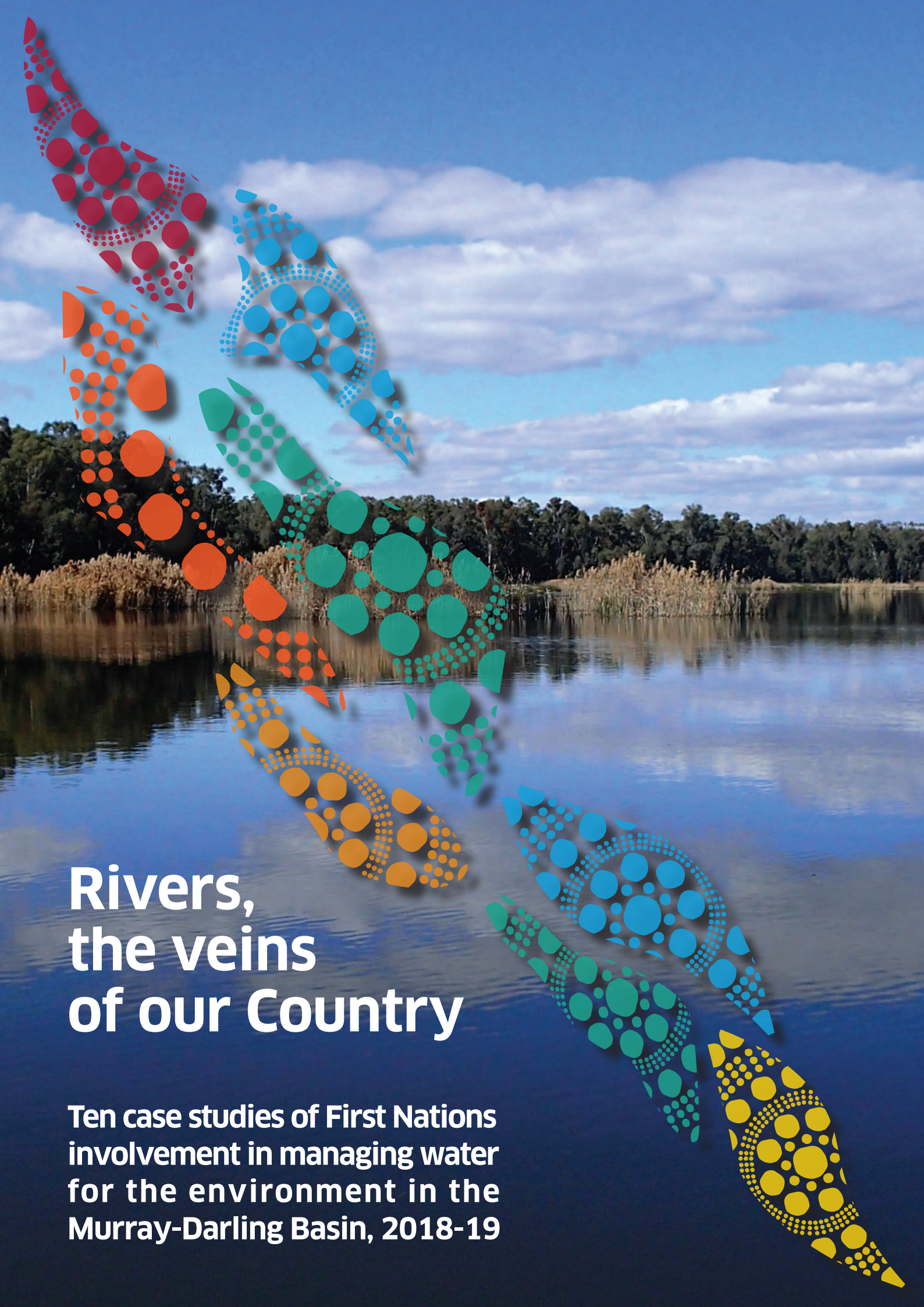

Rivers, the veins of our Country

Ten case studies of First Nations involvement in managing water for the environment in the Murray-Darling Basin, 2018-19

Acknowledgement of the Traditional Owners of the Murray–Darling Basin

The government agencies involved would like to acknowledge and pay respect to the Traditional Owners of the Murray–Darling Basin and their Nations, who have a deep cultural, social, environmental, spiritual and economic connection to their lands and waters. They understand the need for recognition of Traditional Owner knowledge and cultural values in natural resource management in the Basin. It is hoped that by continuing to work closely with Traditional Owners and First Nations People we can help in the journey to heal the land, Country and Peoples of the Basin.

Aboriginal people should be aware that this publication may contain images, names or quotations of deceased persons.

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Accessing this report online

An online version of this report and further information about the Murray–Darling Basin are available at www.mdba.gov.au.

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Contents

Introduction

"The rivers are the veins of the Country, if you take too much water from them Country get's sick."

Shane Monk, Taungurung man

This report is a collection of short stories. Ten true stories who's narrative demonstrates the deep connection individuals and communities have to water and rivers. Additionally, these stories (or 'case studies') show how First Nations peoples are working across the Basin to achieve shared cultural and environmental benefits through the delivery of water for the environment. These stories have been developed in collaboration between the First Nations, the states and Commonwealth agencies from across the Murray-Darling Basin.

We want to thank and acknowledge everyone who have worked on implementing the case study projects and shared their stories with us: the First Nations from cross the Murray-Darling Basin, the Murray Lower Darling River Indigenous Nations, and the Northern Basin Aboriginal Nations and government agencies. Additionally, we would like to thank the state and commonwealth agencies who manage water for the environmental and supported the implementation of the projects. Including: Commonwealth Environmental Water Office, Victorian Environmental Water Holder, Victorian Department of Environment, Land, Water and Planning, NSW Department of Planning, Industry and Environment, SA Department of Environment and Water and the Murray-Darling Basin Authority (specifically The Living Murray program).

Elders transferring knowledge to the next generation (photo by Mallee CMA)

Cultural importance of healthy rivers and water

"If the water is healthy, Country is healthy. If Country is healthy then the People and Culture will be healthy"

Brad Moggridge, Kamilaroi man[1]

First Nations people have an intricate and enduring connection to water. Cultural traditions, stories and knowledge are entwined in First Nations custodianship of water resources. First Nations people have, through tradition, lore and custom and over thousands of generations, inherent rights, interests and expertise in managing land and water sustainably. Caring for Country and water is fundamentally linked to the maintenance of good health and wellbeing of First Nations people (Figure 1). The case studies presented reflect how these intricate relationships are incorporated into the management of water for the environment across the Murray-Darling Basin.

