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Provision for Cultural Values in Water Management:

The Anmatyerr Story

Dr Naomi Rea and the Anmatyerr Water Project Team

Research project number NTU18 of the Innovations Research Program of Land & Water Australia. Completed February 2008

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(Anmatyerr is pronounced U-mutch-ere)

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CHANGE YOUR WORLD. CHARLES DARWIN UNIVERSITY

Anmatjere

Northern Territory Government
Department of Natural Resources, Environment and the Arts

DESERT KNOWLEDGE CRC

AIATSIS
Australian Institute of Aboriginal and Torres Strait Islander Studies

MU-CEL

Provision for Cultural Values in Water Management: The Anmatyerr Story

Front cover photo top: Rodney Campbell, Nigel Cook, Greggie Campbell, Tony Scrutton (left to right)

Front cover photo bottom: Twenty Mile Creek

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This map depicts the areas of country owned (Merekartwey) and managed (Kwertengwerl) under Anmatyerr Law, illustrating the areas that different skinship groups have responsibilities for.

"Anmatyerr Law underpins our culture. Our Law is about our ancestors, our country, and our Dreamings. Anmatyerr Law has never changed the way the white man's law changes. The Law tells us about skinship, how we look after each other and work together. Our Law is our system of government – you call it Customary Governance.

"Our Law has always provided for the values we place on water. It is the rules for men, women and country. Anmatyerr Law is strong today, but it is invisible to other people. Australian Law should respect Anmatyerr Law so we can share responsibility for looking after water."

"Skinship tells us who owns and manages country. Kwertengwerl (traditional manager or caretaker) and Merekartwey (traditional owner) have different roles that ensure the right ways for managing kwaty (water) and mer (country) are followed. These senior leaders speak for us and we must listen."

***Quote workshopped by Anmatyerr Tyerrty and the Team**.*

"The law says he's got to listen to what the family is telling him and what the country is saying. Our law not bin rush out. It's still laying there it didn't go somewhere. Local laws (meaning government) changing all the time, governments changing, laws changing. Aboriginal law not that way, one law all the time."

"Another way we look, three law Aboriginal law. Number one law, he's right. Peace for everybody, happy people, no anything, people happy all the time. If from number one, if people slip down he's on number two. It's bad, it's red line, he's in trouble. Number three, he's in six-foot hole, he didn't listen for number one law and he didn't listen for family. (Didn't respect the rules, rights and obligations of skinship or did not fulfil the role of kwertengwerl).

***Quotes from Eric Penangk, Anmatyerr senior elder and spokesperson 2005-2006**.*

Abbreviations

CLC	Central Land Council
DNRETA	NT Department of Natural Resources, Environment and the Arts
NRM	Natural Resource Management
NWQMS	National Water Quality Management Strategy
NT	Northern Territory
NWI	National Water Initiative
TTWAC	Ti Tree Water Advisory Committee
TTWRS	Ti Tree Water Resource Strategy

Glossary

Ahakey - bush plums
Aherr – kangaroo
Alangkw - bush banana
Alheramp or kwep – frogs
Altyerr / Altyerrange - the dreaming
Anakety - bush tomato
Anem - digging sticks
Angenty – soakage
Angkarl – rain clouds
Anhem – raining
Anmatjere - spelling used by NT Government
Anmatyerr - spelling used by the IAD picture press dictionary series (Green *et al* 2003)
Anmatyerr angkaty – database at Anmatyerr Library & Knowledge Centre
Anmatyerr tyerrty - Anmatyerr people
Anterrng – seeds
Antywem – drink
Anyematy – witchetty grubs
Areng – euro or wallaroo
Arlewatyerr – sand goanna
Arner – rockhole
Arnkarr – creek bank
Arrant – native tomato
Arrweketye - women
Artety – Mulga species
Artew – bush turkey
Gkwernelyerr – native currant
Inarleng - echidna or 'porcupine'
Inernt – bean tree seeds
Ipway - creek or river
Katyerr - bush sultana
Kemarr - Anmatyerr skin name
Kwaty – water, rain
Kwaty anhem - rain fall
Kwertengwerl – traditional manager or offsider
Mer - country, place, home
Merekartwey (pmereke artweye) - traditional owner
Mern – fruits
Mpetyan - Anmatyerr skin name
Mpwelarr – rainbow
Ngkwerlp - bush tobacco
Ngul - Anmatyerr skin name
Ngwarray - Anmatyerr skin name
Nturiya – Community also known as Ti Tree Station
Nyerleng - Eremophila species
Peltharr – Anmatyerr skin name
Penangk - Anmatyerr skin name
Pengart – Anmatyerr skin name
Pety or irrpenng – fish
Pmara Jutunta – community also known as 6 Mile
Pwerrerl - Anmatyerr skin name
Rltwamp - sugar bag
Rntwem - dancing sticks
Rnwang – coolamons
Twererr - music sticks
Twerreng - sacred object
Tywenp – perentie
Yerrakwerr - wild onion
Yerramp - honey ants

Acknowledgments

This report was created in a spirit of "working together", a term coined to capture the research by Don Presley, a senior Anmatyerr man. Anmatyerr tyerrty (people) have contributed as strong spokespeople, hosts and researchers. Senior people have encouraged young people to get involved. Eric Penangk, Tony Scrutton and April Campbell as Cultural Supervisors and Nathaniel Dixon, Greggie Campbell, Ray Mulkatana and Nigel Cook as community based researchers are sincerely acknowledged as are Don Presley, Paddy Kemarr, Teddy Long, Ray Campbell, Don Campbell, Mick Turner, Laurie Price, Maxi Martin, Casey Nelson jr, Richard Cook, Rodney Campbell, Rodney Cook, Archie Mpetyan, Mark Cook, Tommy Cook, Simon Gorey, Richard Glenn, Malcolm Glenn, Ken Tilmouth, Clifford Tilmouth, Lyndsay Bird and Janey Long, Clarrie Long, Eileen Campbell, Jeannie Campbell, Josie Nabangardi, Dorothy Ross, Valerie Ross, Deborah Scrutton, Hilda Price, Lucy Price and everyone who has participated, especially the Campbell, Cook, Glenn, Gorey, Long, Price and Tilmouth families. Zania Liddle, principal of Ti Tree School and Deb Williams, principal of Laramba School and their staff assisted through allowing the Team to work with the Language and Culture classes and supporting the transition to Vocational Education Training in Schools (VETis).

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Executive Summary

Water is central to the law and culture of Aboriginal people in Central Australia. There is a potential risk to the cultural values placed on this tangible and spiritual resource when water is diverted or used for economic, recreational or domestic purposes. A range of local to international policies, legislation and guidelines now entitle the interests of Aboriginal people. There is a need to develop case studies that demonstrate how Aboriginal values and their provision can be articulated to decision-makers in effective ways. Cultural water provisions are the equivalent of water allocations to other water users and are the mechanism to protect cultural values of water.

In the Ti Tree region of Central Australia, an immediate opportunity arose for the Anmatyerr traditional owners and managers to have their cultural values provided for in the 2008 review of the Ti Tree Water Resource Strategy 2002 under the Northern Territory Water Act. The region is 150-200km north of Alice Springs and home to the Anmatyerr language group of 2000+ people and 200+ other residents. The Ti Tree Groundwater Basin supports a table grape industry and other horticultural crops, at least 8 pastoral stations, one Aboriginal Land Trust station, two roadhouses and art centres, the towns of Aileron and Ti Tree, proposed mining ventures, and a number of Aboriginal communities and outstations. The region is characterised by rocky ranges around the rim of the Ti Tree Basin with waterholes and creeks that flow north into the wide sandy beds of the Hanson and Woodford Rivers that recharge the significant groundwater basin that lies between 2-40m below the surface. An important Rain Dreaming passes through Anmatyerr country and the senior elder or rain maker is the custodian of the customary rain ceremony. Elder Eric Penangk explained how Aboriginal people always know where water is "If these rock holes were dry there is a soakage not far away; we would have to dig but we know we would find water" (23/6/05).

All time spent on country includes children who learn from adults.

Young Anmatyerr people engaged in natural resource management training as part of developing sustainable livelihoods; a major way of providing for cultural values.

A method for collating, conveying and providing for cultural values in water plans was developed. This report is a case study of this research which aims for Anmatyerr tyerrty (people) to be active ambassadors for their land and water in regional decision making processes, especially the Ti Tree Water Resource Strategy. The insight, approach and recommendations herein have application for other Aboriginal groups and governments engaged in water planning. This Report quotes the Anmatyerr voice (in italics) and provides additional text and is accompanied by the Provision for Cultural Values of Water DVD (front cover) in which the Anmatyerr voice speaks to images and recordings with English subtitles.

The research followed the principles of Collaborative Indigenist Research, a mix of Indigenist research where Aboriginal people inform and dictate the direction and content of research and collaborative and multidisciplinary research in which the knowledge of research participants and researchers are considered equally valid. We worked together to distil the key elements of cultural values of water from customary law and knowledge discussed and shared during numerous field trips and conversations. The aim was not to record and convey the complex, inter-related, often sacred and gender specific body of Anmatyerr law and knowledge, but key elements that could be readily appreciated by other people. Collapsing the breadth and secrecy of cultural values into key elements is supported by the Australian Law Reform Commission (1986) which stated that 'Aboriginal customary law should be understood broadly and not precisely defined'. Understanding is needed at the same time as respect for the restrictions of customary laws. An analogy is the private sector requesting water without declaring 'commercial in confidence' information. The same conditions should be afforded to the intellectual property or customary knowledge of Aboriginal people. The aim was to give authority but not visibility to the extensive, rich and active Anmatyerr Law and knowledge about water in the same way other sectors command rights while maintaining privacy.

The five key elements of cultural water values were: Law; Responsibilities and Protocols; Economies, Environment and Education; Recreation and Well Being; and History of People and Place. The five overarching ways to provide for these values were: Water Allocation; use of Anmatyerr Names and Protocols; Access, Land Management and Coexistence; Livelihoods and

Skills Exchange; and Governance and Participation. Each value and provision was described in ways that enables other people to not only gain understanding of Anmatyerr culture and relationships to water, but to know what they can do to assist. The aim is to maximise the outcomes for Anmatyerr people, land and water in the near future.

The first provision, water allocation, consists of volumetric or percentage amounts of surface water and groundwater from the assessed resource for a) non-consumptive use to sustain water places and associated assets, and b) consumptive use to support future Anmatyerr enterprises. The remaining four provisions are non-volumetric and we suggest these are articulated under an agreement analogous to a licence that sets out arrangements and actions. Non-volumetric provisions are a compelling way to protect cultural water values. Firstly, using and respecting Anmatyerr place names, language and protocols. Secondly, involvement with regional land and water management through utilizing relationships with other land holders and managers. Thirdly, the construction of new governance arrangements including a new Anmatyerr organisation that supports participation and equity between two systems of Law. Fourthly, livelihoods that involve young people, partnership projects and intercultural literacy. These provisions meet the National Water Initiative aim for "incorporating Aboriginal social, spiritual and customary objectives in water plans and strategies to achieve these objectives"(NWC 2004).

Having Anmatyerr tyerrty identify and convey what is important (values) and how to protect this (provisions) is fundamental, but ongoing participation and employment thereafter is equally important. Cultural provisions will need managing just as water provisions to other users are constantly managed. The training pathways to, and construction of, remote Aboriginal livelihoods in water and resource management (Rea *et al* 2008, Rea and Messner 2008) evolved into a model that is necessarily broad to address identified criteria.

The premise of this model is that Anmatyerr tyerrty are best placed to speak and work for their culture and future when they are aware of the full situation regarding water, and with the necessary skills to work and participate in mutually created governance arrangements and culturally based livelihoods. Through this avenue, projects with local agencies whose core business is natural resource management (NRM) will be encouraged. The model is contingent on the concurrent activities being undertaken by Aboriginal and non-Aboriginal interests working together at the interface of two systems of law and knowledge. Cultural provisions and livelihoods require new arrangements that respect different laws and knowledge and the common ground between. A neutral space for communicating would act as a clearing house where Anmatyerr and other parties can negotiate and build beneficial relationships. The principles of reciprocity inherent in Anmatyerr Law mean that Anmatyerr tyerrty feel it is incumbent on all parties to build inter-cultural literacy or capacity defined as "the skilling of relevant parties in each others laws and ways of knowing and doing". Partnerships based on respect, equity and sharing of the benefits must be realised through practice. We found that research embedded in practice (on-ground activities) was the best way to achieve research outcomes as it provides a practical and meaningful context and can deliver tangible and real benefits along the way.

The report concludes with recommendations for the primary audience, Anmatyerr tyerrty and the NT Government, with the view to cultural water values being provided for hereafter in water planning in this region. The first opportunity is the revised *Ti Tree Water Resource Strategy 2008*.

Young Anmatyerr women participating in resource management training and learning about Anmatyerr culture and history on a local pastoral station.

1 INTRODUCTION

1.1 Background

The Anmatyerr Water Project was funded in response to Land & Water Australia's call for research in the focus area of Aboriginal management of Australian landscapes. Research to supply insight into the following topics was sought: the relatively low recognition given to Aboriginal knowledge of managing land and water; methodologies for accessing, interacting with and incorporating Aboriginal knowledge into land and water management; improving the structural, procedural and operational engagement between Aboriginal people and government natural resource management (NRM) agencies; and recognition, maintenance, use and promotion of Aboriginal knowledge systems. The recommendations in the 2002 Lingiari Reports to the Aboriginal and Torres Strait Island Commission were a motivating force in framing the objectives of this research (The Lingiari Foundation 2002).

The original objectives and outputs of the Anmatyerr Water Project have been realised within the Anmatyerr community and reported in Milestone Reports, communication products, seminars and publications to date (eg Rea 2004, Wirf 2005, Carr and Rea 2006, Rea and Messner 2008, Rea et al 2008, Wirf et al 2008, Craig et al 2008). Additional funding to the Anmatyerr Water Project (see Acknowledgements) has supported research activities on governance of water, training pathways to and construction of NRM livelihoods, gendered knowledge and participation of women in water management, and the interface and interaction between the concepts of environmental and cultural water.

The Anmatyerr Water Project meets the broader needs of Aboriginal people and governments who seek demonstrated approaches for how Aboriginal interests, rights and perspectives can be recognised in the way water is used and managed in Australia. This work sits within the need for new environmental governance structures and recognition of indigenous rights and values within Integrated Water Resource Management (IWRM) and Integrated Natural Resource Management (INRM). Aboriginal participation not only accounts for cultural values but provides livelihood opportunities. The project informs a number of key areas needing attention that have been identified by the Australian and Northern Territory governments. For example, the well being of Aboriginal Australians and sustainability of livelihoods and economies, whether on Indigenous land or Indigenous owned. Also vital is representation in decision-making and new governance arrangements for resource management that recognise suitable structures, processes and rules of Aboriginal and non-Aboriginal organisations. These areas are broadly addressed by the Anmatyerr Water Project which aims for Aboriginal people to more easily engage, participate, communicate their values and rights, and develop long-term livelihoods on traditional homelands in Natural Resource Management and Integrated Water Resource Management.

1.2 Objective

The scope of this report covers multiple project goals regarding water, natural resource management and Aboriginal knowledge. The aim was to demonstrate a methodology for the documentation and recognition of cultural values of water and their translation into meaningful outcomes through cultural water provisions. Anmatyerr seek respect for, and recognition of, key elements of cultural values of water. Our objective was to find alternate ways to convey the powerful laws and experience of Aboriginal people living within systems of customary governance in ways that assist the understanding of other people. Once this basic understanding is gained outside Anmatyerr society, then assistance with finding ways in which they can be provided for is more likely. The research was therefore not to extract and document knowledge but to convey the properties of law and knowledge about the importance of kwaty for sustaining Anmatyerr culture in ways that other people could make sense of.

Collapsing the breadth, depth and secrecy of cultural values into key elements that could be regarded as emergent properties, is acknowledging the existence of the complexity without showcasing it. Support for this approach, came from the Australian Law Reform Commission (1986) which stated that "Aboriginal customary law should be understood broadly and not precisely defined" nor codified, and that recognition may take different forms. There is a need for Aboriginal values to be understood at the same time the privacy and restrictions of customary laws are respected. There is an analogy with the private sector requesting water without necessarily having to declare financial statements to the public. The aim was to give Anmatyerr Law authority but not visibility, in the same way that other sectors command attention and rights while maintaining their privacy.

The methodology involves culturally based livelihoods and new governance arrangements as mechanisms for facilitating the process of having the rights and cultural values of Anmatyerr people provided for in future water plans (Rea et al. 2008, Rea and Messner 2008). Anmatyerr tyerrty ask for equity between these two systems of law as opposed to the 'top law' (whitefella law) that takes precedence over the 'bottom law' (Anmatyerr Law; pers. comm. E. Penangk March 2005). Senior Law man and Anmatyerr statesman Eric Penangk frequently reiterates his vision of all groups and people working together on the same level. Given the enduring strength and primacy of Anmatyerr Law and Culture in this society, the fairness of his ideas are difficult to argue with.

The report concludes with recommendations for the primary target audience; Anmatyerr tyerrty (Anmatyerr people) and the NT Government with the view to both parties working toward cultural water provisions being implemented in the region and articulated in the Ti Tree Water Resource Strategy. The insight and recommendations herein have wider application for other Aboriginal groups and governments engaged in water planning.

1.3 Audience

To realise the research objectives of tangible outcomes, the Report and DVD needed to speak separately and at once to two sectors with different language and immediate needs: (1) Government water managers, especially those with carriage for collating the review and update of the current Ti Tree Water Resource Strategy (DIPE 2002) and who seek an understanding of cultural water values in order to make comparable provisions to that of other values; and (2) Anmatyerr tyerrty who seek recognition of cultural values of water in regional water planning and who can use this Report and DVD in their current and future explanations and arguments for the recommended cultural water provisions.

Nevertheless, the Report is relevant to all Indigenous people as a means to raise awareness of how cultural values can be conveyed in approved and effective ways to other people and how cultural provisions are a useful way to look after these values. The methodology is intended to be generic and therefore transferable to other Aboriginal groups who may adapt this approach to their situation. The potential audience also includes policy makers, managers and community groups from environmental, economic and Aboriginal spheres. The need to integrate national to local scale institutional and management frameworks and policies from different sectors is paramount for delivering on ground outcomes for Aboriginal people (Rea and Messner 2008). The methodology and principles of our approach provide all people with a comprehensive template for ways forward in water and resource management.

1.4 Anmatyerr and Ti Tree Region

Situated 100-250 km north of Alice Springs, the Anmatjere or Ti-Tree region (an area that comprises 4000 km2) is part Aboriginal Land Trust (one station; Ahakeye Land Trust) and part pastoral lease (10 Stations). The eight main communities vary in size from approximately 20 to 300 people, while the outstations can accommodate smaller populations. Many people move between these places and regularly visit neighbouring towns and regions. The Aboriginal population comprises at least 80% of the population of approximately 2,000, while non-Aboriginal pastoralists, grape-growers and people working in the towns of Ti Tree and Aileron (School, Council, Arts Centres, Roadhouses) number approximately 200. Anmatyerr tyerrty are proud of the strong continuation of Anmatyerr Law that governs people's roles and responsibilities in managing their mer (country) and kwaty (water). At least 60% of the population speaks Anmatyerr as their first language (Anning 2002).

Based on the 1996 census, the median age of the population is 24. People in the region face high unemployment levels. Of those people over 15, that is the potential workforce, 30% either did not attend school or left school before they reached 14 years of age. Participation in Community Development Employment Program (CDEP) and other work for welfare programs disguises the true unemployment situation. Training and employment options include some certificate training and work experience in childcare, aged care, maintenance of community grounds, farmhands in the grape and horticulture industry, using heavy machinery, and office and research work in the council, library and knowledge centre. Local service providers have also at times delivered certificate training in, for example, cooking, hairdressing, digital technologies, literacy and resource management. The employment opportunities in the region are summarised as retail, agriculture, horticulture, arts and craft (DEWR and LGANT 2006). The options for employment have not included real jobs for looking after country and there have been few if any pathways from work experience to paid positions.

Despite high unemployment, Anmatyerr men and women are always busy with hunting, harvesting and preparing food, caring for children and elders, workshops, meetings with local government (health, housing, roads, services, community management), cultural responsibilities and making craft and artifacts to use and sell, sport competitions and meetings about access and use of country by mining, pastoral, horticultural and tourism enterprises as well as researchers from many disciplines. The society operates more or less in parallel to the regional business economies of pastoralism, horticulture and mining, profit-making enterprises that depend on local natural and mineral resources. Management of natural resources is currently provided by governments. Managing impacts from resource use is the responsibility of resources users but also involves governments. These constitute important livelihood prospects in a region where Aboriginal employment opportunities are perceived to be limited.

In the Ti Tree region, regular decisions about water include but are not limited to the following examples made by:

- the Ti Tree Water Advisory Committee (TTWAC) with regard to grapes, mangoes, bores and water quality;
- Parks and Wildlife with regard to reserves and joint management (Ryans Well, Annas Reservoir, Native Gap), biodiversity surveys, bioregional planning and feral animal impacts (camels, donkeys, cattle);
- pastoral, mining, irrigation industries with regard to water licenses and location and capacity of bores;
- the Indigenous Horticultural Association with regard to establishing local irrigation enterprises;
- Local Government and Power and Water with regard to drinking and domestic water quality and supply;
- Infrastructure Departments with regard to roads, culverts, the railway;
- Traditional owners and Native Title holders with the Central Land Council (CLC) when negotiating native title claims, mining agreements, Indigenous Land Use Agreements and other water use; and by
- the Local Government Association of the Northern Territory and the Territory Government for economic and regional development.

Underground water is a significant natural asset in the region and governments have been assisting growers and developers make use of this resource for horticulture over the past two decades. Decisions are being made about water on a regular basis in desert Australia, yet Aboriginal people are not always participating effectively, or having their rights to water and cultural values recognised in governance arrangements and decisions. This has been the situation in the Ti Tree or Anmatyerr region to date.

1.5 Governance of Water

1.5.1 Governance

Governance can be described as the evolving processes, relationships, institutions and structures by which a group of people, community or society organise themselves to negotiate their rights and interests, and make and enforce decisions about membership, authority, rules, accountability and strategies to achieve goals (Hunt and Smith 2006). Although governance encompasses stewardship, leadership and accountability it is formally managed by an organisation. Organisations are formal groups of people who function according to structured roles and processes to achieve set objectives related to rules or 'institutions' of the organisation and the external environment.

For water resources, governance includes water policies, laws, allocation processes and guidelines and the agencies engaged therein. How decision-making unfolds in the Ti Tree or Anmatyerr region will be in part dictated by these formal governance arrangements as well

as the interaction with Anmatyerr systems of governance. In addition, informal relationships are considered as important to effective governance as formal structures and corporate technicalities (Hunt and Smith 2006). The vision, resolve, capacity and goodwill of those participating will at least in part determine the tangible outcomes that come from this research.

1.5.2 The Northern Territory Water Act

The Northern Territory Water Act is the prime instrument for guiding the use and management of water in this jurisdiction. NRM related legislation in the NT, including the NT Water Act, is not closely linked in statutory terms. It is relatively short and prescriptive, stating that the Northern Territory Government owns all surface and ground waters. Water is then provided to users through a system of permits, licences and exemptions managed by the NT Controller of Water, a position with an unprecedented level of authority for water management in an Australian jurisdiction. In a review of water management processes across Australia Nevill (2001) found that the NTs framework relied heavily on discretion, judgement and the competence of program managers. In the NTs most significant catchment for water use, the Daly River Catchment, Erskine et al (2003) recommended that the 'Northern Territory Government introduce a robust method for determining water allocations'. Although there is some direction about the content of Water Management Strategies or Water Allocation Plans in Section 22B (5) & (6), the Northern Territories formal water allocation planning framework (Schedule C pg 57, NT Government 2006) is less prescriptive than comparable processes in other jurisdictions. S23(1A) of the Act allows for the Water Minister to declare Water Plans in Water Control Districts and to appoint Water Advisory Committees to manage them. Water Advisory Committees take direction from the Controller of Water and advise him/her on the effectiveness of these Plans in maximising economic and social benefits within ecological restraints

The management of water in Water Control Districts and where waste discharge licences have been granted in relation to for example, mining or aquaculture activities, is through the beneficial use process. Uses or values of water are canvassed from interested parties and related management goals and objectives are then articulated. Water is allocated or rules assigned with regard to water quality that aim to achieve these outcomes and therefore provide for the assigned value. For example, an economic value of water may be that it sustains the livelihood for a grower of horticultural crops. The goals would be to provide water to support the needs of a certain crop during the growing season. A recreational value may be that recreational fishers catch a specific fish at a particular place at a particular time of year. The aim would be to provide a sustainable water allocation to support fish populations in that place at that time that could sustain the fishing pressure. Monitoring programs, as components of water plans, are designed to measure whether the objectives are being met, and if not, the final step is an appropriate management response (e.g. reallocation of water). The nature of the adaptive management process should be outlined in the plan and relate to relevant jurisdictional guidelines and community needs. Monitoring is ongoing so as to evaluate whether management actions are achieving the original goal. The sharing and allocating of water to assigned values is the water management process widely followed in Australia and internationally (ie Integrated Water Resource Management) and is colloquially known as the values based approach.

