processes for Margooya Lagoon by 2025:

“Our knowledge is heard, and our actions are implemented.”



15. Tati Tati Wadi Wadi people have the space to grow water knowledge and capacity by participating in and overseeing all areas of planning for water delivery events, including observing and monitoring water flow at Margooya Lagoon by 2025.

16. Tati Tati Wadi Wadi role as custodians is demonstrated through effective management of a cultural flow entitlement for Margooya Lagoon by 2030. This will improve the protection, enhancement, and recognition of Tati Tati Wadi Wadi water rights and values.

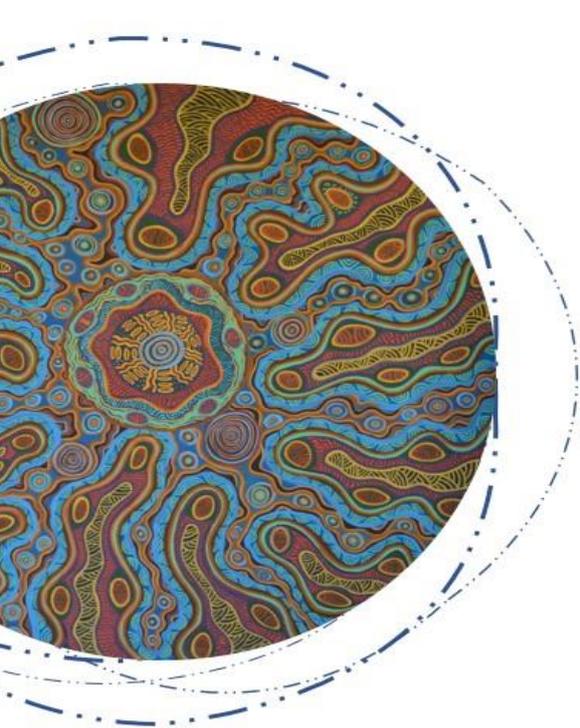
Outcomes and Aspirations

Through Cultural Flows and the processes and learnings throughout the project, Tati Tati Wadi Wadi has identified key outcomes and aspirations specific to nation values and understandings of caring for Country. These have been grouped into Foundational needs, short-term outcomes, long-term outcomes, and aspirations – nation ambitions of self-determination for Margooya Lagoon and water rights (figure 3).

Detailed in Table 1 is the status of foundational needs required in the first step to achieving water control, supporting the timeline for when outcomes will be achieved (figure 4).



Figure 3: Tati Tati Wadi Wadi prioritised outcomes and aspirations.



Foundational Need	Achieved/ongoing/not achieved
TTWW Aboriginal Water Officer	Achieved
AWA's and Biodiversity Reports	Achieved
Access to resources, environmental information, data, and planning for all aspects of water on Country	Ongoing
Financial support, training, and employment for T.O led monitoring, evaluation, and assessments.	Achieved
Capacity to maintain and achieve TTWW priorities and objectives.	Ongoing

Table 1: Foundational needs outcome status.

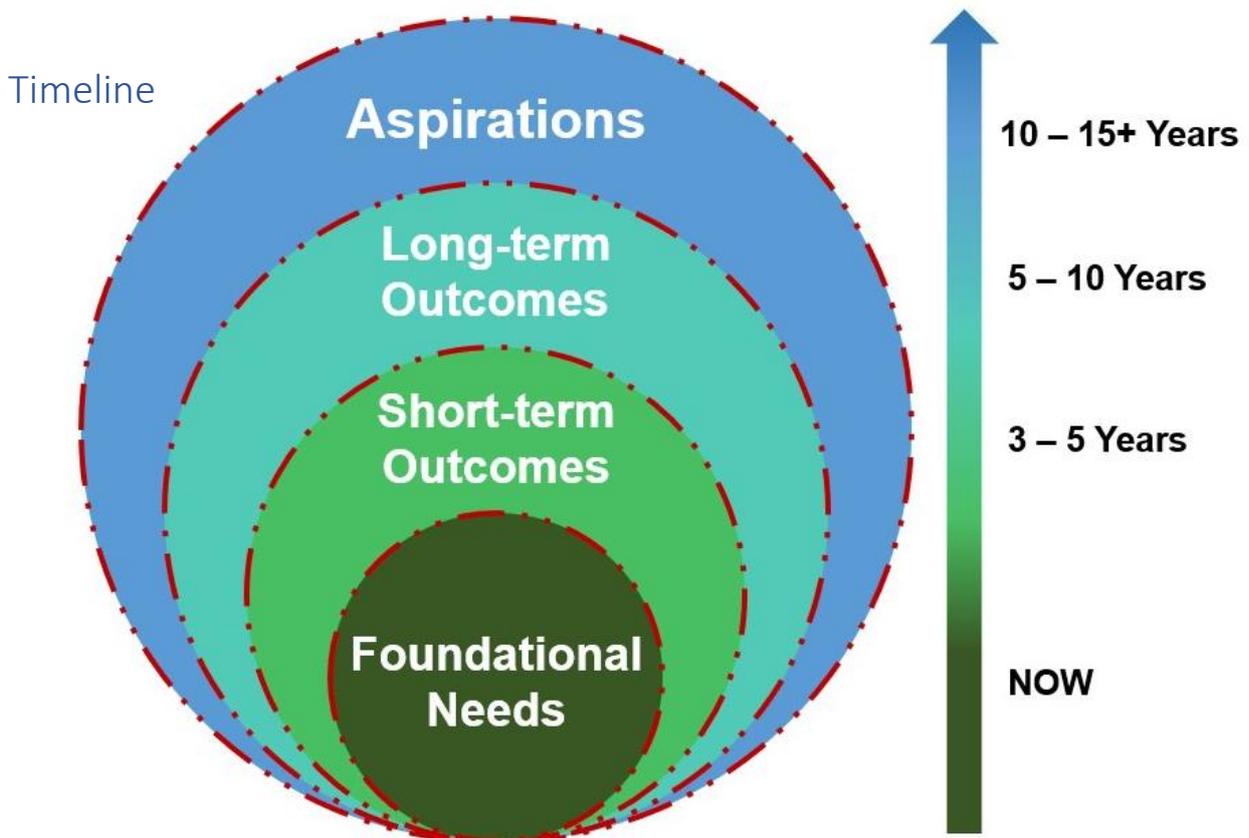


Figure 4: Timeline of for achieving outcomes and aspirations.