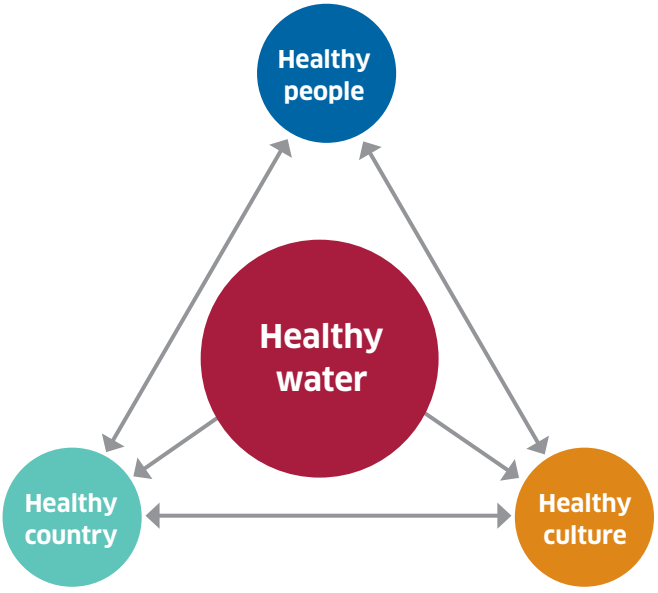

Figure 1: A First Peoples view of the relationship between water, environment, culture and people.[1]

The case studies presented here highlight some of the most significant cultural and environmental outcomes and challenges of First Nations involvement in planning, delivery and monitoring of water for the environment, including:

- the Connection and reconnection to Country and communities;
- the continuation of cultural practices which have persisted for millennia;
- the identification, documentation and protection of important sites and their cultural uses and values;
- the use of both Cultural science and Western science to manage water;
- fostering of mutual respect, connections and relationships between government agencies and First Nations;
- Genuine engagement in water planning has supported two-way learning between First Nations people and agency staff;
- learning across generations; and
- learning, training and employment opportunities

1 Adapted from Moggridge B 2010, Aboriginal Water Knowledge & Connections, in: Water and its Interdependencies in the Australian Economy, 22 to 23 June 2010, Australian Academy of Technological Sciences and Engineering, Sydney.

Importantly, these outcomes are not unique or specific to each case study. Connection to Country, sharing of knowledge, mutual respect and an appreciation of the need to care for our environment are woven throughout each story. There is also the celebration of Culture, as traditions which have persisted for tens of thousands of years are given the opportunity to continue. These case studies are in many instances the product of years of engagement – a decade in some cases – where relationships between agency staff and First Nations people have been built on respect for each other and Country. There is also a strong sense of collaboration across agencies and First Nation groups. Agency staff continue to strive to ensure engagement is respectful, culturally appropriate and undertaken using protocols for free, prior and informed consent.

Progress has been made but there is still a long way to go. The case study for the Chowilla Floodplain provides views from two First Nation Elders about ways that engagement could be improved and some proposed forward steps. We are reminded that engagement should be from the start, with two-way sharing of information. Opportunities to have conversations on-Country should continue to be pursued. The Barmah case study reminds us that since colonisation, information has been lost and can sometimes only be found in museums, or in the opportunities for knowledge to be shared from Elders to young people. Engagement opportunities which allow these exchanges and re-learning and practicing of culture, can help inform the healing of Country and people. Additionally, in drought conditions like those currently experienced across the Basin, it becomes more important to work with and learn from Aboriginal people in how we manage water for the environment.

Scar tree health monitoring, Chowilla floodplain (Photo by DEW)

What is water for the environment?[2]

Though water for the environment can mean any water in a river or wetland that benefits the environment, when we talk about 'water for the environment' (or 'environmental water') we are referring to water that's set aside in storages such as reservoirs and dams which is managed for plants and animals.

Many river systems have been modified as the Basin population has grown and water has been provided to towns, industry and food production. Instead of water flowing naturally through the landscape, water is now captured in dams and weirs, and then delivered via pipes and man-made channels.

These changes have interrupted many of the natural river and wetland processes needed by native plants and animals to survive, feed and breed. Water for the environment improves the health of rivers, wetlands and floodplains.

Healthy rivers benefit all river users and are vital to our economy as well as underpinning community and cultural health and wellbeing.

Carex tereticaulis
(photo by South Australian Seed Conservation Centre)

Who manages water for the environment?[2]

Management of water for the environment involves a range of people and organisations, including local communities, waterway managers (Catchment Management Authorities and Local Land Services), storage managers (water corporations), environmental water holders[3], land managers and scientists.

The management 'cycle' starts with scoping of potential environmental watering activities and environmental objectives in a particular region for that year. We then prioritise where the finite amount of available water for the environment is best used across the Basin, and then deliver the water at the right time, and in the right amount, to meet our objectives.

Current climatic and environmental conditions always influence decisions to deliver the water.

Mallee CMA staff and Indigenous community undertaking TLM fish monitoring tour, (photo by Mallee CMA)

2 http://www.vewh.vic.gov.au/

3 Five environmental water holders have contributed to this document: Commonwealth (CEWH), Victoria (VEWH), NSW DPIE, SA DEW, and joint governments delivering The Living Murray initiative."

Case studies of engagement

The following case studies provided by First Nations peoples and environmental water holders demonstrate a range of engagement undertaken with First Nations people and some of the benefits and outcomes achieved through involvement in the planning and delivery of water for the environment.

While there are many more potential case studies, these ones have been chosen as a cross-section sample to represent watering events across the Basin states, and to showcase a range of engagement approaches and benefits.

Importantly, several of these case studies have been drafted by First Nations people themselves, providing an opportunity to share their stories.