The 7 categories of water use or values in the Northern Territory legislation are:

1. environment: aquatic ecosystem health
2. agriculture: irrigation water
3. rural stock and domestic
4. aquaculture
5. public drinking water supply
6. industry
7. cultural: aesthetic, recreational and cultural needs.

Aboriginal values are less visible in Northern Territory legislation compared with other jurisdictions and in the National Water Quality Management Strategy (NWQMS 2000 volume 4A, pg 7; ANZECC and ARMCANZ 2000) where Aboriginal values are described as "cultural and spiritual values" as a category of environmental values. In the NT Water Act, Aboriginal values are grouped together with aesthetic and recreational values (category 7). S4(3) of the Act defines the beneficial use for 'cultural' as 'to provide water to meet aesthetic, recreational and cultural needs'. A cultural beneficial use declaration may cover any single element or any combination of these elements, depending on the agreed regional water resource values. The word 'needs' implies what is required rather than what is desired or valued. Nevertheless, interest groups for all categories are provided with the opportunity to state their values and their desired water requirements as opposed to strict needs.

Aucoin-Wenkoff (2005) concluded that declarations of cultural values in the NT implicitly referred to Aboriginal interests (rather than aesthetic or recreational), although there were no descriptions or explanation of those values or apparent consultation with the relevant Aboriginal group. Whereas water legislation in other jurisdictions discusses Aboriginal rights and values, the Northern Territory Water Act is without an Objects Clause or Purpose for the Legislation, which is regarded as essential to guide decision-makers and ensure consistency of decision-making (EDO NSW 2005). It is under this regulatory environment that water in the NT has been used and managed and this in part explains the current situation for Aboriginal people in this jurisdiction. In comparison to the NT, the Objects Clause in the NSW Water Management Act 2000 (amended 2002, 2004), is to "*provide for the sustainable and integrated management of water for the benefit of both present and future generations; to recognise and foster ... benefits to Aboriginal people in relation to spiritual, social, customary and economic use of land and water; and to recognise the role of the community in resolving issues*".

1.5.3 The National Water Initiative

The NWQMS (2000, Volume 2A, A Framework for Applying the Guidelines, Box 2.2, p2-7) also states that Native title legislation, and Commonwealth and state cultural heritage legislation, provide for recognition of Aboriginal interests in water. The National Water Initiative (2004) updates this position, increasing the profile of the rights and aspirations of Aboriginal Australians involvement in water management (Section 52-54, NWI 2004). The NWI provisions require the consideration of, and accounting for, possible allocations to Native Title holders as far as reasonably possible. Sections 52-54 aim for water planning processes to provide for indigenous access to water resources through indigenous inclusion in water planning wherever possible. Possible native title rights to water under the Commonwealth Native Title Act (1993) need to be accounted for and this may include an allocation of water to native title holders. Wherever they can be developed, water plans are to incorporate Aboriginal social, spiritual and customary objectives and relevant strategies.

This policy position for cultural water allocation or provision in the NWQMS and the NWI is within the non-consumptive use category of environment and other public benefits (*mitigating pollution, public health, Aboriginal and cultural values, recreation, fisheries, tourism, navigation and amenity*). Although water to meet environmental and other public benefit values is not traditionally licensed, provisions within the NWI (2004) that now allow for the trade of water allocations to this non-consumptive use category imply that this water can now be licensed. The linkage between environmental and cultural water values and provisions is not only acknowledged by the NWI. Anmatyerr tyerrty argue that many cultural values are provided for through environmental water provisions and many cultural water provisions will in turn provide for environmental values. Gardner (2005) also points out that there should be recognisable provision of water for both the environment and other public-benefit in-stream uses (ie cultural values). Further direction on accounting for Aboriginal interests is provided in the National Framework of Principles for Delivering Services to Indigenous Australians (COAG 2004).

1.5.4 The Northern Territory Implementation Plan

Although not enacted in legislation, the Northern Territory Plan for the Intergovernmental Agreement concerning the National Water Initiative (NT Government 2006) provides further direction to water planning with guiding principles outlined in Schedule C. Water is allocated to consumptive uses which are licensed (economic uses, drinking water) and non-consumptive use that includes the environment and other public benefits that are not licensed (as per the NWI 2004). The NT Implementation Plan states that: *All available scientific research directly related to environmental and other public benefit requirements for the water resource will be applied in setting water allocations for non-consumptive use as the first priority, with allocations for consumptive use made subsequently within the remaining available water resource. In the absence of directly related research, contingent allocations are made for environmental and other public benefit water provisions and consumptive use* (Schedule C, pg 129).

Our findings confirm that a public benefit requirement exists (ie cultural and environmental values) and therefore, as set out in these rules, they should receive the highest priority for receiving an allocation in the Ti Tree Water Resource Strategy. Just as environmental water provisions (EWP) support environmental water requirements (EWR) to protect and sustainably manage environmental water values (EWV) through various rules (eg timing, frequency, duration of flow etc), cultural water values, as a public benefit, may also at times be provided for through similar mechanisms as well as by non-volumetric provisions as recommended in this Report (Section 4). These non-consumptive cultural water provisions would not necessarily be licensed, but are a formal allocation and entitlement. As such they should be made on the best available information and managed accordingly under the values-based approach (ie integrated water resource management).

Another impetus for the Anmatyerr Water Projects came from the NWQMS which states that "*until further work is undertaken to better define cultural and spiritual value … managers … in full consultation and co-operation with indigenous peoples, will need to decide how best to account for cultural values within their own management frameworks*". The Northern Territory Implementation Plan (NT Government 2006) sets out the following rules for the Arid Zone, defined as the lower two thirds of the NT, and where considerable horticultural development and water planning is forecast.

For surface water, "*at least 95 per cent of flow at any time in any part of a river is allocated as environmental and other public benefit water provision, and extraction for consumptive uses will not exceed the threshold level equivalent to five per cent of flow at any time in any part of a river. In the event that current and/or projected consumptive use exceeds the threshold levels of five per cent for river flow, new surface water Licences will not be granted unless supported by directly related scientific research into environmental other public benefit requirements*."

For groundwater, "*there will be no deleterious change in groundwater discharges to dependent ecosystems, and total extraction over a period of at least 100 years will not exceed 80 per cent of the total aquifer storage at start of extraction. In the event that current and/or projected consumptive use exceeds the threshold levels of 80 per cent of the consumptive pool for aquifers, or groundwater discharges to groundwater dependent ecosystems are impacted, new groundwater Licences will not be granted unless supported by directly related scientific research into groundwater dependent ecosystem/cultural requirements*."

1.5.5 Ti Tree Water Resource Strategy

The Ti Tree Water Resource Strategy (DIPE 2002) was declared in September 2002. It focuses on management of the Ti Tree groundwater basin for which it is assumed there are no cultural values (ie Aboriginal values) and therefore no need for cultural provisions including a cultural water allocation: "*In the absence of any clear knowledge to the contrary, it is assumed that regional groundwaters have no cultural significance*." Despite there being no specific allocation of groundwater for environmental and cultural uses, the Strategy reserved for 'later allocation', 9%, 19% and 100% of groundwater in the western, central and eastern zones respectively.

In contrast to groundwater, the TTWRS allocates 95% of surface waters in the Ti Tree Water Control District to environmental and cultural values: "*All Rivers and wetlands ... are allocated primarily for environmental and cultural uses*." This % water allocation is not matched with any information about the environmental or cultural values it is intended to protect. Nor are there volumetric units attached to this allocation, or any information about how this provision would be delivered.

This protection of surface water systems maintains recharge to the groundwater basin as well as protecting environmental or cultural values. The need to address the unknown cultural and environmental values of water in the region as well as the role of surface water groundwater interaction on these values was recognised in the 2002 Strategy: "*Regional surveys will be necessary to test these assumptions ... and should include ephemeral streams, swamps and waterholes throughout the region for which cultural and environmental significance are also currently unknown*."

Technically, all values (consumptive, non-consumptive) should be provided for as far as possible on the basis of sustainability and the fair distribution of water between user groups. Consumptive water use is licensed as a volumetric amount with associated rules about security and timing under consumptive use rights. At the time of the 2002 Ti Tree Water Resource Strategy there was no commercial economic use of water by Anmatyerr tyerrty. Since then, at least one water licence has been granted for Anmatyerr land owners/managers to develop horticulture, and at least two Indigenous Land Use Agreements have been negotiated that compensate Anmatyerr land owners/managers for commercial developments on the land where they hold Native Title Rights.

The Ti Tree Region Water Resource Strategy lists the actions that the Ti Tree Water Advisory Committee is responsible for progressing. The Strategy is to be reviewed after 5 years, hence the 2008 review that will result in the Ti Tree Region Water Resource Strategy 2002 / Amended 2008.

1.5.6 Ti Tree Water Advisory Committee

1.5.6.1 Purpose

The Ti Tree Water Advisory Committee (TTWAC) consists of ministerial appointments for an indefinite term. The TTWAC began in June 1997 for the purpose of identifying, discussing and making recommendations to the NT Controller of Water Resources about the management and sustainable allocation of water from the Ti Tree groundwater basin. In addition they are to report on policy and regional development that may impact on sustainable water use and feedback from their liaison with other stakeholders. The TTWAC is expected to participate in the adoption of the principles and work plan actions in the Ti Tree Region Water Resource Strategy (TTWAC 2005) and to 'p*romote, review and update the Strategy*' and guide and direct the NT Department of Natural Resources, Environment and the Arts (NRETA) to undertake an approved work plan with the assistance of other agencies where appropriate (Part 5, TTWRS 2002). NRETA has responsibility:"*to ensure achievement of water resource management outcomes identified in the Strategy*"; for "*due diligence in the exercise of regulatory and licensing powers*"; and to undertake "*water resource assessment and provide the technical advice needed for informed decision-making*."

A review of the TTWAC terms of reference, membership and operating arrangements may be initiated at least every five years by the Environment Minister, the TTWAC or the Controller of Water Resources, with final decisions resting with the Minister (Ti Tree Water Advisory Committee Terms of Reference and Operating Arrangements, February 2005). An executive officer, funded by the NT Government provides administrative support to the Committee.

1.5.6.2 Membership

Membership of the Committee is comprised of 8 formal members: three horticultural operators from different hydro-geological zones within the Ti Tree groundwater basin and a grape industry representative (50% of voting members), and one person nominated by Centrefarm (Indigenous Horticulture Association), the Anmatjere Community Government Council, the Central Land Council and the Northern Territory Cattlemen's Association (local pastoralist). The Committee also relies on information supplied by two non-voting representatives from government (primary industries, natural resources).

As membership is to include water users, land owners and local government (TTWAC 2005), it could be expected to include Anmatyerr representation as both users (in terms of cultural use and commercial use) and land owners (owners of Ahakeye Land Trust, previously known as Ti Tree Station, one of several properties over-lying the Ti Tree groundwater basin and within which horticultural blocks have been excised). However, there is no seat for an Anmatyerr community representative, nor a representative of environmental interests. It is unlikely that there is another water planning or management committee in existence with neither environmental nor Aboriginal membership. The TTWAC newsletters also indicate this committee focuses on commercial use of water and operates more like a grower's sub-committee of a formal water advisory committee. The concentration of power and decision making resting with the horticultural sector is evident not only from their 50% representation, but because the Chairperson must be a horticulturalist from the Ti Tree Water Control District and the primary media spokesperson. The operating arrangements also require that confidentiality be maintained by all participants for commercial matters.

It is important to note that the three Aboriginal representative bodies are not a substitute for

representing the interests of Anmatyerr people. They are normally not represented by Anmatyerr tyerrty and without language skills would be unable to convey accurate information. Nor do they have community endorsed report back mechanisms in place to properly brief the full range of Anmatyerr traditional owners and managers in regional water use and management issues. These members also have their own wider agendas; eg. Centrefarm represents Aboriginal commercial enterprise across Central Australia and the Anmatjere Council represents the Local Government Association of the NT. As such they are unable to stand for Anmatyerr Law and customary governance which is very much extant.

With regard to Aboriginal representation in Central Australia, Toyne (1996) explains how "*the western concept of equity relies on equal numbers of stakeholders whereas Indigenous representation involves a complex system of 'owners' and 'managers', based on skin groups, that gives particular people the right to speak for certain country and knowledge*". Currently, there is no recognition on the TTWAC of the necessity to have representation of each of the discrete groups that have affiliation with, and rights to speak for, the different land areas that make up the Anmatyerr region. Ideally, for any real participation in the water allocation process, Anmatyerr people would need at least one man and one woman representative on this committee to speak for respective areas of country for which they had responsibility (Wirf et al 2008). These authors go on to counter this ideal with the suggestion that such a level of Anmatyerr participation in a foreign and potentially uncomfortable Western bureaucratic structure could be problematic and result in further marginalization.

1.5.7 Anmatyerr Governance

The invisibility of Anmatyerr customary governance in general has made it difficult for Anmatyerr rules and decision making processes, amongst other aspects of governance (relationships between individuals, groups, land and the Law, representation, leadership), to be understood or respected by other parties. Anthropological explanations of these secular laws (aka traditional knowledge) are well reported (Pink 1933, Roheim 1976, Strehlow 1970 and 1997, McConvell 1985, Department of Aboriginal Affairs 1987, Young 1987, Henson 1992, Morton 1997, Albrecht 2000, 2002 and 2006) and are fundamental to understanding Anmatyerr culture and the way land and water are managed. The aim of this Report is not to further document traditional knowledge but to find ways to report properties of this law in ways other people can gain respect. Section 3.1 outlines the main principles, recognition of which is sought by Anmatyerr tyerrty.

Anmatyerr Law dictates the roles, responsibilities, activities and interactions of people on a daily basis. Anmatyerr tyerrty have been disempowered by the lack of visible entities that represent Anmatyerr customary governance. Rather than other parties find out who is the right person to speak to and work out how Anmatyerr can participate, the situation has been that Anmatyerr tyerrty as a significant sector and user/owner of land and water resources in the Ti Tee region has largely been left out of the regional governance of water. As a result, the recommendations herein include a new Anmatyerr organisation that represents Anmatyerr customary governance. This Report addresses the rarely articulated tension between the two systems of Law in operation in this region and searches for models that allow for equity between Australian NRM laws and guidelines and Anmatyerr land and water management.

2 METHODOLOGY FOR THE PROVISION OF CULTURAL WATER VALUES

2.1 Context

Although cultural water values are a recognised 'beneficial use' of water under the NT Water Act, the absence of a scientifically rigorous and robust method to provide for cultural water requirements and an effective method of consultation with Aboriginal people to access their knowledge (Erskine *et al* 2002) was one context of this research.

The spiritual significance of water and water places, and the use of water in new and old economies are embedded in Aboriginal law and culture. Water underpins environmental, economic and social issues and is fundamental to management and planning in a wide variety of contexts. This is implicit in Aboriginal knowledge systems and in Australian NRM plans. However, across the world and throughout Australia, water policies and statutory requirements for water are separate from other resource policies and laws. This situation stems from water scarcity and water as a critical commodity. Clear mechanisms for integrating water management across multiple contexts are needed. Bringing together resource legislation and policies (eg soil, water, vegetation, marine, fauna) is desirable as has occurred in South Australia (eg SA NRM Act 2004).

Indigenous Law or Customary Governance dictates the rules, responsibilities and protocols that govern an Indigenous society. Water, country and people are inextricably connected through kinship (Anmatyerr use the term skinship) systems. The origin of this Law is through spiritual and material knowledge of the creation by ancestral beings of country and ancestors. An analogy can be drawn between the beliefs and knowledge systems of religions across the world. Australia respects the right of all people to practice their beliefs and be represented in decision making at Local and National levels. Aboriginal and Torres Strait Islander people not only have the same rights but have additional International policies and guidelines to protect cultural diversity, heritage, practices and knowledge. Aboriginal and Torres Strait Islander participation in NRM and recognition of Traditional Knowledge is supported by significant international and national human rights and environmental legislation and policy.

Conveying cultural values of water is not necessarily straight forward for Aboriginal people living with responsibilities and roles under customary laws. The cultural divide in communication is an impediment to having Aboriginal perspectives understood by others and Aboriginal rights and values recognised. Some values and knowledge cannot be placed in the public domain. It is within this context that people living in customary ways need to convey how cultural values of water are at once integrated within an holistic world view, while at the same time articulating specific values. This is particularly demanding as separating water issues and perspectives is an anathema to the language and ways of knowing of Aboriginal and Torres Strait Island cultures. The separation of cultural values from other values is embedded in reductionist approaches and can marginalize Aboriginal knowledge systems (Davis 2004). The challenge is to attempt to demonstrate cultural values of water in effective and approved ways within the broader context. The focus on water is not necessarily restrictive but has advantages in terms of building cultural awareness and as a driver for new inter-cultural arrangements (Rea and Messner 2008). The opportunity not only allows for the importance of water to be understood and provided for, but for wider recognition of Aboriginal systems of Law and Knowledge.

2.2 Definition of Cultural Values and Cultural Provisions

The NWQMS (2000, Volume 2A, A Framework for Applying the Guidelines, Box 2.2, p2-7) states "*indigenous cultural and spiritual values may relate to a range of uses and issues including spiritual relationships, sacred sites, customary use, the plants and animals associated with water, drinking water or recreational activities*' and '*until further work is undertaken to better define cultural and spiritual values … managers … in full consultation and co-operation with indigenous peoples, will need to decide how best to account for cultural values within their own management frameworks*."

As there is no equivalent word in the Anmatyerr language for Indigenous or cultural values, we arrived, after much discussion at the following definition: "*The importance of kwaty (water) for sustaining Anmatyerr culture*".

The non-Indigenous terminology "What values do Anmatyerr place on water?" equates with "Why is water important to Anmatyerr culture?" This interchange of words and operational definition holds for all parties. For example "What are the economic values of water?" equates to "Why is water important to economic interests?"

Due to past inconsistency with the use of terminology in environmental and economic water allocations and confusion between values, requirements and provisions, this Report omits cultural water requirements and uses cultural water provisions instead to describe the ways in which cultural water values can be looked after. The actual decisions that are subsequently made in water planning and allocation processes about the extent to which these provisions can be supported will constitute the cultural water management strategy specific to each water plan. The crux of the issue is that expressions of cultural values are only given meaning when they are recognised through cultural water provisions that protect or manage the stated value.

2.3 Methodology for Cultural Values and Cultural Provisions

2.3.1 Research Process

The methodology is based on what is defined as Collaborative Indigenist Research, a mix of the Indigenist research approach where Aboriginal people inform and dictate the direction and content of research (Rigney 1997, Tuhiwai Smith 1999, Henry *et al* 2004) and the principles of collaborative and multidisciplinary research in which the knowledge systems of research participants and researchers are considered equally valid (Wirf *et al* 2008). The non-Anmatyerr or outside researchers and the broader Anmatyerr community worked together as equal partners in the research team to convey values and concepts in approved and effective ways to people working with western NRM frameworks. The role of the outside researcher was to listen, learn and assist in articulating ideas as opposed to imposing another interpretation. The mutual respect and sharing of knowledge empowered the Anmatyerr voice which forefronts this Report and associated DVD. People were provided with the time and space required to identify what is important and to conduct proceedings in culturally appropriate ways. Operating with these fundamental protocols (AIATSIS 2000, Rea and Young 2006) entrusts parties with the responsibility to keep an open mind and allow the principles of a Collaborative Indigenist Research approach to be realised. These features of working together overlap with the key

criteria for successful Aboriginal training programs (ANTA 2000, Gelade and Stehlik 2004, Kral and Falk 2004, Flamsteed and Golding 2005, Miller 2005, Rea *et al* 2008). Tangible outcomes and real benefits are fundamental to research methodologies in the Aboriginal domain and this was built into the research methodology.

2.3.2 Engagement

Initially, relationships were built through engaging with language and culture classes at the local bush schools (Rea *et al* 2008). Through numerous excursions onto country, relationships grew and led to the employment of Anmatyerr individuals on a part time and casual basis. Through spending time together and visiting country, the outside researchers were slowly instructed through informal discussions, storytelling and teachings about the laws and responsibilities for looking after mer (land) and kwaty (water) and through practices such as locating, hunting and harvesting resources. Although the research was embedded in daily activities set in the Anmatyerr cultural context, the two-way process was always evident with the sharing of knowledge constantly shifting and roles changing in response (Wirf *et al* 2008).

2.3.3 Cultural Water Values

The methodology involved extensive field work, discussion and cooperation to synthesise key elements or emergent properties from the complex, inter-related, often sacred, and gender specific body of knowledge. These overarching properties were then grouped into specific categories. The research was not to record and convey knowledge, but to synthesise from Anmatyerr Law and knowledge the key elements that other people could appreciate.

Simplifying complex cultural meanings aimed to convey messages more effectively. It is rarely appropriate to share details of Traditional Knowledge and Law and it is not necessarily essential. Details about the values held by other water users (eg. monetary values from water based economies) are rarely tabled as they are regarded as commercial in confidence. The same conditions should be afforded to the intellectual property rights that exist for Aboriginal knowledge. The aim was to give authority but not visibility to the extensive, rich and active knowledge and laws surrounding water. To do this we sought to convey an effective message to water managers by outlining five key elements or categories that explain why kwaty (water) is important to Anmatyerr tyerrty (people) in terms relatively easy to interpret from a different world view. Once this understanding is gained, then support for cultural provisions is more likely. The five categories of cultural values (Figure 1) and five categories of cultural provisions (Figure 2) are reported in this text which quotes the Anmatyerr voice (in italics) and provides additional detail. The same information is presented in the enclosed Provision for Cultural Values of Water DVD where the Anmatyerr voice speaks to images and recordings with English subtitles. These categories are likely to be transferable to other Aboriginal groups.

2.3.4 Cultural Water Provisions

This methodology gives equal emphasis to cultural water values and cultural water provisions (Figures, 1, 2 & 3). Without provision, a set of values remain a mere vision. Many contributions to water allocation planning remain unsupported because the values, although well enunciated, well researched and valid, are not always complemented by what is required to achieve the objectives to protect those values. Whereas documenting what is important to people whether in environmental, economic, social or cultural terms, is relatively straight forward, calculating

water requirements and negotiating their provision to meet specified objectives is more difficult, especially if those responsible are distant from both technical and community aspects. Cultural water provisions are ideally identified and recommended by the same people documenting values because values and provisions are inextricably linked. It is also a cost-effective way to undertake the task.

In the Murray-Darling River system it was recommended that "sufficient environmental, social and economic water flows and volumes must be allocated to the River and to Indigenous Nations to sustain the cultural economy of each Nation in the River system" (Morgan e*t al* 2004). This type of provision may be adequate for some systems and Aboriginal groups, but we submit that in Central Australia this would not provide for the full range of cultural values. We also recommend provision for cultural values through a cultural water allocation to sustain water places and associated assets and a licensed cultural water allocation for future economic use. But also of critical importance is protecting cultural values through non-volumetric provisions. These should be articulated under an agreement, analogous to a licence, which sets out various arrangements and actions. This is a vital, effective and non-confrontational means to 'incorporating Aboriginal social, spiritual and customary objectives in water plans and strategies to achieve these objectives' as highlighted by National water policy (National Water Commission 2004).

