

02 NGUNNAWAL COUNTRY



Source: <https://matthewsherrenphotography.com/>

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RECOMMENDATIONS

Recommendation 7: continue consultation with Ngunnawal people to:

- explore the potential of developing a unified Framework for Cultural Indicators in respect of cultural water and cultural burning
- explore the management potential of an Indigenous Seasonal Calendar
- consider the establishment of an Indigenous River Rangers program, and
- establish a specific category of Indigenous heritage grants.

NGUNNAWAL COUNTRY OF THE ACT

This is the first time the ACT State of the Environment Report has begun with the consideration of Ngunnawal people's issues and interests.¹

This work is intended to promote respect for Indigenous cultural water and cultural cool burning strategies and techniques. It also intended as a guide to possible further work with the Ngunnawal people. It is not intended to replace the detailed cultural and community consultation which should precede every initiative that impacts Ngunnawal people in this jurisdiction.

It is now increasingly recognised that Indigenous knowledge is vital to our understanding of how our environment works and the development of sustainable best practice in Australia.²

1 This chapter was first discussed with Ngunnawal people associated with the Environment, Planning and Sustainable Development Directorate (EPSDD) and then compiled in collaboration with Bradley Moggridge, Kamilaroi water scientist and University of Canberra PhD candidate, who holds a Master's of Science (hydrology and groundwater management) and a Bachelor of Science degree. He is a Fellow of the Peter Cullen Trust, and a contributor to the International WaterCentre (IWC) Water Leadership Program and Indigenous Leadership program at the Australian Indigenous Leadership Centre (AILC). Bradley has been recognised widely for his scientific contributions: 2017 ACU Aboriginal and Torres Strait Islander Alumni Award, 2019 NAIDOC Scholar of the Year Award, 2019, Inaugural Australian Academy of Science ATSI Travel award, part-time Indigenous Liaison Officer with the Threatened Species Recovery Hub (NESP), and 2019 ACT Tall Poppy of the Year for Science. Bradley was also the Head of the NSW Department of Primary Industry Water Aboriginal Water Initiative.

2 R. Paltridge and A. Skroblin, 2018, 'Threatened Species Monitoring on Aboriginal Land: Finding the Common Ground between Kuka, Jukurrpa, Ranger Work and Science' in S. Legge, D. Lindenmayer, N.M. Robinson, B.C. Scheele, D.M. Southwell, B. Wintle (eds), *Monitoring Threatened Species and Ecological Communities*, CSIRO, Canberra; and on community engagement more generally see J. Koleck, 2018, 'Community Involvement in Monitoring Threatened Species: a WWF Perspective' in S. Legge, D. Lindenmayer, N.M. Robinson, B.C. Scheele, D.M. Southwell, B. Wintle (eds), *Monitoring Threatened Species and Ecological Communities*, CSIRO, Canberra.

Recognition

The ACT Government has taken a number of steps to reflect and respect Aboriginal heritage. These include establishing the *Aboriginal and Torres Strait Islander Elected Body Act 2008*, the Reconciliation Action Plan Endorsement, the Whole of Government ACT Aboriginal and Torres Strait Islander Agreement 2015–2018, which was updated to 2019–2028 and supported by a Development Action Plan, the establishment of a Traditional Caring for Country Committee, and Traditional Custodian Engagement.

At the organisational level, the ACT Government has appointed a Healthy Country Manager in the Environment Planning and Sustainable Development Directorate (EPSDD) and established a Ngunnawal Bush Healing Farm (2016).

Canberrans have been afforded a public holiday for Reconciliation Day, and Reconciliation Action Plans are either operational or in development across the ACT public service. The ACT Government recognises the Ngunnawal people as the Traditional Custodians of Country.

The ACT Government has embarked upon consultation with the Ngunnawal and other Aboriginal people in respect of cultural burning, producing the Aboriginal Fire Management Framework (2015).³

Further, in 2019 in relation to water issues, the ACT Government produced the Murray-Darling Basin Plan (MDB Plan) Water Resource Plan (WRP) with appropriate commitments to Indigenous water consultations, acknowledging that until WRP consultations commenced in 2015 there had been ‘little engagement [with Aboriginal people] in water resource planning’.⁴

Aboriginal heritage protection: Heritage Act 2004 and the Human Rights Act 2004



Aboriginal heritage sites in north Canberra, Top: Gubur Dhaura ochre quarry, Bottom: Gurbur Duhaura ochre quarry. Source: ABC News.

Aboriginal cultural heritage is formally recognised and protected in the ACT. The ACT *Human Rights Act 2004* makes it clear that Aboriginal people’s ‘material and economic relationships with the land and waters and other resources’ should be recognised (amendment 2016).⁵

3 B. Williamson, ACT Parks and Conservation Service, 2015, *ACT Aboriginal Cultural Guidelines for Fuel and Fire Management Operations in the ACT*, ACT Government, Canberra, found at <https://knowledge.aidr.org.au/media/6500/aboriginal-cultural-guidelines-for-fuel-and-fire-management-operations-in-the-act.pdf>; ACT Parks and Conservation Service, 2015, *ACT Aboriginal Fire Management Plan 2015–2016*, ACT Government, Canberra, found at <https://knowledge.aidr.org.au/media/6501/act-aboriginal-fire-management-plan-2015-16.pdf>

4 EPSDD, 2019, *ACT Water Resource Plans for Surface Water and Groundwater*, ACT Government, Canberra:108, 116, found at <https://www.mdba.gov.au/sites/default/files/pubs/act-water-resource-plans-for-surface-water-and-groundwater-april-2019.pdf>; EPSDD, 2019, *Indigenous Objectives, Desired Outcomes, Values and Uses Report*, ACT Government, Canberra, found at <https://www.mdba.gov.au/sites/default/files/pubs/ACT-WRP-Appendix-K-Indigenous-objectives-outcomes-values-uses-report-2019.pdf>

5 *Human Rights Act 2004* (ACT), s.27 (amendment in 2016):

- (2) Aboriginal and Torres Strait Islander peoples hold distinct cultural rights and must not be denied the right –
- (a) to maintain, control, protect and develop their –
 - (i) cultural heritage and distinctive spiritual practices, observances, beliefs and teaching and
 - (ii) languages and knowledge and
 - (iii) kinship ties and
 - (b) to have their material and economic relationships with the land and waters and other resources with which they have a connection under traditional laws and customs recognised and valued.

The ACT Human Rights Commission established a Cultural Safety Charter in 2019. *Ngattai yeddung (Ngunnawal) Listen good*, which can be found at https://hrc.act.gov.au/wp-content/uploads/2019/09/10484R-HRC-Cultural-Safety-Charter-Plan-July-2019_web.pdf. This initiative falls outside the reporting period and is not the subject of commentary here.

There are 75 Aboriginal places and objects on the *Heritage Act 2004* Heritage Register, and many include information about more than one site or object. Citations on the register include information on 2930 sites.