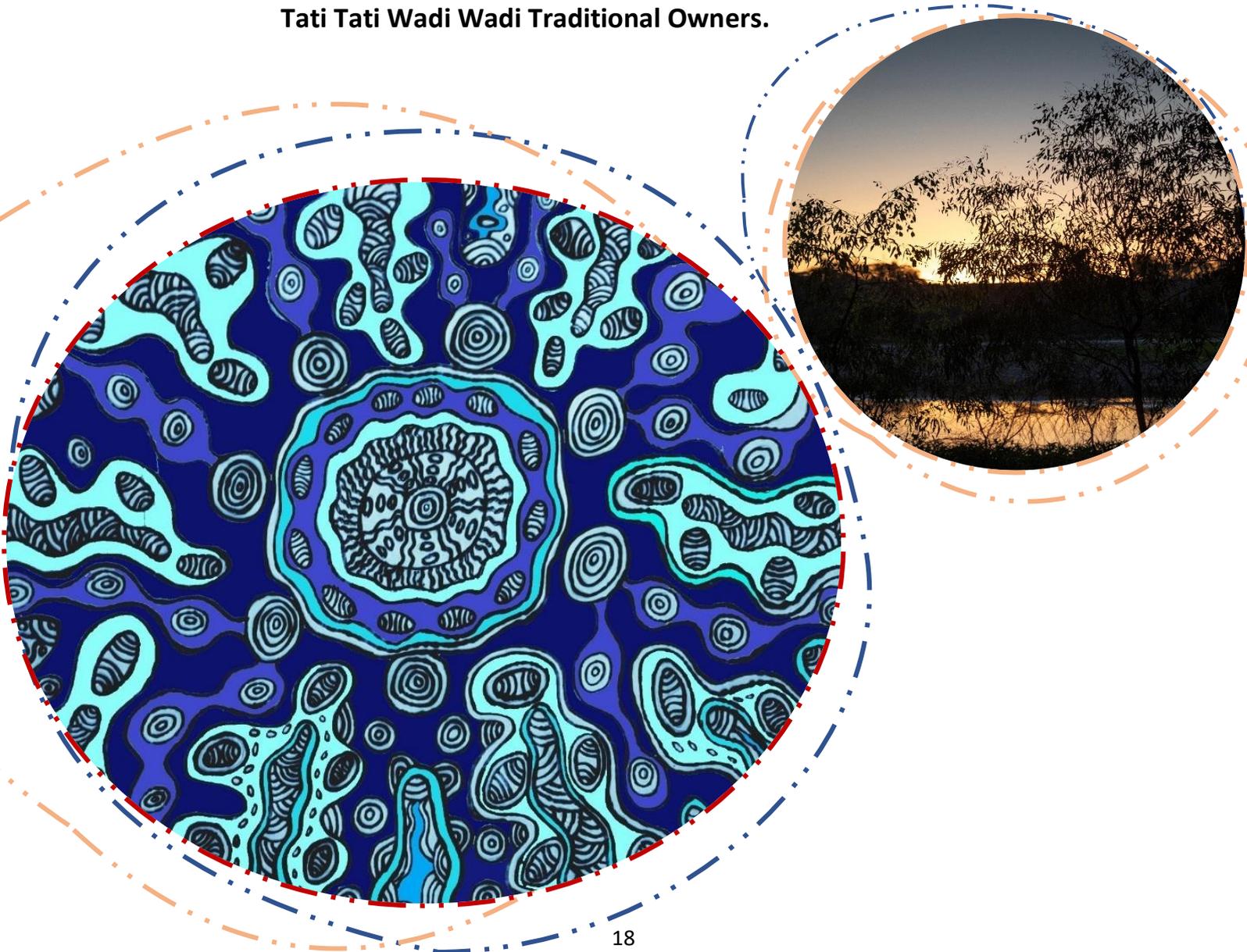


Margooya Lagoon Background

Cultural Character

The cultural character of Margooya Lagoon captures the overall impression of Country by combining and connecting ecological importance with cultural significance.

This means valuing equally the environmental features and physical characteristics such as land, water, trees, and animals with the cultural knowledge, practices, history, values, spirit, and wisdom of Tati Tati Wadi Wadi Traditional Owners.



Ecological features

Margooya Lagoon is a wetland ecosystem that supports and maintains various plants, microbes, insects, amphibians, reptiles, birds, fish, and mammals. Maintaining the balance for the ecosystem is of equal ecological and cultural importance as many of these species are central to TTWW traditional practices and cultural values. The ecological importance includes preserving natural food webs, habitats, species richness, migration and breeding patterns, waterways, and the general health of the wetland.



Native animals

Aquatic life – Many aquatic species have been identified as living in Margooya Lagoon under the right conditions, depending on water levels and quality, such as the river mussels. These species contribute to the ecosystems of waterways. Some common species include:



Image sourced.

TATI TATI WADI WADI	ENGLISH	SCIENTIFIC NAME
PANDYIL	Murray Cod	<i>Maccullochella peelii</i>
WIRINGUL	Golden Perch	<i>Macquaria ambigua</i>
YAPI	Yabby	<i>Cherax destructor</i>
WARNMARN	River mussels	<i>Velesunio ambiguous</i>
TUIMI MUM	Murray River Turtle	<i>Emydura macquarii</i>

Table 2: Native aquatic animals



Artwork: Pathangals, artist: Brendan Kennedy.