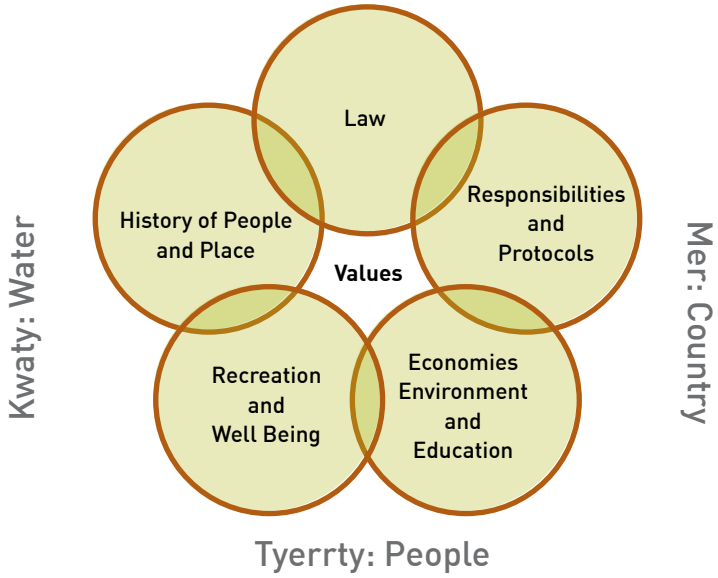


Figure 1

Anmatyerr Cultural Values of Water

The five key elements of Anmatyerr cultural values of water (see DVD for detail). Circles overlap to denote the connection and interactions between all aspects of the use and importance of water. For example, recreational use involves harvesting food and sourcing drinking water, as well as intergenerational education and learning about laws and responsibilities.

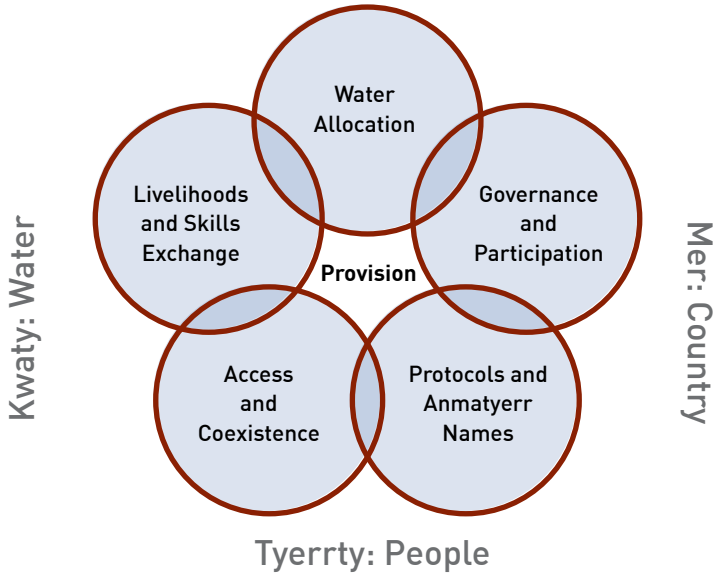


Figure 2

Provision for Anmatyerr Water Values

The five key categories that describe ways to provide for Anmatyerr cultural water values (see DVD for detail). Overlapping circles symbolise how one provision can address more than one value. Each category is an overarching area of possible arrangements for multiple provisions.

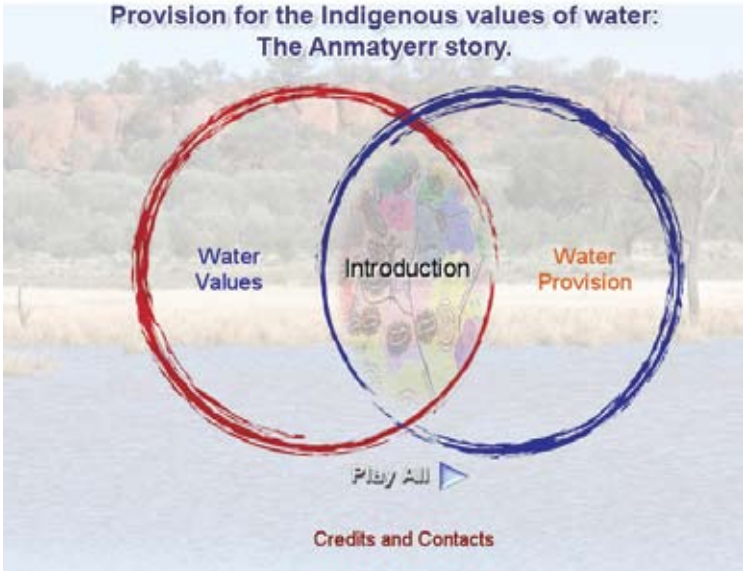


Figure 3

Provision for Indigenous Values of Water

Title page from the DVD associated with this Report. The circles symbolise how the values placed on water and their provision need to be conveyed and understood together.

2.3.5 Culturally Based Livelihoods

The third salient feature of this methodology is the focus on Aboriginal employment. To have cultural values provided for, Aboriginal people are best engaged and participating in the same way other water users are involved with their use of the resource. That is, not just in the water allocation process but with ongoing water management. Conveying and providing for Aboriginal values in water management will have a narrow perspective and deliver a narrow outcome where other parties represent Aboriginal groups, an unsustainable but not uncommon situation. Cultural provisions will need managing just as water provisions to other users are constantly managed. Having Anmatyerr tyerrty identify and convey what is important (values) and how to protect this (provisions) is fundamental and one component of the Collaborative Indigenist approach, but participation thereafter is equally important. National water policy now expects inclusion of Aboriginal representation in water planning and the methodology outlined here is centred on Aboriginal involvement and responsibility from the first stages of identifying cultural values and provisions through to ongoing participation and employment. The strategies we have developed to achieve the objectives of Aboriginal participation (National Water Commission 2004) centre on employment of Aboriginal people through culturally based livelihoods related to water management.

The model for building livelihoods involves clearly articulated steps (Figure 4, Appendix A). This meets the funding agencies objective for this case study to demonstrate a generic pathway. The model we recommend has similarities with the process for small scale water supply management in remote Aboriginal communities (Grey-Gardner 2008) that also adopts an holistic and iterative approach and addresses 'critical elements' for implementing the process. Further analysis about the construction of remote Aboriginal livelihoods and training pathways has been reported (Rea *et al* 2008, Rea and Messner 2008). The model is necessarily broad to address these essential criteria for achieving the goal of livelihoods. This wider context is based on the premise that Anmatyerr tyerrty are best placed to speak and work for their culture and future when a) aware, b) skilled, c) participating in mutually created governance arrangements and in d) culturally based livelihoods through partnership projects with local agencies whose core business is NRM. The model is intended to be a pathway with steps that can be undertaken at the same time or embarked upon at any time. This is because the steps (skills exchange,

training, creation of new governance arrangements and livelihoods) are all inter-related. The model is also contingent on the four concurrent activities being undertaken by Aboriginal and non-Aboriginal interests working together at the interface of two systems of law and knowledge.

Figure 4

The steps for creating long term livelihoods that support Indigenous participation in resource decision making. Black and white circles denote Indigenous and other people creating new arrangements and building inter-cultural capacity together.

2.3.6 Intercultural Capacity

In order that new arrangements for cultural water provisions and livelihood opportunities could be created, the objective was not to work out how Anmatyerr tyerrty might fit in with the non-Indigenous process for managing water, nor how this process could fit in with Anmatyerr culture. The aim was to create new inter-cultural arrangements that respect different knowledge and Laws at the same time as noting the common ground between them. Creating a shared ground and neutral space for negotiating and communicating would act as a clearing house for Anmatyerr and other parties to bring information to, and take information from. The necessary mechanism is inter-cultural capacity, defined as 'the skilling of relevant parties in each other's laws and ways of knowing and doing' (Rea and Messner 2008). Anmatyerr tyerrty have focussed on the need for the 'other' to understand the 'other' and to work together. A constructive and respectful space and framework for working together is dependent on both non-Aboriginal and Aboriginal people increasing their inter-cultural literacy and building beneficial relationships.

The principles of reciprocity inherent in kinship and the Law mean that Anmatyerr tyerrty feel it is incumbent on both parties to construct this inter-cultural context, with relationships and partnerships based on respect, equity and sharing of the benefits. This is yet to be experienced through practice because, although government agencies may share this vision, the necessary policy shift in their core business and resources to match are not yet available.

2.3.7 Research Embedded in Practice

Throughout this research we have continually reconstructed and modified steps along the way in response to results from research being embedded in practice (Rea *et al* 2008).

The Anmatyerr Water Project team has worked from the premise that research and on ground works are inseparable. Rather than separating such activities (eg. fencing, biological surveys, bore monitoring, caring for country, sacred site identification) and research work (eg. methodology development, knowledge transfer, the character of successful training, engagement and employment), their integration appears to be the best way to achieve research outcomes as it provides a practical and meaningful context. It can also deliver tangible outcomes and real benefits along the way. We have deliberately embedded the research in real and meaningful activities and found that this is the most productive and constructive way of working together and realizing research outcomes in practice and in an ongoing capacity.

Integrating research and core project work may become a key characteristic of much research about issues that concern Aboriginal people. A significant opportunity for inter-cultural capacity and cultural togetherness to develop is when research is implemented through practice.

3 CULTURAL WATER VALUES

Anmatyerr say: *"Our cultural values of water are part of our law, our traditional owner responsibilities, our history and our everyday lives. Everyone and everything is related."*

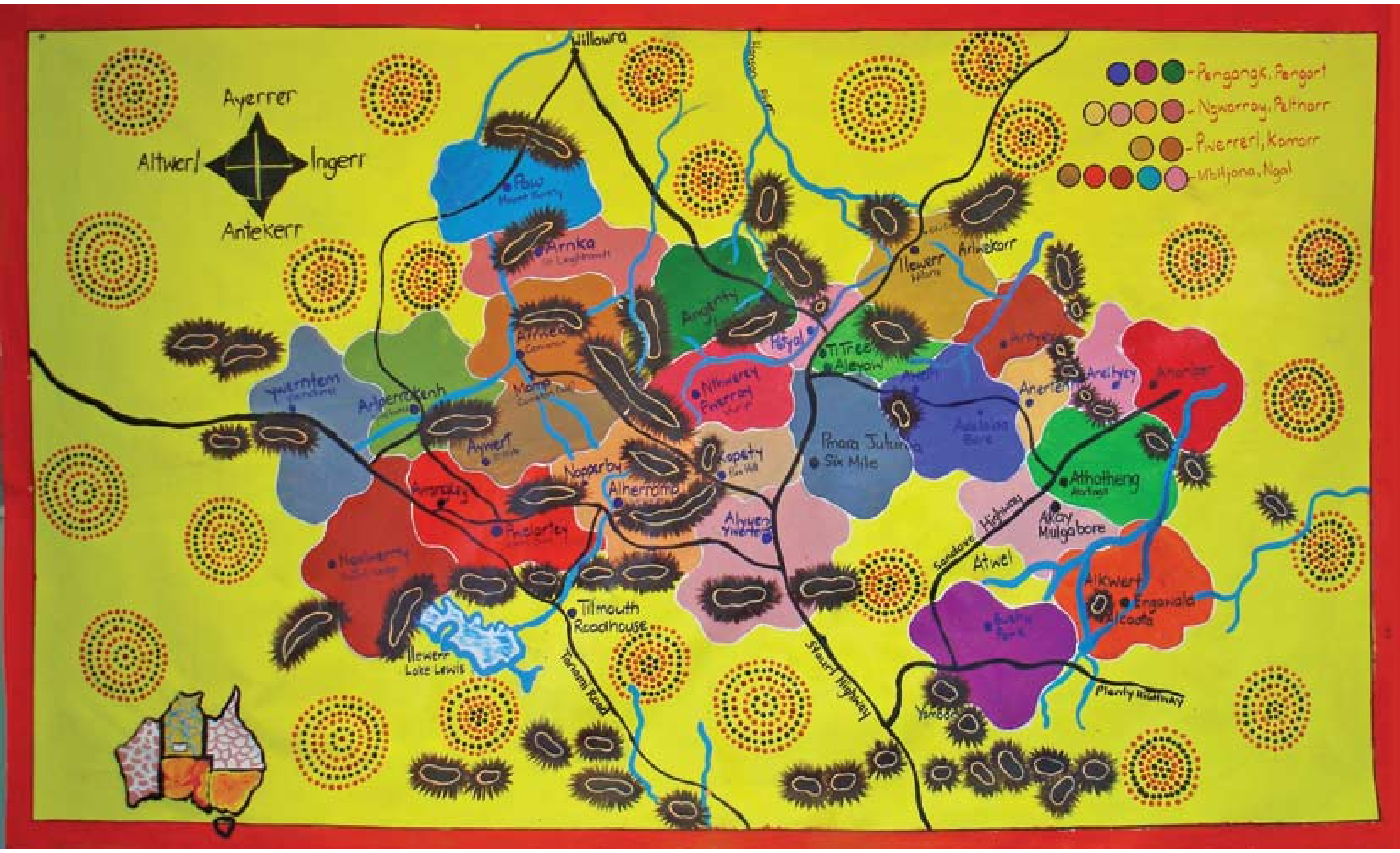
There are many reasons why water is important to Anmatyerr culture. An Anmatyerr woman at a Language and Culture workshop in Alice Springs (10/6/05) stated "Kwaty (water) is our life, without it we would have no trees, no land" (Wirf 2005). For Anmatyerr tyerrty (people) all water places have assigned values (economic social use, drinking water, sacred etc), rules of use (institutions) and management practices and protocols. Water, country, people are all inextricably woven through skinship, the kin relationships within Anmatyerr Law (see Section 3.2). April Campbell explained the relationships as a whirly-whirly, with everything interacting and moving around and around as part of one system. She also gave the analogy of Anmatyerr tyerrty belonging to one tree, with the roots the ancestors and the branches the different skin groups and families. Cultural values of water are therefore always thought about in context.

We collapsed our collective understanding of why water is culturally important into five main categories or key elements. Simplifying complex systems of knowledge, knowing and practice negates the need to speak in detail or outside lores and cultural boundaries. The objective was to synthesise simple but powerful messages in an effective way: ie. in ways other people can make sense of and understand what they can do to assist. The five categories of cultural values (ie. Law, Responsibilities and Protocols, Economies, Environment and Education, Recreation and Well-Being and History, People and Place) are outlined in Figure 1 and expanded on in this text which quotes the Anmatyerr voice (in italics). The same information is presented in the enclosed DVD that illustrates each category with the Anmatyerr voice speaking to images and recordings with English subtitles. Anmatyerr seek respect for, and recognition of, these key elements of cultural values of water. Once this basic understanding is gained outside Anmatyerr society, then assistance with finding ways in which they can be provided for is more likely.

3.1 Law

Anmatyerr voice: *"Anmatyerr Law underpins our culture. Our Law is about our ancestors, our country, and our Dreamings. Anmatyerr Law has never changed the way the white man's law changes. The Law tells us about skinship, how we look after each other and work together. Our Law is our system of government – you call it Customary Governance. Our Law has always provided for the values we place on water. It is the rules for men, women and country. Anmatyerr Law is strong today, but it is invisible to other people. Australian Law should respect Anmatyerr Law so we can share responsibility for looking after water."*

Anmatyerr Law is based on Altyerr, the Dreaming, the knowledge and beliefs about how the land and its people were created, ancestors, and the attendant rules and responsibilities. It is a moral code that unites and instructs tyerrty (people) and mer (country). Anmatyerr Law is governed by Merekartwey (or pmereke artweye, traditional owners) and Kwertengwerl (kutungula, traditional managers or caretakers).



This map depicts the areas of country owned (Merekartwey) and managed (Kwertengwerl) under Anmatyerr Law, illustrating the areas that different skinship groups have responsibilities for.

All land and water has Merekartwey (traditional owners) and Kwertengwerl (traditional managers or caretakers) who are designated by descent, skin and ancestral relationships. All people and country have skin as depicted on the Mer Nyeheng map above. People relate to country through their skinship. Old people have historical accounts, stories, songs, ceremony, ground paintings and body painting for places. With this knowledge comes the responsibility for passing it on to upcoming generations, sometimes as children's stories, other times as sacred law. One of the most sacred Dreaming trails which runs through Anmatyerr country is the Kwaty or Rain Dreaming. The custodians are senior Anmatyerr men. The location, songs, paintings and knowledge of the ceremony that accompany the Rain Dreaming are the sacred and secret knowledge of initiated men. When visiting water places the men focus on ceremonial and Altyerrange (Ancestral Dreaming/Law) associations while the women concentrate on uses of water and cultural aspects relevant to its use (Wirf *et al* 2008). Anmatyerr men's and women's knowledge is recognised as complementary (Wirf *et al* 2008) as it is for wider Aboriginal culture (Bell 1983, Jacobs 1989).

The rain Dreaming runs west to east across Anmatyerr country following the Anmatjere and Yalyirimbi ranges before turning south and heading toward Yamba Station (outside Anmatyerr boundary). The rain Dreaming track is about the importance and role of rain. The important central site (mer kwethethe) is near Mer Ywerternt which in the past was an important living area for Anmatyerr people. According to Eric Penangk, the Rain Dreaming ceremony is the most important because it increases the health of the environment and stock of animal (kerr) and plant (merne) resources. Attached to the Rain Dreaming are other related Dreamings and accounts such as the Hail Stone Dreaming and the Lightning Dreaming. When people are on country the presence of ancestors is always strong. Songs introduce newcomers to 'spirit' people (Irrerenterenye) who also occupy the land and will help you hunt successfully.

Hailstone Dreaming site

Lightning Dreaming site

Anmatyerr men listen as Paddy Kemarr Willis sings the story for this land. Ngwarray/Peltharr country, north-west of Ti Tree

These young Anmatyerr women are learning from elder and teacher April Campbell that this spring was created by the rainbow serpent, is on kemarr/pwerrerl country near Coniston and is reliable or permanent water, despite degradation from stock.

Many rock holes and permanent water places on Anmatyerr country have sacred meaning and are a part of Dreaming stories and tracks. Much of this law is secret and considered powerful. TGH *Strehlow's Songs of Central Australia* (1971) discusses this Law in greater detail and the connections between the Dreaming stories in this region which is part of the Arandic landscape (belonging to the language group known as Arandic).

The rainbow serpent is a powerful part of the Anmatyerr landscape and is invariably attached to water places as a home or as an important place on its journey across country. Some of the more permanent springs located high in the mountain ranges are said to be the home of the rainbow serpent and are sacred places where no one is allowed to go. The most senior Merekartwey and Kwertengwerl will approach these 'dangerous' places cautiously announcing their presence through song and conversation to the spirits and ancestors that reside there. The rainbow serpent is feared and respected by Anmatyerr tyerrty, who convey vivid descriptions of its physical being. Elders refer to the rainbow serpent as a protagonist in childrens stories.

At Wallaby Springs with a school group, senior Anmatyerr Law man Eric Penangk told the story of a small snake at Harpers Spring (now a bore) that travelled and grew bigger at Woolla Downs before falling on Wallaby Springs and the families camping there, causing chaos and havoc and eating many people. This story or account, as with all similar communications, is always told at the places where the knowledge belongs.

Hilda Price, senior Merekartwey and Kwertengwerl for the Kemarr/Pwerrerl (one pair of skin groups) country around Wilora, relayed a similar children's story relating to tiny rock holes in an isolated crop of rock on her country, so small as to seem insignificant to others. The story for these rock-holes relates to the growing up of two young boys from infancy to initiation.

These tiny rock holes (inset) were once a significant source of water for Anmatyerr tyerrty (note the small rocks used as covers) and the law and story for this place is held and taught by the spokeperson and elder, Hilda Price.

They are an important part of the Anmatyerr map of country and an important source of drinking water for 'olden time people'.

There is an important connection between fire, particularly the smoke from bushfires, and rain, with burning ceremonies and practices to bring on rain and increase the health of resources. The symbol used in Anmatyerr paintings for water, smoke and blood is the same, indicating the interdependence between fire, rain and life for Anmatyerr tyerrty (9/6/05; 28/6/05, Wirf 2005).

The fish Dreaming is a powerful Anmatyerr Dreaming, considered secret and dangerous. The centre (mer kwethethe) of the fish Dreaming is located in waterholes on the Napperby Creek. Anmatyerr Law forbids people to take fish from this river or series of waterholes. At other places throughout Anmatyerr country, fishing is a popular practice. Napperby Creek which drains into Lake Lewis is considered Pengart/Penangk (one pair of skin groups) country by Anmatyerr tyerrty and is known as Ilewerr. The story travels on to western Arrente country and down the Finke River. Parts of the story have been recorded by Strehlow (1970) and Robinson (1966).

Eric Penangk explains more about Anmatyerr Law (14/03/06):

> *"Another way we look, three law Aboriginal law. Number one law, he's right. Peace for everybody, happy people, no anything, people happy all the time. If from number one, if people slip down he's on number two. It's bad, its red line, he's in trouble. Number three, he's in six-foot hole, he didn't listen for number one law and he didn't listen for family. (Didn't respect the rules, rights and obligations of skinship or did not fulfil the role of kwertengwerl).*
>
> *That's our law saying. He's gotta listen to what the family is telling him and what the country is saying. Sometimes law say ... people look ... someone coming. That's not man saying. It's coming from (the) ground. This might be Jangala (Ngal) man, this man might say ah, that my cousin. Skin law brings him close. Our law can feed him, he might be hungry. Your law (nodding to researcher) you can't feed him, he gotta have money. Our law not bin rush out. It's still laying there, it didn't go somewhere, it's still laying there."*

3.2 Responsibilities and Protocols

Anmatyerr voice: *"Skinship tells us who owns and manages country. Different places are owned by one skin group, merekartwey, and managed by another skin group, kwertengwerl. Kwertengwerl and Merekartwey, manage kwaty (water) and mer (country) and ensure the right ways are followed. These senior leaders speak for us and we must listen."*

All land and water has designated traditional owners known as Merekartwey (pmereke artweye) and managers known as Kwertengwerl. Merekartwey carry out responsibilities for their country with their Tyemeye (mothers father) or Perle (fathers mother), the managers or Kwertengwerl who have responsibility for informing and gathering appropriate people together in appropriate places for meetings or ceremonies (which they also open and close). Country is inherited to look after and proper custodianship is regarded as essential to the survival and health of the land and its people.

Each traditional owner has a representative or manager for their country, a Kwertengwerl who is the mediator and spokesperson and must speak 'in front' of anyone else. It is through the complimentary relationships between traditional managers (Kwertengwerl) and traditional owners (Merekartwey) of an area of country that regional alliances are maintained (Rubuntja & Green 2002). Two adjacent land holding groups might be Kwertengwerl for each other or managers of each other's land. The head manager can be called Kutungula Kugaritja and as the most senior Kwertengwerl has the ultimate say over approvals and decisions. All people have owner and manager status for places related to their skin. The dual owner-manager system of land tenure means that no single person can represent all Anmatyerr tyerrty. Large meetings with different family groups is not usually "the Anmatyerr way" with people preferring to speak one to one with the correct person (eg skin group, neighbour) as a means of "being properly understood".

In the absence of the correct people being available, Anmatyerr Law provides for recognised caretakers to step up and take on responsibilities for a place; people who fall under the correct skin relationship. If there is no male who can inherit the role of most senior Kwertengwerl, then the responsibility is passed to the next most senior women. Rather than reiterate the detailed understanding of Anmatyerr responsibilities and protocols (Pink 1933, Roheim 1976, Strehlow 1970 and 1997, McConvell 1985, Department of Aboriginal Affairs 1987, Young 1987, Henson 1992, Morton 1997, Albrecht 2000, 2002 and 2006), this Report aims to convey the key elements of this Law in ways other people can respond to.

Eric Penangk explained the concepts of Kwertengwerl (spokesperson and manager) and Merekartwey (landholder) in relation to himself:

"That's my Kwertengwerl - Ngul (father's sister's son), Kemarr (sister's son). That two (meaning those two skin groups) gotta work for me. If they do everything good then I'm happy.

I'm Kwertengwerl. I got to look after your place and Merekartwey say 'That's good". Kwertengwerl got to look after sacred sites too, make sure no one pinch it (including desecrate or steal anything). Same like bank manager he don't allow anyone to go there".

Skinship embraces everything in Anmatyerr society; people, plants, animals, geological features, Dreaming tracks, sacred sites and sacred objectives, as well as the past, the present and the future. The Anmatyerr skinship system is detailed in Green et al (2003). Associated with your skin and country (Mer Nyeheng map) are rules, protocols and responsibilities. The 8 skin groups consist of four pairs that are related through marriage and children. Inheritance of country or custodianship is predominantly patrilineal (called Arrange) with kinship affiliations to each area coming from one's father's father. The system of skinship that dictates all relationships is repeated after the grandparent's generation.