The case studies below, in order are:

1. Cultural outcomes through environmental flows – Booberoi Creek Ngiyampaa First Nation (NSW)
2. Basket weaving on Yorta Yorta Country, Yorta Yorta Nation (Victoria)
3. Gunbower Forest – Bringing Culture to life Barapa Barapa Traditional Owners (Victoria),
4. Collaboration in environmental flows – Teringie Wetlands Ngarrindjeri Regional Authority (South Australian)
5. Continuing cultural connections at Ranch Billabong Barengi Gadjin Land Council and Wotjobaluk Traditional Owners (Victoria)
6. Working together on the Millewa Aboriginal Waterways Assessment (NSW)
7. Healing country with water for the environment – King River Taungurung Traditional Owners (Victoria)
8. Protecting Country and Culture - Nari Nari Tribal Council (NSW)
9. Water is life - the Northern Fish Flow Northern Basin Aboriginal Nations (NSW)
10. Listening to Elders - Chowilla Environmental Water First Peoples of the River Murray and Mallee Region (South Australia)


Charleville
Roma
Toowoomba
St George
Goondiwindi
Moree
Narrabri
Bourke
Dubbo
Broken Hill
Ivanhoe
Forbes
Orange
Mildura
Griffith
Wagga Wagga
Deniliquin
Albury
Shepparton
Bendigo
Seymour
Horsham
Culgoa River
Warrego River
Paroo River
Barwon River
Bogan River
Macquarie River
Lachlan River
Murrumbidgee River
Edward River
Billabong Creek
Murray River
Tumut River
Loddon River
Wimmera River
Nebine Creek
Condamine River
Moonie River
Balonne River
Narran River
Gwydir River
Macintyre River
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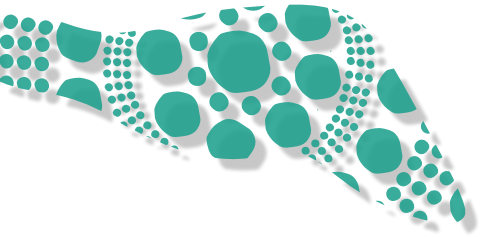
Cultural outcomes through environmental flows – Booberoi Creek

Ngiyampaa First Nation (NSW)



'Water is our survival and our connection to our culture; it is our life's blood. Without water we humans, our planet, and our animals cease to exist, and our Mother Earth is no more. Our people's health depends on the rivers flowing.'

– Peter Harris, Ngiyampaa First Nation Traditional Owner

The Ngiyampaa First Nation people have lived alongside the Lachlan (*Galari*) River for thousands of years. They value the river and its water as it is intertwined into all aspects of life, from culture and identity through historical connections, to cultural practices, storytelling and spiritual connections. They value water as a life-giving element, essential for health and wellbeing and necessary for their survival.

Elders in the community once used Booberoi Creek (a small tributary of the Lachlan River) to collect and cook bush tucker, such as catfish, ducks and kangaroos. However, poor water quality and irregular flows mean the community can no longer use Booberoi Creek as they did in the past. Many Elders who lived and worked on large stations along the Booberoi Creek, before Wyangala Dam and other major re-regulating storages were built, have since lost access to culturally significant sites, as ownership and relationships between the local Aboriginal people and property owners have changed. Stations around Booberoi Creek were primarily cattle and sheep runs. Many Aboriginal people from Murrin Bridge (Ngiyampaa First Nation community near Lake Cargelligo and Booberoi Creek) were employed as domestic staff or stockmen on these stations. Having helped build these agricultural enterprises, it can affect the social and emotional wellbeing of Aboriginal communities if their contribution and connection to that land is no longer recognised and maintained.

Booberoi Creek also provides habitat for seven native fish species, including freshwater catfish, 26 water-dependent bird species, including white ibis and intermediate egrets, and three flow-dependent frog species, including Peron's treefrog, spotted grass frog and the eastern sign-bearing froglet. River red gums, black box, and river cooba are the dominate vegetation in the riparian corridor, while lignum, sedges and nitre goosefoot are also prominent.

In November 2018, after a month of dry conditions for Booberoi Creek, Ngiyampaa First Nation Traditional Owner and Environmental Watering Advisory Group (EWAG) member Peter Harris expressed concern over the health of the shrimp, fish, water plants and overall water quality in the Booberoi Creek to the NSW water managers. He noted that historically, runoff from summer storms replenished the creek, and suggested that the recent rainfall in the upper Lachlan should be protected and provided to Booberoi to improve its health and resilience. He requested the use of water for the environment in Booberoi Creek so that the creek could reconnect with the Lachlan River for as long as possible, to help remove accumulated silt, improve water quality, and support aquatic plants and the movement of catfish through the system. Ngiyampaa First Nation people often use the creek for cultural purposes in the summer months, and the community at Murrin Bridge and Lake Cargelligo wanted to be able to continue to do so via public land at Canon's Bridge with the support of environmental flows.

In response to Peter's request, advice from the EWAG, and the declining health of the Booberoi, the NSW Office of Environment and Heritage (OEH) delivered two small fresh events in late December 2018 and mid-February 2019 using an Environmental Water Allowance

Peron's treefrog, flow dependent in Booberoi Creek - (photo by Ted Ripon, NSW DPIE)

from Wyangala Dam. These flows focused on native fish populations. Due to its status as a culturally significant and threatened species, freshwater catfish (*Tandanus tandanus*) was of particular interest.

The first fresh event was delivered on 21 December 2018 at 70–100 megalitres (ML) per day for 14 days (using approximately 300 ML of water in total). Unfortunately, only a small amount of water made it all the way through to the return gauge, which registered 15cm depth for a few days before returning to less than 7cm once the delivery ended. While this was enough to provide much needed water to the aquatic plants and fill up some water holes, it only provided some low-level connectivity with the Lachlan River and was not sufficient to allow fish movement between the two systems.

The second fresh event was delivered on 13 February 2019 at 70–113 ML/d for 12 days (using approximately 304 ML of water in total). This second flow was able to improve on the first, allowing more water to reach some shallow backwater areas and removing more silt from the creek. It also provided another opportunity for fish to move between the Booberoi Creek and the Lachlan River.

