

WILLANDRA LAKES REGION WORLD HERITAGE AREA PLAN OF MANAGEMENT

Draft
August 2014

Prepared for NSW Office of Environment and Heritage



© Context Pty Ltd 2014

Project Team:

Geoff Ashley, Director - Project Manager

Susan Mcintyre-Tamoy, Associate Director AHMS

Chris Johnston, Director, Context

Ian Travers, Associate, Context

Neil Urwin, Griffin Associates Environment

Expert input and review by Prof James Bowler and Dr Nicola Stern

Report Register

This report register documents the development and issue of the report entitled *Willandra Lakes Region World Heritage Area Plan of Management* undertaken by Context Pty Ltd in accordance with our internal quality management system.

Project No.	Issue No.	Notes/description	Issue Date	Issued to
1686	1	Working Draft	3 April 2014	Client
1686	2	Working Draft	16 May 2014	Client
1686	3	Working Draft	30 June 2014	Client
1686	4	Working Draft	17 July 2014	Client
1686	4	Draft	21 August 2014	Client

Context Pty Ltd

22 Merri Street, Brunswick 3056

Phone 03 9380 6933 Facsimile 03 9380 4066

Email context@contextpl.com.au Web www.contextpl.com.au



CONTENTS

PART A	A: STRA	TEGIC PLAN	1
1	INTRO	DUCTION	3
	1.1	Background	3
	1.2	World Heritage Convention and Obligations	8
		1.2.1 The World Heritage Convention and the World Heritage List	8
		1.2.2 Management of Australia's World Heritage Properties	8
		1.2.3 Management Plans for World Heritage Properties	9
	1.3	WLRWHA Management and Heritage Listings	9
		1.3.1 Current Management of WLRWHA	9
		1.3.2 Heritage Listings and Other Agreements	10
	1.4	Plan of Management Structure	10
	1.5	Plan of Management Review Process	13
		1.5.1 Changes since the POM 1996	13
		1.5.2 Stakeholder Consultation for this Plan	13
		1.5.3 Outcomes of Stakeholder Consultation	13
	1.6	Authorship and Acknowledgements	14
	1.7	Abbreviations	15
2	BASIS	OF MANAGEMENT: HERITAGE VALUES & ATTRIBUTES	17
	2.1	Introduction	17
	2.2	Heritage Values Underpinning Management	17
	2.3	World Heritage Values	17
	2.4	National Heritage Values	19
		Potential National Heritage Values	19
	2.5	NSW State Heritage Values	19
	2.6	Local Heritage Values	20
	2.7	Natural Heritage Values	20
	2.8	Other values	20
	2.9	Attributes Reflecting Values and Condition/Risks	20
	2.10	Discussion of Heritage Values Issues	25
3.0		EGIC VISION FOR MANAGEMENT	27
	3.1	Introduction	27
	3.2	WLRWHA Strategic Vision	27
		3.2.1 Strategic Vision for WLRWHA	27
		3.2.2 Components of the Strategic Vision	27
4	MANA	AGEMENT STRATEGIES	30
	4.1	Introduction	30
	4.2	Strategic Theme: Governance, Communication & Administration	30
		4.2.1 Introduction	30
		4.2.2 Strategies for Governance	31
		4.2.3 Strategies for Communication	34
		4.2.4 Strategies for Administration	36
	4.3	Strategic Theme: Identification & Protection of Heritage Values	36
		4.3.1 Introduction	36
		4.3.2 Strategies for the Identification of Heritage Values	37



		4.3.3 Strategies for the Rehabilitation and Protection of Heritage Values	40
	4.4	Strategic Theme: Management of Heritage Impacts	42
		4.4.1 Introduction	42
		4.4.2 Strategies for predicting and assessing heritage impacts4.4.3 Strategy for undertaking conservation works	42 44
	4.5	Strategic Theme: Presenting and Transmitting Heritage Values	45
		4.5.1 Introduction	45
		4.5.2 Strategies for Presenting World Heritage Values	45
		4.5.3 Strategies for transmitting World Heritage Values	48
	4.6	Strategic Theme: Sustaining Associated Communities	50
		4.6.1 Introduction	50
		4.6.2 Strategies for Sustaining Associated communities	50
PART I	B: OPER	ATIONAL PLAN	53
5	OPERA	ATIONAL PLANS	55
	5.1	Strategies, actions, priorities and responsibility	55
PART	C: INDIV	IDUAL PROPERTY PLANS	69
6	INDIV	DUAL PROPERTY PLANS	71
	6.1	Individual Property Plans for Pastoral Properties	71
	6.2	Mungo National Park Plan of Management	71
7	GLOSS	ARY	72
8	BACK	SROUND DOCUMENTS	75
	8.1	Published works	75
		8.1.1 Heritage Values	75
		8.1.2 Tourism and Interpretation	75
		8.1.3 Geology/Geomorphology	75 70
		8.1.4 Biodiversity/Ecology 8.1.5 Archaeology	78 78
		8.1.6 Social Values	79
		8.1.7 History, Linguistics and Aboriginal History	80
		8.1.8 Management	80
	8.2	Unpublished reports	81
		8.2.1 Heritage Values	81
		8.2.2 Management	81
	1	8.2.3 History	81
		8.2.4 Tourism and Interpretation	81
	8.3	8.2.5 Studies for the 1996 Plan of Management and Regional Environmental Stud Theses and dissertations	y 81 83
9		S OF REFERENCE FOR THE MANAGEMENT COMMITTEES	84
	9.1	Introduction	84
	9.2	NSW World Heritage Properties Ministerial Council	84
		9.2.1 Terms of Reference	84
		9.2.2 Membership	84
		9.2.3 Operation	84
	9.3	WLRWHA Management Advisory Committee	84
		9.3.1 Terms of Reference	84
		9.3.2 Membership	85



	9.3.3 Appointment and Termination	85
	9.3.4 Operation	85
9.4	Traditional Owners Advisory Committee (TOAC)	86
	9.4.1 Terms of Reference	86
	9.4.2 Membership	86
	9.4.3 Appointment and Termination	86
	9.4.4 Operation	86
9.5	Technical and Scientific Advisory Committee (TSAC)	87
	9.5.1 Terms of Reference	87
	9.5.2 Membership	87
	9.5.3 Appointment and Termination	87
	9.5.4 Operation	87
9.6	Observers at Committees	88
APPENDIX A -	- WILLANDRA LAKES REGION REGIONAL ENVIRONMENTAL PLAN NO.1	89
APPENDIX B -	- HERITAGE LISTINGS	90
	World Heritage listing	90
	National Heritage Listing	90
	NSW State Heritage Listing	90
	Balranald Shire Heritage Listing	90
	National Trust of Australia listing	90



PART A: STRATEGIC PLAN







1 INTRODUCTION

Willandra WHA means a lot of different things to different people. No matter if you are Aboriginal or a scientist or a tourist-we are all drawn to that one spot. It still feels like an ancient landscape and we all belong to it. It nurtures us and we nurture it and we have to keep on nurturing it for future generations. (Willandra Traditional Owner)

1.1 Background

In 1981, the Willandra Lakes Region was the first place in Australia inscribed on the World Heritage List, along with the Great Barrier Reef and Kakadu National Park. Discoveries in the Willandra Lakes Region fundamentally changed existing understandings of the antiquity of the Aboriginal occupation of Australia.

The Willandra Lakes Region World Heritage Area (WLRWHA) is a semi-arid landscape 240,000 hectares in size located in south western New South Wales (Figure 1).

The region's ancient lakes formed over the last two million years but are now dry. Water flowed from the Great Dividing Range via the Lachlan River, down the Willandra Creek through the lakes and on to the Murray River. When this creek ceased to replenish the lakes, they dried in series from south to north over a period of several thousand years, each becoming progressively more saline. Most of the five large interconnected dry lake basins and fourteen smaller basins are fringed on their eastern shores by a crescent-shaped dune, referred to as a 'lunette', formed by the prevailing winds (see Figures 4).

The dry saline lake beds are covered by saltbush communities with the fringing sand vegetated with mallee eucalypt woodlands and grassy understories. On the sand plains there are Rosewood-belah tree communities. WLRWHA is home to a number of rare and threatened species of plants and animals which form an important part of Australia's overall biodiversity (Figures 4-6).

Aboriginal people have lived in the Willandra region for at least 50,000 years, enjoying a subtropical climate 40,000 years ago and enduring the last ice age 20,000 years ago. The 42,000 year old remains of a female found in the dunes of Lake Mungo in 1968 are believed to be the oldest ritual cremation site in the world. In 1974 the ochred burial of a male Aborigine was found nearby and this skeleton, known as 'Mungo Man', is of similar antiquity. When the lakes were full, Aboriginal people camped along the lake shore, taking advantage of a wide range of food. They also exploited plant resources, particularly when the lakes began to dry and food was less abundant.

The archaeological record points to an extraordinary continuity of occupation over long periods of time. In 2003, nearly 460 fossilised human footprints made in wet clay and dating from 19,000 to 21,000 years ago were discovered; the largest collection of its kind in the world.

Mungo National Park overlaps about one third of the WLRWHA and includes Lake Mungo and the spectacular Walls of China lunette on its eastern margin (Figure 4) attracting visitors as a key tourist destination in Western NSW. The remaining area comprises pastoral leasehold properties and some small areas of freehold lands (see Figure 3).



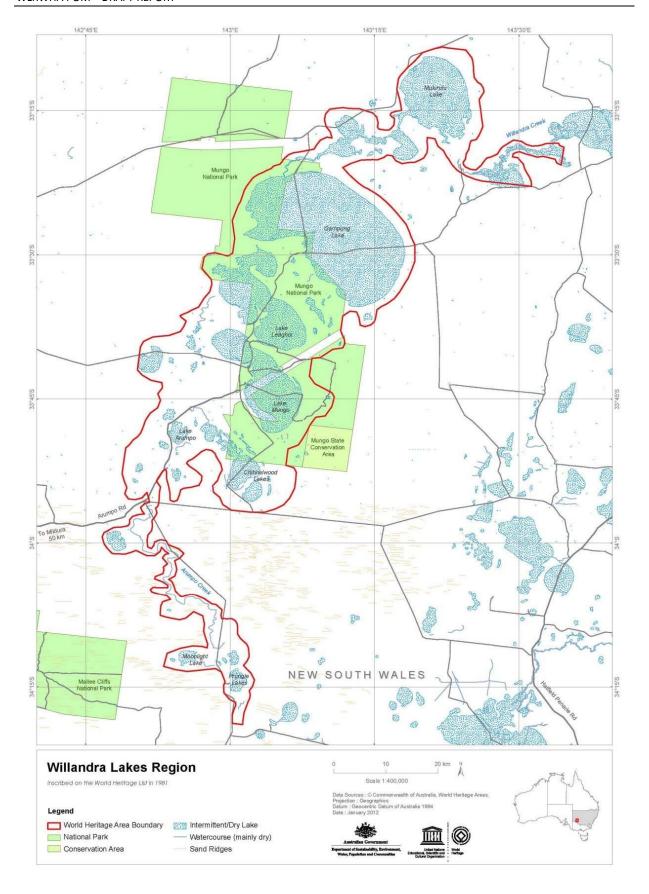


Figure 1. Location plan for Willandra Lakes Region World Heritage Area (Source: Australian Government)

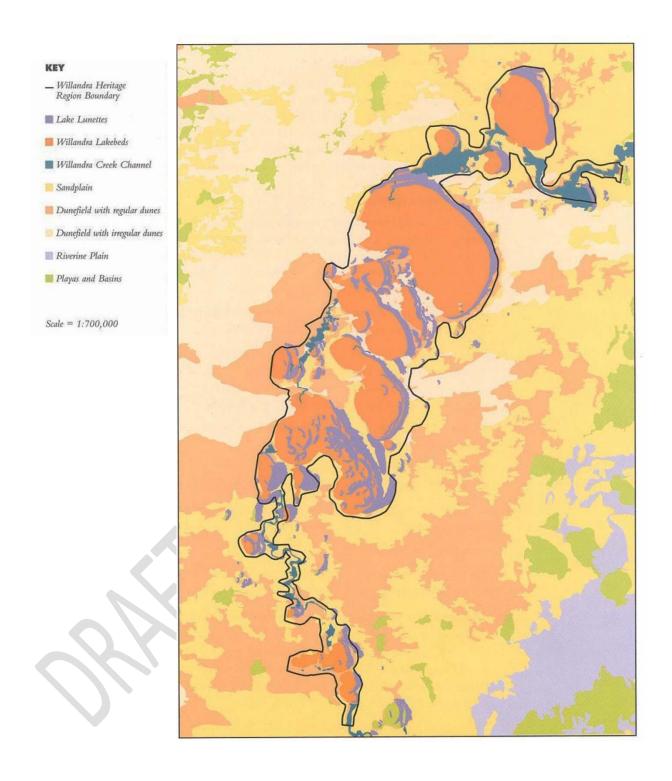


Figure 2.Map showing WLRWHA landscape types from 1996 POM.

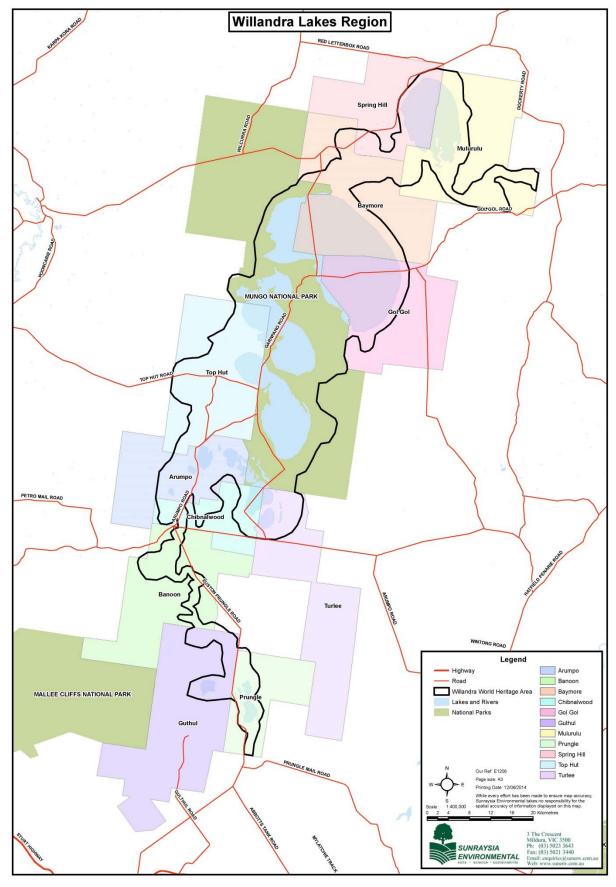


Figure 3. Map showing pastoral leases and Mungo National Park within the WLRWHA (Source: OEH IPP Reivew document 2010).



Figure 4. The 'Walls of China' the eastern lunette of Lake Mungo.



Figure 5. Eastern lunette of Lake Mungo.



Figure 6. Lake Mungo from the western lunette.

1.2 World Heritage Convention and Obligations

1.2.1 The World Heritage Convention and the World Heritage List

The World Heritage Convention concerning the Protection of the World Cultural and Natural Heritage aims to promote co-operation amongst nations to protect heritage of such universal value that its conservation is a concern of all people.

Enshrined in the Convention is the notion of identifying, protecting and promoting places of outstanding universal value (OUV) by creating the World Heritage list. Places of outstanding universal value are the most remarkable places on earth from a global perspective and have universal values for humankind. The Operational Guidelines to the World Heritage Convention established criteria for OUV and inclusion on the World Heritage list. The Convention's Operational Guidelines also require the issues of integrity, authenticity and protection and management to be demonstrated prior to inscription on the World Heritage list.

1.2.2 Management of Australia's World Heritage Properties

In 2013 there were 981 places included on the World Heritage list in 160 countries signatory to the World Heritage Convention with each signatory country responsible for the protection and management of places within that country.

Australia's 19 World Heritage properties are protected under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). (See Section 2.3 for a description of the WLRWHA World Heritage values) This Act provides protection for World Heritage properties and sets out environmental impact assessment processes for actions that could have a significant impact on World Heritage values. The EPBC Act enables the Australian Government and a State to enter bilateral agreements for the management of a world heritage place including providing for a plan of management, such as this one. The plan of management must be consistent with the Australian World Heritage management principles identified in the EPBC Act (Schedule 5 EPBC Act Regulations 2000) (see Section 1.2.3 below).

Those principles emphasise that the primary purpose of management of a declared World Heritage property must be to identify, protect, conserve, present, transmit to future generations and, if appropriate, rehabilitate the World Heritage values of the property.

The EPBC Act also contains general objectives for management, the requirements for management planning and the process for assessing proposed actions.

Public consultation should occur for decisions and actions that may have a significant impact on the property. People who have a particular interest in the property and may be affected by the management of the property should be involved in management of the property. Importantly, the management process should also provide for continuing community and technical input in managing the property.



1.2.3 Management Plans for World Heritage Properties

Table 1 includes the Australian World Heritage Management Principles requirements for management plans for World Heritage places and provides a reference for where in this plan that requirement is met.

Table 1 Compliance with Australian World Heritage Management Principles

Requirement	Where addressed in this plan?
(a) state the World Heritage values of the property for which it is prepared	Section 2.3 includes the statement of Outstanding Universal Values.
(b) include adequate processes for public consultation on proposed elements of the plan	Section 1.5 identifies the process and key outcomes of public consultation undertaken in the preparation of this plan.
(c) state what must be done to ensure that the World Heritage values of the property are identified, conserved, protected, presented, transmitted to future generations and, if appropriate, rehabilitated	Strategies and Actions: Part A, Sections 4.3 & 4.5. Implementation: Part B, Section 5.2.
(d) state mechanisms to deal with the impacts of actions that individually or cumulatively degrade, or threaten to degrade, the World Heritage values of the property	Strategies and Actions: Part A, Section 4.4. Implementation: Part B Section 5.2.
(e) provide that management actions for values, that are not World Heritage values, are consistent with the management of the World Heritage values of the property	Strategies: Part A, Section 2.7 and Section 4.6. Implementation: Part B, Section5.2.
(f) promote the integration of Commonwealth, State or Territory and local government responsibilities for the property	Strategies: Part A, Section 4.2. Implementation: Part B, Section 5.2.
(g) provide for continuing monitoring and reporting on the state of the World Heritage values of the property	Strategies: Part A, Section 4.4. Implementation: Part B, Section 5.2.
(h) be reviewed at intervals of not more than 7 years.	Strategies: Part A, Section 4.2. Implementation: Part B, Section 5.2.

1.3 WLRWHA Management and Heritage Listings

1.3.1 Current Management of WLRWHA

The WLRWHA is managed through an Intergovernmental Agreement between the Commonwealth and NSW Governments. This agreement established the NSW World Heritage Properties Ministerial Council (Ministerial Council) that provides for coordination of policy and meetings between relevant Commonwealth and NSW Ministers. The Willandra Lakes Region WHA Steering Committee is a small group of executive level officers from Commonwealth and NSW government departments who link the Ministerial Council with on ground management.

The EPBC Act gives protection to Australia's World Heritage Properties and ensures its international obligations are met. State protection is afforded by the Willandra Lakes Region Regional Environmental Plan No1 (REP) given force under the NSW Environmental Planning and Assessment Act (NSW) 1979.



The WLRWHA is managed by an Executive Officer and office that is supported by NSW Office of Environment and Heritage (OEH) as part of the Intergovernmental Agreement.

The REP gives formal recognition to advisory committees which support the management of WLRWHA.

Mungo National Park is protected under the NPW Act 1967 and is also administered by OEH in a Joint Management Advisory Committee arrangement with representatives of the Aboriginal Traditional Owners. Other lands within the WLRHWA are managed as leasehold pastoral land under the Western Lands Act 1901.

The first WLRWHA Plan of Management (1996 POM), titled *Sustaining the Willandra*, was a ground-breaking consensus based process that brought together three traditionally affiliated Aboriginal communities (Paakantji, Ngiyampaa and Mutthi Mutthi)¹, landholders, scientists and government agency representatives. The 1996 POM has served its purpose well with the majority of its strategies and actions having been implemented, including changes to pastoral leases and the development of visitor exhibition and services such as the Discovery Ranger program. However, with new findings and changes in society and the environment it is now time to update the plan.

1.3.2 Heritage Listings and Other Agreements

The Criteria for World Heritage listing are outlined in Section 2.3. Other heritage listings for the same area are discussed further in Sections 2.4 to 2.6 and are also included in full in Appendix B. These heritage listings include:

- National Heritage List (NHL) (WLRWHA was added to the NHL in 2007 along with the other World Heritage areas in Australia);
- NSW State Heritage Register; and
- Balranald Shire Heritage Register (as part of the Local Environmental Plan).

Further details of the heritage and non-heritage values are provided in Section 2.0 as these values form the basis for the management of WLRWHA.

There are no other international conventions, programs or protocols that apply to WLRWHA.² However, there is National and/or State threatened species legislation that applies to the WLRWHA. There is also relevant land management legislation that applies to both WLRWHA and all other lands in this region, such as legislation in relation to fire management.

1.4 Plan of Management Structure

This plan is structured in three parts:

Part A is the Strategic Plan that sets out:

- the values of the place;
- the attributes of these values; and
- an overall vision for the management of the WLRWHA.

Management strategies are grouped into five broad themes. For each theme there is a discussion of current issues and opportunities. Within each theme there are a number of strategies. Explanatory comment is included where needed as well as cross referencing to related strategies.

Part B is the Operational Plan that sets out:

- actions needed to implement the strategies
- priority for actions



 $^{1\,} The\ spelling\ of\ the\ names\ of\ the\ traditional\ Aboriginal\ Tribal\ Groups\ reflects\ common\ usage.\ It\ is\ acknowledged\ that\ other\ variations\ of\ spelling\ exist.\ Barkindji\ is\ another\ spelling\ commonly\ used.$

² Australian Government 2002 Periodic Report to UNESCO on WLRWHA.