People relate to country and other people through their own skinship. Hence a Kemarr person will relate to land with the Kemarr/Pwerrerl skin pair as Merekartwey as this is his/her father's and grandfather's country. A traditional owner's Kwertengwerl is their father's sister's son or their sister's son. The 'skinship way' of relating to land and water is integral to Anmatyerr culture.

Eric Penangk explains how his right to speak for the area centred on the original Mer Ywerternt (the Rain Dreaming site near Aileron) comes from skinship.

> *"That's why Aboriginal people got land. Talkin' land; that's my land. My mother's and mother's mother the west side, Anmatyerr side and my father's mother western Anmatyerr side again. And east side then, my grandfather's country is a place called Bushy Park, they call it Atwel in another language, and I'm standing in the middle (Alyuen). West side and east side I can talk." (18/05/06)*

On a visit to kwaty sites on her father's country north-west of Nturiya community, one of the women from Ti Tree called out to Ancestral Spirits as she approached to tell them she was coming and explained that it would 'make them happy' that family were visiting the water site. She told her small daughter "This is your mother's country", thus conveying the kinship relationship to the water, and the rights and responsibilities associated with it (Wirf 2005).

This system of skin dictates all aspects of Anmatyerr society today, including social relationships and responsibilities. People who work and live closely with Anmatyerr in an ongoing capacity are almost always incorporated into this system to keep the Anmatyerr system of governance strong and intact and to ensure people are looked after 'skinship way'.

Children learning to make and use panth or rnwang (coolamons) and rntwem (dancing sticks) from elder Clarrie Long using the wood from the spiritually important Bean Tree which grows adjacent to watercourses.

Inset: Clarrie Long (left) and April Campbell

3.3 Economies, Environment and Education

Anmatyerr voice: *"Kwaty (water, rain) provides for the food we harvest and hunt for. Trees that use the ground water may be sacred. They can also be used for collecting sugar bag, fruit, seeds, resin, wood and drinking water too. All plants have stories. Bean Trees have beautiful red and orange inernt seeds for jewellery and ceremony. Bean Tree wood is used for carving. The traditions and knowledge are passed on to children. Grinding stones around rock holes show how we have used water for thousands of years. In the desert, water is not only in rock holes, soakages, swamps, rivers and clouds. Kwaty is held through the country and in everything that lives. Along creek banks we harvest bush onions. After rain, ahakey (bush plum) always provides lots of fruit. We clean grass away to collect ahakey the traditional way. Ahakey is of great importance to our culture. After rain, yerramp or honey ant are easier to find. The soil is soft and yerramp come closer to the surface. They live next to nyerleng (Eremophila sp) and artety (Mulga sp). Children learn by copying what we do. Food is always taken back to old people and shared. Kwaty keeps all plants and animals healthy, and people too. Many animals grow fat from water held in country. We hunt as often as we can. Children learn with us. Children are taught how to find water to drink. We know where to find soakage water. We teach children the right way to dig and cover up the hole. Even when its been dry we know where to find water. We can also use our kwaty for growing new food. Horticulture is an economy planned for some of our families. Water may also be places for tourism and teaching other people about our culture."*

Digging for water provides a fresh supply of drinking water. Soakage water was frequently sourced during bush trips, with children always watching and learning the technique.

Unlike non-desert regions, where water is sighted in rivers, lakes and snow, water in the desert is often invisible, held throughout the landscape in the soil profile as well as rock holes, swamps, clay pans, waterholes, mound springs, underground soakages, tree hollows, tree roots, dew and burrowing frogs. The flat relief of the weathered deserts of Central Australia and the sandy loam soil means that rain is regionally and diffusely recharged into the soil and is utilised by soil biota and vegetation which larger animals then consume. The variable rainfall events characterised by desert environments sustain the environment and its people for months if not years between episodes. Water is held within the landscape and not drained away or lost to evaporation at high rates as is often the case where the geographic integrity of landscapes has been altered.

The relatively intact geography of this region is a key to sustaining these features. Alterations such as drains, channels, stock dams, tracks and roads, embankments, culverts, clearance of native vegetation, soil compaction from clearance and agriculture, and impervious surfaces (concrete, bitumen) all serve to change the natural pathways through which water moves in the landscape and reduce the available water either directly or indirectly to plants and animals.

Anmatyerr tyerrty (people) know that water is within the country and through all living things. Cultural values are not just about recognisable surface and groundwater ecosystems. Speaking about the environment and its uses is an acknowledgement of the role of water in Anmatyerr society and its importance in underpinning economies based on old and new ways. Anmatyerr tyerrty hunt and harvest food regularly. The level of hunting and harvesting peaks for many months after rain because the desert environment responds accordingly. This was also reported from the neighbouring Alyawarra and Kateye language groups, where women in particular take the opportunity after good rains to move away from settlements onto their country to take advantage of the resources and to reinforce social harmony and cultural identity (Bell 1993).

Anmatyerr people regularly hunt and consume animals such as aherr (kangaroo), arlewatyerr (goanna), tywenp (perentie), artew (bush turkey), inarleng (echidna or 'porcupine') and areng (euro or wallaroo). Small animals such as yerramp (honey ants), anyematy (witchetty grubs), alheramp or kwep (frogs), pety or irrpenng (fish) and rltwamp (sugar bag) are also consumed, as are plant resources such as mern (fruits), anterrng (seeds), ahakey (bush plums), katyerr (bush sultana), alangkw (bush banana), anakety (bush tomato), arrant (native tomato), yerrakwerr (wild onion), and gkwernelyerr (native currant). Bush tobacco (ngkwerlp) and bush medicines (arnang rlkert-kehn) are often traditionally prepared and administered by arrweketye (women). The smooth hollowed out stone surfaces next to some rock holes are testimony to their long term use for grinding seeds, a process that involves a ready supply of water to make a paste. Gendered environmental knowledge was put forward by Carr and Rea (2006) as a feature of Anmatyerr society, to enable women's and men's knowledge to be understood separately and as a mechanism to avoid the collapsing of separate gendered knowledge into widely adopted terms such as traditional knowledge (TK) or Aboriginal ecological knowledge (IEK).

Ahakey is harvested by elder Clarrie Long the traditional way, collecting all the fruit and taking it back to old people before it is shared with others.

Janey Long and Selina Gorey with Arlewatyerr (sand goanna) which are highly valued and hunted for many months after good rains.

Children copy the adults by digging for their own yerramp (honey ant) which are harvested regularly after good rains.

Water is also central to making artefacts and tools (eg Bayly 1999). Healthy trees that tap groundwater are sourced by Anmatyerr tyerrty for witchety grubs, drinking water, sugar bag, seeds and wood. Nuts and seeds such as inernt (bean tree seeds) and bean tree gum are used for making jewellery, mats and baskets, and have spiritual significance. They are used by women for ceremonial purposes and the wood is used to make spears, panth or rnwang (coolamons), anem (digging sticks), rntwem (dancing sticks) and twererr (music sticks) for use and for sale to tourists.

Water for drinking, as with food resources, is also sourced from across the country. Traditionally women would collect water for the group, carrying it from place to place in a rnwang (coolamon) on their head with a grass ring made of spinifex for support. This role on a day to day basis indicates that women's roles and knowledge in relation to water is vital to the survival of the group (Wirf 2005). The location of rock holes, soakages, springs and significant waters in the rocky beds of major rivers are well known and regularly relied upon by Anmatyerr tyerrty. On a visit to a water site, April Campbell explained that 'the source of the surface flow in the river bed is groundwater – springs that come up out of the ground after big rain'. She explained how the surface water then flows down towards the area called Yanninge and goes underground again (Wirf 2005; 5/6/05). This interpretation illustrates how Anmatyerr cultural values for water cannot be separated into surface and ground water.

When sourcing drinking water, people first look for indicators in the vegetation, the gradient of the river bed, the frequency of past rain in the area and other factors (pers. comm. R. Campbell). On hunting trips, research trips and other excursions, water is nearly always sourced and relied on. Whereas non-Aboriginal people budget for their forecast water needs of desert excursions by carrying containers of water, Anmatyerr tyerrty do not experience the same need and are confident of finding water when necessary. Serafina Presley-Haines, Ti Tree school teacher taught young Anmatyerr children how to find water in the bed of the Hanson River (pers. comm. L.Jordan 01/06/05):

Serafina said the way to find water was to check for green vegetation, particularly reeds and river gums. She pointed to one clump of dry reeds and said it was no good to dig for water there as a clump of reeds on their own was an indication that a soakage had already been dug there. Adjacent to some green reeds Serafina drew a circle in the sand about 1.5m in diameter and instructed the class to dig from the edge moving inwards, creating a bowl like depression for sitting in. She made a digging stick and acquired a billy can and sitting in the centre of the depression dug a cylindrical hole less than 50cm wide. Moist sand was used to pack the sides of the depression to prevent loose, dry sand slipping back into the hole. Less than a metre from the surface, clear water soaked into the hole and supplied the whole class with fresh drinking water. Afterwards, the hole was backfilled. Serafina said that in really bad (dry) times Yapa people (Aboriginal people) would rely on the more reliable bigger soakages that people still know about. She pointed to the nearby bore that had supplied water to Ti Tree station: 'that bore they built because this has always been a good place a reliable soakage, called Pwerrey Ilpay'.

Soakages are always closed after use and sometimes marked by putting a long stick in the hole before backfilling it. This was done to protect the water from 'drying up' and to prevent animals from gaining access or falling in. In more recent times flour drums with the bottom removed have been used to line soakages to create more permanent wells, which were covered over by placing the flour drum lid back on the top. Stone lids are sometimes present next to small rock holes ready for use after rain. Each 'lid' appears to be the perfect size for the hole it is intended to cover. An Anmatyerr woman elder from Wilora explained that these lids 'hold water longer and keep it cool' and that they are 'very old' (Wirf 2005).

Pwerrey Ilpay is an old reliable angenty (soakage) where the road crosses the Hanson River at Nturiya (Ti Tree Station Homestead) and where Serafina Presley-Haines teaches children how to find kwaty. The Station tank in the background indicates how settlements were made near reliable water and relied on Anmatyerr knowledge.

Eileen Campbell shows the younger generation how to find water.

Reporting these uses of the environment is an acknowledgement of the role of water and its importance in underpinning old and new economies. The subsistence economy (food and water) is not only critically important to people's health and well being, but is central to inter-generational education. School visits to water places as part of Language and Culture classes involve learning about the role and uses of water. Teaching of Law and culture is often through narrative about historical and/or metaphysical accounts. These are not mere stories as other people might perceive. Children always participate in family bush trips and are included in practices where it is appropriate. They mimic the older generation all the time, copying and practising traditional techniques. The passing on of traditions and knowledge to children through meaningful activities as part of daily routines is all contextualised in skin, place and family. The stories that belong to each person and their inherited responsibilities are all learnt on country through cultural practices. Knowledge is not just geographic but relates to skinship. Much food that is hunted and harvested is not eaten until after it has been taken back to old people, especially the Merekartwey and Kwertengwerl, and shared thereafter.

Anmatyerr women frequently express the desire to organise a camping trip to a waterhole so that the women elders who are also traditional owners and managers for that country can pass on knowledge to the young girls in the correct ways. Loss of traditional waters would represent a significant threat to women's knowledge and responsibilities under Anmatyerr Law and in particular their understanding of the environment and resources. Although both men and women hunt for large animals, it is mainly the women and children who harvest small animals, seeds and fruit.

Water not only maintains bush foods but new horticultural enterprises. This latter economy is being developed with a variety of crops planned for commercial purposes and for sale to the wider local community. Water places are also being considered as tools for raising cultural awareness and teaching others. Cultural awareness training by Anmatyerr people for teachers, mining company employees and other visitors is one economy that could centre on the importance of water. Central Australia is a major tourism destination. The region is relatively close to Alice Springs and Anmatyerr tyerrty are proud of their strong culture and attachment to country. The Anmatyerr region is home to many hills and ranges, gorges and creeks, springs and

swamps that provide locations for economic gain. As each place has families with responsibility under customary tenure it is the choice of those respective groups as to whether and how new economies may grow. The key to constructing futures that are culturally based and approved is maintaining the consistency and stability of Anmatyerr Law with regard to the past, the present and the future.

3.4 Recreation and Well Being

Anmatyerr voice: *"Kwaty is central to our well being and relaxation. We enjoy visiting country. Clean rock holes are important for swimming in the hot weather. Camping sites are always near water. We often meet and talk at water places."*

Swimming and camping on country provides people with opportunities for teaching and learning culture and for relaxation with friends and family in neutral spaces.

When Anmatyerr tyerrty are on country, water places are nearly always visited. Some waterholes have strict laws for visitation only by initiated men. Others are 'free sites' where everyone can go and these are often important meeting places, where Anmatyerr tyerrty hold discussions and counsel with others. They provide an open space where people can communicate and talk freely. In the hot desert, clean water is very important for cooling down, washing and relaxing. Swimming is an important part of people's recreation where they are together with friends and family. Social activities associated with water have far reaching benefits to people's health through having fun, communicating and hygiene. People always camp at water places, where there is not only a source of drinking water, but shade, soft ground, safety (eg. from fire, snakes) and because such places are 'free' or open to families from other parts of the country. People relax through fishing and harvesting aquatic or water dependent resources and eating and sharing bush food that is relished. Story telling at water places adds the dimension of education, teaching and awareness to recreational visits.

3.5 History of People and Place

Anmatyerr voice: *"We would like everyone to remember what happened to our water when European people first came to Anmatyerr country. Shallow wells were dug near our waterholes for new settlements. Dynamite was used to make soakages bigger but springs were ruined. Windmills and bores were sometimes built on top of springs that you cannot see anymore. These are still sacred places. Many Anmatyerr men and women worked on cattle stations. During drought the old cattlemen would give rations to the elder custodian of the rain Dreaming. The Rainmaker makes rains through special ceremony."*

The non-Indigenous perspective is often that early settlers conquered a 'dry' land and 'found' water, whereas there was already a body of knowledge about water embedded in Aboriginal language, art, ceremonies and daily life. Non-Aboriginal people came through the Anmatyerr region over 150 years ago. John McDouall Stuart stopped at Mer Ngwurla (Anna's Reservoir) several times and tried to settle there given it was a major supply of water between Alice Springs and options further north. It is no coincidence that the important Rain Dreaming track and story runs through this region. The area is relatively well watered although to the untrained eye water is scarce. Availability of water in deserts for Aboriginal people is a given. Cognitive and stylised mapping of knowledge about the type and location of water has been the key to survival for desert Aboriginal people (Thomson 1962, Pintupi carving). Toyne et al (1996) report that traditional water sources in adjacent Walpiri lands exists within walking distance of any point. This also seems to be the case for Anmatyerr tyerrty as senior Law man Eric Penangk states:

"Aboriginal people always know where water is. If these rock holes were dry there is a soakage not far away. We would have to dig but we know we would find water. Whitefellas have perished not far from water but Aboriginal people always know where water is." (23/6/05)

Our field trips have revealed that water sources exist across the country in 'chains' and in very close proximity. However they are invisible from even a short distance away so it would be necessary to either know, or be shown, where they are located or to have some form of map (Wirf 2005).

Explorers learnt from Anmatyerr tyerrty where water could be found and pastoralists and others began to settle the area supported by the availability of water. The contact history of this region is not understood from an Anmatyerr perspective. Anmatyerr tyerrty would like to share the memories and the accounts handed down to them. There are many accounts that throw new light on the contact period which people are proud of and value. When people first saw the parallel tracks of wagon wheels in the red sand they read this as a dangerous supernatural beast and would avoid walking on the tracks because of what might happen. The first sight of white skinned people was interpreted as dangerous spirits. The attempted settlement by John McDouall Stuart at Anna's Reservoir/Mer Ngwurla was thwarted by Anmatyerr tyerrty and this event is not widely known or publicised. It was not for many years that non-Aboriginal people moved into this region to build the telegraph wire between Adelaide, Alice Springs and Darwin and thereafter to create cattle stations.

A group of Anmatyerr women expressed the view that Anmatyerr tyerrty had the first water in the region, and stated that they had traditionally 'cared for water, looked after water, didn't waste it and didn't take too much' (5/6/05, Wirf 2005). Anmatyerr tyerrty shared their knowledge of country in the context of reciprocity, whereby they anticipated others would share their

knowledge and resources too. However, there are many examples of springs that were sacred sites being destroyed as settlers tried to make them larger by digging them out, or blowing them up with dynamite. Spring water was also tapped into by placing wells and windmills nearby and later bores. Cattle then trampled and denuded these places as they accessed water for drinking. Many of these places remain as water sources for cattle today and have not been rehabilitated. People still note and express sadness at some of these places. In relation to water sites, Hilda Price explained that 'people used to live all through this country but station moved them off – now nobody' (7/6/05, LWirf). Many of the bores now have damaged windmills, reportedly as they were destroyed by ancestral beings angry about the disturbance of groundwater (pers. comm. L.Jordan). Many of the important water sites for Anmatyerr tyerrty are now the sites of dams, wells and bores. There is a conjunction between the cultural importance of a site and the presence of plentiful water. It has been noted that practically all sites registered with the Aboriginal Areas Protection Authority (AAPA) in Central Australia are associated with water (pers. comm. R Hoogenrood).

Many Anmatyerr tyerrty worked with and for the settlers and pastoralists over the last 100 years. Families were incorporated into various station enterprises with men working as station hands mustering, fencing and helping find water for cattle. Women also assisted with cooking, station maintenance and even milking cows. Good relations existed between several of these stations with some pastoralists learning language, employing people and respecting and providing for people's customary responsibilities. Not all the history is harmonious. The most reported is the Coniston massacre in 1928 on Coniston Station, western Anmatyerr lands. The 75th Anniversary of this tragedy was a deeply important event for local people who came together in a spirit of reconciliation. Anmatyerr tyerrty requested that the anniversary be formally remembered every year but this has not eventuated. Many people were also removed as children during the 20th century and are known as part of the stolen generation. Some have returned to live with family

The impact from cattle is often highest around dams, bores and windmills that were sometimes built on top of, or adjacent to, springs with cultural values.

Mer Ywerternt is a large permanent swamp of special cultural significance and with historical heritage.

in the region but remain without strong Anmatyerr language skills. Others have never returned for a variety of reasons, yet are acutely remembered. The impact of this policy to take children from their families has had far reaching ramifications, not least to threaten to fracture the strong skinship system.

Missionary people also played a major role in people's lives and continue to do so. Pastors Paul Albrecht and Gary Stoll in particular are fondly remembered and maintain a connection with people today. Both speak language and have advocated widely for Anmatyerr tyerrty amongst other Arandic groups with regard to the need for the wider society to respect and recognise Aboriginal customs and laws (Albrecht 2000, 2002, 2006). The Christian church is still respected and highly regarded with senior Anmatyerr men trained as Lutheran Pastors and Sunday is observed as a day of rest. This relatively recent history is something that has and is still shaping the way Anmatyerr tyerrty interface with other people and cultures. The stories and history of their involvement and support for the people who settled on their traditional lands is wrapped up in water places and Anmatyerr tyerrty people would like other people to be aware of their stories during this time.

Water places often have an added layer of meaning in terms of historical events and related stories. Arden Soak was in the 1920s the site of the FAITH mission school run by the school teacher Annie Locke. Further north at Wallaby Springs, Locke ran another school where grinding stones can be found indicating prior use (pers. comm. E.Penangk). East of Aileron in the ranges lies a Lightning Dreaming adjacent to which is a large rock-hole said to be a place where Anmatyerr tyerrty from the west hid at the time of the Coniston massacre and where grinding stones used by the 'olden time people' are still laying (pers. comm. E.Penangk).

Eric Penangk sits besides a deep rock hole and tells the story of how 'olden time 'people sought shelter here during the days of the Coniston massacre.

Tony Scrutton at Mer Ngwurla (Anna's Reservoir Conservation Reserve) explaining to the younger generation the cultural significance of artefacts.

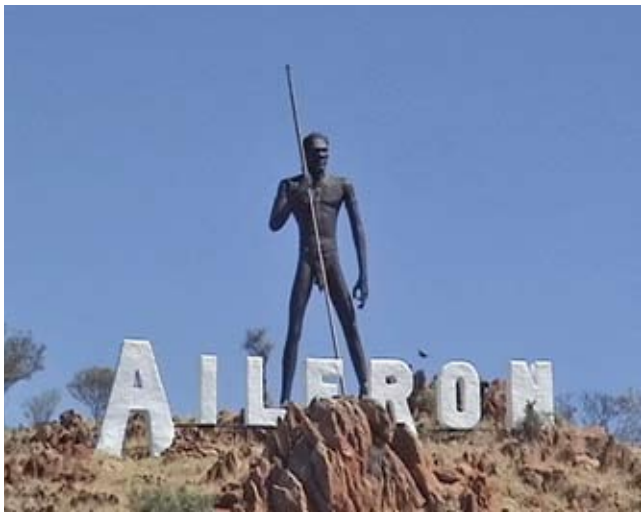
Tony Scrutton tells the importance of the historical story behind the old swamp near Mer Ywerternt just south east of Aileron roadhouse.

"This is the original Mer Ywerternt. When people moved back in the 60s they moved to Ti Tree. Mer Ywerternt people who lived here are now at Ti Tree and they renamed it up there Pmara Jutunta (western arrandic spelling) because it still represents them people from Mer Ywerternt. People when they see Pmara Jutunta and think this is the original, nah, this is the original here."

Tony Scrutton also tells the story behind the 19m high statue of Charlie Quartpot Ngwarray or 'Anmatyerr man' on the hills behind Aileron.

"It's important for the statue to go up. He represents in many ways. He was a strong leader from the past ... an important man, a rainmaker, who travelled many countries as well. I think it's important for the younger generation as well, for the future as well. They'll recognise someone up there who represented this region in the past."

The rock-hole kwalpa kuna, just east of Aileron roadhouse, is a significant Anmatyerr story-place and a place of historical significance as Anmatyerr tyerrty living at Ryan's Well would travel there by donkey cart to renew their water supplies by filling up water containers. Kwalpa kuna lies within the path of the Rain Dreaming. The water was so reliable and precious that Anmatyerr tyerrty used to overlay the water hole with a grid of cut timber. Although Anmatyerr tyerrty no longer rely on this water for survival, the story and reverence for history of the site remains. When Eric Penangk, Kwertengwerl for this site, conveyed this knowledge he spoke of his wish to manage the water hole again to minimise the damaging impact of camels.



The 19m high statue of Charlie Quartpot Ngwarray or 'Anmatyerr man' on the hills behind Aileron is historically important.

April Campbell conducts a history lesson near Brooke's Soak, the site of the Coniston massacre in 1928.

There is a connection between history, people, land and law captured in the following quote on rainmaking at a sacred site on Anmatyerr country from Tony Scrutton.

"The leader, the chosen one, had to represent himself up here. Charlie was one of them (meaning Charlie Quartpot). I think he had more skill than anyone else; and then Eric's father and the other old fella, George (George Yiramba), was the main man with songs and everything. They were down there dialoguing like a computer. They were the computer down there (pointing to the base of the hill). This man was like an aerial standing up here, getting all the signals in."

"I came here one time, it was, about 14 years ago I think, first young fella to come here, listen to them old people, listen to what they say and learn off them. Same with these three guys as well (young co-researchers), I spoke to them earlier on. This is the main sacred place in the Anmatyerr region. To make rain, if there's a big drought, come here, make rain. Old people used to see things dying, cattle, kangaroos dying, they used to know we got a drought, they used to come here."

The rockhole at the place which celebrates the kwalpa or spectacled hair wallaby, is rich in cultural and historical values but threatened by camels.

4 CULTURAL WATER PROVISIONS

Anmatyerr voice: *"Water allocation and a licence provides for some of our cultural values. Here we show you new ways of how our water can be looked after. We would like an agreement that supports these new ways."*

The ways in which cultural values can be provided for in water management plans have been collapsed into five main categories. Category one, 'water allocation' (4.1.1) consists of volumetric entitlements. It is divided into an allocation for 1) consumptive use, the banking of water for licensed Anmatyerr enterprises (4.1.1.1), and 2) non-consumptive use, the volumetric allocation of surface water and groundwater to sustain environmental and cultural values and other public benefits (4.1.1.2). Generally non-consumptive water is not licensed in the NT. However, this category of water can be licensed under the NT Water Act. The only non-consumptive use of water not requiring a license is the use of a waterway for recreational purposes under Section 44(3).

