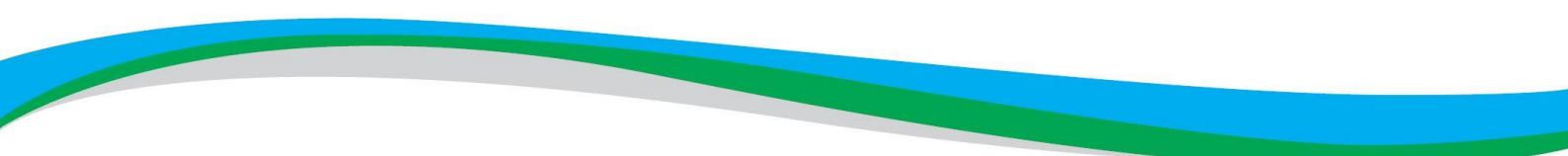


Restoring Murray Futures

Incorporating Indigenous knowledge, values and interests into environmental water planning in the Coorong and Lakes Alexandrina and Albert Ramsar Wetland

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Goyder Institute for Water Research
Technical Report Series No. 16/8



www.goyderinstitute.org

Goyder Institute for Water Research Technical Report Series ISSN: 1839-2725

The Goyder Institute for Water Research is a partnership between the South Australian Government through the Department of Environment, Water and Natural Resources, CSIRO, Flinders University, the University of Adelaide, the University of South Australia and ICE WaRM (The International Centre of Excellence in Water Resources Management). The Institute will enhance the South Australian Government's capacity to develop and deliver science-based policy solutions in water management. It brings together the best scientists and researchers across Australia to provide expert and independent scientific advice to inform good government water policy and identify future threats and opportunities to water security.



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Citation

Hemming S, & Rigney D, 2016. *Restoring Murray Futures: Incorporating Indigenous knowledge, values and interests into environmental water planning in the Coorong and Lakes Alexandrina and Albert Ramsar Wetland*, Goyder Institute for Water Research Technical Report Series No. 16/8, Adelaide, South Australia.

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Cultural knowledge

Any cultural knowledge contained in this report remains the property of the Ngarrindjeri nation.

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Acknowledgements

The authors thank the Ngarrindjeri Regional Authority's Yarlumar-Ruwe program for their support for this project. This report contains Ngarrindjeri cultural knowledge which remains the property of the Ngarrindjeri Nation. The authors also acknowledge the work of Amy Della-Sale, Grant Rigney, Clyde Rigney Jnr, Tom Trevorow (deceased), Luke Trevorow as Ngarrindjeri representatives on the Ramsar ECD Working Party and Shaun Berg for his contributions as Ngarrindjeri legal advisory and colleague. We also acknowledge the work of Jason Higham, Lachlan Sutherland, and Sylvia Roughan as DEWNR representatives on the Ramsar ECD Working Party and for their collaborative work on the CLLMM Ngarrindjeri Partnerships Project more generally. Thanks to Professor Barbara Cosens and Dr Simone Bignall for their reviews of the report and their insightful and helpful comments. Thanks also to Dr Michele Akeroyd, Director of the Goyder Institute, for her patient support for this project which has extended well past its original deadlines. We acknowledge the intellectual work of past and present Ngarrindjeri leaders and Elders who have consistently and courageously applied Ngarrindjeri values to engagements with government agencies concerning Ngarrindjeri Yarlumar-Ruwe. Finally, we acknowledge Ngarrindjeri leaders George Trevorow (Rupelli), Matt Rigney, Tom Trevorow and Steve Walker (all deceased).

Warning: This report contains images of deceased Ngarrindjeri people.

1 Executive Summary

The Coorong and Lower Lakes in South Australia are listed as a wetland of international importance under the *Ramsar Convention* (1971) and an Icon Site under the Murray-Darling Basin Authority's (M-DBA) *Living Murray Program*. The Ngarrindjeri nation, as traditional owner of this 'country', is contributing to an Ecological Character Description (ECD) for the Coorong and Lakes Alexandrina and Albert Ramsar Wetland (see DEH 2000; M-DBC 2006; Hemming *et al.* 2015; Hemming, Trevorrow & Rougham 2016).¹ As the peak Ngarrindjeri governance body, the Ngarrindjeri Regional Authority (NRA) is leading negotiations and agreement-making with South Australian authorities in the region towards recognition and support for healthy Ngarrindjeri Yarluwar-Ruwe (Sea Country) (see Ngarrindjeri Nation 2006; Hemming & Rigney 2014).² The unique contract law strategy of Kungun Ngarrindjeri Yunnan Agreement making (KNYA - Listen to Ngarrindjeri speaking), provides an inter-cultural framework for a genuine and potentially just negotiation of interests in 'country' and has created the basis for Ngarrindjeri engagement in the Ramsar ECD process (see KNYA 2009; Hemming, Rigney & Berg 2011). As a key commitment under the KNYA, the NRA and the Department of Environment, Water and Natural Resources (DEWNR) co-designed the Ngarrindjeri engagement strategy for the *Coorong, Lower Lakes and Murray Mouth (CLLMM) Recovery Project*. Since 2011 the CLLMM *Ngarrindjeri Partnerships Project* (NPP) has sought to build the long-term core capacity of the NRA to engage with the increasingly complex NRM and water management sector in projects including the updating of the Ramsar ECD. A unique form of co-management of natural resources and environmental water has consequently emerged in South Australia's Lower Murray region. Importantly, this development of Indigenous capacity for input to policy and planning regimes realises a principle of justice and equity that is becoming broadly recognised as critical in achieving robust indigenous engagements in water management (see Birkhead *et al.* 2011; Jackson *et al.* 2015; Nursey-Bray & Arabana Aboriginal Corporation 2015).

In 2014, as part of South Australia's *Coorong, Lower Lakes and Murray Mouth Recovery Project (CLLMM)*, the Ngarrindjeri and the Department of Environment, Water and Natural Resources (DEWNR) finalised a Statement of Commitment (SOC) designed to set a framework for Ngarrindjeri input into the ECD update (see Appendix 2). This Goyder Institute project has investigated the theoretical and methodological innovations developed to support Ngarrindjeri engagement in Ramsar wetland management and the potential of this approach to inform the process of incorporation of Indigenous values and interests into water and wetland management more generally. These innovations challenge western conceptualisations of 'human' and 'nature' and add to the literature addressing the relationship between the cultural, social, economic and ecological values and benefits of wetlands. This Goyder project builds on previous research focussing on concepts such as cultural water, Indigenous water and environmental flows, and mechanisms for Indigenous engagement in environmental water planning in South Australia's Murray-Darling Basin region (see Kirby *et al.* 2013; Hemming & Rigney 2014).

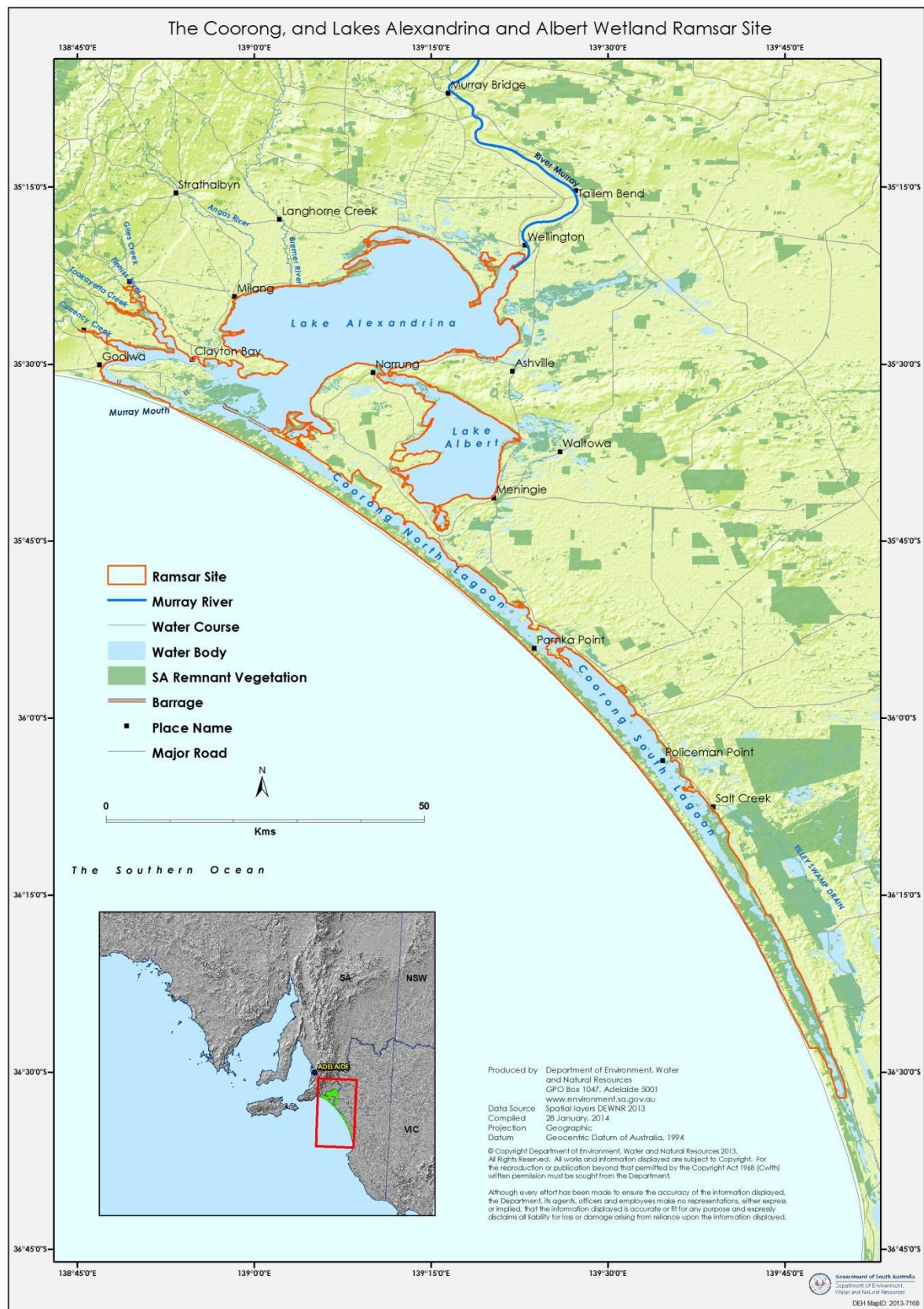
For Ngarrindjeri, engaging with the State's natural resource management (NRM) regime requires a increasingly sophisticated theoretical and political literacy that extends beyond disciplinary boundaries and brings with it insights developed in national and international indigenous contexts (see Byrd 2011; Jackson & Langton 2012; Smith 2012; Cornell 2015b; Cosens & Chaffin 2016; Rigney, Bignall & Hemming 2015). The authors of this report have contributed to the development of these

literacies and, in this project, have attempted to identify key conceptual and theoretical insights that support 'decolonising' practices in wetland and water management such as the KNY agreements. These shifts address Australian commitments under international treaties such as the *United Nations Declaration on the Rights of Indigenous Peoples* (2007) and the *Ramsar Convention* (1971), towards improved recognition and respect for indigenous values, knowledges, and uses associated with the environmental management of lands and waters (see Ngarrindjeri Nation 2006; UNDRIP 2007; Ramsar Culture Working Group 2013).

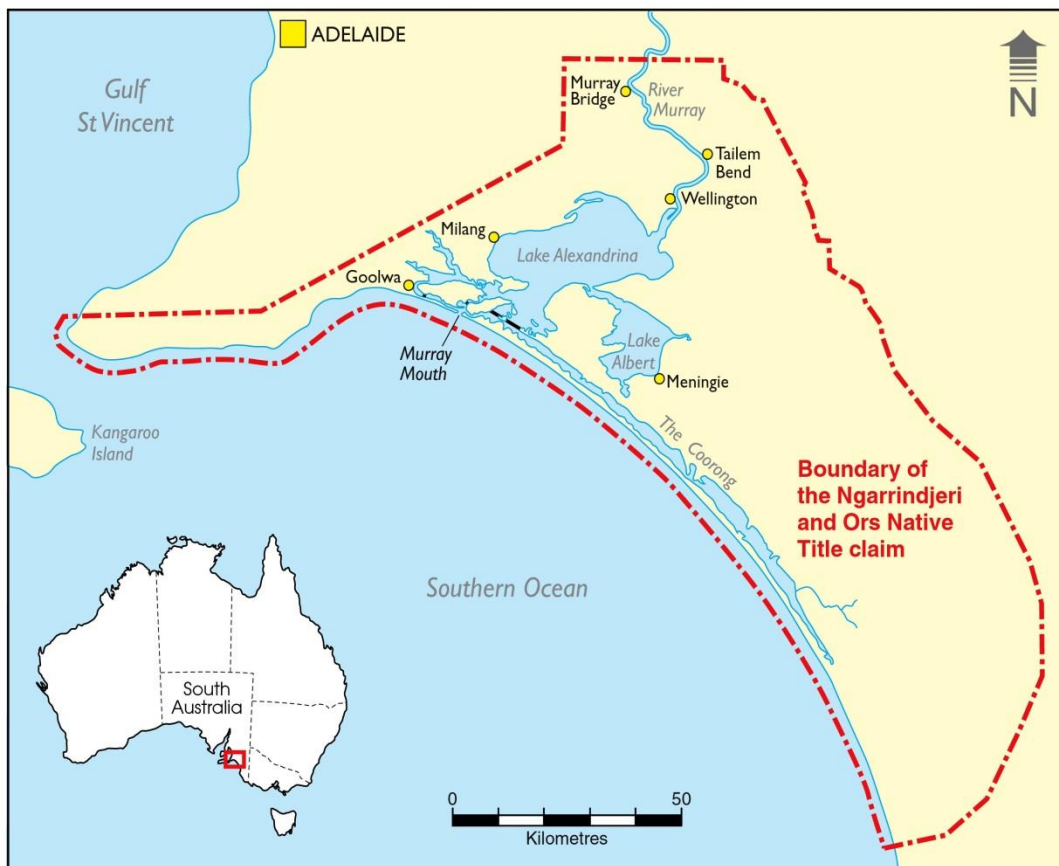
Indigenous knowledges, practices and resilience are fundamentally intertwined with the health of many international wetlands and this complex relationship has continued for many thousands of years (see Toussaint, Sullivan & Yu 2005; Birkhead *et al.* 2011; Jackson & Palmer 2015; Cosens & Chaffin 2016). In Australia this process has a long history of conflict associated with State misunderstanding and non-recognition of Indigenous relationships with country (see Rose 1996). Indigenous survival and resilience in the face of ongoing colonisation requires an ongoing resistive, hard-fought and strategically negotiated relationship with the burgeoning natural resource management (NRM) regimes of settler-States. This Indigenous resilience and creative agency is largely under-valued, misunderstood or absent from the literature concerning ecosystem services. For many western scientists and environmental managers Indigenous knowledge is understood as a 'data-set' that can be 'captured' and disconnected from a living, creative and innovating Indigenous nation. However, as a consequence of increased Indigenous participation in research and policy development, scientists and natural resource managers are coming to understand that Indigenous nations hold deep 'ecological' knowledge commonly associated with the concept of biocultural diversity. For some Indigenous nations interactions with the NRM institutions of the settler-State can be characterised as taking place in a contemporary 'contact zone' where deep knowledge of country is becoming understood to be a form of Indigenous cultural property.

In South Australia, the Ngarrindjeri nation is leading a transformation in the approach to articulating understandings of ecosystem services with ecological health that move away from a compartmentalised approach where different aspects of wellbeing and ecological health are managed in separate 'silos' using western forms of anthropocentrism and human exceptionalism (see Birkhead *et al.* 2011; Weir 2011; Bark *et al.* 2014; Jackson & Palmer 2015; Jackson *et al.* 2015; Rigney, Bignall & Hemming 2015). Indigenous peoples internationally share conceptualisations of *their* humanity as being constituted in inextricable relations with the non-human world. For Ngarrindjeri this philosophy is embodied in the concept and practice of Yannarumi or 'Speaking as Country'. This philosophy privileges the interconnectivity between the lands, waters and all living things. As part of the living body of the Coorong and Lakes Ramsar site Ngarrindjeri have an abiding responsibility to sustain what western science understands as ecological health. For Ngarrindjeri 'wise-use' requires practicing a lawful, respectful, and reproductive life that respects the Creation Stories handed down from the Kaldowinyeri (Creation). As part of the ECD project Ngarrindjeri have conducted a preliminary Yannarumi assessment of the health of the Coorong and Lakes Ramsar site that refuses to disconnect the wellbeing of the Ngarrindjeri nation from the health of the lands, waters and all living things (see Hemming *et al.* 2015; Rigney, Bignall & Hemming 2015; Hemming, Trevorrow & Rougham 2016) (see Appendix 3). As Ngarrindjeri leaders and elders have consistently stated publically: 'The lands and waters is a living body. We the Ngarrindjeri people are part of its existence. The lands and waters must be healthy for the Ngarrindjeri people to be healthy' (see

Trevorrow in Hemming, Trevorrow & Rigney 2002).



(Figure 1) The Coorong, and Lakes Alexandrina and Albert Ramsar Site (DEWNR 2014)



(Figure 2) Ngarrindjeri native title claim

2 Introduction and Background

Ngarrindjeri Vision for Country 2006

Our Lands, Our Waters, Our People, All Living Things are connected. We implore people to respect our Ruwe (Country) as it was created in the Kaldowinyeri (the Creation). We long for sparkling, clean waters, healthy land and people and all living things. We long for the Yarluwar-Ruwe (Sea Country) of our ancestors. Our vision is all people Caring, Sharing, Knowing and Respecting the lands, the waters and all living things.

(Ngarrindjeri Nation in M-DBA 2014: 25)

We argue that because Ngarrindjeri water, wetlands and floodplains are so intimately tied to Ngarrindjeri wellbeing there must be a holistic, long-term program for Ngarrindjeri to address the impacts of extensive environmental degradation of Ngarrindjeri lands and waters. This means developing research, employment, education/training, planning, cultural and spiritual processes. In this way Ngarrindjeri can hope to achieve wellbeing in a globalising economy, a twenty-first century world and on Yarluwar-Ruwe that is affected by global warming and destructive non-Indigenous land and waters practices.

(Birckhead *et al.* 2011: 42)

The Ngarrindjeri Vision for Country contains long-standing principles of ‘wise use’ of an indigenous ‘country’ reliant on healthy rivers, lakes, estuaries and coastlines. Fundamental to this vision is an understanding that everything is connected and that wellbeing requires healthy lands, waters and all living things. In 1985 the Coorong, Lakes Alexandrina and Albert were designated as a wetland of international significance under the Ramsar Convention (1971), directly connecting Ngarrindjeri Yarluwar-Ruwe (Sea Country) with an emerging global framework for the protection and wise use of wetlands. Ngarrindjeri and other indigenous nations world-wide share an understanding that the relationship between lands, waters and all living things are bound together in a relationship of interdependence which refuses the modern Western distinction between humans and nature. For Ngarrindjeri this philosophy of interconnectivity is expressed in the concept of Ruwe/Ruwar (body, spirit, lands, waters and all living things). For Indigenous peoples living within settler democracies such as Australia, Canada, the United States and New Zealand securing rights to country, and gaining recognition of indigenous values and knowledges has taken various pathways, usually through some form of treaty process (Langton *et al.* 2009). In Australia land rights, native title and cultural heritage protection have produced the key legislative frameworks through which rights, responsibilities and values associated with wetlands have been negotiated (see Figure 2). The historical, political and legal context in Australia has, however, produced minimal Indigenous rights to water (see Tan & Jackson 2013; Jackson & Langton 2012).

The Ramsar Convention (1971) is an intergovernmental treaty that provides a framework for the global protection of significant wetlands (see DEH 2000). The listing of the Coorong and Lakes Alexandrina and Albert Ramsar wetland, at the mouth of the River Murray, as a wetland of international significance obligates the South Australian and Australian governments to manage the

site according to developing principles of 'wise use' promoted by this international treaty. This part of Australia's Murray-Darling Basin is at the centre of extensive environmental management programs emerging from government policies seeking to address ecological degradation caused by climate-change induced drought and the over-allocation of water (see DEH 2009). The intensification of government intervention in Ngarrindjeri Yarluwar-Ruwe amplified the need for negotiations to occur between Ngarrindjeri and the State of South Australia regarding possible solutions. In 2009 Ngarrindjeri negotiated a new relationship with the State of South Australia formally beginning a process of non-Indigenous recognition of the importance of Ngarrindjeri Ruwe/Ruwar (Country) to Ngarrindjeri wellbeing (see Hemming, Trevorrow & Rigney 2002; Hemming & Rigney 2008, 2012; KNYA 2009). The landmark 2009 Kungun Ngarrindjeri Yunnan Agreement (KNYA- Listen to Ngarrindjeri speaking) created a mechanism for building Ngarrindjeri nation capacity to become a critical contributor to regional NRM. This agreement secured a foundation for material, intellectual and cultural collaboration, enabling the transformation of regional NRM to incorporate the Ngarrindjeri concept of Ruwe/Ruwar. This Ngarrindjeri-led program recently received recognition as the 2015 Australian Riverprize winner.

2.1 Goyder Project: Background

The Goyder Institute For Water Research Project E.1.17 'Incorporating Indigenous knowledge, values and interests into environmental water planning in the Coorong and Lakes Alexandrina and Albert Ramsar Wetland' was conceived by the authors as an opportunity to add value to the work being conducted by the Ngarrindjeri Regional Authority's Yarluwar-Ruwe Program, the NRA's Research, Policy and Planning Unit and a joint DEWNR and NRA Ramsar Ecological Character Description (ECD) working party. The authors of this Goyder Report, Professor Daryle Rigney and Associate Professor Steve Hemming, as members of the working party, have been working on the continuing development of Ngarrindjeri engagement methodologies as part of their role in the broader CLLMM Ngarrindjeri Partnership Project (CLLMM NPP). Flinders University had been contracted by the NRA to provide specialist support to the CLLMM NPP from 2011. In mid-2013 a working party was established to begin developing a Statement of Commitment (SOC) to frame Ngarrindjeri engagement in the updating of the ECD for the Coorong and Lakes Ramsar site. This SOC was finalised and signed in 2014 committing the parties to the agreement to a series of principles, objectives and processes and outcomes. This SOC recognises and supports the NRA's commitment to Indigenous nation-building and locates Ngarrindjeri world-view and understandings of 'being' at the centre of input into the new updated ECD.

As a whole-of-government agreement the 2009 KNYA operates as a form of 'treaty', re-setting the relationship between Ngarrindjeri and the settler-State. As a consultation and negotiation framework, recognising Ngarrindjeri as 'traditional owners', it centres predominantly on matters relating to natural resource and cultural heritage management.³ For Ngarrindjeri, a key strategic purpose of the KNYA was to create a formal mechanism enabling Ngarrindjeri cultural values to become integral to all planning and future management arrangements impacting on Ngarrindjeri Yarluwar-Ruwe. As a key commitment under the KNYA, the NRA and the Department of Environment, Water and Natural Resources (DEWNR) co-designed the Ngarrindjeri engagement strategy for the Coorong, Lower Lakes and Murray Mouth (CLLMM) Recovery Project. The CLLMM Ngarrindjeri Partnerships Project 2012-2016 (CLLMM NPP) has sought to build the core

organisational capacity of the NRA to engage in the State's CLLMM Recovery Project and to create sustainable capacity over the long term. Importantly, this has required a transformation of NRM regional culture to include the NRA and the Ngarrindjeri Yarluwar-Ruwe Program as an essential, and funded, component of regional NRM.

2.2 Goyder Research Project E.1.17 – Project Brief

The following project brief was developed for the Goyder project 'E.1.17 Incorporating Indigenous knowledge, values and interests into environmental water planning in the Coorong and Lakes Alexandrina and Albert Ramsar Wetland':

The Coorong and Lower Lakes represent a wetland of international importance under the Ramsar Convention and an Icon Site under the Murray-Darling Basin Authorities *The Living Murray Program*. Ngarrindjeri are inputting into a updated Ecological Character Description (ECD) for the *Coorong and Lakes Alexandrina and Albert Ramsar Wetland* (see DEH 2000; M-DBC 2006). Key to this engagement is the development of a Ngarrindjeri Cultural Character Description (NCCD) for the Ramsar wetland designed as an innovative method for incorporating indigenous interests, traditions and knowledges into Ramsar wetland planning and management. During 2013 Ngarrindjeri and DEWNR worked on the development of the Statement of Commitment (SOC) designed to set the framework for Ngarrindjeri input into ECD update.