The *Heritage Act 2004* provides for Indigenous membership on the Heritage Council. The Council consults with representative Aboriginal organisations on questions of registration, possible restrictions, and Heritage Guidelines. Further to that, all Aboriginal places and objects are reported on a central database and protected under the *Heritage Act 2004*, even if they are not 'registered'.

Offences against Aboriginal heritage which involve reckless or negligent damage or disturbance are proscribed (section 75). Disturbance for the purposes of development will result in the storage and repatriation of cultural material, as occurred when the Cotter Dam was expanded, and a Statement of Heritage Effects is used to control the effects of altering a site.

The Heritage Council has assumed the responsibility to negotiate with developers about the protection of Indigenous heritage, most recently working with Ngunnawal people and the proponents of the Ginninderra subdivision in respect of a sewer trunk where the original alignment cut through an important corroboree ground.

Registrations of Indigenous heritage 2015–2019

In this reporting period, three heritage registration decisions were made and five heritage nominations were accepted for consideration. Many other sites, stone tool scatters and scar trees have been reported and will be protected because they are Aboriginal sites. The three new registrations were:

- Red Hill Campsite – a place where Aboriginal people camped throughout the 1920s to 1940s
- Corroboree Ground and Cultural Area, Queanbeyan River at the junction with the Molonglo River, and
- Umbagog Park Grinding Grooves in Latham. The Aboriginal voice in respect of that site reflects its significance.

'... this place is very important because of its grinding grooves, medicine and fibres ... there were strong cultural practices in this region.'⁶

Indigenous heritage protection: sanctions and significance

The ACT Government is bringing the following legislation to the Legislative Assembly to resolve issues which have arisen in this reporting period:

1. Strict liability for offences involving the damage or destruction of heritage. In respect of heritage protection, the felling and destruction of two scar trees at Wanniasa has resulted in the government drafting legislation which will provide for a strict liability offence for any and all heritage destruction. This will obviate the need to prove intent to damage heritage sites. It is proposed an infringement notice process will be established.
2. Recognition of cultural significance of Indigenous fishery management in fishery reform. The ACT Government is introducing a Bill which will provide for Aboriginal people's cultural right to take fish (*Nature Conservation Act 2014*).

There is more to do – seeking a holistic approach

The ACT Government recognises there is always room for improvement and has reported that while Aboriginal heritage processes do refer to Indigenous water and land issues, this is not done as a 'holistic land and water approach'.⁷

Should the ACT Government consider advancing discussions about a unified Framework for Cultural Indicators, as is suggested here, much more consultation will be required, as has already been envisaged in the ACT Water Resource Plan (prepared to comply with the Commonwealth's *Water Act 2007* and the associated Murray-Darling Basin Plan).⁸

6 EPSDD 2018, ACT Water Planning Meeting Minutes, May 2018, Aboriginal Water Assessment Consultations, scribe Mary Mudford, provided by EPSDD.

7 EPSDD, 2019, *ACT Water Resource Plans for Surface Water and Groundwater*, ACT Government, Canberra: 118, found at <https://www.mdba.gov.au/sites/default/files/pubs/act-water-resource-plans-for-surface-water-and-groundwater-april-2019.pdf>

8 EPSDD, 2019, *ACT Water Resource Plans for Surface Water and Groundwater*, ACT Government, Canberra: 108, 116, found at <https://www.mdba.gov.au/sites/default/files/pubs/act-water-resource-plans-for-surface-water-and-groundwater-april-2019.pdf>



Ngunnawal Country – the view looking south from Sammy's Hill, north Canberra. Source: Brad Moggridge.

NGUNNAWAL CULTURAL HERITAGE

Ngunnawal cultural heritage is evident across the whole ACT landscape.⁹ Cultural iconography can be found carved and displayed on rock, from axe-grinding grooves on river rocks to stone tool scatters, and highly significant rock art in the Namadgi National Park. Ochre quarries, which would have had great ceremonial and trading value, have been protected within Canberra's city boundaries at Red Hill and Gungahlin.

Scar trees across the city, from Wanniasa to Bonner, tell of water courses as cultural resources. Major campsites have been recorded on the Black Mountain Peninsula, the lower slopes of Mount Ainslie, near the Botanic Gardens on Sullivan's Creek, on the lower slopes of Black Mountain, and on the sand hills which sit beneath Pialligo. Recently excavated test pits near Coppins Crossing suggest that:

'... this site was used regularly by Aboriginal people as a short-term camp at times during the mid to late Holocene, dating to the last 5,000 years.'¹⁰

Over thousands of years Ngunnawal people have maintained cultural connectivity and deep spiritual links to sites, places, icons, and art.

9 Josephine Flood recorded sites in the 1970s and 1980s and observed at that time 'traces of over 800 Aboriginal open campsites have been found in the ACT. Most are on the banks of large rivers ... particularly near good fishing spots. An intensive survey of a one-kilometre wide strip on either side of the Murrumbidgee River from the northern to the southern border of the ACT was made during the drought years of the 1980s. This revealed 125 Aboriginal sites '... [including] five stone quarries and five trees scarred from the removal of sheets of bark'. 1996 Flood observed that over 3000 Indigenous cultural sites were then recorded. Flood, J., 1996, *Moth Hunters of the Australian Capital Territory. Aboriginal Traditional Life in the Canberra Region*, Gecko Books, South Australia.

10 EPSDD, 2019, *ACT Molonglo River Reserve Management Plan*, ACT Government, Canberra, found at <https://www.legislation.act.gov.au/View/di/2019-192/current/PDF/2019-192.PDF>

Caring for Country

Australia is the driest inhabited continent and Aboriginal people have been living resourceful and resilient lives here for 65,000 years, adapting to conditions, carrying out cultural business and governance. We know that Ngunnawal people have survived and thrived in the Canberra region for more than 25,000 years. Their complex knowledge of Country and water has been critical to their cultural continuity.¹¹

‘Country’ refers to a bounded geographical area, distinct from one another. Country has intrinsic and cultural value.

Ngunnawal people have deep cultural interest in conservation, water and fire management. That knowledge extends to understanding seasonality, taking only what is necessary (see the commentary from Aunty Loretta Halloran inside the front cover of this report), and harvesting routines associated with flora and fauna including: Daisy Yam, wattle seed, fish (Murray Cod and Yellow Belly), yabbies, platypus, water fowl, terrestrial mammals, and Bogong moths in the summer months.¹²

Looking after Country involves maintaining a balanced physical, social and spiritual environment and contributing to the continuity and renewal of complex relationships between people and the environment.

Capacity to care for Country changed in the early part of the 1800s when the Ngunnawal people’s world turned upside down with the arrival of the Europeans establishing farms and settlements.

Many Aboriginal people in the region, including the Ngunnawal, were forcibly moved and placed in missions and reserves (specifically at Brungle and Edgerton) which were managed by the Aboriginal Protection Board, where foreign language, customs and religions replaced the Dreaming and Aboriginal Lore.