Categories two to five consist of non-volumetric ways to provide for cultural values of water. Although not previously regarded as formal mechanisms in water plans, they are effective, non-confrontational and often simple ways of recognising many cultural water values and providing water managers with new options for delivering National and State policies, processes and legislative requirements. Non-volumetric ways to protect values include the use of Anmatyerr protocols (section 4.2.1); access and co-management of country through harmonious relationships (section 4.2.2); culturally based livelihoods (section 4.2.3); and new water governance arrangements supported by inter-cultural capacity that interface different systems of water law and management (section 4.2.4).

There are parallels with non-volumetric environmental water provisions. Precedents set from environmental provisions include maintaining an uncleared riparian zone, building fish passages next to weirs and limiting new bores adjacent to spring fed ecosystems. These are not formal water allocations but actions, rules or guidelines to provide for environmental values. Similar non-volumetric provisions to support cultural water values can be made with actions and responsibilities clearly set out. Under the NT Water Act, volumetric or non-volumetric allocations to cultural water values or beneficial uses can be licensed. If they were to remain unlicensed then this category of allocation could be usefully managed under an Agreement that is analogous to a licence.

The five categories of Cultural Water Provisions (Figure 2) are detailed here and follow the Anmatyerr voice (in italics) which is also presented in the enclosed DVD. Some of these provisions, in a generic sense, may be transferable to other Aboriginal groups. It is imperative that these allocations, licences, actions and guidelines are in place in a region where other water users have already claimed and used part of the resource and this use is set to increase (eg. mining, horticulture).

4.1 Volumetric Provisions

4.1.1 Water Allocation

Anmatyerr voice: *"Anmatyerr formal water allocation is needed to ensure water remains in the landscape. Everyone should receive their fare share. Currently no groundwater is allocated to sustain cultural values. Anmatyerr water allocation is also needed for new Indigenous economies."*

Water use under NT legislation is either through licensed allocations for consumptive and non-consumptive use, or non-licensed allocation for non-consumptive use, defined as environmental and other public benefits including Aboriginal and cultural values. Although 'allocation' is not defined in the NT Water Act, the volumes granted to various uses are expressed as a % share of the assessed resource.

Water allocation, consumptive use and environmental and other public benefits are defined in the National Water Initiative, and the NT as a signatory to the inter-governmental agreement, accepts these definitions. There is a strong mandate for a formal allocation of water to Anmatyerr tyerrty under the reviewed and updated Ti Tree Water Resource Strategy due in 2008. Firstly, water plans are encouraged to, where possible, include licences for traditional cultural purposes and to take account of native title rights to water in the catchment and aquifer area (National Water Commission 2004). Secondly, NT policy sets water allocation for non-consumptive use as the first priority, with allocations for consumptive use made subsequently and within the remaining available water resource (NT Government 2006). Recommendations from environmental and social scientific research are to be used as the basis for these allocations. As such, the findings herein provide clear direction for ensuring cultural values (as a public benefit requirement and through Section 52-54 of the National Water Initiative) are provided for in the Ti Tree Water Resource Strategy.

This water plan may also be seen as a mechanism to incorporate or recognise customary law into plans as a way of dealing with issues of concern. This was a recommendation of the Northern Territory Law Reform Commission (2003) who also argued that governments assist communities develop such plans. We suggest that the Anmatyerr community warrants such assistance to ensure the Ti Tree Water Plan, and any other water agreements, address water management from a perspective that respects customary governance.

4.1.1.1 Cultural water allocation – non-consumptive use

Provision for non-consumptive values such as clean drinking water meet cultural, environmental and public health values.

In terms of volumetric allocations, it is essential that this non-licensed cultural water allocation ensures that water places and associated assets of cultural value will be sustained. This volume is a major way to provide for cultural values by sustaining the environment which is central to Anmatyerr culture and explained in the values category 3.3 'Environment, Education and Economies'. The water dependent landscape (trees, animals etc) is the basis for cultural

values of water. This non-licensed volume of ground water (the non-consumptive pool) is synonymous with the water licence for traditional cultural purposes as expected of water plans under National water policy (National Water Commission 2004). It is to be calculated on the best available information and science about the requirements not only of cultural values, but environmental and other public benefit values (NT Government 2006). There is a need for clear rules about the provision of water to support Cultural Water Values. Sections 4.2-4.5 expand on non-volumetric provisions, while this section discusses volumetric provisions for non-consumptive use.

SURFACE WATER

The Ti Tree Water Resource Strategy (2002) allocates 5% of surface waters in the Ti Tree Water Control District to stock and domestic purposes and 95% to environmental and cultural values, although actual volumes are not stated. These values were not discussed in this Strategy, and nor was the entitlement matched with specific actions or guidelines. This water allocation needs to be informed by stated environmental and cultural values of surface waters and specific arrangements to protect those values. A basic management requirement would be useful to confirm this allocation is recharging the groundwater thereby reducing any risk to this resource and its users. For example, guidelines about a) constructing dams, roads and culverts; b) the location of watering points for cattle and camels and the fencing of waterholes; and c) regular site visits and basic monitoring of environmental and cultural indicators to ensure surface water places are not being degraded.

Surface waters need management guidelines to ensure that the allocation to environmental and cultural values achieve set objectives.

Table 1

The allocation of surface water and groundwater in the 2002 Ti Tree Water Resource Strategy (DIPE 2002).

	% Water Resource Allocated for Each Water Use			
	All Rivers and Wetlands	Ti Tree Basin Groundwaters Salinity under 1,000 mg/L		
Water Use		Western Zone	Central Zone	Eastern Zone
Irrigation	–	80%	80%	–
Public Water Supply	_	10%	–	–
Envirinmental & Cultural	65%	_	_	_
Homestead & Stock Supply	5%	1%	1%	1%
Reserved for Later Allocation	0%	9%	19%	100%

There are close parallels between the way environmental water rights have evolved over the last 20 years and the way cultural water rights are evolving. There is a synergy between provisions for ecological and cultural values that planning processes can take advantage of. Cultural water values may at times be met by environmental water provisions and cultural water provisions will in turn provide for some environmental values. The interface between the knowledge and water requirements of both environmental and cultural values needs to be acknowledged and displayed to maximise support for meeting separate and common objectives. This need was identified by Anmatyerr women in particular who question the separation of environmental from cultural values and considerations in water planning (pers. comm. A.Campbell). Approaches and tools used in the environmental realm (eg water allocation processes) that negotiate provisions from identified values and requirements (bench-marking, expert panel, top-down, bottom-up approach) may be useful in negotiating cultural provisions from cultural values and requirements.

GROUNDWATER

In contrast to surface waters, the Ti Tree Water Resource Strategy (2002) allocates zero groundwater to environmental or cultural water requirements. The Strategy does however reserve 9%, 19% and 100% of groundwater in the western, central and eastern zones, respectively, for later allocation (Table 8, TTWRS 2002) and as such this water could be regarded as technically available to support non-consumptive uses. However, it was assumed there were none (DIPE 2002) and approximately 80-90% of the assessed groundwater resource was allocated to irrigation and public water supply (Figure 5). Potentially, this could place subsequent allocation decisions in a 'claw back' situation. Groundwater being relatively close to the surface and rising in a northerly direction across the Ti Tree Basin (40m to 2m) supports significant surface vegetation, some of which Anmatyerr have shown have cultural values. Even though some vegetation can access groundwater at some depths (eg. 8m, pers. comm. P.Cook), decreases in groundwater levels can stress vegetation that needs to spend extra energy accessing water from deeper profiles. From the field trips undertaken throughout this research, it is apparent that groundwater in the soil profile and watertable under-writes the aboveground health of the biophysical and cultural landscape. Groundwater springs and soakages across the region have significant cultural values. There is an urgent need for an environmental and cultural groundwater allocation in the next Ti Tree Water Strategy. This will protect the groundwater dependent ecosystems from an ecological perspective and the biophysical resources, values, metaphysical beings and Dreamings known to Anmatyerr tyerrty.

4.1.1.2 Cultural water allocation – consumptive use

Indigenous Water Licences for current and forecast Anmatyerr enterprises in horticulture could also be provided by a reserve volume of water from the available consumptive pool in the Ti Tree Water Resource Strategy. This banking of water for commercial use by Anmatyerr tyerrty would be within the allocation of water for economic purposes. This would ensure that future options are not precluded. Commercial Aboriginal enterprises also have a cultural basis and the water not only provides economic values but a range of other outcomes that support cultural values, health and well-being.

4.2 Non-Volumetric Provisions

Sections 4.2.1 to 4.2.5 demonstrate how cultural values can be protected through non-volumetric provisions.

4.2.1 Anmatyerr Names and Protocols

4.2.1.1 Anmatyerr names

Anmatyerr voice: *"Language and culture are together. Many maps only use English names. We have our own names and maps of mer - Anna's Reservoir is Mer Ngwurla and the Hanson River is Mer Petyal. Use of Anmatyerr names helps awareness and education."*

IMPORTANCE OF LANGUAGE

Anmatyerr cultural values of water are embedded in language. The transmission of knowledge depends on fluent use of Anmatyerr. The population of the region is estimated at just over 2000 of which at least 80% are Aboriginal, with the majority speaking Anmatyerr as their first language (Anning 2002). Many people learn a 2nd, 3rd or 4th language from neighbouring Aboriginal groups before English is learnt. Although Anmatyerr language is strong, new dialects and slang is being spoken and many old words are slipping out of every day use. Many of these old words refer to waterholes and their stories. The loss of this type of knowledge is keenly felt by mature people in the community (pers. comm. R.Campbell) who call the "older" Anmatyerr language Kalenthelkwer. Within Kalenthelkwerr are many of the concepts and philosophies which underpin the law (pers. comm. E.Penangk, R.Penangk, P.Kemarr, T.Scrutton).

Wider regional use of Anmatyerr language through translation of English documents and signage, and language and culture classes for visitors and other residents, would reduce the risk of language being lost and cultural values not protected. Awareness about the role of mass media and globalisation in the lives of young people would be useful in drawing attention to slang and subtle changes in usage and meaning of words.

In the inter-cultural sphere, language becomes important in terms of power. Anmatyerr tyerrty are at a disadvantage when they participate in discussions and committees where the dominant discourse is English. Anmatyerr tyerrty have consistently spoken about the need for interpreters in such forums (pers. comm. D.Pengart, P.Kemarr, E.Penangk, R.Penangk, L.Price), especially with regard to issues about country. The idea of Anmatyerr tyerrty taking on interpreting roles is widely discussed and supported. This needs to be supplied via interpreter training and supported

by literacy and numeracy training. Anmatyerr tyerrty see learning language as a two-way commitment incumbent upon themselves and others so that communication can be on an equal basis (pers. comm. T.Scrutton). Either party should be able to take on the role of interpreting. The disadvantages of working with Anmatyerr without language skills are not always obvious and this highlights the need for better cultural awareness and training. Anmatyerr are disappointed with people who claim to be advocates but who have not acquired language skills and remain unaware of Anmatyerr culture as a result (pers. comm. E.Penangk). Senior man Don Presley noted:

"People like Garry Stoll and Paul Albrecht (fluent Arrernte speakers from Finke River Mission, 1960s-1990s), they were well known them two ... that's the sort of people we need to help us out, to talk about what we're talking about now (research, water issues). They can speak language. I think that's really important." (03/11/05)

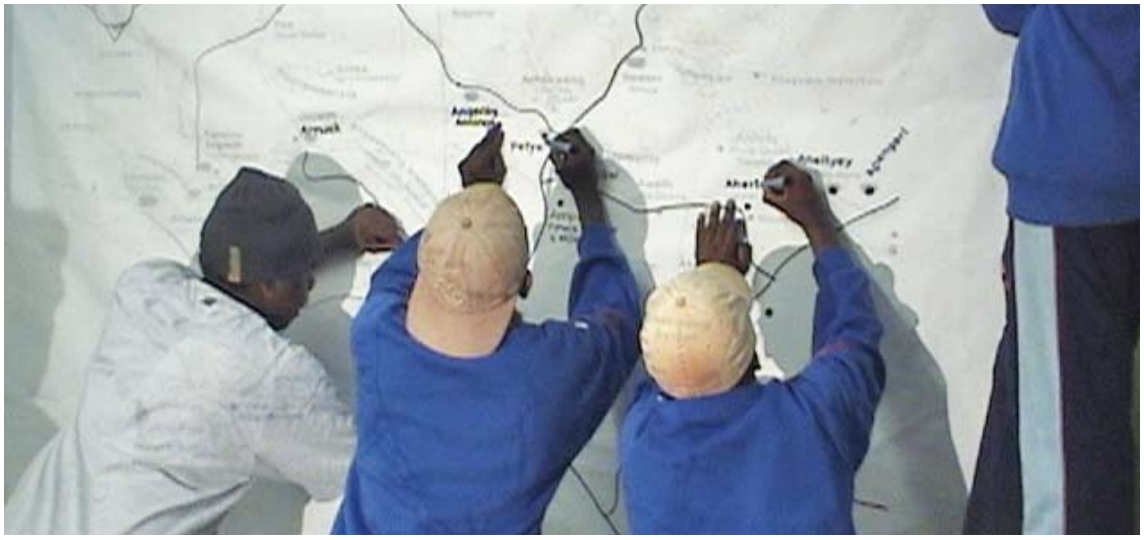
In the Central Anmatyerr Picture Dictionary (Green et al 2003: 20-21) there is a map of mer (country) that shows important topographic features and places of habitation from an Anmatyerr perspective and using Anmatyerr names (Wirf 2005). This is the map used in the language and culture program at schools in the region. Maps used in the Ti Tree Region Water Resource Strategy (DIPE 2002: maps 1-4) document western scientific knowledge and values for waters such as catchment area, alluvial deposits, groundwater yields, total dissolved solids, aquifer thickness and depth to water table. There are no comparable maps that reflect Aboriginal understandings in this Strategy. Use of English place names establishes non-Indigenous ownership over the area and symbols such as the Stuart Highway, the railway line, the gas pipeline and pastoral lease boundaries privilege the dominant culture and keep the Anmatyerr maps invisible. For example, an important ceremonial water site, marked on a topographic map as '20 mile bore', illustrates how western maps reconstruct a landscape to promote the culture of new settlers (Wirf 2005). The NRM maps have enormous power in promoting a particular perspective of the landscape. When Aboriginal people participate in planning processes, their cognitive maps, which are equally strong constructions of the landscape, are invisible to the dominant stakeholders. As Indigenous American Chief Calvin Hyzims (in Lydon 2000:27) explains, in relation to resource negotiations in British Columbia, *'The government won't recognise anyone without a map'*.

Because a complex body of cultural knowledge is embedded within a place name, the use of Anmatyerr names for water sites on maps and in other forums, signifies the existence of cultural values. Aboriginal place names are not arbitrary but linked to place: with the physical and spiritual essence of the place embedded in the name (Merlan 1982). Place names could be described as a cultural resource for Aboriginal people as many elements of culture are implicit in a name (Wirf 2005). Place names together with songs provide mental maps that guide people place by place through country, often along ancient buried drainage lines (Forman 1995:153). Senior Anmatyerr woman Hilda Price continuously names and points towards water sites when travelling through her country (7/5/05; 1/6/05; 6/6/05, Wirf 2005). This map of a 'chain' of water places is often apparent and is essential for people when moving across country. In addition to place names there are many names for water places: angenty (soakage), arner (rock hole), angkarl (rain clouds), anhem (raining), antywem (drink), kwaty anhem (rain fall), ipway (creek or river), arnkarr (creek bank) and mpwelarr (rainbow).

ANMATYERR PLACE NAMES

Anmatyerr names are used in limited places across the region. Ahakey Land Trust has replaced the name Ti Tree Station after this property was handed back to traditional owners under the Aboriginal Land Rights Act. Nturiya replaced the name Ti Tree Homestead. Some names are derived from Anmatyerr language such as Wilora (Ilewerr) and Anningie (Angenty). The senior man Paddy Kemarr who lives at Creek Camp adjacent Ti Tree town has insisted the area be known as Aleyaw. The Anmatyerr name for Ti Tree is Aileo. In the 1960s, people moved to the permanent swamp Mer Ywerternt south east of Aileron. Later, when the water was found to be unfit for drinking, the Government relocated the whole community closer to Ti Tree where there was available water of better quality. The name moved with the people although the Western Arandic spelling Pmara Jutunta was adopted. This community is now also known as 6 Mile, the distance to Ti Tree.

Anna's Reservoir Conservation Reserve is a culturally important rock hole that comes under the management responsibility of Parks and Wildlife, Cultural Heritage and protected area legislation. The interpretation signage gives a brief overview of settlement but no information about Anmatyerr culture and no use of Anmatyerr language. Anmatyerr would like the sign at the entrance to also say Mer Ngwurla and for their historical accounts and stories to be told alongside existing information. Interpretive signage might also use old Anmatyerr language - kalenthelkwerr.



The making of the skinship map of Anmatyerr country at Ti Tree School.

The 'western' maps are cross-referenced.

Names are added in English and Anmatyerr.

April Campbell teaches students about their country when painting the map.

Students learning about water places when painting the map.

4.2.1.2 Anmatyerr protocols

Anmatyerr voice: *"The right Merekartwey and Kwertengwerl need to be asked when anyone wants to visit. Values can be provided for by respecting our rules about the use of kwaty and mer. Some of our ways for looking after country are the same as non-Indigenous ways. Sacred issues are important because the risks can effect anyone. We seek respect from people about what they do with kwaty and mer."*

With regard to Anmatyerr protocols and ways of working together, Anmatyerr tyerrty have been repeating the same message about how they wish to be understood and involved in regional governance since the region was settled by other people.

Senior kwertengerl Maxi Mpetyan (left) and Teddy Pwererl instruct younger initiated men on their rights and responsibilities on Ngwarray/Peltharr country.

Anmatyerr tyerrty have consistently stressed the need to have their customary systems of governance recognised over many years via anthropologists (early-mid 1900s), pastors (mid 1900s onwards), the Land Rights debate (Department of Aboriginal Affairs 1979, Eames 1983, Department of Aboriginal Affairs 1979 and 1987, Select Committee on Constitutional Development 1989, Peterson and Langton 1983, Altman et al 1999) and during the formation of Community Government Councils (Morton 1994). They have used the Anmatyerr Water Projects to put forward their viewpoint yet again. Decisions about water need to be made through the senior Kwertengwerl and Merekartwey responsible for the places in question. Representative bodies know this, but Anmatyerr tyerrty still find occasions where organisations advocate on their behalf without due diligence to this protocol.

> **Tony Scrutton:** *"Respect the land that you are on through respecting the elders who are the senior Merekartwey and Kwertengwerl. Kwertengwerl works in both ways in respect of the elders – protocols set from the ground up – they look after their interests and are in the middle talking to both sides. People have a clear understanding when talking to the Kwertengwerl because they are the mediators and spokespeople."*

> **Eric Penangk:** *"Well sometimes they talk to the wrong people... Pick out anyone, good hand writing or good English, but he can't hear what the Law's saying (Anmatyerr Law). Kwertengwerl got to go front all the time and Kwertengwerl got to look everything in front. That's Anmatyerr Law."*

The need for other people to engage with the senior governors (owners and managers) of the country is of key importance for future water management. Anmatyerr elders have repeatedly said that any decision or governance arrangement relating to managing land and water needs to be considerate of and respectful to the Anmatyerr land tenure system which resides in the senior Merekartwey and Kwertengwerl.

The need to respect these protocols is paramount to Anmatyerr tyerrty. Any other way would equate to Anmatyerr turning their back on their culture and breaking their Law with not inconsiderable consequences. International Laws that stress the need for Nations to protect and support Aboriginal cultures support their wishes. There are precedents and commitments that behold Australia and the Northern Territory Governments to find new equitable ways of working together. Anmatyerr have consistently reported the need for mutual respect and working together to create these new models whereby 'everyone is on the same level'. Asking other people to abide with some of the key protocols such as speaking to the correct person would seem a reasonable request. The same respect for the cultural practices of new Australians is considered mandatory in a multi-cultural society.

As discussed, the Anmatyerr protocols are not new. Anmatyerr have been advocating their needs for many years as there is no alternative under their Law. The opportunity now exists to materialise this protocol so that the message need not have to be repeated yet again. In this regard the next Ti Tree Water Resource Strategy is timely. The Northern Territory Government and the Ti Tree Water Advisory Committee have shown goodwill and all parties have an opportunity to create more equitable engagement and arrangements for Anmatyerr to participate.

Having all relevant senior owners and managers represented on management committees and other forums is unworkable and not culturally appropriate. Large meetings with different clans or family groups present is *"not the Anmatyerr way"* said April Campbell who went on to say that *"people are happy to speak one to one, but cannot participate in large meetings for fear of the risks*

of not being properly understood by everybody and being asked to talk when they do not know exactly who they are talking too". The traditional owner-manager system for each area of land and water means that no single person can be representative of all Anmatyerr tyerrty. A process whereby the views and input of the relevant people can be sourced, conveyed and respected would go some way to meet the important protocol of speaking to the right person. Don Presley, a senior Anmatyerr spokesman has asked that elders and their Law be respected when decisions need to be made.

> **Don Presley:** *Thats what we're looking at; see old people like Paddy, Big Billy, old Eric (senior men). These are the old fellows that know the country, that been taught by them old people before. Come through with them, they (the government) can come to us. At the same time come through with the young people."*

NEW ANMATYERR ORGANISATION

As protocols for engaging with Anmatyerr tyerrty are fundamental for working relationships with other land holders, agencies, communities, governments and representative bodies, a new Anmatyerr organisation is highly desirable in this regard. For example, an organisation akin to an "Anmatyerr Customary Law and Management Trust" could represent the Aboriginal rights, titles and interests of the Anmatyerr people in managing alliances and the use of water, and access to water through arrangements and agreements that recognise customary law. This would meet the rights of Anmatyerr people to the ownership, protection and custody of their Traditional Knowledge including the incidental right to teach such practices, customs and traditions to a younger generation to ensure their continuity.

A new organisation is now under internal Anmatyerr negotiation as a self-organising local governance structure with balanced skin and gender representation and downwards accountability' as recommended by the Law Reform Commission of Western Australia. This would provide a visible community based institution for other people to make contact with, alleviating pressure on the Anmatjere Community Government Council which has a restricted brief under the NT Local Government Act. Impending changes to Local Government with reduced representation of Aboriginal groups on larger Shire Councils makes a new Anmatyerr institution even more desirable. The new organisation or Trust would be the interface between the two systems of water management and Law (eg Anmatyerr and Australia/NT Law) and aim to function as a 'Cultural Clearing House' with core rights (authority, own rules) and contingent rights (able to grant rights for access and use).

The new organisation (eg Resource Group, Trust) would be able to submit tenders, negotiate partnership projects and build a resource base for vehicles and equipment for internal requirements such as visiting country for customary purposes. It would facilitate the building of networks and relationships with agencies whose core business is NRM on Anmatyerr country and provide employment opportunities as part of culturally based livelihoods. This would meet the request by Don Presley, a senior Anmatyerr spokesman, who has asked for support for a new management group to fulfil both the pressing need for environmental and heritage management in the region and the future interests of young adults in the modern economy. A small team of the younger generation under cultural supervision would operate as a Resource Group or front of house operation, acting as interpreters and mediators between other parties and the new organisation or Trust managed by the appropriate Merekartwey and Kwertengwerl otherwise known as the Council of Elders (Figure 5). This is a mechanism for ensuring customary protocols are respected. The Council of Elders may also be similar to the current Anmatjere Community Government Council.

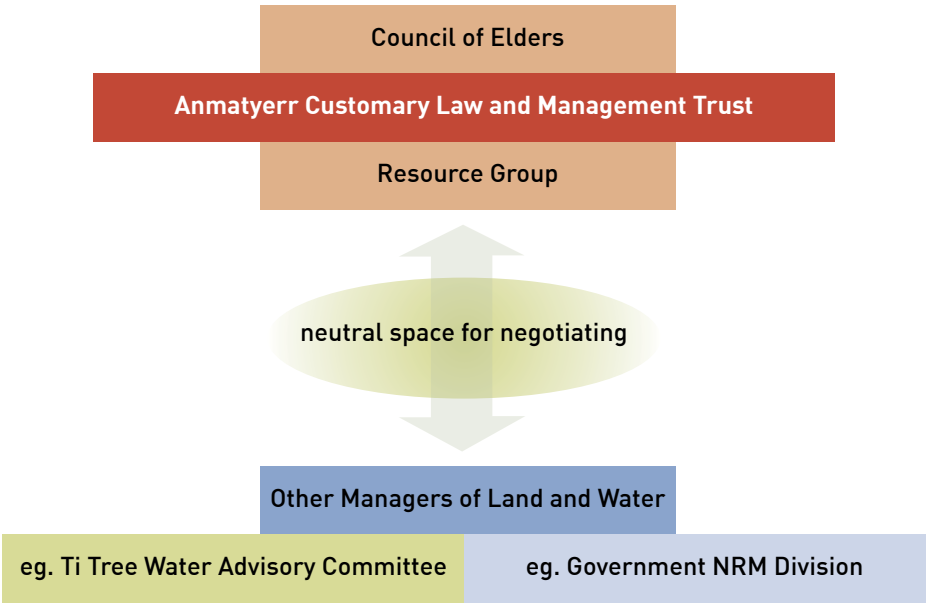


Figure 5

A possible governance arrangement that respects parallel laws for managing land and water. The Resource Group is a team from the younger Anmatyerr generation under the direction of a Council of Elders, the Anmatyerr governors, who formally conduct agreements with other parties through the Anmatyerr Customary Law and Management Trust.