These environmental flows helped to provide connectivity between the Lachlan River and Booberoi Creek. While some fish species moved between Booberoi Creek and the Lachlan River, there may not have been enough water for large bodied fish to move from the bottom of the Booberoi back into the Lachlan River. However, even low-level connectivity can lead to productivity gains being transferred from the Booberoi anabranch into the Lachlan River. Due to the complexity of off-river habitats, Booberoi Creek is highly productive and has a role in replenishing food resources in the Lachlan River. The flows may have also assisted in inundating shallow, slack backwater areas off the main creek channel (less than 50 cm deep), which in late February were dominated by milfoils, water primrose, duckweed fern, and tape grass. An increase in the extent and diversity of aquatic macrophytes due to the sustained inundation of these habitats was an unexpected positive result.

Members of the Murrin Bridge community assisted in monitoring for catfish and the persistence of flows in the Booberoi following these water deliveries. By working closely together to design an environmental flow with multiple outcomes, an understanding and respect for each other's knowledge and values has emerged between the Aboriginal community, government and local service providers. The mutual understanding that has developed between the NSW Office of Environment and Heritage water managers and Traditional Owners has allowed this knowledge to be shared among the EWAG members and incorporated into their advice on the use and management of planned and held environmental water during their regular meetings. The condition of Booberoi Creek is a standing agenda item for the Lachlan EWAG. Peter reports back to the EWAG members regularly on the outcomes of environmental flows and future water priorities for the creek.

One of the most important outcomes is the improved access to Country, which has allowed Elders to pass down knowledge to younger members of the community, and maintain and connect to Country. A community engagement event held in February 2019 at Mt Boorithumble on Booberoi Creek saw a commitment from six landholders to open river access for Peter and his community. The Down the Track youth program catered the event and this provided an opportunity for Peter to share his knowledge with Aboriginal youth from Lake Cargelligo, Murrin Bridge and Euabalong.

Basket weaving on Yorta Yorta Country

Yorta Yorta Nation (Victoria)

Weaving is a way of life for the Yorta Yorta People, it's more than just producing a basket, it is about weaving as a necessity for life. Weaving is a knowledge and innate cultural practice that is continuous and has been passed down from generation to generation. Just like language weaving is about identity and kinship. The importance of passing knowledge down keeps strong ties to Country.

Access to species traditionally used for weaving by the Yorta Yorta People may rely on a number of factors to maintain conditions that are favourable such as water. For the gathering of the weaving species *Carex tereticaulis*, water conditions need to be ideal during growth period. In Barmah National Park flows must be maintained at 30,000 ML/day to assist in the abundance and growth of the species for weaving. The operational constraint is 15,000 ML/d, meaning it usually only gets wet under higher natural flows.

***Carex tereticaulis*, an important species for basket weaving (photo by South Australian Seed Conservation Centre)**

Elders Council forms idea

Project gestation: talking weaving

The Yorta Yorta Council of Elders raised concerns about the declining health of their weaving plants due to low flows, making the availability of the species only present where water is. Sharing of the knowledge around these species is what alters a practice and the impacts of water management and other factors such as climate change will decide whether this practice is passed on. Basket weaving has always been a cultural practice but to highlight this as a project means we get to talk about it. The idea for the basket weaving project started three years ago and needed time for discussion amongst the Elders before the project began.

Two Yorta Yorta Facilitators working as part of The Living Murray Program spent a lot of time talking with Elders and community members to gather weaving information, and talked to other project stakeholders regarding the distribution of weaving plants and watering regime in Barmah Forest.

Much of the knowledge of weaving is held within institutions such as museums. In June 2019, the Yorta Yorta TLM Facilitator and two Elders visited the Science Centre in Melbourne to gather any stories about weaving and the South Australian Museum to view weaving made by Yorta Yorta People collected and described by Europeans since the 1800s. The purpose of these visits was to gather additional knowledge held in these collections, transfer information from the written

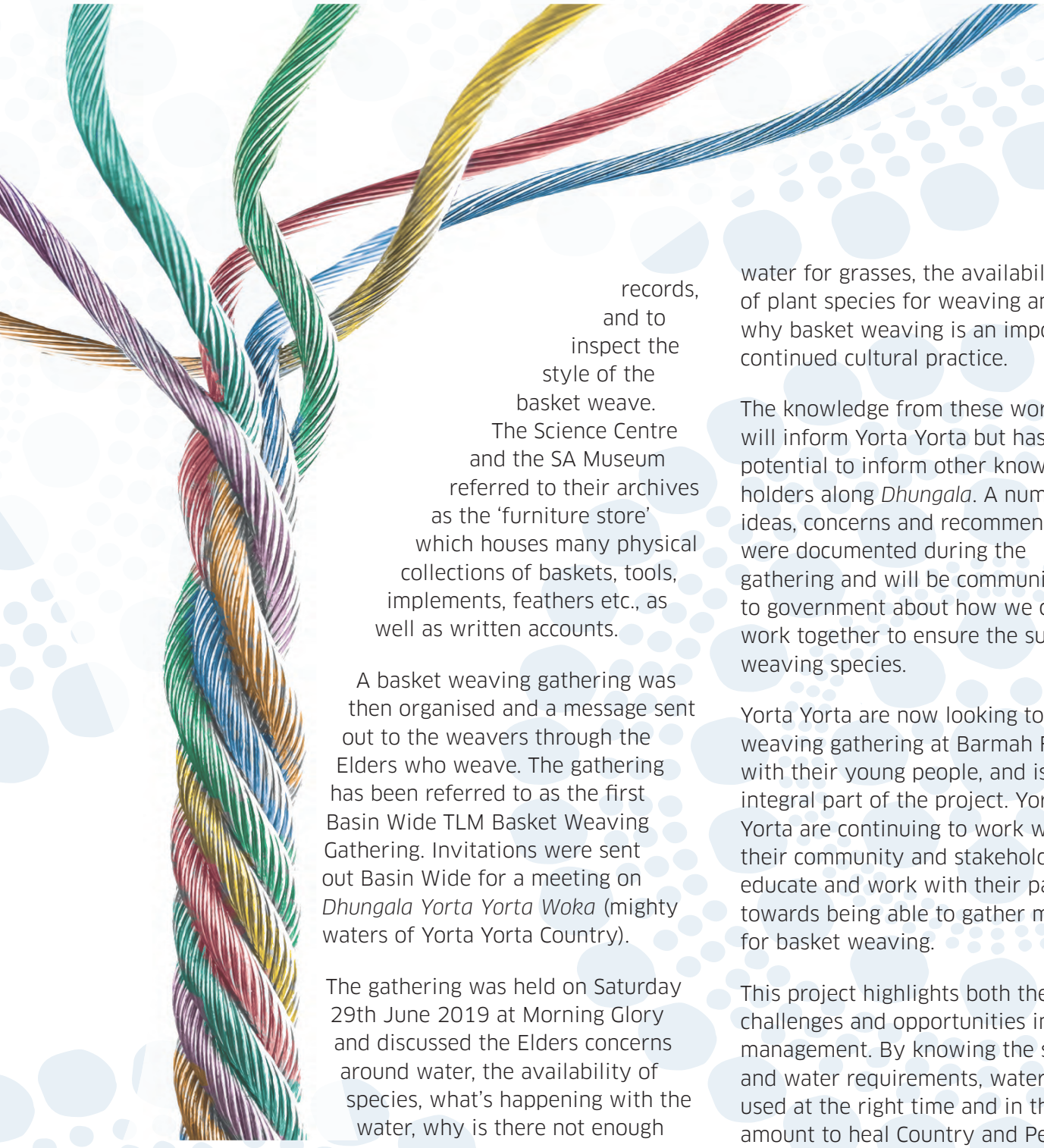
Research with partners to learn of species, water needs and weave methods.