Birds – Margooya lagoon is a refuge for many bird species in the area, with ample vegetation for nesting, breeding, and abundant food sources. Duck eggs were observed onsite during the cultural and biodiversity assessment in 2018 and were recognised as an essential part of the ecological system at Margooya. Notable bird species include:

TATI TATI WADI WADI	ENGLISH	SCIENTIFIC NAME
PATHANGAL	Pelican	<i>Pelecanus conspicillatus</i>
KUNUWAR	Black swan	<i>Cygnus atratus</i>
TARAMANG	Wood duck	<i>Chenonetta jubata</i>
WIRPIL	Wedge-tailed eagle	<i>Aquila audax</i>
(TRADITIONAL NAME UNKNOWN)	White-bellied Sea eagle	<i>Haliaeetus leucogaster</i>
(TRADITIONAL NAME UNKNOWN)	Pied shag/cormorant	<i>Phalacrocorax varius</i>
(TRADITIONAL NAME UNKNOWN)	Great cormorants	<i>Phalacrocorax carbo</i>

Table 3: Native birds

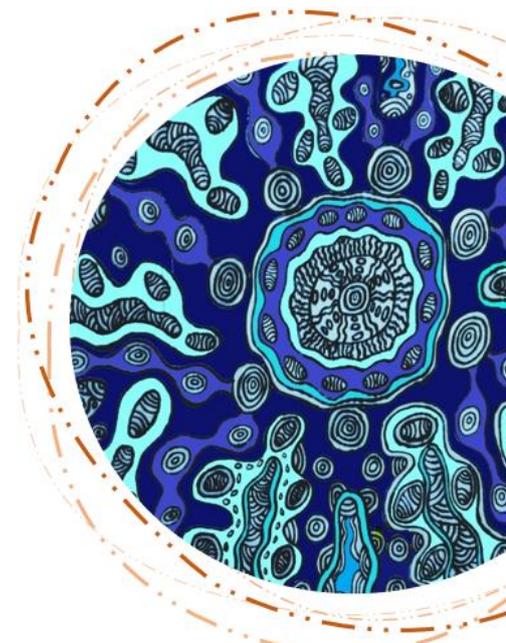
Land-based animals – Many land animals also seek refuge at Margooya and are essential to the health of Country. They vary, and numbers often fluctuate depending on seasonal changes. These can include:

TATI TATI WADI WADI	ENGLISH	SCIENTIFIC NAME
KARRWINGI	Emu	<i>Dromaius novaehollandiae</i>
KURANGI	Eastern grey kangaroo	<i>Macropus giganteus</i>
NGANUR	Goanna – Lace monitor	<i>Varanus varius</i>
KANI	Snakes	
THANGGALLI	Earthworms	

Table 4: Native land animals



Image sourced.



Land & waterways

The area of Margooya Lagoon has many different land features that offer varying ecological benefits for animals and people.

Inundation zones – There are multiple inundation zones at Margooya Lagoon abundant in snags that form critical refuges for native animals. The

inundation zones are spread across both sides of the Milloo/Dindi (river) and allow native species to flourish while protecting and sustaining important ancestral sites. However, due to water management and the installation of the regulator (as detailed further in threats), these creeks rarely have natural flows. The creeks also open up into a flood plain between the Lagoon and the Murray River that, traditionally, was inundated with natural highs of the river during heavy rains and floods. The flood plains are significant for riparian vegetation and water storage.

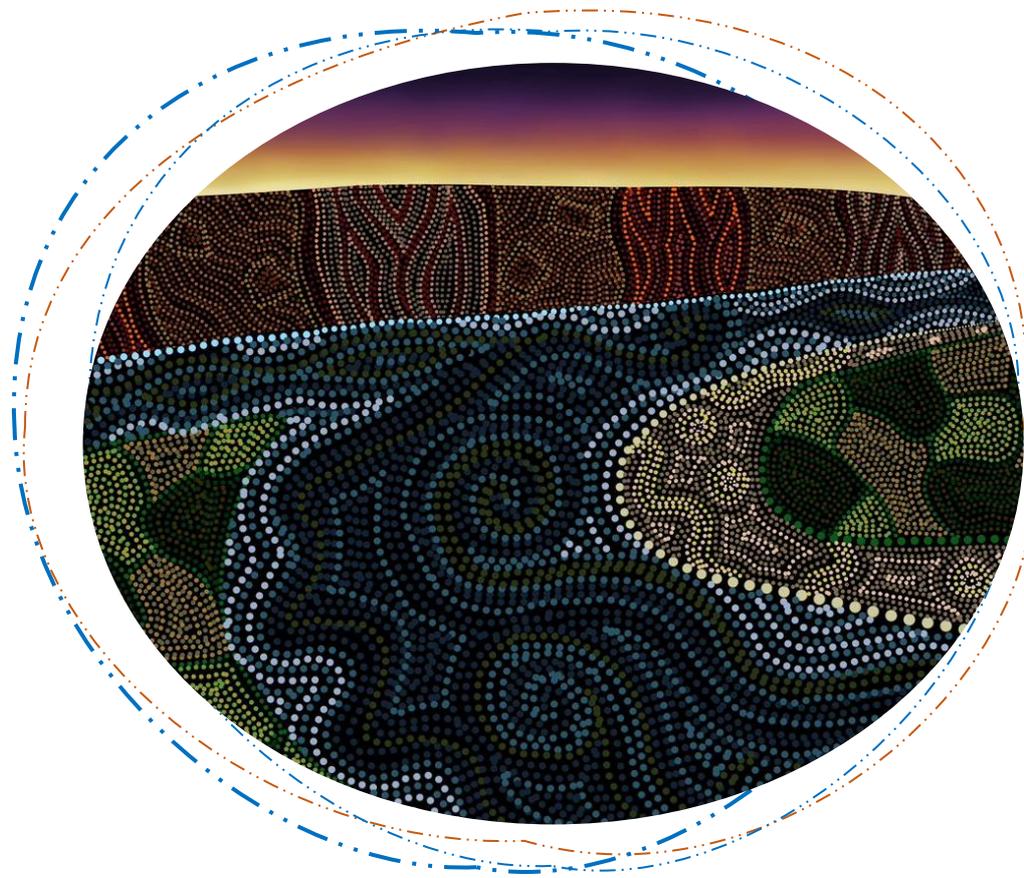
Cliffs – to the west of Margooya Lagoon, high banks offer a place for food and other plants to thrive and areas for a wind block and sun protection. This area provides natural ochre and fibres and was traditionally used as a vantage point for ancestors to camp and hunt and a lookout for elders to direct others.