• the agency with prime responsibility each action.

Part C is comprised of the Individual Property Plans (IPP) for the pastoral properties within the WLRWHA. IPPs are prepared with the pastoral lease landholders to integrate pastoral land use with WLRWHA conservation objectives. At the time of preparation of the current plan (2014) there are 9 pastoral properties intersecting with the WLRWHA.

This plan includes the Willandra Lakes Region Regional Environmental Plan No1 (REP) (Appendix A) and the World, National, State and local heritage listings (Appendix B).



Willandra Lakes Region World Heritage Area Plan of Management

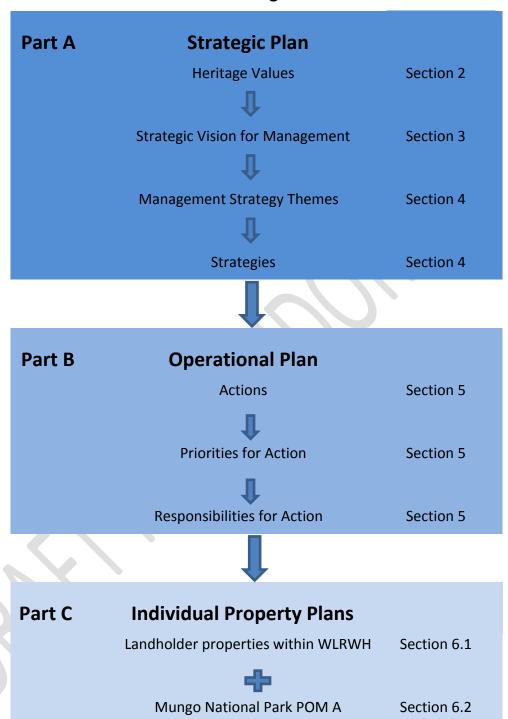


Figure 7. The structure of this Plan of Management reflects that defined in the in the Willandra Lakes Region Regional Environmental Plan (REP).



1.5 Plan of Management Review Process

1.5.1 Changes since the POM 1996

The 1996 Plan of Management involved substantial input from all the key stakeholders.

There have been significant changes since the PoM 1996 that include:

- greater community awareness of the existence and importance of World Heritage values;
- legal recognition of prior Aboriginal occupation and the rights of Traditional Owners;
- greater awareness of the potential impacts from climate change on the environment
- changes in legislation and related administrative arrangements;
- the completion of many actions in the 1996 POM and the superseding of others;
- new research and discoveries such as the fossil human trackway; and
- enhanced scientific understandings of previous and emerging discoveries through advancements in technology and analysis.

1.5.2 Stakeholder Consultation for this Plan

Since the 1996 POM local communities have continued to shape management through active engagement reflected in formal committee processes and through other opportunities, such as the Discovery Ranger program.

A Consultation Plan prepared at the start of the POM review included opportunity for public registration of interest in the plan preparation, substantial stakeholder consultation during the plan preparation and an opportunity for public comment on the draft management plan. Ongoing stakeholder review and engagement in the implementation of this POM will be undertaken.

The stakeholder consultation included:

- An inception meeting between the consultants and specialists from the NSW Office of Environment and Heritage (OEH) and WLRWHA staff and introduction to the Community Management Council (CMC);
- A workshop on values and issues with the Community Management Council (CMC);
- A meeting with landowner representatives;
- A full day workshop with the Three Traditional Tribal Groups (3TTGs);
- A meeting in Canberra with the Scientific Advisory Group (SAG); and
- An Issues and Options Report, prepared as a result of all the consultation, which was circulated
 to participating stakeholders and discussed at a second meeting of stakeholders.

1.5.3 Outcomes of Stakeholder Consultation

Some issues raised relate to areas outside the scope of this plan. However, many of the issues raised, and the opportunities these issues generate, have strongly influenced the strategic vision defined in Section 3.0 and the management strategies included in Section 4.0. Table 2 identifies the key issues raised in consultation and the section where this issue is addressed in this plan.



Table 2 Location where consultation issues are addressed in this plan

Consultation Issue	Relevant section in this plan	
Heritage values	Section 2.9 and Section 4.3, Identification and Protection of Heritage Values	
Governance and communication	Section 4.2, Administration, Governance and Communication	
Research	Section 4.3, Identification and Protection of Heritage Values	
Repatriation and a keeping place	Section 4.3 Identification and Protection of Heritage Values	
Land management and conservation	Section 4.4, Prevention of Impacts	
Education and tourism	Section 4.5 Presenting and Transmitting Heritage Values	
Employment and training	Section 4.6 Sustaining Associated Communities	
Resourcing	Section 4.2, Administration, Governance and Communication	

1.6 Authorship and Acknowledgements

This plan was prepared for OEH NSW by Context Pty Ltd. The project team was led by Geoff Ashley, Director Context Pty Ltd. Dr Susan McIntyre Associate Director and Research Coordinator AHMS Pty Ltd Sydney collaborated with Geoff Ashley on the stakeholder consultation and preparation of this report. The project consultation plan was prepared by Chris Johnston, Director, Context and Ian Travers Archaeologist from Context also assisted with the project. Neil Urwin, Director of Griffin Associates Environment provided input on contemporary natural values and issues. Professor James Bowler of Melbourne University and Dr Nicola Stern of La Trobe University provided input on the heritage values and issues.

The authors of this report acknowledge the assistance and support of the following organisations and people:

- Richard Mintern, the Executive Officer of the WLRWHA who assisted in all aspects of the project and participated in each consultation session. Acknowledgement is made also to all the other staff members of the WLRWHA office for their assistance
- The WLRWHA committees including the Community Management Council (CMC) and TSAC, in particular Mike Ockwell, the retiring chair of the CMC/TSAC.
- the Willandra Lakes Elders Council and Traditional Owners from the Paakantji, Ngiyampaa and Mutthi Mutthi tribal groups.
- Steve Millington, Regional Manager Far Western, NPWS, Jo Gorman Area Manager, Lower Darling Area, NPWS and Warren Clark, Executive Officer, Mungo National Park Joint Management Advisory Committee. Staff who contributed to and supported this project, in particular Harvey Johnston Archaeologist NSW OEH.
- All the participants of the stakeholder consultation sessions see Section 6.



1.7 Abbreviations

WLRWHA Willandra Lakes Region World Heritage Area

POM 1996 Plan of Management 1996 titled Sustaining the Willandra

POM The 2014 draft Willandra Lakes Plan of Management

OEH NSW Office of Environment and Heritage

CMC Community Management Council as defined in the 1996 POM and REP

NP National Park

TO Traditional Owners

3TTG The Three Traditional Tribal Groups (Paakantji, Ngiyampaa and Mutthi Mutthi)

SAG Scientific Advisory Group

IPPs Individual Property Plans as defined in the REP and 1996 POM

REP NSW Willandra Lakes Regional Environmental Plan No1 World Heritage Property

SEPP State Environmental Planning Policy SEPP

TSAC Technical and Scientific Advisory Committee (established under the 1996POM to provide

advice to the CMC)

OUV Outstanding Universal Value

RSOUV Retrospective Statement of Outstanding Universal Value

ANU Australian National University

EPBC Act Environment Protection and Biodiversity Conservation Act 1999

LEP Local Environmental Plan
NHL National Heritage Listing





Figure 8. Emus on the bed of Lake Mungo



Figure 9. Leaghur Homestead name at the edge of the lake bed by the same name within Mungo National Park.



Figure 10. Traditional Owners and NPWS staff at the Trackway interpretation display at the Visitors Centre in Mungo National Park.

2 BASIS OF MANAGEMENT: HERITAGE VALUES & ATTRIBUTES

2.1 Introduction

The key aim of the plan of management is the identification, conservation, protection, presentation and transmission of World Heritage values as described in the statement of Outstanding Universal Value. The management of the WLRWHA is underpinned by its heritage values.

This section describes the heritage listings relating to the WLRWHA: World, National, State and Local, and their significance. Table 2 identifies the tangible <u>attributes</u> that demonstrate the World Heritage values of the place and the risks/threats relevant to the management of these elements

This section concludes with a discussion on the inter-relationship between all the heritage values of WLRWHA and reflects on the aspirations and desires of the local communities.

2.2 Heritage Values Underpinning Management

The heritage value of a place can be defined as the 'place's natural and cultural environment having aesthetic, historic, scientific or social significance, or other significance, for current and future generations'. (EPBC Act s.528)

The degree of importance or significance of the various heritage values is recognised by listings established under various pieces of legislation. Some values are reflected in the World Heritage listing (the place's Outstanding Universal Value) whilst others are reflected in National, State or local designations.

While the various heritage listings identify discrete values, there is a strong interrelationship between them. Heritage values are concepts, but they are reflected in attributes which may be tangible (e.g. an archaeological site) or intangible (e.g. a creation story) It is these attributes that that are the focus of management (see Section 2.8.)

The current heritage values, both natural and cultural, of the WLRWHA are noted below with a discussion of other potential heritage values in each listing category. The recognition of the WLRWHA values will continue to change as our understanding of the place develops.

2.3 World Heritage Values

The World Heritage value of the Willandra Lakes is described in a Retrospective Statement of Outstanding Universal Value based on the values for which it was listed in 1981. The RSOUV therefore reflects only those values for which the property was nominated and approved at the time of inscription. The RSOUV primarily describes the antiquity of the ancestral remains found and the associated ancient geomorphology but does not fully address the long period of interaction between humans and the landscape to the extent that reflects changes and findings since listing.

The RSOUV takes into account the integrity of the place, which is refers to the wholeness, completeness and unimpaired condition of the values, and its authenticity as described through rigorous scientific investigation. These remain the formal criteria for the property and are quoted as follows:

Criterion (iii) – to bear a unique or at least exceptional testimony to a civilisation which has disappeared.

Willandra Lakes Region is of Outstanding Universal Value under this criterion on the basis that:

• the remains of Homo sapiens sapiens in the Lake Mungo lunette establish that modern man had dispersed as far as south-eastern Australia by 42,000 years ago (thought to be 30,000 years ago at time of listing);

- complex ritual and symbolic systems are indicated by the 42,000 years old ochred burial (thought to be 30,000 years ago at time of listing) and by the 42,000 year old cremation, the oldest cremation site in the world (thought to be 26,000 years ago at time of listing);
- these skeletal remains provide among the earliest evidence of Homo sapiens sapiens anywhere in the world and establish the great antiquity of Australian Aborigines;
- some of the world's earliest substantial evidence for the exploitation of freshwater resources occurs here in quantity;
- the evidence enables a reconstruction of the economic life of Homo sapiens sapiens, showing a remarkable adaptation to local resources and the interaction between culture and the changing environment;
- grindstones to produce flour from wild grass seeds were used here in the late Pleistocene, at much the same time as their use in the Middle East;
- pigments were transported to these lakeshores before 42,000 BP (thought to be 32,000 years ago at time of listing); and
- the typology of early Australian stone tools was defined as a result of research in this region.

Since listing, the discovery of the human fossil trackway, aged between 19 000 and 23 000 years ago, has enhanced the importance of the place.

Criterion (viii) - to be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features.

Willandra Lakes Region is of Outstanding Universal Value under this criterion because it:

- represents a regional Quaternary environment, a fossil landscape largely unmodified since the end of the Pleistocene ice age;
- provides a resource of palaeoclimatic research into how non-glaciated, inland regions were affected by major climatic fluctuations in ice sheets;
- offers detailed stratigraphic, geochemical and pedological evidence for climatic and related environmental changes over the last 100,000 years;
- contains evidence relating to semi-arid environments which has global applications to Pleistocene research;
- possesses in the Chibnalwood lunette an unusually large clay dune, one of the largest in the world; and
- is the focus of important innovative research on late Pleistocene palaeomagnetism.

Integrity and Authenticity

The World Heritage inscription recognises the integrity and authenticity of its heritage values. The term integrity refers to the material wholeness, completeness and unimpaired condition of the thing being discussed. The term authenticity is understood as the requirement to be genuine, that is, the thing described should truly be what it claims to be.

Emerging World Heritage attributes

A number of significant attributes have been identified through ongoing discoveries, such as the human fossil trackway. These emerging attributes are contained in an archaeological record that demonstrates continuous human occupation of the area for at least 47,000 years and the Aboriginal connection is of particular significance due to its longevity. Our understanding of early cultural development and the interaction between human societies and the natural environment across long term climatic and geomorphological landscape changes continues to develop.



The place provides unique opportunities for scientific study in a large number of fields exploring the inter-relationships of natural and cultural values.

While new discoveries continue to emerge there is no short term change needed in the description of the OUV as the current management of WLRWAH recognises these potential attributes and they are protected through National and State mechanisms. Some of these potential World Heritage values have been included in the National Heritage listing of 2007.

2.4 National Heritage Values

In 2007, in accordance with the *Environment and Heritage Legislation Amendment Act (No.1) 2003*, all of Australia's World Heritage properties were added to the National Heritage List (NHL), essentially on the basis of their World Heritage Value (OUVs) and reflects a more current understanding of the place.

Potential National Heritage Values

A number of values that are not included in the NHL citation are now recognised to be of potential national significance. These have been identified through ongoing discoveries and research and greater understanding of the area than is reflected in the NHL listing. Potential NHL values are noted here:

- the length of human occupation of the WLRWHA is of great importance to Aboriginal people
 throughout Australia and the wider Australian society, especially in debates on Aboriginal
 cultural identity and land rights. Lake Mungo in WLRWHA was uniquely crucial in changing the
 way Australians related to the country's Aboriginal past. It established the antiquity of
 Aboriginal culture beyond doubt. For Aboriginal Australians, the Willandra Lakes Region is iconic
 of a long history of attachment and care for the landscape, and a foundation for a collective
 sense of identity.
- the early Lake Mungo research, and the material evidence of this research such as soil samples and reports, may have outstanding historic significance in its own right;
- the working relationships developed at Willandra between scientists and the Aboriginal community have changed cultural heritage practice across Australia.
- this early Lake Mungo work defined stone tool typology in Australia; and
- complimentary to the extremely old sites are others which give insights into cultural
 developments of the more recent past (last 10,000 years), including interaction between
 Aboriginal and European people in the contact period.

2.5 NSW State Heritage Values

The Willandra Lakes Region WHA possesses natural and cultural values which are recognised through its inclusion on the NSW State Heritage Register (SHR) under Part 3A of the *Heritage Act* 1977.

The citation for the SHR listing reiterates many of the World Heritage and National Heritage values, and recognises the importance of the area in the history of inland exploration and the development of the pastoral industry.

The region's traditionally affiliated Aboriginal people proudly identify themselves with this land and many of the landholder families can still be traced to original European settlers. ³

The 2006 Plan of Management for Lake Mungo National Park also recognises the vegetation and natural integrity of the region, including the survival in it of rare and threatened species of flora and fauna.





Additional values at this level, which are not formally recognised, include those relating to the area's post contact history and heritage, involving Aboriginal, European and Chinese people, the role of the place in Aboriginal people's understanding of their whole past and the WLRWHA as an excellent example of joint community management. Whilst not recognised in the listings, the aesthetic value of the landscape and the sense of place that it creates are also potentially of significance at this level.

2.6 Local Heritage Values

Local values of the WLRWHA are recognised by its listing on the Balranald Local Environmental Plan (LEP) 2010, although this does not specifically identify any additional values to those listed above.

Values which could be viewed at this level include the connection of local people to the land to which they identify, and the sense of community and self-sufficiency created by the place's isolation.

2.7 Natural Heritage Values

The natural plant communities of WLRWHA, including those on the lake beds and margins, interlake areas and associated sand sheets, are of ecological value as viable examples of vegetation types which occur naturally in the region. The area may be of national importance for a number of rare or threatened species of plants and animals which are important parts of Australia's overall biodiversity.

2.8 Other values

Non-heritage values include those relating to its economic importance for tourism, education, agriculture, and their related enterprises, and its value in engendering physical and spiritual wellbeing.

World Heritage values should take precedence over other values in WHA management. Management actions can be implemented for other values provided they are consistent with the management of the World Heritage values.

2.9 Attributes Reflecting Values and Condition/Risks

As noted in Section 2.2 heritage values are intangible concepts, but they are usually reflected by physically tangible attributes. On Table 2 below the attributes that correspond to the World Heritage values are stated along with an estimation of the condition and risks or threat to these attributes.



Table 3: World Heritage Values, the attributes of these values and risks/threats to these attributes

Value (Why)	Attribute (What)	Risk/Threat		
Response to World Heritage Cultural Criteria (Criterion iii)				
The Willandra Lakes Region demonstrates an except responses to major changes over time in climate and	ional sequence of Aboriginal cultural occupation extending over tender the service of the servic	s of thousands of years, including an outstanding record of human		
The remains of <i>Homo sapiens sapiens</i> in the Lake Mungo lunette establish that modern humans had dispersed as far as south-eastern Australia by 42,000 years ago (thought to be 30,000 years ago at time of listing);	Mungo Man ancestral remains stored off country Mungo Woman ancestral remains stored on country Fragmentary remains of another 150 individuals stored off country Other ancestral remains located, recorded and protected in-situ Other unknown ancestral remains in the ground	The ancestral remains know as Mungo Woman have authenticity and integrity and are protected within WLRWHA The ancestral remains know as Mungo Man have authenticity and they are safely stored but integrity as a reflection of ongoing protection within WLRWHA is not currently available It is likely that other similar burials exist and there is an ongoing possibility of erosion exposing additional ancestral remains, see note 1		
Complex ritual and symbolic systems are indicated by the 42,000 years old ochred burial (thought to be 30,000 years ago at time of listing)and by the 42,000 year old cremation, the oldest cremation site in the world (thought to be 26,000 years ago at time of listing);	The cremation burial of Mungo Woman The remains of Mungo Man found covered in powdered red ochre. Together with Mungo Woman, these are important examples indicating the diversity of intellectual response to death and are the oldest known examples of ritual human burials and provide rare and valuable insights into Aboriginal cosmological beliefs during the Pleistocene Other ancestral remains also show ritual and symbolic systems (cremation, tooth avulsion, ochre) Ochre remnants removed and stored off county and other ochre remnants still in the ground	The ancestral remains know as Mungo Woman have authenticity and integrity and are protected within WLRWHA The ancestral remains know as Mungo Man have authenticity and they are safely stored but integrity as a reflection of ongoing protection within WLRWHA is not currently available It is likely that other burials exist and there is an ongoing possibility of erosion exposing additional ancestral remains, see note 1		
These skeletal remains provide among the earliest evidence of <i>Homo sapiens sapiens</i> anywhere in the world and establish the great antiquity of Australian Aborigines	Mungo Man ancestral remains stored off country Mungo Woman ancestral remains stored on country	It is likely that other similar ancestral remains exist and there is an ongoing possibility of erosion exposing additional ancestral remains See note 1		
Some of the world's earliest substantial evidence for the systematic exploitation of freshwater resources occurs here;	Archaeological sites including: • hearths • clusters of burned food remains including fish and terrestrial	Ongoing erosion continually exposes new archaeological features on the surface of the lunette. Once exposed, most disperse with weather and disintegrate within a few years. If studied immediately following exposure they have the potential to contribute to a corpus		



Value (Why)	Attribute (What)	Risk/Threat
	mammals,	of information about past lake conditions and the exploitation of aquatic resources. Trampling by herds of feral goats is a potential threat to some features. Potential human impacts from walking on the dunes are managed by guided tours and restricting areas of access. Lack of adequate storage and curation of collections including cataloguing and movement control. Loss of value in collections with a lack of archival repositories that are accessible and discoverable to researchers TOs and managers.
The evidence enables reconstruction of the life of Homo sapiens sapiens, and provides evidence for the economic, technical and social strategies developed in response to changes in landscape and environment;	Evidence of hearths, artefacts, clusters of food remains, shell middens, grindstones and shell and bone tools that are evidence of: • changes in subsistence economy, technological strategies and social networks over a 45,000 years time span • evidence for changes in land use patterns as dramatic changes in landscape and climate took place in the lead up to, during and after, the Last Glacial Maximum and in response to the recent establishment of the European pastoral frontier • evidence of human adaptation to fluctuating lake levels over short time spans, which impacted on the availability and accessibility of resources	Ongoing erosion continually exposes new archaeological features on the surface of the lunette. Once exposed, most disperse with weather and disintegrate within a few years. If studied immediately following exposure they have the potential to contribute a wealth of information about past human activities and the types of changes in economic, technological and social strategies that took place over time. By studying thousands of such features insights can be gained into the way peoples' lives changed over time. Trampling by herds of feral goats is a potential threat to some features. Potential human impacts from walking on the dunes are managed by guided tours and restricting areas of access.
Grindstones to produce flour from wild seeds were used here during the late Pleistocene	Grindstones are found eroding out onto the surface of the lunette and age estimates can be made for many of these. Some grindstones pre-date the Last Glacial Maximum, some are found in sediments representing the final stages of the lake and some in sediments that post-date the final drying of the lake. Techniques for studying wear traces and residues show that most were used to process seeds.	Ongoing erosion will continue to expose grindstones of different ages from different stratigraphic units. Those exposed on the surface are subject to abrasion from wind and sand, and prolonged exposure may result in breakage. However, they still preserve interpretable wear traces and residues that contribute to a growing corpus of information about how they were used. Lack of adequate storage and curation of collections including cataloguing and movement control.
Pigments were transported to these lakeshores before 42,000 BP (thought to be 32,000 years ago	The remains of an Aboriginal male buried approximately 40,000 years ago were found covered in powdered red ochre.	Ongoing erosion has the potential to expose ochre crayons and pellets both as isolated finds and in association with hearths and



Value (Why)	Attribute (What)	Risk/Threat
at time of listing);	One ochre-crayon has been recovered from the surface of lunette but small pellets of ochre are found in hearths and amongst burned food remains.	burials. Techniques are available for establishing whether the pigments originated from the same source(s) and for identifying their origin.
The first description of the types of stone tools made and used during the Pleistocene in Australia was based on research in this region.	The collections of stone artefacts made during initial research are stored safely, but off-country. Current research on stone artefacts in this region focus on the way tools were made, used and discarded and the strategies people employed ensure that appropriate tools were available when needed. Ongoing research will reveal how stone technology changed in response to changes in environment.	Once exposed on the surface of the lunette stone artefacts many are displaced quite quickly from their place of origin. However, if studied before they disperse, techniques are available for identifying those that were struck from the same nodule at the same time, thus contributing to a growing corpus of information about past technology that can be built up over time. Large, dense concentrations of artefacts are artificial concentrations created by erosion and they can include artefacts of many different ages.
Note 1: while physical remains are rare the analysis additional evidence remains through erosion	of its evidence of date/antiquity is clear and agreed & therefore not	at risk – more evidence is not needed to retain WH values but risk to
Value (Why)	Attribute (What)	Risk/Threat
Response to World Heritage Listing Natural Her	eritage Criteria (Criterion viii) of the earth's geological history, particularly associated with the res	sponse to major glacial-interglacial fluctuations.
Represents a regional Quaternary environment, and although sediment accumulation has taken place since the end of the 'last Ice Age', the landforms making up the Pleistocene landscape are remarkably well-preserved as part of the modern landscape.	non-glaciated, low-latitude lacustrine landscape lake basins which include: • lunettes; • inter-lake areas between major lake basins; • connecting channels adjacent to the lake system; • connecting dune fields adjacent to the lake system; • unusually large clay dunes; and • complex downstream variability in the character of the lacustrine system.	Many of the lunettes are stable however some are eroded as sand dunes. The risk is from vegetation loss from animal grazing and then from wind and water erosion leading to further erosion. Climate change and an increase in short term intense downpours in this fragile and semi-arid landscape poses a threat.
Provides a resource for palaeoclimatic research into the way non-glaciated, inland regions were affected by major climatic fluctuations in ice sheets;	Extensive flat plains of lake floors and sedimentary carbonates which show: • evidence of past salinity fluctuations and the stability of the landscape in this region; and	Vegetation cover on the lake floor and plains fluctuates in response to rainfall and grazing but is relatively stable compared to some lunettes.