Visit to Adelaide and Melbourne museums.

First basin-wide basket weaving gathering

Dharnya Day celebrations showcasing the weaving

Meeting talking about young people – workshop



records, and to inspect the style of the basket weave. The Science Centre and the SA Museum referred to their archives as the 'furniture store' which houses many physical collections of baskets, tools, implements, feathers etc., as well as written accounts.

A basket weaving gathering was then organised and a message sent out to the weavers through the Elders who weave. The gathering has been referred to as the first Basin Wide TLM Basket Weaving Gathering. Invitations were sent out Basin Wide for a meeting on *Dhungala Yorta Yorta Woka* (mighty waters of Yorta Yorta Country).

The gathering was held on Saturday 29th June 2019 at Morning Glory and discussed the Elders concerns around water, the availability of species, what's happening with the water, why is there not enough water for grasses, the availability of plant species for weaving and why basket weaving is an important continued cultural practice.

The knowledge from these workshops will inform Yorta Yorta but has the potential to inform other knowledge holders along *Dhungala*. A number of ideas, concerns and recommendations were documented during the gathering and will be communicated to government about how we can best work together to ensure the survival of weaving species.

Yorta Yorta are now looking to hold a weaving gathering at Barmah Forest with their young people, and is an integral part of the project. Yorta Yorta are continuing to work with their community and stakeholders to educate and work with their partners towards being able to gather materials for basket weaving.

This project highlights both the challenges and opportunities in water management. By knowing the species and water requirements, water can be used at the right time and in the right amount to heal Country and People.

Bringing Culture to life – Gunbower Forest

Barapa Barapa Traditional Owners (Victoria)

Scar trees were once common in Gunbower Forest, evidence of a cultural practice spanning tens of thousands of years. Large sections of bark were expertly removed from towering gum trees and used to make containers or canoes. However, with logging taking out many of these majestic trees and the restrictions on Traditional Owners practising their culture, scar trees were becoming a thing of the past.

That was until August, 2018 when the success of a very special project was celebrated. The Barapa Water for Country project is a partnership project between the North Central Catchment Management Authority (CMA) and Barapa Barapa Traditional Owners.

The project centred around Barapa Cultural Team members identifying, mapping and recording the cultural values of the lower Gunbower Forest to improve the management of environmental water. It involved the collection of information and knowledge on the cultural and spiritual values of the area and is enabling the voices of the Barapa Barapa Traditional Owners to be heard in the water management of the forest.

With the support of an archaeologist and an ecologist, the team used maps to prioritise cultural hot spots. Then, by walking in the steps of their ancestors, the hot spots were visited so their cultural values could be recorded, and watering priorities considered.

"*To celebrate the success of the project we gained a permit to make a traditional bark canoe, involving the Barapa community to continue practising culture on Country and create a scar tree that will tell a story for future generations*," North Central CMA Project Officer Patrick Fagan said.

"*To be able to support the Barapa Barapa people in practising their culture like this is significant, and it is historical. We also planted a river redgum and installed a plaque at the Treetops scout camp, acknowledging the hard work of the Barapa Barapa Steering Committee over the five years of the project, and made presentations to participants and project staff.*"

The award-winning Water for Country project was funded by the Victorian Government and the The Living Murray Indigenous Partnerships Program.

Gunbower Forest is a The Living Murray Icon Site. The Living Murray program funds an Indigenous Facilitator to engage with Traditional Owners of the Gunbower Forest – the Barapa Barapa and Yorta Yorta people. North Central CMA was able to leverage funding from The Living Murray and Barapa Water for Country to deliver the project.

"*The project supports Barapa custodians' capacity to take part in decision making about water management, and recognises and integrates their rights, needs, priorities and values in water management. When the project started five years ago we had three people attend the first workshop. As the project grew, participation increased, and over the life of the project we have 33 Traditional Owners representing different generations involved. The project steering committee have contributed governance and leaderships skills and kept a cultural perspective at the heart of the project. The Elders and younger ones working together really shows the link between the wellbeing of people and the wellbeing of Country,*" Mr Fagan said.

Project team with a scar tree in the background (photo by A. Martins)

Collaboration in Environmental Flows – Teringie Wetlands

Ngarrindjeri Regional Authority (South Australian)

Teringie wetlands slowly filling with 500 megalitres of water for the environment (photo by S. Long)

Ngarrindjeri are the traditional owners of the Ruwe (Country), waters and Yarluwar-Ruwe (Sea Country) of the Lower River Murray, Coorong and Lower Lakes in South Australia. The Ngarrindjeri Regional Authority, the peak regional organisation of the Ngarrindjeri, began a partnership with the Commonwealth Environmental Water Office in 2016 with the aim of delivering water to culturally and environmentally significant sites.

In March and April 2019, the Ngarrindjeri Regional Authority delivered 500 megalitres of Commonwealth environmental water to Teringie wetlands, alongside Lake Alexandrina. These wetlands are culturally significant for the Ngarrindjeri. Teringie is the Ngarrindjeri name for "*burial ground*", with two significant sites in the wetland. These wetlands are historically known as the "*supermarket*", providing swan eggs, fish and many other food resources for the community. Native reeds are still used by women for basket weaving and the wetland is an important meeting place for recreation.