The Ngarrindjeri nation in southern South Australia, located in the Coorong, Lower Lakes and Murray Mouth region, use the term *Ruwe/Ruwar* to encapsulate the interconnection between country, body, and spirit (Ngarrindjeri Nation 2006). This interconnection is fundamental to wellbeing and it is for this reason that healthy lands and waters are critical to healthy Ngarrindjeri people and culture. Creation ancestors such as Ngurunderi give Ngarrindjeri traditional responsibility to care for *Ruwe/Ruwar*. These cultural values and philosophies will inform the NCCD for the Coorong, Lower Lakes Ramsar wetland. The Ngarrindjeri Regional Authority (NRA) is leading negotiations and agreement-making with South Australian authorities to transform the existing natural resource and heritage management regimes in the region towards recognition and support for healthy Ngarrindjeri *Ruwe/Ruwar* (see Hemming, Trevorrow & Rigney 2002; Hemming, Rigney & Pearce 2007; Hemming, Rigney & Berg 2010, 2011; Hemming & Rigney [2008;] 2012).

This Goyder project will support the further development and theorisation of the approach being developed for Indigenous engagement in the Coorong, Lakes Alexandrina and Albert Ramsar wetland. This work is directly addressing the priorities being set by the Ramsar Culture Working Group for the inclusion of cultural values under the Ramsar Convention (see RCWG 2009, 2012, 2013). The development of a Ngarrindjeri Character Description and its interconnection with the Ecological Character Description represents an

internationally significant innovation in wetlands management and environmental water planning. This strategy articulates concepts and methodologies from cultural theory, Indigenous standpoint theory and Ngarrindjeri philosophies into water and wetland planning. This Goyder project will expand on our work in two previous Goyder Projects E.1.5 & E.1.7: examining the relationship between environmental water and cultural or Indigenous water; and the identification and assessment of engagement strategies and mechanisms for incorporating Indigenous decision-making, research interests and knowledges into the environmental water management regime in SAM-DB region.

Annual and long-term environmental water planning for the Coorong and Lower Lakes is informed by a growing body of scientific research aimed at understanding differing flow regimes and their relationships with ecosystem processes and biota. This work is aimed at the delivery of environmental flows that generate positive ecological outcomes. South Australian and Commonwealth water planners and managers are beginning to incorporate Ngarrindjeri interests and cultural knowledges into this environmental water management regime. Ngarrindjeri have provided strong support for freshwater flows that provide the connectivity between freshwater and estuarine/marine environments – this connectivity principle is embedded in the Ngarrindjeri cultural knowledge and Creation Stories associated with the ‘Meeting of the Waters’ in the Ramsar site.

This project will examine the relationship between key Ngarrindjeri markers for the cultural health of the Coorong and Lakes Ramsar site and explore their relationship to development of a Ngarrindjeri Character Description and the broader Ecological Character Description.

The knowledge gained from the project will:

- Improve understanding of the relationship between freshwater flow and the Ngarrindjeri cultural health of the Coorong Ramsar site;
- Provide increased understanding of the Ngarrindjeri case for supporting freshwater flows to the Coorong, including during times of water scarcity;
- Examine synergies between growing scientific knowledge of the relationship between freshwater flows and ecosystem processes and biota and Ngarrindjeri long-term knowledge of the Coorong and Lower Lakes;
- Influence the implementation of the Basin-wide environmental watering strategy and annual priorities;
- Influence the priorities being set by the Ramsar Culture Working Group for the inclusion of cultural values under the Ramsar Convention International Ramsar and Australia’s approach to including Indigenous values into Ramsar wetland planning.

The aims and scope of this project brief have been addressed in this report and some of the results have been prepared and submitted for publication and included in conference and workshop presentations (see Hemming & Rigney 2015; Hemming *et al.* 2015; Rigney, Bignall & Hemming 2015; Bignall, Hemming & Rigney 2016; Hemming *et al.* in press).⁴ There has been some modification to the report's stated focus to accommodate a key conceptual shift in the Ngarrindjeri strategy from a Ngarrindjeri Cultural Character Description to a Yannarumi (Speaking as Country) assessment of the health of the Ramsar site. The Ngarrindjeri philosophy of Yannarumi has also been highlighted in a formal Speaking as Country Deed between the NRA and the SA Government in 2014 (see Appendix 1). These shifts and innovations are discussed in this report and they were included in the successful 2015 Australian Riverprize submission.⁵ It is important to note that the CLLMM NPP's Yarlwaru-Ruwe Program is, recognised as Australian best-practice in collaborative river management for supporting innovations such as the unique approach to updating the Ramsar ECD. This collaborative approach is unique in its establishment of a formal negotiation framework protected by common law contracts, which includes a Water Planning SOC, a Cultural Knowledge Agreement, the Yannarumi assessment framework and the Speaking as Country Deed 2014. However, the fact of collaboration and the legal framework for negotiation, does not in itself guarantee significant transformations in the final form of the Coorong and Lakes Ramsar ECD. Given the radical nature of the changes proposed, and the specialist Ngarrindjeri and disciplinary knowledge required to produce this new approach, Ngarrindjeri sought a mechanism that could explain the potential wider value of the Ngarrindjeri approach to the ECD to the Commonwealth Government team responsible for approving the updated ECD. Ngarrindjeri addressed this issue in the ECD SOC by requiring a State commitment to facilitate discussions between the NRA and the relevant Commonwealth agency regarding potential improvements to the Australian National Framework 'Describing Ecological Character of Ramsar Wetlands, 2005' in relation to the 'better accommodation of Aboriginal interests and perspectives' (NRA & DEWNR 2014, p. 9). This negotiated outcome required significant background research by the NRA to understand the policy and legislative environment that produces primary management documents such as Ramsar ECDs.

During the development of this Goyder project it was expected that Ngarrindjeri input into the Ramsar ECD process would be finalised prior to the completion of the final Goyder report. In particular, it was expected that the negotiations surrounding the State and Commonwealth responses to Ngarrindjeri inputs would be completed and the draft of the updated ECD would be ready for broader consultation. This would have enabled this research report to assess the success, or otherwise, of Ngarrindjeri attempts to produce a Ramsar ECD that more effectively engages with indigenous knowledge systems and ways of being (epistemologies and ontologies) (see Hemming, Rigney and Berg 2011; Bark *et al.* 2015; Jackson & Palmer 2015). Due to ongoing negotiation between the Australian and South Australian Government's the draft of the updated ECD has yet to be completed. As a consequence, this report focusses attention on: the theoretical and strategic innovations facilitating just Ngarrindjeri engagement in the Ramsar ECD updating process; implications for environmental water management; the theoretical and conceptual basis of the Ngarrindjeri Yannarumi assessment framework; and the major structural changes and inclusions proposed by the Ngarrindjeri representatives on the ECD working party. Input into the Ecological Character Description update continues. This discussion is contained in chapters addressing the theoretical and methodological trajectories producing a contemporary move towards Ngarrindjeri

co-management of Yarlwar-Ruwe (Coorong and Lakes Ramsar site is part of Ngarrindjeri Yarlwar-Ruwe). They consider the specific mechanisms for positive transformation, produced in the course of the project to support the updating of the Ramsar ECD. A series of recommendations are included as part of the report's conclusion.

3 Theoretical and methodological trajectories: towards Ngarrindjeri co-management of Yarluwar-Ruwe

How do we change mentalities, how do we reinvent social practices that would give back to humanity – if it ever had it – a sense of responsibility, not only for its own survival, but equally for the future of life on the planet, animal and vegetative species, likewise for incorporeal species such as music...[(re)engendering] the feeling of fusion at the heart of the Cosmos.

(Felix Guattari in Sullivan 2010, p. 122)

Indigenous critical theory could be said to exist *in its best form* when it centers itself within indigenous epistemologies and in the specificities of the communities and cultures from which it emerges and then looks outward to engage European philosophical, legal and cultural traditions in order to build upon all the *allied* tools available.

(Jodi Byrd 2011, xxx)

At the start of the new millennium the Murray-Darling Basin and South Australia was plunged into a serious drought that severely restricted the flow of water through Ngarrindjeri Ruwe (Country), impacting the health of the lower River Murray, Lakes Alexandrina and Albert, and the Coorong. The entire Murray estuary here is identified as a Ramsar Wetland of International Importance. This region supports a fragile ecology where the 'Meeting of the Waters' takes place, as fresh water combines with ocean saltwater in the tidal flows of the river mouth (see Hemming, Trevorrow & Rigney 2002; Bell 2014; Bell & Kampf 2014). This area is a vital cultural and creation place for the Ngarrindjeri, and a habitat and breeding ground for many Ngarrindjeri *ngartji* (totems – friends). In 1999 the Ngarrindjeri Ramsar Working Group produced a nation-endorsed position paper that lamented the degradation of waters in the region:

Too much water has been diverted from the river system and not enough water now reaches the Lakes and Coorong. The quality of the water has also fallen. The water is cloudy, polluted and not fit for drinking. The Murray, the Lakes and the Coorong are no longer environmentally healthy and this is partly why the Ngarrindjeri people are not healthy. The Ngarrindjeri know that the Coorong, Lakes and River are dying.

(NRWG 1999, p. 5)

The Ngarrindjeri position paper was referred to, but was not included in the final Ramsar Management Plan as a key discussion paper, after promises were made by the South Australian Government (DEH 2000). The disrespectful approach to Ngarrindjeri values, aspirations and knowledges was compounded by the degraded health of the river system.

This sad state of affairs stands as a direct counterpoint to the Ngarrindjeri 'Vision for Country' (see p. 7), which encapsulates the Ngarrindjeri philosophy of being (Ruwe/Ruwar) at the centre of recent

Ngarrindjeri interventions in natural resource and cultural heritage management. Ngarrindjeri elders and leaders developed this aspirational statement in 2006 as a fundamental part of the *Ngarrindjeri Nation Yarlular-Ruwe Plan* (Ngarrindjeri Nation 2006). It makes plain ongoing Ngarrindjeri traditions, values and aspirations associated with Ngarrindjeri lands and waters. It was an example of Ngarrindjeri Yarnarumi (Speaking as Country) and it carries with it reference to Ngarrindjeri law, and a Ngarrindjeri assessment of what constitutes wellbeing and what has to change to achieve this vision. This section of the report traces the theoretical and methodological trajectories towards the Ngarrindjeri co-management of Yarlular-Ruwe envisioned in 2006 and continued in the recent updating of the Coorong and Lakes Ramsar Ecological Character Description (ECD). The shift towards Indigenous 'inclusion' in NRM and recognition of leadership in 'co-management' of Country provides a pathway to healing damaged ecological systems such as the Coorong and Lakes Ramsar site, the Ngarrindjeri who are a part of Yarlular-Ruwe and the ongoing legacy of colonialism and racism in Australian society.

3.1 Problems with modernist, posthuman and neoliberal approaches to valuing 'nature'

Ngarrindjeri engagement with the development of the Coorong and Lakes Ramsar ECD provides a valuable example of complex alliances of ideas woven together from a Ngarrindjeri centre of consciousness. This weaving together of partnerships and knowledges represents Ngarrindjeri agency in regional NRM and highlights the importance of Indigenous standpoint theory in securing and communicating Indigenous conceptualisations of country (see Nakata 2007; Moreton-Robinson 2013). Ngarrindjeri use the weaving metaphor and associated images to represent the concept of Ruwe/Ruwar (interconnectivity). As Ngarrindjeri Elder Ellen Trevorrow (Ngarrindjeri Nation 2006, p. 51) writes: 'Stitch by stitch, circle by circle, weaving is like the creation of life, all things are connected'.

Challenges of sustainability have in recent years prompted an important shift within western environmentalism towards 'posthumanism' (see Latour 2004; Barad 2007; Braidotti 2009; Weir 2009). For example, Felix Guattari, influential French 'post-humanist' philosopher, poses questions to generate thinking about new futures where responsibility for wellbeing brings with it a more ethical and accountable relationship between people, lands, waters and all living things (Guattari 2000). This vision for human non-human life resonates with Ngarrindjeri strategies for engaging with NRM and other interventions in Ngarrindjeri country. It can be argued that 'posthumanist' objectives such as Guattari's share common ground with indigenous 'de-colonising' projects or in the Ngarrindjeri context nation re-building work (see Smith 1999; Rigney & Hemming 2014; Rigney, Bignall & Hemming 2015; Bignall, Hemming & Rigney 2016). The additional work for indigenous nations, however, includes making visible the value of indigenous philosophies, knowledges and critical theories and their strategic alliances with non-Indigenous 'philosophical, legal and cultural traditions'. These alliances, as can be seen in the Ngarrindjeri example, produce hopeful futures towards a postcolonial or 'ex-colonial' relationship between indigenous people, the lands and waters and settler-States (see Byrd 2011; Bignall 2014). This reconciled relationship can be understood as a just re-inhabitation of 'country' deeply damaged by the process of colonisation (see Greunewald 2003; Hemming & Rigney 2008).

Whilst this conceptual framework shares many features in common with Indigenous ontologies, epistemologies, axiologies and ethologies it typically fails to acknowledge Indigenous knowledges as a prior form of this 'new' paradigm. What is otherwise a promising move in environmental theory continues a long colonial tradition of the non-recognition of Indigenous agency and authority. For example, baseline drafts of the Coorong and Lakes Ramsar ECD assumed that in 1836 the Ramsar site was in a 'natural' state, untouched by human interaction – obscuring Ngarrindjeri agency. Since British colonisation there is a story of human-induced degradation of the ecological health of the wetlands as a consequence of agriculture, irrigation and other interventions. Ngarrindjeri survival through the most intensive periods of colonisation is invisible and the only human interactions with the lands and waters are identified as non-Indigenous. The NRA and the authors of this report consider their engagement with Goyder Institute research projects provides a crucial opportunity to prioritise Ngarrindjeri knowledge and agency, as a basis for conceptual engagement with non-Indigenous science, research, and policy planning, and especially in light of the evident paradigm shift towards 'posthumanism'.

Although the developing guidelines and protocols emerging from the Ramsar Convention are incorporating ideas such as bio-cultural diversity, reflecting an increasing influence of contemporary cultural theory, philosophy and indigenous perspectives, these shifts are yet to be reflected in Australian Ramsar guidelines. However, when these conceptual innovations do make an appearance in Australian Ramsar planning and management they will need to take into account indigenous critiques of posthumanism and associated calls for a more sophisticated system of valuing of 'ecosystems services' and engaging with Indigenous conceptualisations of country (see Weir 2009; Sullivan 2010; Birkhead *et al.* 2011; Byrd 2011; Hill *et al.* 2013; Howitt *et al.* 2013; Pert *et al.* 2014; Winthrop 2014; Coombes, Johnson & Howitt 2015; Proper & Haupts 2014; Comberti *et al.* 2015; Ens *et al.* 2015; Jackson & Palmer 2015; Tadaki, Allen & Sinner 2015; Hoogeveen 2016). The Ramsar Convention promotes the importance of the health of wetlands for the wellbeing of humans and links this to an ethical approach to caring described as 'wise use'. It is therefore important to understand limits inherent in the principal framework for conceptualising the relationships between 'wetlands' and humans, this is the ecosystem services model which brings capitalist systems of valuing and caring to bear in a reductionist approach to describing and managing 'country'.

3.2 Valuing 'country' and Indigenous nation building

The Ngarrindjeri approach to NRM prioritises Indigenous nation building principles and asserts a cultural responsibility to Speak as Country (Yannarumi) (see Appendix 1; Cornell 2015b; Cosens & Chaffin 2016). This strategy has gathered pace since the 1995 Hindmarsh Island (Kumarangk) Bridge Royal Commission, but can be identified as starting in its contemporary form in the mid-1980s with the establishment of organisations such as the Ngarrindjeri Tendi Inc. and the Ngarrindjeri Land and Progress Association Inc. (see Stevens 1995; Ngarrindjeri Nation 2006; Bell 2008). A collective of Ngarrindjeri leaders, scholars and non-Indigenous supporters have contributed to its development using insights from Ngarrindjeri philosophy, cultural studies, Indigenous standpoint theory, postcolonial theory, anticolonial theory, assemblage theory, critical race theory, actor-network theory, post-humanist philosophy, the 'New Humanities', critical whiteness studies, anthropology, human geography and neo-Abolitionist theory (see for example: Haraway 1988; Rose 1996; Smith

1999; Spivak 1999; Latour 2004; Hemming 2006; Barad 2007; Moreton-Robinson 2007, 2013; Nakata 2007; Escobar 2008; Hemming & Rigney 2008; Braidotti 2009; Weir 2009; Aho 2010; Berg 2010; Bignall 2010; Byrd 2011; Gamage 2011; Leonardo 2013; Simpson 2014; Rigney, Bignall & Hemming 2015). This list reflects the complexity of theory and ideas brought together in the South Australian context to address the challenges faced by Indigenous leaders when attempting to ‘discover’ the best strategies for producing healthy futures for their people, their lands and waters. The results of this work have produced significant changes in relations between Ngarrindjeri and the settler-State. They have produced material changes for Ngarrindjeri people and have been reported in national and international conferences, published in journals, book chapters and included in NRM management plans (see Cornell 2015b; Hemming, Rigney & Berg 2011; Rigney, Bignall & Hemming 2015).

This Goyder report is written from the perspective of a theorised Indigenous engagement with western NRM – from the First Nation context looking outward. It is a contribution to a growing call for a more sophisticated and critical application of concepts such as ‘ecosystem services’ and ‘cultural ecosystem services’ common in international and Australian NRM contexts (see Jackson & Langton 2012; Ayre & McKenzie 2012; Ramsar Culture Working Group 2013; Bark *et al.* 2015; Jackson & Palmer 2015; Jackson *et al.* 2015). In recent position papers, the Ramsar Culture Working Group (RCWG 2013), characterise the overall Ramsar agenda as a ‘cultural’ one. In 2013 this working groups was expanded to become the Ramsar Culture Network (RCN) and their work has led to important inclusions in the *Fourth Ramsar Strategic Plan 2016-2024* (Ramsar 2015, p. 8) such as *Target No. 10*:

The traditional knowledge, innovations and practices of indigenous peoples and local communities relevant for the wise use of wetlands and their customary use of wetland resources are documented, respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention, with a full and effective participation of indigenous peoples and local communities at all relevant levels.

Emerging shifts in global conservation policy, reflected in Target 10, are encouraging given the ongoing work of NRA in promoting the Ngarrindjeri philosophy of being as crucial to ‘wise use’ of the Coorong Ramsar wetland. Ngarrindjeri philosophy is given form in contexts such as contemporary nation-building, engagements with river and wetland management, and most recently in the Yannarumi (Speaking as Country) assessment of the ‘health’ of the Coorong and Lakes Ramsar site. The work being undertaken by the NRA, in partnership with government agencies such as DEWNR, has the potential to better align South Australia’s approach to wetland management with the Ramsar Strategic Plan post-2015 and contribute to an international conversation about the importance of ‘bio-cultural diversity’ (see Escobar 2008; Ens *et al.* 2015). At the national level it is crucial to align Ramsar planning and management with state and regional developments in ‘Aboriginal affairs’, such as the new *South Australian Aboriginal Regional Authority Policy 2016* with its emphasis on Indigenous capacity and Indigenous nation (re)building (see Department of State Development 2016).

The trajectories, strategies and theoretical innovations developed and adapted by Ngarrindjeri to create a ‘de-colonial’ shift in wetland and river management, put into practice recent calls for a more nuanced approach to engaging with concepts such as ‘ecosystem services’ and ‘cultural

ecosystem services' being deployed in Australian contexts such as Ramsar ECDs (see Appadurai 1990; Hemming & Rigney 2008; Jackson & Palmer 2015; Bark *et al.* 2015). Ngarrindjeri have understood the application of these concepts and practices to have potentially detrimental effects to Ngarrindjeri wellbeing and connectivity and to be part of the continuing colonisation of Ngarrindjeri lands and waters (see Hemming & Rigney 2008; Sullivan 2010; Hemming Rigney & Berg 2011; Mignolo 2011; Jackson & Palmer 2015). The NRA has developed a strategic, theorised form of negotiation and nation-building which uses contract law to reframe the discourse, power relations, ontologies, epistemologies and practices that flow into Ngarrindjeri Yarluwar-Ruwe with globalising forms of environmental management and commodification. For Ngarrindjeri, a Yannarumi process provides a mechanism for creating and assessing the impacts on Ngarrindjeri wellbeing resulting from interactions with settler-State policies, program and practices. Consequently, engaging with global/local programs, designed to describe and manage the 'character' of ecologically conceived entities such as Ramsar wetlands, is a complex test of the resilience of contemporary Ngarrindjeri nation (re)building strategies.

A recently published Murray-Darling Basin case study, conducted by Rosalind Bark and other high-profile Australia water policy researchers, applies cultural Ecological Services (ES) typologies to the famous Brewarrina fish traps. They make important points about concepts such as connectivity, cultural landscapes and system holism that clearly illustrate the direction that Indigenous and non-Indigenous researchers and leaders are attempting to shift the current Australian water management regimes:

Taking the issue of connectivity more broadly, it can be understood in a range of ways in terms of cultural ES –hydrological and ecological connectivity between the Ngemba billabong and the fish traps, between people and the river, between cultural practices and hydrological knowledge of water flows and waterway ecologies, and between Dreamtime (Creation) stories and their encoded rules and current management practices. These aspects of cultural value expand the importance of the fish trap site from one that is significant for its archaeological value to one with multiple social, cultural, ecological and economic values, as well as recognition of the key stewardship role of traditional owners and custodians. System holism is central to indigenous water cultures from the Darling River region (Muir *et al.* 2010) and elsewhere (Barber 2005; Bradley 2010), yet it is difficult to place within current typologies that demarcate categories of value (economic, cultural, ecological) and/or posit oppositions such as those made by Chan *et al.* (2012): self-oriented vs. other-oriented, individual vs. group, physical vs. metaphysical, etc. Future research could field test these value dichotomies and address the value of system holism (see Johnston *et al.* 2011 for an example) or what has become known in heritage circles as a cultural landscape approach (Byrne *et al.* 2003).

(Bark *et al.* 2015, p. 8)

It took Ngarrindjeri over fifteen years to convince the SA Government that the 'Meeting of the Waters' area at the mouth of the River Murray is a sacred cultural landscape vital to the reproduction of life and encapsulating the Ngarrindjeri philosophy of Ruwe/Ruwar – interconnectivity (see Bell 1998, 2009, 2014; Simons 2003; Birckhead *et al.* 2013; Hemming 2009;

Hemming & Rigney 2013). As journalist David Nason reported in the *Advertiser* in July, 2010 ‘when it was over the Hindmarsh Island affair had become one of the most complex and bitterly litigated racial conflicts in Australian history’ (Nason 2010). The contract law KNYA strategy and a combination of legal, interdisciplinary and multidisciplinary research was required to produce a successful outcome in these negotiations, due in large part to the inadequacies, and disconnectedness of cultural heritage, native title and natural resource management law and policy (see Hemming, Rigney & Berg 2011).

The NRA (2012: 3) have also been very clear about the importance of flows, interconnectivity and *a priori* rights to ‘water’ as evidenced in its submission to the M-DBA for the Murray-Darling Basin Plan:

Ngarrindjeri consider they have the first right, a right attached to the exercise of their cultural rights, interests and responsibilities, that precedes all other rights including but not limited to the legislative function of the M-DBA to allocate water for particular uses. The rights and interests of the Ngarrindjeri require that water flows into, through, and from, their country from up river. This is a right *a priori* to all others and the MDBA should commence their consideration of allocations without interference or diminishment of these rights.