Native plants and vegetation – Trees, plants, and vegetation at Margooya vary for ecological and cultural purposes. For example, larger trees offer habitat and shade include Red Gum, Coobah & Black Box. Medicinal and edible plants include Old Man Weed, Cumbungi, Saltbush, Pigface, and Emu Bush. Seen throughout the area is the high number of trees and vegetation used as shelter, nesting, or food supporting many aquatic and terrestrial species.



Cultural significance

Margooya Lagoon is a culturally significant place where we connect with Country, each other, and ourselves. The health of Margooya Lagoon has a direct impact and influence on the health of our people emotionally, spiritually, physically, and culturally. Maintaining the balance of the ecosystem is of equal and cultural importance as many of these species are central to TTWW traditional practices and cultural values.



Artwork of Margooya Lagoon, artist: Melissa Kennedy

Because we are so strongly connected to this place, our people need to be central to the monitoring, care, and decision making of all environmental changes and water-dependent outcomes that encompass cultural values and benefits on Country.



Trees – Alongside many key native tree species at Margooya Lagoon, there are many significant cultural trees. These trees signify the strong connection of Tati Tati Wadi Wadi peoples to the area, indicating TTWW peoples have been caring for the Lagoon long before colonisation.

These include Birthing Trees – central to women's business, ceremony, and well-being; Ring Trees and Scar Trees – for ceremony, connection to Country, and ancestors gathering at the Lagoon. Many grandmother trees are also present around the Lagoon, central to TTWW existence for many generations.

Photographed left is one such Grandmother Tree at Margooya Lagoon that holds immense cultural significance, providing shelter and connection to place for countless generations of Tati Tati peoples.

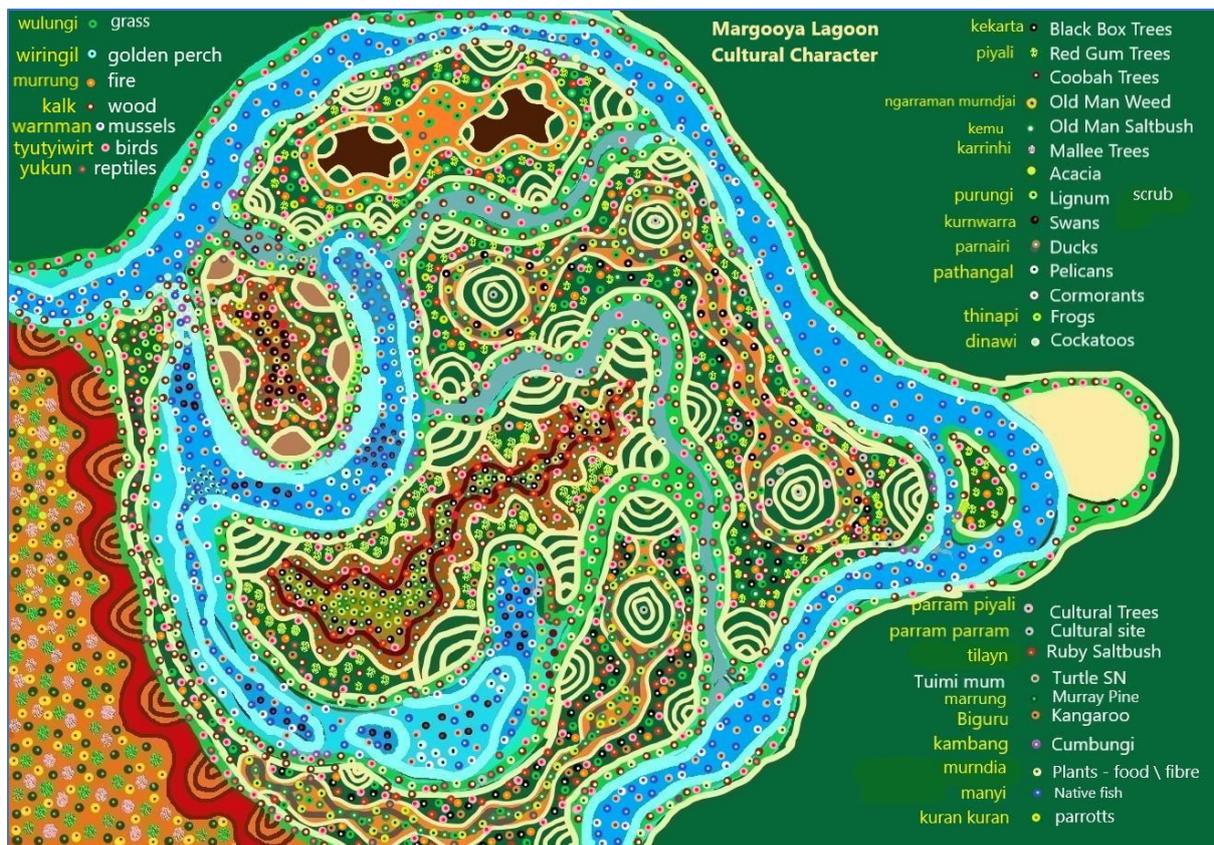
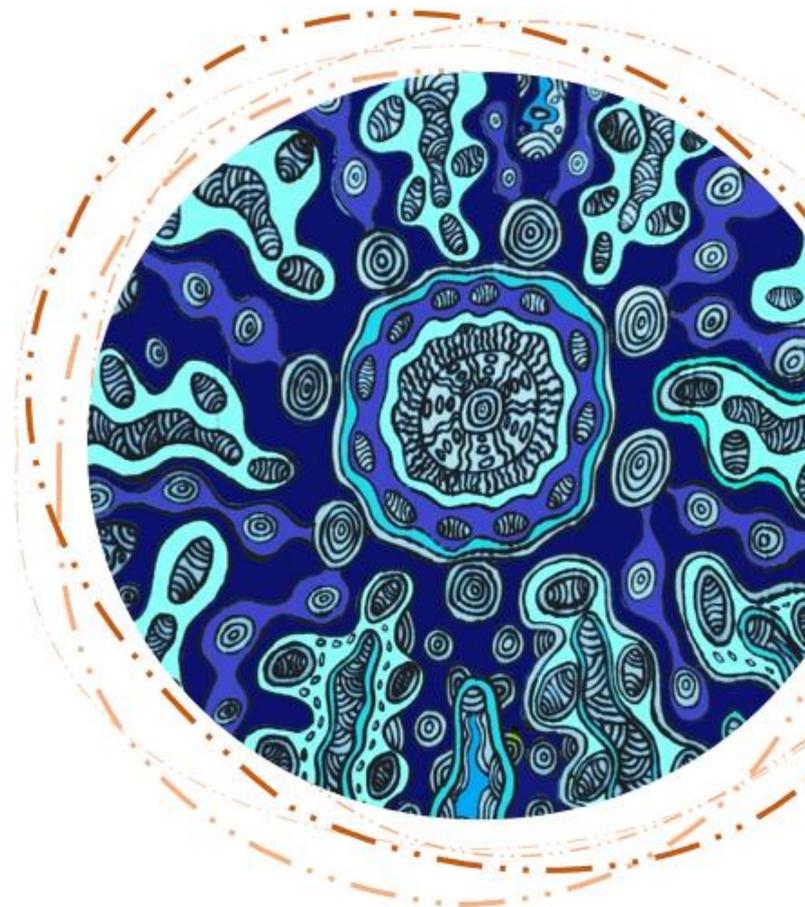