Raukkan working on Country rangers installing suction pipe into Lake Alexandrina, offtake point for Teringie Wetland filling (photo by S. Long)

Filling of Teringie wetlands using Coates pumping infrastructure, provided as an in-kind private sector contribution (photo by S. Long)

With support from the Commonwealth Environmental Water Office, the Ngarrindjeri Regional Authority successfully planned and delivered this water, and continue to observe how the environment is responding. Jody Swirepik, the Commonwealth Environmental Water Holder noted, "*Working with Ngarrindjeri people means local knowledge and cultural values are incorporated into the delivery of environmental flows. It is great to see our water benefit culturally significant species such as swans, pelicans and turtles*".

The Ngarrindjeri Regional Authority are the first Aboriginal nation in the Basin to enter into a formal partnership with the Commonwealth Environmental Water Office. This arrangement creates a process for the Ngarrindjeri Regional Authority to submit proposals for the use of Commonwealth environmental water each year. To transfer the environmental water into the wetlands, Working on Country Rangers from Raukkan have negotiated a unique partnership with Coates Engineering to provide the pumping infrastructure for the flows.

A working partnership between the Commonwealth Environmental Water Office and the Ngarrindjeri Regional Authority is improving the health of Ngarrindjeri land and waters.

Luke Trevvorow (NRA), Michelle Campbell (CEWO) and Jody Swirepik (CEWH) at Raukkan overlooking Teringie Wetlands. Background Lake Alexandrina, which traditionally would have flooded the Teringie wetland site. (photo by S. Long)

Hilton Taylor (CEWO) and staff from Ngarrindjeri Regional Authority (photo by M. Turner)

Below: NRA, CEWO and SA staff at the celebration of the launch of the environmental watering partnership in 2016 (photo by M. Turner)

Continuing cultural connections at Ranch Billabong

Barengi Gadjin Land Council and Wotjobaluk Traditional Owners (Victoria)

Wotjobaluk Traditional Owners and Barengi Gadjin Land Council identified cultural connections that support water for the environment objectives. With this information and through collaboration with the Wimmera CMA and the VEWH, environmental flows for the Ranch Billabong became a reality.

Culture, environment and community came together to mark a significant occasion for the Barengi Gadjin Land Council (BGLC) and Wotjobaluk Traditional Owners at Ranch Billabong near Dimboola as a watering program began in December.

The first watering was celebrated on the anniversary of the 2005 Native Title determination and was followed by a workshop to map out aspirations for the site going forward.

The Ranch Billabong area has been home to many generations of Wotjobaluk people, long before European settlement and increasingly after Ebenezer Mission at Antwerp closed. The cultural connection to the site remains strong and plans for its management are included in *Growing What is Good Country Plan*, *Voices of the Wotjobaluk Nations*.

Using the Aboriginal Waterways Assessment tool to document cultural values and objectives along the Wimmera River, Traditional Owners and Aboriginal groups highlighted Ranch Billabong as a priority cultural site for rehabilitation.

BGLC Water Officer and Traditional Owner Stuart Harradine said that BGLC are working to restore plants and animals and control weed species – recreating a space for gatherings and events.

"*We are hoping to see 'old man weed' or 'sneezeweed' thriving again; this plant, known as 'Gukwonderuk' in our language, is important for traditional medicine and grows when water levels recede. Restoring the area is important for the Wotjobaluk people and we are aiming to improve access and knowledge sharing at the site with tracks and interpretative signage,*" Stuart said.

At Ranch Billabong for the first watering (photo by G. Fletcher, Wimmera CMA)

Water for the environment flowing into Ranch Billabong (photo by Barengi Gadjin Land Council)

Creating a strong partnership, BGLC, Traditional Owners, Wimmera CMA and the VEWH worked together to ensure the delivery of water for the environment was a success both culturally and ecologically.

The trial watering of 7 megalitres in December 2018 significantly improved water quality, supporting the surrounding river red gums and aquatic animals. Monitoring before and after water for the environment was delivered showed that salinity levels in the billabong halved, with frogs and waterbirds quickly returning to the area taking advantage of the inviting habitat.

A top-up of 6 megalitres was delivered in March 2019, boosting the wetlands plants and animals in autumn and again lowering salinity levels to improve the health of the billabong into the future.

Working together on the Millewa Aboriginal Waterways Assessment (NSW)

"The gathering was a powerful chance for neighbouring communities to work together for positive change".

The Living Murray Indigenous Partnerships Program aims to engage Traditional Owners in the management of icon sites along the Murray, including at Millewa Forest in NSW. Effective and respectful engagement with Traditional Owners and other Aboriginal community members was an essential objective for the success of this project, together with application of the Aboriginal Waterways Assessment (AWA) tool.

In November 2018, around 18 Aboriginal community representatives completed the assessment at Millewa Forest – the first formal AWA undertaken in NSW. Coordinated by MLDRIN, the assessment brought people together to work on Country with NSW National Parks & Wildlife Service and other state and Australian Government agencies.

The assessment identified a number of values within the forest, including contemporary stories associated with the use of areas and resources,

Field team photo at end of Millewa Forest Aboriginal Waterways Assessment (photo by NSW PWS)

as well as significant Aboriginal heritage sites around key wetlands. The input provided by Aboriginal people will help to inform targeted environmental water delivery to sites which are of ecological and cultural value.

Improved health of the Millewa environment using Aboriginal knowledge will increase biodiversity and provide opportunities for sustainable use of cultural resources by Aboriginal people. The collaborative nature of this project will also support future opportunities for Aboriginal people to contribute to the management of Millewa Forest, maintaining connection to Country and Culture.

Feedback from the assessment including from local Elders was very positive, with one reflection that "*the gathering was a powerful chance for neighbouring communities to work together for positive change*".

Taungurung and North East CMA at King River (photo by North East CMA)

Healing country with water for the environment – King River

Taungurung Traditional Owners (Victoria)

"The rivers are the veins of the Country"

Taungurung Traditional Owners and the North East CMA have worked with the VEWH and Goulburn Murray Water to release water for the environment. In June 2019, 39 megalitres of water owned by Taungurung Land and Waters Council was delivered as an environmental flow to the King River.