Value (Why)	Attribute (What)	Risk/Threat
	 evidence of the area's response to major climate change. stunted blue bush (Maireana sedifolia, M. pyramidata) and saltbush (Atriplex stipulata) on the lake floor showing evidence of final saline phases of lakes. 	
Offers detailed stratigraphic, geochemical and pedological evidence for more than 100,000 years of climatic and environmental change	The most detailed record of past environmental change comes from the lunette sequences • alternating layers of sands and clay record the hydrological conditions that prevailed in the adjacent lake; these are interspersed by soils that record episodes of landscape stability • hydrologic changes were driven by changes in a distant catchment (the Australian Alps) that were driven by changes in global climates • thus local hydrological changes can be linked to regional and global climate changes	Some of the lunettes are stable, most are relatively stable and a few (like the Mungo lunette) are subject to ongoing erosion. The risk is from vegetation loss from animal grazing and then from wind and water erosion. Erosion exposes the internal stratigraphy of the lunettes, and their contents, providing a source of information about past environmental change.
Contains evidence relating to semi-arid environments which has global applications to Pleistocene research;	The landforms that make up this landscape are a source of information about how glacial events impacted on low latitude, semi-arid settings, including • evidence for the activation of linear dunes • evidence from the lunette sequence (see above) • evidence from the lake floor (see above).	Erosion exposes the internal structure and stratigraphy of key landforms creating a potential source of information about past environmental change.
Possesses in the Chibnalwood lunette an unusually large clay dune, one of the largest in the world; and	The Chibnalwood lunette is a source of information about the environmental impact of the Last Glacial Maximum	Much of the lunette is stable, but some sections are subject to wind and water erosion.
Preserves evidence that records past changes and fluctuations in the earth's magnetic field.	Hearths comprising baked sediment and ash, and hearths containing heat retainers preserve information about past fluctuations in the earth's magnetic field. If these hearths are also dated, a master curve of the fluctuations in the earth's magnetic field can be established, providing a new dating tool. Hearths dating to around 30,000 years in age have the potential to provide insights into a major geomagnetic excursion that took place around that time.	Erosion exposes the internal stratigraphy of the lunettes, and their contents, exposing features that can be the subject of future study. However, once exposed the structure and contents of these stratigraphic layers are immediately at risk of erosion, weathering and dislocation. Climate change and an increase in short term intense downpours in this fragile and semi-arid landscape poses a threat.



2.10 Discussion of Heritage Values Issues

The heritage values of the WLRWHA form a strongly connected cascade of values that require identification and management at all levels of responsibility and reflect the thoughts and beliefs of contemporary communities and individuals.

All stakeholders consulted in the preparation of this plan felt a strong sense of association with the place as part of a community group and as individuals. Some believed that the place has a transcendent 'spiritual' quality that is underpinned by strong aesthetic and landscape values (both natural and cultural) with a resultant strong sense of place that through its timeless quality allows a connection to an ancient past.

The RSOUV only reflects those values for which the property was nominated and approved at the time of inscription. This plan addresses the RSOUV and the other emerging values and attributes.

The RSOUV describes the antiquity of the ancestral remains found and the associated ancient geomorphology but does not fully address the long period of interaction between humans and the landscape to the extent that reflects changes and findings since inscription.

Traditional owners emphasise the continuity and survival aspects and their sense of direct connection to ancestors. While the RSOUV does not address these aspects it is important that the vision and strategies for WLRWHA address these strong associations in its management.

A future revision of the NHL listing represents an opportunity to acknowledge the importance of the Mungo findings to changing our understanding of Australian history.

Some of the ancestral remains that were the reason for the World Heritage List nomination are not currently located in WLRWHA. This results in a loss of integrity to the values that should be rectified as a key priority. Other physical evidence of the research that established the World Heritage values, such as soil samples and research data and reports, could be identified, located and returned and safely stored in the WLRWHA.





Figure 11. This midden is an attribute of the heritage values of WLRWHA.



Figure 12. The Chibnalwood clay dune is an attribute of World Heritage values under the natural criteria.



Figure 13. Mungo Woolshed is an attribute of the State Heritage Register values.

3.0 STRATEGIC VISION FOR MANAGEMENT

3.1 Introduction

The strategic vision for the management of the WLWHA captures the 'big picture' and is forward thinking. The importance of a vision is that it points to the future and allows priorities to be set against that vision. This vision builds on the values identified in Section 2.0 and it provides for reconciliation between the formal listed values at all levels and the strongly held community views and associations with those values.

The strategic vision includes reference to notes taken during consultation and includes some quotations shown in italics.

3.2 WLRWHA Strategic Vision

3.2.1 Strategic Vision for WLRWHA

The strategic vision for the management of the Willandra Lakes Region World Heritage Area is of a healthy, cared-for landscape, actively managed to protect the attributes of its cultural and natural values, so enabling its full history to be appreciated and communicated.

Key strategies will be establishing research and recording frameworks for this cultural landscape and also rehabilitating values and recovering significance by returning ancestral remains and other important research evidence. Underpinning the identification and protection of World Heritage values will be a revitalised system of advisory committees, a focus on the improved presentation and transmission of heritage values and support for sustainable associated communities.

3.2.2 Components of the Strategic Vision

Managing the landscape as the foundation and link between all values

The connectedness of people and land and the timelessness of that connectedness.

I don't see a lot of people in the landscape – but I would envisage a well cared for landscape – a cared for 'curated' landscape.

The strategic vision for the management of WLRWHA is built around the essential idea of landscape; as landscape was and remains, the fundamental touchstone for all its values. Landscape (including its geological formations) as well as its surface features, and the plants and animals that inhabit it, are fundamentally linked to the history of human experience in this place, both ancient and modern.

In this regard the landscape of WLWHA itself is sentient, an active agent—where visitors encounter an experiential landscape.

The healthy WLWHA landscape will protect the ancestral remains and other cultural materials, allow a long term cultural history to be fully communicated and build a connection with the past. The expressed desired future character of this landscape accepts its remoteness but sees it as a cared-for landscape.

Defining a research agenda and better connecting this with land management

Essential parts of this landscape approach to conservation will be good systems to: fully record and monitor this landscape; undertake appropriate research; employ sustainable land management practice and identify and address threats in an active and targeted manner.

A more clearly defined research agenda will promote new areas of research and improve management approaches. The outcomes of new research and new understandings over time may in turn lead to shifts in the recognised values of the place.

Recovering significance through repatriation

When Mungo Man comes back the natural and cultural all come together and they are synthesised. From their death a lot of things have come to life.

Requirement (c) of the Australian World Heritage Management Principles provides for, if appropriate, the rehabilitation of the values of a place. Key to protecting the values of WLRWHA will be the rehabilitation/recovery of association between place and elements that have been removed from the place; including ancestral remains such as Mungo Man, as well as evidence of significant research. The return of Mungo Man will be a key symbolic element reinforcing the broader story of the important relationship between landscape, people and place.

Communicating the values of WLRWHA

World Heritage places will increasingly have a meaningful place in people's lives. Presenting and transmitting its heritage values is an essential aspect of the WLRWHA vision. Implementation of the Mungo National Park Interpretation Strategy will better present the values of the place both within the WLRWHA and remotely. Presenting and explaining all the heritage values in clear and simple manner will be a key to successful management. Transmitting the heritage values of the place will be a priority through youth education, cultural exchange and connection with other associated communities. The experience of visitors to WLRWHA will be enhanced while not impacting sites and its essential qualities as a remote landscape.

Sustaining Communities

The Willandra provides an opportunity for Elders and young people to get together with rangers and other staff and landholders to sing and yarn and share stories. In this way it rekindles and sustains the culture with everyone working together to protect the land.

The Willandra WHA is a message, a symbol of survival. The history as evidenced in the human remains and the foot prints continues to tell its story of humanity and survival, of people, culture and nature through time.

My ancestors are watching me – I belong to that land I can hear them calling me.

The importance of capturing the knowledge of Elders— of language and of safe keeping a rich store of knowledge.

For all stakeholders a key theme of this vision is that of sustainability, both in terms of environmental and pastoral practices but also in empowering and sustaining communities spiritually/emotionally and economically to ensure that future generations can appreciate and benefit from the good management of the place.

Putting in place sound governance and administrative systems

Underpinning all the aspects of a strategic vision for WLRWHA is the need to have sound administrative and governance systems in place. This vision sees the ongoing agreement and arrangements between the Commonwealth and the NSW State Government to support key administrative positions and committees. The vision sees a continuation of the vitally important relationship between the Three Traditional Tribal Groups and the good working relationship between them, scientists and landholders. In this vision the Community Management Council is retained (renamed as the Management Advisory Committee) as a representative committee of stakeholders but in a more efficient size with a separate Traditional Owners Advisory Committee and a Technical and Scientific Advisory Committee as sub committees to provide a 'voice' for the two areas most strongly associated with World Heritage values. The reactivation of the committees and direct and open communication between all stakeholders will be an essential foundation for this vision.





Figure 14. Meeting of stakeholders in Mildura in during the preparation of this plan that included discussion of a vision for the future management of WLRWHA.



4 MANAGEMENT STRATEGIES

4.1 Introduction

This section contains strategies for the management of WLRWHA, with related strategies grouped in five themes.

For each strategic theme an introduction notes the key issues and opportunities relating to that theme—most of which emerged during consultation.

For each strategy the actions associated with that strategy are noted together with a rationale for the strategy and actions. Where necessary as background, an additional commentary is also provided. For each strategy a reference is made to related strategies that may be in another theme.

The Operational Plan, Part B of this management plan (Section 5) identifies the priorities and responsibilities for the implementation of the strategy actions.

The brief for this plan required that it identify strategies to address a series of management objectives. These objectives are listed below together with a note in brackets of where in the plan these objectives are addressed:

- state what must be done to ensure that the World Heritage values of the property are identified (Section 4.3), conserved (Section 4.3), protected (Section 4.3), presented (Section 4.5), transmitted (Section 4.5) to future generations and, if appropriate, rehabilitated (Section 4.3);
- state mechanisms to deal with the impacts of actions (Section 4.4) that individually or cumulatively degrade, or threaten to degrade, the World Heritage values of the property;
- provide that management actions for values, that are not World Heritage values, are consistent with the management of the World Heritage values of the property (Section 4.6);
- promote the integration of Commonwealth, State or Territory and local government responsibilities for the property (Section 4.2); and
- provide for continuing monitoring and reporting on the state of the World Heritage values of the property (Section 4.3).

4.2 Strategic Theme: Governance, Communication & Administration

4.2.1 Introduction

Australia's World Heritage management is required to provide for continuing community and technical input in managing the property (see Section 1.2.2). The POM 1996 established several advisory committees to provide this input to government.

Ongoing review of matters of governance relating to the role and composition of these committees, the communication between these committees and Government, the administrative support for these committees and the administrative operations of the WLRWHA generally, are essential for the good management of WLRWHA.

Priorities

- Strategies 2, 3 and 4, the reconfiguration of a lead advisory committee and two advisory subcommittees;
- Strategy 1, Action 1.6, the revision of the REP; and
- Strategy 12, resources to support the administration of the WLRWHA.



4.2.2 Strategies for Governance

Strategy 1: Provide appropriate governance structures for WLRWHA Actions

- 1. Clarify the governance structures for WLRWHA including the committees and administrative arrangements resulting from the Intergovernmental Agreement between the Commonwealth and NSW governments for the management of WLRWHA.
- 2 . Form a lead stakeholder advisory committee to provide advice to the Ministerial Council on community, stakeholder and technical matters.
- 3 . Form two advisory sub-committees with members having the skills and experience relevant to the core heritage values of WLRWHA to advise the lead committee and the Ministerial Council.
- 4 . Clarify the role of Intergovernmental Steering Committee as a link between the lead and subcommittees and the Ministerial Council that represents the Commonwealth and NSW Governments.
- 5. The lead and sub committees will be will be appointed by the Ministerial Council and their operation will conform to the Terms of Reference (Section 9) and NSW Government guidelines for Boards and Committees.
- 6. Ensure that the governance arrangements for the lead and sub-committees conform with the REP and that the REP is amended as required to conform to existing Commonwealth and NSW State legislation.

Rationale

This plan will retain and reinvigorate the committee structure expressed in the 1996 PoM of a lead advisory group representing key stakeholders. The lead advisory group would be made up of a range of key government and non-government representatives supported by two specialist advisory sub-committees responsible to that lead committee to provide advice on the core World Heritage relating to Aboriginal heritage and the technical/scientific values (including history). The two sub-committees would have nominated representatives on the lead committee (see Terms of Reference Section 9).

Given the critical relationship to World Heritage values, the members of the lead committee and the two advisory sub committees will be appointed by Government.

The two sub committees will not contain members of the other sub-committees. Strategies elsewhere in this plan address communication between the committees, and more broadly with the community, to encourage understanding between stakeholders.

The actions in Strategy X require the committees to prepare annual plans to assist them maintain a forward-looking role. The WLRWHA office will assist each committee with the implementation of these annual plans.

Statutory effect to this management plan is currently given by the Willandra Lakes Regional Environmental Plan No.1 (REP) under NSW law. This REP requires amendment to reflect the committee changes, the EPBC Act and the associated World Heritage management principles.

Commentary

The 1996 Plan established a Community Management Council (CMC) and two sub-committees; the Traditional Tribal Groups Elders Council (Elders Council) made up of the Three Traditional Tribal Groups and the Technical and Scientific Advisory Committee (TSAC). The CMC also included landholder and government representatives. In addition to these community committees, an Intergovernmental Steering Committee provided co-ordination between these committees and the Ministerial Council that was set up in the agreement between the Commonwealth and State Governments.



Changes to the committees since 1996 include the cessation of a separate TSAC and its inclusion within CMC in a reduced form, and in recent years the absence of one of the Traditional Tribal Groups from the Elders Council.

This plan found the governance structures established in 1996 to still be appropriate but that the role and composition of committees to advise government required amendment to better reflect changes in the community and the requirements to protect the heritage values of WLRWHA. The operation of other World Heritage Properties in NSW and Australia was also relevant to this review.

Related Strategies: Administration strategies Nos. 11 and 12.

Strategy 2: Form a Management Advisory Committee Actions

- 2.1 Form a Management Advisory Committee (MAC) to advise the Ministerial Council and to act as the main representative body for stakeholders.
- 2.2 The Ministerial Council will endorse the MAC composition and its Terms of Reference (TOR) (see Section 9) and will appoint its members.
- 2.3 The role and annual planning and reporting requirements of MAC will be defined in its Terms of Reference. The TORs will be updated as and when required in the REP.
- 2.4 The Management Advisory Committee will prepare an annual report of its activities.

Rationale

The naming of the Management Advisory Committee (MAC) reflects its broad composition that will include community stakeholders, as well as Commonwealth, State and Local government representatives who have key responsibility that includes WLRWHA.

The MAC will be comprised of an independent chair and a representative a range of stakeholder groups identified together with a representative of each of the Three Traditional Tribal Groups and two representatives for scientific and technical issues.

This plan identified a lack of representation of tourism interests in the range of stakeholder advice received and therefore identifies that one place in the MAC be a representative of tourism interests.

The MAC will contain a member of the NSW Department of Local Lands Services which has responsibilities incorporated from the Catchment Management Authority Act 2003 and the Rural Lands Protection Act.

Additional Commentary

The former lead advisory group, the Community Management Council (CMC), was a large group that reflected the uncertainties existing at the time of the first plan in 1996. The MAC will represent stakeholder interests and its representative composition will allow it to be smaller and more efficient while drawing on the skill and expertise in the two sub-committees (Strategies 3 and 4) and broader expertise and reference groups available to it and the sub-committees (Strategy 7).

Related Strategies: 3, 4 and 5

Strategy 3: Form the Traditional Owners Advisory Committee Actions

- 3.1 Form a Traditional Owners Advisory Committee (TOAC) as a sub-committee of MAC to provide advice to the MAC and Ministerial Council on cultural heritage matters.
- 3.2 The Ministerial Council will endorse the TOAC committee composition and will appoint its members. The Terms of Reference (TOR) (see Section 9) for TOAC including requirements for annual planning for its activities will be included in the REP and will be reviewed and amended as required.



A reinvigorated TOAC will allow the Three Traditional Tribal Groups, long associated with planning for this World Heritage Area, to continue to work together and with other stakeholders and with government. The change in name from the previous Elders Council reflects an objective to more explicitly allow for succession and the passing on of knowledge.

The TOAC will include up to three members of each Traditional Tribal Group with one person elected by each TO as the representative for each TO group to sit on the MAC.

TOAC will prepare its own annual action plan to proactively address matters of policy and procedure including the communication of cultural heritage values working with the TSAC subcommittee, research organisations and other partners on projects, in addition to considering proposals for activities in WLRWHA.

Resourcing TOAC will be met by the WLRWHA office and whenever possible TOAC will receive support to assist it with administrative arrangements and to enable it to meet on county.

Additional Commentary

The representatives of each TO group will disseminate material and seek views of the Elders in the relevant TO groups in providing advice at the TOAC and in the MAC. Recognising that the Traditional Owners are dispersed across a broad geographic area and the cost of face to face meetings to disseminate information may be prohibitive, options for new communication technologies will be actively explored including email, dedicated list-servs and social media.

Each TO group will be encouraged to identify younger people to represent that TO on TOAC.

Related Strategies: 2, 6 and 7.

Strategy 4: Form a Technical and Scientific Advisory Sub-Committee Actions

- 4.1 Form a Technical and Scientific Advisory Committee (TSAC) as a sub-committee of MAC to provide advice to MAC and the Ministerial Council.
- 4.2 The Ministerial Council will endorse the TSAC composition and its Terms of Reference (TOR) (see Section 9) and will appoint its members.
- 4.3 The Terms of Reference for TSAC define its role and its annual planning and reporting requirements. The TORs will be included in the REP and will be reviewed and amended as required.

Rationale

The lack of an agreed research agenda for WLRWHA was a key issue identified for this plan. A rejuvenated but smaller TSAC with its members covering key professional areas of expertise relating to the identified World Heritage Values will be charged with responsibility for preparing and reviewing a research agenda and a research output management strategy to ensure the ongoing integrity of the WLRWHA and the knowledge it generates.

TSAC will provide advice on the identification and protection of the WLRWHA values, information on technical developments, practices and principles (including historical research). TSAC will coordinate the preparation of a research framework for WLRWHA, and provide advice on the appropriateness of research proposals for WLRWHA and on specialist curatorial systems and facilities where these are required. TSAC will provide advice at the request of the MAC and/or Ministerial Council or by its own volition.

Additional Commentary

Resourcing TSAC will be met by the WLRWHA office and whenever possible, TSAC will receive support to assist it with administrative arrangements. In establishing a broader reference group TSAC will explore cost neutral strategies to sustain such a group such as LinkedIn closed groups, or other electronic forms of communication.

Related Strategies: 2, 6 and 7.



Strategy 5: Retain landholder representation on the lead committee and support landholder responsibilities regarding Individual Property Plans

Actions

- 5.1 The Ministerial Advisory Council will appoint a representative of WLRWHA landholders to the Management Advisory Committee (MAC) following a nomination received from a meeting of WLRWHA landowners.
- 5.2 WLRWHA landholders will be encouraged to meet regularly to discuss matters relating to issues relating to the WLRWHA and to prepare and implement Individual Property plans.

Rationale

WLRWHA landholders represent the owners/families of the individual leasehold properties. WLRWHA landholders have long family connections to the broader rural community in this region. The landholders have established Landcare groups and are seen as key stakeholders in the successful management of WLRWHA. Landholders will be encouraged to consult with the broader rural community in regard to WHA issues and opportunities. WLRWHA landholders will be expected to meet regularly to discuss issues associated with their land uses that are relevant to the protection and conservation of the WLRWHA values. WLRWHA support may include assistance with pest and other impact reduction programs that help retain World Heritage values.