This cultural/legal/political positioning of Ngarrindjeri responsibilities and rights to ‘water’ is fundamental to the Ngarrindjeri approach to the updating of the Ramsar ECD. The following provides a basic summary of key elements of the NRA’s nation building strategy for ‘Caring as Country’ – a strategy that has at its core the importance a holistic approach that does not separate environmental water management from NRM, CHM and Ngarrindjeri wellbeing:

- Ngarrindjeri nation have not ceded sovereignty and continue to hold the South Australian government accountable to the original promises contained in the 1836 Letters Patent;
- KNYA Strategy – contract law used to make formal agreements and frameworks for engagement;
- Ngarrindjeri Regional Authority – peak body for interactions with non-indigenous governments and agencies – strategic goals for Ngarrindjeri wellbeing
- NRA Yarlumar-Ruwe Program – Caring as Country and building Ngarrindjeri capacity;
- Cultural knowledge protection regime – using clauses in contract law agreements;
- Ngarrindjeri Ruwe/Ruwar philosophy of all things connected - integrated Natural and Cultural ‘Resource’ Management and community development;
- Statement of Commitments – using formal SOCs to create frameworks for engagement that operationalise the KNYA strategy;
- Co-management – working with all interested parties in the development of a KNYA approach to respectful co-management of Ngarrindjeri lands and waters and all living things;
- Policy and Management Planning Renewal – re-writing policies and management plans to reflect the commitments made in the KNYA 2009 and an integrated approach based on Ngarrindjeri Ruwe/Ruwar;

- Ngarrindjeri Yannarumi (Speaking as Country) framework – using Ngarrindjeri values to assess the reproduction of wellbeing in projects, plans, policies, engagements and activities;
- Indigenous research – Ngarrindjeri to develop and conduct research and to be partners in research related to Ngarrindjeri Ruwe/Ruwe;
- Native title claim development and negotiation – this process is moving into a consent determination/negotiation phase;

The Ramsar Convention promotes the value of indigenous knowledges related to wetland ecosystems recognising the long and close relationships indigenous people have with their country. The Ngarrindjeri, for example, have developed a cultural identity that is fundamentally dependent on deep knowledge and spiritual attachment to country. This interconnected understanding of the relationship between people, land, water and all living things is being introduced into the Coorong and Lakes Ramsar ECD and adds a crucial dimension missing from typical Australian ECDs.

In particular, ‘ecological’ based descriptions of components and processes, services and benefits applied in Australian ECDs are based on understandings of the relationship between humans and non-humans – conceived in Western terms as the divide between ‘nature’ and ‘culture’ (see Morgan, Strelein & Weir 2006; Latour 2004; Dhimurru 2006; Langton 2006; Ngarrindjeri Nation 2006; Hemming and Rigney 2008; Weir 2009; Birckhead *et al.* 2011; NRA 2012; Colloff, Crossman & Overton 2015). They are also fundamentally conceived in terms of capitalist models of production (see Sullivan 2010; Birckhead *et al.* 2011). Ngarrindjeri philosophies of being, as applied within the Coorong and Lakes Ramsar ECD, challenge this binary construct with an emphasis on interconnectivity and the reproduction of wellbeing. Recognising Ngarrindjeri philosophies of Ruwe/Ruwar in relation to critical services supports the notion of a holistic interpretation of ecosystem services advocated by the Ramsar convention and that the Coorong and Lakes Ramsar site has distinctive Ngarrindjeri ‘cultural values linked to the ecological functioning of these wetlands’ (see Ramsar Convention 2005; RCWG 2013; Pritchard 2013, p. 24). For Ngarrindjeri the concept of ranking aspects of Yarlwar-Ruwe as critical, and furthermore, using labels such as components, processes and services that exclude spiritual and cultural connection is counter to Ngarrindjeri law and will lead to a loss of wellbeing.

In 2014 the SA Government contracted a report entitled ‘Ecosystem services from the Coorong, Lakes Alexandrina and Albert Ramsar site’ (Colloff, Crossman & Overton 2015, p. 3). This project’s aims were to:

- 1) assemble the evidence base for the ecosystem services provided by the Coorong and Lakes Ramsar site;
- 2) determine the ecosystem services that are linked to ecological components and processes that have been identified as being critical to the ecological character of the site;
- 3) provide information that can aid the setting of limits of acceptable change in components, processes and services (CPS).

The authors provide an excellent summary of the relationships between values and benefits, ecosystem services and ecosystem components, functions and process commonly

identified in Ecological Character Descriptions applied in Australian Ramsar wetland management.

Identification of the many values and benefits that wetlands provide to humans is the first step in achieving a broader understanding and appreciation of the ecosystem services that provide those benefits, and the ecological functions and processes that underpin those services. From this basis, management actions and policies can be designed, implemented and adjusted in order to support services and functions that are considered critical to the maintenance of the site's ecological character. Trade-offs between co-occurring groups or 'bundles' of services can be made according to shifts in their supply or demand over time. For services from aquatic ecosystems, shifts in supply are likely to be underpinned by changes in water quality and quantity as they affect ecosystem functions. Shifts in demand relate to changing use priorities driven by social and economic considerations, such as between water for irrigation and the environment.

(Colloff, Crossman & Overton 2015, p. 3)

The importance of the recognition and application of Ngarrindjeri concepts such as Ruwe/Ruwar to ECD development has not been addressed in the CSIRO report. As previously outlined in this report a Ngarrindjeri philosophy poses complex challenges for western models of compartmentalised ecosystems that provide critical services defined under labels such as 'provisioning', 'regulating' and 'cultural' and benefit some groups in the community. These challenges are being addressed by the joint DEWNR and NRA Ramsar ECD working party.

Water policy researchers, therefore, need to look more closely at the Ngarrindjeri as a successful example of researched, negotiated and applied 'holistic' management of water, cultural heritage and natural resources – particularly in the Murray-Darling Basin region. The following is an extract from the 'site card' required for the formal registration of the 'Meeting of the Waters' under *Aboriginal Heritage Act*, (SA) 1988:

The Meeting of the Waters is a fundamental aspect of the Ngarrindjeri world where all things are connected, whether they are living, from the past and/or for future generations. The Meeting of the Waters makes manifest core concepts of Ngarrindjeri culture that bind land, body, spirit, and story in an integrated, interfunctional world. The principles that flow from this cultural system are based upon respect for story, country, the old people, elders and family. The pursuit of these principles is contingent upon maintaining a relationship with country. The violation of these respect principles is manifest through the destruction of Ngarrindjeri Yarluwar-Ruwe (a concept that embodies the connectedness and interfunctionality of their culture) and their effect upon the behaviours and survival of ngatji (the animals, birds and fish). According to these principles and contingent beliefs the "environment" cannot be compartmentalised: the land is Ngarrindjeri and Ngarrindjeri are the land. All things are connected and interconnected. Ngarrindjeri philosophy is based on maintaining the integrity of the relationship between place and person. It is the responsibility of the living to maintain this continuity. The past is not and cannot be separated from the here and now or the future. To break connections between person and place is to

violate Ngarrindjeri culture. The objective in undertaking activities upon Ngarrindjeri country should be to not cause violence to Ngarrindjeri culture.

(NRA 2012)

3.3 Reassembling the 'Contact Zone': Ngarrindjeri agency in natural resource management

For many Indigenous nations interactions with the NRM institutions of the settler-State can be characterised as a contemporary 'contact zone' where deep knowledge of 'country' is becoming understood to be a form of Indigenous cultural property – sometimes carrying labels such as: Traditional Ecological Knowledge (TEK); Indigenous Cultural and Intellectual Property (ICIP); and Indigenous Biocultural Knowledge (IBCK) (see Janke 1998; Fourmile 1999; Smith 1999; Barker 2005; Stewart-Harawira 2005; Nakata 2007; Battiste 2008; Mignolo 2011; Hemming, Rigney & Berg 2010; Ens *et al.* 2015). For some western scientists and environmental managers Indigenous knowledge is understood as a valuable 'data-set' that needs to be 'captured' and added to the stock of information to be utilised by the settler-State to improve environmental management. This kind of thinking, and the discourse and the practices that it produces, are still present in key non-Indigenous agencies identified as responsible for NRM in southern South Australia. Subsequently, a regional move towards Ngarrindjeri co-management is requiring a fundamental structural shift and recognition of Ngarrindjeri as valuable leaders in the management of their lands and waters – Speaking as Yarlurwar-Ruwe. Resources secured through major programs such as the CLLMM Ngarrindjeri Partnerships Project (CLLMM NPP) have provided Ngarrindjeri with the capacity to lead these structural transformations (Hemming & Rigney 2012).

The NRA's KNYA engagement strategy is an innovative response to 'colonial governmentality', which subverts and seeks to correct the structural conditions underlying the continuing dominance of colonising social forms and their associated epistemologies. Resulting interactions on projects such as the Ramsar ECD then reinforce Ngarrindjeri nationhood and agency in protecting Ngarrindjeri lands and waters, by sharing in knowledge production that respects rights to cultural knowledge as a form of intellectual property. Through this method of relationship-building, including in the domain of scientific research conducted on Ngarrindjeri Ruwe (Country), the NRA has been able to take an active and progressive role in the development of environmental policy and in decision-making around water and natural resource management (NRM) in the Murray-Darling Basin region.⁶

It is important to remember, however, that the period from the Australian Government designating the Coorong and Lakes Ramsar site in 1985, to more recent collaborations on the Ramsar ECD, has been for many Ngarrindjeri a traumatic time centred around struggles to protect Ngarrindjeri Yarlurwar-Ruwe (see Saunders 2003; Trevorrow 2003; Trevorrow & Hemming 2006; Bell 2014). In 2006 the South Australian Department of Environment and Heritage published an ECD of the Coorong, Lakes Alexandrina and Albert wetland (Phillips & Muller 2006). Ngarrindjeri written and oral input into its development was largely characterised as a 'long-term "oral history" data-set' of wetland system change over the past 50 to 60 years...' (Phillips & Muller 2006: 224). The history of colonial dispossession, thousands of years of Ngarrindjeri livelihoods reliant on the health of the

Lower Murray region, and deep Ngarrindjeri knowledge of its character were marginalised at best or erased by western ecological discourse (see Hemming & Rigney 2008). In 1998 Ngarrindjeri leaders had established a formally constituted Ngarrindjeri Ramsar Working Party to develop a nation-endorsed Ramsar position paper for inclusion in a proposed Coorong, Lakes Alexandrina and Albert Ramsar Management Plan (NRWP 1999; DEH 2000; Hemming, Trevorrow & Rigney 2002).

Due to the frameworks and legislation of the time, recognition of deep Ngarrindjeri connection to country and acknowledgement of Ngarrindjeri aspirations were constrained to the inclusion of the following objective in the Management Plan:

Objective 2

Increased opportunities for participation by the Ngarrindjeri people in the planning and management of the Coorong and Lower Lakes Ramsar Wetlands, subject to South Australian Government policy relating to the resolution of native title claims.

(DEH 2000, p. 2)

In a continuing attempt to change the character of contact between themselves and Australian government agencies, Ngarrindjeri leaders and elders decided to develop their own management plan – the *Ngarrindjeri Nation Yarluwar-Ruwe Plan* (2006). It begins with a clear Ngarrindjeri Vision for Country that includes all of the principles contained in the Yannarumi assessment process later applied to the updating of the Coorong and Lakes Ramsar ECD. This Ngarrindjeri plan has been crucial in the process of re-assembling and re-writing powerful elements of the contemporary ‘contact zone’ such as fundamentally racist archival sources, management plans and government policies (see Hemming & Rigney 2010; Maclean & The Bana Yarralji Bubu Inc. 2015).

From a Ngarrindjeri perspective the KNYA 2009 had created a new relationship with the State of South Australia paving the way for settler recognition of the abiding Ngarrindjeri responsibility to ‘Speak as Country’ (Ngarrindjeri Yannarumi). The following ‘guiding principle’, foregrounded in the ECD SOC, highlights the process of articulation of KNYA commitments (NRA & DEWNR 2014, p. 1):

1. Guiding Principle

The land and waters is a living body.

We the Ngarrindjeri people are part of its existence.

The land and waters must be healthy for the Ngarrindjeri to be healthy.

(Tom Trevorrow, Ngarrindjeri Elder, 2002)

Ngarrindjeri have a unique philosophy regarding the connectivity of country / body / spirit (Ruwe/Ruwar - country / body / spirit). Ngarrindjeri Ruwe/Ruwar frames Ngarrindjeri rights and responsibilities as traditional owners and is centred on an understanding that all things are connected. As such, Ngarrindjeri view cultural heritage and natural resource management as inseparable.

Ngarrindjeri have a long-term aspiration to be centrally involved in development, planning and implementation of natural resources management in their traditional lands and waters. These aspirations have been acknowledged by the South

Australian Government in the *Kungun Ngarrindjeri Yunnan Agreement* (KNYA), 2009. These aspirations are also aligned with the State's responsibilities under Ramsar Conference of the Parties Resolutions (VIII.19, and IX.21) to take cultural values into account for the effective management of Ramsar sites.

The Parties [to the SOC] acknowledge that Ngarrindjeri hold a depth of Cultural Knowledge and understanding of their traditional lands and that Ngarrindjeri custodianship has shaped the regions ecological character over thousands of years. The Parties acknowledge the critical importance of a strong partnership for the effective updating of the current Coorong and Lakes Alexandrina and Albert Ramsar site's Ecological Character Description (ECD) and development of the site's associated management plans and their implementation. This Statement of Commitment (SOC) establishes an equitable framework to support engagement with Ngarrindjeri in the update of the ECD.

This guiding statement encapsulates the holistic Ngarrindjeri engagement strategy and illustrates the importance of the identification of principles and protocols at multiple levels in project development and delivery (see Hemming, Rigney & Berg 2011).

The NRA identified several long-term Caring for/as Country objectives guiding the CLLMM NPP (NRA & DEWNR 2012, p. 5):

1. Protect Ngarrindjeri cultural heritage and unique relationship with, and responsibilities for, the region;
2. Develop and nurture strong and productive partnerships between Ngarrindjeri, industry, government and others;
3. Build professional and culturally appropriate Ngarrindjeri capacity to engage meaningfully with current and future actions to restore the health of the Coorong, Lower Lakes and Murray Mouth;
4. Ensure Ngarrindjeri participation in governance mechanisms and integrate their interests and perspectives into planning, research and policy development;
5. Ensure Ngarrindjeri play a major role in implementing strategies to develop a resilient and healthy future for the lands and waters and all living things;
6. Increase economic and social wellbeing within the Ngarrindjeri community; and
7. Support Ngarrindjeri enterprises within a growing contemporary Ngarrindjeri economy.

These funded long-term objectives clearly outline the Ngarrindjeri program of reassembling, or transforming the contemporary 'contact zone' in NRM and CHM, to shift from ingrained, colonising characteristics towards a respectful set of relationships that reproduce Ngarrindjeri wellbeing. The CLLMM NPP agreement also includes clauses specifically protecting Ngarrindjeri cultural knowledge as a category separate from intellectual property (see Hemming, Rigney & Berg 2011). The overall SA Government's CLLMM Recovery Program includes the following specific objective relating to Ngarrindjeri, '4. The culture of the traditional owners, the Ngarrindjeri, is preserved and promoted through partnerships and involvement in projects'.

Since South Australia's establishment as a British colony in 1836 Ngarrindjeri and other Indigenous people have struggled to protect their cultures, communities, lands and waters – in short, to 'Speak as Country' (see Mattingley & Hampton 1988; Berg 2010). As a result of the colonial history of

dispossession and oppression Indigenous nations across Australia have very limited 'rights' to water and other natural resources except indirectly through a weakened native title regime and more indirectly through regional legislation such as the *Aboriginal Heritage Act, 1988* (SA) (See McFarlane 2004; Hattam, Rigney & Hemming 2007; Weir 2009, 2012; Jackson 2012; Jackson *et al.* 2012; Tan & Jackson 2013; Jackson 2015; Neale & Turner 2015). Historically, when water licenses became available along the Murray River, Ngarrindjeri people were still living under protectionist legislation on former missions or in fringe camps and were in no position to apply. This situation differs significantly from the experiences of Indigenous peoples in comparable settler democracies such as Canada, the USA and New Zealand. In all these examples there exists significantly stronger recognition of Indigenous rights to lands and waters (see Veeder 1964; Strelein 2006; Hemming, Rigney & Pearce 2007; Langton *et al.* 2009).

Nonetheless, Ngarrindjeri have maintained a strong connection to country through a cultural tradition of Ruwe/Ruwar (understanding that lands, waters, people and all living things are connected). Ngarrindjeri have continued to draw attention to the damaging changes being made to Ngarrindjeri country through ongoing colonization (see Ngarrindjeri Nation 2006; Bell 2008). Ngarrindjeri argue, for example, that the draining of South Australia's South-East has had damaging effects on the flow of water into the Coorong and into the Lower Murray region more generally. Always at the centre of this Indigenous communication and educational program have been Ngarrindjeri stories, histories and lessons with a message for non-Indigenous people to develop a respectful, health-giving relationship with Ngarrindjeri lands and waters. Ngarrindjeri have continued to exercise responsibility to Speak as Country to preserve the reproductive health of Ngarrindjeri Yarluwar-Ruwe (Sea Country).

During the Hindmarsh Island (Kumarangk) Bridge controversy Ngarrindjeri saw little scope for exercising agency within the settler colonial system. The efforts of Elders and leaders to use the mechanisms of settler law such as Aboriginal heritage legislation to speak for Country and to protect Ngarrindjeri cultural life had been met with incomprehension, and at times blank refusal. Ngarrindjeri found themselves caught and immobilised within an inflexible actor-network structured by colonial institutions and their associated forms of knowledge, which funneled social understanding through narrow pathways towards a predetermined outcome of cultural extinction. Ngarrindjeri were once again declared extinct, not modern and 'enslaved' in death-giving, actor-networks that fail to provide any opportunity for Ngarrindjeri to be Ngarrindjeri in a Ngarrindjeri way (Hemming 2006; Birkhead *et al.* 2011). According to John Law, sociologist and actor-network theorist, because of their apparent systemic stability, such 'knowledge places' tend towards a 'pessimistic ending' in which the potential for positive transformation becomes almost unimaginable:

This is because we're caught in what one might think of as a quadruple lock. By which I mean that *all* the items on the list – institutions and technologies, metaphysics, particular descriptions and the things that we are describing – need to be altered simultaneously if we are to achieve certain forms of radical change.
(Law 2011, p. 10)

However, even in the most rigid colonising and normative systems, what might appear to be minor shifts can produce opportunities for significant change if the interventions are strategic, theorised

and coordinated. Ngarrindjeri are working hard to reassemble this colonising contact zone and to reverse the ongoing erasure of Ngarrindjeri Ruwe/Ruwar. This work has required reinforcement of First Nationhood, strengthening of governance and an assertion of the responsibility to 'Speak as Country' (see Hemming, Rigney & Berg 2010; Cornell 2014; 2015). It has also required an extensive process of disagreement, negotiation, collaboration, scientific experimentation and agreement making somewhat like the 'political ecology' described in Bruno Latour's landmark book *The Politics of Nature: How to Bring the Sciences into Democracy* (2004).

The authors of this report consider that the Ngarrindjeri program of transformation, through projects such as updating the Ramsar ECD, provides material evidence to support John Law's (2011, p. 11) ultimate optimism, that if knowledge relations

and the practices in which they are implied are multiple then this suggests that the knowledge places don't come as seamless wholes, but instead with gaps and interstices and cracks. ... The implication, of course, is that different normativities, politics and ethics co-exist and intersect with one another too; and that, if we can make parts of these explicit then they become debatable and contestable. And then there are similar stories, too, about difference, in the places where Northern technoscience encounters alternative post-colonial knowledge traditions. Such encounters are saturated with power, for sure, but again they bring different realities and different normativities into contact with one another – and sometimes, at least, the self-evidences of technoscience are undermined.

(Law 2011, p. 11)

In the contemporary South Australian contact zone, actor-networks comprising natural resource management policy and practice, are resistant to recognition of 'different normativities'. The continuing work of Ngarrindjeri leaders and the peak Ngarrindjeri organisation the NRA, however, is leading steadily towards re-defining of the 'procedures' for Indigenous engagement in NRM planning in the M-DB region and in particular, moves towards the co-management of Ramsar wetlands. Of course, this tendency towards acknowledgement, inclusion and Indigenous agency did not come about inevitably or easily; rather, it was the effect of theorised Indigenous strategic action and a conscious move towards First Nationhood sustained in the frequently hostile, 'white', contexts of colonising, settler governance and natural resource management (Moreton-Robinson 2007; Morgan, Weir & Strelein 2004; Cornell 2015a).

Recent Australian collaborative research in the Queensland rainforest focussing on 'cultural ecosystem services' applies the concept of biocultural governance to a mapping project aimed at assessing the health of Indigenous cultural ecosystem services (CES) (Pert *et al.* 2015). This work shares much with the Ngarrindjeri approach to engagement with environmental management and the linking of governance, power, relationships, community capacity, health, NRM and ecosystems (see Ngarrindjeri Nation 2006; Hemming & Rigney 2008; Birkhead *et al.* 2011; Hemming & Rigney 2012; Rigney, Hemming & Bignall 2015). Petina Pert and the team of Indigenous and non-Indigenous researchers in CES emphasise the importance of strong Indigenous nations/Traditional owner groups and respectful relationships between these groups and non-Indigenous governments and agencies as critical markers of the health of the rainforest ecosystems and the ecosystem services they

provide (Pert *et al.* 2015). Their application of concepts such as biocultural diversity, socio-ecological systems and socio-cultural realities are valuable for Indigenous communities or nations attempting to explain and negotiate their interests in their lands and waters when engaging with government programs of ecological character description and ecosystems management. It is important, however, to consider the problems with concepts such as culture, social, economic and ecosystem and their tendency to mask the complexity of the relationship between things (see Latour 2004).

Geographers Sue Jackson and Lisa Palmer have recently emphasised the broad value for Indigenous people of the concept of payment for ecological services (PES) in the Australian context and the potential for this concept to be expanded to include a more holistic, Indigenous understanding of an ecosystems services. Ngarrindjeri leaders are applying the (PES) approach to the justification for ongoing regional funding for the NRA's Yarlwar-Ruwe Program. The Ngarrindjeri contract law and negotiating strategy, that has most recently produced a Speaking as Country Deed and a Yannarumi assessment framework, clearly illustrates the similarities in the direction that Indigenous leaders and Indigenous and non-Indigenous researchers are shifting the culture of NRM in Australia.

We have argued in this section of the Goyder report that the Ngarrindjeri strategy is based on an understanding of things as interconnected – this approach shares much with posthumanist philosophy, actor-network theory and other forms of assemblage theory. We have also, however, raised questions about the relationships between these potentially de-territorialising, non-Indigenous theories and Indigenous philosophies that are localised, culturally-specific and politically situated, drawing attention to the potential for colonising relations to continue in these contexts (see Haraway 1988, 1991; Guattari 2000; Bignall 2014; Rigney, Bignall & Hemming 2015) We have also argued that a crucial aspect of co-management partnerships concerns Indigenous involvement in processes of research and the shared development of relevant and ethically-generated knowledge. As part of the Ngarrindjeri nation re-building agenda and the reclamation of self-governing authority, Ngarrindjeri have actively pursued a program of Indigenous co-direction of scientific and social research that is conducted on Ngarrindjeri Country (see Hemming & Rigney 2014). This has resulted in an enrichment of conceptual and scientific understanding for both Indigenous and non-Indigenous participants, who have begun to develop a new understanding of where cross-cultural philosophical synergies lie and may be utilized for maximum mutual benefit, reflecting a belief that 'we will be stronger if our knowledge places are multiple (see Hemming *et al.* 2007; Kirby *et al.* 2011; Law 2011, p. 11; Hemming & Rigney 2012, 2014). Chickasaw theorist Jodi Byrd (2013, pp. XXIV-XXX) expresses a similar view:

Indigenous critical theory could be said to exist in its best form when it centres itself within indigenous epistemologies and the specificities of the communities and cultures from which it emerges and then looks outward to engage European philosophical, legal, and cultural traditions in order to build upon all the allied tools available.

4 Ngarrindjeri Yannarumi (Speaking as Country): innovations in the development of a Ramsar Ecological Character Description

Since the arrival of Europeans the Ngarrindjeri witnessed the draining of their wetlands along the rivers, and in the south east, and the disconnection of the living body of the River Murray, Lower Lakes and Coorong through the installation of locks, levee banks and barrages. They have watched their ngartjis (totems) diminish, their lands cleared and the degradation of Yarluwar-Ruwe.