Figure 5: Cultural significance of Margooya Lagoon, with species abundance key. Artist: Brendan Kennedy

Cultural Sites – Other significant cultural areas include middens, which can be found in higher areas of ground along with signs of ovens. These areas are significant to TTWW as a spiritual connection to past ancestors and continue the relationship with Country and culture.

Ancestral sites are also identified throughout areas of Margooya Lagoon that are deeply important to TTWW peoples' culture, history, and traditions. Protection of such sites is of the utmost importance to TTWW. Maintaining cultural heritage of Margooya Lagoon is a way for Traditional owners to continue their connection and responsibility to protect Country.

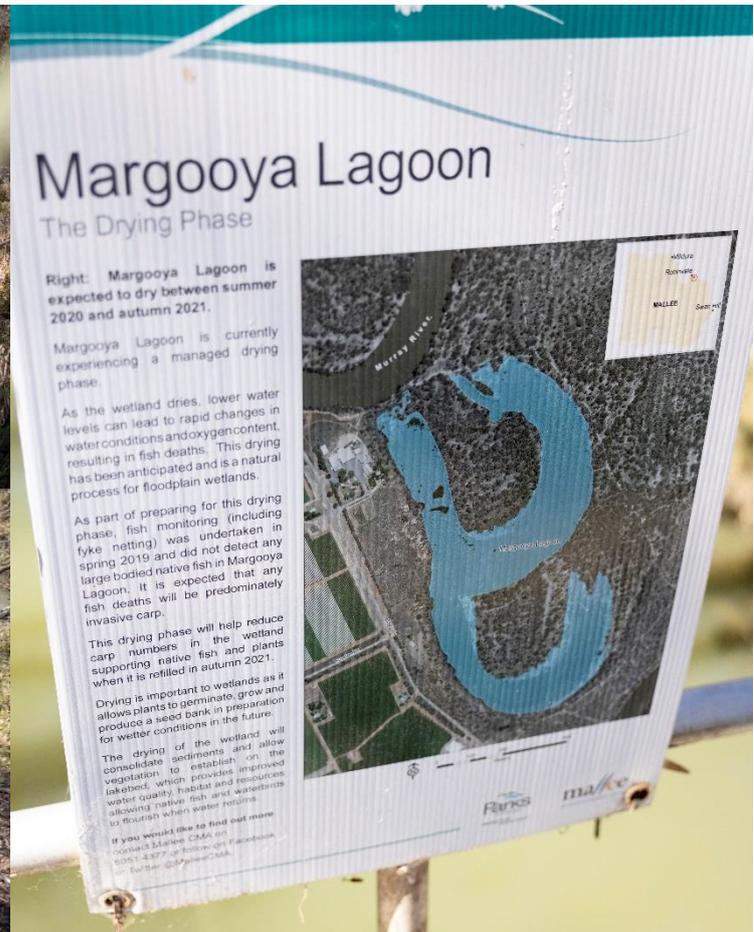


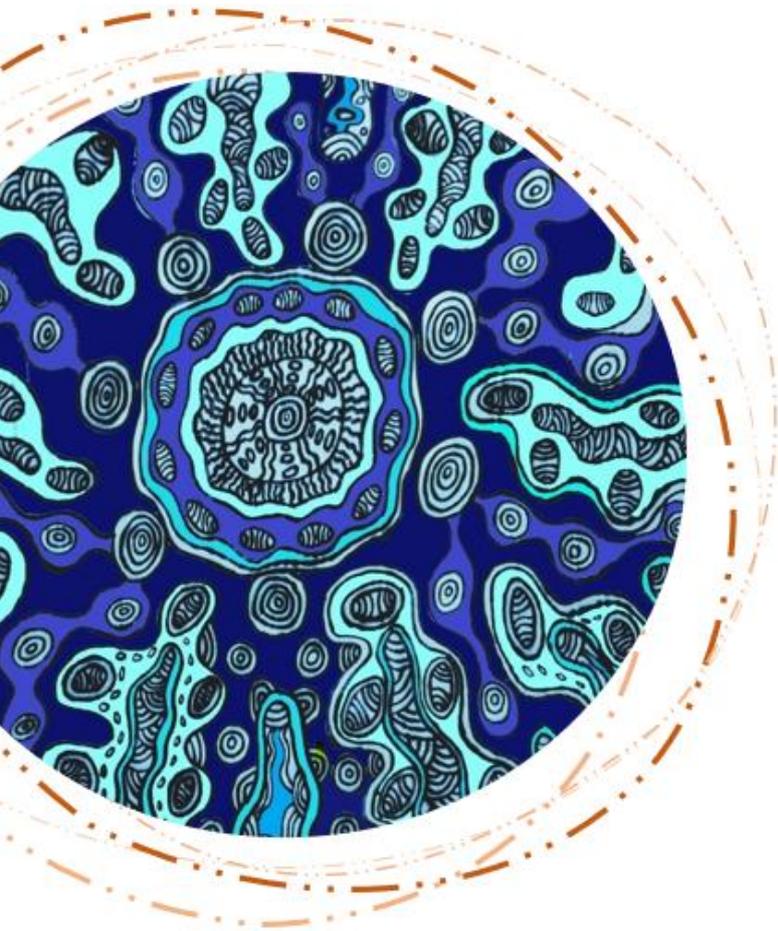
Threats

Infrastructure

Regulator – In 2009, a regulator was installed at the northern point of the wetland, the natural outlet of the Lagoon. The regulator controls the flow of water into and out of Margooya Lagoon, creating artificial wetting and drying cycles that interfere with the ecological and cultural integrity of Margooya Lagoon. The regulator was installed without discussion or agreement with TTWW, and it is currently operated based on local authority discretion. This is not culturally informed, and TTWW are not included in the decision-making process of opening and closing the regulator.

The regulator also creates one point for water to flow in and out. This does not allow natural flushing of the Milloo/Dindi, and, as a result, small refuges and habitats are no longer naturally inundated. This impacts TTWW aspirations and outcomes for a thriving and healthy lagoon. TTWW continues to appeal to remove the regulator and reintroduce natural flow paths into Margooya Lagoon.





Invasive Species

Carp – The presence of carp (*Cyprinus carpio*) in Margooya Lagoon, Murray River, and connected waterways is an extremely harmful threat to native fish species and aquatic vegetation due to their destructive and invasive nature. The increased spread of carp and its impact on freshwater habitats also includes riverbank damage and reduction in water quality, at the expense of native species reliant on such factors. TTWW elders have expressed watching the degradation of the Lagoon and quality of water over time as a direct result.

Rabbits – Detrimental to Country, rabbits (*Oryctolagus cuniculus*) are widespread in the area, causing land degradation and soil

erosion. Overgrazing and burrowing result in loss of native plant diversity, damage to cultural sites, and habitat loss for many native animals. With an impact on ecological systems and cultural heritage, rabbit populations must be eradicated to restore harmony.