Indigenous voices – water, land and language

On water, Aboriginal people voice their contemporary cultural connections about the Molonglo River, Vanity’s Crossing, and Boboyan Swamp in the following ways:

‘... the area is saturated with artefacts.’

‘... this place is my second home. It was my ancestors’ many years ago.’

‘... it’s here for us to bring our families, to make our bodies better. I want my grandkids and their kids to know this place.’

‘... our ancestors used this for a pathway.’

‘... this is a running billabong; it would be significant for travellers passing as the water source was for camping. This billabong is close running to a rock art site.’¹³

About the Naas River one Aboriginal person made this comment:

‘... [I am] sad and sick that it is so degraded. Once [it] was a major trade route into mountains for ceremony.’¹⁴

11 Office of the Commissioner for Sustainability and the Environment (OCSE), 2018, *The Heroic and the Dammed – Lower Cotter Catchment Restoration Evaluation*, ACT Government, Canberra, found at https://www.envcomm.act.gov.au/__data/assets/pdf_file/0007/1315753/The-Heroic-and-the-Dammed-Lower-Cotter-Catchment-Restoration-Evaluation.pdf

12 EPSDD, 2018, *Lower Cotter Catchment Reserve Management Plan 2018*, ACT Government, Canberra, found at https://s3.ap-southeast-2.amazonaws.com/hdp.au.prod.app.act-yoursay.files/3515/1910/2350/Lower_Cotter_Catchment_-_Reserve_Management_Plan_-_ACCESS.pdf

13 EPSDD, 2018, ACT Water Planning Meeting Minutes, May 2018, Aboriginal Water Assessment Consultations, scribe Mary Mudford, provided by EPSDD

14 EPSDD ACT Water Planning Meeting Minutes, May 2018, Aboriginal Water Assessment Consultations, Scribe Mary Mudford, provided by EPSDD

On land, in the context of cool or cultural burning, Aboriginal people have also recently had their voices recorded.¹⁵ Wally Bell, Ngunnawal elder, expressed concern that ‘we’ve lost so many sites from residential development’, while Indigenous voices across the 2018 Southeast Australian Aboriginal Fire Forum recited a range of views about Country in respect of fire management:

‘... Country continues to teach us.’
Victor Steffensen, Mulong

‘... we all know this, it’s just a matter of putting it on paper.’
Sally Moylan, ACT Parks and Conservation Service

‘... no matter where you go on the lands of your ancestors, you will always see your footprints.’
Aunty Matilda House, Ngambri Elder

‘... knowledge of burning is not necessarily seen as something that can or should be shared freely without the responsibilities to Country that come with doing it.’
Smith, Weir and Neale 2018, reciting comments from the floor

Indicative of their determination to maintain and enliven culture, Ngunnawal people are reviving language, in partnership with the Canberra Institute of Technology’s Yurauna Institute and the Australian Institute of Aboriginal and Torres Strait Islander Studies.¹⁶ At the launch of the Canberra Airport’s language collaboration with Ngunnawal people,¹⁷ Caroline Hughes, Ngunnawal Elder (of the United Ngunnawal Elders Council) remarked:

‘... we are breathing the breath of life back into language for Country ... we have come home.’¹⁸

Illustrating the understanding of the gravity of the restoration of language, then Australian Prime Minister, Malcolm Turnbull, commenced his Closing the Gap speech in the federal parliament in Canberra with Ngunnawal language in 2016.

15 Smith, W., J. Weir, T. Neale, 2018, *Southeast Australian Aboriginal Fire Forum*. An Independent Research Report, Bushfire and Natural Hazards Cooperative Research Centre’s ‘Hazards, Culture and Indigenous Communities’ research project (BNHCRC’s HCIC), found at <https://www.bnhcrc.com.au/publications/biblio/bnh-4738>

16 More information can be found at https://www.communityservices.act.gov.au/atsia/committees/ngunnawal_issues

17 The Canberra Airport is the first in Australia to provide a welcome to Country to international visitors in the local Aboriginal language – the Ngunnawal language.

18 Commissioner, Professor Kate Auty’s personal note of the comments made at the Canberra Airport launch. Tweeted on 9 July 2019 (@Env_Comm)

WATER: CULTURAL WATER AND INDIGENOUS MANAGEMENT



Top of Gibraltar Falls: grinding grooves across the rock face illustrate the pattern of connection. Source: Brad Moggridge.

‘... we need to embrace every possible method of allowing rivers to mend themselves through adopting Aboriginal water practices, and it is timely during drought when Country is sick to allow Aboriginal people to care for their respective countries. We have a customary responsibility to do so.’¹⁹

Aboriginal peoples’ world view invokes water as critical to their identity and inseparably connected to the land and sky, bound by Traditional Lore and customs in a system of sustainable management. In a dry landscape, traditional knowledge of finding, relocating, and protecting water sites has been both a cultural responsibility and vital to survive.²⁰

Today this Indigenous knowledge can serve a broader vision of sustainability for all Australia. The underlying message is ‘look after the water and the water will look after you’.

19 Bradley Moggridge, personal communication to Commissioner Professor Kate Auty, August 2019

20 Moggridge, B. and R. Mihinui, 2010, ‘Guiding principles for Indigenous Cultural and Spiritual Values on Water’, paper prepared for the Joint Steering Committee reviewing the Australian and New Zealand Guidelines for fresh and marine water quality, Canberra.

Australian Aboriginal people's view of the relationship between water, land, culture and people illustrated below:²¹



Ngunnawal people's cultural roots extend to caring for their river Country through links to the Murrumbidgee, Molonglo and Cotter rivers, each of which are part of the broader Murray-Darling Basin. Ngunnawal Country is situated in the northern part of the Snowy Mountains which provides strong links and pathways to the coast from the mountains. These water courses and byways follow and represent Songlines and Dreamings here in the southeast, just as they do in other parts of the country.

Contemporary water management and Indigenous cultural flows

Aboriginal people involved in water resource management in the Murray-Darling Basin are represented by Traditional Custodians and the Murray and Lower Darling River Indigenous Network (MLDRIN). The Ngunnawal people have two elected representatives on the MLDRIN Executive.

In the early 2000s much of Australia, including the ACT, was gripped by the Millennium Drought. A decade of water reform resulted in reconsideration of methods for the management of water resources for the environment, agriculture, and communities in the Murray-Darling Basin. This process began with the 2004 Council of Australian Governments' (COAG) National Water Initiative (NWI).

As a function of the NWI, all states and territories committed to some Indigenous representation in water planning. They agreed to incorporate Indigenous, social, spiritual and customary objectives, and strategies in planning, and to take account of the possible existence of native title rights to water.

Subsequently, the Commonwealth's *Water Act 2007* was established. However, to date no native title determinations of water entitlements have been granted by the courts.