(M-DBA 2014: 26)

This SOC between DEWNR and the NRA establishes an agreed process to involve Ngarrindjeri in the review of the ECD and development [update] of the ECDR [ECD Report]. The SOC intends to support the integration of Ngarrindjeri values, perspectives, and philosophies into the ECDR as per the relevant Ramsar Resolutions (VIII.19, and IX.21). This approach aims to better acknowledge and value Ngarrindjeri and respect their Traditional Ownership and customary rights and responsibilities to care for country. The SOC also aims to influence the process of ECD and its inherent western scientific approach of removing people from place.

(NRA & DEWNR 2014, p. 3)

This section of the report provides an indication of negotiations, interactions and the input that Ngarrindjeri have provided as part of updating the Coorong and Lakes Ramsar ECD. The results of this work will be finalised over the course of 2016. The Ngarrindjeri input considered in this section does not focus on the content of cultural knowledge but rather suggests transformations in the existing approach to ECD development are required to respect Ngarrindjeri core principles of 'being'. As argued throughout this report the Ngarrindjeri philosophy of being rests on a broadly 'ecological' understanding that 'all things are connected and that the lands and waters are a living body' (Ruwe/Ruwar). The connectivity principle is something that environmental scientists share as a priority for further research in the SAM-DB region (see Hemming & Rigney 2014). Ngarrindjeri also share research interests that focus on the identification of key species that both act as environmental health markers and rely on the connectivity of the River Murray, Lakes and Coorong. Ngarrindjeri hold deep cultural knowledge about these features of Ngarrindjeri Yarluwar-Ruwe, passed on through Ngarrindjeri creation stories such as Ngurunderi, Thukeri and Thukabi (see Hemming, Trevorrow & Rigney 2002; Ngarrindjeri Nation 2006). This deep, long-term 'environmental' knowledge is increasingly acknowledged by non-Indigenous science as valuable and practical.

The Ngarrindjeri approach to 'Caring as Country' is not predicated on a division between human and nature as subject and object. It is also specifically a reciprocal and reproductive relationship between people, lands, waters and all living things. It is what we have described as a system of reciprocal, interconnected benefit. The importance of interconnectedness has been highlighted by the ongoing Ngarrindjeri advocacy and protection of the 'Meeting of the Waters site'. More recently a 'Speaking as Country Deed' (2014 – see Appendix 1) has been agreed between the SA Government and the Ngarrindjeri further recognising the fundamental principles of Ngarrindjeri philosophy and committing to work together to promote a better understanding of these Indigenous values, knowledges and laws in the wider non-Indigenous community. At the state and regional levels major shifts are occurring in the inclusion of Ngarrindjeri values and principles in NRM. The NRA is working with DEWNR to ensure that these are reflected in the Coorong and Lakes Ramsar ECD.

4.1 Ngarrindjeri Yannarumi (Speaking as Country): Assessing Ngarrindjeri Wellbeing

Ngarrindjeri Yannarumi (Speaking as Country) has an historical meaning and is being reconceptualised by Ngarrindjeri leaders in a contemporary form to take into account the impacts and changes that have occurred to Ngarrindjeri Yarluwar-Ruwe as a result of colonisation. This continuity of laws, values and traditions is reinforced in following excerpt from the *Ngarrindjeri Nation Yarluwar-Ruwe Plan* (2006: 11):

Our knowledge of Sea Country will continue to underpin our survival and our economy. Tendi, our formal governing council, ensured and will continue to ensure our stable and sustainable society, which maintains our obligations to Sea Country.

When Ngarrindjeri meet to 'Speak as Country' about things that impact on the wellbeing of Ngarrindjeri Country (Ngarrindjeri Ruwe/Ruwar – Country, Body, Spirit and all living things) they make judgements based on the cultural principles passed down by the ancestors. This group of leaders and elders is traditionally called the Tendi and when it meets, speaks and makes decisions this is known as Yannarumi (Speaking as Country). It is the responsibility of Ngarrindjeri leaders to make decisions that ensure the wellbeing of Ngarrindjeri Yarluwar-Ruwe.

The Tendi (the traditional governance board of the Ngarrindjeri Nation) has a formal position as part of the Board of the Ngarrindjeri Regional Authority (NRA). The NRA Board is made up of representatives of Ngarrindjeri member organisations, key representative committees and elected representatives from the wider Ngarrindjeri nation. Today the NRA takes responsibility for assessing whether something is healthy, lawful and creates wellbeing for the Ngarrindjeri nation. This assessment of projects, practices, partnerships, plans and other activities is conducted with the wellbeing of Ngarrindjeri Ruwe/Ruwar (body, spirit, lands and waters and all living things) as its objective. As stated in the *Ngarrindjeri Nation Yarluwar-Ruwe Plan* (2006), Ngarrindjeri leaders have always worked this way, following the laws of the Creation Ancestors and guided by Elders.

The Ngarrindjeri Yarluwar-Ruwe (Sea Country) Program supports the NRA in its responsibility to care for Ngarrindjeri Yarluwar-Ruwe. Non-Indigenous natural resource management (NRM) tends to focus on maintaining what might be understood as the ecological health of Ngarrindjeri Yarluwar-

Ruwe without taking into account the Ngarrindjeri philosophy of interconnectedness (Ruwe/Ruwar). For the Coorong and Lakes Ramsar site this means a form of adaptive management designed to stabilise the ‘ecological character’ of the system in an effort to maintain its capacity to produce ecosystem services largely exclusive of Ngarrindjeri values and interests. The ecological health of Ngarrindjeri Yarluwar-Ruwe, using this model, is managed to produce services for non-Indigenous interests such as sustainable fisheries, irrigation-based industries and wetlands suitable for tourism. This can result in managing for artificial ecosystem stability to produce maximum or predictable yields rather than ecosystem resilience and sustainability (see Shiva 1993; Berkes 1999; Armitage, Berkes & Doubleday 2010). The NRA, however, invests in a holistic approach that understands Ngarrindjeri as part of the living body of the lands and waters and all living things – with a cultural responsibility to ‘Speak as Country’ (Yannarumi). Ngarrindjeri livelihoods, culture and wellbeing depend on exercising their cultural responsibility.

With this in mind, the NRA has identified key goals that respect cultural responsibility and have as their purpose ensuring healthy people, lands and waters and all living things. Taking into account the continuing impacts of colonisation on Ngarrindjeri Yarluwar-Ruwe the NRA has developed a Yannarumi assessment framework used to determine health-giving potential of partnerships, agreements, projects, policies and activities using criteria such as the following (see Appendix 3):

Healing Programs – Healthy Flows (Restoring Ngarrindjeri Yarluwar-Ruwe):

- Ngiangiampe: Projects/engagements that build respectful relationships between Ngarrindjeri and other parties such as the State Government;
- Yannarumi: Projects/engagements that build Ngarrindjeri capacity to Care for/Speak as Country – lands, waters and all living things
- Kaldowinyeri: Projects/engagements that respect Ngarrindjeri knowledge, law, tradition and expertise
- Miwi: Projects/engagements that bring energy, health and wellbeing into Ngarrindjeri lives
- Ruwe/Ruwar: Projects and programs that increase the health of Yarluwar-Ruwe and understand and respect for the principle of interconnection, ‘the lands and waters is a living body and Ngarrindjeri are part of this living body’.

(Hemming *et al.* 2015)

A Ngarrindjeri Yannarumi assessment is being applied to the Coorong and Lakes Ramsar site to determine the health of Ngarrindjeri Yarluwar-Ruwe. The Ngarrindjeri Yannarumi assessment provides ‘time-slice’ assessments of health from the Kaldowinyeri (Creation) through to Ramsar listing and the recent signing of the Speaking as Country Deed.

Ngarrindjeri have documented changes in the ecological character of the region over millennia and have extensive ‘ecological’ knowledge of the Ramsar site, including connectivity with the surrounding lands. Past exclusion of Ngarrindjeri from exercising their cultural responsibility for Yarluwar-Ruwe has contributed to the poor health of the Ramsar wetland site and has subsequently impacted Ngarrindjeri wellbeing. The integration of Ngarrindjeri values into this ECD is thus crucial

for Ngarrindjeri knowledge of Yarluwar-Ruwe to be part of ongoing management planning and implementation.

Ngarrindjeri long-term knowledge of the character of Ngarrindjeri Yarluwar-Ruwe provides important understandings of what is labelled 'natural variation' in the ECD. For example, for Ngarrindjeri the ECD's identified 'Limits of Acceptable Change' require an alignment with Ngarrindjeri concepts of wellbeing, identity and reproduction. A Ngarrindjeri Yannarumi assessment of the health of Yarluwar-Ruwe (Sea Country) provides a basis for making decisions about acceptable change that take into account that Ngarrindjeri are part of the living body of the lands and waters. Changes to the character of Ngarrindjeri Yarluwar-Ruwe have direct effects on Ngarrindjeri wellbeing and for Ngarrindjeri ever effort is needed to maintain and improve what is understood by non-Indigenous people as ecological health (see for example: Hemming, Trevorrow & Rigney 2002; Hemming & Rigney 2008, Birckhead *et al.* 2011; Hemming & Rigney 2014). Ngarrindjeri argue for health indicators and programs such as: an open Murray Mouth; a healthy 'Meeting of the Waters' site; connectivity between River, Lakes, Coorong, Sea and all living things; flows of fresh water from the South East into the Southern Kurangk (Coorong); active re-vegetation, research and monitoring programs; increased flows from tributaries; the preservation and revitalisation of wetlands; the protection of the shorelines of the lakes and river; research and preservation programs for *ngartjis* (totems); a properly resourced Ngarrindjeri Yarluwar-Ruwe program and respectful partnerships between the NRA and government. For Ngarrindjeri the limits of acceptable change need to reflect the commitment to the KNYA 2009 and the Ngarrindjeri engagement framework that has developed from this agreement. This includes maintaining and strengthening the capacity of the Ngarrindjeri Yarluwar-Ruwe program.

4.2 The application of Statements of Commitment (SOC) to Ramsar planning

Like a KNY agreement, a 'statement of commitment' (SOC) can define engagement principles and agreed actions. This process of formal commitment of powers to work together to achieve dedicated outcomes ensures mutual and shared benefits: In 2015 the SA Government signed a SOC with the NRA dealing with water planning. It will help to meet M-DB Plan Water Resource Plan accreditation, while recognising Ngarrindjeri political authority and supporting Indigenous input of aspirations, values and knowledges into environmental water planning. On a smaller scale, SOC's have been developed as crucial 'tools' for articulating the KNYA principles within specific projects and programs such as: *Ruppia* translocation; Coorong, Lower Lakes and Murray Mouth research & monitoring; vegetation management planning; and most recently for updating the Ramsar ECD.⁷ They ensure clarity of process and provide protection for Ngarrindjeri cultural knowledge through a Ngarrindjeri-developed cultural knowledge protection regime. As part of the expression of a consistency with key KNY agreements specific clauses and definitions are included across project agreements, research agreements and other documents. The following is an example of a key definitional clause, which relates to the principle of cultural knowledge protection enabling Ngarrindjeri to safely share knowledge:

Cultural Knowledge means all and any cultural knowledge, whether such knowledge has been disclosed or remains undisclosed of the Indigenous group, including but not limited to: (a) traditions, observances, customs or beliefs; (b) songs, music, dances, stories, ceremonies, symbols, narratives and designs; (c) languages; (d) spiritual knowledge; (e) traditional economies and resources management; (f) scientific, spatial, agricultural, technical, biological and ecological knowledge; and includes documentation or other forms of media arising there from including but not limited to archives, films, photographs, videotape or audiotape.

(Hemming, Rigney & Berg 2010, p. 100)

Such acknowledgement of Indigenous political and cultural authority in key State policy and planning processes and resources outlined above is evidence that an Indigenous-led, highly innovative model for engagement between Indigenous people and the State is developing in the SAM-D region. We have described how the Ngarrindjeri Yarluwar-Ruwe model treats 'Caring as Country' as a holistic nation-building project designed to create a healthy Ngarrindjeri future. This unique Indigenous governance model, combined with the high-level KNYA engagement strategy, provides this part of the M-DB with structures and practices designed to support just and effective Indigenous engagement in water research, policy development and management. It has achieved this because the political and legal technologies introduced by the NRA have been instrumental in starting the transformation of the colonial nature of the actor-networks in South Australia. By providing new conditions of interaction, the NRA has created a new political disposition in South Australia, characterized by increased willingness to listen for culturally diverse expressions of interest, and to respond to such expressions in ways that mutually enhance governing agencies. Importantly, this re-shaping of the contemporary 'contact zone' has produced vital opportunities for increased Ngarrindjeri agency in water research, policy and planning (Hemming & Rigney 2012; Kirby *et al.* 2013).

Ngarrindjeri supported the listing of the Ramsar site in the report of the 1999 Ngarrindjeri Ramsar Working Group (NRWG 1999) and more recently through input into the state's Ramsar Information Sheet (DEWNR 2013) via the KNYA engagement framework. This is consistent with the Ngarrindjeri concept of 'wise-use' at the centre of Ngarrindjeri law. Ngarrindjeri understandings of long-term variability are embedded in Creation stories with an understanding of Yarluwar-Ruwe that stretches back before the last Ice Age. This knowledge and Ngarrindjeri understandings of long-term, resilient, wise-use provide a deep layer of knowledge of the Coorong and Lakes Ramsar site that is being shared through the development of respectful and healthy partnerships between the Ngarrindjeri Nation and the non-Indigenous government agencies. Recognition, however, that Ngarrindjeri should be a key decision-maker in this process of setting limits of acceptable change is only slowly emerging in NRM in South Australia.

The Ramsar ECD SOC includes the recognition of the key agreement making, planning innovations and policy commitments that need to be taken into account during the update of the Ramsar ECD. This establishes its links to the structured Ngarrindjeri program of regional transformation. A number of strategies and agreements underpin the SOC including:

- 1998, Ngarrindjeri perspectives on Ramsar Issues: Ngarrindjeri / Ramsar Working Group report.
- 2002, The Murray Mouth – Exploring the implications of closure or restricted flow.
- 2006, Ngarrindjeri Yarluwar-Ruwe Plan.
- 2006, Coorong and Lakes Albert and Alexandrina Ecological Character Description Report.
- 2006-2007, The Lower Lakes, Coorong and Murray Mouth Icon Site Environmental Management Plan.
- 2008, Ngarrindjeri Regional Partnership Agreement ('NRPA').
- 2009, (Whole of Government) Kungun Ngarrindjeri Yunnan Agreement (KNYA) (NRA and South Australian Government).
- 2009, CLLMM Long Term Plan Business Case: Ngarrindjeri Partnerships component.
- 2012, CLLMM Ngarrindjeri Partnerships Funding and Service Agreement.

Ngarrindjeri philosophies give rise to the following principles that will guide this SOC:

1. Respectful processes, time and support to Ngarrindjeri to care for country (that means caring for people, past, present and future).
2. The ECD review and development [update] of the ECDR accommodates Ngarrindjeri Ruwe / Ruwar – (country/body/spirit).
3. Cultural Knowledge and intellectual property is protected across Ngarrindjeri engagements with government and research organisations.
4. Ngarrindjeri cultural values integral to all planning and future management arrangements.
5. Active Ngarrindjeri participation in planning and future management arrangements through employment, education and training opportunities.

(NRA & DEWNR 2014, pp. 7-8)

Ngarrindjeri conceptualise all components and processes as an embodiment of Ruwe/Ruwar and as a consequence of Creation ancestors. Components and processes are all intricately linked through this spiritual connection and are critical to the character of Ngarrindjeri Ruwe/Ruwar. This interconnectivity means that Ngarrindjeri are also part of these components and processes - Ngarrindjeri are also part of this living body.

4.3 Ngarrindjeri Ruwe/Ruwar: Reciprocal interconnected benefit

Ngarrindjeri use the term Ruwe/Ruwar to describe the interconnectivity between land, waters, spirit and all living things. This fundamental spiritual connection (Ruwe/Ruwar) is reliant on healthy lands and waters, and the maintenance of connectivity between the Coorong, Lower Lakes and Murray

Mouth as created by Ngurunderi and other Creation Ancestors. This way of understanding life is reinforced in the following statement by Ngarrindjeri Elder, Tom Trevorrow (deceased):

For Ngarrindjeri all things in our world align; the land, body, spirit, and our story. Our culture creates a world where all things are connected, whether they are living or from the past. The principles that flow from our culture are based upon respect for story, country, old people and family. The following of these principles is contingent upon maintaining a relationship with our country. It is the violation of these respect principles that are manifest through the destruction of the environment and their effect upon the behaviours and survival of ngaijti (the animals, birds and fish). The environment is not separate from Ngarrindjeri; the land is Ngarrindjeri and Ngarrindjeri are the land; all things are connected.

Ngarrindjeri Yannarumi (Speaking as Country) is an expression of Ngarrindjeri rights and responsibilities as 'traditional owners', and is centred on the philosophy that all things are connected. The health of Ngarrindjeri people is thus inextricably linked to the health of their lands and waters within the Ramsar wetland site. From this perspective, and using the language of the ECD, Ngarrindjeri and their responsibilities for Yarluwar-Ruwe can be understood as embodying all components, process and services of the Ramsar site.

Maintaining the health of Yarluwar-Ruwe and the connectivity between parts of this living body is a cultural priority and fundamental to Ngarrindjeri health and wellbeing. For Ngarrindjeri, Creations Ancestors made, and are a part of this living body. Creation stories (cultural and spiritual histories) about Ngarrindjeri Yarluwar-Ruwe reveal the significance of the relationship between the country and the people, both practically and spiritually. Creation stories also explain the richness of 'natural resources' and provide Ngarrindjeri with the laws and lessons for sustainable use, care and management of Yarluwar-Ruwe within the Ramsar site. The NRA is the Ngarrindjeri organisation put into place by the Ngarrindjeri to ensure that Ngarrindjeri Ruwe/Ruwar is healthy and life-giving. Its stated role is to 'Care for our people, lands, waters and all living things'. The following goals have been identified by the NRA for Ngarrindjeri Ruwe/Ruwar to be healthy – Strong Culture, Sovereign First Nation, Secure Future, Healthy Country, Confident People, Creative Economy, Respected History and Regional Leader. These principles prioritise the interconnectivity between people and Country.

Ngarrindjeri, therefore, see all 'components', 'processes', and 'critical services' of the Ramsar site as a consequence of the Kaldowinyeri (Creation); it is the responsibility of present Ngarrindjeri to care for these according to Ngarrindjeri traditional law. Ngarrindjeri Yarluwar-Ruwe requires connectivity, flow, and mixing to occur between all living things, the lands and waters, and the spirit world. Flow and connectivity are critical components/processes along with Ngarrindjeri connectedness and responsibility. Flows come together and mix to reproduce life. Fundamentally, the concept of Ruwe/Ruwar is not about service provision; it concerns the reproduction of Ngarrindjeri wellbeing.

The Ngarrindjeri concept of being (Ruwe/Ruwar) does not separate the lands and waters and all living things into components, processes, benefits and services. For Ngarrindjeri the concept of reciprocal, interconnected benefit helps to explain the fundamental interdependence and cyclical relationship that Ngarrindjeri have with Yarluwar-Ruwe (Sea Country). Ngarrindjeri have a cultural responsibility to maintain the health of their lands and waters as a part of their own living body and through exercising this responsibility they benefit from all aspects of a healthy 'Country'. The *Ngarjti*

(totem) relationship between people and different species, for example, is one of kinship and spirituality and is a crucial aspect of Ngarrindjeri culture (Ngarrindjeri Nation 2006). Western models of intermediate services, final services and benefits are alien to Ngarrindjeri understandings of interconnected benefit. Furthermore the benefits identified in the Ramsar model tend to leave out even straightforward Ngarrindjeri benefits such as fishing and exclude Ngarrindjeri 'human capital' completely.

In 2014 the Ngarrindjeri nation and the South Australian Government entered into an agreement known as the 'Ngarrindjeri Speaking as Country Deed' to facilitate a further program of intervention to keep the Murray Mouth open (see Appendix 1). The following statements by Ngarrindjeri Rupelli (traditional leader), George Trevorrow (deceased) further illustrate the importance of the area:

That's what we're talking about when we call it the meeting of the waters. Those waters, once they start mixing, that is the spiritual waters of this area, and of the Ngarrindjeri. This is where the major connections happen. This is the breeding place for all the *ngatji*, and everything that goes with the mixing of the water underneath the water, so it's very, very important to us spiritually, because those things, as I said, they are closer than a friend to you. They are nearly almost part of you. They speak to you, you speak to them, and this is the place where they all come to (Trevorrow in Bell 2014:563).

Kumarangk (Hindmarsh Island), that area, is the central point for the Ngarrindjeri people... that's why our ngartjis are there. That's the homeland. That's their area....That area is to us, that's our creation area and that's why so many of our stories, of our beliefs and our culture and heritage all revolves from that area outward upon the land of the Ngarrindjeri. It's a rich environment. It supports all the birdlife. You know, you could see that for yourself when you go there but to us Ngarrindjeri people it's a spiritual environment (Trevorrow in Bell 2014:569-70).

The principles that flow from this cultural system are based upon respect for story, country, the old people, elders and family. The pursuit of these principles is contingent upon maintaining a relationship with country. The violation of these respect principles is manifest through the damage to Ngarrindjeri Yarlurwar-Ruwe and their effect upon the behaviours and survival of *ngatji* (the animals, birds and fish). According to these principles and contingent beliefs the 'environment' cannot be compartmentalised: the land is Ngarrindjeri and Ngarrindjeri are the land. Ngarrindjeri philosophy is based on maintaining the integrity of the relationship between place and person. It is the responsibility of the living to maintain this continuity. The past is not and cannot be separated from the here and now or the future. To break connections between person and place is to violate Ngarrindjeri culture (see DEWNR 2013). The practice of this continuity can be understood as Speaking as Country (Yannarumi) – the cultural responsibility for Ngarrindjeri to care for, speak for and exercise cultural responsibility as Ngarrindjeri Ruwe/Ruwar. Ngarrindjeri conceptualise all components and processes as an embodiment of Ruwe/Ruwar and as a consequence of Creation ancestors. Components and processes including those categorised as 'supporting' are all intricately linked through this spiritual connection and are critical to the character of Ngarrindjeri Ruwe/Ruwar.

4.4 Ramsar Resolution IX.21: Cultural characteristics of Ramsar sites

Ramsar Resolution IX.21 (Ramsar 2005) identifies the following cultural characteristics as relevant in the designation of Ramsar sites:

- a) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland;
- b) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland;
- c) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples; and
- d) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland;

The following section provides a specific response to these four criteria. We argue that Criterion A is partly met with the newly emerging recognition and support of Ngarrindjeri cultural responsibilities to speak as and care for Ngarrindjeri Yarluwar-Ruwe. This is supporting Ngarrindjeri concepts of wise-use transmitted through Ngarrindjeri Creation stories. Formal agreements and processes have been developed to support Ngarrindjeri rights and responsibilities and develop partnerships with governments both local and State. KNY agreements and the Speaking as Country Deed are innovative new mechanisms to support the health of Ngarrindjeri Ruwe/Ruwar. Ngarrindjeri have developed an assessment process for determining the health of Ngarrindjeri Ruwe/Ruwar based on the concept of Yannarumi (Speaking as Country). Ngarrindjeri believe that the health of Ngarrindjeri Yarluwar-Ruwe is improving since the first Kungun Ngarrindjeri Yunnan agreement (KNYA) was reached with the Alexandrina Council in 2002. This agreement set a foundation for the 2009 KNYA with State Government that supported Ngarrindjeri to work collaboratively with government to find solutions to the extremely poor health of the Ngarrindjeri Yarluwar-Ruwe in the 2000s.

We argue that criterion B and C are met. Criterion B is met given the antiquity of Ngarrindjeri cultural traditions and Creations Stories associated with the Ramsar site. Creation stories that reflect changes in the environment that were occurring in the last Ice Age are very rare (see Kampf & Bell 2014). The Old People's places (eg middens, burial grounds and other places) throughout the Ramsar site contain evidence of Ngarrindjeri lifeways over thousands of years (see Ngarrindjeri Nation 2006).