Foxes – Seen in and around Margooya Lagoon, foxes (*Vulpes vulpes*) are a considerable threat to ground-dwelling mammals, birds, and animals due to predation and competing for resources. With a steady population, a fox presence disrupts natural ecosystems and TTWW aspirations for caring for Country.

Human Impact

Evidence of human impact can be seen surrounding the Lagoon, primarily from roads and paths created through Country, that are often graded and widened as needed without TTWW consultation or assessment of impact. Being so close to the Murray River, the Lagoon is also a common location for recreational camping, fishing, and shooting. Signs can also be seen of illegal collection of firewood.





Watering Requirements

For Culture

For Tati Tati Wadi Wadi peoples, seeing Margooya Lagoon wetlands dry and struggling is profoundly upsetting and hurtful to the spirit. Watering requirements must fulfill cultural and spiritual needs for the health and well-being of the community and strengthen cultural connections and family ties.

Cultural watering requirements are as follows:

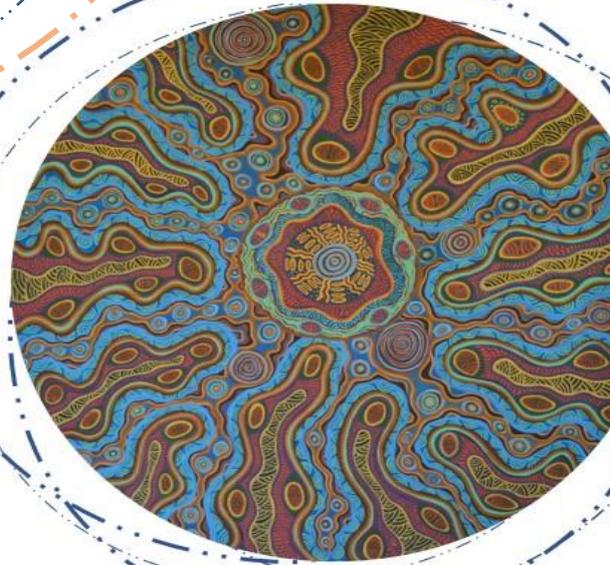
“Watering requirements of the people are the same as the land. Water is life.”

– Tati Tati Wadi Wadi member, March 2021.

1. Water must be of high enough quality and quantity to support nation objectives (as numbered 13-16 in Objectives chapter),
2. TTWW has determined water allocations, Cultural Flows, and all aspects of decision making around water, or TTWW are included in meaningful and genuine ways throughout all processes,
3. Water allocation timing coincides with ceremony, seasonal changes, or culturally significant occasions as determined by TTWW.

TTWW traditions, cultural practices, and knowledge will be preserved and strengthened by achieving these cultural watering requirements.





For Country

Watering requirements for TTWW Country and Margooya Lagoon

4. Water is of high enough quality and quantity to achieve flows objectives, as determined by TTWW. It is understood that each watering event is different and specific to the area receiving water, and TTWW peoples are best situated to determine allocation requirements.
5. Pre-watering event management is taking place to maximise the benefits of water on Country. These include, but are not limited to:
 - Clearing creek beds of built-up debris to avoid blackwater events,
 - Ensuring there are no barriers to stop the flow, such as altered paths/roads. The use of pumps is to be considered where necessary.
 - Cultural burn program is coinciding with water events to enhance environmental benefits,
 - Sufficient time and resources for TTWW Traditional Owners on Country are available to share knowledge and determine the best methods for water allocations across all generations.
6. Water at Margooya Lagoon is to be allowed to flow and move as naturally as possible.