Gibraltar Falls, Paddys River, ACT. Source: Brad Moggridge.

²¹ Moggridge, B. and R. Mihinui, 2010, 'Guiding principles for Indigenous Cultural and Spiritual Values on Water', paper prepared for the Joint Steering Committee reviewing the Australian and New Zealand Guidelines for fresh and marine water quality, Canberra.

ACT plans and commitments to cultural water

Under the Water Act and before water responsibilities were devolved to include Water Resource Plan obligations, the ACT Government commenced a dialogue with Traditional Custodians. This included the 2011–2013 ACT Caring for the Cotter Catchment project and the Murra Bidgee Mullangari ceremony on the banks of the Murrumbidgee River (which brought together the Ngunnawal, Ngambri and Ngarrinjjeru people).

The ACT WRP has been informed by the Murray-Darling Basin Authority's (MDBA) Aboriginal Waterways Assessment Project (2015) and field trips with Indigenous informants in 2016, 2017 and 2018. It is as a result of this process that Ngunnawal people now have two elected delegates on MLDRIN. This consultation relied upon the Convention for Biological Diversity's *Akwé: Kon Guidelines*²² in determining the cultural water and other water interests of Ngunnawal people.

The ACT WRP makes the commitment to support Aboriginal objectives, values and uses that have been identified through the engagement activities of water resource planning. The intention is to build on supporting and protecting Aboriginal values and uses through a fit-for-purpose approach via the ACT Water Strategy, the ACT Environmental Flow Guidelines and associated rules that protect flows and a number of land and catchment management plans.

It is commendable that the ACT Government declared that the 'traditional' Indigenous environmental management philosophy is respected, supported, and a 'critical element' in the preamble to its Water Resources Plan (2019 and 2016 (draft)).²³

The ACT Government has also acknowledged and accepted the Indigenous peoples' 2007 Echuca Declaration's definition of '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.'²⁴

Protection of flows in water catchments, water quality improvement programs and protection of threatened and endangered aquatic ecology contributes to Aboriginal values and uses of water.

Traditional Custodians can apply for water access entitlements and licences to take water for cultural purposes and traditional activities while unallocated water is available to all Aboriginal people in the plan area.²⁵

22 Convention on Biological Diversity COP-7, 2004, *Akwé: Kon Guidelines*, Secretariat of the Convention on Biological Diversity, Montreal, found at <https://www.cbd.int/traditional/guidelines.shtml>. The guidelines adopt the following ten principles: 'Notification and public consultation of the proposed development by the proponent; Identification of indigenous and local communities and relevant stakeholders likely to be affected by the proposed development; Establishment of effective mechanisms for indigenous and local community participation, including for the participation of women, the youth, the elderly and other vulnerable groups, in the impact assessment processes; Establishment of an agreed process for recording the views and concerns of the members of the indigenous or local community whose interests are likely to be impacted by a proposed development; Establishment of a process whereby local and indigenous communities may have the option to accept or oppose a proposed development that may impact on their community; Identification and provision of sufficient human, financial, technical and legal resources for effective indigenous and local community participation in all phases of impact assessment procedures; Establishment of an environmental management or monitoring plan (EMP), including contingency plans regarding possible adverse cultural, environmental and social impacts resulting from a proposed development; Identification of actors responsible for liability, redress, insurance and compensation; Conclusion, as appropriate, of agreements, or action plans, on mutually agreed terms, between the proponent of the proposed development and the affected indigenous and local communities, for the implementation of measures to prevent or mitigate any negative impacts of the proposed development; Establishment of a review and appeals process.'

23 EPSDD, 2019, *ACT Water Resource Plans for Surface Water and Groundwater*, ACT Government, Canberra, found at <https://www.mdba.gov.au/sites/default/files/pubs/act-water-resource-plans-for-surface-water-and-groundwater-april-2019.pdf>

24 MLDRIN Echuca Declaration 2007, 2010, adopted by MLDRIN delegates on 14 November 2007 and further adopted by NBAN and MLDRIN (with minor edits) at a joint meeting on 19 May 2010, found at https://www.mdba.gov.au/sites/default/files/pubs/sa-mldrin-echuca-declaration-2009_0.PDF

25 EPSDD, 2019, *ACT Water Resource Plans for Surface Water and Groundwater*, ACT Government, Canberra: 29, found at <https://www.mdba.gov.au/sites/default/files/pubs/act-water-resource-plans-for-surface-water-and-groundwater-april-2019.pdf>



Kambah Pool, Murrumbidgee River - a popular swimming spot. Source: <https://matthewsherrrenphotography.com/>.

Change is slow and culturally complex

The ACT WRP recognises that more work needs to be done to develop indicators for informing Indigenous cultural water assessments.²⁶

Even though there is a shift towards including Aboriginal knowledge and science into natural resource management in respect of cultural heritage management (as it is legislated), weather knowledge (seasonal calendars and climate), national park management (co-management), and fire ecology (cultural burning), change is slow. The incorporation of cultural indicators is still an aspiration.

In 2009, Australian and New Zealand Environment Ministers resolved to revise the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000* and tasked a Joint Steering Committee to oversee the revision process. A key component of the review was to prepare guidance for the inclusion of cultural and spiritual values into water quality management.

Several National Water Commission (NWC) reviews have called for change: (in 2009, 2011, 2013, 2014). The 2014 NWC review found that most jurisdictions had:

‘... generally failed to incorporate effective strategies for achieving Indigenous objectives in water planning arrangements. While recognition of Indigenous cultural values and associated water requirements has progressed, implementation of practical change remains variable, with most jurisdictions as yet not making specific provision for water access for Indigenous people.’²⁷

Moggridge and others provide examples of cultural values that are water-dependent and can be protected by water planning instruments.²⁸

²⁶ EPSDD, 2019, *ACT Water Resource Plans for Surface Water and Groundwater*, ACT Government, Canberra: 108, 116, found at <https://www.mdba.gov.au/sites/default/files/pubs/act-water-resource-plans-for-surface-water-and-groundwater-april-2019.pdf>

²⁷ National Water Commission (NWC), 2014, *Australia’s Water Blueprint National Reform Assessment*, NWC, Canberra: 31

²⁸ Moggridge, B., L. Betteridge and R.M. Thompson, 2019, ‘Integrating Aboriginal Cultural Values into Water Planning: A Case Study from New South Wales, Australia’, *Australian Journal of Environmental Management*, 26(3): 273–86. DOI:10.1080/14486563.2019.1650837

The Productivity Commission has recognised the need for further action in respect of Indigenous people's water rights, describing Indigenous water management as a litany of 'unfinished business'.²⁹ The Commission recommended that governments should ensure:

1. Indigenous cultural objectives are explicitly identified and provided for in water plans, and progress in achieving Indigenous cultural objectives is regularly monitored and publicly reported on.
2. That there is public reporting of how Indigenous cultural objectives have been considered in the management of environmental water – both held and planned.³⁰

The Commission's language was very strong on this point – that the protection of Indigenous cultural (water) values should be regarded as a distinct objective of water planning in its own right. Where it is not possible to use environmental flows to support some or all Indigenous cultural objectives, explicit provisions should be made in water plans to address the shortfall.³¹

Genuine engagement is critical, as outlined in the MDB Plan (Part 14A on Aboriginal values and uses). The clear objective is that water institutions should build on the Akwé: Kon Guidelines.³²

The ACT WRP supports an increase in Indigenous representation on the ACT and Region Catchment Coordination Group and the Environmental Flows Technical Advisory Group.