Criterion D is clearly met as the Coorong and Lakes Alexandrina and Albert Wetland include a registered Aboriginal heritage site – under the Aboriginal Heritage Act 1988 (SA). The 'Meeting of the Waters'[6626-4727] site was registered in 2009 via a negotiated agreement with the South Australian Government (see Hemming 2009). This site includes the waters and the bed of the lakes, river and estuary. Its spiritual and cultural significance is essential to the wellbeing and productivity of the Ngarrindjeri nation, Ngarrindjeri lands and waters and all living things (see Bell 2008, 2014). The 'Meeting of the Waters' is internationally significant through its uniqueness as a registered Aboriginal site (including the waters) at the mouth of one of the world's most important river

systems. The long legal and political struggle to protect this site, often known as the Hindmarsh Island Bridge Affair, has been resolved through negotiation by the State Government and the Ngarrindjeri Nation. This resolution, and the complexity of the preceding struggle, has made the 'Meeting of the Waters' famous in international legal, historical, archaeological, anthropological and Indigenous contexts (see Cornell 2015b). The 2014 Speaking as Country Deed specifically commits the government to work with Ngarrindjeri to promote an improved understanding of the meaning and significance of the 'Meeting of the Waters site'. In signing a KNYA, parties commit to listening to Ngarrindjeri 'Speaking as Country'. This shift in message from simply listening, to striving for a deeper understanding, is crucial to truly grasping what Ngarrindjeri have been trying to explain since colonisation.

Since the 2006 ECD, Ngarrindjeri have created a new relationship with the State of South Australia through a number of agreements and partnerships which have created a framework for consultation and negotiation for Ngarrindjeri engagement in NRM. This Ngarrindjeri strategy of engagement has provided the framework for better Ngarrindjeri engagement in this ECD and greater mechanism to integrate the Ngarrindjeri 'cultural' character into the description of the Ramsar wetland site. Whilst there are yet to be Criterion that specifically recognise the cultural values of Ramsar wetlands, contracting parties under the Ramsar convention have adopted Resolutions that outline principles to take into account cultural values of wetlands. In conjunction with a number of guiding principles, the four cultural characteristics (responded to above) are provided to guide this process. There is also a greater move towards a more holistic definition of the term 'wetland ecosystem services' as defined under the Ramsar convention, due to the work undertaken since the adoption of the resolutions. The Australian government is obligated as a contracting party under the convention to consider cultural values of wetlands.

For Ngarrindjeri the whole of the Ramsar site was created by Creation Ancestors and has been managed according to Ngarrindjeri law for thousands of years. When the British arrived in South Australia the Ramsar site was not uninhabited, nor in a 'natural' state. Ngarrindjeri management of over thousands of years supported the designation of the 'site' as a Ramsar wetland. As scientific research increases the deep Ngarrindjeri understandings of 'Country' will be appreciated and reflected in environmental science accounts of the Ramsar site.

In 2013 the NRA and DEWNR established a new partnership to investigate how to better include Ngarrindjeri interests and philosophies in the update of the ECD. This new level of engagement is underpinned by the Ngarrindjeri KNYA process with the SA government and was finalised through the establishment of a specific Statement of Commitment (SOC). Through Ramsar ECD SOC, a series of joint initiatives were developed to influence the application of the Ramsar ECD guidelines, and negotiate the use of Ngarrindjeri cultural knowledge. These approaches sought to merge the ECD framework with relevant Ramsar resolutions by taking into account the cultural values of wetlands and better understanding the relationships between indigenous values and wetland conservation and wise use. This strategy of engagement has provided the framework for Ngarrindjeri to secure a more equitable engagement in the update of this Coorong and Lakes Ramsar ECD. Importantly, this approach supports the Australian government's responsibilities under the Ramsar Convention resolutions on the incorporation of cultural values in the effective management of Ramsar sites. It also provides the opportunity to articulate with other key regional plans such as the *Lower Lakes, Coorong and Murray Mouth Environmental Water Management Plan* (MDBA 2014).

In 2002 and 2005, Contracting Parties under the Ramsar Convention adopted two Resolutions that provide rationale and guiding principles for integrating Indigenous and cultural values into conservation, wise-use, ecological character and site management – *VIII.19 Guiding principles for taking into account the cultural value of wetlands for the effective management of sites* (Ramsar Convention 2002) and *IX.21: Taking into account the cultural values of wetlands* (Ramsar Convention 2005). A Ramsar culture working group, established under *Resolution XIII.21* and its wider reaching successor the Ramsar Culture Network, cooperate with UNESCO and other international bodies to ensure that such principles on culture and wetlands are appropriately reflected in strategic planning (see Papayannis & Pritchard 2008, 2013; RCN 2014, RCWG 2012, 2013).⁸ Their recent position papers to the Ramsar Standing Committee characterise the overall Ramsar agenda as a cultural one. They further argue that effectively taking into account culture and wetlands in the implementation of the Ramsar Strategic Plan lies in the interpretation of ‘the full holistic nature of the “ecosystem approach” and “ecosystem services” thinking that underpins most of the Plan’s other strategies...’ (RCWG 2013:2). This understanding reflects the directions undertaken in this ECD attempting to recognise Ngarrindjeri philosophies of being as crucial in determining ecological character, wise use and appropriate conservation strategies for the Coorong and Lakes Ramsar wetland. An updated ECD will better align South Australia’s approach to Ramsar management with the direction that Ramsar is taking in the international context. It further supports the implementation of the *Fourth Ramsar Strategic plan 2016-2024*, in particular, Strategic Goals two and three and other priority areas of focus, which assists in the Australian government to fulfil their obligations as a contracting party under the Convention.

5 Conclusion and Recommendations

This report is theoretical, historical and methodological in scope. The authors have applied an interdisciplinary strategy and write from the perspective of an Indigenous nation and a long-term project that has sought to reassemble the processes that seek to define, contain and locate Indigenous people's relationship to 'Country', often in terms of distinctive categories and a past-oriented discourse (see Hemming & Rigney 2008; Rigney, Bignall & Hemming 2015). This report describes the complex work required by a regional Indigenous nation to bring traditions, values, knowledges and philosophies into the future. This work is being conducted in partnership with Universities, non-Indigenous governments, other Indigenous nations and local non-Indigenous people. These transformations have emerged from a reconfiguration of relations between Ngarrindjeri nation and the settler-State in south-eastern Australia. What is taking place is an ethical and transversal mode of conceptual engagement through shared participation in research and knowledge-formation. These engagements can be mutually enriching, as Indigenous philosophies come to inform new non-Indigenous understandings that better respond to the health needs of both people and environment, and so translate to more effective policy solutions.

Since the 1967 Referendum Ngarrindjeri have begun to see changes to their treatment by wider Australian society. Prior to this time Ngarrindjeri, along with other Aboriginal people, were completely excluded from decision-making that controlled their lives and the health of their Yarlwar- Ruwe (Sea Country - lands and waters). From the mid-1980s Ngarrindjeri began to build new institutions such as Camp Coorong Race Relations and Cultural Education Centre to begin educating the broader Australian society about their culture, identity and traditions. At the heart of this education was an attempt to provide the Ngarrindjeri perspective on the impacts of colonisation to their lives, and their lands/waters, and to explain the unique relationship that Ngarrindjeri have with their Country. Ngarrindjeri worked with the SA Education Department and the SA Museum to educate the non-Indigenous community about this history and Ngarrindjeri understanding of the interconnectedness of the lands and waters, the people and all living things (see Hemming, Rigney & Pearce 2007; Hemming & Rigney 2014). It is important to note that Ngarrindjeri had no say in the Australian Government's designation of the Coorong and Lakes as a Ramsar site in 1985 and have only had the opportunity to begin the process of gaining recognition and respect for Ngarrindjeri perspectives of wise use in the Post-Referendum (1967) era (see Mattingley & Hampton 1988; Hattam, Rigney & Hemming 2007). The Ramsar site remains a site of contestation and negotiation where justice for Ngarrindjeri still requires considerable changes to the settler-State's NRM regimes (see Bell 1998, 2009, 2014; Simons 2003).

The Ramsar Convention defines wise use of wetlands as 'the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development' (Ramsar Convention Secretariat, 2013 in Colloff, Crossman & Overton 2015, p. 1). Ramsar wise-use depends on concepts such as ecosystems services that rely on capitalist models of value and benefit to make connections between what are considered the separate domains of human and nature and wellbeing (see Sullivan 2010; Jackson & Palmer 2015). For Ngarrindjeri, these conceptualisations of wise-use, ecosystem services, capitalist production and wellbeing fail to take into account Ngarrindjeri principles of interconnection, responsibility and reciprocity contained in Ngarrindjeri philosophies such as Ruwe/Ruwar (body, spirit, country and all

living things) and Yannarumi (Speaking as Country). In principle the goals of the Ramsar Convention share objectives and values with Ngarrindjeri philosophies, but the western models imposed in ECDs and the management actions they produce, can have very negative consequences for Ngarrindjeri wellbeing. Indigenous engagement with Ramsar processes requires caution, deep consideration and strategic engagement. Ngarrindjeri, in partnership with Flinders University researchers and the DEWNR, are attempting to transform the Ramsar management process, with its concepts such as ecosystem services, to take into account Ngarrindjeri values and responsibilities. This ground-up, internationally connected, theorised and practical engagement is informed by the work of Indigenous and non-Indigenous scholars writing about: contemporary forms of colonialism; the potential for ex-colonialism; new kinds of assemblages of humans and non-humans; and what is from a western perspective described as posthumanism and from an indigenous perspective greater recognition of the value of indigenous philosophies and scholarship (see Rose 1996; Guattari 2000; Latour 2004; Barad 2007; Bignall 2010, 2014; Byrd 2011; Simpson 2014; Rigney, Bignall & Hemming 2015; Bignall, Hemming & Rigney 2016; Lui *et al.* 2016) . The authors join with Jackson and Palmer (2015, p. 139) in their recent call for revisions to the concept of ecosystem services to take into account and value Indigenous responsibilities to care for/as country.

In its engagement with the development of the updated Coorong and Lakes Ramsar ECD the NRA is conducting a Yannarumi (Speaking as Country) assessment of the health of the Ramsar site addressing the overall wellbeing of Ngarrindjeri Yarluwar-Ruwar. This incorporates an assessment of the health-giving effects of the ECD process that has been collaboratively developed with the SA Government. The Yannarumi assessment highlights the importance of ensuring that regional management plans, policy documents and reports (such as the ECD) reflect Ngarrindjeri responsibilities and cultural principles (eg Ngarrindjeri Ruwe/Ruwar) – this produces healthy outcomes and improved wellbeing for Ngarrindjeri Ruwe/Ruwar. In an attempt to address the compartmentalisation inherent in the existing ECD's representation of a wetland as an ecosystem comprising critical components, processes and 'ecosystem services', Ngarrindjeri have used the Yannarumi framework to address the capacity of the Ramsar site to reproduce Ngarrindjeri wellbeing through what can be translated as a philosophy of interconnected benefit and responsibility. This approach provides Ngarrindjeri leaders with a mechanism for understanding, interrupting and potentially transforming the Western ontologies, epistemologies and practices that seek to redefine Ngarrindjeri Yarluwar-Ruwe in an 'ecological character description' that they know will be influential in determining the value, management and use of the Coorong and Lakes Ramsar site. For Indigenous leaders engaging in the development of a Ramsar ECD in Australia this is an encounter with a complex assemblage of ideas, knowledge and concepts such as 'ecosystem services' and 'cultural services'. Such concepts bring with them potentially imperial technologies of colonialism that seek to de-territorialise Indigenous knowledges and ways of being. Indigenous leaders need to develop political literacy and a savvy understanding of the implications of this engagement for their Indigenous ways of knowing, being and acting.

This ECD is the first attempt at comprehensively bringing Ngarrindjeri understandings of the relationship between healthy lands and waters and all living things into Ramsar wetland planning and management. This innovation emerges out of the new relationship between the South Australian government and Ngarrindjeri, established through the Ngarrindjeri contract law KNY Agreement making process and supported by the Ngarrindjeri partnerships Project (2011), the

Ramsar Ecological Character description Statement of Commitment (SOC) 2014 and the Speaking as Country Deed 2014. This strategy of engagement has provided a more equitable and culturally appropriate framework for Ngarrindjeri to input into this ECD (Appendix 2) and better merges the requirements of the national framework (DEWHA 2008) with Ramsar Convention Resolutions pertaining to culture, wetlands and Indigenous people and Australia's obligations under the United Declaration of the Rights of Indigenous peoples (UNDRIP). This approach enables Ngarrindjeri to Speak as Country - crucial for healthy Ruwe/Ruwar (land, body, spirit) within the Ramsar wetland site. It also supports the delivery of outcomes of the Long Term Plan for the CLLMM region (DEH 2010:2), more specifically sustaining Ngarrindjeri cultural life through adequate flows.

It is clear that, in southern South Australia, natural resource management has been transformed through a sustained Indigenous-led strategy focused on Indigenous nation building. The Ngarrindjeri KNYA process has produced a unique working relationship between an Indigenous nation and non-Indigenous interests represented by the government at all levels, universities and other groups. Key to the Ngarrindjeri strategy has been good governance, increased research, policy and planning capacity and strong local, regional and international partnerships (see Hemming & Rigney 2011; Lui *et al.* 2016). As a marker of the success of this strategy the Ngarrindjeri Yarluwar-Ruwe Program, in partnership with DEWNR, recently won the Australian Riverprize 2015 for delivering excellence in Australian river management.⁹ The success of the NRA model has also inspired a radical and unique policy shift in Indigenous affairs in South Australia with the official introduction in 2016 of Aboriginal Regional Authorities. The centrality of the unique Indigenous relationship with 'Country' remains critical to the Ngarrindjeri vision for a healthy Indigenous nation; engaging with this vision through the NRA programs is now a proven pathway for non-Indigenous projects and programs similarly aimed at fostering the health of communities and their environments. The NRA stresses the need for governments to understand and respect Ngarrindjeri responsibilities to Speak as Country (*Yannarumi*) and to act as an Indigenous nation. This has required attention to re-assembling the actor networks that constitute the contemporary contact zone between Ngarrindjeri and the settler State.

5.1 Recommendations

1. Indigenous co-management of Ramsar sites should be promoted and indigenous values, knowledges and philosophies should structure Character Descriptions, along with western scientific and socio-cultural models;
2. Australian Ramsar Guidelines should be reviewed for alignment with the United Nations Declaration of the Rights of Indigenous Peoples and the *Fourth Ramsar Strategic Plan 2016-2024*;
3. Ngarrindjeri engagement in the re-writing of the Coorong and Lakes ECD should be recognised by the Australian Government as a case study that addresses Target 10 of the *Ramsar Strategic Plan 2016-2024*. Target 10 'The traditional knowledge, innovations and practices of indigenous peoples and local communities relevant for the wise use of wetlands and their customary use of wetland resources are documented, respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention, with a full and effective participation of indigenous peoples and local communities at all relevant levels'.
4. The Ramsar concept of 'wise use' more closely aligns with indigenous philosophies and recognises that people are central to ecosystems – the 'National framework and guidance for describing the ecological character of Australian Ramsar wetlands' should be reviewed to align more closely with the Ramsar concept of wise use and the increasing recognition by Ramsar of indigenous conceptualisations of wise use.
5. A protocol document with an agreed set of values, negotiated between indigenous nations/communities, scientists and local non-indigenous people, should be developed (where appropriate) to set a basis for agreements relating to critical features, sustainable benefits and services and the agreed limits of acceptable change.
6. Indigenous nations need to have direct access to relevant governments and agencies (in the Australian context this refers to Commonwealth Departments) to enable them to provide culturally appropriate explanations of their understandings of, and connections with country;
7. Indigenous nations should be supported to continue their unique roles in the reproduction of healthy wetlands. This principle should be prioritised as a critical and socially just component of wise use and a test of responsible wetland management;
8. All wetland management plans and ecological character descriptions should recognise that lands and waters were managed by indigenous people prior to colonisation and that the resilience of indigenous people post-colonisation has significantly contributed to the health of wetlands and river systems;
9. Resources should be allocated directly to indigenous nations/communities to co-develop Ramsar ECDs and management plans;



Ngarrindjeri water workshop, CSIRO Water-For-Healthy-Country Flagship Project, Camp Coorong, 2007. Photograph from Birkhead *et al.* 2011

¹ We use the term ‘country’ to represent Indigenous understandings of life-worlds that do not incorporate a fundamental western divide between nature and human. For Ngarrindjeri the concept *Ruwe/Ruwar* (lands, waters, all living things, body and spirit) can be translated as ‘country’.

² Ngarrindjeri *Yarluwar-Ruwe* (Sea Country) represents the interconnected characteristics of Ngarrindjeri ‘country’ and incorporates the concept of *Ruwe/Ruwar* (lands, waters, all living things, body and spirit).

³ The KNYA 2009 recognises Ngarrindjeri as the traditional owners of a section of Ngarrindjeri country claimed under Australian native title legislation –Ngarrindjeri & Others Native Title Claim (SC1998/004).

⁴ Steve Hemming and Daryle Rigney co-presented three papers at the 2015 River Symposium in Brisbane. The NRA in partnership with DEWNR had been shortlisted as finalists in the 2015 Australian Riverprize – eventually winning. This led to a delivery of a keynote presentation. The following presentations have included results of research conducted as part of this Goyder project ‘Ngarrindjeri Yannarumi: Ngarrindjeri engagement in NRM, environmental water planning and Ramsar’, Ngarrindjeri Regional Authority, Ngarrindjeri Yarluwar-Ruwe Protocols Workshop: Ngarrindjeri engagement in Ramsar Ecological Character Description, Nunkuwarrin Yunti, Adelaide, 29th July 2015; ‘Ngarrindjeri Yannarumi Assessment – Ramsar Ecological Character Descriptions’ Inter-Nation Summit, Lake Condah, hosted by Gunditj Mirring, 20-21 October 2015; ‘Ngarrindjeri Partnerships: Assessing the health of Yarluwar-Ruwe’, Ecological Society of Australia, Annual Conference, Adelaide, 29th November – 3rd December 2015.

⁵ The Goyder Institute for Water Research was formally acknowledged in the 2015 NRA/DEWNR Australian Riverprize win and the Goyder research projects E.1.7 and E.1.17 were included as case studies in the successful application.

⁶ The NRA has negotiated a ‘Statement of Commitment’ with the South Australian Government dealing with Indigenous engagement in water resource planning in line with the Murray-Darling Basin Plan.

⁷ *Ruppia* is an aquatic plant and a key source of food and nutrients for birds, fish and invertebrates in the Coorong. The key outcomes of the *Ruppia* translocation program SOC include:

1. Culturally appropriate processes for Ngarrindjeri engagement in development and review of the *Ruppia* Translocation Implementation Plan.
2. Ngarrindjeri cultural values and aspirations for restoring the ecological character of the CLLMM region are identified by Ngarrindjeri and appropriately integrated into the *Ruppia* Translocation Project
3. The NRA and DEWNR follow the Cultural Knowledge management protocols to ensure knowledge is protected while being appropriately applied throughout the *Ruppia* Translocation Project

⁸ The Ramsar Culture Network is supported by the recently established Celebrating Culture, Wetlands & Livelihoods Partnership 2015-2017 (Ramsar Convention 2015a).

⁹ The International RiverFoundation's *Riverprize* is Australia's top award for effective and sustainable river basin management. The NRA's win was in partnership with the SA Department of Environment, Water and Natural Resources (DEWNR), and also included support from Flinders University, Goyder Institute for Water Research, the Commonwealth Department of the Environment and the Australian Research Council.

6 References

- Aho L, 2010 'Indigenous Challenges to Enhance Freshwater Governance and Management in Aotearoa, New Zealand – the Waikato River Settlement', *Water Law* 10: 285.
- Appadurai, A, 1990 *Global Culture: Nationalism, Globalisation and Modernity*, Sage, London.
- Armitage, D, Berkes, F, and Doubleday, N, 2010 *Adaptive Co-management: Collaboration, Learning and Multi-level Governance*, University of British Columbia Press, Vancouver.
- Ayre, M, McKenzie, J, 2013 "'Unwritten, unsaid, just known": the role of Indigenous knowledge(s) in water planning in Australia', *Local Environment* 18(7): 753-768.
- Barad, K, 2007 *Meeting the Universe Half-way: Quantum Physics and the Entanglement of Matter and Meaning*, Duke University Press, Durham.
- Bark, RH, Barber, M, Jackson, S, Maclean, K, Pollino, C, and Moogridge, B, 2014 'Operationalising the ecosystem services approach in water planning: a case study of indigenous cultural values from the Murray–Darling Basin, Australia', *International Journal of Biodiversity Science, Ecosystem Services & Management*, <http://dx.doi.org/10.1080/21513732.2014.983549>
- Barker, J, (ed) 2005 *Sovereignty Matters: Locations of contestation and possibility in Indigenous struggles for self-determination*, University of Nebraska Press, Lincoln, NE.
- Battiste, M, 2008 'Research ethics for protecting Indigenous knowledge and heritage: Institutional and researcher responsibilities', in NK, Denzin, YS, Lincoln and LT, Smith (eds), *Handbook of Critical and Indigenous Methodologies*, Sage, London, 497–509.
- Bell, D, (ed) 2008 *Kungun Ngarrindjeri Miminar Yunnan: Listen to Ngarrindjeri women speaking*, Spinifex, North Melbourne.
- Bell, D, 2014 *Ngarrindjeri Wurruwarrin: A world that is, was and will be*, (2nd Edition) Spinifex, North Melbourne.
- Berg, S, (ed) 2010 *Coming to Terms: Aboriginal title in South Australia*, Wakefield Press, Kent Town, SA.
- Bignall, S, 2010 'Affect and Assemblage: Ethics beyond Enjoyment', in S, Bignall and P, Patton (eds), *Deleuze and the Postcolonial*, Edinburgh UP, Edinburgh, 78-103.
- Bignall S, 2014, 'The collaborative struggle for excolonialism', *Settler Colonial Studies*, 4 (4): 340 – 356.
- Bignall S, Hemming S, and Rigney D, 2016 'Three Ecosophies for the Anthropocene: Environmental Governance, Continental Posthumanism and Indigenous Expressivism', Special Edition, *Deleuze and Guattari in the Anthropocene*, *Deleuze Studies* 10(4): 455-478.
- Birckhead, J, Greiner, R, Hemming, S, Rigney, D, Rigney, M, Trevorrow, G, and Trevorrow, T, 2011 *Economic and Cultural Values of Water to the Ngarrindjeri People of the Lower Lakes, Coorong and Murray Mouth*, CSIRO Water-For-A-Healthy-Country Flagship Report, River Consulting, Townsville.
- Berkes, F, 1999 *Sacred Ecology: Traditional Ecological Knowledge and Resource Management* Taylor & Francis, Philadelphia.
- Braidotti, R, 2009 *The Posthuman*, Polity Press, London.
- Byrd, J, 2011 *The Transit of Empire: Indigenous Critiques of Colonialism*, University of Minnesota Press, Minneapolis.
- Colloff, MJ, Crossman, ND, and Overton, IC, 2015 *Ecosystem services from the Coorong, Lakes Alexandrina and Albert Ramsar site*. CSIRO Land and Water, Canberra.