Margooya Lagoon Test Flow – 2020

Overview

In November 2020, a 15ML allocation of environmental water was committed and delivered to a floodplain creek at the Murray River side of the Margooya Lagoon wetland. The creek was previously one of three main outlets connected to and fed the Lagoon; however, this no longer occurs due to strict river and lagoon regulations of recent decades. The watering event was a way to simulate this original inundation of the creek and help revive the biodiversity of the surrounding area.

The 2020 watering allocation and event, now labelled as the "Test Flow," came about due to discussions with Tati Tati Wadi Wadi and a Mallee CMA representative at TTWW's March 2020 Cultural Flows workshop. Following on from these discussions, a proposal from the Mallee CMA was put forward to, and approved by, the Victorian Environmental Water Holder (VEWH).



TTWW feels it is important to state here that they were only enquiring about the process of environmental watering and were not giving the Mallee CMA permission to seek out water from the VEWH, nor act on their behalf. In doing so, TTWW were explicitly left out of the proposal, planning, and approval stages by the Mallee CMA.

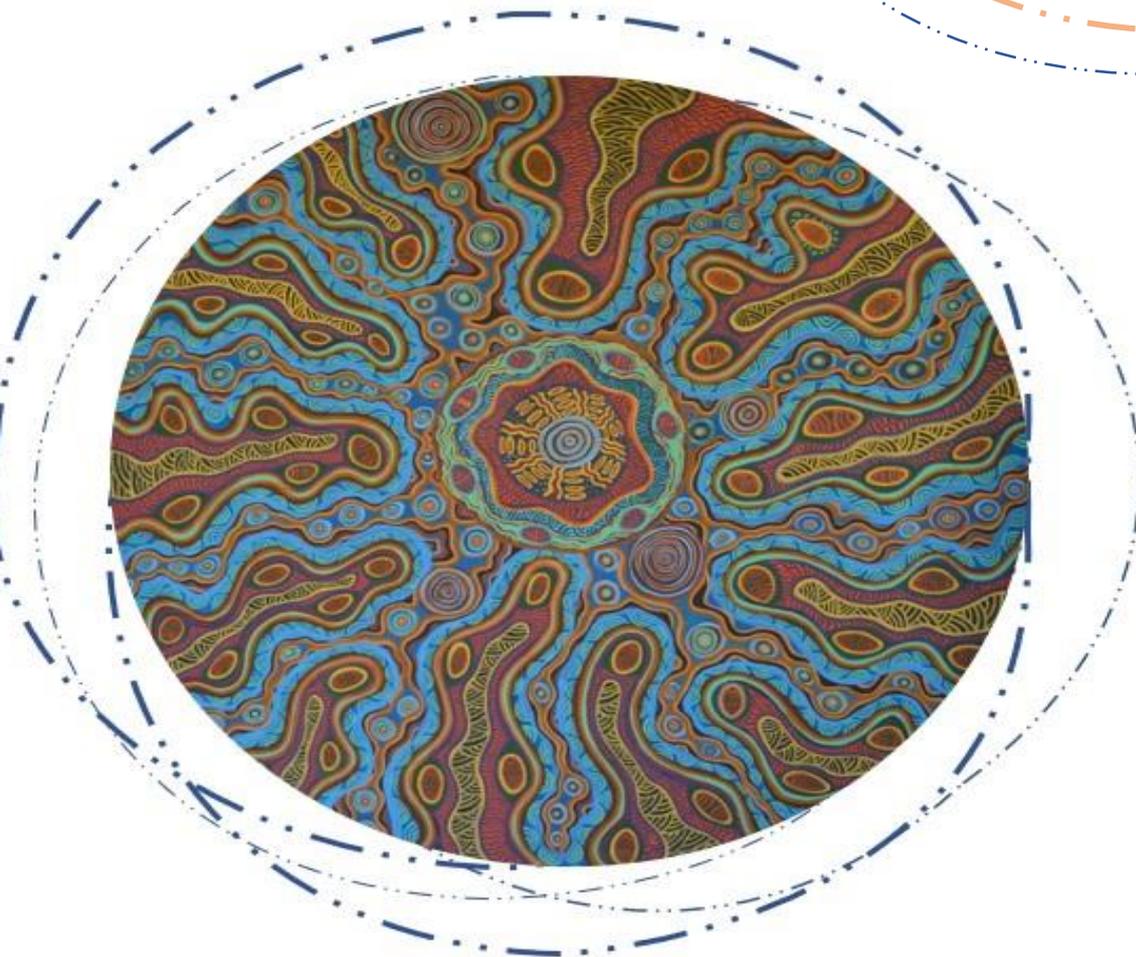
TTWW were not provided the opportunity to discuss watering requirements, including the volume of water and the delivery location, before VEWH confirmation. These are fundamental components of water delivery that must have Traditional Owner involvement.

It is also vital to state that TTWW were only first informed of the allocation of environmental water approved for Margooya Lagoon after the release of the 2020-21 Victorian Environmental Water Holder Seasonal Watering Plan, rather than through direct communication with the Mallee CMA.

Process

A diesel pump was used over 10 days to pump water at a rate of 1.5ML per day over the raised riverbanks, nearby dirt road, and into what is now the beginning of the creek bed.

Monitoring and evaluation surveys created by the Tati Tati Aboriginal Water Officers were used over five weeks to survey and record the outcomes of the watering event on various key indicators, as determined based on nation values, goals, and outcomes.



Outcomes

Many of the results and findings of these surveys will remain within the nation, however, the following are results from data collected during the project (figure 4).

A short film was also created solely by Tati Tati Wadi Wadi to document the journey, learnings, outcomes and experiences of their first water allocation on Country.



Figure 6: Results from the test flow, collected from Tati Tati Wadi Wadi MER.

Key issues

The Test Flow was a chance for Tati Tati Wadi Wadi to act on ensuring water is delivered on Country in culturally appropriate ways. While the project was a positive way to promote cultural practices, come together on Country, and improve environmental outcomes, we would like to address some key issues that arose throughout the process of water delivery.