In addition to the WRP, the ACT Government has developed the Molonglo River Reserve Management Plan (2019) which establishes the following objectives:

- Objective 10: cultural heritage within the Molonglo River Reserve is identified and conserved to retain its significance.
- Objective 11: cultural heritage is to be interpreted and (where appropriate) promoted to foster community appreciation of past and continuing connections.

Policy initiatives attached to Objective 11 will provide for naming conventions, promotions, active consultation, and documenting cultural knowledge.

Indigenous research foundations and outcomes

As change occurs, governments need to be vigilant about knowledge access, knowledge sharing, and restricted knowledge protocol. These issues have historically been difficult to negotiate, and the breach of etiquette and protocols has the potential to erode the good work done through genuine consultation over time.

In 2018 the Northern Basin Aboriginal Nations (NBAN) and MLDRIN, through the National Cultural Flows Research Project (NCFRP),³³ accumulated rigorous and defensible knowledge about First Peoples' water interests and benefits to Aboriginal people.

The NCFRP drew on a range of scientific research methodologies and generations of cultural knowledge, including the Aboriginal Waterways Assessment (AWA) methodology. Objectives include:

- providing a greater understanding of Aboriginal values relating to natural resources, especially water.
- equipping First Peoples with information and tools to ensure that Aboriginal water requirements and preferences are reflected in water policy.
- informing the development of new governance approaches to water management that incorporate aspects of First Peoples' governance and capacity-building.

29 Productivity Commission, 2017, *National Water Reform Inquiry Report*, found at <https://www.pc.gov.au/inquiries/completed/water-reform#report>

30 Productivity Commission, 2017, *National Water Reform Inquiry Report*: 94, found at <https://www.pc.gov.au/inquiries/completed/water-reform#report>

31 Productivity Commission, 2017, *National Water Reform Inquiry Report*, 94, found at <https://www.pc.gov.au/inquiries/completed/water-reform#report>

32 Convention on Biological Diversity COP-7, 2004, *Akwé: Kon Guidelines*, Secretariat of the Convention on Biological Diversity, Montreal, found at <https://www.cbd.int/traditional/guidelines.shtml>

33 National Cultural Flows Research Project, 2019, found at <http://culturalflows.com.au/>

CASE STUDY: NARI NARI ENVIRONMENTAL AND CULTURAL FLOWS AT TOOGIMBIE

Environmental and cultural values can work together, as the Nari Nari Tribal Council (Hay NSW) has demonstrated. There, a re-flooding regime provides a valuable example of how ‘cultural flows’ have supported employment and recreation, economic independence, and the maintenance of connection between people, land, and water. The Council is a water licence holder. As a result of this negotiated outcome, the Council has an established relationship with the Commonwealth Environmental Water Holder to access environmental water under the NCFRP.³⁴

The Council is a regular user of the Cultural Access License with 2150 megalitres available annually in the Murrumbidgee water-sharing plan. The Nari Nari currently access water under four categories of license in accordance with the Murrumbidgee Regulated River Water Sharing Plan. These activities are contributing to biodiversity and cultural heritage management within the region.³⁵



Nari Nari Tribal Council Office.
Source: <https://www.awt.com.au/2014/02/01/rotary-support-toogimbie-ipa/>.

The future: a Framework for Cultural Indicators and a River Rangers program

‘Aboriginal peoples have much to offer and society has much to gain by negotiating an empowering role for Aboriginal people in river management. A proper recognition of the Aboriginal role in river management will be an important step in establishing the economic, cultural and biological diversity necessary for a sustainable and just society.’³⁶

For Aboriginal people, water is an intrinsic part of the landscape (connecting to land and sky) that also holds vast social, cultural and economic importance. This understanding is difficult to align with quantitatively-focused western style water management which separates components of the landscape.

Partnerships are critical and cultural monitoring of water would promote understanding, sustainability, ecological and biodiversity outcomes.³⁷

Initiatives can be instituted on a number of scales. Advancing Indigenous cultural and environmental rights and obligations includes practical and operational opportunities as well as larger scale commitments such as the establishment of a Framework for Cultural Indicators (discussed at the end of this chapter).

The establishment of a River Ranger program, funded and resourced to work alongside Ngunnawal Traditional Custodians to measure health, would facilitate the design of strategies which would work to heal Country through cultural understanding of water resources and their management. It would also potentially promote greater involvement and build upon the ACT’s commitment to inclusion of Indigenous people at the environmental organisational level.

34 National Cultural Flows Research Project, 2019, found at <http://culturalflows.com.au/>

35 Jackson, S., B. Moggridge and C. Robinson, 2010, *Effects of Changes in Water Availability on Indigenous people of the Murray-Darling Basin: A Scoping Study*, Report to the Murray-Darling Basin Authority, CSIRO, Canberra.

36 Behrendt, L., and P. Thompson, 2003, ‘The Recognition and Protection of Aboriginal Interests in NSW Rivers’, *Journal of Indigenous Policy*, 3, found at <http://www.austlii.edu.au/au/journals/JIndigP/2004/4.pdf>

37 Moggridge, B., L. Betteridge and R.M. Thompson, 2019, ‘Integrating Aboriginal Cultural Values into Water Planning: A Case Study from New South Wales, Australia’, *Australian Journal of Environmental Management*, 26(3): 273–86. DOI:10.1080/14486563.2019.1650837; Taylor, K., M. Moggridge, and A. Poelina, 2017, ‘Australian Indigenous Water Policy and the Impacts of the Ever Changing Political Cycle’, *Australasian Journal of Water Resources*, 20, 132–147; Jackson, S., 2018, ‘Water and Indigenous Rights: Mechanisms and Pathways of Recognition, Representation and Redistribution’, *Wiley Interdisciplinary Reviews: Water*.

LAND: CULTURAL — COOL — BURNING ON COUNTRY



Cultural burning on Country. Source: ACT Parks and Conservation Service.

‘On 18 April 1824 botanist Alan Cunningham observed in the Tuggeranong Valley that “these interesting Downs had been burnt in patches about two months since”.’³⁸

‘The Earth wants to repair itself, that’s the thing; we see it all the time.’³⁹

38 Cited in Flood, J., 1996, *Moth Hunters of the Australian Capital Territory. Aboriginal Traditional Life in the Canberra Region*, Gecko Books, South Australia.