4.2.2 Access, Land Management and Co-existence

Anmatyerr voice: *"We need to get onto our country to hunt, conduct ceremony, care for kwaty, swim and teach young people. In the desert, Aboriginal people have the lowest number of cars in Australia. Not many Anmatyerr families own a 4WD. Transport to manage kwaty would provide for cultural values so we can get to places. Outside Ahakey Land Trust we get on well with other land managers. Maintaining this harmony is important to us. The recent train line has partially restricted access. Mining and other intensive land use may restrict access to some country. Access means that roads need to be graded and maintained. Unrestricted use of water by cattle means we cannot drink the water, swim or harvest food. There are many bores in Anmatyerr country. We would like to know when, where and why bores are drilled. Sharing country means sharing knowledge about how water use might affect our culture. Sharing country also means making decisions together. Good relationships are built on respect for each other and working together."*

4.2.2.1 Access

Ah Chee (2002) points out that when water sites of high cultural significance are destroyed, or access is denied, Aboriginal people are unable to tell the stories and perform the ceremonies associated with the site, leading to sickness for the people who are responsible for caring for these sites and an erosion of culture through loss of knowledge transmission. This was evident on a field trip where an Anmatyerr woman elder could not find an important water site. She knew the name of the site, its cultural significance and could describe exactly what it looked like, but, after much searching, she finally said, with great distress, 'I forgot'.

When asked if anyone else knew how to get there she mentioned two family members who 'might know' (1/7/05 Wirf 2005). This episode illustrates the potential fragility of oral or mental mapping when people are not able to physically and regularly visit sites. It suggests that people continue to reproduce the theoretical knowledge and cultural values in isolation from the physical context, leading to a fragmentation or loss of applicability of the map in relation to the actual landscape. The importance of people being able to get on to country is paramount for meeting the aforementioned cultural values.

Paddy Willis describes how one trip to country encapsulated hunting, health, traditional ecological knowledge, and laws and protocols with respect to skin, children and old people. This demonstrates how access to water places provides for many cultural values of water.

> **Paddy Willis** *(03/11/05): This is the main place Mer Anningie. Another main one there where they're swimming (pointing to school kids). Another one there (he points to a more distant waterhole used only for drinking). That one bin like deep one, water there, emu comin' up drink water, olden time, olden time people are watching from there, they kill em there. People not camping there, they're camping that way (pointing). This one too dear (important for hunting). Old people can't let 'em come in here, children, little girl or boy not allowed in here, this is proper dear one. This one is from my mother (meaning mother is Penangk - Penangk/Pengart country). This one here, big water hole. Might be two or three old people come in, wait for emu, gotta have spear, hide, make a little bit of a humpy, emu come in for water, they spear em through, don't cook 'em here, take 'em back."*

Passable roads means they are graded and maintained and this is acutely important in fragile highly erosive environments where rain can ruin tracks and subsequent over-use can make tracks impassable. Road maintenance on pastoral properties is at the discretion of the leasee or owner. Responsibility for roads to public places such as reserves and towns lie with Government. Roads into Aboriginal communities are under the jurisdiction of Local Councils. As most of the roads used to access water places are on pastoral leases and 7 of the 8 pastoral stations covering Anmatyerr country are leased by private interests, accessible roads require good relationships between station owners and managers and Anmatyerr people so that this issue can be talked through.

Sometimes people cannot get to places because gates are locked, fences have been erected or pipe lines and train lines have limited crossings. Central Australia is often perceived as a remote place with little traffic but for residents it is a busy place with people frequently travelling between communities, out stations and towns. Access to a place valued by Anmatyerr tyerrty is as important to a traditional owner or manager, as it is to a person visiting their parent. A rock hole may have comparable status to an Anmatyerr person as the Opera House has to residents of Sydney. Cultural icons such as water places deserve measures put in place to ensure access and protection, regardless of their size or location.

Provision for access in the simplest sense is having gates unlocked, fences and dams in appropriate places, useable roads, good relations with other land owners and managers and transport, preferably a 4WD. When some of these factors are 'unpacked', their provision becomes more complicated. Owning a vehicle requires having a licence, money to purchase, maintain and fuel the vehicle, and being prepared to 'manage' cultural expectations with regard to property and obligations.

4.2.2.2 Grazing

Cattle are fairly ubiquitous across Anmatyerr country with stocking rates varying from low to high according to geography and station practices. Cattle use of watercourses and waterholes is widely evident. Trampling has destroyed vegetation and denuded some areas, contributing to dust problems and erosion. Many waterholes cannot be swum in because of excessive cattle dung and algal blooms were noted in some places after the dry period in 2005/06. "The waterholes don't last anymore since cattle" said April Campbell (5/5/05). When a gully near Ti Tree was dry and full of dead fish there was a perception that the waterhole had dried up prematurely because of cattle use. Fencing places with important cultural values would assist as would the creation of new artificial watering sites. The latter may be seen as economically unviable but it is also culturally unviable for these places to be ruined and access and use denied. Cattle and water need to be managed with the aim for a balance between the interests of all parties.

Grazing impacts from wild camels are also not insignificant. A feral animal management plan for the area would raise awareness about camel populations, distribution, impacts and management options, including commercial harvest.

4.2.2.3 Dialogue

Road maintenance, good access and managing degradation from cattle and camels, are key factors in providing for cultural values and need to be addressed from a regional perspective through the on ground parties formulating ways forward. Retaining the relatively intact geography of this region is a key to sustaining cultural values and the location of tracks and other transport and station works should be part of a regional workshop about the roles and responsibilities of existing stakeholders that explores options and strategies for better integration. This would assist in showing that these key factors are of fundamental importance.

The Alice Springs – Darwin train line cuts through Anmatyerr country and is an example of regional development and infrastructure that limits access to some places.

Where fencing has prevented cattle access, water is good for drinking, swimming and fishing and there is no damage to sacred sites.

Good relations can assist greatly in regard to access and should be an incentive to achieving mutual and separate goals. For example, finding points of common concern and interest between pastoralists and Anmatyerr and working together on partnership projects would foster greater cultural awareness as well as deliver on ground outcomes. Projects might include fencing waterholes and sites of significance from cattle and feral animals. Cleaning waterholes of dead animals is essential to keep the water clean for drinking by people, cattle and native animals. Monitoring bores and rain gauges, and sampling for water quality provides valuable records for Government and industry. Grading roads and other track maintenance is an ongoing task mainly covered by pastoralists. Partnership projects are a means for building good relationships as well as a sense of community and working together on regional issues.

One example is the recently negotiated private agreement, the 'Private Subsidiary In Principle Agreement for Use and Access of Mer Ngwurla and Aileron Station'. This falls under an Umbrella Agreement called the "Traditional Knowledge, Natural Resource Management and Access Agreement" which provides for future agreements between Anmatyerr tyerrty and other parties that concern not only water, but all resources related to country (LWA Project NTU23, Craig D. and Hancock D. publications forthcoming). This mechanism clearly demonstrates the potential for outcomes through dialogue and developing strategies to work together.

4.2.2.4 Legislation

The importance of having legislation respected and adhered to is also relevant in this discussion. The interaction between legislation and statutory requirements is an area that is rarely articulated or enforced. Across the region there are overlying systems of tenure and where there is a complex set of statutory bodies responsible for a place the difficulties can be difficult to surmount. Tenure in the region includes pastoral leases including freehold customary land tenure, mining exploration licences and tenements, Parks and Wildlife Reserves, Cultural Heritage listing, Protected Areas and Sacred Sites, community living areas and excisions, townships and other Local Government tenure.

The Pastoral and Native Title Acts state that traditional owners are free to access country so long as their activities do not interfere with the effective running of commercial enterprises. Hence the interests of others prevail over Anmatyerr interests. Anmatyerr understand that on the whole they have good relationships with other people living 'on top' of their land, and often report 'we are free to go anywhere so long as we ask permission or get a key from a pastoralist'. Likewise some pastoralists say Anmatyerr tyerrty are free to go anywhere so long as they let station staff know and ask for keys when necessary, keep the place clean and don't damage station tracks through overuse. A Discussion Paper, clarifying everyone's rights and responsibilities under Native Title Rights, Aboriginal Land Rights, Sacred Site and Cultural Heritage Legislation, the Pastoral Act, the Water Act, the Mining Act and Parks and Wildlife Legislation including Joint Management, could assist in ensuring cultural water values are managed appropriately.

4.2.2.5 Respect

On ground actions and communications played out through local unstated rules and norms, also illustrate peoples rights. On an educational trip with elders, teachers and students to a waterhole on an important Dreaming track, the group were told to leave by the local pastoralist. Justification for the directive was that the visit interfered with cattle business in a time of drought and that the local protocol had been broken because Anmatyerr tyerrty had not consulted first. This example illustrates the importance of mutual respect.

There are a range of experiences between people in this region. In essence good relations are tempered by subtle and not so subtle power relations. While most places are relatively easy to get to, other places are not readily accessible or difficult to access because people have to ask for a key and gain the permission of others. There is a perception of everything being harmonious and this is the case at most times. However, local dynamics can illustrate where the power lies. All people who own and manage land and water should command respect under respective systems of law. More formal regulatory arrangements in this area would not necessarily make a difference. The code in remote landscapes is about handshakes, nods and reciprocity. Mutual respect through supporting the unwritten codes appears to be paramount in this landscape. Young people are learning these local protocols through example and new residents, agencies and others need also to understand.

4.2.2.6 Conclusion

In summary, addressing equity in terms of harmonious coexistence is probably best achieved through a regional workshop between pastoralists and Anmatyerr tyerrty. We recommend such a forum is held to:

1. bring together regional management issues about tracks, access, grazing impacts and station works;
2. design and initiate partnership projects and employment that increases social networks and allows for greater cultural awareness;
3. explore the use of informal agreements to progress common interests between local active parties; and
4. clarify legislative obligations and responsibilities of local groups.

4.2.3 Livelihoods and Skills Exchange

Anmatyerr voice: *"A good way to meet our cultural values of water is through jobs. We are the best people to speak for our water and our country. We need new skills for cross-cultural work. A culturally based livelihood means we do Anmatyerr water management as well as Government water management. Training on country has to have the approval of elders and their supervision. Successful jobs involve real issues. We could also monitor water use and water quality and do water surveys. Bush schools are the foundation for culturally based livelihoods. Training will support meaningful work on country through livelihoods that support our cultural values. Skills and knowledge are gained from talking to and working with other Indigenous people. In Arnhem Land we learnt about their resource management. Culturally based livelihoods means our practices happen alongside other water management. For example, keeping rock holes clean by removing debris the traditional way. And covering rock holes to reduce evaporation and keep the water clean for drinking".*

4.2.3.1 Cultural framework

The starting point for discussion about the creation of Indigenous NRM livelihoods is their unique cultural framework and setting. The objective of culturally based livelihoods is not only about how mainstream NRM services can be successfully delivered but how cultural services can be delivered at the same time. The assumption is that the low uptake of employment opportunities by Aboriginal people in general can be turned around if jobs not only have cultural direction, but also contain cultural components: hence the focus shifts to Indigenous livelihoods and Cultural and Natural Resource Management. Anmatyerr tyerrty would bring valuable local knowledge of country to their positions and offer a more cost effective alternative than using urban personnel for remote NRM and related tasks. There are ecological and cultural benefits where Aboriginal people are active on their traditional lands (Altman 2003, Garnett and Sithole 2007). The delivery of environmental and cultural services in one livelihood has benefits beyond the simple satisfaction of the primary needs of two parties. Inter-cultural capacity develops when there is mutual understanding of the common ground between the two approaches to managing country (Figure 6).

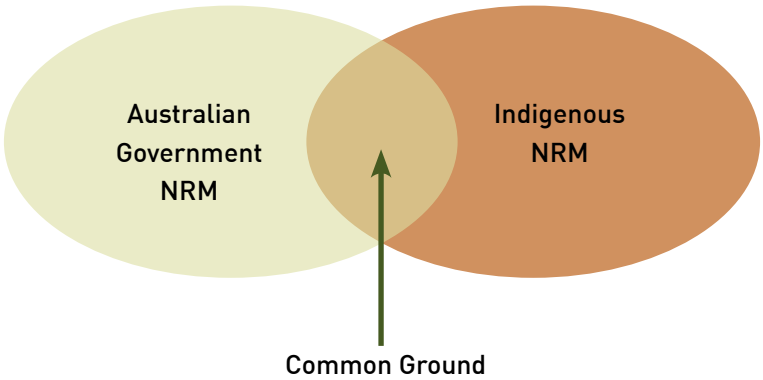


Figure 6

Indigenous and non-Indigenous approaches for managing country have significant common ground: clean drinking water, integrated approaches and controlling pests are objectives of all parties. Livelihoods that combine different knowledge and provide cultural and natural resource services achieve separate and common objectives.

4.2.3.2 Cultural and Natural Resource Management

Activities related to caring for country, such as ceremonies, harvesting and hunting, and cleaning up country, all fall within the gambit of cultural services and involve skills that have perennial need. Customary activities for Kuninjku people, as with Anmatyerr tyerrty, are not just materially productive, but part of a reciprocal relationship with a sentient landscape; ie. caring for country (Altman 2003). Caring for country or Indigenous NRM has also been described as deliberate behaviour dictated by customary laws that provide for spiritual renewal, connecting with ancestors, food provision and preserving kinship relationships set in the landscape (Burgess *et al* 2005).

Cultural practices for looking after kwaty include practical ways through removing dead animals or fallen vegetation. Cleaning waterholes of algal scum is done by sweeping the fine leafed branches of artety (mulga) and witchety bush across the surface. Rock holes are then covered with stone lids that are often still present next to the openings, or leafy branches to protect them from evaporation and animals gaining access.

Spiritual ways of caring for kwaty are sacred and happen without the knowledge or necessarily the understanding of others. Ceremonies to increase the health of country and to bring on the rain are practiced, the latter involving the use of fire. Culturally relevant work might also be to register springs and soakages in a similar way to the registration of sacred sites. Many are located adjacent to sacred sites but would not necessarily be protected. Anmatyerr tyerrty have said that if other land users had knowledge of significant important soakages and springs this could lead to their protection from overuse and the protection of cultural values. Some have talked about a register of springs and soakages for future protection and management. This would go some way to alleviating one of the issues of the past which was the conversion of culturally significant places into bores and dams (eg. Arden Soak, Harper Springs, Adelaide Bore).

Young people are seen as the key for ensuring kinship obligations, using the old and current Anmatyerr language before English and continuing to practice Anmatyerr Law. The use of modern technologies is one way that the younger generation may choose to be involved. The rapid uptake of IT opportunities when computer and multi-media equipment was made available resulted in many recordings, communication products and other benefits (Rea et al 2008). Multi-media skills would underpin work creating new Anmatyerr maps to convey strong messages to a wide variety of forums and the recording of stories and Laws from the older generation.

The young generation are taught how to protect the water in small rock holes from evaporation, animal access and algal growth.

Managing this information in culturally appropriate ways is also an essential task, requiring skills in managing intellectual property, repatriation, data bases, access rules and storage. Embedding research objectives into on-ground projects also enables participants to gain experience in research as a livelihood.

When considering livelihoods that involve cultural and environmental services it needs to be understood that Anmatyerr tyerrty may not see country the same way as others: ie. degraded country in the eyes of western people may not be viewed as 'sick' country. Places can get degraded badly, but the cultural knowledge remains. The action to restore these places has to come from the Kwerlengerl (senior managers) for those places (pers. comm. T.Scrutton). Our research experience indicates that Anmatyerr tyerrty have been so disempowered from issues about managing country, they have rarely (with the exception of a few elders) volunteered solutions to problems such as degraded waterholes and sacred sites.

4.2.3.3 Young people

Many senior Anmatyerr men were involved in the local pastoral industry as stockmen. These same people have made a point of talking about the possibility of future jobs on country for the young generation. The types of jobs sought by elders are either exclusively for cultural purposes or regional NRM activities but with cultural components, such as looking after culturally significant places:

> **Eric Penangk:** *"I reckon, this is my thinking. The young fellas here now, I reckon, they should start work minding all the sacred sites, might be they come round once a month or something, look around, gotta have a vehicle. If mining look around well the young fellas will know, not allowed to put a drill on this ... sacred site."*

> **Tony Scrutton:** *"It's important for these young fellas (pointing to the Anmatyerr resource management students, all initiated young men) to get something in their heads. Long time ago this was clean, everybody used to come here and clean it, trees everything, place looked spotless all the time."*

Many senior people would like to see young people managing country and protecting waterholes (pers. comm. E.Penangk, D.Presley, T.Pwerrerl, M.Mpetyan, A.Campbell, S.Presley-Haines). Elders strongly encourage young people to attend school and gain skills to work in and alongside other Australian laws and cultures. Eric Penangk speaks about his visions for education and training, and a flexible working regime for Anmatyerr tyerrty, all under the watchful eye of the appropriate Anmatyerr governors:

"If we put it proper way, (we) make that law strong. It be right. Kwertengwerl and merekartwey gotta be strong and run the business, run the country, young girls gotta go to school, young man gotta go to school all the time. Elder people tell em they gotta listen. Go to work. Get educated, go to college, Educator's College, get more strong." (15/03/06)

"If Merekartwey tells them to go to work, well they gotta listen and go to work. We'd like to see the young people work properly. Young fellas gotta work ... when you come back take a holiday, well another five men go... Boss come along, how many men needed? How long? When mob come back another mob go to work." (14/03/06)

4.2.3.4 Success indicators

Maintaining the younger generation's interest and involvement is a major challenge and the reasons why they may or may not take up cultural resource management opportunities need to be understood. One reason that training and employment without a cultural basis can fail was explained by a local Aboriginal person in terms of the horticulture industry: "because there isn't any jukurrpa for grapes". Jukurrpa is the body of knowledge and beliefs about ancestors and creation of the country that prescribes the Laws which inform and unite all life for Aboriginal desert people (the Dreaming, Bell 1987). In other words, jobs without a cultural basis or without meaning in Anmatyerr society may be more difficult for Anmatyerr tyerrty to maintain. For an Amatyerr person, all activities including employment are directly or indirectly influenced by Anmatyerr Law and culture. Livelihoods ideally would encompass the passing on of skills to young people. In so doing, this matches the inherent intergenerational education that comes with the roles and responsibilities of an Anmatyerr person. Skills developed from part time or temporary natural resource industries may be of little use to future generations and not seen as useful in the long term.

Mainstream NRM tasks alone may work for some people some of the time, however, for long term and sustainable livelihoods, the aim is for culturally meaningful employment that is approved and supported by elders and the wider community respectively. The necessity for Aboriginal people to be directly involved in the construction of their futures is widely advocated (Hunt and Smith 2006, Brown and Creaser 2006). Indicators for successful training towards Indigenous livelihoods were described by Rea *et al* (2008) and additional issues concerning livelihoods from the same on-ground research were highlighted by Rea and Messner (2008).

Hunting is still an important part of Anmatyerr life, with young boys learning how to hunt and butcher kerr (meat) according to Anmatyerr Law. Knowledge of where to find water is equally important on these hunting trips that often travel far from communities and towns.

"Working together" on Anmatyerr country: Parks and Wildlife and Anmatyerr men participated in a regional bio-survey on Stirling Station (June 2006).

For example, the linking of profit and non-profit activities, the integration of relevant policies and processes, and the creation of new inter-cultural arrangements and building of inter-cultural capacity were identified as important to the design and uptake of new employment opportunities from the land. These factors support a more holistic approach to livelihood construction similar to the Aboriginal world view. At the same time, they improve the management of cultural and natural resources that underpin people, cultures, economies and environments.

The way forward in the construction of these livelihoods has to be on-ground and participatory with cultural direction and understanding of the character and nuances of people's culture and circumstances. There is a place for overarching reviews and political commentary but there is no substitute for specific knowledge informed through lived and meaningful practice. Other success indicators will come to light especially with regard to what works for government agencies, NGOs, horticulturalists, pastoralists, tourism ventures and mining companies with whom partnership projects may develop.

4.2.3.5 Partnership projects

Livelihood opportunities are considerable and a clear mechanism to assist in achieving cultural water provisions. Partnership projects that combine regional work opportunities with customary responsibilities could evolve with Water Utilities (drinking water sampling, infrastructure maintenance), Community Groups (ecological monitoring, fencing, revegetation), Governments (bore and surface water quality monitoring, auditing, wildlife survey, weed & feral animal control) and private industries (horticulture, tourism, mining, pastoralism), as well as mediation and communication between parties, interpretation services, cultural awareness programs and cultural resource management such as registering and managing sites. Tendering for monitoring components of the Ti Tree Water Resource Strategy in particular should be an opportunity for local Anmatyerr people.

"Working together" on Anmatyerr country with women from Wilora. Generally, female researchers work with women and male researchers with men.

Don Presley speaks about his vision for the Anmatyerr and the Ti Tree Water Advisory Committee working together.

The building of relationships and partnerships between Anmatyerr tyerrty and private interests or state agencies with water management as a core brief often stalls at the stage of goodwill and intent. This appears to be due to a lack of experience, resources and inter-cultural capacity for all parties as well as insufficient political support for implementing policies. At this stage, partner projects and livelihood construction are dependent on facilitation between Anmatyerr elders and spokespersons, and trusted agencies and individuals. Although efficacious, these examples are relatively slow and patchy. The character of these small projects, including the importance of individual relationships, need to be scaled up for larger partnership opportunities. It is through partner projects for cultural and natural resource service provision that Anmatyerr tyerrty will have access to resources so important for achieving multiple benefits (eg facilitators, transport, equipment, funds). Some of these opportunities may be supported through private agreements or independently acquired funds. Others will depend on publicly funded contracts.

The focus of the Anmatyerr Water Projects on sharing information and on-ground participation has led to some progress in this area: eg. facilitating a Community Water Grant to fence Anningie rock hole from cattle; discussion about whether previously healthy springs west of Ti Tree should be fenced (pers. comm. C.Nelson jr); and whether rock-holes on the eastern side of the Ahakey Land Trust should be fenced and rehabilitated. This type of planning was previously not considered by local people (pers. comm. L.Price).

4.2.3.6 Anmatyerr enterprises

Anmatyerr-owned and operated ventures (wild harvest, cultural tourism) also have the potential to provide cultural and natural resource management outcomes, income, health and well being. Some families are looking forward to more opportunities in the horticulture industry through their own operations (eg. Adelaide Bore) under the auspices of the Indigenous Horticulture Association (IHA) and through Indigenous Land Use Agreements on their traditional lands (eg. Mulga Bore, Pine Hill Station). Where the industry is associated with a move back to traditional country this is regarded as an incentive to have these new enterprises succeed (pers. comm. L.Price). Other places where people have expressed eagerness to move back to country and run their own farms are at Pine Hill (pers. comm. R.Glenn) and Woolla Downs (pers. comm. R.Nelson).

Although Anmatyerr-owned and operated enterprises are important and will increase with time, they were not the focus of this Report. Some of the reasons why we focused on collaborative opportunities include arguments that successful Aboriginal businesses are '... more likely to have their origins and connections in non-commercial or subsidised community-based activities and ventures ... to have some history of non-Indigenous management or financial control, be community-owned rather than owner-operated, ... and emphasise community usefulness and community employment rather than profit on capital' (Flamsteed and Golding 2005). These authors suggest that there are few models for profitable and sustainable Aboriginal business which also facilitate Aboriginal community development in remote communities. Additionally, customary sectors of the economy are regarded as not large enough to ensure economic independence from state-provided income (Altman 2003). Hence a reason to search for options in existing profitable economies in the midst of Aboriginal country and an emphasis on 'working together' opportunities.