Related Strategy: 2

Strategy 6: Committees to prepare Annual Plans

Actions

6.1 The MAC and its two sub-committees, TOAC and TSAC, will prepare annual activity plans to assist identifying and meeting their priorities. The MAC will be the lead committee to which the other two will report in relation to its annual plans.

Rationale

Annual plans will assist the committees to maintain a proactive, forward-looking, role, to assist setting priorities and to demonstrate effective operations, in addition to addressing proposals and other issues as they arise. The annual plans will identify ways to communicate the work of the committee with the public. The WLRWHA office will assist each committee with the implementation of these annual plans.

Related Strategies: 1, 2, 3 and 4.

Strategy 7: Allow for specialist advice and support to committees Actions

7.1 The MAC and its two sub-committees, the TOAC and TSAC, will be supported to seek additional specialist advice on particular issues. This may include either individuals for specific purposes and time-frames or a broader reference group of specialists to be consulted as required.

Rationale

From time to time issues and opportunities may emerge that are outside the area of expertise on the committees and this strategy will allow the committees to draw on required expertise, including in areas of the arts and humanities, history and business planning.

4.2.3 Strategies for Communication

Strategy 8: Allow for observers on committees to assist in communication and succession

Actions

8.1 Develop protocols to allow for observers to attend the MAC and the TOAC and TSAC subcommittee meetings to assist communication.



While reducing the committees in size will allow them to be more effective, allowing observers at the committee and sub-committee meetings will allow for communication between committees, succession planning in the committees and a transfer of knowledge between generations. An aging membership is a key factor for each stakeholder group and so attendance at committees by observers will set the scene for generational succession.

Related Strategies: 1, 2, 3, 4 and 5.

Strategy 9: Increase communication between stakeholders

Actions

- 9.1 Schedule workshops, meetings and publications in committee action plans to publicise the work of the committees and to assist direct communication between committees and amongst stakeholders and the public regarding the safeguarding and promotion of WLRWHA values.
- 9.2 Identify projects that encourage a sharing of experiences and perspectives amongst stakeholders on a variety of management issues.

Rationale

The need for direct communication between stakeholders was a key issue raised during the consultation for this plan. While a good relationship between stakeholders is a feature of the history of the WLRWHA, regular workshops between stakeholders will provide for direct communication on issues of concern between stakeholders. For example, there may remain differing perspectives between scientists and the Aboriginal community on important issues such as dealing with any ancestral remains that are exposed in the future by erosion. Meeting and sharing different perspectives on these matters will be of benefit to all.

Increased stakeholder involvement in WLRWHA projects will assist communication. Stakeholder participation has occurred in projects such as archaeological field work and members of the 3TTGs have visited institutions undertaking research projects on ancestral remains. Opportunities for working on country with all stakeholders will be explored whenever feasible.

Related Strategies: 2, 3, 4, 5, and 6

Strategy 10: Provide inductions for all new stakeholders, staff, researchers and visitors to WLRWHA

Actions

- 10.1 Develop inductions protocols for all new stakeholders, including new landholders, researchers on pastoral properties and new WLRWHA and OEH staff.
- 10.2 Develop protocols for basic awareness raising inductions for visitors to WLRWHA on cultural protocols and safety issues.

Rationale

Inductions for new stakeholders, visitors and researchers and will assist communication between stakeholders and assist the protection of heritage values. Inductions are relevant to new landholders in regard to an understanding of the OUV, management process and committee structures; to researchers on pastoral properties to provide an understanding of cultural protocols, land owner requirements and safety issues and for new staff in the WLRWHA to provide an overview of all of the above.

Visitors to WLRWHA will be provided with material on both relevant cultural protocols as well as information on access and safety/communication within WLRWHA.



4.2.4 Strategies for Administration

Strategy 11: The endorsement of this management plan and its ongoing review and revision

Actions

- 11.1 The Australian Government will endorse this management plan, including the governance and committee structures, the TORs (Section 9) and the other strategic and operational plans that form part of it.
- 11.2 Review this management plan as a minimum every 7 years. The committees and Terms of Reference for these committees (Section 9) will be reviewed at the same time.
- 11.3 Undertake an annual review of actions in this plan.

Rationale

The regular review of management plans is a requirement of the Australian World Heritage management principles. The existing REP also requires a review every 7 years.

Related Strategy: 20.

Strategy 12: Resourcing key positions, the advisory committees and key conservation programs

Actions

- 12.1 Provide resources as a priority to support the key WLRWHA administrative positions.
- 12.2 Provide resources as a priority to support of the identified committees, their activities and their members.
- 12.3 Provide resources as a priority to undertake the key conservation programs identified in this plan.

Rationale

World Heritage status should provide for a degree of certainty in administrative arrangements to ensure continuity in the effective management of WLRWHA to safeguard the OUV for which it was inscribed on the World Heritage List. Ongoing arrangements between the Commonwealth and NSW Governments should provide for recurrent funding for the key administrative positions. Financial support that provides for the committees to plan and manage their activities, such as the TOAC meeting on country, will assist the committee in areas of both independence and responsibility.

This plan also identifies funding priorities associated with the conservation, management and presentation of World Heritage Values. These priorities are Strategies 15, 16, 18, 25 and 26.

4.3 Strategic Theme: Identification & Protection of Heritage Values

4.3.1 Introduction

The highest priority for the management of WLRWHA is to protect the Outstanding Universal Values for which it was inscribed. While this plan notes the additional research findings and understanding that have followed the World Heritage listing, it is the original inscription, as reflected in the Retrospective Statement of Universal Values (RSOUV), and the attributes for those values, that are a management priority.

The Australian World Heritage Management Principles (see Section 1.2.2) provides for the rehabilitation (and similar terms such as restoration and recovery) of World Heritage values. Key strategies in this plan are for the rehabilitation of heritage values by the return of ancestral remains and other the evidence of research on which the World Heritage inscription is based.



Priorities

- Strategy 15 on a GIS based survey and recording framework to capture all new data.
- Strategy 16 on a creating a research framework and a repository for research outputs.
- Strategy 18 on the repatriation Mungo Man and other ancestral remains and the identification of a place for their safekeeping.

4.3.2 Strategies for the Identification of Heritage Values

Strategy 13: Defining attributes of the heritage values and the associated threats/risks to these attributes

Actions

- 13.1 Refine processes for the identification and recording of the attributes of the World Heritage values of WLRWHA.
- 13.2 Refine processes for the identification and recording of the attributes of the National, NSW State and Local heritage values of WLRWHA.
- 13.3 Identify the risks and threats to the attributes of the World Heritage and other heritage values and develop action plans to addresses these risks though prediction, monitoring and adaptive management.

Rationale

A focus on attributes will assist a public appreciation of the World Heritage values as well as the National, State and local values. Currently the manner in which the World Heritage values are presented differs in some ways to the Australian listings. A focus on attributes will assist the communication of this 'cascade' of values.

The risks and threats to the heritage values relate primarily to threats to the physical attributes of the place (eg through exposure following erosion – see Table 2). Priorities therefore should be to:

- articulate and identify the attributes that reflect the World Heritage and other values and to include these in action plans and future reviews of listings;
- identify the threats and risks to these values; and
- develop an action plan that addresses these risks though prediction, monitoring of impacts and management.

The identification of the attributes of heritage values will be associated with Action 35.1 (Section 4.5.3) to communicate in plain English the learnings/meanings from these attributes and values.

Additional Commentary

A potential example of attributes of National and State heritage values are the languages of the 3TTGs. A project from this strategy could be record these languages and promote their use and conservation.

Related Strategies: 14 and 35.

Strategy 14: Recording new understandings of values (and attributes) and updating heritage listings

Actions

- 14.1 Establish a register of existing and new attributes (both tangible and intangible) of the official heritage values as the basis for any future listing reviews.
- 14.2 Periodically review and assess the inscriptions and listing for action in regard to WLRWHA official values.
- 14.3 Initiate a review of the National Heritage Listing of WLRWHA to consider the historic and social values associated with the Mungo finds of the 1960s that fundamentally changed



- understandings of the Aboriginal occupation of Australia and a sense of identity for contemporary Aboriginal people.
- 14.4 Review the SHR listing of WLRWHA in relation to the nineteenth century pastoral industry and use of Chinese workers on Gol Gol station that became Mungo Station.

The register of existing values and attributes will also allow for the identification and recording of new attributes and associated new understandings and knowledge.

A key aspect of the identified World Heritage values of WLRWHA is that the listing itself recognises the potential for new learnings to come from the place. Rather than changing the values, it is the identification of the attributes of the heritage values that is most likely to increase knowledge of the place and assist in the management of WLRWHA.

Additional Commentary

As noted elsewhere in this plan, revision of the World Heritage inscription would be a long and difficult process and is not really necessary. Action to review the National and State listing for WLRWHA would have more benefit and would also be more straightforward. A review of the National Heritage listing to better describe the historic value to Australia of the Mungo findings in the late 1960s will provide a better connection of the place to both the Australian community and, in particular, to the associated Aboriginal communities.

The consultation for this plan identified the social values for associated communities arising from the aesthetic and landscape values of the WLRWHA including the 'timeless spirit' that the place exhibits to all who visit it. This aspect should be addressed in any review of values.

Related Strategies: 13, 35

Strategy 15: Create and implement a whole of landscape survey framework Actions

- 15.1 Implement a 'whole of landscape' survey framework where all data generated by research, survey and site management is retained within an inter-relational geographically based (GIS) data management system.
- 15.2 As a first step in implementing a survey framework, prepare a base-line record of current surveys and recorded sites.
- 15.3 Develop maintenance protocols to ensure that all new data is routinely required to be entered into an inter-relational geographically based (GIS) data management system.
- 15.4 Identify priorities for new survey work (in association with the research framework in Strategy 16)
- 15.5 Link the data management system to the recording of actions undertaken to implement this management plan.
- 15.6 Link the data management system to the actions to record and reduce threats and risks to heritage attributes noted in this plan (see Table 3).
- 15.7 Provide appropriate resources and training for the implementation of the inter-relational GIS data management system.

Rationale

Associated with the idea of an over-arching landscape approach to view the values of WLRWHA, the management of WLRWHA will benefit from a whole of landscape approach to survey and recording that includes recognition of the strong connection between natural and cultural values. The effectiveness of this plan will be increased by ensuring the actions in this plan are also retained and reviewed in an active data system.



Additional Commentary

There are now survey systems that allow a large variety of data sets (including for example oral history) to be connected within an over-arching framework; one such system being a Multi Criteria Analysis Shell (MCAS).

Landholders already report the location of cultural sites and advise on potential impacts World Heritage so such a survey framework will further benefit them to assist identifying potential threats to sites, impact management (see Section 4.4.2) and the updating of IPPs.

Related Strategies: 16

Strategy 16: Develop and implement a research framework to assist the identification and protection of heritage values

Actions

- 16.1 TSAC to co-ordinate the preparation of a research framework within which research relating to WLRWHA occurs.
- 16.2 Include in the research framework:
 - research questions relevant to the values of the place;
 - opportunities for research to assist management objectives, including utilising predicative modelling;
 - research projects and partnerships with universities, agencies and private sector organisations;
 - · reviewing and advising on research requests and development/use proposals; and
 - community engagement and information relating to research.
- 16.3 TSAC will develop criteria against which requests for research can be assessed and these criteria will be connected to World Heritage management principles.
- 16.4 Identify opportunities for partnerships between government, research institutions and business to obtain research grants to answer questions relating to World Heritage values, assist land management and build staff skills.
- 16.5 Identify opportunities within the research framework for employment and training opportunities for the Traditional Owners (see also Strategy 39).
- 16.6 Implement research projects identified during the preparation of this management plan, including historic research on the 3TTGs and their languages, the history of the removal of Aboriginal people from their lands in WLRWHA in the mid to late nineteenth century and the history of the Chinese workers involvement in the pastoral properties within WLRWHA.
- 16.7 TSAC will co-ordinate public communication programs to explain the scientific, technical and historic research undertaken as part of its role with the research framework.

Rationale

A significant amount of research occurs in relation to WLRWHA, such as university led archaeological survey projects and on ancestral remains located off site within universities. However, this plan found that the lack of a comprehensive research framework and agenda within which research occurs for WLRWHA reduces the chance of a co-ordinated and focussed approach to expanding knowledge and understanding of the values of WLRWHA, increases the risk of duplication of research and the loss of data and has a direct impacts the integrity of the WLRWHA.

As noted in Section 4.2.1, part of the rationale provided for re-establishing the TSAC committee is the need for a research framework to be defined and managed for WLRWHA.

Additional Commentary

A research framework would need to be open to new and currently unknown areas of research but also be within a framework that is supported by the Traditional Owners and other stakeholders.



Related Strategies: Strategy 8, Strategy 35 presenting and transmitting values, Strategy 39 re Aboriginal training and employment.

Strategy 17: Develop and implement a research register and repository. Actions

- 17.1 Establish a digital research register (processes data) and repository (actual output data) that is linked to associated artefacts or sample collections.
- 17.2 Explore and encourage partnerships with institutions relating to the research register.

Rationale

Currently there is no easy way to ascertain what research is being undertaken and by whom on WLRWHA, what research has been undertaken in the past and where, when and how it has been reported.

The digital register would contain information relating to the researchers, field seasons, approvals (AHIPs/TOAC endorsements etc), digital copies of reports and publications including journal articles, books, book chapters and information as to where originals are held. Links to any artefacts or sample collections will also be included.

Additional Commentary

Opportunities for partnering with AIATSIS in this endeavour should be explored as they are established as a repository of Aboriginal and Torres Strait Islander research.

Related Strategies: 16

4.3.3 Strategies for the Rehabilitation and Protection of Heritage Values

Strategy 18: The repatriation of Mungo Man and other ancestral remains to WLRWHA

Actions

- 18.1 Establish a working group of WLRWHA staff, TOs, the agency storing Mungo Man and other relevant experts to expedite its return and facilitate temporary arrangements for its safekeeping at WLRWHA for these ancestral remains while a permanent culturally appropriate resting place is identified.
- 18.2 Return other ancestral remains to WLRWHA as soon as is feasible.
- 18.3 Identify a permanent culturally appropriate resting place for Mungo Man and other ancestral remains.

Rationale

The repatriation of Mungo Man and providing a place of temporary safekeeping was the key issue and most urgent desire expressed by both TOs and scientists during the preparation of this plan. The repatriation of Mungo Man would rehabilitate/recovery significance (heritage value) that reunites the attributes of World Heritage value with the place with which they are associated.

The identification of a permanent place for the safekeeping of Mungo Man and other ancestral remains is a key action for this plan and will require communication amongst stakeholders and then resolution by TOs on the most appropriate place for the permanent place for the safekeeping of Mungo Man and other ancestral remains currently off site and the other objects and remains currently located within WLRWHA.

Additional Commentary

Aboriginal people associated the WLRWHA feel a strong sense of loss associated with removal of Mungo Man and other ancestral remains. Repatriation is a very powerful conservation action associated with the concepts of restoration and recovery of significance that is strongly in accordance with item (c) of the Australian Heritage Management principles to 'where appropriate,



the rehabilitation of heritage values'. This action would achieve a rehabilitation of values that are currently incomplete/reduced.

During consultation for this plan options identified for the permanent safekeeping for ancestral remains returned included a purpose built 'keeping place' or reburial in the landscape. A secure purpose built keeping place would allow for controlled access and potentially allow for future research using techniques currently unknown, while reburial may reduce these opportunities but accord with the wishes of some stakeholders. While final determination of this matter should rest with the Aboriginal TOs, open communication between stakeholders on factors relating to these and any other options should be pursued.

Related Strategy: 19

Strategy 19: Develop a movable heritage management policy and where appropriate repatriate scientific reports, records and samples

Actions

- 19.1 Develop a WLRWHA Movable Heritage Management Policy for collections currently stored or on display within WLRWHA and for items associated with the place and its values currently stored elsewhere.
- 19.2 Return to WLRWHA where feasible and appropriate the records, reports and samples relating to research and investigation within WLRWHA, in particular those relating to its World Heritage values such as original research papers and soil samples etc.
- 19.3 Provide appropriate facilities for the care and conservation of movable items stored within WLRWHA.

Rationale

A movable heritage management and curatorial strategy is needed to ensure that the physical attributes of research are identified recorded, conserved and interpreted. The return to WLRWHA of items of research, such as soil samples, associated with the World Heritage listing objects and artefacts is another strategy also associated with presenting and transmitting World Heritage values.

Additional Commentary

As noted in Section 1.2.2, the principles for Australian World Heritage Management refer to the potential to rehabilitate the World Heritage values of the property and the return of ancestral remains and objects relating to original research can be seen as assisting the rehabilitation of World Heritage values.

Related Strategy: 18

Strategy 20: Undertake regular monitoring of and reporting on World Heritage and other heritage values

Actions

- 20.1 Undertake regular monitoring of the condition of world heritage values in association with the implementation of a GIS survey framework (Strategy 15) and impact management (Strategy 25).
- 20.2 Undertake regular reporting on the condition of World Heritage and other heritage values including as part of the Australian Government Periodic reporting to UNESCO on its World Heritage Properties the NSW State of the Park reports.
- 20.3 A review and reporting on the status of the survey framework and the management of impacts will be undertaken every 3 years with reporting back to MAC and the subcommittees.



The two key actions noted in this strategy are monitoring and reporting. Monitoring and reporting on the condition of heritage values is a key requirement of Australia's World Heritage Management principles.

Related Strategies: 13, 14.

4.4 Strategic Theme: Management of Heritage Impacts

4.4.1 Introduction

The management of heritage impacts has two parts: the predication and assessment of potential impacts and the implementation of works to mitigate potential future impacts or to rectify impacts that have already occurred.

Priorities

• Strategy 24: Risk and impact minimisation programs.

4.4.2 Strategies for predicting and assessing heritage impacts Strategy 21: Adopt an ecological approach to maintaining a healthy landscape Actions

- 21.1 Utilising a variety of recording, monitoring and analysis techniques assess and manage WLRWHA using a 'whole of landscape' approach with all its values and landscape attributes managed in a holistic manner to improve its overall health.
- 21.2 Continue to prepare and implement IPPs as an essential tool to maintaining environmentally sustainable pastoral practices and an overall healthy landscape.

Rationale

The management of impacts on the values of the WLRWHA is connected to the Strategic Vision Statement objective to have a healthy overall landscape, a restored natural landscape and a sustainable pastoral landscape. This will be achieved through an ecological systems approach to natural values conservation, rather than management as intrinsic natural heritage features.

Additional Commentary

This approach will draw on the GIS survey and research strategies in this plan and apply these to all values, uses and impacts together in a landscape context. It will be important to map the values and attributes using actual data and predictive models and to use similar techniques to map and address risks and protect rare and endangered species. Alerts by landholders has previously resulted in change to grazing areas with fencing to minimise erosion and impacts and a whole of landscape approach will connect these actions in a 'big picture' way.

An example of the type of issue that will be addressed in a 'whole of landscape' approach is that of the management of native scrub, often described as woody weed, is part of the natural landscape and has value within WLRWHA as part of an Aboriginal cultural landscape.

Related Strategies: 15, 23 and 25

Strategy 22: Develop a climate change risk assessment plan Actions

- 22.1 Monitor the condition of both landscape types and specifics sites as part of actions to monitoring and predicting environmental change.
- 22.2 Monitor tools used to assess trends in climate change to identify parts of the landscape more at risk from climate change impacts.

Rationale

Environmental change will result from climate change and more extreme weather conditions or from the actions of animals or plants. While reversing or halting the impacts of climate change may



not be possible, an enhanced understanding of the nature of these impacts and the timeframe over which they are likely to occur is essential. Strategies in this area link to research, survey and skills.

Related Strategies: 15, 16 and 23

Strategy 23: Undertake the active monitoring of the landscape to identifying risks and to reduce impacts

Actions

- 23.1 Identify risks and potential impacts to different landscape types, specific natural and cultural sites of importance and ecological systems utilising monitoring and predictive modelling.
- 23.2 Monitor and report on impacts from current landscape uses such as pastoral and tourism activities, current risks, such as pests, and potential future impacts, such as from climate change.

Rationale

Monitoring WLRWHA is currently done in an intensive manner over small areas (often associated with a research project, a find or a development) and more anecdotally over broad areas. When connected to the research and survey frameworks noted in this plan monitoring has the potential to be a much stronger tool for the management of WLRWHA.

Monitoring of current uses will include monitoring and review of pastoral practices (including from NSW Local Land Services pasture inspections and reports) with outcomes reflected in IPPs. There is little quantifiable information relating to site monitoring for any impacts from tourism and an assessment of this aspect should be undertaken. There should be ongoing monitoring of the effectiveness of pest impact management programs such as rabbit ripping programs.

Commentary

The use of predictive modelling will be a tool used to address potential impacts resulting from changes in climate and other ecological systems. Monitoring of known cultural and natural sites of importance as well using a broader landscape typology to monitor potential sites will be key aspect of this strategy.

Induction processes for new landholders and assistance provided in preparing required new Individual Property Plans (see Communications Strategy 10) will assist identifying and reducing heritage impacts. The availability of cultural awareness programs for new landowners and new staff in the WLRWHA and a strong focus on impact identification and assessment will assist in impact management.

Related Strategies: 15 and 20.

Strategy 24: Assessing the potential heritage impacts from proposed activities within and in the vicinity of WLRWHA

Actions

- 24.1 Assess the heritage impacts of all proposals for activities within and in the vicinity of WLRWHA, including research, developments, change in use, and conservation, prior to receiving approval to proceed.
- 24.2 Ensure that people with the appropriate skills and experience are engaged in the assessment of potential heritage impacts from new proposals.