39 Bruce Pascoe, 2019, ‘Teach your children to rebel. Teach your children to doubt’, in *The Guardian* (Australian edition).

Cultural, cool, burns have been used as a Country management technique by Aboriginal people across Australia for thousands of years. Burning has been part of a complex range of tools and it is now well recognised that Aboriginal people have managed the Australian landscape, its biodiversity, species, and its food production capacity.⁴⁰

Upon the arrival of Europeans this ‘resource’ management ethic was both debilitated and ignored. Recent short-term patterns of production and management have seen a ‘dramatic decline’ in small mammals, birds, reptiles, amphibians and plants.

Bushfire management by cultural burns is actively being studied by western scientists for its capacity as a multifaceted tool – considering timing, location, intensity and suppression – in aiding understanding of ‘ecological dependencies’ and species management (flora and fauna).⁴¹

The absence of Indigenous ‘firestick farming’ in the cooler months of the year across the Australian continent is now recognised as one of the factors in producing a build-up of fuel, which in turn has produced the conditions for hotter, more greenhouse-gas-intense fire events.⁴²

These observations clearly have climate change implications and potentially produce mitigation opportunities. In recent decades Indigenous cool burning has been critically assessed for its capacity to address climate change, our post-industrial-revolution challenge. CSIRO and the then Australian Greenhouse Office have long been examining these issues to establish models, produce benchmarks and determine the emissions profiles of fire in savannah country.⁴³

Recognising this contribution, Indigenous cool burning has now been afforded ‘carbon credits’ when used to reduce greenhouse gases associated with uncontrolled fires.⁴⁴ The Aboriginal Carbon Foundation is ensuring that Aboriginal people receive the benefits of these programs where Aboriginal land is involved.⁴⁵ NGOs such as The Nature Conservancy have been guided by Aboriginal people sharing their fire and land management practices as part of the culture-and-climate-change process.⁴⁶

Cultural burns in the south

‘Some fire management departments are starting to listen to Aboriginal science. We weren’t wandering around the bush bumping into a kangaroo. We were sophisticated land management scientists, geologists, engineers, economists, political scientists.’⁴⁷

Cultural burning is increasingly being returned to the fire and climate change management toolkit in southern Australia. The Indigenous voice on the viability and rationale for adopting cultural burns is everywhere, including in Ngunnawal Country.

The ACT Strategic Bushfire Management Plans make provision for cultural burning in the Namadgi National Park, reflecting the appreciation of this fire management tool.

The ACT Government has now designed an Aboriginal Fire Management Framework (2015) and is deploying it.

40 Bruce Pascoe, 2014, *Dark Emu. Black Seeds: Agriculture or Accident?* Magabala Books, Broome; Bill Gammage, 2011, *The Biggest Estate on Earth. How Aborigines Made Australia*, Allen and Unwin, Sydney.

41 The Threatened Species Recovery Hub (National Environmental Science Program)’s ‘Project 1.3 Managing fire regimes to save threatened flora and fauna’ seeks to deal with this complex question, see <http://www.nespthreatenedspecies.edu.au/projects/managing-fire-regimes-with-thresholds-to-save-threatened-flora-and-fauna>

42 Research undertaken in northern Australia has been particularly focused on these problems. See the Northern Australia Environmental Resources Hub, found at <https://www.nespnorthern.edu.au/projects/nesp/savanna-carbon-sequestration-method/>.

43 See for example C.P Meyer, 2004, *Establishing a Consistent Time-series of Greenhouse Gas Emissions Estimates from Savannah Burning in Australia*, CSIRO Atmospheric Research, Aspendale, found at http://www.cmar.csiro.au/e-print/open/meyercp_2004a.pdf; Bradstock, R. A., M. M. Boer et al., 2012, ‘Modelling the Potential for Prescribed Burning to Mitigate Carbon Emissions from Wildfires in Fire-prone Forests of Australia’, *International Journal of Wildland Fire*, 21(6): 629–39.

44 The Australian Government has assessed the cool burning method and provided guidance through the Clean Energy Regulator, participating in the Emissions Reduction Fund. ‘A guide to reducing greenhouse gas emissions through the early dry season savanna burning method’ (nd) and ‘Savanna fire management – sequestration emissions avoidance’, 2018, can be found at <http://www.cleanenergyregulator.gov.au/ERF/Pages/Choosing%20a%20project%20type/Opportunities%20for%20the%20land%20sector/Savanna%20burning%20methods/Savanna-fire-management-sequestration-and-emissions-avoidance.aspx>. The method continues to be scrutinised, managed and updated, see Department of the Environment and Energy, 2018, *Emissions Reduction Fund Method: Savanna Fire Management 2018 (sequestration and emissions avoidance)*, found at <http://www.environment.gov.au/system/files/resources/b4b9222b-8520-48c4-86d6-8d59bc26eb64/files/factsheet-savanna-fire-management-sequestration-emissions-avoidance.pdf>

45 Aboriginal Carbon Foundation, 2016, *Savanna Burning*, found at <http://aboriginalcarbonfoundation.com/savanna-burning>

46 The Nature Conservancy Australia, *Fighting Fire with Fire*, found at <https://www.natureaustralia.org.au/what-we-do/our-priorities/tackle-climate-change/stories/fighting-fire-with-fire/>, accessed 2 September 2019

47 Professor Gregory Phillips, Griffith University, commenting on the ABC program *The Drum*, 11 September 2019, accessed 12 September 2019.

Aboriginal Fire Management Framework



Aboriginal Ranger, Adrian Brown, lights a fire for a cultural burn. Source: ABC News. Eucalyptus regeneration after cultural burning. Source: OCSE.

Since 2015 the ACT Parks and Conservation Service (PCS) has been supporting the community to achieve their aspirations to reintroduce traditional land management through cultural burning.

The development of the Aboriginal Fire Management Framework and appointment of the Aboriginal fire manager position within PCS has led to an increase in quality, frequency and legitimacy of burning Country with a cultural focus.

Songlines, cultural stories, intergenerational transfer of cultural knowledge, protecting the 'spirit' of Country, and community health and wellbeing are woven into the methodology of a cultural burn.

The Aboriginal Fire Management Framework sets out specific strategic objectives to assist in the protection of cultural heritage when burning Country. These include:

- establishing standard operating procedures for all ACT PCS staff in relation to cultural heritage protection on fire sites.
- organising a pool of resources to effectively implement the Aboriginal Fire Management Plan.
- re-initiating cultural burning practices in the ACT with Traditional Custodians.

A recent example of this is the cultural burn conducted on Gibraltar Peak within Tidbinbilla Nature Reserve. This Country is of high value to the Ngunnawal people as it signifies an important

initiation pathway. Before the burn got underway a smoking ceremony was conducted by Ngunnawal Elder, Uncle Carl Brown. He welcomed all the firefighters to his Country before carrying the burning leaves to the highest point of the burn area, using them to ignite the cultural burn with the assistance of the Murumbung Rangers. Uncle Carl's role in the burn was highly significant as it was a repatriation of an important responsibility for a Ngunnawal Elder to lead the management and protection of his Country.