4.2.4 Governance and Participation

Anmatyerr voice: *"Governance of water sets the rules and guidelines for the use of water. Livelihoods are a part of management frameworks. People who use or manage water need to work together to ensure management has Anmatyerr representation and how we talk is culturally appropriate. Participation in decision making is essential so our voice is heard directly. When considering jobs on country or livelihoods, Anmatyerr tyerrty wish to 'work together'. They want to work with other stakeholders like pastoralists, horticulturalists, Parks and Wildlife rangers, Water Resources, researchers and others."*

"Don Presley, the merekartwey for Yanninge waterhole, talks about the Ti Tree Water Advisory Committee, November 2005: "We should work together, we don't want someone pushing us away, we should be working together, that's what we want to see."

4.2.4.1 Window of opportunity

There is a window of opportunity to assist future recognition and provision for cultural values of water through combining the Australian Government's relatively new political imperatives and policies with the opportunities to build new water management regimes in the Northern Territory. An updated water allocation and management process in NT legislation is highly

desirable and one that separates Aboriginal values of water and their provision from recreational and aesthetic values in line with the value categories set out in the National Water Quality Management Strategy. Together with the strong working together philosophy of Anmatyerr tyerrty, there is a clear mandate to create new governance arrangements for water in the Ti Tree region. Wirf et al (2008) have recommended that Anmatyerr law and governance structures, including the highly gendered nature of knowledge and participation, be negotiated and included in the next water allocation process.

Although there are many commentaries and reviews intended to inform policy, the critical need is for local input, knowledge, direction and resources at the local level that can make a difference. The recommendations from the Anmatyerr Water Projects' on-ground, locally directed research, provides a rare opportunity for informed progress in articulating and providing meaningful provision for cultural values in water management plans.

4.2.4.2 Equity between two systems of Law

> **Eric Penangk** *(14/03/06). "I've been fighting long time...I look behind, I look side, I'm looking which way to go and I look my family. I'm fighting hard. You gotta be strong about your country. If you're not strong somebody will take it away."*

Just as non-Indigenous Australians regard the Australian Law as the singularly dominant Law of the country, Anmatyerr Law for Anmatyerr tyerrty is also paramount. The difference articulated by a senior Law man is that:

> **Eric Penangk:** *"Aboriginal law one law all the time. Local laws (meaning government) changing all the time, governments changing, laws changing. Aboriginal law not that way, one law all the time."*

The next generation of Anmatyerr traditional owners and managers working towards culturally based employment in natural resource management.

Senior spokesman of Anmatyerr values, Eric Penangk, born Ryan's Well 1927, Merekartwey for Atwel (Bushy Park Station) and Yerramp (Honey Ant) and Kwaty (rain) dreaming man.

Anmatyerr tyerrty are firm about having their customary systems of governance recognised, being properly consulted, and having the same opportunities. As discussed, their requests and accounts have been unfalteringly consistent over many years. Legal Inquiries into the relationship between criminal law and Indigenous law have resulted in areas where equity can be recognised. The opportunity for recognition of customary law is greatest in the field of cultural and natural resource management as there is considerable common ground with regard to looking after resources and country (Figure 5). Aboriginal and mainstream NRM both follow total catchment management principles, the holistic approach to managing country that takes into account everything occurring in the catchment of a water body. The desire to integrate environmental, social and economic uses and values is also common to both approaches, but is particularly strong in Aboriginal knowledge systems where law, culture and spiritual dimensions are inherently integrated.

Broaching the topic of equity between two systems of Law and Knowledge can be confronting and complex, resulting in parties shying away from the concept and back to the modus operandi of one country, one law. One of the Cultural Supervisors of the Anmatyerr Water Projects, Tony Scrutton, believes that 'whitefella' law and Anmatyerr Law both need to remain strong and independent while understanding the important points of interaction. The need to build suitable processes and governance structures that interface Anmatyerr Law and Australian law is supported by at least five independent sources that report on, inquire into and review this topic (Australian Law Reform Commission 1986, Northern Territory Legislative Assembly 1992, The Northern Territory Law Reform Commission 2003, Northern Territory Government 2005, Law Reform Commission of Western Australia 2006). The existence of this work is testimony to the need to work out new arrangements that interface different Knowledge and Laws.

1 The Australian Law Reform Commission (1986) reported on the recognition of Aboriginal Customary Laws and stated that "*Aboriginal customary law should be understood broadly and not precisely defined*" and that "*Aboriginal customary law should be recognised in appropriate ways by the Australian legal system. Recognition may take different forms, however codification or direct enforcement are not appropriate*".

2. The Sessional Committee on Constitutional Development (Northern Territory Legislative Assembly 1992) recommended express "*recognition of Aboriginal Customary Law as a source of Northern Territory law on a par with common law*".
3. The Northern Territory Law Reform Commission (2003) Inquiry into Aboriginal Customary law in the Northern Territory) recommended that: "*Traditional law be recognised by judges and government decision makers where relevant as long as it does not conflict with Australian law*" and that "*Australian Law, where appropriate should work in conjunction with Aboriginal Customary Law*". Importantly, the Inquiry recommended that "Aboriginal communities should be assisted by government to develop law and justice plans which appropriately incorporate or recognise Aboriginal customary law as a method in dealing with issues of concern to the community".
4. In 2005, the Northern Territory Indigenous Economic Development Strategy (Northern Territory Government 2005) discussed the importance of traditional governance and authority structures to Aboriginal cultures and recommended the need "*to match these structures with contemporary forms of sound governance*".
5. The comprehensive Review of Aboriginal Customary Laws by the Law Reform Commission of Western Australia (2006) stated that the best way toward self determination was through Community Governance systems. They recommend "*a framework to support self-identifying and self-organising governance structures that are developed locally, and have balanced clan and gender representation, and downwards accountability*".

Achieving equity between two systems of Law can be informed by these reviews and Inquiries. Our main recommendation is the new Anmatyerr organisation (eg. Trust) which acts a cultural clearing house (Section 4.2.1.2 Anmatyerr Protocols, New Anmatyerr organisation) and the creation of new governance arrangements between this organisation and other agencies. There is a need for a neutral space between these two parallel systems where negotiation can take place. Such governance reforms are a mechanism for the provision of cultural water values.

4.2.4.3 Collaborative arrangements

Informed and reformed governance can only be achieved collaboratively. The pathway between the current situation and the needs of this region and its people centres on awareness, skills, governance arrangements and livelihoods. As neither party (Indigenous and non-Indigenous) presently fare well in terms of inter-cultural capacity, the steps of this pathway (Figure 4) are intended for all parties so that new arrangements are developed together as a strong foundation for inter-cultural resource management and decision making. This is especially relevant for creating the governance arrangements with the new Anmatyerr organisation.

The Northern Territory Government and the Ti Tree Water Advisory Committee have acknowledged the need for greater participation of Aboriginal people and recognition of Aboriginal knowledge, as well as doing things in a culturally appropriate way and ensuring the Aboriginal voice has greater authority. It became apparent during the course of this work that Anmatyerr tyerrty interpret this intent by government as: '*participation on equal terms and recognition of customary law*', whereas NRM managers interpreted this intent as '*Indigenous people have a right to participate because it is fair and traditional knowledge should be recognised because it is useful*' (Carr and Rea 2006). There is a need for parties to clarify and align their respective understandings about this goal so that both parties are working together with the same expectations.

Bush trips hosted by Anmatyerr help build networks with regional NRM managers and increase awareness between the two parties.

4.2.4.4 Guiding principles

The reforming of water governance to better provide for Anmatyerr tyerrty and their cultural values of water should be prefaced with the following principles and guidelines recommended in the aforementioned recent and significant legal reviews and enquiries. For example:

- codification of customary governance is not required
- recognition of customary law by Government decision makers where it does not conflict with Australian law
- working together to develop natural resource plans which recognise Aboriginal customary law
- matching customary governance and authority structures with contemporary governance
- support for self-organising local governance structures that have balanced clan and gender representation, and downwards accountability.

ANMATYERR ORGANISATION

A new Anmatyer organisation would act as a point of contact, a cultural clearing house and a home for new livelihoods, with young people combining local land and water management according to Government and industry needs and in respect of the Anmatyerr governors. With regard to the construction of community governance organisations, Hunt and Smith (2006) recommend an initial focus on internally approved representation, membership, leadership and decision making (Hunt and Smith 2006). This contrasts with the approach usually adopted by external groups and governments who focus on organisational structures first and then institutional processes. These authors also advise that the establishment will take time and experimentation and will need support and that informal relationships will play an important role. Considerable interest within the Anmatyerr language group has grown around the idea of a Customary Law and Management Trust, Cultural Centre and/or Resource Group (Section 4.2.1.2). Internal discussions are underway about how to formulate a local organisation. Once there is a visible entity, the governance and working together arrangements between Anmatyerr tyerrty and other people or agencies can be sorted and utilised.

TI TREE WATER ADVISORY COMMITTEE

This Committee is imperative given the remoteness of the region and its stakeholders from seats of government. There is a significant water resource to manage and the fragility of the desert environment and desert enterprises requires vigilance and input, as is recognised by the government funded primary industry research facility at Ti Tree Farms. Local issues also need local solutions with the code of informal resolution and relationships the mechanism (Hunt and Smith 2006). It would be difficult for water and natural resource management agencies with broad responsibilities either in Alice Springs or Darwin to continue the same level of contact and management as the current TTWAC which is composed of local members.

There is scope for the review of the current TTWAC, its terms of reference and membership and adoption of simple governance reforms recommended herein. This would improve its efficacy and broaden its role and responsibility and in so doing reflect water planning and policy changes since establishment of the TTWAC in 1997.

CORE BUSINESS

Current activities and construction of the Ti Tree Water Advisory Committee (see Section 1.5.6) do not provide for effective communication with, or participation of, Anmatyerr tyerrty as is part of the Committee's brief (TTWAC 2005). This Committee is the main governance body for water management in this region and for delivering the objectives and actions of the Ti Tree Water Resource Strategy with input from the Natural Resource Management Division of the NT Government who resource the Committee but have only advisory status on the TTWAC.

This Committee, or any other management regime for this Water Control District, is implicitly directed by the NT Water Act and the National Water Initiative: eg. planning and implementation of water allocations and provisions, for economic, domestic, recreational, environmental and cultural purposes. One way this committee could meet the overarching national policy expectations is to have sub-committees that concentrate on particular aspects of water management (eg economic, cultural, environmental, public supply). New membership to match the full range of responsibilities is also desirable (Table 2). This would be the most effective mechanism that deserves capacity and resources. It can be argued that water resources should only be allocated and used where there is an appropriate management system in place.

MEMBERSHIP AND REPRESENTATION

The minimum representation on the Water Advisory Committee should be one Anmatyerr community representative, a language speaker endorsed by elders and who can clearly report back to others (Table 2). This person should be supported by at least two younger observers to fulfil Anmatyerr's intergenerational mentoring and education protocols. The Anmatyerr representative would engage with the new Anmatyerr organisation and identify future needs for consideration by the TTWAC. These may include Aboriginal growers (eg from Pine Hill, Pmara Jutunta, Woolla Downs) and membership for an Anmatyerr woman given the separate but complementary knowledge of men and women in Anmatyerr culture.

A new membership structure would broaden the format, structure and content of Ti Tree Water Advisory Committee meetings to encompass the Committee's full brief under water legislation and related policies. Currently meetings are only held in Alice Springs or at the Ti Tree Farms, a reflection on the primary focus of the Water Strategy to date. Meetings could be held throughout the Water Control District to reflect the scope of the Strategy and regional water values. This would allow respective Merekartwey and Kwertengerl to host meetings and talk for their country

and build awareness of values other than horticulture. Anmatyerr have enormous goodwill with regard to hosting trips on country. Themed meetings would recognise the full brief of water planning and management: eg. focusing on cultural values, environmental values, pastoral water use and mining water use. Mining companies for example are rarely involved with water planning, but where forecast water use by this sector is not insignificant, and in remote regions with a strong local community, a seat on this Committee would promote good relations and inform this sector of the activities of other stakeholders and their regulatory requirements.

Table 2

Current and recommended membership (italics) of the Ti Tree Water Advisory Committee[1], expanding the emphasis on horticulture to include all water users and values in the Water Control District.

Formal current membership	Recommended membership
1 Horticultural Operator	1 Horticultural Operator
2 Horticultural Operator	2 Horticultural Operator
3 Horticultural Operator	3 Horticultural Operator
4 Horticultural Operator	*4 Indigenous Horticultural Operator*
5 Grape Industry Rep	5 Grape Industry Rep
6 Centrefarm (Indigenous Horticulture Assoc)	6 Centrefarm (Indigenous Horticulture Assoc)
7 Anmatjere Community Govt Council	*7 Ceases with new Mega-Shire?*
8 Central Land Council	8 Central Land Council
9 NT Cattlemens Assoc. (local pastoralist)	9 NT Cattlemens Assoc. (local pastoralist)
	10 Anmatyerr Trust & Community Male Rep +2 observers
	11 Environmental Rep
	12 Power and Water Rep
	13 Mining Co. Rep
	14 Regional Tourism Rep
	Future options
	15 Anmatyerr Trust and Community Female Rep.

Informal membership	Informal membership
Government primary industry advisor	Government primary industry advisor
Government water resources advisor	Government water resources advisor

1 All recommendations regarding the Ti Tree Water Advisory Committee apply to future water management bodies for this Region.

ANMATYERR KWATY (WATER) AGREEMENT

An agreement between the Ti Tree Water Advisory Committee and Anmatyerr tyerrty (people) either indirectly, or directly through an Anmatyerr Customary Law and Management Trust, needs to establish guidelines for a working relationship. The overarching Anmatyerr Kwaty (water) Agreement would concern volumetric and non-volumetric cultural water provisions and set out timeframes and responsibilities for their implementation.

5 THREATS TO CULTURAL VALUES AND THEIR PROVISION

5.1 Ill Health and Loss of Language

Perhaps the biggest threat to cultural values is the loss of people who have knowledge, law and responsibilities to pass on. This is not an insignificant issue. It causes the fragmentation of strong family structures. Loss of the old deeper language, with the passing of elders, and replacing language with English words and slang is a major threat. The role of mass media and globalisation in the lives of young people is relevant in this regard. Advocates who cannot speak language and do not "understand what the law is saying" are also seen as a possible threat (pers. comm. E. Penangk). General ill-health is a further threat to participation and engagement. Good eye-sight, hearing and nutrition are all critically important for people to be involved in decision making and on ground cultural activities.

5.2 Other Land and Water Use

Windmills pumping water from springs (eg. Arden's Soak, Harper Springs) and bores built on top of springs also threaten water places and their associated values (pers. comm. D.Briscoe, T.Scrutton, C.Nelson Jr). When a dam for cattle was built too close to a sacred site and trees were damaged, a senior elder and custodian for the site was clearly upset, but conveyed that he didn't want to make a fuss by notifying the Aboriginal Areas Protection Authority. He said he had a respectful relationship with the station manager and owner and would talk to him about the issue and ask for a loan of his tractor and bulldozer so that other work could be done in the community as recompense. This example illustrates how reciprocity or in this case compensation is used at the local level to maintain social stability. The outcome may be regarded as satisfactory, but on one hand the damage to the site has still occurred and the local leader's idea of compensation falls short of what is outlined in relevant heritage legislation.

Paddy Kemarr Willis teaching culture near Mount Peake Dam. People are worried that there are decreasing opportunities to learn from the old people.

Cultural water values are often threatened by the impacts of cattle and feral animals that often have unlimited access to waterholes and watercourses.

Perhaps the greatest existing and potential threat to the use of water for hunting and economic purposes is degradation from cattle and camels through high numbers concentrated around water places and insufficient artificial watering points. This and other land uses and competing economic values can impact on sacred and important places. Mining, pastoralism and horticulture to some extent have regulatory responsibilities to look after the environment and cultural heritage. However economic imperatives of industry mean that a watchful eye is needed over culturally significant places. These industries can create a perception of threat in the minds of Anmatyerr tyerrty and examples of denied access to sacred sites and their loss and degradation substantiate some of their concerns. In some places people have noted a change in the taste and colour of drinking water. In the case of a spring drying up, the blame was on "too much swimming" by people and "too many cattle" (pers. comm. D.Presley) and excessive use of water for horticulture (pers.comm. E.Penangk). A local pastoralist has suggested that higher bore water salinity might be linked to horticultural water misuse. Although none of these inferences are scientifically tested they indicate some of the perceptions held by local people.

5.3 Resource Constraints

Lack of resources to visit sites and conduct activities and achieve outcomes is a constant threat to cultural values of water. The demand for vehicles, car licences and fuel always outstrips the supply. Tools for hunting, and food and equipment for trips is always in short supply if available at all. Anmatyerr tyerrty have few resources to allow them to get onto country and record stories. The use of research project equipment by Anmatyerr researchers and participants has revealed and demonstrated how significant outcomes can be realised through opportunities such as a 4WD vehicle, water quality and bore monitoring kits, and a camera, video and audio recorder. New partnerships and livelihood opportunities are critical to source the means by which Anmatyerr tyerrty can look after their cultural values. If resources were made available to government agencies to develop inter-cultural capacity and assist with the construction of livelihoods this would match the wishes of Anmatyerr tyerrty to manage environmental and cultural values.

5.4 Lack of Facilitation and Engagement

When there is no one to facilitate interaction between Anmatyerr tyerrty and other people and agencies, it is likely that nothing happens and cultural values are at risk. A facilitator who stands between the two systems is very important (pers. comm. T.Scrutton). In the case of a recent new mine, local elders were able to source a trusted person as a facilitator to build awareness and mediate. It is relevant to note that a facilitator is more than just a person, but in reality provides necessary resources such as a vehicle, information and communications. The importance of facilitators, mentors and relationships for achieving outcomes in community education and initiatives has been raised elsewhere (ANTA 2004, Flamsteed and Golding 2005, Rea and Young 2006) and applies to the protection of cultural values.

It is important to note that the continued presence of strong Anmatyerr culture is indicative of the resilience and the value of the Law in Anmatyerr society. The Language and Culture Programs at the local Schools have supported young people in understanding their identity and culture. Traditional ceremonies are conducted with young people to reinforce their early education and encourage responsibility, respect for culture and not getting into trouble. Nevertheless, young people risk disengagement for numerous reasons and pressures. The challenge is to maintain the younger generation's interest in their heritage, kinship obligations, the continuity of Anmatyerr first language use and the continuing practice of law and its attendant songs, ceremonies, and body and ground paintings. To a certain degree Anmatyerr tyerrty are achieving this goal as evident from fewer social problems than in many other places in Central Australia.

School students from Laramba and Ti Tree Schools practiced ecological skills while completing certificate training in natural and cultural resource management.

5.5 Nothing Happens or Inadequate Change

A threat to cultural values is that nothing happens. To date, there appears to have been very little investment in Aboriginal opportunities in this region compared to other places. The region is used to things happening very slowly and planned positive opportunities often not eventuating. If the recommendations from this report were not acted upon and things stay as they are, it is probable that cultural values would continue to be lost and eroded. Implementation of the new Anmatyerr organisation (eg Trust, Resource Group, Cultural Centre), partner projects with livelihood opportunities, gender considerations and the Ti Tree Water Advisory Committee embracing new opportunities embedded in National water policy, for example, would be positive changes to the status quo.

There are times when organisations and stakeholders work independently and this modus operandi is a lost opportunity that could be described as a threat. Sections of the NT Government with a brief to work on land and water are not well resourced to engage with, train or employ Aboriginal people despite opportunities in this region: eg. at Ngwurla (Anna's Reservoir Conservation Reserve) a rock hole of cultural significance; and on fauna and vegetation surveys. Fencing waterholes and conservation work on pastoral stations could take into account cultural interests and utilise young Anmatyerr tyerrty as employees and potential contractors. If nothing or little changes, this is an ongoing threat to cultural values.

There is also the potential threat that cultural water provisions are insufficient: ie. they are not resourced or implemented well, or there is inadequate account of Anmatyerr governance and responsibilities. These are very real possibilities included here to bring attention to the need for provisions to be well supported so they achieve the intended objectives. This includes attracting and retaining the participation and employment of Anmatyerr tyerrty. Implementation of provisions, reforms, new projects and initiatives need to take account of relevant risk factors.

It is relevant to note that change is incremental and that implementation of our recommendations is not necessarily going to quickly shift circumstances to an ideal outcome. The role of the outside researchers was to assist Anmatyerr tyerrty move from one position to another position in concrete steps, meaning that they do not have to go back and start this process again. Any movement along that trajectory is real progress, positive outcomes that move steadily towards community identified objectives.

6 RECOMMENDATIONS

The recommendations from the identified cultural values and cultural provisions are summarised under the five categories for cultural water provisions, with the organisations that are probably responsible for each activity. Appropriate time frames are also assigned. In terms of priorities, the provisions have been combined and reordered in Section 6.3.6 according to the recommended time-frames.

In terms of costing and responsibilities, Territory Government Departments and the Central Land Council are the most immediate sources for assistance with the materialisation of these recommendations. There is a mandate for managers to implement cultural water provisions from State, Territory and Australian water legislation and policy. Opportunities from relevant initiatives in related areas such as local government, housing, employment and education should also be seized and coordination used to maximise local benefits. This would overcome the 'poor coordination and collaboration on the ground within and between Governments that has increased the burden on Indigenous organisations' (Hunt and Smith 2006).

Anmatyerr leaders and spokesmen have indicated they are keen to engage and work with representative bodies and other agencies whose core business is with the interests of Aboriginal people and the environment (pers. comm. E.Penangk, T.Scrutton, L.Price). The overarching recommendations are for an Anmatyerr Water Agreement that encapsulates the ways by which cultural provisions can be delivered:

1) arrangements for non-volumetric provisions (language, protocols, access and co-existence, livelihoods, reformed water governance);
2) a non-licensed volumetric surface water and groundwater allocation that will sustain water places and associated assets of cultural and environmental value;
3) and a licensed volumetric water allocation for Aboriginal enterprises within the assessed sustainable resource for future economic use.

6.1 Anmatyerr Kwaty (Water) Agreement

The Northern Territory Law Reform Commission (2003) recommended that "*Aboriginal communities be assisted by government to develop law and justice plans which appropriately incorporate or recognise Aboriginal customary law as a method in dealing with issues of concern to the community*". As the use and management of water with regard to cultural impacts, values and responsibilities is of high importance to Anmatyerr tyerrty, this community warrants assistance as outlined to develop such a plan or agreement to address this topic.

An Anmatyerr Water Agreement should be developed jointly by the Ti Tree Water Advisory Committee[2] (TTWAC) and the new Anmatyerr Institution (The Trust / Resource Group) with the aim of implementing the recommended cultural water provisions, through establishing actions, responsibilities, resource needs and time frames. The three main objectives of the Water Agreement would be 1) to set out the arrangements for non-volumetric provisions under the five category headings: Anmatyerr Names and Protocols, Access, Land Management and Co-existence, Livelihoods and Skills Exchange, Governance Reforms; 2) to ensure

2 All recommendations regarding the Ti Tree Water Advisory Committee apply to future water management bodies for this Region.

the non-consumptive pool allocated to environmental and cultural water requirements is scientifically determined by environmental scientists working in conjunction with Anmatyerr tyerrty, as being able to sustain identified water values, places and associated assets; and 3) to bank water for forecast licences for commercial use by Anmatyerr tyerrty within the allocation of water for economic purposes.

The Agreement should be modelled on the "*Traditional Knowledge, Natural Resource Management and Access Agreement*" an umbrella document for agreement making between Anmatyerr tyerrty and other parties (pers. comm. D.Hancock). This is a simple but sound template for materialising goodwill of active local parties or agencies. Many of the recommended provisions are ongoing activities and as such need to be endorsed in the updated strategy and this Anmatyerr Water Agreement.