Rationale

The identification of current and potential impacts for proposed practices, uses and development is an essential strategy in managing impacts. Impact assessment and evaluation is covered within the EPBC Act and the NSW Environmental Planning and Assessment Act (EPA) regarding assessment and referral processes under the EPBC Act and REFs and EIS under (Part V of the EPA Act).

Inductions for new stakeholders and open communication between stakeholders will assist in recognising potential impacts. While all stakeholders can assist in identifying current or potential



impacts, it is important that staff with appropriate professional skills and training are available for the identification and evaluation of potential heritage impacts.

Additional Commentary

The operation of the EPBC Act requires an assessment of impacts for activities in the vicinity of the World Heritage Area, not just within it, with a potential to prohibit impacting activities and this means that a Buffer Zone, which can be identified around World Heritage areas under the World Heritage operational guidelines, is not required around the WLRWHA.

Related Strategies: 21, 22 and 23

4.4.3 Strategy for undertaking conservation works

Strategy 25: Develop and implement a conservation works program with both pro-active and responsive components

Actions

- 25.1 Develop and implement a program of pro-active conservation works to mitigate potential future impacts, such as planting to control erosion and relocation of stock water points.
- 25.2 Continue to implement a program of conservation works as a response to impacts such as fencing areas to limit grazing, where this is causing impacts.
- 25.3 Continue risk reduction programs such as rabbit ripping, when and as required, subject to regular review.
- 25.4 Develop a program of 'ready to go' conservation works as approaches to various forms of impacts, such as storm erosion.
- 25.5 Develop a consultation and decision making process to assist in dealing with any future exposures through erosion of cultural material, including ancestral remains.

Rationale

Pro-active conservation works will reduce the risk of future potential impacts. Responsive conservation works will be implemented where there is current impact occurring and are of two types: those one off works where there are existing impacts that require physical intervention and conservation works, with a second type being a set of typical 'ready to go' approaches to various forms of impacts, such as from water erosion after storms.

Risk reduction programs such as rabbit ripping should be resourced to continue when and as required, subject to regular review. Strategies to utilise predicative modelling to reduce risks and impacts should be developed.

A key risk issue noted on Table 2 in this plan is the threat from erosion that exposes World Heritage material, including ancestral remains. There are two major sources of erosion; erosion as a natural process (including the potential of increasing erosion events as a result of climate change) and from a lack of caring for country in land uses and processes.

It is critical that the perspectives of the various stakeholders are shared and the processes are clear for considering such exposure, given the probability that this may happen again. This will ensure that will ensure that any impacts on cultural values are minimised. Where feasible, predictive modelling should be used to identify risk events and areas within WLRWHA (see Strategy 22).

Additional Commentary

The ongoing conservation programs should cover aspects of erosion control, pest management, fire management, visitor management, pastoral impact reduction (moving stock watering points and fencing) and conservation works to buildings and other structures with heritage or asset value within WLRWHA. It is essential that appropriate specialist technical advice eg from archaeologists and architects informs these programs. Actions carried out by staff of the WLRWHA are not exempt from the provisions of the NPW Act 1974 and/or the due diligence and other guidelines of the NSW OEH.



Most aspects of the conservation program will have both pro-active and responsive components; an example being fire management programs and processes that have pro-active hazard reduction aspects and active aspects for use during wild fires. Similarly, pest reduction programs will have both pro-active aspects in mapping for susceptibility for rabbit infestation, previous rabbit ripping areas and existing areas and rabbit abundance and this mapping should be added to IPPs. Responsive aspects include ripping programs for active infestations that need to be comprehensively planned and funded. There is also a need for low impact methods to reduce noxious weeds to minimise potential impacts.

Soil erosion is the biggest single potential impact on WLRWHA values as changes may expose artefacts, bury artefacts, or change the shape of the land surface at culturally significant places or unique geological features. New findings such as the human fossil footprints will require that conservation methodologies are tested in advance and ready to go in these circumstances. Similarly, aspects such as erosion control can appropriately be addressed by tested conservation methodologies.

Related Strategies: 22 and 23.

4.5 Strategic Theme: Presenting and Transmitting Heritage Values

4.5.1 Introduction

The concepts of presenting and transmitting heritage values are closely related. For the purpose of this discussion <u>presenting</u> World Heritage values relates to site interpretation, visitation and visitor experience, while <u>transmitting</u> World Heritage values relates to education programs and to sharing information and connecting with other people more broadly.

Knowledge of the existence of World Heritage places and the values of World Heritage within Australian and international community has grown from a starting point where it was first understood as a technical mechanism used to ensure protection. This pattern has resulted in increased expectations of visitors of the types of experience possible at World Heritage places.

Both an attraction and a difficulty for a place like WLRWHA is its remoteness and its subtlety. Unlike places where the attributes of place are inescapable, such as Uluru, the values upon which WLRWHA rest remain largely (and thankfully) buried so that interpretation is a key vehicle to communicating its values.

Priorities

- Adding tourism stakeholder inputs to the WLRWHA advisory committee and improving a regional perspectives and focus for the promotion of WLRWHA;
- Getting and analysing tourism visitation data, including visitor experiences; and
- The implementation of some aspects of the WLRWHA/Mungo NP Interpretation Strategy but further consultation and planning needed before proceeding on work needed on the Mungo Centre project (see Strategy 31).

4.5.2 Strategies for Presenting World Heritage Values

Strategy 26: Implement Interpretation Planning for WLRWHA

Actions

26.1 Implement the recommendations of the WLRWHA Interpretation Strategy (2011) as resources permit.

Rationale

The WLRWHA Interpretation Strategy contains many actions for the provision of interpretation that should be reviewed as a result of the findings in this plan and implemented as resources permit. As



noted below in Strategy 32, it is recommended that the Mungo Centre proposal included in the Interpretation Strategy be further reviewed before a decision is made to proceed.

Related Strategies: 28 to 32

Strategy 27: Improve an understanding of WLRWHA visitation and experiences Action

27.1 Improve processes to gather and analyse quantitative and qualitative data on visitation and visitor experiences to assist the management of WLRWHA.

Rationale

Visitation numbers and the market segment are not well known and a key action will be to obtain more accurate information to address issues such as carrying capacity in relation to potential visitor impacts. Better knowledge of visitation numbers and experience is a necessary first step to planning better facilities and services (Strategy 30). This is also a key aspect of the discussion in Strategy 32 below regarding a potential new visitor centre.

Related Strategies: 28, 29 and 30

Strategy 28: Improve the connectivity between WLRWHA and the regional population and other regional tourism destinations.

Actions

- 28.1 Build a better connection with the region within which WLRWHA is located to improve connections between WLRWHA and other regional tourism destinations.
- 28.2 Build a better understanding of, and visitation to, WLRWHA by the local and regional population.
- 28.3 Encourage the diversification of the tourism products and experiences available at WLRWHA.

Rationale

Tourism opportunities and expectations are increasing for all World Heritage areas in Australia and visitation and visitor experience is a key current planning issue for WLRWHA. There is evidence that the local and regional population does not visit WLRWHA and this is potentially denying a larger number of visitors, as homestays account for 20% visitation in the region.

A regional/state tourism sector representative on the Management Advisory Committee will ensure a proactive approach to these issues.

Additional Commentary

Equally, the diversity and range of prompted products available within WLRWHA could be improved; for example bird watching/biodiversity and also as part of a regional network of historic pastoral buildings etc.

Related Strategies: 2 and the TORs in Section 9.

Strategy 29: Continue Guided & Self-Guided Tour Programs Actions

- 29.1 Continue to develop and provide guided and self-guided tours of WLRWHA as a valuable way of communicating World Heritage values.
- 29.2 Encourage OEH to retain and further develop the Discovery Ranger program of guided tours run by Aboriginal staff to communicate both World Heritage values and strong Aboriginal community associations and attachment to WLRWHA.
- 29.3 Provide ongoing review and advice to OEH on the content and delivery of self-guided,
 Discovery Ranger and commercial tour operator programs to ensure that appropriate and
 accurate material is being provided in relation to the heritage values of WLRWHA.



Guided tours are a very important vehicle for communicating the heritage values of WLRWHA as the physical attributes of its values are sometimes not visible, are better explained with personal explanation and are physically vulnerable. The Discovery Ranger program operated by OEH allows for access to and appreciation of the attributes and values of the place (such as 30,000 year old hearth and shell fish artefacts) as well as intangible heritage values, such as the importance of the place to the associated Aboriginal communities. This strategy will facilitate the continuation of both the Discover Ranger programs and commercial tours operating within WLRWHA within a system that includes a review of material and themes of interpretation in all programs to ensure that the key themes are conveyed within WLRWH and that the messages are accurate.

Strategy 30: Improve Visitor Access, Facilities, Services and Products consistent with World Heritage values

Actions

- 30.1 Improve the range of facilities provided at WLRWHA and also the range tourism activities/product options available on site.
- 30.2 Encourage initiatives that improve telecommunications for safety, while recognising the importance of undisturbed quiet in key areas of WLRWHA.
- 30.3 Encourage the relevant authorities to consider improved reliable and safe road access to WLRWHA while also recognising and retaining its special characteristics associated with a remote and 'timeless' landscape.
- 30.4 Provide where feasible and appropriate visitor use of historic buildings in WLRWHA and provide extended stays with associated communities, such as Aboriginal TOs camping on county and 'farm stays' with landholders.
- 30.5 Improve equitable access including for people with non-English language backgrounds, and other physically impaired visitors and visitors with cognitive health issues.

Rationale

The reliability of access and the provision of facilities in WLRWHA do not always meet visitor expectations.

An improvement in mobile phone coverage and sealing the road to Mungo NP or upgrading it to an 'all weather road' will improve visitor safety but may also impact on visitor experiences of the remote timeless character of the site – currently free of mobile phone sounds.

This strategy recognises that the provision of visitor services and facilities should be consistent with maintaining the heritage values of the place and that WLRWHA management is not directly responsible for any change or upgrading of aspects such as telecommunications and access.

Strategy 31: Further review of the Mungo Centre proposal Actions

- 31.1 Review the proposal to construct a new visitor facility (with an associated secure keeping place) to address issues identified in the preparation of this plan so that proposal and the associated reuse of the existing visitor facility are appropriate and sustainable.
- 31.2 Consult with all relevant stakeholders in reviewing the new visitor facility proposal and also consult with appropriate specialists including cultural tourism specialists.

Rationale

A current proposal is to construct a new visitor facility within Mungo NP on the western edge of Lake Mungo, away from the existing Visitor Centre in the historic pastoral precinct, to provide a suitable monument to the importance of the Mungo finds, as an introduction to Aboriginal culture (in a separate place to pastoral precinct) and also act as a keeping place for ancestral remains and other artefacts.



The preparation of this management plan identified a number of issues to address before such as facility, known as the Mungo Centre, should proceed including: function (the extent or otherwise of research facilities and the nature of research storage), the specific location (on the Lake Mungo western lunette edge or set back from this), architectural design (including scale form and visibility) and the future sustainable use of the existing visitor precinct and Visitor Centre. Other issues noted above include data on visitor experiences and expectations and a lack of engagement of regional tourism stakeholders. Such a proposal would use significant resources and while it may solve some short term functional issues and limitations, is also a risk in terms of its longer term viability.

Related Strategies: 26

Strategy 32 Conservation, use & presentation of historic heritage in WLRWHA Actions

- 32.1 Conserve, appropriately use and interpret the historic heritage in WLRWHA consistent with the protection of World Heritage values.
- 32.2 Identify further opportunities for research, conservation and interpretation of historic heritage within WLRWHA, including the historic associations with Chinese workers and other historic homesteads and places within WLRWHA.

Rationale

As part of a review of future uses in the Mungo Homestead precinct, within which the current Visitor Centre is located, there will ongoing conservation action taken in relation to the historic heritage in this precinct and within WLRWHA generally.

Related Strategies: 31 and 32

4.5.3 Strategies for transmitting World Heritage Values

Strategy 33: Promoting WLRWHA within the context of World Heritage places generally

Actions

- 33.1 Increase the visibility and appreciation of the WLRWHA and its management to both visitors to the region and more broadly within and outside Australia.
- 33.2 Work closely with a network of other regional and World Heritage sites in Australia to further understand global, national and regional trends in World Heritage site visitation and community appreciations and expectation in regard to World heritage places.
- 33.3 Develop partnerships with public, NGOs and other private sector organisations in pursuing the actions to promote WLRWHA and its values.
- 33.4 Encourage and support the establishment of a 'Friends of Willandra' philanthropic organisation to assist in raising awareness and funding for the conservation projects for WLRWHA.

Rationale

The strategy will be based on increasing appreciation within the community of the role and importance of World Heritage places to the community beyond that of physical protection and conservation; so that World Heritage places have a meaningful part in the lives of all people.

A 'helicopter view' of current and future trends in relation to visitation and experiences offered at World Heritage sites generally will assist planning for visitation to Willandra and its promotion.

Organisations such as the NSW Foundation for National Parks have a key potential role in working with the management of WLRWHA in assisting in communicating the heritage values of the place to the community. There is also a significant potential for an independent 'Friends of Willandra' philanthropic group to be established with engagement and the support of well know Australians with a complementary role to that of the NSW Foundation for National Parks.



Additional Commentary

Currently WLRWHA is largely promoted through the 'lens' of Mungo National Park. With an increasing profile of World Heritage places and with tourism, and the income opportunities likely to come from this profile, more can be made strategically in the promotion of the WLRWHA as an entity itself within which Mungo National Park sits.

Related Strategies: 13, 14, 34 and 35

Strategy 34: The communication of existing World Heritage values, other values and their attributes

Actions

- 34.1 Develop programs to communicate to the public in simple language (English and other languages including Aboriginal) the World, National, State and local values (and the physical attributes of these values) and the relationship between these values.
- 34.2 Develop programs to communicate the work undertaken on developing a research framework (Strategy 16) and research being undertaken at WLRWHA, in association with the committees.
- 34.3 Continue to develop publications, web based information and newsletters to communicate the values and management of WLRWAH.
- 34.4 Investigate and other new and emerging techniques for the communication of heritage values, such as virtual 3D landscapes via the internet and walk-through virtual 3D interpretation on site, to communicate these heritage values and a sense of place.
- 34.5 Develop programs and content to communicate the attributes of the landscape and its spirit and sense of place.

Rationale

The experiential values of the WLRWHA landscape were expressed in the consultation for this plan and are noted in Section 3.2.2.

Some of the values and attributes of WLRWHA could be better communicated including the aspects of geomorphology and landscape change associated with the World Heritage listing and new techniques such as those 3D techniques noted above may assist communicate these values.

Related Strategies: in Governance: Communication

Strategy 35: Communicating WLRWHA values through education programs Actions

- 35.1 Liaise with State education systems to advise on specific inputs and material for the national education curricula in relation to WLRWHA.
- 35.2 Provide youth programs such as Mungo Youth Project as an essential mechanism to ensure generational transfer of the values of the WLRWHA.
- 35.3 Support TOs desires regarding youth training and camps on country, and cultural exchange between WLRWAH stakeholders and other indigenous communities both nationally and internationally (see Strategy 37 regarding Sustaining communities).

Rationale

WLRWHA has been included within national curriculum and actions should account for the likely increase in the need and opportunity to include WLRWHA in school education. Actions to continue and build on connections to younger generations such as the Mungo Youth Project should be developed and opportunities taken for the 3TTG and other stakeholders to participate in conferences and cultural exchanges to share the values of WLRWHA.

Related Strategies: 34, 37 and 38



4.6 Strategic Theme: Sustaining Associated Communities

4.6.1 Introduction

Associated communities are those that have special and strong connections to the place. The preparation of this plan has shown there to be strong feelings of connection with WLRWHA for the 3TTGs, with landholders and with scientists.

All associated communities are ageing and strategies for succession are reflected in the actions on this plan such as for governance. Initiatives that encourage the participation by associated committees in site conservation, research and interpretation will increase communication and allow for a sustainable economic future.

Priorities

- Strategy 8, succession for all associated communities
- Strategy 38, for employment and training for associated communities

4.6.2 Strategies for Sustaining Associated communities

Strategy 36: Maintaining community associations

Actions

- 36.1 Undertake an assessment of the social heritage values for the WLRWHA associated communities.
- 36.2 Encourage the TOs and other stakeholders to identify and implement mechanisms, programs and projects to ensure succession.
- 36.3 Record landholders connections to WLRWHA to assist telling the story of the pastoral period in WLRWHA.
- 36.4 Support landholders in activities to conserve the values of WLRWHA including continuing to assist landholders with the implementation of IPPs.
- 36.5 Provide for increased opportunities for the TOs to be on country (including committee meetings) and to facilitate a longer term objective for TOs to own leases within WLRWHA if that is what is desired.

Rationale

The community associations and connection with WLRWHA identified in this plan for the TOs, scientists and landholders point to the existence of social heritage values. While these are not World Heritage values, they are important associations that have been strongly felt by communities and individuals for decades.

While some aspects of the World Heritage values are relatively difficult to appreciate immediately, the passionate connection between these associated communities and place brings the stories the place and its landscape alive and have resonance and in the wider community.

This strategy recognises that succession is now an important issue for all associated communities and actions to promote the engagement of younger people in the activities of associated communities is essential.

Landholders are a valued part of the WLRWHA and also have strong associations with the place and strategies to tell these stories including those associated the history of the pastoral properties within WLRWHA should available.

Strategies for sustaining the 3TTGs associated with WLRWHA should including sustaining connections with the landscape through meetings and camps on county, potential future ownership of lease areas, and assistance with recording language and passing on information from Elders to younger generations.



Additional Commentary

The opportunity to have observers in committee and sub-committee meetings will be an important strategy in providing for succession.

While joint management of Mungo National Park by the 3TTGs has assisted direct connection with the place, ownership of a lease area would greatly assist retaining 3TTG associations with WLRWHA. However, the risks associated with the previously failed Incorporation of the 3TTGs would need to be addressed before such a land ownership could occur.

Related Strategies: Strategy Group 4.2 Identifying Heritage values

Strategy 37: Encouraging communication between committees and stakeholder communities

Actions

- 37.1 Each committee will be required develop and report on a communication strategy to maintain good communication between each committee and each of their own relevant associated communities. These will be integrated at the MAC level into a stakeholder communication program and resourced as necessary.
- 37.2 Encourage the 3TTGs to maintain a close working relationship with WLRWHA through the TOAC, with strong connection also made to more broadly to other Aboriginal Traditional Owners
- 37.3 Opportunities will be explored through TOAC of such events as a biannual 'back to Mungo day' along with less costly mechanisms that can operate continuously such as social media, email list servs etc.
- 37.4 Identify for TSAC communication opportunities such as LinkedIn, skype and email list servs.

Rationale

As noted elsewhere, the Traditional Owners and scientists are dispersed across a broad geographic area and face to face gatherings to enable the communication between committee members and the boarder stakeholder group are likely to be rare and costly.

Related Strategies: Communication strategies in Section 4.2.3

Strategy 38: Providing employment and training opportunities for Traditional Owners

Actions

- 38.1 Encourage agencies such as OEH to provide employment and training for Traditional Owners.
- 38.2 Encourage appropriate agencies associated with WLRWHA to use ARC Linkage and other potential grant programs to provide mechanisms to up skill Aboriginal staff and assist with site survey and monitoring work.
- 38.3 Encourage TOs and other associated communities to develop business opportunities from educational and cultural tourism ventures and also through the sale of arts and crafts, produce and the provision of guided tours and farm stays.

Rationale

There has been a substantial increase in Aboriginal employment in the WLRWHA, both in the OEH and also for the World Heritage office since 1996 POM. However, this plan encourages agencies that provide employment to further increase employment opportunities for Aboriginal people as well as training in trade and other work skills.

Opportunities for associated communities to produced arts and crafts for sale within the WLRWHA will not only financially benefit these communities but will also allow for the interaction between WLRWHA and a broader arts based creative environment that can be a vehicle to promote the heritage values of the place.





PART B: OPERATIONAL PLAN



[page intentionally blank]



5 OPERATIONAL PLANS

5.1 Strategies, actions, priorities and responsibility

The strategies and actions identified in Section 4 are shown below on Table 4 together with the priority in terms of time frame and the agency responsibility for the action (not necessarily the same agency as the one doing the action).