- Comberty, C, Thornton, TF, Wylliede Echeverria, V, Patterson, T, 2015 'Ecosystem services or services to ecosystems? Valuing cultivation and reciprocal relationships between humans and ecosystems', *Global Environmental Change* 34:247–262.
- Coombes, B, Johnson, J, and Howitt, R, 2014 'Indigenous geographies III: Methodological innovation and the unsettling of participatory research', *Progress in Human Geography*, 38(6): 845-854.
- Cornell, S, 2015a "'Wolves have a constitution": Continuities in Indigenous self- government', *International Indigenous Policy Journal*, 6(1), Article 8. DOI: 10.18584/iipj.2015.6.1.8
- Cornell, S, 2015b 'Processes of Native nationhood: The indigenous politics of self- government', *International Indigenous Policy Journal*, 6(4): 1-27. DOI: 10.18584/iipj.2015.6.4.4
- Cosens, B, and Chaffin, BC, 2016 'Adaptive Governance of Water Resources Shared with Indigenous Peoples: The Role of Law', *Water*, 8(3): 97, doi:10.3390/w8030097
- DEH (Department of Environment and Heritage) 2000 Coorong, and Lakes Alexandrina and Albert Ramsar Management Plan, Department of Environment and Heritage, SA, Adelaide.
- DEH 2009 *Securing the Future: Long-term Plan for the Lower Lakes, Coorong and Murray Mouth*, DEH, Adelaide.
- Department of the Environment, Water, Heritage and the Arts (DEWHA) 2008 *National framework and guidance for describing the ecological character of Australian Ramsar Wetlands: Module 2 of the National Guidelines for Ramsar Wetlands : implementing the Ramsar Convention in Australia*, The Department, Canberra.
(<http://www.environment.gov.au/water/wetlands/publications/national-framework-and-guidance-describing-ecological-character-australian-ramsar-wetlands>) Accessed 26th May 2015.
- Department of Environment, Water and Natural Resources (DEWNR) 2013 Coorong and Lakes Alexandrina and Albert Wetland, Information Sheet on Ramsar Wetlands, Government of South Australia, Adelaide.
- Dhimurru 2006 *Yolngu Monuk Gapu Wanga Sea Country Plan: A Yolngu vision and plan for sea country management in north-east Arnhem Land, Northern Territory*, Dhimurru Land Management Aboriginal Corporation, Nhulunbuy, NT.
- Ens EJ, Pert, P, Clarke, PA, Budden, M, Clubb, L, Doran B, Douras C, Gaikwad J, Gott B, Leonard, S, Locke J, Packer J, Turpin G, and Wason S, 2015 'Indigenous biocultural knowledge in ecosystem science and management: Review and insight from Australia', *Biological Conservation*, 181 p.133-149.
- Escobar, A, 2008 *Territories of Difference: Place, Movements, Life, Redes*. Duke University Press, Durham, NC.
- Fourmile, H, 1999 'Indigenous Peoples, the conservation of traditional ecological knowledge, and global governance' in Nicholas Low (ed) *Global Ethics and Environment*, Routledge, London and New York, pp. 215-246.
- Gamage, B, 2011 *The Biggest Estate on Earth: How Aborigines Made Australia*, Allen & Unwin, Crows Nest, NSW.
- Gruenewald, D, 2003 'The Best of Both Worlds: A Critical Pedagogy of Place', *Educational Researcher* 43 (4): 3-12.
- Guattari, F, 2000 *The Three Ecologies*, Athlone, London.
- Haraway, D, 1988 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective', *Feminist Studies*, 14(3): 575-599.
- Haraway, D, 1991 *Simians, Cyborgs and Women: The Reinvention of Nature*, Routledge, New York.

- Hattam, R, Rigney, D, and Hemming S, 2007 'Reconciliation? Culture, nature and the Murray River', in *Fresh Water: New Perspectives on water in Australia*, E, Potter, A, Mackinnon, S, McKenzie and J, McKay, Melbourne University Press, Melbourne, 105-122.
- Hemming, S, 2006 'The problem with Aboriginal Heritage: Translation, Transformation and Resistance'. In G, Worby and L-I, Rigney (eds) *Sharing Spaces: Indigenous and Non-Indigenous Responses to Story, Country and Rights*, API Network, Perth, 305-328.
- Hemming, S, 2009 'Ngarrindjeri Cultural Heritage Management, Colonial Misuse of Water, Climate Change, and Planning for a Future' in *Heritage Management*, 2(2): 252-255.
- Hemming, S, and Rigney, D, 2008 'Unsettling sustainability: Ngarrindjeri political literacies, strategies of engagement and transformation', *Continuum: Journal of Media and Cultural Studies* 22(6): 757-75.
- Hemming, S, and Rigney, D, 2012 'Ngarrindjeri futures: negotiating a future through Caring for Ruwe/Ruwar (lands, waters and all living things)' in P, Figgis, J, Fitzsimons and J, Irving, (eds) *Innovation for 21st Century Conservation*, Australian Committee for IUCN, Sydney, 186-191.
- Hemming, S, and Rigney, D, 2014 *Indigenous engagement in environmental water planning, research and management: Innovations in South Australia's Murray-Darling Basin Region*, Goyder Institute for Water Research, Technical Report Series No. 14/21, Adelaide, South Australia.
- Hemming, S, and Rigney, D, 2015 'Murray River (Murrundi): Ngarrindjeri Nation' (Keynote address) 18th International River *Symposium*, Healthy Rivers – Health Economies, 21-23 September, Brisbane.
- Hemming, S, Rigney, D, and Berg, S, 2010 'Researching on Ngarrindjeri Ruwe/Ruwar: Methodologies for positive transformation', *Australian Aboriginal Studies*, 2: 92-106.
- Hemming, S, Rigney, D, and Berg, S, 2011 'Ngarrindjeri futures: negotiation, governance and environmental management', in *Unsettling the Settler State: Creativity and Resistance in Indigenous Settler-State Governance*, S, Maddison and M, Brigg (eds), Federation Press, Sydney, 98-113.
- Hemming, S, Rigney, D, Berg, S, Rigney, C, Rigney, G, and Trevorrow, L, (in press) 'Speaking as Country: a Ngarrindjeri Methodology of Transformative Engagement' in *Ngiya: talk the law*
- Hemming, S, Rigney, D, Hartman, T, Rigney Jnr, C, Rigney, G, and Sutherland, L, 2015 'Ngarrindjeri Speaking as Country: Innovations in Indigenous engagement in water', 18th International River *Symposium*, Healthy Rivers – Health Economies, 21-23 September, Brisbane.
- Hemming, S, Rigney, D, and Pearce, M, 2007 "'The Meeting of the Waters": Towards a just partnership in the use, management and enjoyment of Ngarrindjeri Ruwe (lands and waters)', in *Fresh Water: New Perspectives on water in Australia*, E, Potter, A, Mackinnon, S, McKenzie and J, McKay, Melbourne University Press, Melbourne, 217-233.
- Hemming, S, Rigney, D, Wallis, L, Trevorrow, T, Rigney, M, and Trevorrow, G, 2007 'Caring for Ngarrindjeri country: collaborative research, community development and social justice', *Indigenous Law Bulletin* 6(27): 6-8.
- Hemming, S, Trevorrow, L, and Rougham, S, 2016 'Ngarrindjeri Worldview (Yarluwar-Ruwe) and the description of Ramsar ecological character', SA NRM Science Conference: Sharing Science, 13-15 April, Adelaide University.
- Hemming, S, Trevorrow, T, and Rigney, M, 2002 'Ngarrindjeri culture' in M, Goodwin and S, Bennett (eds), *The Murray Mouth: Exploring the implications of closure or restricted flow*, Department of Water, Land and Biodiversity Conservation, Adelaide, 13-19.

- Hill, R, Cullen-Unsworth, LC, Talbot, LD, McIntyre, S, 2011 'Empowering Indigenous peoples' biocultural diversity through world heritage cultural landscapes: A case study from the Australian tropical forests, *International Journal of Heritage Studies* 17: 571-590.
- Hoogeveen, D, 2016 'Fish-hood: Environmental assessment, critical Indigenous studies, and posthumanism at Fish Lake (Teztan Biny), Tsilhqot'in territory', *Environment and Planning D: Society and Space*, 34(2): 355-370.
- Howitt, R, Doohan, K, Suchet-Pearson, S, Lunkapis, G, Muller, S, Lawrence, R, Prout, S, Veland, S, and Cross, S, 2013 'Capacity Deficits at Cultural Interfaces of Land and Sea Governance' in R, Walker, T, Jojola, and D, Natcher, (eds) *Reclaiming Indigenous Planning*, McGill-Queen's University Press, McGill-Queens University Press, Montreal and Kingston, 313-338.
- Jackson, S, 2012 'Indigenous Water Management: Priorities for the next five years', in J, Weir (ed), *Country, native title and ecology*, Aboriginal History Monograph 24, ANU E Press and Aboriginal History, Canberra, 163-177.
- Jackson, S, and Langton, M, 2012 'Trends in the recognition of indigenous water needs in Australian water reform: The limitations of "cultural" entitlements in achieving water equity', *Journal of Water Law* 22: 109-123.
- Jackson, S, and Palmer, LR, 2015 'Reconceptualizing ecosystem services: Possibilities for cultivating and valuing the ethics and practices of care', *Progress in Human Geography* 39: 122-145.
- Jackson, S, Pollino, C, Maclean, K, Bark, R, and Moggridge, B. 2015 'Meeting Indigenous peoples' objectives in environmental flow assessments: Case studies from an Australian multi-jurisdictional water sharing initiative', *Journal of Hydrology* 522: 141-151.
- Jackson, S, Tan, P, Mooney, C, Hoverman, S, and White, I, 2012 'Principles and guidelines for good practice in Indigenous engagement in water planning', *Journal of Hydrology* 474: 57-65.
- Janke, T, 1998 *Our Culture: Our future – Report on Australian Indigenous cultural and intellectual property rights*, Michael Frankel & Company, Surrey Hills, NSW.
- Kampf, J, and Bell, D, 2014 'The Murray/Coorong Estuary: Meeting for the Waters?' in E, Wolanski (ed), *Estuaries of Australia in 2050 and Beyond*, Springer, New York, 31-48.
- Kirby M, Bice C., Doody TM, Hemming S, Holland KL, Jolly ID, Mason K, McGinness H, Muller, KL, Nicol JM, Pollino CA, Rigney D, Wallace TA, Ye Q, 2013 *Preliminary Systems Inventory and Project Scoping River Murray Catchment*, Goyder Institute for Water Research Technical Report Series No. 13/9.
- KNYA (Kungun Ngarrindjeri Yunnan Agreement) 2009 Ngarrindjeri Tendi Incorporated, Ngarrindjeri Heritage Committee Incorporated and Ngarrindjeri Native Title Management Committee for and on behalf of the Ngarrindjeri people and The Crown in right of the State of South Australia represented by the Minister for Environment and Conservation, the Minister for Aboriginal Affairs and Reconciliation, the Minister for the River Murray, and the Minister for Agriculture, Food and Fisheries (5 June 2009).
- Latour, B, 2004 *Politics of Nature: How to Bring the Sciences into Democracy*, Harvard University Press, Cambridge, Massachusetts.
- Langton, M, 2006 'Earth, Wind, Fire, Water: The Social and Spiritual Construction of Water in Aboriginal Societies', in B. David, B. Barker and I.J. McNiven (Eds.), *The Social Archaeology of Australian Indigenous Societies*, Aboriginal Studies Press, Canberra.
- Langton, M, Tehan, M, Shain, K and Palmer, L, 2004. *Honour among nations: Treaties and agreements with Indigenous people*, University of Melbourne Press, Carlton South.

- Law, J, 2011 'Knowledge Places', Plenary paper prepared for the workshop, 'Linking STS and the Social Sciences: Transforming 'the Social'?' 28-29th October at Kookmin University, Seoul, South Korea (<http://www.heterogeneities.net/publications/Law2011KnowledgePlaces.pdf>) Accessed 20 September 2014.
- Leonardo, Z. 2013 *Race Frameworks: A Multidimensional Theory of Racism and Education*, Teachers College Press, New York, NY.
- Lui, FW, Kim, MK, Delisle, A, Stoeckl, N, and Marsh 2016 'Setting the Table: Indigenous Engagement on Environmental Issues in a Politicized Context', *Society & Natural Resources*, DOI: 10.1080/08941920.2016.1150541
- Maclean, K, and The Bana Yarralji Bubu Inc. 2015 'Crossing cultural boundaries: Integrating Indigenous water knowledge into water governance through co-research in the Queensland Wet Tropics, Australia', *Geoforum* 59: 142-152.
- McFarlane B, 'The National Water Initiative and Acknowledging Indigenous Interests in Planning', (paper delivered at the *National Water Conference*, Sydney, 29 November 2004).
- Mattingley, C, and Hampton, K, 1988 *Survival in Our Own Land*, Wakefield press, Adelaide.
- Mignolo, W, 2011 *The Darker Side of Western Modernity: Global Futures, Decolonial Options*. Duke UP, Durham.
- Morgan, M, Weir, J and Strelein, L, 2004 *Indigenous Rights to Water in the Murray Darling Basin: In support of the Indigenous final report to the Living Murray initiative*, AIATSIS, Canberra (Research Discussion Paper No. 14).
- Morgan, M, Strelein, L, and Weir, J, 2006 'Authority, knowledge and values: Indigenous nations engagement in the management of natural resources in the Murray-Darling Basin', in M, Langton, O, Mazel, L, Palmer, K, Shain and M, Tehan (eds), *Settling with Indigenous Peoples*, The Federation Press, Sydney.
- Moreton-Robinson 2007 (ed) *Sovereign subjects: Indigenous sovereignty matters*, Allen & Unwin, Crows Nest, NSW.
- Moreton-Robinson, A, 2013 Towards and Australian Indigenous women's standpoint theory: A methodological tool', *Australian Feminist Studies*, 28(73): 331-347.
- Murray-Darling Basin Authority (M-DBA) 2012 *The Plan*, M-DBA, Canberra.
- M-DBA 2014 *Lower Lakes, Coorong and Murray Mouth Environmental Water Management Plan*, M-DBA, Canberra.
- Murray-Darling Basin Commission (M-DBC) 2006 *The Living Murray Environmental Watering Plan 2006–2007*, MDBC Publication No. 36/06, Canberra.
- Nakata, M, 2007 'The Cultural Interface', *The Australian Journal of Indigenous Education* Vol. 36S: 7-14.
- Nason, D, 2010 'Apology to Ngarrindjeri Women', *Advertiser*, Adelaide, July 10, 2010.
- Neale, T, Turner, S, 2015 Turner, S & Neale, T 2015, 'First law and the force of water: law, water, entitlement', *Settler Colonial Studies* 5(4): 387-397.
- Ngarrindjeri Nation 2006 *Ngarrindjeri Nation Yarlurwar-Ruwe Plan: Caring for Ngarrindjeri sea country and culture*, prepared by the Ngarrindjeri Tendi, Ngarrindjeri Heritage Committee and Ngarrindjeri Native Title Management Committee, Ngarrindjeri Land and Progress Association, Camp Coorong, Meningie, SA, <www.environment.gov.au/indigenous/publications/pubs/ngarrindjeri-scp-2006-1.pdf> accessed 5 June 2014.

- Ngarrindjeri Ramsar Working Group 1999 Ngarrindjeri perspectives on Ramsar Issues. Unpublished working paper, Camp Coorong, South Australia.
- Ngarrindjeri Regional Authority (NRA) 2012 NRA Submission to Murray-Darling Basin Authority for and on behalf of the Ngarrindjeri People in relation to the Proposed Basin Plan, 16th April 2012, Berg Lawyers, Adelaide, 4 pgs.
- Ngarrindjeri Regional Authority (NRA) and Department of Environment, Water and Natural Resources (DEWNR) 2012 Coorong, Lower Lakes and Murray Mouth, Ngarrindjeri Partnerships Project, Funding Service Agreement.
- Ngarrindjeri Regional Authority (NRA) and Department of Environment, Water and Natural Resources (DEWNR) 2014 Ramsar Ecological Character Description Statement of Commitment, 1st May 2014.
- Ngarrindjeri Regional Authority (NRA) and Minister for Sustainability, Environment and Conservation, 2014 Ngarrindjeri Speaking as Country Deed, 27th December 2014.
- Nurse-Bray, M, and 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, South Australia.
- Papayannis, T, and Pritchard, DE, 2008 'Culture and wetlands – a Ramsar guidance document', Ramsar Convention Culture Working Group, Gland, Switzerland.
(http://www.ramsar.org/sites/default/files/documents/pdf/cop10/cop10_culture_group_e.pdf) Accessed 6th June 2015.
- Papayannis, T, and Pritchard, DE, 2013 'Wetlands and Culture — a call for participation in the new Ramsar Culture Network'. International Decade for Action 'Water for Life' 2005-2015.
(<http://ramsar.rgis.ch/pdf/culture/Call-RCN.pdf>) Accessed 4th July 2015.
- Pert, PL, Hill, R, Maclean, K, Dale A, Rist, P, Schmider, J, Talbot, L, and Tawake, L, 2014 'Mapping cultural ecosystem services with rainforest aboriginal peoples: Integrating biocultural diversity, governance and social variation', *Ecosystem Services* 13: 41-56.
- Phillips, W, Muller, K, 2006 *Ecological Character of the Coorong, Lakes Alexandrina and Albert Wetland of International Importance*, South Australian Department for Environment and Heritage, Adelaide.
- Pritchard, D, 2013 'Water, wetlands and People: integrating culture and ecology in the Ramsar Convention'. Paper given to International conference on 'Landscapes of water, source of life – traditional water management associations and systems'. Organised by Fundación Valle Salado de Añana in conjunction with UNESCO Etxea Vitoria-Gasteiz, Alava, Basque Country, Spain; 12 -13 July 2013 Annex 7, DOC. SC47-20 pp30-34,
(<http://www.ramsar.org/sites/default/files/documents/library/sc47-doc20-culture-network.pdf>) accessed 6th June 2015.
- Pröpper, M, Haupts, F, 2014 'The culturality of ecosystem services. Emphasizing process and transformation', *Ecological Economics* 108: 28–35.
- Ramsar Convention on Wetlands* 1971
- Ramsar Convention 2005 *Resolution IX.21 Taking into account the cultural values of wetlands*. Adopted by the 9th Conference of the Parties to the Convention on Wetlands (Ramsar, Iran, 1971) 'Wetlands and water: supporting life, sustaining livelihoods, Kampala, Uganda, 8-15 November 2005.

- Ramsar Convention 2015 *The Fourth Ramsar Strategic Plan 2016-2024*,
(http://www.ramsar.org/sites/default/files/documents/library/4th_strategic_plan_2016_2024_e.pdf) accessed 2nd August 2015.
- Ramsar Culture Network (RCN) 2014 Ramsar culture network report on activities from March 2014, DOC.SC47-20, Convention on Wetlands (Ramsar, Iran, 1971), 47th Meeting of the Standing Committee, Gland, Switzerland, March 2014,
(<http://www.ramsar.org/sites/default/files/documents/library/sc47-doc20-culture-network.pdf>) Accessed 6th June 2015.
- Ramsar Culture Working Group (RCWG) 2009 *World Heritage Convention: Challenges and perspectives, Reflections by the Ramsar Convention*.
- Ramsar Culture Working Group (RCWG) 2012 The Ramsar Convention and culture: draft Strategic Action Plan 2012-2016, Ramsar Culture Working Group project funded by the MAVA Foundation.
(http://www.ramsar.org/sites/default/files/documents/pdf/Ramsar_CWG_Strategic-Action-Plan%20draft_v4.pdf) accessed 6th June 2015.
- Ramsar Culture Working Group (RCWG) 2013 'Culture and wetlands in strategic planning for the Ramsar Convention', A contribution from the Ramsar Culture Working Group, with support from the MAVA Foundation, January 2013.
- Rigney, D, and Hemming, S, 2014 'Is "Closing the Gap" Enough? Ngarrindjeri ontologies, reconciliation and caring for country', *Educational Philosophy and Theory*, 46(5): 536-545.
- Rigney, D, Bignall, S, and Hemming, S, 2015 'Negotiating Indigenous Modernity: Kungun Ngarrindjeri Yunnan – Listen to Ngarrindjeri Speak', *AlterNative* 11(4): 334-339.
- Rose, DB, 1996 *Nourishing Terrains: Australian Aboriginal Views of Landscape and Wilderness*, Canberra, Australian Heritage Commission.
- Saunders, S, 2003 'Are they going to pull it down?' *Overland* 171, 60-62.
- Shiva, V, 1993 'Monocultures of the Mind', *Trumpeter* 10, 4.
<http://www.icaap.org/iuicode?6.10.4.11>
- Simons, M, 2003 *The Meeting of the Waters*, Hodder Headline, Sydney.
- Simpson, A, 2014 *Mohawk Interruptus: Political Life Across the Borders of Settler States*, Duke University Press, Durham.
- Smith, LT, 1999 *Decolonizing Methodologies: Research and Indigenous peoples* Zed Books, London.
- Smith, LT, 2012 *Decolonizing Methodologies: Research and Indigenous peoples* (2nd Edition), Zed Books, London.
- South Australian Aboriginal Regional Authority Policy 2016, Government of South Australia, Adelaide.
- Spivak, GC, 1988 'Can the Subaltern Speak?', in G, Nelson and L. Grosberg (eds) *Marxism and the Interpretation of Culture*, Macmillan, London.
- Strelein, L, 2006 *Compromised Jurisprudence: Native Title cases since Mabo*, Aboriginal Studies Press, Canberra.
- Stephens, I, 1995 *Report of the Hindmarsh Island Bridge Royal Commission*, Government of South Australia, Adelaide.
- Stewart-Harawira, M, 2005 *The New Imperial Order: Indigenous responses to globalisation*, Zed Books, London.
- Sullivan, S, 2010 "'Ecosystem Service Commodities" – A new Imperial Ecology? Implications for Animist Immanent Ecologies, with Deleuze and Guattari', *New Formations* 69(6): 111-128.

- Tadaki, M, Allen, W, Sinner, J, 2015 'Revealing ecological processes or imposing social rationalities? The politics of bounding and measuring ecosystem services', *Ecological Economics* 118: 168–176
- Tan, PL, and Jackson, J, 2013 'Impossible Dreaming - does Australia's water law and policy fulfil Indigenous aspirations?' *Environment and Planning Law Journal* 30: 132-149.
- Toussaint, S, 2009, 'For whom the Fitzroy River flows: a fluctuating analysis of social and environmental sustainability and incremental sovereignty' in *Water, Sovereignty and Borders in Asia and Oceania*, Routledge.
- Trevorrow, T, 2003 'A shocking insult', *Overland* 171:62–3.
- Trevorrow, T, and Hemming S, 2006 'Conversation: Kungun Ngarrindjeri Yunnan – Listen to Ngarrindjeri People Talking', in G, Worby and L-I, Rigney (eds), *Sharing Spaces: Indigenous and Non-Indigenous Responses to Story, Country and Rights*, API Network, Perth, WA, pp. 295-304.
- United Nations (UN) 2007 *United Nations Declaration on the Rights of Indigenous Peoples*, UN, New York.
- Veeder, WH, 1964 *Winters Doctrine Rights Keystone of National Programs for Western Land and Water Conservation and Utilization*, *Montana Law Review*, 26, 1-24.
- Weir, J, 2009 *Murray River Country: An ecological dialogue with Traditional Owners*, Aboriginal Studies Press, Canberra.
- Weir, J, 2011, 'Water planning and dispossession', in Connell, D, and Grafton, RQ, *Basin futures: water reform in the Murray-Darling Basin*, ANU Epress, Canberra, 179-91.
- Weir, J, 2012 (ed), *Country, native title and ecology*, Aboriginal History Monograph 24, ANU E Press and Aboriginal History, Canberra.
- Winthrop, RH, 2014 'The strange case of cultural services: Limits of the ecosystem services paradigm', *Ecological Economics* 108: 208–214.

Appendix 1: Speaking as Country Deed 2014

NGARRINDJERI SPEAKING AS COUNTRY DEED

This Deed is made on the day of December 2014.