This water release contributed to healing Country by providing a boost to the health and productivity of the waterway. This flow provided a small variation in the water level of the King River downstream of Lake William Hovell, which inundated new habitat for waterbugs and fish, allowing them to move more freely and find new sources of food.

The release coincided with the Taungurung Water Group visiting the King Valley to scope out sites for a future Aboriginal Waterway Assessment of the King River. Shane Monk, Taungurung man, said "*The rivers are the veins of the Country, if you take too much water from them Country would get sick.*" "*Taungurung has a responsibility and*

"This project shows a great collaboration between Traditional Owners and water agencies, with a positive impact on the environment". Catherine McInerney, North East CMA

we are only doing the right thing for Country by bringing water back to the river. We are working with the North East CMA, VEWH and GMW to achieve this, we feel confident we can do more if we continue working together."

Catherine McInerney, Environmental Water Officer at the North East CMA, explains "*The King River catchment has recently been incorporated into the Taungurung Clans Aboriginal Party area. It has been great to start our working relationship with them by providing some positive environmental and cultural outcomes on the ground, or waterway as the case may be!*"

"*This project shows a great collaboration between Traditional Owners and water agencies, with a positive impact on the environment*," said Catherine.

Protecting Country and Culture

Nari Nari Tribal Council (NSW)

Toogimbie Indigenous Protected Area (IPA) is located on the southern side of the Murrumbidgee River between Hay and Maude. The Toogimbie IPA is part of the traditional lands of the Nari Nari people who, through the Nari Nari Tribal Council, manage the property for the restoration and protection of country and culture.

The Toogimbie floodplain includes around 1000 hectares of eucalypt-lined creeks and waterways, wetland areas and vast lignum flats. The traditional life of the Nari Nari people revolves around wetlands and floodplains like those at Toogimbie. The site is home to the Goanna, the Nari Nari totem animal, as well as traditional medicines. These areas are important ecologically with diverse aquatic plants, waterbirds and threatened species such as the southern bell frog.

Since 2016 the Commonwealth Environmental Water Office, the Nari Nari Tribal Council and the NSW Department of Industry, Planning and Environment have worked together to deliver 4331 megalitres of Commonwealth Environmental Water to Toogimbie IPA. This includes 500 megalitres planned for 2019. Watering is planned via discussions and on Country meetings which reflect on both environmental and cultural needs. Watering is managed by Nari Nari Rangers to ensure the environment is being cared for in line with the cultural practices of the Nari Nari people.

The Commonwealth Environmental Water Holder, Jody Swirepik said "*Our relationship with the Nari Nari Tribal Council has been essential in achieving outcomes of environmental watering at Toogimbie. I pay tribute to the great amount of on-ground work Nari Nari Tribal Council have undertaken in regard to the delivery of this water but also other work such as pest and weed control, monitoring, earthworks and revegetation through cultural practices. The results speak for themselves*".

This partnership has also opened up new opportunities for collaboration with NSW Department of Industry Planning and Environment for threatened species monitoring under the "saving our species" project. The Commonwealth Environmental Water Office is committed to working with the Nari Nari Tribal Council into the future and learning more about cultural outcomes as well as the ecology of Toogimbie.

Looking forward, the Commonwealth Environmental Water Office along with NSW Department of Industry, Planning and Environment are excited to continue to work with the Nari Nari Tribal Council to deliver water for the environment at the nearby Gayini (Nimmie Caira) property to see the environment flourish under the care of the Nari Nari people.

Heron at Toogimbie Indigenous Protected Area (photo by Australian Wildlife Services)

"Our relationship with the Nari Nari Tribal Council has been essential in achieving outcomes of environmental watering at Toogimbie."
Jody Swirepik, Commonwealth Environmental Water Holder

Nursery wetland at Toogimbie Indigenous Protected Area (photo by C. Amos, DPIE)

"These places are very special to us Aboriginal people, our ancestors walked here for thousands and thousands of years. They lived off these river banks. With the environmental flow coming down, this is going to pipe my community up. We're going to be out here fishing a lot".
Vanessa Hickey, Traditional Owner from Walgett

Water is life – the Northern Fish Flow

Northern Basin Aboriginal Nations (NSW)

From April–July 2019, the Commonwealth Environmental Water Office (CEWO) with the NSW Department of Planning, Industry and Environment, released water for the environment down the Barwon-Darling. The flow, named the Northern Fish Flow, travelled around 1,500 km from Glenlyon and Copeton Dams to the junction of the Barwon and Culgoa rivers. The flow connected the rivers and helped native fish including guduu (Murray cod), and gaygay (freshwater catfish) survive.

Prior to the Northern Fish Flow, parts of the Barwon River had not flowed for over 330 days. A series of disconnected waterholes remained, with poor water quality and fish struggling to stay alive.

Calls for a flow to replenish the northern river systems were heard from senior Aboriginal people and Elders. The CEWO heard from Northern Basin Aboriginal Nations representatives, who were distressed about the fish deaths, reiterating how totemic species are like family for Aboriginal people. Local staff from the CEWO spoke with Elders about what could be done to help fish and other important values of the river systems.

During the Northern Fish Flow, the CEWO shared regular updates and held community 'drop-in' sessions for local communities. Aboriginal community members who attended the drop-in sessions expressed a deep connection to the rivers and a strong support for environmental flows.

Vanessa Hickey, a Traditional Owner from Walgett stated "*These places are very special to us Aboriginal people, our ancestors walked here for thousands and thousands of years. They lived off these river banks. With the environmental flow coming down, this is going to pipe my community up. We're going to be out here fishing a lot*".

The Northern Fish Flow travelled through the traditional lands of many Aboriginal nations, supporting important environmental, social and cultural values. As the flow passed the Barwon River downstream of the Namoi junction, up to 40 members of the Aboriginal community came out to fish and enjoy the flow. Fisheries Officers reported seeing kids and adults along the bank catching golden perch and Murray cod, cooking jonny cakes (or damper) and enjoying the river. Carl McGrady, a Traditional Owner, noted the flow was "*probably the best thing I've seen in the last 10 years*".