In terms of responsibility:

- MC = Ministerial Council
- WLRWHA = WLRWHA office within OEH NSW
- MAC = Management Advisory Committee
- TOAC = Traditional Owners Advisory Sub-committee
- TSAC = Technical and Scientific Advisory Sub-committee
- Landholders = current landholders with leases that include WLRWHA
- OEH = NSW Office of Environment and Heritage
- NPWS = NSW National Parks and Wildlife Service
- Committees = All the three committees, MAC, TOAC and TSAC



Table 4 WLRWHA Management actions associated with management strategies

No.	Strategy	No.	Actions	Priority	Responsibility
Strate	gic Theme: Governance, Communication a	nd Admin	istration		
1	Provide appropriate governance structures for WLRWHA	1.1	Clarify the governance structures for WLRWHA including the committees and administrative arrangements resulting from the Intergovernmental Agreement between the Commonwealth and NSW governments for the management of WLRWHA.	Immediate	MC
		1.2	Form a lead stakeholder advisory committee to provide advice to the Ministerial Council on community, stakeholder and technical matters.	Immediate	МС
		1.3	Form two advisory sub-committees with members having the skills and experience relevant to the core heritage values of WLRWHA to advise the lead committee and the Ministerial Council.	Immediate	МС
		1.4	Clarify the role of Intergovernmental Steering Committee as a link between the lead and sub-committees and the Ministerial Council that represents the Commonwealth and NSW Governments.	Immediate	МС
		1.5	The lead and sub committees will be appointed by the Ministerial Council and their operation will conform to the Terms of Reference (Section 9) and NSW DPC guidelines for Boards and Committees.	Immediate	МС
		1.6	Ensure that the governance arrangements for the lead and sub- committees conform with the REP and that the REP is amended as required to conform to existing Commonwealth and State legislation.	Immediate	WLRWHA
2	Form a Management Advisory Committee	2.1	Form a Management Advisory Committee (MAC) to advise the Ministerial Council and to act as the main representative body for stakeholders.	Immediate	МС
		2.2	The Ministerial Council will endorse the MAC composition and its Terms of Reference (TOR) (see Section 9) and will appoint its members.	Immediate	МС
		2.3	The role and annual planning and reporting requirements of MAC will be defined in its Terms of Reference. The TORs will be updated as and when required in the REP.	Ongoing	OEH
		2.4	The Management Advisory Committee will prepare an annual report of its activities.	Ongoing	MAC



No.	Strategy	No.	Actions	Priority	Responsibility
3	Form the Traditional Owners Advisory Committee	3.1	Form a Traditional Owners Advisory Committee (TOAC) as a sub- committee of MAC to provide advice to the MAC and Ministerial Council on cultural heritage matters.	Immediate	МС
		3.2	The Ministerial Council will endorse the TOAC committee composition and will appoint its members. The Terms of Reference (TOR) (see Section 9) for TSAC including requirements for annual planning for its activities will be included in the REP and will be reviewed and amended as required.	Immediate	МС
4	Form a Technical and Scientific Advisory Sub-Committee	4.1	Form a Technical and Scientific Advisory Committee (TSAC) as a sub- committee of MAC to provide advice to MAC and the Ministerial Council.	Immediate	МС
		4.2	The Ministerial Council will endorse the TSAC composition and its Terms of Reference (TOR) (see Section 9) and will appoint its members.	Immediate	МС
		4.3	The Terms of Reference for TSAC define its role and its annual planning and reporting requirements. The TORs will be included in the REP and will be reviewed and amended as required.	Immediate	МС
5	Retain landholder representation on the lead committee and support landholder responsibilities regarding Individual Property Plans	5.1	The Ministerial Advisory Council will appoint a representative of WLRWHA landholders to the Management Advisory Committee (MAC) following a nomination received from a meeting of WLRWHA landowners.	Immediate	MC
		5.2	WLRWHA landholders will be encouraged to meet regularly to discuss matters relating to issues relating to the WLRWHA and to prepare and implement Individual Property plans.	Ongoing	Landholders
6	Committees to prepare Annual Plans	6.1	The MAC and its two sub-committees, TOAC and TSAC, will prepare annual activity plans to assist identifying and meeting their priorities. The MAC will be the lead committee to which the other two will report in relation to its annual plans.	Ongoing	Committees
7	Allow for specialist advice and support to committees	7.1	Support MAC and its two sub-committees the TOAC and TSAC to seek additional specialist advice on particular issues that may include either individuals or reference groups established for specific purposes and time-frames.	Ongoing	Committees
8	Allow for observers on committees to assist in communication and succession	8.1	Develop protocols to allow for observers to attend the MAC and the TOAC and TSAC sub-committee meetings to assist communication.	<2 years	Committees



No.	Strategy	No.	Actions	Priority	Responsibility
9	Increase communication between stakeholders	9.1	Schedule workshops, meetings and publications in committee action plans to publicise the work of the committees and to assist direct communication amongst stakeholders and with the public regarding the safeguarding and promotion of WLRWHA values.	Ongoing	Committees
		9.2	Identify projects that encourage a sharing of experiences and perspectives amongst stakeholders on a variety of management issues.	<2 years	WLRWHA
10	Provide inductions for all new stakeholders, staff, researchers and visitors to WLRWHA	10.1	Develop inductions protocols for all new stakeholders, including new landholders, researchers on pastoral properties and new WLRWHA and OEH staff.	<2 years	WLRWHA
		10.2	Develop protocols for basic awareness raising inductions for visitors to WLRWHA on cultural protocols and safety issues.	<2 years	WLRWHA
11	The endorsement of this management plan and its ongoing review and revision	11.1	The Australian Government will endorse this management plan, including the governance and committee structures, TORs (Section 9) and the other strategic and operational plans that form part of it.	Immediate	МС
		11.2	Review this management plan as a minimum every 7 years. The committees and Terms of Reference for these committees (Section 9) will be reviewed at the same time.	2-5 years	WLRWHA
		11.3	Undertake an annual review of actions in this plan.	Ongoing	WLRWHA
12	Resourcing key positions, the advisory committees and key conservation programs	12.1	Provide resources as a priority to support the key WLRWHA administrative positions.	Ongoing	WLRWHA
		12.2	Provide resources as a priority to support of the identified committees, their activities and their members.	Ongoing	WLRWHA
		12.3	Provide resources as a priority to undertake the key conservation programs identified in this plan.	Ongoing	WLRWHA
Strateg	gic Theme: Identification & Protection of F	eritage Valu	ues		
13	Defining attributes of the heritage values and the associated threats/risks to these	13.1	Refine processes for the identification and recording of the attributes of the World Heritage values of WLRWHA.	<2 years	WLRWHA & Committees



No.	Strategy	No.	Actions	Priority	Responsibility
	attributes				
		13.2	Refine processes for the identification and recording of the attributes of the National, NSW State and Local heritage values of WLRWHA.	<2 years	WLRWHA
		13.3	Identify the risks and threats to the attributes of the World Heritage and other heritage values and develop action plans to addresses these risks though prediction, monitoring and active management.	2-5 years	WLRWHA
14	Recording new understandings of values (and attributes) and updating heritage listings	14.1	Establish a register of existing and new attributes (both tangible and intangible) of the official heritage values as the basis for any future listing reviews.	<2 years	WLRWHA
		14.2	Periodically review and assess the inscriptions and listing for action in regard to WLRWHA official values.	2-5 years	MC
		14.3	Initiate a review of the National Heritage Listing of WLRWHA to consider the historic and social values associated with the Mungo finds of the late 1960s that fundamentally changed understandings of the Aboriginal occupation of Australia and a sense of identity for contemporary Aboriginal people.	<2 years	WLRWHA
		14.4	Review the SHR listing of WLRWHA in relation to the nineteenth century pastoral industry and use of Chinese workers on <i>Gol Gol</i> station that became Mungo Station.	<2 years	WLRWHA
15	Create and implement a whole of landscape survey framework	15.1	Implement a 'whole of landscape' survey framework where all data generated by research, survey and site management is retained within an inter-relational geographically based (GIS) data management system.	<2 years	WLRWHA
		15.2	As a first step in implementing a survey framework, prepare a base-line record of current surveys and recorded sites.	< 2 years	WLRWHA
	20/1/1	15.3	Develop maintenance protocols to ensure that all new data is routinely required to be entered into an inter-relational geographically based (GIS) data management system.	<2 years	WLRWHA
		15.4	Identify priorities for new survey work (in association with the research framework in Strategy 16)	2-5 years	WLRWHA
		15.5	Link the data management system to the recording of actions undertaken	<2 years	WLRWHA



No.	Strategy	No.	Actions	Priority	Responsibility
			to implement this management plan.		
		15.6	Link the data management system to the actions to record and reduce threats and risks to heritage attributes noted in this plan (see Table 3).	<2 years	WLRWHA
		15.7	Provide appropriate resources and training for the implementation of the inter-relational GIS data management system.	Immediate	МС
16	Develop and implement a research framework to assist the identification and protection of heritage values	16.1	TSAC to co-ordinate the preparation of a research framework within which research relating to WLRWHA occurs.	Ongoing	TSAC
		16.2	Include in the research framework:	<2 years	TSAC
			research questions relevant to the values of the place;		
			opportunities for research to assist management objectives, including utilising predicative modelling;		
			research projects and partnerships with universities, agencies and private sector organisations;		
			reviewing and advising on research requests and development/use proposals; and		
			community engagement and information relating to research.		
		16.3	TSAC will develop criteria against which requests for research can be assessed and these criteria will be connected to World Heritage management principles.	<2 years	TSAC
		16.4	Identify opportunities for partnerships between government, research institutions and business to obtain research grants to answer questions relating to World Heritage values, assist land management and build staff skills.	<2 years	TSAC
		16.5	Identify opportunities within the research framework for employment and training opportunities for the Traditional Owners (see also Strategy 39).	<2 years	TSAC
		16.6	Implement research projects identified during the preparation of this management plan, including historic research on the 3TTGs and their languages, the history of the removal of Aboriginal people from their lands in WLRWHA in the mid to late nineteenth century and the history of	2-5 years	TSAC



No.	Strategy	No.	Actions	Priority	Responsibility
			the Chinese workers involvement in the pastoral properties within WLRWHA.		
		16.7	TSAC will co-ordinate public communication programs to explain the scientific, technical and historic research undertaken as part of its role with the research framework.	<2 years	TSAC
17	Develop and implement a research register and repository.	17.1	Establish a digital research register (processes data) and repository (actual output data) that is linked to associated artefacts or sample collections.	<2 years	WLRWHA
		17.2	Explore and encourage partnerships with institutions relating to the research register.	<2 years	WLRWHA
18	Strategies for the Rehabilitation and Protection of Heritage Values	18.1	Establish a working group of WLRWHA staff, TOs, the agency storing Mungo Man and other relevant experts to expedite its return and facilitate temporary arrangements for its safekeeping at WLRWHA for these ancestral remains while a permanent culturally appropriate resting place is identified.	Immediate	WLRWHA
		18.2	Return other ancestral remains to WLRWHA, as soon as is feasible.	Immediate	WLRWHA
	4	18.3	Identify a permanent culturally appropriate resting place for Mungo Man and other ancestral remains.	<2 years	WLRWHA
19	Develop a movable heritage management policy and where appropriate repatriate scientific reports, records and samples	19.1	Develop a WLRWHA Movable Heritage Management Policy for collections currently stored or on display within WLRWHA and for items associated with the place currently stored elsewhere.	<2 years	WLRWHA
		19.2	Return to WLRWHA where feasible and appropriate the records, reports and samples relating to research and investigation within WLRWHA, in particular those relating to its World Heritage values such as original research papers and soil samples etc.	2-5 years	WLRWHA
		19.3	Provide appropriate facilities for the care and conservation of movable items stored within WLRWHA.	2-5 years	WLRWHA
20	Undertake regular monitoring of and reporting on World Heritage and other heritage values	20.1	Undertake regular monitoring of the condition of world heritage values in association with the implementation of a GIS survey framework (Strategy 15) and impact management (Strategy 25).	Ongoing	WLRWHA



No.	Strategy	No.	Actions	Priority	Responsibility
		20.2	Undertake regular reporting on the condition of World Heritage and other heritage values including as part of the Australian Government Periodic reporting to UNESCO on its World Heritage Properties the NSW State of the Park reports.	Ongoing	WLRWHA
		20.3	A review and reporting on the status of the survey framework and the management of impacts will be undertaken every 3 years with reporting back to MAC and the sub-committees.	<3 years	WLRWHA
Strate	gic Theme: Management of Heritage Impac	ts WLRWH	A		
21	Adopt an ecological approach to maintaining a healthy landscape	21.1	Utilising a variety of recording, monitoring and analysis techniques assess and manage WLRWHA using a 'whole of landscape' approach with all its values and landscape attributes managed in a holistic manner to improve its overall health.	Ongoing	WLRWHA
		21.2	Continue to prepare and implement IPPs as an essential tool to maintaining environmentally sustainable pastoral practices and an overall healthy landscape.	Ongoing	Landholders
22	Develop a climate change risk assessment plan	22.1	Monitor the condition of both landscape types and specifics sites as part of actions to monitoring and predicting environmental change.	Ongoing	WLRWHA
		22.2	Monitor tools used to assess trends in climate change to identify parts of the landscape more at risk from climate change impacts.	Ongoing	WLRWHA
23	Undertake the active monitoring of the landscape to identifying risks and to reduce impacts	23.1	Identify risks and potential impacts to different landscape types, specific natural and cultural sites of importance and ecological systems utilising monitoring and predictive modelling.	Ongoing	WLRWHA
		23.2	Monitor and report on impacts from current landscape uses such as pastoral and tourism activities, current risks, such as pests, and potential future impacts, such as from climate change.	<2 years	WLRWHA
24	Assessing the potential heritage impacts from proposed activities within and in the vicinity of WLRWHA	24.1	Assess the heritage impacts of all proposals for activities within and in the vicinity of WLRWHA, including research, developments, change in use, and conservation, prior to receiving approval to proceed.	Ongoing	WLRWHA & Committees
		24.2	Ensure that people with the appropriate skills and experience are engaged in the assessment of potential heritage impacts from new proposals.	Ongoing	WLRWHA



No.	Strategy	No.	Actions	Priority	Responsibility
25	Develop and implement a conservation works program with both pro-active and responsive components	25.1	Develop and implement a program of pro-active conservation works to mitigate potential future impacts such as planting to control erosion and relocation of stock water points.	Ongoing	NPWS
		25.2	Continue to implement a program of conservation works as a response to impacts such as fencing areas to limit grazing, where this is causing impacts.	Ongoing	WLRWHA & Landholders
		25.3	Continue risk reduction programs such as rabbit ripping when and as required, subject to regular review.	Ongoing	WLRWHA
		25.4	Develop a program of 'ready to go' conservation works as approaches to various forms of impacts, such as storm erosion.	<2 years	WLRWHA
		25.5	Develop a consultation and decision making process to assist in dealing with any future exposures through erosion of cultural material, including ancestral remains.	<2 years	Committees & WLRWHA
Strate	gic Theme: Presenting and Transmitting He	ritage Value	es		
26	Implement Interpretation Planning for WLRWHA	26.1	Implement the recommendations of the WLRWHA Interpretation Strategy (2011) as resources permit.	Immediate	NPWS & WLRWHA
27	Improve an understanding of WLRWHA visitation and experiences	27.1	Improve processes to gather and analyse quantitative and qualitative data on visitation and visitor experiences to assist the management of WLRWHA.	<2 years	NPWS
28	Improve the connectivity between WLRWHA and the regional population and other regional tourism destinations.	28.1	Build a better connection with the region within which WLRWHA is located to improve connections between WLRWHA and other regional tourism destinations.	Immediate	WLRWHA
		28.2	Build a better understanding of, and visitation to, WLRWHA by the local and regional population.	Immediate	WLRWHA
	AKI	28.3	Encourage the diversification of the tourism products and experiences available at WLRWHA.	<2 years	WLRWHA
				1	1



No.	Strategy	No.	Actions	Priority	Responsibility
		29.2	Encourage OEH to retain and further develop the Discovery Ranger program of guided tours run by Aboriginal staff to communicate both World Heritage values and strong Aboriginal community associations and attachment to WLRWHA.	Immediate	NPWS
		29.3	Provide ongoing review and advice to OEH on the content and delivery of self-guided, Discovery Ranger and commercial tour operator programs to ensure that appropriate and accurate material is being provided in relation to the heritage values of WLRWHA.	Ongoing	WLRWHA
30	Improve Visitor Access, Facilities, Services and Products consistent with World Heritage values	30.1	Improve the range of facilities provided at WLRWHA and also the range tourism activities/product options available on site.	<2 years	NPWS
		30.2	Encourage initiatives that improve telecommunications for safety, while recognising the importance of undisturbed quiet in key areas of WLRWHA.	<2 years	NPWS
		30.3	Encourage the relevant authorities to consider improved reliable and safe road access to WLRWHA while also recognising and retaining its special characteristics associated with a remote and 'timeless' landscape.	Ongoing	WLRWHA
		30.4	Provide where feasible and appropriate visitor use of historic buildings in WLRWHA and provide extended stays with associated communities, such as Aboriginal TOs camping on county and 'farm stays' with landholders.	Ongoing	NPWS
		30.5	Improve equitable access including for people with non-English language backgrounds, and other physically impaired visitors and visitors with cognitive health issues.	<2 years	NPWS
31	Further review of the Mungo Centre proposal	31.1	Review the proposal to construct a new visitor facility (with an associated secure keeping place) to address issues identified in the preparation of this plan so that proposal and the associated reuse of the existing visitor facility are appropriate and sustainable.	Immediate	WLRWHA & NPWS
		31.2	Consult with all relevant stakeholders in reviewing the new visitor facility proposal and also consult with appropriate specialists including cultural tourism specialists.	Immediate	WLRWHA & NPWS
32	Conservation, use & presentation of historic heritage in WLRWHA	32.1	Conserve, appropriately use and interpret the historic heritage in WLRWHA consistent with the protection of World Heritage values.	Ongoing	NPWS



No.	Strategy	No.	Actions	Priority	Responsibility
		32.2	Identify further opportunities for research, conservation and interpretation of historic heritage within WLRWHA, including the Chinese workers associations and other historic homesteads and places within WLRWHA.	<2 years	NPWS
33	Promoting WLRWHA within the context of World Heritage places generally	33.1	Increase the visibility and appreciation of the WLRWHA and its management to both visitors to the region and more broadly within and outside Australia.	Ongoing	WLRWHA
		33.2	Work closely with a network of other regional and World Heritage sites in Australia to further understand global, national and regional trends in World Heritage site visitation and community appreciations and expectation in regard to World heritage places.	Ongoing	WLRWHA
		33.3	Develop partnerships with public, NGOs and other private sector organisations in pursuing the actions to promote WLRWHA and its values.	<2 years	WLRWHA
		33.4	Encourage and support the establishment of a 'Friends of Willandra' philanthropic organisation to assist in raising awareness and funding for the conservation projects for WLRWHA.	<2 years	WLRWHA
34	The communication of existing World Heritage values, other values and their attributes	34.1	Develop programs to communicate to the public in simple language (English and other languages including Aboriginal) the World, National, State and local values (and the physical attributes of these values) and the relationship between these values.	2-5 years	WLRWHA & NPWS
		34.2	Develop programs to communicate the work undertaken on developing a research framework (Strategy 16) and research being undertaken at WLRWHA, in association with the committees.	2-5 years	WLRWHA
		34.3	Continue to develop publications, web based information and newsletters to communicate the values and management of WLRWAH.	Ongoing	WLRWHA & NPWS
	UBIL.	34.4	Investigate and other new and emerging techniques for the communication of heritage values, such as virtual 3D landscapes via the internet and walk-through virtual 3D interpretation on site, to communicate these heritage values and a sense of place.	<2 years	WLRWHA & NPWS
		34.5	Develop programs and content to communicate the attributes of the landscape and its spirit and sense of place.	2-5 years	WLRWHA & NPWS



No.	Strategy	No.	Actions	Priority	Responsibility
35	Communicating WLRWHA values through education programs	35.1	Liaise with State education systems to advise on specific inputs and material for the national education curricula in relation to WLRWHA.	<2 years	WLRWHA
		35.2	Provide youth programs such as Mungo Youth Project as an essential mechanism to ensure generational transfer of the values of the WLRWHA.	Ongoing	WLRWHA
		35.3	Support TOs desires regarding youth training and camps on country, and cultural exchange between WLRWAH stakeholders and other indigenous communities both nationally and internationally (see Strategy 37 re Sustaining Communities).	Ongoing	WLRWHA
Strate	gic Theme: Sustaining Associated Commun	ities			
36	Maintaining community associations	36.1	Undertake an assessment of the social heritage values for the WLRWHA associated communities.	<2 years	WLRWHA
		36.2	Encourage the TOs and other stakeholders to identify and implement mechanisms, programs and projects to ensure succession.	Ongoing	Committees
		36.3	Record landholders connections to WLRWHA to assist telling the story of the pastoral period in WLRWHA.	<2 years	WLRWHA
		36.4	Support landholders in activities to conserve the values of WLRWHA including continuing to assist landholders with the implementation of IPPs.	Ongoing	WLRWHA
		36.5	Provide for increased opportunities for the TOs to be on country (including committee meetings) and to facilitate a longer term objective for TOs to own leases within WLRWHA if that is what is desired.	Ongoing	WLRWHA
37	Encouraging communication between committees and stakeholder communities	37.1	Each committee will be required develop and report on a communication strategy to maintain good communication with the relevant associated communities. These will be integrated at the MAC level into a stakeholder communication program and resourced as necessary.	Ongoing	Committees
		37.2	Encourage the 3TTGs to maintain a close working relationship with WLRWHA through the TOAC, with strong connection also made to more broadly to other Aboriginal Traditional Owners.	Ongoing	TOAC
		37.3	Opportunities will be explored through TOAC of such events as a biannual 'back to Mungo day' along with less costly mechanisms that can operate	Ongoing	TOAC



No.	Strategy	No.	Actions	Priority	Responsibility
			continuously such as social media, email list servs etc.		
		37.4	Identify for TSAC communication opportunities such as LinkedIn, skype and email list servs.	Immediate	TSAC
38	Providing employment and training opportunities for Traditional Owners	38.1	Encourage agencies such as OEH to provide employment and training for Traditional Owners.	Immediate	NPWS/OEH
		38.2	Encourage appropriate agencies associated with WLRWHA to use ARC Linkage and other potential grant programs to provide mechanisms to up skill Aboriginal staff and assist with site survey and monitoring work.	Immediate	WLRWHA
		38.3	Encourage TOs and other associated communities to develop business opportunities such as through the sale of arts and crafts, produce and the provision of guided tours and farm stays.	Ongoing	WLRWHA





PART C: INDIVIDUAL PROPERTY PLANS





6 INDIVIDUAL PROPERTY PLANS

6.1 Individual Property Plans for Pastoral Properties

Leasehold pastoral properties under the Western Lands Act that contain parts of the WLRWHA are required to prepare Individual Property Plans for those areas.

The IPPs contain both landholder actions (such as fencing) and World Heritage values actions (such as moving watering points to avoid impacts). A review of the IPPs made in 2010 indicated that most of the original World Heritage values actions had been completed. It recommended an induction process for new landowners and recommended an increased level of mapping detail to include individual Aboriginal and historic sites in WLRWHA, proposed and completed World Heritage values actions and pastoral infrastructure.⁴

These IPPs are updated regularly, including with changes in lease ownership. As the IPPs also reflect the land management ambitions of individual landholders these documents are commercially sensitive documents and are therefore not included in this report. However, a summary of the types of World Heritage actions and landholder actions achieved to date are noted in Part C of this report.