Between:

NGARRINDJERI REGIONAL AUTHORITY INC of 50 Princes Hwy, Murray Bridge, SA 5253
for and on behalf of the Ngarrindjeri People ('Ngarrindjeri')

-and-

MINISTER FOR SUSTAINABILITY, ENVIRONMENT AND CONSERVATION a body corporate pursuant to the *Administrative Arrangements Act 1994* (SA), to be administered by Department of Environment, Water and Natural Resources (South Australia) of GPO Box 1047 ADELAIDE, South Australia, 5001, ABN 36 702 093 234 ("the Minister")

Recitals:

- A. Ngarrindjeri and the Crown in right of the State of South Australia represented by the Minister for Environment, and Conservation, the Minister for Aboriginal Affairs and Reconciliation, the Minister for the River Murray, and the Minister for Agriculture, Food and Fisheries entered into an agreement titled 'Kungun Ngarrindjeri Yunnan Agreement' on 5 June 2009 ('KNY Agreement').
- B. The KNY Agreement created a respectful basis upon which Ngarrindjeri and the relevant Ministers have been able to develop and expand their relationship.
- C. The Murray Mouth ('Mouth') is a dynamic system, influenced by the flow of River Murray water over the barrages and inward tidal movement from the Southern Ocean. When River Murray flows to South Australia are low, barrage releases are low and sand deposition occurs inside the Mouth causing restrictions and increasing the risk of closure.
- D. It is important that the Mouth stays open to maintain connectivity between the River, the Coorong and the Southern Ocean, to discharge salt and other nutrients out to sea, and to maintain healthy ecosystems in the Coorong.
- E. During the past year, inflow conditions in the River Murray System and South Australia have been relatively low. Since late 2013, as a result of these lower flow conditions, the Mouth has become severely constricted, and is now at risk of closure. The Minister will commence dredging of the Mouth as soon as practicable to maintain an open Mouth.
- F. Dredging has been shown to be the most effective method for keeping the Mouth open under periods of restricted flow over the barrages, in terms of cost and environmental criteria, compared with a range of structural and other methods.
- G. The Parties agree about the importance of freshwater flows down the River Murray.
- H. The Parties acknowledge that the Murray-Darling Basin Plan states an outcome will be pursued of ensuring the mouth of the River Murray is open without the need for

dredging in at least 95% of years, with flows every year through the Murray Mouth Barrages.

- I. The Minister considers that dredging in and around the mouth of the River Murray is necessary for the health of the River Murray, Lower Lakes and Coorong and has requested that the Ngarrindjeri assist in relation to this process. The Minister is committed to ensuring the dredging process is carried out when necessary as quickly and with minimal inconvenience as is reasonably possible.
- J. The Ngarrindjeri assert they have an inherited customary right and duty under their traditional laws and customs to speak for, control and care for their country, knowledge, objects, articles and remains. Ngarrindjeri say:

'The Meeting of the Waters is a fundamental aspect of the Ngarrindjeri world where all things are connected, whether they are living, from the past and/or for future generations. The Meeting of the Waters makes manifest core concepts of Ngarrindjeri culture that bind land, body, spirit, and story in an integrated, interfunctional world. The principles that flow from this cultural system are based upon respect for story, country, the old people, elders and family. The pursuit of these principles is contingent upon maintaining a relationship with country. The violation of these respect principles are manifest through the destruction of Ngarrindjeri yarluwar ruwe (a concept that embodies the connectedness and interfunctionality of their culture) and their effect upon the behaviours and survival of ngatji (the animals, birds and fish). According to these principles and contingent beliefs the "environment" cannot be compartmentalised: the land is Ngarrindjeri and Ngarrindjeri are the land. All things are connected and interconnected. Ngarrindjeri philosophy is based on maintaining the integrity of the relationship between place and person. It is the responsibility of the living to maintain this continuity. The past is not and cannot be separated from the here and now or the future. To break connections between person and place is to violate Ngarrindjeri culture. The objective in undertaking activities upon Ngarrindjeri country should be to not cause violence to Ngarrindjeri culture.'

- K. The Minister recognises that the area in and around the mouth of the River Murray is culturally sensitive and forms part of the Aboriginal Registered Site No. 6626-4727 titled 'the Meeting of the Waters' ('Site'). Ngarrindjeri and the Minister wish to promote a broader understanding of the Site and what actions are desirable to allow it to remain culturally and physically healthy.
- L. The Ngarrindjeri and the Minister wish to implement strategies and programs from time to time where they work together to enhance and foster the cultural well being of the area encompassing the site, including but not limited to achieving fresh water flows down the River Murray sufficient to clear the mouth of the River Murray and support and enhance the inputs of Ngarrindjeri in these processes and activities.
- M. The Minister has agreed to fund the Ngarrindjeri to undertake a number of activities that promote the importance of the Site and develop ways to improve the health of this area.

It is Agreed:

1. Acknowledgements

- 1.1 The Minister repeats the acknowledgments in the KNY Agreement.
- 1.2 The Minister acknowledges that Ngarrindjeri will be guided by their cultural obligations and protocols in devising strategies and programs which are encompassed within the concept of 'Ngarrindjeri speaking as country'.
- 1.3 The Ngarrindjeri acknowledge that the Minister has responsibilities under the Ramsar Convention to maintain the ecological character and Indigenous interest of the Coorong and Lakes Alexandrina and Albert wetland of International importance, including through the maintenance of an open Murray Mouth.

2. Commitment

- 2.1 The Parties commit to together, seek ways to consider Ngarrindjeri rights and to advance Ngarrindjeri interests when decisions are being made about their traditional country, lands and waters including the registered Aboriginal Site titled 'Meeting of the Waters'.
- 2.2 The Ngarrindjeri are committed to ensure that sufficient fresh water is available in the River Murray system at relevant times of the year to enhance the health of the country generally and to minimise the need for interventions in the future, such as the dredging of the mouth of the River Murray.

3. Interpretation and Definitions

- 3.1 The Parties consider the acknowledgments and commitments referred to in this Deed are true and correct.
- 3.2 The following interpretation rules shall apply to this Deed:
 - 3.2.1 Reference to an Act includes any regulations made pursuant to that Act and any Amendments to the Act or Regulations for the time being in force and also to any Act or Regulations passed in substitution therefore.
 - 3.2.2 The singular includes the plural and vice versa
 - 3.2.3 The reference to a person includes a firm, council operation, governmental authority (State or Commonwealth) or body whether incorporated or not.
 - 3.2.4 Reference to a clause means a clause in this Deed.
 - 3.2.5 The meaning of a word or words followed by the word "includes" or "including" is not limited only to the meaning of the word or words following the word "includes" or "including"

3.2.6 Words and phrases defined in the *Aboriginal Heritage Act 1988* have the same meaning in this Deed.

3.2.7 Headings are for convenience of reference and do not affect the interpretation of this Deed;

3.3 The following words have the meanings set out below:

“**NTA**” means the *Native Title Act (1993)* (Cth) as amended;

“**Party/Parties**” means the Minister and the Ngarrindjeri.

4. Funding to Ngarrindjeri

4.1 The funding as agreed to be supplied by the Minister to the Ngarrindjeri Regional Authority on behalf of the Ngarrindjeri by way of Deed of Grant dated 27 December 2014 and will be applied in the following way:

4.2 To establish and support a Working group to develop proposals to be considered by the Minister to:

4.2.1 Promote greater community understanding by the public and relevant statutory bodies of Ngarrindjeri traditions, culture, laws and spiritual beliefs in the River, Coorong and Lakes Alexandrina and Albert, and adjacent areas including a specific focus upon of the Site, including by way of cultural education, interpretive signage and digital media presentations;

4.2.2 Devise strategies and undertake discussions with each other and other parties which endeavour to assist in obtaining water flows down the River Murray at relevant times of the year and otherwise maintain the general health of the Site and its surrounds and to minimise the need for interventions in the future, such as the dredging of the Mouth;

4.2.3 Identify potential funding sources for such activities;

4.2.4 Provide Ngarrindjeri input to inform decisions being made about the lands and waters of the Site and surrounds;

4.2.5 Facilitate, monitor and progress those proposals that are approved.

5. Advancing Relationship

- 5.1 The Parties acknowledge that to achieve successful and lasting outcomes, the discussions between them must embody:

5.1.1 Commitment

There must be a serious resolve and commitment by each of the Parties to reach an outcome. Subject to the availability of resources, the Parties must endeavour to match their commitment with sufficient resources to support the process.

5.1.2 Fairness

The process must provide a level playing field where no party is disadvantaged because of the process.

5.1.3 Effectiveness

The process must encourage processes which are efficient, and avoid creating barriers to progress.

5.1.4 Understandable

Each party should clearly understand its duties and responsibilities in the process.

6. Working Group

- 6.1 Upon the principles expressed in Clause 3.1 of this Deed, Ngarrindjeri and the Minister have agreed to form a working group about the matters referred to in Clause 2.1 of this Deed.
- 6.2 The working group shall meet from time to time on a regular basis, and in any event no less than every three (3) months, to formulate the strategies committed to in Clause 2.1 herein.
- 6.3 The persons comprising the working group shall consist of 3 representatives of each party to this Deed to be nominated by the respective parties from time to time.

7. Dredging of the Mouth and related matters

- 7.1 The Minister shall, through his representatives (including but not limited to public servants or contractors) in undertaking the dredging, comply with the dredging conditions as described in Schedule 1 of this Deed.
- 7.2 The Minister commits to consult with Ngarrindjeri about any changes to the dredging conditions including proposed dredging depth parameters, stop work protocols for the dredging contractor, and to support their perspectives being taken into account in the design of the proposed dredging channel configuration.

- 7.3 The Parties state that the plans for dredging as set out in Schedule 1 (or as agreed from time to time by the Parties to this Deed) is an appropriate risk management strategy to ensure that the dredging activities will not damage, disturb or interfere with the Site.
- 7.4 The Minister will seek to procure with SA Water to permit Ngarrindjeri people safe access to the dredging activities.
- 7.5 Each party will advise the other which person is the nominated Project Co-ordinator for the purposes of Schedule 1.

8. Term of Deed

- 8.1 This Deed comes into effect upon execution hereof by both Parties and will continue, unless terminated by either party or by mutual agreement. The Ngarrindjeri agree to not bring this Deed to an end before 30 June 2016, without the agreement of the Minister. The Parties will undertake a review of the Deed prior to 29 May 2016 to consider future arrangements.

9. Disputes

- 9.1 The Parties record their intention that, if any dispute or difference arises out of or in relation to this Deed, it is to be resolved in a spirit of good faith between senior representatives of each Party and adopt agreed procedures as required from time to time.

10. Waiver

- 10.1 A Party's failure or delay to exercise a power or right does not operate as a waiver of that power or right.
- 10.2 The exercise of a power or right does not preclude either its exercise in the future or the exercise of any other power or right.
- 10.3 A waiver is not effective unless it is in writing.
- 10.4 Waiver of a power or right is effective only in respect of the specific instance to which it relates and for the specific purpose for which it is given.

11. Assignment

- 11.1 Neither Party may assign, license or otherwise deal with the benefit of any of its rights under this Deed to any person without the prior written approval of the other Party.

12. Proper Law

- 12.1 The proper law of this Deed is the law of or applicable in South Australia.

13. Notices

- 13.1 Notices given by one Party to another pursuant to this Deed shall be in writing and sent to the respective addresses and shall be deemed served at the time of transmission if sent by facsimile or email or upon the earlier of four (4) clear working days if posted by ordinary pre-paid post (if posted within Australia) of the date of actual receipt. For the purposes of this clause the addresses to which notices are to be sent shall be –

For the Ngarrindjeri:

Shaun Berg
Berg Lawyers
37 Hurtle Square
ADELAIDE SA 5000
Telephone: (08) 8232 4360

For the Minister:

Janice Goodwins
Program Leader, Strategy and Business
Department of Environment, Water and Natural Resources
GPO Box 1047
ADELAIDE SA 5001
Telephone: (08) 8204 9069

EXECUTED as a Deed

Signed for and on behalf of the **NGARRINDJERI**)
REGIONAL AUTHORITY INCORPORATED)
for and on behalf of the Ngarrindjeri People)

.....
Signature of authorised person

.....
Name of authorised person
(BLOCK LETTERS)

.....
Witness

SIGNED for and on behalf of the)
MINISTER FOR SUSTAINABILITY,)
ENVIRONMENT AND CONSERVATION)
by his duly authorised delegate)
SIGNED by:)
Acting Chief Executive, Department)
of Environment, Water and Natural)
Resources)

Dated:

In the presence of:

Witness Print Name:

SCHEDULE ONE – DREDGING CONDITIONS

Section 4.5.1 of the Murray River Mouth Dredging Plan, November 2014

1. The Minister will employ a cutter suction dredge to remove sand obstructing the Mouth, and will seek to maintain water flow through both Goolwa and Tauwitschere channels to the specifications defined below, which are estimated to be within the accumulated sand within the estuary.
2. The Cutter Suction Dredging is proposed to be undertaken on a 24 hour, 7 days a week schedule and each dredger can pump up to 4,000m³ of sand per day for deposition in the approximate vicinity of the high water mark of the ocean beaches of both Sir Richard Peninsula and Young Husband Peninsula;
3. Both Parties acknowledge that it is intended that a single dredger will operate for the initial month and then a second dredger will be operated for at least the next 17 weeks. The Minister's Project Coordinator will maintain regular consultation with the Ngarrindjeri Project Coordinator regarding the dredge operations, and any planned changes.
4. The Minister asserts that the material to be dredged from the Murray Mouth has been recently deposited via tidal processes from the Southern Ocean.
5. It is proposed that the channels be dredged in both the Goolwa and Tauwitschere Channels will have the following approximate dimensions:
 - 5.1 To a depth of -3.0 metres;
 - 5.2 To a width of 80 metres;
 - 5.3 For such length as is professionally recommended.
6. The term "**Cutter Suction Dredging**" for Schedule 1 means dredging that is undertaken through the cutter suction method of removal of materials by pumping sludge into a dewatering dam or similar structure, and is primarily employed for large dredging operations, or operations that take place in deep water. This dredge utilizes a cutting mechanism at the suction inlet to loosen materials and transports it to the suction mouth and causes significant disturbance of and damage to materials interacting with the cutter.

Appendix 2: Ramsar Ecological Character Description Statement of Commitment (SOC) 2014

Ramsar Ecological Character Description Statement of Commitment

Between the

Ngarrindjeri Regional Authority Inc.

And the

Partnerships and Stewardship Group, Department of Environment, Water and Natural Resources

1. Guiding Principle

The land and waters is a living body.
We the Ngarrindjeri people are part of its existence.
The land and waters must be healthy for the Ngarrindjeri to be healthy.
(Tom Trevorrow, Ngarrindjeri Elder, 2002)

Ngarrindjeri have a unique philosophy regarding the connectivity of country / body / spirit (Ruwe/Ruwar - country / body / spirit). Ngarrindjeri Ruwe/Ruwar frames Ngarrindjeri rights and responsibilities as traditional owners and is centred on an understanding that all things are connected. As such, Ngarrindjeri view cultural heritage and natural resource management as inseparable.

Ngarrindjeri have a long-term aspiration to be centrally involved in development, planning and implementation of natural resources management in their traditional lands and waters. These aspirations have been acknowledged by the South Australian Government in the *Kungun Ngarrindjeri Yunnan Agreement* (KNYA), 2009. These aspirations are also aligned with the State's responsibilities under Ramsar Conference of the Parties Resolutions (VIII.19, and IX.21) to take cultural values into account for the effective management of Ramsar sites.

The Parties acknowledge that Ngarrindjeri hold a depth of Cultural Knowledge and understanding of their traditional lands and that Ngarrindjeri custodianship has shaped the regions ecological character over thousands of years. The Parties acknowledge the critical importance of a strong partnership for the effective review of the current Coorong and Lakes Alexandrina and Albert Ramsar site's Ecological Character Description (ECD) and development of the site's associated management plans and their implementation. This Statement of Commitment (SCO) establishes an equitable framework to support engagement with Ngarrindjeri in the review of the ECD.

2. Overview

2.1 Ecological Character Description

Ecological character is the combination of the ecosystem components, processes, benefits and services that characterise a wetland at a given point in time (Ramsar Convention 2005a, Resolution IX.1 Annex A). Changes to the ecological character of the wetland outside natural variations may signal that uses of the site or externally derived impacts on the site are unsustainable and may lead to the degradation of natural processes, and thus the ultimate breakdown of the ecological, biological and hydrological functioning of the wetland (Ramsar Convention 1996, Resolution VI.1).

As part of the Ramsar Convention, contracting parties are expected to manage their Ramsar sites so as to maintain the ecological character of each site, and remain informed of any changes to the ecological character of Ramsar sites. The Ecological Character Description of a wetland provides the baseline description of the wetland at a given point in time and can be used to assess changes in the ecological character of these sites. A National Framework titled '*Describing Ecological Character of Ramsar Wetlands*, 2005' has been developed to establish a standard method for describing ecological character for wetlands in Australia.

Coorong and Lakes Alexandrina and Albert ECD

The current Coorong and Lakes Alexandrina and Albert ECD Report (ECDR) was finalised in 2006 by Phillips and Muller. The Department of Environment, Water and Natural Resources (DEWNR) is currently reviewing the ECD as part of the Coorong and Lower Lakes (CLMM) Recovery Project. DEWNR is required to submit a draft ECDR to the Department of Sustainability, Environment, Water, Populations and Communities (DSEWPaC) by the end of 2014/15. DSEWPaC is responsible for the finalisation of the ECDR by the end of 2015/16. The current timetable for the review is summarised in the table below.

Year	Outputs
2011/12 (Year 1)	<ul style="list-style-type: none"> • Evaluation of current ECDR with ECD guidelines • Review of existing data for the site and implications for ECD • Development of the Limits of Acceptable Change (LAC) and metrics for the site • Ecosystem Services preliminary method identification • Development of a draft outline of updated ECD Report
2012/13 (Year 2)	<ul style="list-style-type: none"> • Review of existing data for the site, access requirements and implications for ECD • Continued development of LAC and metrics for the site • Preliminary list of potential ecosystem services for ECD
2013/14 (Year 3)	<ul style="list-style-type: none"> • Engagement with DSEWPaC for update requirements of ECD and CLMM community via the CAP and Ngarrindjeri via this SOC for draft ECD content • Refinement of the ECD outline/contents page • Initiate ECD Report content development • Develop a statement of commitment with NRA for review of ECD Report content and development of cultural character element
2014/15 (Year 4)	<ul style="list-style-type: none"> • Development of final LAC and management triggers for inclusion in draft ECD Report • Draft development of Monitoring Framework (i.e. monitoring needs for ecological character – which is separate to the Monitoring Framework developed for the Monitoring project element) • Draft of updated ECD Report provided to DSEWPaC following internal consultation • Incorporation of cultural character information
2015/16 (Year 5)	<ul style="list-style-type: none"> • Development of the final Monitoring Framework (using LAC and updated ECD) as a recommended framework for the monitoring and management of the site • Draft of updated ECD Report provided to DSEWPaC following internal consultation • Submission of final updated ECD Report

2.2 Ngarrindjeri engagement

Ngarrindjeri engagement in this SOC is underpinned by a series of aligned contractual arrangements that are further informed by Ramsar Guidelines. These are described below.

The KNYA establishes a consultation and negotiation framework between the State and Ngarrindjeri Regional Authority (NRA). DEWNR acts as the lead agency for the State in consulting with Ngarrindjeri in regard to the CLLMM Recovery Project and broader Departmental business.

The KNYA commits DEWNR to support the participation of Ngarrindjeri in CLLMM Recovery Project activities and ensuring cultural values are integral to future planning and management of the CLLMM region. DEWNR and NRA recognised the importance of Ngarrindjeri involvement in the review of the ECD and development of the ECDR and have sought to establish an equitable, appropriate and transparent process to ensure that involvement. The Parties resolved to establish the Ngarrindjeri ECD Working Group (hereafter referred to as the Working Group) to coordinate Ngarrindjeri engagement. The first meeting of the group occurred on the 16th of April 2013 and it was resolved at this meeting to develop this Statement of Commitment to guide the way the two Parties will work together.

In 2012 DEWNR and the NRA entered into the long-term CLLMM Ngarrindjeri Partnerships Project funding and service agreement (the 'Agreement'). NRA's participation in the review of the ECDR is supported by this Agreement. The Agreement contains contractual clauses for the protection and management of Ngarrindjeri Cultural Knowledge that is appropriately shared, used or divulged in respect of the Ngarrindjeri Partnerships Project, this SOC and the ECDR development. DEWNR has developed a procedure for officers engaging Ngarrindjeri as part of the CLLMM Recovery Project in respect of Cultural Knowledge to assist them to comply with the requirements of the Agreement.

Ramsar has official guidelines for establishing and strengthening Indigenous people's participation in the management of wetlands (Ramsar COP Resolutions VIII.19, and IX.21). The guidelines create a framework for Ramsar States to enable Indigenous people to contribute to developing effective management arrangements, that contribute significantly to effective conservation as well as contributing to community well-being and more equitable access to resources.

2.3 Purpose

This SOC between DEWNR and the NRA establishes an agreed process to involve Ngarrindjeri in the review of the ECD and development of the ECDR. The SOC intends to support the integration of Ngarrindjeri values, perspectives, and philosophies into the ECDR as per the relevant Ramsar Resolutions (VIII.19, and IX.21). This approach aims to better acknowledge and value Ngarrindjeri and respect their Traditional Ownership and customary rights and responsibilities to care for country. The SOC also aims to influence the process of ECD and its inherent western scientific approach of removing people from place.

The SOC outlines a range of aspirations, principles, objectives and actions that NRA and DEWNR will utilise to support participation of Ngarrindjeri in the ECD review. The document establishes mutual intentions for the period of the development and review of the ECD. It is not intended to give rise to any enforceable rights or binding obligations on the part of either NRA or DEWNR. The SOC does not commit funding provision. Ngarrindjeri participation in this SOC, Working Group and related planning is to be reported against the Ngarrindjeri Partnerships Project. Ngarrindjeri participation in this SOC has been incorporated into long-term delivery of the CLLMM Ngarrindjeri Partnerships Project.

The SOC supports DEWNR in implementing a range of DEWNR Corporate Plan 2012-14 Priorities (1a, 1b, 1g, 2b, and 2c) and targets under the South Australian Strategic Plan 2011 (69, 72, 44 and 28). The SOC also supports DEWNR implementing the intent of the KNYA through the integration of Ngarrindjeri cultural values into natural resource management planning in the Ngarrindjeri region.

This SOC does not affect any Native Title rights and interests of the Ngarrindjeri People.

2.4 Definitions and Interpretations

- 2.4.1 **Caring for country** is a phrase used by Aboriginal people including the Ngarrindjeri to describe the critical importance of looking after their relationships with their traditional lands.
- 2.4.2 **CLLMM Recovery Project** means Coorong, Lower Lakes and Murray Mouth Program, funded under the Murray Futures Program.
- 2.4.3 **CLLMM Region** means the land and waters within and surrounding the Coorong, Lower Lakes and Murray Mouth.
- 2.4.4 **Cultural Knowledge** means all and any cultural knowledge, whether such knowledge has been disclosed or remains undisclosed by the Aboriginal people represented by the Ngarrindjeri, including but not limited to:
 - a. Traditions, observances, customs and beliefs
 - b. Songs, music, dances, stories, ceremonies, symbols, narratives and designs
 - c. Languages
 - d. Spiritual knowledge
 - e. Traditional economies and resources management
 - f. Scientific, spatial, agricultural, technical, biological and ecological knowledge;

And includes the manifestation of such Cultural Knowledge in documentation and other forms of media arising therefrom including but not limited to archives, films, photographs, videotape or audiotape, subject to any intellectual property rights owned by third parties in any such manifestation.
- 2.4.5 **Cultural Landscape** means the way in which the CLLMM region has been shaped by Ngarrindjeri custodianship and also includes Ngarrindjeri spiritual beliefs on the formation and shaping of the region by Ancestral beings.
- 2.4.6 **DEWNR** means Department of Environment, Water and Natural Resources.
- 2.4.7 **ECD** means Ecological Character Description and is a process of documenting the ecosystem components, processes, benefits and services that characterise a Ramsar wetland at a given point in time.
- 2.4.8 **Ecosystem services** means the wellbeing, life ways and livelihoods humans derive from resources and processes that are supplied by natural environments.
- 2.4.9 **Funding and Service Agreement** means the agreement on funding and service arrangements executed by the Minister for Sustainability, Environment and Conservation and NRA, Ngarrindjeri Heritage Committee and Ngarrindjeri Native Title

Management Committee and Ngarrindjeri Tendi Incorporated for and on behalf of the Ngarrindjeri on 2 April 2012.