From school children to Elders, many conversations took place between CEWO staff and local Aboriginal communities, sharing information and receiving feedback about the flow. Jason Wilson, local engagement officer from CEWO noted, "*Sharing with the local communities about the flow has been an eye opening experience; their knowledge, participation and passion was a constant in towns from the start of the event and right to the end. We learned a lot from the information sessions we conducted, importantly we have established and will continue to foster a strong relationship into the future, built on mutual respect and the common languages of looking after our rivers*".

CEWO's Local Engagement Officer Jason Wilson, engaging with community members, as the Northern Fish Flow flows past (photo by R. Mintern, CEWO)

Listening to Elders – Chowilla Floodplain Water

First Peoples of the River Murray and Mallee Region (South Australia)

"To bring back vegetation, wildlife, fishing, hunting and gathering as was done in the old days – so that all would not be lost"

Norman Wilson – Ngintait

We acknowledge the traditional lands of the First Peoples of the River Murray and Mallee Region and that we respect their spiritual relationship with their country. We also acknowledge the First Peoples as the custodians of the River Murray and Mallee region and that their cultural and heritage beliefs are still as important to Traditional Owners, the living Ngaiawang, Ngawait, Nganguraku, Erawirung, Ngintait, Ngaralte, and Ngarkat people of today.

The following story was developed by Fiona Giles, First Peoples Coordinator, Department of Environment and Water.

Norman Wilson, also known as Uncle Tinawin, is a respected Elder of the Riverland Community. He has strong spiritual and family connections along the River Murray within South Australia, and over the border into Victoria as his Great-Great Grandfather John Perry, was born in the area that is now known as Chowilla.

As a Traditional Owner and an Elder, Uncle Tinawin has been concerned about the environmental impacts that have occurred over the years, as he has vivid memories of fishing, shooting and hunting when the Country was plentiful and abundant with wildlife and fish and has witnessed the gradual degradation of the health of the river, surrounding floodplains and the ongoing effects that this has had on his culture.

Since 2014, Uncle Tinawin has been involved with the First Peoples Working Group, which was formed by DEW to engage with the First Peoples of the River Murray Mallee Region. Attending these meetings has given him the opportunity to undertake on Country activities such as the Aboriginal Waterways Assessments, community field trips and the cultural heritage protection of sites that are being affected by infrastructure development and environmental changes.

Uncle Tinawin enjoys working closely with people of expertise such as archaeologists and DEW Staff to share knowledge, stories and information so they can learn from each other on caring and protecting Country as he is not in support of infrastructures on-Country such as the Chowilla regulator and man-made structures because, "*it doesn't give a natural feel to Aboriginal People*". However, he said he is learning to adapt and to accept that these play an important role in the waterways compared to if there weren't any infrastructures.

Uncle Tinawin agrees that there are cultural benefits from the environmental water delivery projects and has seen how environmental water has revitalised the vegetation and brought back the wildlife on the Chowilla floodplains. "Environmental watering is about as good as it gets to continue to do cultural activities."

Uncle Tinawin is happy with the current involvement of the Traditional Owners in environmental water planning, but he does feel that his concerns have not always been fully heard when decision making has already been sealed at the government level. "*All we can do at a ground level is continue to be involved as Traditional Owners and fight for the rights to cultural water flows and values to practice traditional cultural activities.*"

Uncle Tinawin stressed that the importance of involving Traditional Owners from day one, when consultations and negotiations on regulator locations and other aspects are happening as this gives the opportunity to have valuable input from the start, and for Traditional Owner views and wealth of cultural knowledge of Country and waterways to be included. This way, as a

"It is important to maintain the natural state of areas along the river to take the kids for cultural activities"

Jenni Grace

Right: First Peoples of the River Murray and Mallee Region Elders: Norman Wilson and Jennifer Grace (photo by F. Giles, SA DEW)

Traditional Owner Uncle Tinawin would feel a part of the whole process, not the end or the middle of the process. "*We are a part of it step by step.*"

The same questions were asked of Jennifer Grace, a Nganguraku Elder known as Aunty Jenni. She had similar views that times have drastically changed and water is a problem everywhere.

As a child, Aunty Jenni lived a semi-traditional, nomadic way of life on the river, the surrounding floodplains were abundant with everything they needed to survive, vegetation was thick and there were plenty of good hiding spots for her and the other children to hide, to avoid being taken by the Authorities, as those were the times of the "Stolen Generation."

Aunty Jenni was just 6 years old, living on Nildottie (Tartanga) Island when the 1956 flood washed away everything they owned, she had never lived in an actual house until she was 17. Jenni learnt to survive and hunt in all sorts of conditions along the river as there was no Centrelink in those days and it was a matter of survival.

Aunty Jenni enjoys attending the on Country tours to see how things are working environmentally and how DEW Staff are bringing the floodplains back to their natural state.

Access to Country is a concern for Aunty Jenni as a lot of areas along the river and surrounding floodplains are private property. Access to Country is important to Aunty Jenni as she loves to take the younger generation out on-country to teach them how she survived, how to respect the river and in return the river will respect you, this is so that our culture is respected and not lost.

Where are the opportunities for improving engagement with First Peoples of the River Murray and Mallee Region?

Inclusion – Traditional Owners need to be included from the start. Always have respect and regard for the Elders.

Ecological outcomes – First Peoples need to be informed of flora and fauna species that benefit from environmental watering Projects.

Land use – Use of satellite images and topographic maps, highlighting Crown Land, private property, game reserves and all access points for all on-country tours, site visits and field trips.

Where to next?

- Ensure that the conversation with Traditional Owners is undertaken from the beginning of the project.
- Ensure that the Elders knowledge and cultural values are given respect and are taken into account.
- Continue to support the First Peoples Working Group meetings, on Country tours and workshops.
- Build capacity within the First Peoples community by supporting more participation in projects.:
- Further scar tree health monitoring.
- Further Aboriginal Waterways Assessments.
- Complete the short film about Chowilla's cultural importance.
- Presentations to Community Reference Committee meetings etc.
- First Peoples involvement and assistance with ecologists undertaking monitoring.
- All previous FPWG members to be invited to all celebratory events and on-Country community tours.

Thank you

The effective management of water for the environment relies on the contributions and efforts of many land and water organisations and communities across the Basin.