6.2 Mungo National Park Plan of Management

The Mungo National Park Plan of Management (Mungo NP POM), 2006, acts as the Individual Property Plan for those lands within WLRWHA and it also fulfils the requirements of the NSW National Parks & Wildlife Act, 1967, (NPW Act) that each reserve gazetted under the NPW Act has a plan of management prepared and regularly unpadded with public consultation and input.

The current Mungo NP POM contains a number of strategies and actions that are similar to those in this plan relating to: heritage values, conservation of cultural and natural heritage, park protection, visitor opportunities and education and research and monitoring.

The Mungo NP POM includes implementation actions with high medium and low priorities. It identifies that the POM will be reviewed annually and that there would be a five year assessment of the effectiveness of the plan

Two key reports have been prepared relating to Mungo NP since het POM; a landscape management plan for the Joulni Station that is now part of Mungo NP and the Interpretation Strategy of 2011 referred to in Section 4.5.2.

⁴ DECCW Review of 1996 Individual Property Plans: Willandra Lakes Region World Heritage Area 19 May 2010.



7 GLOSSARY

Affiliation Having a link or connection

Anthropology The study of human culture, beliefs and customs

Archaeology The study of ancient cultures and their physical remains

Artifactual assemblages Collections of stone that have been transported or modified (changed)

by people

Best management practice In this report, the most effective actions which minimise human impact

on the environment

Biodiversity All living things and the ecosystem in which they live (biological +

diversity)

Bioregion A territory defined by a combination of biological, social and

geographic criteria rather than by geopolitical considerations; generally, a system of related, interconnected ecosystems

Carrying capacity The maximum number of people who can use an area without an

unacceptable alteration in the physical environment and a decline in the quality of the experience. It refers not only to physical and

biological factors but also to social issues

Conservation The management of natural resources in a way that will benefit both

present and future generations

Curated Material that has been collected, arranged, catalogued (listed),

recorded, maintained and preserved

Ecology The relationship between living things and their environment

Ecological Sustainable

Development (ESD)

Using, conserving and enhancing the community's resources so that ecological processes on which life depends are maintained and the total quality of life, now and in the future, can be increased.

– National Ecotourism Strategy, 1994

Ecosystem A system containing living things and the place where they live (eg. a

pond or a forest)

Ecotourism Nature-based tourism that involves education and interpretation of the

natural environment and is managed to be ecologically sustainable. This definition recognises that *natural environment* includes cultural components and that *ecologically sustainable* involves an appropriate return to the local community and long-term conservation of the

resource

Enterprise A project or company organised to make a profit

Fauna Animals
Flora Plants

Geomorphology The study of land forms (eg. Mountains, valleys and plains)

Guiding principles In this report, guiding principles are the rules that guide how the

Willandra should be managed

Heritage The things of value which are inherited

Holocene The period that covers the last 10,000 years of the Earth's history

Interpretation A means of communicating ideas and feelings which helps people

enrich their understanding and appreciation of their world, and their

role within it

Issues In this report, issues are the opportunities and problems that affect the

Willandra

In this report, related issues that have been grouped together

IUCN Formerly the International Union for the Conservation of Nature; now

known as the World Conservation Union

Keeping place A protected, secure place for keeping things

Legitimise In this report, legitimised is used to mean justified or authorised

Marketing The activities involved in developing product, price, distribution, and

promotional mixes that meet and satisfy the needs of customers

Megafauna Unusually large animals, particularly those occurring during the

Pleistocene (see below)

Monitoring A method of detecting and observing long-term trends in the state of a

living or non-living object or phenomena

Natural Existing in, or formed by nature; non-urban; also incorporates cultural

aspects

PalaeontologyThe study of early life forms by the examination of fossilsPastoral infrastructureBuildings, roads, dams, etc that are used by sheep farmers

Plan of management A report that provides a guide to managing an area of land and/or

water

Pleistocene A period of the Earth's history between 1.5 million and 10,000 years

ago. It includes the last Ice Age

Policy A course of action

Precautionary principle An environmental principle which states that decisions about any

proposed development should be guided by careful evaluation to avoid

serious or irreversible damage to the environment

Protocols for activities In this report, protocols for activities are a way of carrying out certain

activities, agreed to by the community (eg. access to sites or mining)

State Party A country which, by signing the Convention concerning the Protection

of the World Cultural and Natural Heritage (World Heritage Convention) has accepted the duty to identify, protect, conserve, present and transmit to future generations the natural and cultural

World Heritage located within its territory

Statutory effect A legal base

Strategies In this report, strategies are policies that help to guide actions

Sustainable Able to be kept going, or kept intact

Terms of reference The framework within which the Willandra's management bodies

operate

the Willandra The Willandra Lakes Region World Heritage Property

Three Traditional Tribal

Groups

The three tribal groups with traditional ties to the Willandra, that is,

Barkindji, Muthi Muthi and Nyiampaa

Tribal Groups In this report, Tribal groups refers to Aboriginal Tribal groups and

specifically the three Traditional Tribal Groups (see above)

Tourist In this report, a visitor coming from outside the local area

UNESCO United Nations Educational, Scientific and Cultural Organisation. An

international body which drew up the World Heritage Convention (see

below)

Value In this report, values are the qualities of the Willandra that we wish to

protect and enhance

Vision In this report, the vision is a statement of what we want the Willandra

to be for future generations

World Heritage Centre The secretariat within UNESCO which provides administrative services



to the World Heritage Committee (see below)

World Heritage Committee A group comprising representatives from 21 State Parties (see above)

which is responsible for administering the World Heritage Convention

World Heritage Convention An international agreement that aims to promote co-operation among

nations to protect areas that have natural or cultural values of

outstanding universal significance



8 BACKGROUND DOCUMENTS

8.1 Published works

8.1.1 Heritage Values

Australian Government, Understanding Word Heritage Values-what is OUV? September 2012

Australian Government website World Heritage listings

Australian Government Gazette 21 May 2007re National Heritage Values for Willandra

Australian Government RSOUV, 29/07/2010

NSW State Heritage Register (SHR) Listing and NSW SHR criteria

National Trust of Australia (NSW) Listing for the Willandra Lakes Region

UNECSO, 2007 The Nara Document on Authenticity hhtp://whc.unesco.org/evnets

8.1.2 Tourism and Interpretation

ICOMOS Tourism Handbook, The World Heritage Convention; An overview

Mungo NP Interpretation Strategy Final Draft. Prepared for NPWS by Freeman Ryan Design, May 2012. This report includes Appendix 3; Audit of Existing Interpretive Resources.

Mungo Centre Content Brief Mungo NP Prepared for NPWS by Freeman Ryan Design, May 2012

8.1.3 Geology/Geomorphology

Allen, H. 1990. Environment history in southwestern New South Wales during the Pleistocene. In: C. Gamble and O. Soffer (eds.), The World at 18,000 BP. Volume 2: Low Latitudes. Unwin-Hyman, London, pp. 296-321.

Anderson, M., Capel, J., Galloway, D., Holmes, D., Houghton, G., Male, L., Moss, S., Potter, J., Pyemont, B., Thorley, P., Yeomans, A. and Russell, G. 1984. Aboriginal occupation of the Lake Mungo region during Mid-Late Holocene times. Quaternary Australasia 2 (1 & 2): 16-23.

Barbetti, M. 1977. Measurements of Recent geomagnetic secular variation in southeastern Australia and the question of dipole wobble. Earth and Planetary Science Letters 36: 207-218.

Barbetti, M. F. and Allen, H. 1972. Prehistoric man at Lake Mungo, Australia by 32,000 yrs B.P. Nature 240: 46-48.

Barbetti, M. and McElhinny, M. W. 1972. Evidence of a geomagnetic excursion 30,000 yr BP. Nature 239: 327-330.

Barbetti, M. and McElhinny, M. W. 1976. The Lake Mungo geomagnetic excursion. Philosophical Transactions of the Royal Society of London, Series A, 281: 515-542.

Barbetti, M. and Polach, H. 1973. ANU radiocarbon date list V. Radiocarbon 15 (2): 241-251.

Barton, C. E. and Barbetti, M. 1982. Geomagnetic secular variation from recent lake sediments, ancient fireplaces and historical measurements in southeastern Australia. Earth and Planetary Science Letters 59: 375-387.

Bell, W. T. 1991. Thermoluminescence dates for Lake Mungo fireplaces and the implications for radiocarbon dating. Archaeometry 33: 43-50.

Bowler, J. M. 1968. Australian landform example Number 11 – Lunette. The Australian Geographer 10: 402-404



Bowler, J. M. 1971. Pleistocene salinities and climatic change: Evidence from lakes and lunettes in southeastern Australia. In: D. J. Mulvaney and J. Golson (eds.), Aboriginal Man and Environment in Australia. Australian National University Press, Canberra, pp. 47-65.

Bowler, J. M. 1973. Clay dunes: Their occurrence, formation and environmental significance. Earth Science Reviews 9: 315-338.

Bowler, J. M. 1975. Deglacial events in southern Australia: Their age, nature and palaeoclimatic significance. In: R. P. Suggate and M. M. Cresswell (eds.), Quaternary Studies. Royal Society of New Zealand Bulletin 13, pp. 75-82.

Bowler, J. M. 1976a. Recent developments in reconstructing late Quaternary environments in Australia. In: R. L. Kirk and A. G. Thorne (eds.), The Origins of the Australians. Humanities Press, New Jersey, pp. 55-77.

Bowler, J. M. 1976b. Aridity in Australia: Age, origin and expression in aeolian landforms and sediments. Earth Science Reviews 12: 279-310.

Bowler, J. M. 1978. Glacial age aeolian events at high and low latitudes: A southern hemisphere perspective. In: E. M. Van Zinderen Bakker (ed.), Antarctic Glacial History and World Palaeoenvironments. A. A. Balkema, Rotterdam, pp. 149-172.

Bowler, J. M. 1980. Quaternary chronology and palaeohydrology in the evolution of Mallee landscapes. In: R. R. Storrier and M. E. Stannard (eds.), Aeolian Landscapes in the Semi-Arid Zone of South Eastern Australia. Australian Society of Soil Science Inc., Wagga Wagga, pp. 17-36.

Bowler, J. M. 1982. Aridity in the late Tertiary and Quaternary of Australia. In: W. R. Barker and P. J. M. Greenslade (eds.), Evolution of the Flora and Fauna of Arid Australia. Peacock Publications, Adelaide, pp. 35-45.

Bowler, J. M. 1983. Lunettes as indices of hyrologic change: A review of Australian evidence. Proceedings of the Royal Society of Victoria 95: 147-168.

Bowler, J. M. 1984. Australian lakes in the Quaternary. In: G. E. Wilford (ed.), Quaternary Studies in Australia: Future directions. Bureau of Mineral Resources, Geology and Geophysics Record 14: 40-46.

Bowler, J. M. 1986a. Spatial variability and hydrologic evolution of Australian lake basins: Analogue for Pleistocene hyrological change and evaporite formation. Palaeogeography, Palaeoclimatology, Palaeoecology 54: 21-41.

Bowler, J. M. 1986b. Quaternary landform evolution. In: D. N. Jeans (ed.), Australia – A Geography. Vol. 1. The natural environment. Sydney University Press, Sydney, 2nd edition, pp. 117-147.

Bowler, J. M. 1990. Human occupation and environmental change: The ancient record from the Willandra Lakes. In: J. C. Noble, P. J. Joss and G. K. Jones (eds.), The Mallee Lands: A Conservation Perspective. Commonwealth Scientific and Industrial Research Organisation, Melbourne, pp. 152-161.

Bowler, J. M., Jones, R., Allen, H. and Thorne, A. G. 1970. Pleistocene human remains from Australia: A living site and human cremation from Lake Mungo, western N.S.W. World Archaeology 2: 39-60.

Bowler, J. M. and Polach, H. A. 1971. Radiocarbon analysis of soil carbonates. In: D. H. Yaarlon (ed), Palaeopedology – Origin, Nature and Dating of Palaeosols. International Society of Soil Science and Israel University, Jerusalem, pp. 98-108.

Bowler, J. M., Thorne, A. G. and Polach, H. A. 1972. Pleistocene man in Australia: Age and significance of the Mungo skeleton. Nature 240: 48-50.

Bowler, J. M., Hope, G. S., Jennings, J. N., Singh, G. and Walker, D. 1976. Late Quaternary climates of Australia and New Guinea. Quaternary Research 6: 359-394.



Bowler, J. M. and Thorne, A. G. 1976. Human remains from Lake Mungo: Discovery and excavation of Lake Mungo III. In: R. L. Kirk and A. G. Thorne (eds.), The Origins of the Australians. Australian Institute of Aboriginal Studies, Canberra, pp. 127-138.

Bowler, J. M. and Jones, R. M. 1979. Australia was a land of lakes. Geographical Magazine 51: 679-685.

Bowler, J. M. and Magee, J. W. 1978. Geomorphology of the Mallee region in semi-arid northern Victoria and western New South Wales. Proceedings of the Royal Society of Victoria 90: 5-26.

Bowler, J. M. and Wasson, R. J. 1984. Glacial age environments of inland Australia. In: J. C. Vogel (ed.), Late Cainozoic palaeoclimates of the southern hemisphere. A. A. Balkema, Rotterdam, pp. 183-208.

Clark, Peter and Barbetti, M. 1982. Fires, hearths and palaeomagnetism. In: W. Ambrose and P. Duerden (eds.), Archaeometry: An Australasian Perspective. Occasional Papers in Prehistory No. 14, Research School of Pacific Studies, Australian National University, Canberra, pp. 144-150.

Dare-Edwards, A. J. 1980. Potential of soil stratigraphy. In: R. R. Storrier and M. E. Stannard (eds.), Aeolian Landscapes in the Semi-Arid Zone of South Eastern Australia. Australian Society of Soil Science, Wagga Wagga, pp. 37-38.

Herczeg, A. L. and Chapman, A. 1991. Uranium-dating of lake and dune deposits in southeastern Australia. A reconnaissance. Palaeogeography, Palaeoclimatology, Palaeoecology 84: 285-298.

Hope, G. S. and Chappell, J. M. A. 1978. Lakes of the ancestral Darling: Work in progress. Australian Quaternary Newsletter 12: 16-25.

Hope, J. H. 1978. Pleistocene mammal extinctions: The problem of Mungo and Menindee, New South Wales. Alcheringa 2: 65-82.

Hope, J. H. and Thom, B. G. 1974. Lake Mungo. Australian Quaternary Newsletter 3: 6-7.

Huxtable, J. and Aitken, M. J. 1977. Thermoluminescence dating of Lake Mungo geomagnetic polarity excursion. Nature 265: 40-41.

Jones, R. and Bowler, J. M. 1980. Struggle for the savanna: Northern Australia in ecological and prehistoric perspective. In: R. Jones (ed.)., Northern Australia: Options and Implications. Research School of Pacific Studies, Australian National University, Canberra, pp. 3-31.

Magee, J. W. 1991. Late Quaternary lacustrine, groundwater, aeolian and pedogenic gypsum in the Prungle Lakes, southeastern Australia. Palaeogeography, Palaeoclimatology, Palaeoecology 84: 3-42.

Mortlock, A. J. 1974. Archaeometry at Lake Mungo, New South Wales. The Australian Physicist 11: 213-215.

Mortlock, A. J. 1979. The Quartz time capsule. The Australian Physicist 16: 149-151.

Mulvaney, D. J. and Bowler, J. M. 1981. Lake Mungo and the Willandra Lakes, In: The Heritage of Australia. The Illustrated Register of the National Estate. Macmillan, Melbourne, pp. 180-183.

Pels, S. 1964. The present and ancestral Murray Rivers System. Australian Geological Studies 2: 111-119.

Pels, S. 1969. The Murray Basin. In: G. H. Parkham (ed.), Geology of New South Wales. Geological Society of Australia, pp. 499-511.

Polach, H. A., Lovering, J. F. and Bowler, J. M. 1970. ANU radiocarbon date list IV. Radiocarbon 12: 1-18

Polach, H. A., Head, M. J. and Gower, J. D. 1978. ANU radiocarbon date list VI. Radiocarbon 20 (3): 360-385.



Wasson, R. J. 1989. Landforms. In: J. C. Noble and R. A. Bradstock (eds.), Mediterranean Landscapes in Australia: Mallee Ecosystems and their Management. Commonwealth Scientific and Industrial Research Organisation, Melbourne, pp. 13-34.

Webb, S. 1989. The Willandra Lakes Hominids. Occasional Papers in Prehistory No. 16, Research School of Pacific Studies, Australian National University, Canberra.

Yamasaki, F., Hamada, T. and Hamada, C. 1977. Riken natural radiocarbon measurements IX. Radiocarbon 19: 62-95.

8.1.4 Biodiversity/Ecology

Hope, J. H. 1978 – see under Section 1.

Hope, J. H. 1983a. The vertebrate record, 25-20KA in western New South Wales. In: J. M. A. Chappell and A. Grindrod (eds.), Proceedings of the First CLIMANZ Conference, Feb. 8-13, 1981, Howman's Gap, Victoria, Australia. Department of Biogeography and Geomorphology, Research School of Pacific Studies, Australian National University, Canberra.

Hope, J. H. 1983b. The vertebrate record 32+/-5KA in western New South Wales. In: J. M. A. Chappell and A. Grindrod (eds.), Proceedings of the First CLIMANZ Conference, Feb. 8-13, 1981, Howman's Gap, Victoria, Australia. Department of Biogeography and Geomorphology, Research School of Pacific Studies, Australian National University, Canberra.

Noble, J. C. and R. A. Bradstock (eds.), Mediterranean Landscapes in Australia: Mallee Ecosystems and their Management. Commonwealth Scientific and Industrial Research Organisation, Melbourne.

Tideman, C. R. 1988. A survey of the mammal fauna of the Willandra Lakes World Heritage Region, New South Wales. Australian Zoologist 24 (4): 197-204.

Westbrooke ME and Miller JD, The vegetation of Mungo NP in Cunninghamia Vol 4 (1) 1995

8.1.5 Archaeology

Allen, H. R. 1974. The Bagundji of the Darling Basin: Cereal gatherers in an uncertain environment. World Archaeology 5: 309-322.

Allen, H. 1990 - see under Section 1.

Anderson, M. et al. 1984 – see under Section 1.

Barbetti, M. and Allen, H. R. 1972 – see under Section 1.

Bell, W. T. 1991 - see under Section 1.

Bowler, J. M. 1990 – see under Section 1.

Bowler, J. M., Jones, R., Allen, H. and Thorne, A. G. 1970 – see under Section 1.

Bowler, J. M., Thorne, A. G. and Polach, H. A. 1972 – see under Section 1.

Bowler, J. M. and Thorne, A. G. 1976 - see under Section 1.

Clark, P. M. and Barbetti, M. 1982 – see under Section 1.

Flood, J. 1983. Archaeology of the Dreamtime. Collins, Sydney.

Hope, J. H. 1981. Regional environmental plan for the Willandra Lakes World Heritage Region. Australian Archaeology 20: 32-36.

Hope J. H. and Thom, B. G. 1974 – see under Section 1.

Johnston, H. 1993. Pleistocene shell middens of the Willandra Lakes. In: M. A. Smith, M. Spriggs and B. Fankhauser (eds.), Sahul in Review: Pleistocene archaeology in Australia, New Guinea and Island Melanesia. Research School of Pacific Studies, Australian National University, Canberra, pp. 197-203.

Jones, R. 1973. Emerging picture of Pleistocene Australians. Nature 246: 278-281.



Mortlock, A. J. 1974 – see under Section 1.

Mortlock, A. J. 1979 – see under Section 1.

Mulvaney, D. J. 1975. The Prehistory of Australia. Penguin, Ringwood.

Mulvaney, D. J. and Bowler, J. M. 1981 – see under Section 1.

Pardoe, C. 1991. Review article. Competing paradigms and ancient human remains: The state of the discipline. Archaeology in Oceania 26: 79-85.

Polach, H. A., Lovering, J. F. and Bowler, J. M. 1970 – see under Section 1.

Polach, H. A., Head, M. J. and Gower J. D. 1978 – see under Section 1.

Sharp, N. D. and Smith, M. A. 1991. Late Pleistocene Archaeological Sites in Australia, New Guinea and Island Melanesia. Australian Heritage Commission Bibliography Series No. 6, Australian Heritage Commission, Canberra.

Shawcross, F. W. 1975. Thirty thousand years and more. Hemisphere 19: 26-31.

Shawcross, F. W. and Kaye, M. 1980. Australian archaeology: Implications of interdisciplinary research. Interdisciplinary Science Reviews 5: 112-128.

Smith, M. J. 1985. A morphological comparison of Central Australian seed grinding implements and Australian Pleistocene-age grindstones. The Beagle, Occasional Papers of the Northern Territory Museum of Arts and Science 2 (1): 23-38.

Stern, N. Draft article for World Archaeology Encyclopaedia

Thorne, A. G. 1971. Mungo and Kow Swamp: Morphological variation in Pleistocene Australians. Mankind 8: 85-89.

Thorne, A. G. 1976. Morphological contrasts in Pleistocene Australians. In: R. L. Kirk and A. G. Thorne (eds.), The Origins of the Australians. Humanities Press, New Jersey, pp. 95-112.

Thorne, A. G. 1977. Separation or reconciliation? Biological clues to the development of Australian society. In: J. Allen, J. Golson and R. Jones (eds.), Sunda and Sahul. Prehistoric Studies in Southeast Asia, Melanesia and Australia. Academic Press, London, pp. 187-204.

Thorne, A. G. 1980a. The longest link: Human evolution in Southeast Asia and the settlement of Australia. In: J. J. Fox, R. G. Garnaut, P. T. McCawley and J. A. C. Mackie (eds.), Indonesia: Australian Perspectives. Research School of Pacific Studies, Australian National University, Canberra.