Provision 6.1 ANMATYERR WATER AGREEMENT		
	Likely Responsibility	**When**
Anmatyerr Water Agreement	• TTWAC • Anmatyerr tyerrty • DNRETA	Endorsed in release of updated Strategy

6.2 Cultural Water Provisions - Volumetric

6.2.1 Cultural Water Allocation: Non-Consumptive Use

A major way to provide for cultural values is through allocation of water to sustain the environment which is a part of Anmatyerr culture. This need was identified by Anmatyerr women in particular who question the separation of environmental from cultural values and considerations in water planning (pers. comm. A.Campbell). Water plans are to take account of native title rights to water in the catchment and aquifer area (National Water Initiative 2004). This is especially critical where other water users are licensed and pumping significant quantities of groundwater (eg. mining companies, horticulturalists). The non-consumptive pool allocated to environmental and cultural water requirements under current water management frameworks must demonstrably be able to sustain water places and associated assets of cultural value. For example, the water dependent landscape (trees, animals etc) that are the basis for cultural values of water. This would be synonymous with the water licences for traditional cultural purposes as described by National water policy (National Water Commission 2004). It would be the water required to meet the cultural values discussed in the values category 3.3 'Environment, Education and Economies'. This cultural water provision needs to be determined collaboratively by respective environmental and cultural parties in order to meet the needs of separate and common objectives.

6.2.1.1 Surface water

The current 95% surface water allocation needs to be informed by stated environmental and cultural values and specific actions or guidelines to protect those values. At the least it is recommended that periodic monitoring or site visits are made to assess the risk to surface waters (grazing, erosion, fouling, weeds, drainage, diversion, nutrient run-off), including any

impacts that might reduce groundwater recharge. At best, this allocation could be provided for through reaffirming best practice for a) constructing dams, roads and culverts, b) position and number of stock water points and c) fencing off culturally important sites (eg sacred, ceremony, history, swimming, drinking water).

6.2.1.2 Groundwater

There is an urgent need for a volumetric allocation of groundwater to sustain environmental and cultural values of groundwater dependent ecosystems. The lack of a formal allocation places numerous springs and soakages at risk, as well as groundwater dependent vegetation and its associated fauna. The volume of water required to sustain these water places and their cultural values needs to be calculated through collaborative efforts that provide new insight, cultural awareness and a sound information base. As with surface waters, this allocation needs to be monitored to ensure that the identified water requirements are protecting the environmental and cultural values.

Provision 6.2 CULTURAL WATER PROVISIONS - VOLUMETRIC		
	Likely Responsibility	**When**
6.2.1.1 Surface water Surface Water monitoring and/or regular site visits	• TTWAC • DNRETA • Anmatyerr tyerrty	Endorsed in release of updated Strategy
6.2.1.2 Groundwater Groundwater allocation to cultural & environmental values	• TTWAC • DNRETA	Release of updated Strategy
Monitoring of groundwater dependent ecosystems	• TTWAC • DNRETA • Anmatyerr tyerrty	Endorsed in release of updated Strategy

6.2.2 Indigenous Water Licence: Consumptive Use

The reviewed Ti Tree Water Resource Strategy should also reserve a volume of water from the assessed consumptive pool for the forecast Anmatyerr enterprises in horticulture. This banking of water so as not to preclude future options might be managed under an Indigenous Water Licence scheme. Those businesses all have a cultural basis and the water not only provides economic value but a range of other outcomes that support cultural values, health and well-being.

Provision 6.2.2 INDIGENOUS WATER LICENCE: CONSUMPTIVE USE		
	Likely Responsibility	**When**
Groundwater allocation for Anmatyerr enterprises	• TTWAC • DNRETA	Release of updated Strategy

6.3 Cultural Water Provisions – Non-Volumetric

6.3.1 Anmatyerr Names and Language

Anmatyerr cultural values of water are embedded in language, especially the old language Kalenthelkwerr which conveys concepts and philosophies that underpin the law. The physical and spiritual essence of a place is embedded in the name of a place (Merlan 1982). Place names contain elements of culture and with songs provide cognitive maps that guide people through country, and which are invisible to others. The use of English throughout the region reinforces the dominant culture and ownership of country. Anmatyerr tyerrty have ownership and rights under customary laws that Australian governments are encouraged to respect. Anmatyerr also have some ownership and rights under Australian legislation (Native Title, ALRA, Cultural Heritage, Sacred Site, Parks and Wildlife). As there are two main languages in the Anmatyerr/Ti Tree region and two main cultures, there are two names for most places and two ways of doing things. Using Anmatyerr language is a powerful and simple way of respecting Anmatyerr culture and the rights of Anmatyerr tyerrty to be involved in decisions that concern their traditional lands (mer and kwaty). It is also an education tool that although already used in the schools could be used more broadly for wider education and awareness.

Provision 6.3.1 ANMATYERR NAMES AND LANGUAGE		
	Likely Responsibility	**When**
Add Anmatyerr place names to maps in Ti Tree Water Strategy	• TTWAC	Release of updated Strategy
Use existing Anmatyerr maps or create comparable maps for the Ti Tree Water Strategy that reflect Aboriginal understandings and cultural values	• TTWAC • Anmatyerr tyerrty	Release of updated Strategy
Add Anmatyerr place names to local and regional signs and documentation (eg Mer Ngwurla for Annas Reservoir)	• Government • CLC • Anmatyerr Trust & Resource Group	Endorsed & ongoing
Translate relevant TTWAC and water management documents into Anmatyerr language	• Anmatyerr Trust & Resource Group • TTWAC	Endorsed & ongoing
Engage Anmatyerr tyerrty as interpreters and provide training where necessary	• Government • CLC • Anmatyerr Trust & Resource Group	Endorsed & ongoing
Ensure meetings are undertaken with English correctly translated and communications from Anmatyerr to English conveyed correctly	• TTWAC • Anmatyerr Trust & Resource Group • DNRETA	Endorsed & ongoing
Support Anmatyerr in providing language and culture training to regional residents and managers	• Government • CLC • Anmatyerr Trust & Resource Group	2008

6.3.2 Protocols

Protocols for engaging with Anmatyerr tyerrty are fundamental for working relationships with other land holders, agencies, communities, governments and representative bodies. Anmatyerr Law dictates that all decisions about land and water need to go through the senior Kwertengwerl and Merekartwey responsible for the place or places in question (see Section 3.2). Anmatyerr seek a process where the correct Kwertengwerl are involved in decisions, where the younger generation can be engaged to communicate between them and other people, and where all parties are operating on an equal level.

The construction of an Anmatyerr managed institution is regarded as the first step to support the need for Anmatyerr protocols to be respected, one of the main cultural water provisions. An Anmatyerr institution that represents the Aboriginal rights, titles and interests of the Anmatyerr people is central to managing alliances and the use of water, and access to water through arrangements and agreements that recognise customary law, is highly desirable in this regard. Fundamental to negotiating new processes are concepts of self-determination, Aboriginal capacity, time to consider, the recognition of Indigenous law and social cohesion as recommended by Bauman and Williams (2004). Social cohesion involves group engagement with country (kin, ancestors, geography) and the collective esteem that results (Burgess *et al* 2005). Anmatyerr tyerrty are in the process of meeting this recommendation through the establishment of an "Anmatyerr Customary Law and Management Trust". The Trust aims to meet the rights of Anmatyerr people to the ownership, protection and custody of their Traditional Knowledge including the incidental right to teach such practices, customs and traditions to a younger generation to ensure their continuity (LWA Project NTU23, Craig D. and Hancock D. publications forthcoming). The Trust aims to have core rights (authority, own rules) and contingent rights (able to grant rights for access and use) and act as a locally operated institution.

On a day to day basis, the Trust would be represented by a small team of leaders from the younger generation who would constitute a group synonymous with a Management Committee or Resource Group (Anmatyerr to name). This group would provide a one stop shop for other people to communicate with Anmatyerr tyerrty. The group would interpret between parties and provide an interface between the two systems of water law and management (eg Anmatyerr and Australian/NT Law) acting as a 'cultural clearing house'. This is a mechanism for ensuring customary protocols are respected. The Resource Group would liaise with individual Merekartwey and Kwertengwerl where appropriate or with a Council of Elders where wider issues were concerned. The Council of Elders may be similar to the current Anmatjere Community Government Council, which has a restricted brief under the NT Local Government Act. Forecast changes to Local Government with reduced representation of Aboriginal groups on larger Shire Councils highlights the need for a visible community based institution for other people to interact with.

The 'Resource Group', under the authority of the respective traditional owners and managers, could submit tenders, negotiate partner projects and build a resource base for vehicles and equipment for internal requirements such as visiting country for customary purposes. It could facilitate the building of networks and relationships with agencies whose core business is NRM on Anmatyerr country and assist with the creation of employment opportunities as part of culturally based livelihoods.

Provision 6.3.2 PROTOCOLS		
	Likely Responsibility	**When**
Establish *Anmatyerr Customary Law and Management Trust* and Resource Group	• Anmatyerr Tyerrty • CLC	2008
Outline engagement protocols through the Anmatyerr Water Agreement between the TTWAC and the Trust / Resource Group	• TTWAC • Anmatyerr Trust & Resource Group • DNRETA	Release of Strategy
Ensure WAC meetings provide sufficient information, translations, consultation and response times before decisions are finalised	• TTWAC	Endorsed & ongoing

6.3.3 Access, Land Management and Co-existence

The health and well-being of Aboriginal people can deteriorate when places are inaccessible, degraded or lost. Cultural values of water are provided for when people can hunt and consume healthy food, acquire, use and share ecological knowledge, pass on laws, educate young people and tell stories. However, people not only need to access places, but when they do visit it is preferable that sites are in a safe and healthy condition. This raises issues of land management in desert environments. Retaining the relatively intact geography of this region is critical for keeping natural water regimes at landscape and ecosystem scales: ie. the character of local and regional run-off, flow, recharge and discharge.

Access involves the management and use of tracks, vehicles, gates, fences, bores, piping, dams, culverts, grids, windmills, yards, crossings, feral animals and cattle. Good relationships generally exist between station owners and managers and Anmatyerr people and it is recommended that this is built on through a local workshop and Discussion Paper that explores options and strategies for achieving mutual and separate goals: eg. duty of care statements. Numerous issues could be discussed such as erosion, fouled waterholes, algal blooms, dust, locked gates, track degradation from over use and use after rain, camel impacts, and impassable train and pipe lines. All issues involve tracks, stock and general station management in a fragile desert environment. These are significant issues that something can be done about. Culturally important places have the same value as heritage icons in cities have for other people, and as such deserve similar protection and access. The key to harmonious co-existence is probably best achieved through partner projects that increase social networks, cultural awareness and employment and deliver on-ground outcomes.

Dialogue between on ground parties to formulate ways forward is essential as has been demonstrated by a private agreement between the active local managers of a significant rock hole (Hancock et al in press). Similar agreements between Anmatyerr tyerrty and other parties that concern not only water, but any resource, are an avenue to integrate and plan for local needs. Although relevant Acts state that traditional owners are free to access country if their activities do not interfere with the effective running of commercial enterprises, there is often little reliance on legislation as a tool to achieve mutual outcomes. The potential incentives and opportunities from awareness of the overlying land tenure and responsibilities (eg Native Title, Aboriginal Land Rights, Sacred Site and Cultural Heritage Legislation, Pastoral Act, Water Act, Parks and Wildlife Act including Joint Management, Mining Act and Local Government Act) may be useful for negotiating respective rights and roles (Craig *et al* 2008).

Provision 6.3.3 ACCESS, LAND MANAGEMENT AND CO-EXISTENCE		
	Likely Responsibility	**When**
Workshop and Discussion Paper on options and strategies for Anmatyerr and other locals to work together to manage water places and access	• Anmatyerr Trust & Resource Group • Local land owners and managers	2008
Conservation and land management training for young Anmatyerr tyerrty	• Anmatyerr Trust & Resource Group • CLC	2008-ongoing
Partnership projects between Anmatyerr and other land managers (eg. road maintenance, fencing places of value, stock watering points)	• Local land owners and managers • Anmatyerr Trust & Resource Group	Endorsed & ongoing
Desk top study into relationships and rights of relevant parties under current legislation	• TTWAC • DNRETA	Endorsed & ongoing

6.3.4 Livelihoods and Skills Exchange

Partnership projects between Anmatyerr tyerrty and Central Australian agencies with water management as a core brief are the key to developing long term sustainable livelihoods, which in turn are a key to the resources so important for achieving cultural water provisions (eg. facilitators, transport, equipment, funds). Livelihood construction is dependent on facilitation between elders and spokespersons (Council of Elders, the Trust, Resource Group) and individuals from agencies. One to one building of trust is the preferred Anmatyerr model. Negotiating inter-cultural arrangements for decision making and livelihood construction needs to be undertaken together.

These projects should aim to combine regional on-ground works with customary responsibilities. The common ground between Indigenous and non-Indigenous approaches and laws for managing country needs to be understood so that environmental and cultural services from one livelihood benefit the needs of all parties. All work options will be directly or indirectly influenced by Anmatyerr Law and culture and to succeed, this cultural framework needs to be respected; eg. cultural direction, culturally meaningful activities and intergenerational education that comes with the roles and responsibilities of an Anmatyerr person. Opportunities from linking profit and non-profit activities, integrating relevant policies and processes, creating new inter-cultural arrangements and inter-cultural capacity are all important features of new livelihoods. Anmatyerr tyerrty would bring valuable local knowledge of country to positions and have incentives to work. Service provision from the resident community can be more cost effective when established on these basic premises.

Provision 6.3.4 LIVELIHOODS AND SKILLS EXCHANGE		
	Likely Responsibility	**When**
Monitoring components of the Ti Tree Water Resource Strategy offered as tenders to Anmatyerr people	• TTWAC • Anmatyerr Trust & Resource Group • CLC • DNRETA	Release of updated Strategy
Ti Tree Water Resource Strategy includes an employment or livelihoods strategy aimed at harnessing local capacity	• TTWAC • Anmatyerr Trust & Resource Group • DNRETA	Release of updated Strategy
Develop partnership projects that aim to deliver objectives of the Ti Tree Water Resource Strategy, wider regional goals and cultural responsibilities	• TTWAC • Anmatyerr Trust & Resource Group • Stakeholders/ Agencies • Anmatyerr Water Project Team	Endorsed 2008 and ongoing
Conduct a Livelihoods Workshop to map a way forward	• Anmatyerr Trust & Resource Group • Stakeholders/ Agencies • Anmatyerr Water Project Team	Early 2008
Develop strategy for Anmatyerr owned and operated enterprises	• Anmatyerr Trust & Resource Group	Ongoing

6.3.5 Governance and Participation

At the National level, a Government water champion would assist in working closely with Anmatyerr and policy makers to support the recommendations herein and future activities that align National, Territory and Customary laws and responsibilities under Indigenous, Water and Environment spheres.

The series of inquiries and reports into the place that Aboriginal Customary Law holds in the wider decision making and legal sphere, highlight the need for greater understanding and use of opportunities for taking account of such laws. Albeit there is a lack of direction for policy implementation, governance of water in Australia is set to embrace this need with the support of National, State and Territory water, environment and Indigenous policies (health, education, employment). The recommendations of this Report contribute to this need and have arisen from the detailed case study that is the Anmatyerr Water Project. The recommendations are centred on the immediate and relevant needs of Anmatyerr tyerrty in the current water governance framework such as the Ti Tree Water Advisory Committee.

Provision 6.3.5 GOVERNANCE AND PARTICIPATION		
	Likely Responsibility	**When**
Terms of Reference of the TTWAC revised to reflect National NRM and water policies	• TTWAC • Anmatyerr Trust & Resource Group • DNRETA	Release of Strategy
An expanded NT water allocation and management process included in legislation with separate provision for Indigenous values.	• NT Controller of Water	2008
Anmatyerr community representative (male) and two observers appointed to the TTWAC	• TTWAC • Anmatyerr Trust & Resource Group • DNRETA	Release of Strategy
Plan for second Anmatyerr community representative (woman)	• TTWAC • Anmatyerr Trust & Resource Group • DNRETA	2008 ongoing
Hold WAC meetings in variety of places across the Water Control District to encourage wider awareness and to reflect scope of the Water Strategy	• TTWAC • Anmatyerr Trust & Resource Group	Endorsed & ongoing
Hold themed meetings of the TTWAC to cover full spectrum of water planning and management (eg focusing on cultural values, environmental values, pastoral water use and mining water use)	• TTWAC • Anmatyerr Trust & Resource Group • DNRETA	Endorsed & ongoing
Implement policy that aligns National, Territory and Customary responsibilities with Aboriginal Water and Environment spheres.	• Federal and Territory Governments • Anmatyerr Champion	Endorsed & ongoing
Senior Territory or Federal government champion to work closely with Anmatyerr tyerrty to support recommendations of this Report	• Federal and Territory Governments • Anmatyerr Trust and Resource Group	2008 ongoing

6.3.6 Provisions in Order of Priority

HIGHEST PRIORITY 1

Recommended to be Incorporated into the Updated Strategy

Provision 6.2

CULTURAL WATER PROVISIONS - VOLUMETRIC

- TTWAC
- DNRETA

6.2.1.2 Groundwater

- Groundwater allocation to cultural and environmental values

6.2.2 Indigenous Water Licence: Consumptive Use

- Groundwater allocation for Anmatyerr enterprises

Provision 6.3.1

ANMATYERR NAMES AND LANGUAGE

- TTWAC
- Anmatyerr tyerrty

- Add Anmatyerr place names to maps in Ti Tree Water Strategy
- Use existing maps or create comparable maps for the Strategy that reflect Aboriginal understandings and cultural values

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Provision 6.3.2

PROTOCOLS

- Anmatyerr tyerrty
- CLC

- Establish Anmatyerr Customary Law and Management Trust and Resource Group

- TTWAC
- Anmatyerr Trust & Resource Group
- DNRETA

- Outline engagement protocols through the Anmatyerr Water Agreement between the TTWAC and the Trust / Resource Group

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Provision 6.3.4

LIVELIHOODS AND SKILLS EXCHANGE

- TTWAC
- Anmatyerr Trust & Resource Group
- CLC

- Monitoring components of the Ti Tree Water Resource Strategy offered as tenders to Anmatyerr people
- Ti Tree Water Resource Strategy to include an employment or livelihoods strategy aimed at harnessing local capacity

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Provision 6.3.5

GOVERNANCE AND PARTICIPATION

- TTWAC
- DNRETA
- Anmatyerr Trust & Resource Group

- Terms of Reference of the TTWAC revised to reflect National NRM and water policies
- Anmatyerr community representative (male) and two observers appointed to the TTWAC

HIGHEST PRIORITY 2

Endorsed in the Updated Strategy and Ongoing

Provision 6.1

ANMATYERR WATER AGREEMENT

- Anmatyerr Water Agreement

- TTWAC
- Anmatyerr tyerrty
- DNRETA

Provision 6.2

CULTURAL WATER PROVISIONS - VOLUMETRIC

- TTWAC
- DNRETA

6.2.1.1 Surface water

- Surface Water monitoring and/or regular site visits

6.2.1.2 Groundwater

- Monitoring of groundwater dependent ecosystems

Provision 6.3.1

ANMATYERR NAMES AND LANGUAGE

- Add Anmatyerr place names to local and regional signs and documentation (eg. Mer Ngwurla for Anna's Reservoir)
- Translate relevant TTWAC and water management documents into Anmatyerr language
- Ensure meetings are undertaken with English correctly translated
- Ensure communications from Anmatyerr to English are conveyed correctly
- Engage Anmatyerr tyerrty as interpreters with training where necessary

- Government
- CLC
- Anmatyerr Trust & Resource Group
- DNRETA

Provision 6.3.2

PROTOCOLS

- Ensure TTWAC meetings provide sufficient information, translations, consultation and response times before decisions are finalised

- TTWAC
- DNRETA

Provision 6.3.3

ACCESS, LAND MANAGEMENT AND CO-EXISTENCE

- Partnership projects between Anmatyerr and other land managers (eg. road maintenance, fencing places of value, stock watering points)

- Local Land Owners & Managers
- Anmatyerr Trust & Resource Group

- Desk top study into relationships and rights of relevant parties under current legislation

- TTWAC
- DNRETA

Provision 6.3.4

LIVELIHOODS AND SKILLS EXCHANGE

- Develop partnership projects that aim to deliver objectives of the Ti Tree Water Resource Strategy, wider regional goals and cultural responsibilities.

- TTWAC
- Anmatyerr Trust & Resource Group
- Stakeholders
- Anmatyerr Water Project Team

Provision 6.3.5

GOVERNANCE AND PARTICIPATION

- Hold TTWAC meetings across the Water Control District for wider awareness and to reflect scope of the Water Strategy
- Hold themed meetings of the TTWAC to cover full brief of water planning and management (eg focusing on cultural values, environmental values, pastoral water use and mining water use)
- Implement policy that aligns National, NT and Customary responsibilities in Indigenous Water and Environment spheres.

- TTWAC
- DNRETA
- Anmatyerr Trust & Resource Group
- Federal & NT Government
- Anmatyerr Champion

HIGHEST PRIORITY 3

Endorsed in the Updated Strategy and Ongoing

Provision 6.3.1

ANMATYERR NAMES AND LANGUAGE

◗ Support Anmatyerr in providing language and culture training to regional residents and managers	◗ Government ◗ CLC ◗ Anmatyerr Trust & Resource Group

Provision 6.3.3

ACCESS, LAND MANAGEMENT AND CO-EXISTENCE

◗ Workshop and Discussion Paper on options and strategies for Anmatyerr and other locals to work together to manage water places and access	◗ Anmatyerr Trust & Resource Group ◗ Local Land Owners & Managers ◗ DNRETA
◗ Conservation and land management training for young Anmatyerr tyerrty	◗ Anmatyerr Trust & Resource Group ◗ CLC ◗ Independent service providers

Provision 6.3.4

LIVELIHOODS AND SKILLS EXCHANGE

◗ Conduct a Livelihoods Workshop to map a way forward	◗ Anmatyerr Trust & Resource Group ◗ Stakeholders
◗ Develop strategy for Anmatyerr owned and operated enterprises	◗ Anmatyerr Trust & Resource Group

Provision 6.3.5

GOVERNANCE AND PARTICIPATION

◗ An expanded NT water allocation and management process included in legislation with separate provision for Aboriginal values	◗ NT Controller of Water
◗ Plan for second Anmatyerr community representative (woman)	◗ TTWAC ◗ Anmatyerr Trust & Resource Group ◗ DNRETA
◗ Senior NT or Federal government champion to work closely with Anmatyerr tyerrty to support recommendations of this Report	◗ Federal & Territory Government ◗ Anmatyerr Trust & Resource Group

APPENDIX A

Key steps to the creation of sustainable livelihoods where Aboriginal people are speaking on their own behalf in NRM decision-making

Aware

Awareness about water in socio-economic, environmental and legal terms informs all interest groups involved in decision making. Anmatyerr tyerrty are learning about water planning processes, policies and laws, regional water use and availability, scientific knowledge of water resources and Indigenous policy and water rights. Non-Aboriginal interests are increasing awareness of Anmatyerr Customary Governance of resources and cultural values of water. Anmatyerr would like other people to learn their language to better understand their culture.

Skilled

Both parties need skills for creating new governance arrangements and managing new culturally based livelihoods in water management. Anmatyerr tyerrty are building skills in multimedia for conveying aspirations and inter-cultural communication, resource management for managing country, interpreting for mediating between Aboriginal authorities and others, and water monitoring and auditing. Important new skills for non-Aboriginal interests include knowledge of language, cultural awareness and how to deliver culturally based training and employment.

Participating

Governance of water needs to meet International and National commitments on Aboriginal engagement, participation and recognition of cultural values. Anmatyerr tyerrty, Governments and the Ti Tree Water Advisory Committee are collaborating to ensure that water management process, structure and law supports these aims. Reformed water management processes and structures that recognises customary resource management and better provides for Aboriginal participation aims to give some authority, but not necessarily visibility, to Anmatyerr Law. Anmatyerr tyerrty seek equity between the two systems of Law and the considerable common ground should give confidence that inter-cultural water governance is possible.

Employed

Anmatyerr tyerrty are the best ambassadors for their customary governance of mer and kwaty through employment and participation in decision making. Partnerships with agencies whose core business is water management on Anmatyerr land, aim for culturally based livelihoods. These combine customary responsibilities and Anmatyerr enterprises (wild harvest, cultural tourism) with regional work opportunities: eg. with Water Utilities (drinking water sampling, infrastructure maintenance), Community Groups (ecological monitoring, fencing, revegetation), Governments (bore and surface water quality monitoring and assessment, auditing, wildlife survey, weed & feral animal control, joint management, knowledge management, regional planning and Local Government), private Industries (horticulture, tourism, mining, pastoralism) and other agencies such as the Central Land Council (CLC) (legal representation and interpreting with Anthropologists and Lawyers) and research agencies (Protocols, Agreements, Knowledge Strategies).

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