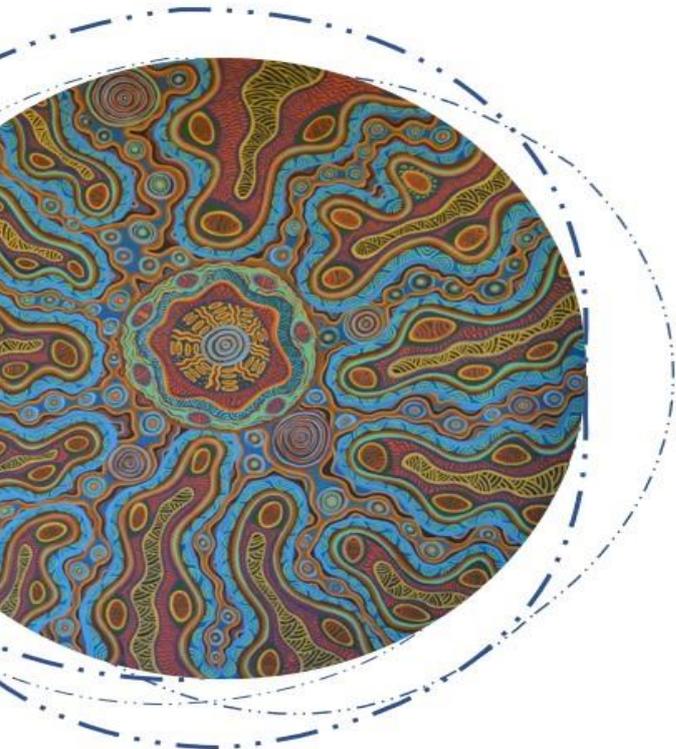
As mentioned in the project overview, there were many key aspects of the planning that we were not involved in. These include, and are not limited to, decisions surrounding:

- The volume of the water allocation,
- The location of the water delivery event,
- And the reporting and promotion of the watering event in the 2020-21 VEWH Seasonal Watering Plan, without first informing TTWW representatives.

Furthermore, TTWW were either not informed of or directly excluded from:

- The Mallee CMA's independent cultural heritage assessment of the site location,
- The LiDAR mapping and estimates of the predicted water flow,
- And all engagement with the VEWH on our behalf, something TTWW have previously stated no organisation has permission to do without clear prior and informed consent.

Also of great concern to note from TTWW includes the need and necessity to conduct a cultural safety induction to outside contractors. Despite this, TTWW still experienced inappropriate behaviour and cultural insensitivity from some parties involved.





Recommendations and Next Steps

Cultural Flows

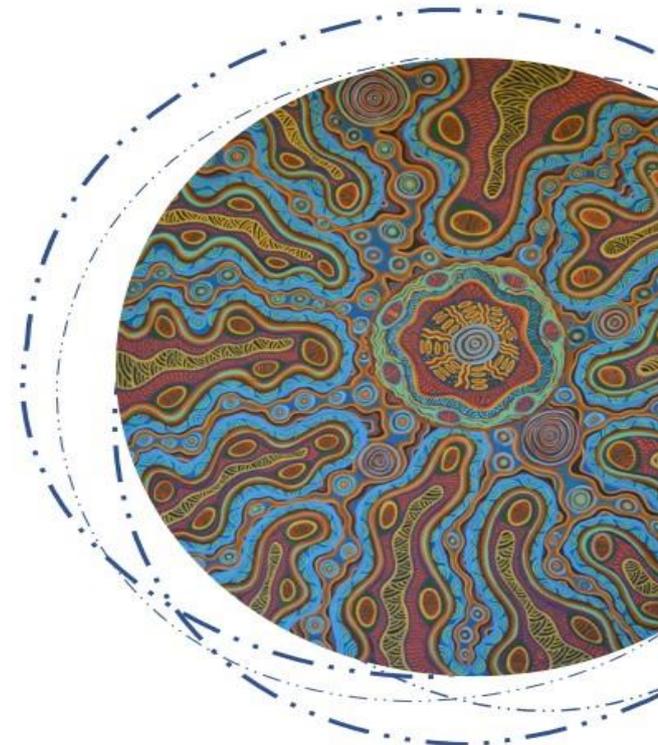
- ❖ Cultural Flows is a lifelong concept. As such, the Cultural Flows Management Plan for Margooya Lagoon is an ongoing and live document that will grow and adapt as the people and Country that it concerns grow and change.



- ❖ TTWW recommends further Test Flow events to gain additional knowledge and understandings of natural creek inundation paths of Margooya Lagoon.
- ❖ TTWW proposes strengthening partnerships with MLDRIN, VEWH, CEWO, Parks Victoria, and Mallee CMA – many of which are already in place – to drive forward and emphasise the importance of Traditional Ecological Knowledge within the water space.
- ❖ With a funding agreement in place with DEWLP until 2024, Tati Tati Wadi Wadi aims to further their capacity for Traditional Owner employment, self-determination, and autonomy in holding water workshops and educational projects.

Engagement

- ❖ TTWW's rights and responsibilities to care for Country are to be respected by being involved in all stages of environmental watering processes; before, during, and after water is delivered.
- ❖ Engagement between Mallee CMA and TTWW is genuine and consistent throughout all steps of watering events and projects.
- ❖ Clear and transparent communication occurs surrounding all events taking place on Country, regardless of if TTWW are involved or not.
- ❖ All department staff and contractors to have completed the necessary cultural awareness and cultural safety training.

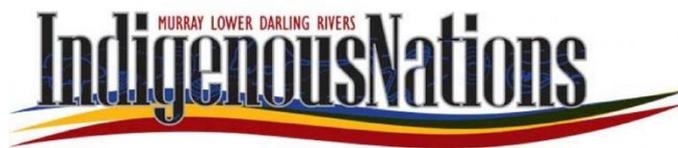


Acknowledgements



All information and knowledge gathered have been a collaborative project, first and foremost with Tati Tati Wadi Wadi Traditional Owners, Tati Tati Aboriginal Water Officers, and the Cultural Flows team at Murray Lower Darling Rivers Indigenous Nations.

Also acknowledged is the involvement and support from the Department of Land, Water, Environment, and Planning, the Victorian Environmental Water Holder, Environmental Justice Australia, and Parks Victoria.









TATI TATI
KAIEJIN