Thorne, A. G. 1980b. The arrival of man in Australia. In: A. Sherratt (ed.), The Cambridge Encyclopaedia of Archaeology. Cambridge University Press, Cambridge, pp. 96-100.

Thorne, A. G. 1981. The arrival and adaptation of Australian Aborigines. In: A. Keast (ed.), Ecological Biogeography of Australia. Junk, The Hague, pp. 1751-1760.

Thorne, A. G. and Wilson, S. R. 1977. Pleistocene and recent Australians: A multivariate comparison. Journal of Human Evolution 6: 393-402.

Thorne, A. G. and Wolpoff, M. H. 1981. Regional continuity in Australasian Pleistocene hominid evolution. American Journal of Physical Anthropology 55: 337-349.

Webb, S. G. 1989. The Willandra Lakes Hominids – see under Section 1.

White, J. P. and O'Connell, J. F. 1982. The Prehistory of Australia, New Guinea and Sahul. Academic Press, New York and London.

Yamasaki, F., Hamada, T., and Hamada, C. 1977 – see under Section 1.

8.1.6 Social Values

Gostin, Olga 1993. Accessing the Dreaming: Heritage conservation and tourism at Mungo National Park. University of South Australia, Adelaide.



McBryde, Isabel 1994. 'To know the place for the first time': Consideration of diverse values for an Australian World Heritage Site. ICOMOS Scientific Journal: Articles of Members. ICOMOS, Paris, pp. 34-44.

Pardoe, C. 1991 - see under Section 3.

8.1.7 History, Linguistics and Aboriginal History

Allen, H. R. 1974 - see under Section 3.

Beckler, Hermann 1993. A Journey to Cooper's Creek, translated by Stephen Jeffries and Michael Kertesz, edited with an introduction by Stephen Jeffries. Melbourne University Press (Miegunyah Press with the State Library of Victoria), Melbourne.

Bonyhady, Tim 1991. Burke and Wills: From Melbourne to Myth. David Ell Press, Sydney.

Hercus, Luise 1989. Three linguistic studies from far south-western New South Wales. Aboriginal History 13 (1): 44-62.

Jeans, D. N. (ed.) 1972. An historical geography of New South Wales to 1901. Reed Education, Sydney.

Neumayer, Georg von 1869. 'Third trip with the Victorian Exploring Expedition'. In his Results of the Magnetic Survey of the Colony of Victoria. Schneider, Mannheim, pp. 10-16.

Powell, J. M. and Williams, M. (eds.) 1975. Australian space, Australian time: Geographical perspectives. Oxford University Press, Oxford.

Tipping, M. 1979. Ludwig Becker: Artist and naturalist with the Burke and Wills Expedition. Melbourne University Press, Melbourne.

8.1.8 Management

AlATSIS and Northern Territory Government, July 2012, Joint Management of protected areas in Australia: native title and other pathways towards a community of practice, NTRU Research Report of Workshop Alice Springs 3-4 April 2012 by Toni Bauman, Claire Stacey and Gabrielle Lauder

Australian Government, Australian National Periodic Report, Section II, Report on the State of Conservation of the Willandra Lakes Region, 2002.

Australian Government, Willandra Region World Heritage Area Newsletter published by WLRWHA office.

Corbett, Tony and Lane, Marcus, The Willandra Lakes Region World Heritage Property: A Planning Pheonix? In Environmental and Planning Law Journal December 1997, p416.

Commonwealth Department of Tourism 1994, National Ecotourism Strategy, Australian Government Service, Canberra.

Department of Urban Affairs and Planning. 2001. Willandra Lakes: Willandra Lakes Regional Environmental Plan No.1 – World Heritage Property. Dept Urban Affairs and Planning, Sydney

Fox, A. 1992. Mungo National Park Guidebook. DEC Parks & Wildlife Division of New South Wales, Broken Hill.

Hall, C. M. and McArthur, S. 1993. Heritage Management in New Zealand and Australia, visitor management, marketing and interpretation, Oxford University Press, Sydney.

Hope, J. H. 1981. Regional environmental plan for the Willandra Lakes World Heritage Region. Australian Archaeology 20: 32-36.

NSW DEC Parks & Wildlife Division 1989. Mungo National Park Draft Plan of Management. DEC Parks & Wildlife Division of New South Wales, Sydney.

NSW DEC Parks & Wildlife Division 2003. Mungo National Park: Draft Plan of Management. NSW DEC Parks & Wildlife Division, Sydney



Stovel, H. 2004. Monitoring World Heritage: World Heritage 2002 Shared Legacy, Common Responsibility Associated Workshops 11-12 November 2002, Vicenza Italy. World Heritage Papers 10. UNESCO World Heritage Centre and ICCROM, Paris France.

UNESCO October 1980 Operational Guidelines for the implementation of the World Heritage Convention. Intergovernmental Committee for the protection of the World Cultural and Natural Heritage WHC/2 Revised. UNESCO, Paris, France.

UNESCO 1980 The World Heritage Convention.

8.2 Unpublished reports

8.2.1 Heritage Values

Stern, Nicola, La Trobe University, Assessing the significance of the Willandra's cultural record: features of archaeological record that underpin assessment of its significance, no date

8.2.2 Management

ICOMOS Australia, Frequently asked questions concerning retrospective statement of OUV

NSW Government World Heritage in NSW: Draft for discussion—not government policy, August 2010.

NSW OEH Interim Corporate Plan 2012-2013

NSW Environment Climate Change and Water, County Culture and Heritage Division: Management of Cultural Materials, Collection Care and Control Strategy, 2011.

NSW NPWS Repatriation of Aboriginal Remains Policy, 2002

NSW NPWS Guidelines for the Repatriation of Aboriginal Cultural Material, no date

NSW NPWS, Protocol for research with WLRWHA, June 2001

NSW NPWS Protocol for Off Park Visitation in WLRWHA, June 2001

NSW NPWS, Draft Protocols for Fencing Projects within WLRWHA 8 August 2002

NSW OEH Draft Pest Management Plan WLRWHA 20 November 2012- bring in more in impacts from rabbits and others such as feral goats and feral pigs and locusts and kangaroo overgrazing.

NSW OEH Plan of Management Manual Update re Climate Change

8.2.3 History

Deep Time and Deep Histories: A Transdisciplinary Collaboration June 4 and 5 2013 Symposium: abstracts of a workshop at the ANU June 2013

8.2.4 Tourism and Interpretation

Mildura Tourism, *Elevating the role of Mungo NP to meet growing domestic and international tourism expectations*. Prepared for Mildura Tourism by Global Tourism and Leisure April 2012

NPWS, *Developing and Positioning the Visitor Experience at Mungo NP*. Prepared for NPWS by Global Tourism and Leisure, February 2010

WLRWHA Interpretive Centre, no author no date

8.2.5 Studies for the 1996 Plan of Management and Regional Environmental Study

Boles, W. E. and McAlland, A. W. 1985. An Inventory of the Birds of the Willandra Lakes World Heritage Region.

Bowler, J. M. 1980. Geomorphic Study, Mungo National Park.



Bowler, J. M. and J. W. Magee 1986. Geomorphology of the Willandra Lakes World Heritage Area.

Clark, P. 1985a. Willandra Lakes human skeletal inventory.

Clark, P. M. 1985b. Willandra Lakes World Heritage Region: Summary and discussion – Archaeological and geomorphological heritage assessment of part 'Prungle' and part 'Benenong'.

Clark, P. M. 1985c. Heritage assessment of part 'Prungle' and part 'Benenong' archaeological sites: The impact of land clearing and cultivation.

Clark, P. M. 1987. Willandra Lakes World Heritage Area: Archaeological resource study (3 vols.).

Donovan and Associates 1986. Willandra Lakes World Heritage Region – Study of European Cultural History.

Eldridge, D. J. 1987. Soils and erosion, Willandra Lakes World Heritage Area.

Fatchen, T. J. and Associates 1985a. Willandra Lakes World Heritage Region: Geomorphological heritage assessment of part 'Prungle' and part 'Benenong'.

Fatchen, T. J. and Associates 1985b. Willandra Lakes World Heritage Region: Summary and Discussion: Archaeological and geomorphological heritage assessments of part 'Prungle' and part 'Benenong'.

Fatchen, T. J. and Associates, 1992. Willandra Lakes World Heritage Region: Draft Plan of Management.

Fatchen T. J. and Fatchen, D. H., 1989. Rabbit, kangaroo and goat population on the Willandra World Heritage Region, Western New South Wales.

Gates, G. 1986. Groundwater investigation at Prungle Lake in the Willandra Lakes World Heritage Region: Hydrogeological Report No. 1986/9.

Green, D. R. 1987. Management guidelines for key archaeological sites Willandra Lakes World Heritage Area.

Green, D. R. 1988a. List of (Botanical) species Willandra Lakes World Heritage Area.

Green, D. R. 1988b. Stocking rates and land management Willandra Lakes World Heritage Area.

Hope, J., Donaldson, T. and Hercus, L. 1990. The Aboriginal people of the Willandra Lakes World Heritage Region: Interpreting the documentary and linguistic evidence.

Magee, John 1976. The Willandra Lakes Region, Southwestern New South Wales Resource Survey.

Manidis Roberts Consultants (May 1994) Western Region Visitor Accommodation Business Management Plan, Prepared for DEC Parks & Wildlife Division.

Milne, A. K. and O'Neill, A. L. 1989. Feasibility study for using LANDSAT imagery to monitor land cover change in the Willandra Lakes World Heritage Region.

DEC Parks & Wildlife Division of New South Wales 1989. Mungo National Park Plan of Management.

National Parks & Wildlife Service (May 1995) Newsletters – Aboriginal Burials Project.

Pannell Kerr Forster Consulting 1991. Wentworth and Balranald Shires Local Tourism Plan.

Pressey, R. 1990. Willandra Lakes World Heritage Area Regional Environmental Study – Summary.

Rice, B. 1986. Aspects of the vegetation of the Willandra Lakes World Heritage Region.

Sadlier, R. A. 1985. Reptiles and amphibians of the Willandra Lakes World Heritage Region.

Tidemann, C. R. 1985. The mammal fauna of the Willandra Lakes World Heritage Area, New South Wales.

Williams, D. 2004. A Discussion Paper on the Status of the Willandra Lakes Region Plan of Management, and Suggestions for Ongoing Priorities and Future Initiatives.



8.3 Theses and dissertations

Allen, H. R. 1972. Where the crow flies backwards: Man and land in the Darling Basin. PhD thesis, Australian National University.

Barbetti, M. 1973. Archaeomagnetic and radiocarbon studies of Aboriginal fireplaces. PhD thesis, Australian National University.

Barton, C. E. 1978. Magnetic studies of some Australian lake sediments. PhD thesis, Australian National University.

Bell, W. T. 1976. Studies in thermoluminescence dating in Australia. PhD thesis, Australian National University.

Bowler, J. M. 1970. Late Quaternary environments: A study of lakes and associated sediments in southeastern Australia. PhD thesis, Australian National University.

Dare-Edwards, A. J. 1979. Late Quaternary soils on clay dunes of the Willandra Lakes. PhD thesis, Australian National University.

Fuller, N. 1985. Archaeological sites in the Garnpang/Gogolo and Garnang/Leaghur interlake zones. BA thesis, Australian National University.

Kefous, K. 1977. We have fish with ears... and wonder if it's useful. BA thesis, Australian National University.

Magee, J. W. 1988. Chemical and clastic sediments and late Quaternary history, Prungle Lakes, New South Wales. MSc thesis, Australian National University.

Muhlen-Schulte, R. 1985. Mungo Rocks: A technological analysis of stone assemblages from Lake Mungo. BA Hons thesis, Australian National University.

Redhead, M. L. 1984. Thermoluminescence dating of some Australian sedimentary deposits. PhD thesis, Australian National University.

Robinson, J. 1982. Lake Mungo: An analysis of the surface collection. MA thesis, Australian National University.

Thorne, A. G. 1975. Kow Swamp and Lake Mungo. PhD thesis, University of Sydney.

Tumney Jacqui 2 Dec 2011 PhD Thesis report prepared for Elders Council

Walshe, Keryn 1987. Faunal bone material from the Mungo B excavation. BA Hons thesis, Australian National University.

Williams, D. 1991. The case of the shattered stones: An analysis of three Aboriginal quarry/reduction sties from the Willandra Lakes World Heritage Area, south-western New South Wales. BA Hons thesis, Australian National University.



9 TERMS OF REFERENCE FOR THE MANAGEMENT COMMITTEES

9.1 Introduction

This section contains the Terms of Reference (TORs) for the lead Management Advisory Committee and its two sub-committees; the Traditional Owners Advisory Committee and the Technical and Scientific Advisory Committee. The TORs will be reflected in the legislative documents that give statutory force to the POM, currently the Willandra Lakes Region Regional Environmental Plan No1 (REP). The TORs will be updated and amended as required following consultation and the corresponding amendments made to the REP.

9.2 NSW World Heritage Properties Ministerial Council

9.2.1 Terms of Reference

- (i) Coordinate policy between NSW and the Commonwealth on all matters concerning New South World Heritage Properties.
- (ii) Provide advice and make recommendations to both Governments on:
- management requirements;
- · strategic, operational and individual property plans;
- research and survey strategies and implementation;
- presentation and transmission of heritage values;
- · community engagement, consultation and liaison; and
- financial matters.
- (iii) Refer matters to the Management Advisory and its two sub-committees the Traditional Owners Advisory Committee and the Technical and Scientific Advisory Committee and consider reports from these bodies.
- (iv) Resolve any disputes that might arise between the two Governments.

9.2.2 Membership

(i) Equal membership with up to two members from each of the Commonwealth and NSW Governments.

9.2.3 Operation

- (i) Chaired by the NSW Minister responsible for the World Heritage Properties.
- (ii) A quorum shall be two members, with at least one from each Government.
- (iii) To meet on an as agreed basis provided that at least one meeting is held per calendar year.
- (iv) Serviced by NSW.
- (v) Receive and respond to minutes received from the MAC, TSAC and TOAC.

9.3 WLRWHA Management Advisory Committee

9.3.1 Terms of Reference

(i) To advise the Ministerial Council, either at the request of Council or at their own volition on matters relating to the identification protection, conservation, presentation and management of the Willandra Lakes Region World Heritage Area (WLRWHA) from the view point of the stakeholders represented on this Committee, including but not limited to advice on research



proposals/findings, management and development proposals, risks and threats and opportunities for the promotion and transmission of WLRWHA heritage values.

- (ii) To facilitate, and participate in, implementation (including funding requirements, sources and priorities) of the WLRWHA POM and the Individual Property Plans.
- (iii) To consult with relevant NSW and Commonwealth agencies and stakeholders concerning the management of the WLRWHA.
- (iv) To seek advice from its two advisory sub-committees (TOAC and TSAC), and other experts and stakeholders as required.
- (v) To ensure appropriate consideration is given to the wishes of the traditionally affiliated Aboriginal groups in relation to management of the WLRWHA and in any cultural heritage research.

9.3.2 Membership

- (i) Membership of the MAC will be appointed by the Ministerial Council and will be comprised of 12 members:
- an independent chairperson;
- one representative of each of the Three Traditional Tribal Groups who are associated with the WLRWHA and who are also members of the Traditional Owners Advisory Council (see Strategy 3);
- two representatives of the TSAC advisory committee with relevant technical and/or scientific expertise (see also Strategy 4);
- one representative nominated by current WLRWHA landholders;
- one representative of the Australian Government;
- one representative of OEH (NPWS);
- one representative of tourism interests at a regional or state level;
- · one representative of local government; and
- one representative of NSW Department of Local Lands Services.
- (ii) Members of the advisory sub-committees may attend the MAC meetings as observers if agreed by MAC.

9.3.3 Appointment and Termination

- (i) Appointment will be by the Chair of the Ministerial Council for a period of up to three years, with members eligible for reappointment.
- (i) Termination will be by the Chair of the Ministerial Council with the written agreement of the senior Commonwealth member of Council.

9.3.4 Operation

- (i) A quorum shall be a simple majority of members.
- (ii) To meet three times a year, or as determined as necessary by the Chairperson, or at the request of the Ministerial Council.
- (iii) To be serviced by the NSW Office of Environment and Heritage.
- (iv) If the Chairperson is absent the Committee shall elect a Deputy Chairperson.
- (v) Minutes and decisions of each meeting are to be kept and forwarded to the Chair of the Ministerial Council and the Chairs of the Technical and Scientific Advisory Committee and Traditional Owners Advisory Committee within 21 days of each meeting.



- (vi) The MAC will prepare and Annual Plan to guide its forward activities and will prepare an Annual Report of the previous years activities to be prepared for the Ministerial Council.
- (vii) Procedures for the conduct of business shall be by consensus and resolution and subject to direction from the Ministerial Council.
- (viii) Commonwealth and NSW Agencies shall bear the cost of their own representatives attending meetings. NSW OEH shall bear the cost of non-Government members attending meetings and the Commonwealth shall bear the cost of sitting fees for non-Government members.
- (ix) MAC will liaise with TOAC and TSAC regarding opportunities for joint workshops and community engagement to ensure the communication between the committees and with the community.

9.4 Traditional Owners Advisory Committee (TOAC)

9.4.1 Terms of Reference

To provide advice at the request of the MAC and/or Ministerial Council or by its own volition from the view point of the Three Traditional Tribal Groups that are represented on this sub-committee.

To proactively address matters of policy and procedure including working with the TSAC sub-committee, research organisations and other partners on projects.

To provide advice on research proposals/findings, management and development proposals, risks and threats and opportunities for the promotion and transmission of WLRWHA heritage values.

9.4.2 Membership

- (i) TOAC will include up to 3 members of each Traditional Tribal Group selected by meetings of those Traditional Tribal Groups.
- (ii) TOAC will meet annually and select a chairperson for TOAC.
- (iii) The TOAC chairperson and one representative of each of the other two Traditional Tribal Groups will act as the representative for each Traditional Tribal Group on the MAC.

9.4.3 Appointment and Termination

- (i) Appointment will be by the Chair of the Ministerial Council for a period of up to three years, with members eligible for reappointment.
- (ii) Termination will be by the Chair of the Ministerial Council with the written agreement of the senior Commonwealth member of Council.

9.4.4 Operation

- (i) A quorum shall be a simple majority of members.
- (ii) To meet three times a year, or as determined as necessary by the Chairperson, or at the request of the Ministerial Council.
- (iii) TOAAC will report to MAC and will be serviced by the NSW Office of Environment and Heritage.
- (iv) If the Chairperson is absent the Committee shall elect a Deputy Chairperson.
- (v) Minutes and decisions of each meeting are to be kept and forwarded to the Chair of the Ministerial Council, the Chair of MAC and the Chair of the Technical and Scientific Advisory within 21 days of each meeting.
- (vi) The TOAC will prepare an Annual Plan to guide and meeting its forward activities.
- (vii)Procedures for the conduct of business shall be by consensus and resolution and subject to direction from the Ministerial Council.



(viii) TOAC will liaise with MAC and TSAC regarding opportunities for joint workshops and community engagement to ensure the communication between the committees and with the community.

9.5 Technical and Scientific Advisory Committee (TSAC)

9.5.1 Terms of Reference

- i) To provide advice, either at the request of the Ministerial Council or the Management Advisory Committee, or at tis own volition on:
- priorities for the identification and protection of the WLRWHA values;
- information on technical developments, current practices and principles (including historical research);
- co-ordinate the preparation of a research framework for WLRWHA which will include:
 - o research questions relevant to the values of the place;
 - o opportunities for research to assist management objectives, including utilising predicative modelling;
 - o opportunities for partnerships with universities, agencies and private sector organisations; and
 - o community engagement and the provision of information to the community relating to research.
- the appropriateness of research proposals for WLRWHA and provide advice where relevant on specialist curatorial systems and facilities where these are required.

9.5.2 Membership

- (i) TSAC will be comprised of five specialists appointed by the Ministerial Council relating to the identified World Heritage values, including, as a minimum, specialists in geomorphology, archaeology and physical anthropology.
- (ii) TSAC will elect a chairperson who will also be the representative of TSAC on MAC.
- (iii) TSAC may seek additional specialist advice from individuals or groups on an as needed basis for specific periods of time and projects.

9.5.3 Appointment and Termination

- (i) Appointment will be by the Chair of the Ministerial Council for a period of up to three years, with members eligible for reappointment.
- (ii) Termination will be by the Chair of the Ministerial Council with the written agreement of the senior Commonwealth member of Council.

9.5.4 Operation

- (i) TSAC will prepare an annual plan for its activities that includes coordinating the development of a research agenda and program for WLRWHA.
- (ii) A quorum shall be a simple majority of members.
- (iii) TSAC will meet three times a year, or as determined as necessary by the Chairperson, or at the request of the Ministerial Council.
- (iv) TSAC will report to MAC and will be serviced by the NSW Office of Environment and Heritage.
- (v) If the Chairperson is absent the Committee shall elect a Deputy Chairperson.



- (vi) Minutes and decisions of each meeting are to be kept and forwarded to the Chair of the Ministerial Council, the Chair of MAC and the Chair of the TOAC within 21 days of each meeting.
- (vii) Procedures for the conduct of business shall be by consensus and resolution and subject to direction from the Ministerial Council.
- (viii) The Commonwealth shall bear the cost, including sitting fees where applicable, of the TSAC members attending its meetings.
- (ix) TSAC will liaise with MAC and TOAC regarding opportunities for joint workshops and community engagement to ensure the communication between the committees and with the community.

9.6 Observers at Committees

Subject to the development of a protocol in relation to the discussion of sensitive information stakeholders will be allowed as observers on the MAC committee and its two sub-committees; TOAC and TSAC.



APPENDIX A – WILLANDRA LAKES REGION REGIONAL ENVIRONMENTAL PLAN NO.1



APPENDIX B – HERITAGE LISTINGS

World Heritage listing
National Heritage Listing
NSW State Heritage Listing
Balranald Shire Heritage Listing
National Trust of Australia listing