- 2.4.10 KNYA** means (whole of government) Kungun Ngarrindjeri Yunnan Agreement (listening to Ngarrindjeri people speaking) executed between SA Government and Ngarrindjeri Tendi Inc, Ngarrindjeri Heritage Committee Inc and Ngarrindjeri Native Title Management Committee for and on behalf of the Ngarrindjeri on 5 June 2009.
- 2.4.11 Ngarrindjeri Partnerships Project** means the CLLMM Program funded project to support Ngarrindjeri participation and core capacity development.
- 2.4.12 NRA** means Ngarrindjeri Regional Authority Inc.
- 2.4.13 Parties** means the entities listed at clause 2.5.
- 2.4.14 Ramsar** means The Convention on Wetlands of International Importance (Ramsar Convention) and is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.
- 2.4.15 Ruwe/Ruwar** means country, body and spirit.
- 2.4.16 Statement of Commitment (SOC)** means this document.
- 2.4.17 Working Group** means the Ngarrindjeri Vegetation Management Plan Working Group with representatives from Ngarrindjeri and CLLMM Program.
- 2.4.18 Yarlular–Ruwe** means Ngarrindjeri sea country.

2.5 Parties

The Parties to this SOC are the:

- Ngarrindjeri Regional Authority Incorporated ('NRA')
- Major Projects Branch, Department of Environment, Water and Natural Resources (DEWNR)

2.5.1 Parties Representatives

- NRA is represented by Clyde Rigney and Barry Lincoln and Co-Directors of the NRA Research Policy and Planning Unit (RPPU) based at Flinders University, Daryle Rigney and Steve Hemming.
- Major Projects Branch is represented by Jason Higham, Lachlan Sutherland and nominated DEWNR representatives.

2.6 Geographic Scope

- 2.6.1** The geographic extent of the SOC will cover the area identified and known as the Ngarrindjeri and Others Native Title Claim area.
- 2.6.2** The geographic extent of the ECD is the boundary of the Ramsar site.

3. Ngarrindjeri and SA Government Strategic Platform

A number of strategies and agreements underpin the SOC including:

- 1998, Ngarrindjeri perspectives on Ramsar Issues: Ngarrindjeri / Ramsar Working Group report.
- 2002, The Murray Mouth – Exploring the implications of closure or restricted flow.
- 2006, Ngarrindjeri Yarlurwar-Ruwe Plan.
- 2006, Coorong and Lakes Albert and Alexandrina Ecological Character Description Report.
- 2006-2007, The Lower Lakes, Coorong and Murray Mouth Icon Site Environmental Management Plan.
- 2008, Ngarrindjeri Regional Partnership Agreement ('NRPA').
- 2009, (Whole of Government) Kungun Ngarrindjeri Yunnan Agreement (KNYA) (NRA and South Australian Government).
- 2009, CLMM Long Term Plan Business Case: Ngarrindjeri Partnerships component.
- 2012, CLMM Ngarrindjeri Partnerships Funding and Service Agreement.

4. Principles

The Ngarrindjeri people have occupied, enjoyed, managed and used their inherited lands and waters within the area of the River Murray, Lower Lakes, Coorong and adjacent areas since creation. Creation stories and oral traditions have been passed down from generation to generation and with them a detailed knowledge of *Yarlurwar-Ruwe* (sea country).

Ngarrindjeri have a unique philosophy regarding the connectivity of country / body / spirit. Ngarrindjeri Ruwe/Ruwar (country / body / spirit) concerns Ngarrindjeri rights and responsibilities as traditional owners and consideration that all things are connected. Ngarrindjeri also see their homelands as a cultural landscape, shaped during the creation by Ancestral beings and by the management of Ngarrindjeri as custodians of the land. Ngarrindjeri oral histories document changes in the ecological character of the region over millennia and their traditional ecological knowledge of the Ramsar site, including connectivity with the surrounding lands is deep.

Ngarrindjeri had limited participation in the listing of the Coorong and Lakes Albert and Alexandrina Ramsar site, and the ensuing review of the site's ecological character, development of ECDR's, and development of associated management planning. This has partly been due to inappropriate engagement and consultation methodologies. Ngarrindjeri desire to establish new ways of working in partnership with the South Australian Government to ensure their cultural values and perspectives are respectfully, equitably and appropriately integrated into the management of the Ramsar site.

The Parties acknowledge that Ngarrindjeri have interests that extend beyond the Ramsar boundary and that Ngarrindjeri participation in the ECD process is being undertaken as part of a holistic Ngarrindjeri approach as described in the Ngarrindjeri Yarlurwar-Ruwe Plan, 2006.

Ngarrindjeri philosophies give rise to the following principles that will guide this SOC:

1. Respectful processes, time and support to Ngarrindjeri to care for country (that means caring for people, past, present and future).
2. The ECD review and development of the ECDR accommodates Ngarrindjeri Ruwe / Ruwar – (country/body/spirit).
3. Cultural Knowledge and intellectual property is protected across Ngarrindjeri engagements with government and research organisations.
4. Ngarrindjeri cultural values integral to all planning and future management arrangements.
5. Active Ngarrindjeri participation in planning and future management arrangements through employment, education and training opportunities.

5. Outcomes and Activities

The key outcomes of this SOC include:

1. NRA, and its Research, Policy and Planning Unit (NRA RPPU), develop a long-term Ngarrindjeri strategy for engagement with the Ramsar site that incorporates the deep cultural knowledge associated with the 'Meeting of the Waters' into an Ngarrindjeri character description.
2. Ngarrindjeri character description to accompany the ECDR.
3. Integration of Ngarrindjeri Ruwe/Ruwar philosophy into the ECDR – this includes the integration of Ngarrindjeri Creation stories and 'cultural landscape' perspectives into the ECDR where appropriate.
4. Collaborative case study regarding the character of the registered 'Meeting of the Waters' site that brings together both Ngarrindjeri and western science perspectives and observations.
5. A description of the services the Ramsar site provides to Ngarrindjeri for inclusion in the ECDR (likely to be covered by other points above).
6. Inclusion of Ngarrindjeri perspectives of changes to the character of their lands and waters since Ramsar listing that also incorporates changes since colonisation.
7. Recognition of Ngarrindjeri language and naming where appropriate.

The Outcomes listed above will be achieved through the implementation of the Activities provided below. (See Attachment 1 for tasks under each activity).

Activities:

1. Development of a stand alone Ngarrindjeri report to accompany the ECDR – the content, methodology and style of this report will be developed by the NRA and its Research, Policy and Planning Unit (NRA RPPU).
2. NRA report on identifying Ramsar Resolutions, guidelines, and other relevant strategies or reports aimed at representing / maintaining Ngarrindjeri cultural values
3. Meetings between NRA, DEWNR and DSEWPac to discuss the integration of Ramsar Resolutions related to cultural values and Ngarrindjeri perspectives in the ECD review and development of the draft ECDR
4. NRA and DEWNR review of the draft ECDR layout to clarify where Ngarrindjeri related input will be best placed.
5. NRA determine appropriate creation stories and co-naming protocols for DEWNR's inclusion in the draft ECDR.

6. Series of workshops between NRA, and its RPPU and relevant western scientists to develop a collaborative statement regarding the cultural and ecological character of the registered 'Meeting of the Waters' site.
7. NRA provision of content to the draft ECDR as agreed in the review process at 5, as well as considering additional inputs in agreement with DEWNR.
8. Promoting NRA and DEWNR engagement in the ECD review process and this SOC, to relevant State and Commonwealth organisations.

6. Working Relationship

The Parties to this SOC have formed the Working Group including representatives from the Ngarrindjeri Regional Authority, NRA Research, Policy and Planning Unit (NRA RPPU) and Major Projects Branch, DEWNR. The role of the Working Group is to oversee the implementation of this SOC and to ensure the intended outcomes and activities are mutually achieved.

The Working Group does not have the authority to amend the National Framework '*Describing Ecological Character of Ramsar Wetlands, 2005*' but will facilitate discussions between NRA and DSEWPaC regarding how this framework can better accommodate Aboriginal interests and perspectives. The Working Group will contribute to the review of ECD and the development of the draft ECDR but acknowledge that DSEWPaC holds the authority to approve the final ECDR.

The Working Group will give consideration to matters of Ramsar site management, but the Parties acknowledge that at present, the ECDR is a separate process to the development of the Ramsar Site Management Plan. The Working Group's primary focus is the ECD review and the ECDR.

The Working Group will:

- o Jointly develop and commit on baseline principles, actions and outcomes that can be reported against for the duration of this SOC;
- o Meet monthly (or otherwise agreed) to assist in the implementation, management and monitoring of activities under this SOC;
- o Be responsible for the implementation of the activities specified in this SOC;
- o Agree on any additional activities required for partnership in planning;
- o Monitor and evaluate progress against the activities specified in this SOC and any new activities developed; and,
- o Table Working Group reports to KNYA Taskforce meetings.

The DEWNR Aboriginal Partnerships Coordinator will facilitate the Working Group meetings and provide support to the DEWNR Restoration program team in preparations for meetings. DEWNR and the NRA will rotate minute taking responsibilities.

7. Ngarrindjeri research and consultation processes

NRA representatives on the Working Group will undertake consultation and research into matters relevant to this SOC with the Ngarrindjeri Yarluwar-Ruwe (NY-R) Program and if relevant, broader Ngarrindjeri community. The NY-R Program will be responsible for endorsing Ngarrindjeri input to the ECDR before it comes to the Working Group.

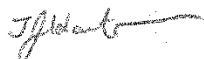
This research and consultations will occur as required and may require flexibility in timing given cultural protocols and the availability of the right people. It is understood that Cultural Knowledge and the reasons behind specific Ngarrindjeri decisions may not be divulged but the outcomes will be incorporated into the planning process.

8. Duration of Statement of Commitment

This SOC commences on the date of signing by all Parties and will continue for the duration of the ECD review (June 2016) or until the Parties agree to terminate the SOC or prepare another document that replaces this SOC.

This Statement of Commitment was made on Thursday the 1st of May 2014

Signed for and on behalf of the PARTIES



Mr Tim Hartman
Chairperson
Ngarrindjeri Regional Authority Inc.



John Schutz
Group Executive Director
Partnerships and Stewardship
Department of Environment, Water and Natural Resources

Ramsar ECD Statement of Commitment Activity Plan

Activity	Sub-Activities	Due date
1. NRA report identifying Ramsar Resolutions, guidelines, and other relevant strategies or reports aimed at representing / maintaining Ngarrindjeri cultural values.	1.1 Literature review of resolutions, guidelines and other relevant strategies	October 2013
	1.2 Draft report outlining relevant resolutions, guidelines and other relevant strategies.	November 2013
	1.3 Finalise report	31 Dec 2013
2. Meetings between NRA, DEWNR and DSEWPaC to discuss the integration of Ramsar Resolutions related to cultural values and Ngarrindjeri perspectives in the ECD review and development of the draft ECDR.	2.1 Prepare background and specific questions for DSEWPaC consideration and comment and obtain NY-R endorsement (to include scope relating to current Ngarrindjeri engagement and proposed ARC partnership).	31 Dec 2013
	2.2 Confirm agreement on the terms of meeting and undertake meeting in Canberra	Jan to Mar 2014
3. NRA and DEWNR review of the draft ECDR layout to clarify where Ngarrindjeri related input will be best placed.	3.1 DEWNR provision of draft ECDR layout to the NRA through ECD Working Group.	30 May 2014
	3.2 Joint review of layout at following ECD Working Group meeting and identify where related Ngarrindjeri input will be placed.	30 Jun 2014
4. NRA advice to DEWNR on appropriate creation stories and co-naming protocols for inclusion in the draft ECDR.	4.1 Ngarrindjeri Yarluywar-Ruwe Program group discuss appropriate creation stories and co-naming protocols for the draft ECDR.	31 Mar 2014

	4.2 NRA clarify creation stories and co-naming protocols to DEWNR in writing.	30 Jun 2014
5. Series of workshops between Ngarrindjeri and relevant western scientists to develop a collaborative statement regarding the cultural and ecological character of the registered 'Meeting of the Waters' site.	5.1 Ngarrindjeri endorsement of concept in writing to DEWNR.	31 Dec 2013
	5.2 Initiation meeting to scope how the statement will be developed, personnel, timing.	30 Jun 2014
	5.3 Engagement of relevant personnel.	2014/15
	5.4 Two workshops.	2014/15
	5.5 Collaborative statement drafted.	30 Jun 2015
6. Development of a standalone Ngarrindjeri report to accompany the ECDR.	Scope content and direction with NYR and agree on methodologies to develop.	30 Jun 2014
	Draft content for report.	31 Dec 2014
	Endorsement process and finalise report.	30 Jun 2015
7. NRA provision of content to the draft ECDR as agreed in the review process at 3, as well considering additional inputs in agreement with DEWNR.	Scope content with NYR and agree on methodologies to develop.	30 Jun 2014
	Draft content and insert into draft ECDR.	31 Dec 2014
	DEWNR review and endorsement process and finalise input.	30 Jun 2015

Appendix 3: Ngarrindjeri Yannarumi Assessment Framework – Paper presented as SA NRM Science Conference 2016

SA NRM SCIENCE CONFERENCE *Sharing Science for Better Outcomes*
13-15 April 2016, University of Adelaide

Ngarrindjeri worldview (Yarluwar-Ruwe) and the description of Ramsar ecological character



Associate Professor, Steve Hemming, Flinders University & Ngarrindjeri Regional Authority
Professor Daryle Rigney, Flinders University & Ngarrindjeri Regional Authority
Luke Trevorrow, Co-ordinator, Ngarrindjeri Heritage Program, Ngarrindjeri Regional
Authority
Sylvia Roughan, Department of Environment, Water and Natural Resources, SA



Government of South Australia
Department of Environment,
Water and Natural Resources



Australian Government
Department of the Environment



Australian Government
Australian Research Council

SA NRM SCIENCE CONFERENCE *Sharing Science for Better Outcomes*
13-15 April 2016, University of Adelaide



Acknowledgements



We pay respects to the Kaurna Nation, the Traditional Owners of these Lands and Waters,
their Elders, leaders and young people.

We pay our respects to Ngarrindjeri Ancestors, Elders, leaders and young people.

We thank the conference organisers - Dr Jennie Fluin, the Department of Water,
Environment and Natural Resources and the SA NRM Research & Innovation Network

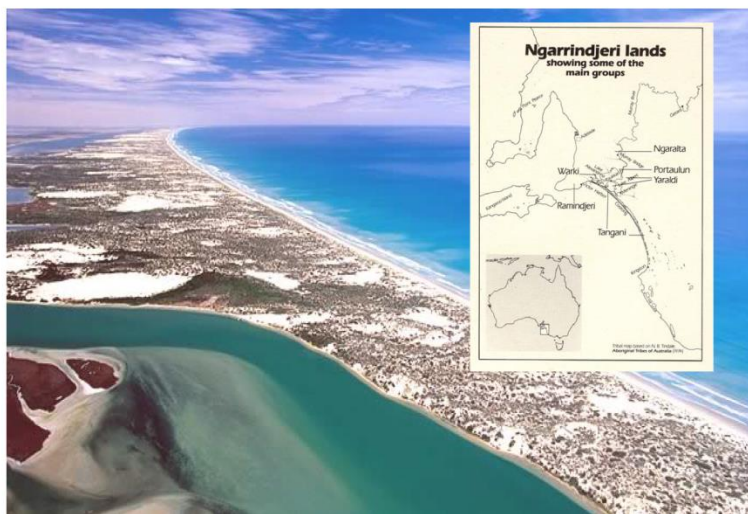
We would like to warn people that this presentation contains images of Ngarrindjeri who
have passed. May their Spirits find rest and peace as part of Ngarrindjeri Ruwe/Ruwar
(lands, waters, spirits and all living things).



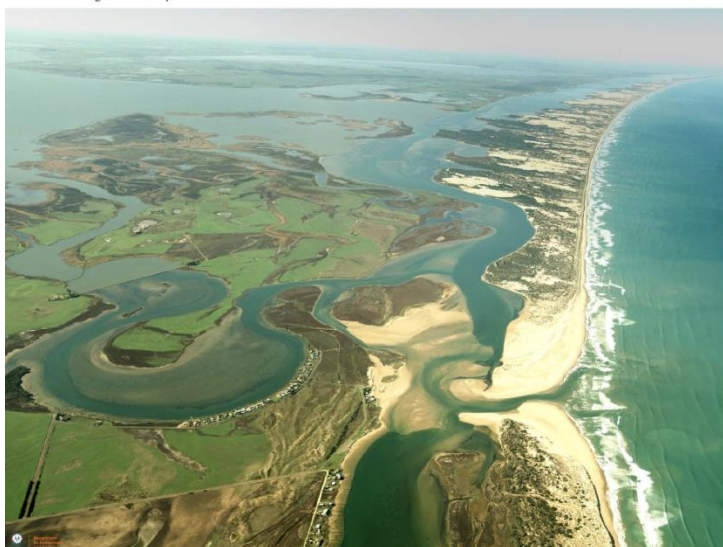
SA NRM SCIENCE CONFERENCE *Sharing Science for Better Outcomes*
13-15 April 2016, University of Adelaide

Re-drafting the Coorong and Lakes Ramsar Ecological Character Description

Ngarrindjeri Country
Ngarrindjeri Yarluwar-
Ruwe



SA NRM SCIENCE CONFERENCE *Sharing Science for Better Outcomes*
13-15 April 2016, University of Adelaide



Ngarrindjeri Nation has a plan – the Yarluwar-Ruwe Plan

Caring for Ngarrindjeri
Sea Country
and Culture
2007
A Vision for Country



Ngarrindjeri Yannarumi Speaking as Country

Ngarrindjeri Ruwe/Ruwar Connectivity



The land and
waters is a living
body.

We the Ngarrindjeri
people are a part of
its existence.

Tom Trevorrow, Matt Rigney
and George Trevorrow
(Rupelli), all deceased



CLLMM Ngarrindjeri Partnership Project Agreement - Federal Funding

- Contract law agreements – Kungun Ngarrindjeri Yunnan; Cultural Knowledge Protection – set the legal platform for engagement and secure funding
- Statement of Commitment – Aligning project with Ngarrindjeri worldview, principles, science and knowledge
- Joint Working Group established – supporting negotiated, co-authorship of the ECD
- Ngarrindjeri research formally included – Ngarrindjeri research unit part of working group

Ramsar ECD - Ngarrindjeri Yannarumi assessment

Ngarrindjeri conduct an assessment of the health of Ngarrindjeri Yarlurwar-Ruwe based on Ngarrindjeri values, laws and science/knowledge:

- Ngarrindjeri 'worldview' weaves everything together
- Ngarrindjeri right and responsibility to be Ngarrindjeri and live the Ngarrindjeri way according to Ngarrindjeri Creation Ancestor Law
- Ngarrindjeri Ruwe/Ruwar (lands, waters, body, spirit and all living things) needs to be healthy for Ngarrindjeri to be healthy
- The Coorong, and Lakes Alexandrina and Albert wetland Ramsar site is part of the living body of the Ngarrindjeri nation
- Ngarrindjeri care for, speak for and exercise cultural responsibility as Ngarrindjeri Ruwe/Ruwar
- Ngarrindjeri have healthy and respectful relationships and partnerships with non-Indigenous governments and people
- All of these things are needed to reproduce wellbeing for Ngarrindjeri Ruwe/Ruwar

Ramsar ECD -Ngarrindjeri Yannarumi assessment

	Kaldowinyeri Creation, Change	Ruwe/Ruwar Country, body, spirit, all living things	Miwi spirit, connection resilience	Yannarumi Speaking as Country, responsibility, management	Ngiangiampe Relationships, partnerships	Ngarrindjeri Yarlurwar- Ruwe Health assessment
Kaldowinyeri Creation	Ruwe/Ruwar All things connected	Katjeri Beautiful, healthy	Pritji Strong	Rupelli Elders Speaking as Country	Tendi, Nguldun Governance, agreements, Being healthy	Katjeri Beautiful healthy
Parpun miwi Colonisation, Longing for wellbeing	1985, Ramsar listing, locks, barrages, land cleared	Wiran, Wurangi, Sick, Bad	Pritji, wurreng- wulun Strong, Sorrowful	Blewilin Unhealthy	Wurangi Bad, disrespectful	Blewilin, Pukali Unhealthy, indicators of sickness

Ramsar planning and management – Key lessons from Ngarrindjeri experience

- A formal negotiated agreement clarifies the key principles, processes, protections and capacity needs required for Ramsar planning
- Indigenous worldviews, knowledges/sciences and the values they carry need to be respected and included throughout the ECD
- A collaborative approach to ‘describing’, researching, monitoring and managing wetlands need to be developed
- A Joint Working Group established – supports negotiated, co-authorship of the ECD
- Cultural knowledge protection agreement provides cultural safety and clarity for all parties
- Indigenous people part of research and writing team

Ramsar planning and management – Key lessons from Ngarrindjeri experience

- Indigenous worldviews treat the lands, waters and all living things as interconnected – ECD model needs to reflect this
- Components, processes and ecosystem services are interconnected through a concept of reciprocal, interconnected benefit
- There is no such thing as a ‘natural’ condition – Indigenous people managed the lands and waters for thousands of years
- ‘Human-induced change’ is commonly used in ECDs without clarifying that the reference is to non-Indigenous induced change
- Scientists and Indigenous people often share key principles and values – developing a shared Protocol for a Ramsar site (eg flow, connectivity, sustainability)
- Indigenous worldviews understand the relationship between ‘human’ and ‘nature as reproductive

Ramsar planning and management – Some recommendations from Ngarrindjeri experience

- Indigenous co-management of Ramsar sites should be promoted and Indigenous values, knowledges and philosophies should structure Character Descriptions, along with western scientific and socio-cultural models.
- Australian Ramsar Guidelines should be reviewed for alignment with the United Nations Declaration of the Rights of Indigenous Peoples and the new *Ramsar Strategic Plan 2016-2024*.
- The Ramsar concept of 'wise-use' more closely aligns with Indigenous philosophies and recognises that people are central to ecosystems – the 'National framework and guidance for describing the ecological character of Australian Ramsar wetlands' should be reviewed to more closely align with the Ramsar concept of 'wise-use' and increasing recognition by Ramsar of indigenous conceptualisations of wise-use.
- *Ramsar Strategic Plan 2016-2024 - Target 10*: The traditional knowledge, innovations and practices of indigenous peoples and local communities relevant for the wise use of wetlands and their customary use of wetland resources are documented, respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention, with a full and effective participation of indigenous peoples and local communities at all relevant levels.
- A protocol document with an agreed set of values, negotiated between Indigenous nations/communities, scientists and local non-Indigenous people, should be developed (where appropriate) to set a basis for agreements relating to critical features, sustainable benefits and services and the agreed limits of acceptable change.

Ramsar planning and management – Some recommendations from Ngarrindjeri experience

- Indigenous nations need to have direct access to relevant Commonwealth Departments to enable them to provide culturally appropriate explanations of their understandings of, and connections with country;
- Indigenous nations should be supported to continue their unique roles in the reproduction of healthy wetlands. This principle should be prioritised as a critical and socially just component of wise-use and a test of responsible wetland management;
- All wetland management plans and ecological character descriptions should recognise that Australia was managed by Indigenous people prior to colonisation and that the resilience of Indigenous people post-settlement has significantly contributed to the health of Australian wetlands and river systems;
- Resources should be allocated to Indigenous nations/communities to co-develop Ramsar ECDs and management plans.



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13-15 April 2016, University of Adelaide



**Murrundi Recovery
Project (River Murray)**
Wetland Management – small
scale ECDs

Ngarrindjeri Yannarumi
Bringing life to
Ngarrindjeri/Ngangaraku lands,
waters, people, spirit and all
living things

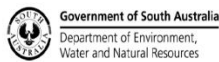


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Acknowledgements

The Ngarrindjeri Regional Authority' Yarlumar-Ruwe program has received substantial support from the CLLMM Ngarrindjeri Partnership Project and Riverine (Murrundi) Recovery Project - components of the South Australian Government's Murray Futures program funded by the Australian Government's *Water for the Future* initiative.

We acknowledge the following support: Office of Indigenous Strategy and Engagement, Flinders University; the Goyder Institute for Water Research; the Australian Research Council - ARC Linkage Project (LP140100376): Indigenous nationhood in the absence of recognition: Self-governance strategies and insights from three Aboriginal communities; and the Melbourne University School of Government Project - Indigenous Nation Building: Theory; Practice and its emergence in Australia's public policy discourse.





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The Goyder Institute for Water Research is a partnership between the South Australian Government through the Department of Environment, Water and Natural Resources, CSIRO, Flinders University, the University of Adelaide, the University of South Australia and ICE WaRM (The International Centre of Excellence in Water Resources Management).