The framework has paved the way for the inclusion of Aboriginal people in the management of their traditional lands. Burning Country allows Aboriginal and Torres Strait Islander people to become skilled in land management and regain knowledge about their culture through learning and doing. It also allows Traditional Custodians to take up leadership and advisory roles about where, when and how their Country is managed.

The framework also lends itself to future opportunities. An Indigenous seasonal calendar could be developed to assist in alignment of cultural burns with species needs, continuing the facilitation of fire management as an ecological methodology. CSIRO has been working with Aboriginal people in coastal NSW to give effect to both Indigenous concerns and western practices.⁴⁸

It is also suggested that the Fire Management Framework could be used to assist in the formulation of a wider Framework for Cultural Indicators (discussed at the end of this chapter).

48 Indigenous seasonal calendars have been developed at Byron Bay by the Arakwal people and CSIRO scholar Cathy Robinson, found at <http://arakwal.com.au/category/arakwal-corp/>, and also in northern Australia. More information found at <https://www.csiro.au/en/Research/Environment/Land-management/Indigenous/Indigenous-calendars>

CASE STUDY: SOUTHEAST AUSTRALIAN ABORIGINAL FIRE FORUM — CULTURAL BURNING: EVOLVING WITH COMMUNITY AND COUNTRY HELD 10–12 MAY 2018

The Southeast Australia Aboriginal Fire Forum was convened in Canberra on Ngunnawal Country to ‘create and share knowledge of cultural burning’. This forum, sponsored by the ACT government,

‘... was particularly significant because it was a landmark gathering of Aboriginal fire practitioners, researchers and government agencies involved in fire management, that focuse[d] explicitly on cultural burning across southeast Australia.’⁴⁹

Forum objectives were to:

- honour experiences and exchange knowledge about cultural burning across southeast Australia
- hear from First Nations people, fire agencies and researchers speaking about their work in fire, ecology, land management and caring for Country
- consider the future of Aboriginal methods burning in southeast Australia – how are we evolving with community and Country, and
- develop a First Nations fire network.

The Murumbung Yarung Murra Rangers (Ngunnawal for ‘good strong pathways’) guided the ACT’s contribution to the forum, which included a cultural burn at the Gubur Dhaura ochre site.

More than 130 people attended including Traditional Custodian representatives from across south-eastern Australia and from the Northern Territory, Aboriginal professionals working in fire, heritage and natural resource management.

Listening to Country, women and young people in fire, and community partnerships were some of the critical themes that emerged.

Sharing information is important for achieving reconciliation and education for non-Indigenous Australians. It was acknowledged by all in attendance that we are on that journey now, bringing people’s awareness in ‘a kind, gentle and effective way’.

An important part of the Fire Forum was the inclusion of Aboriginal businesses and partners that were involved to assist in the delivery of the forum as well as the report that followed.⁵⁰

49 Smith, W., J. Weir, T. Neale, 2018, *Southeast Australian Aboriginal Fire Forum*. An Independent Research Report, Bushfire and Natural Hazards Cooperative Research Centre’s ‘Hazards, Culture and Indigenous Communities’ research project (BNHCRC’s HCIC), found at <https://www.bnhcrc.com.au/publications/biblio/bnh-4738>. Note: governments across southern Australia are increasingly accepting the need to utilise Indigenous knowledge on burning techniques. For Tasmania, see <https://www.aboriginalheritage.tas.gov.au/Documents/AHT%20Fact%20Sheet%20-%20Cultural%20Burning.pdf>; Victoria, see <https://knowledge.aidr.org.au/media/6817/fireplusstrategyplusfinal.pdf> and Volunteer Fire Fighters are also picking up the threads <https://volunteerfirefighters.org.au/indigenous-cool-burn-revelation>

50 Yurbay, Dharwa Tours, Otis Williams Photography, Wantok Designs, Coolamon Advisers and Black and White Films were some of the Aboriginal businesses engaged as part of the forum.

CASE STUDY: CULTURAL BURNS — BETTER FOR COUNTRY AND PEOPLE



Cultural burning on Country. Source: ACT Parks and Conservation Service.

Dean Freeman (Wiradjuri man from Brungle Aboriginal Reserve in NSW, Aboriginal Cultural Fire Officer, ACT Parks and Conservation Service), attests to the importance of cultural burns:

‘What we’re trying to introduce is something totally different from the fire regimes they have in place today. So it is a little bit difficult, a little bit scary in places ... introducing ancient techniques into a modern world. What we’re trying to do is put the right fire into the right environment at the right time of year.

We do it for a bit of fuel reduction, but we also do it so the land can revive itself and it basically cures itself. If you do put a bit of fire on the ground in certain places then it’s like a medicine for Earth. You’re getting rid of the dead stuff, the stuff that’s slowing you down and the stuff that’s pulling you back ... we don’t go after a percentage at all, we let the fire do the work and it heals itself as it’s going through the land.

... Aboriginal people are always putting forward their land management practices, and this is one of them. What you’re actually trying to do is heal Country. If Country is healing then the people on Country can also heal.

The idea is to share the information that we have so we can improve Country. [Cultural-cool burns are critical as out-of-control hot burns] wreck the canopy [and] then you don’t have anything to stop the heat of the sun hitting the ground constantly, every day, and that’s when it starts to dry out. It will harden up and then you’ll lose your plants, lose the dew and it’s basically as hard as concrete. It’s very hard to deal with and manage.’⁵¹

51 Dean Freeman (Wiradjuri), 2018, ‘Right Country, Right Fire’, *Firesticks Alliance: Cultural Burning, Healthy Communities, Healthy Landscapes* podcast, found at <https://podcasts.apple.com/au/podcast/episode-4/id1463470135?i=1000438035339>.

CULTURAL INDICATORS: A PROPOSAL FOR NGUNNAWAL COUNTRY

Aboriginal people are justly concerned that even when inclusive operational efforts are made, their cultural values and indicators of environmental-cultural quality are poorly understood. These cultural values have struggled to be implemented in policy decisions.

In 2018, the Commonwealth government provided guidance for including Cultural and Spiritual Values and Principles under the Australia and New Zealand Water Quality Guidelines (ANZWQG). Guiding principles included:

1. All Indigenous people, who have rights and obligations to the body of water being managed, are ensured prior informed consent through adequate consultation.
2. When developing or undertaking activities on a body of water, consideration should be given as to the Indigenous cultural and spiritual values of the site.

The ACT Government has commenced adoption of these principles more broadly across several environmental domains, with the:

- acceptance of the Echuca Declaration
- establishment of the Aboriginal Fire Management Framework (2015), and
- development of the Water Resources Plan to meet the requirements of the Murray-Darling Basin Plan.

Further, the ACT has already considered the benefits of cultural indicators for waterway health when consulting about its Water Resources Plan for the Murray-Darling Basin Plan.

These indicators were assessed and then used by the community to determine an initial objective and action that would assist with achieving outcomes for improving the health, use and cultural value of the assessed water sites.⁵²

Arguably, it is practicable to integrate cultural values into water and other environmental planning.⁵³

A 'principles' approach has been adopted in the past. The NSW Aboriginal Water Unit through the Aboriginal Water Initiative (AWI) worked to resolve this Indigenous-western cultural indicators tension in a constructive manner. Aboriginal values were installed through a 'principles approach' as a key part of water management.

Strong governance was affected by:

- establishing a clear and transparent model for engagement
- developing well-articulated cultural protocols at team and departmental level
- ensuring adequate and ongoing funding for community engagement and communications resources
- building relationships of trust
- building early understandings of a mutual water language, and
- providing strong leadership and executive sponsors.

It may now be time to advance a conversation with Ngunnawal people which brings all this work together in a Framework for Cultural Indicators. The ACT has the opportunity to lead this discussion in the south. Adopting such a framework could present the potential for paradigmatic change to measure environmental-cultural health through water and land indicators.

Critically, Indigenous involvement in the development of a Framework for Cultural Indicators would:

- continue to engage Ngunnawal people on their Country, promoting their roles in respect of assessments of threats, trends, uses and pressures
- foster ongoing consultation with Indigenous groups
- assist in understanding seasonal change
- create opportunities for documenting water issues at local scales
- create tangible means (via the Indicators) by which other stakeholders can 'see' Indigenous aspirations, and
- develop methods to integrate two knowledge systems and have the potential to be integrated into other (scientific) indicator management frameworks.⁵⁴

52 EPSDD, 2019, *ACT Water Resource Plans for Surface Water and Groundwater*, ACT Government, Canberra: 108, 116, found at <https://www.mdba.gov.au/sites/default/files/pubs/act-water-resource-plans-for-surface-water-and-groundwater-april-2019.pdf>

53 Moggridge, B., L. Betterridge and R.M. Thompson, 2019, 'Integrating Aboriginal Cultural Values into Water Planning: A Case Study from New South Wales, Australia', *Australian Journal of Environmental Management*, 26(3): 273–86. DOI:10.1080/14486563.2019.1650837

54 Nursey-Bray, M. and the Arabana Aboriginal Corporation, 2015, *The Arabana People, Water and Developing Cultural Indicators for Country*, Goyder Institute for Water Research Technical Report Series No. 15/29, Adelaide, found at http://www.goyderinstitute.org/_r182/media/system/attrib/file/173/15-29_Arabana_Indicators_web.pdf

A framework could be built around an Information Agreement that promotes research and international exchanges in respect of cultural mapping, aid access to public lands, promote the collection of and access to data, ensuring the return of data to Ngunnawal people.

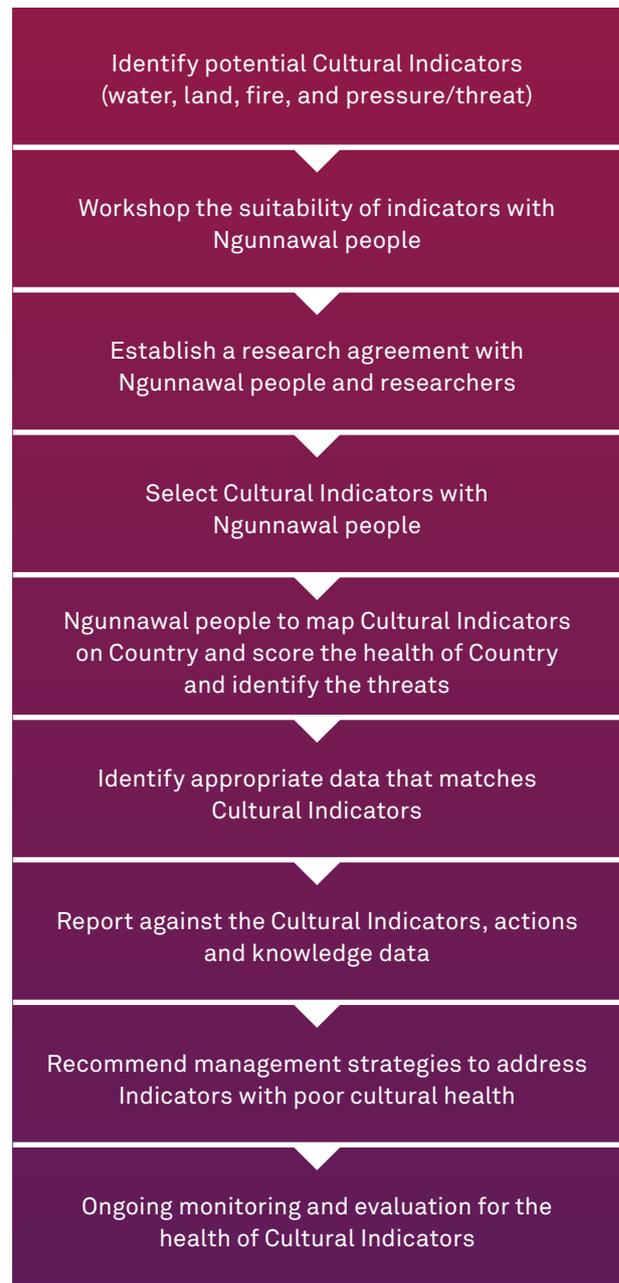
Benefits of developing Cultural Indicators are extensive and include:

- promoting Aboriginal people's rights and ability to speak with authority on and about country
- increasing the understanding of cultural values and perspectives when dealing with land and water managers
- clearly identifying potential cultural or other conflicts
- building Aboriginal people's research skills
- advancing the prioritisation of culturally significant sites and places, and
- providing a formal basis for monitoring and measuring trends on cultural health status of country and for the identification of further projects and partnerships.

Fundamentally, a Framework for Cultural Indicators would also build structural security into who holds Indigenous information for future use, addressing one of the long-term issues around cross-cultural research agendas and processes.

Potential indicators are found in the work of Nursey-Bray and the Arabana people from South Australia.⁵⁵ It is clear they can reference the following matters – Cultural water: surface and groundwater; Land: cultural plants, species and cultural uses of land; cultural burning; cultural sky; and pressures and threats.

The following flow chart provides an indication of how the process might be undertaken:



55 Nursey-Bray, M. and the Arabana Aboriginal Corporation, 2015, *The Arabana People, Water and Developing Cultural Indicators for Country*, Goyder Institute for Water Research Technical Report Series No. 15/29, Adelaide, found at http://www.goyderinstitute.org/_r182/media/system/attrib/file/173/15-29_Arabana_Indicators_web.pdf