

WILLANDRA LAKES REGION WORLD HERITAGE
RESEARCH PROSPECTUS

For the continuing living cultural and natural landscape of the Willandra Lakes Region World Heritage property. FACILITATING RESEARCH ON COUNTRY IN PARTNERSHIP WITH THE BARKINDJI/PAKAANTYI, MUTTHI MUTTHI AND NGIYAMPAA NATIONS

NOVEMBER 2023

Cover Image: Mungo Lunette silhouettes.
Photographer: Dan Rosendahl NSW NPWS

This research prospectus is designed to be read in conjunction with the Willandra Lakes Region World Heritage Research Code of Practice (2021) developed by the Willandra Lakes Region World Heritage Aboriginal Advisory Group. The Research Code of Practice provides an ethical research framework describing the principles and processes that govern research undertaken in the Willandra Lakes World Heritage property.

Copies of the Research Code of Practice can be obtained by contacting:

npws.willandralakes@environment.nsw.gov.au

November, 2023

This document was prepared by a Scientific Working Group of the Willandra Lakes Region World Heritage Advisory Committee in 2020-22.

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FOREWORD

The Willandra Lakes Region World Heritage property, the shared countries of the Barkandji/Paakantyi, Mutthi Mutthi and Ngiyampaa, is one of the most intensively researched First Nations sites in Australia. It has seen continuous research since Mungo Woman revealed her story to the world in the late 1960s. Now synonymous with research on Aboriginal Ancestral remains, the research in the Willandra Lakes Region World Heritage property has been dominated by archaeology, geomorphology and geology.

This Research Prospectus is the first co-designed research vision for the Willandra Lakes Region. It was developed by the Willandra Lakes Region World Heritage Advisory Committee on which elected representatives of Barkandji/ Paakantyi, Mutthi Mutthi and Ngiyampaa sit together with landholders, scientists, local government and tourism representatives. It began from a review of all the research that had taken place at the site that identified obvious absent research themes. Of particular note, is the absence of research that explores the continuing living cultural and natural landscape of Willandra, and how best to manage its cultural and natural Outstanding Universal Value. The Research Prospectus will guide a research vision to support research themes that are collaborative and meaningful to the Willandra communities and the future management of Willandra's World Heritage values.

The Research Prospectus is a companion and complimentary document to the Willandra Research Code of Practice published in 2022, which established an ethical research framework for the Willandra Lakes Region. It followed the establishment of an on Country research and learning facility at the adaptively reused Leaghur Homestead, in Mungo National Park. The Leaghur research facility, now named the Willandra Lakes Research and Learning Centre, enables on Country meetings to occur and ensure sensitive cultural materials are researched on Country. This Research Prospectus, the Willandra Research Code of Practice, and the Willandra Lakes Research and Learning Centre operate in unison to provide cultural safety in the Willandra Lakes Region.

The Willandra Lakes Region Intergovernmental Management Committee commends the Willandra Lakes Region World Heritage Advisory Committee for developing this Research Prospectus to guide priority research to all that wish to carryout co-designed research in the Willandra Lakes Region World Heritage property.

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INTRODUCTION

The Willandra Lakes lie within the continuing living cultural and natural landscape¹ of the Barkandji/Pakaantyi, Mutthi Mutthi and Ngiyampaa Nations. The presence of the Barkandji/Pakaantyi, Mutthi Mutthi and Ngiyampaa in this Country is timeless, enduring, and on-going. Each generation establishes their own connection to Country through an inter-connected culture of knowledge, spiritual beliefs, rituals and Lore.

Scientists recognize these cultural and natural landscape as preserving exceptional knowledge of Australia's deeptime history, one that stretches back more than 50,000 years, although much of this interconnected knowledge is yet to be revealed.

The Barkandji/Pakaantyi, Mutthi Mutthi and Ngiyampaa Nations invite researchers to undertake research on Country, in partnership, and guided by the principles of self-determination outlined in the Willandra Lakes Region World Heritage Aboriginal Advisory Group (AAG) Research Code of Practice (2021).

This prospectus introduces a set of broad-ranging research priorities which should be reviewed and updated regularly, or at least every five years by the Willandra Lakes Region World Heritage Advisory Committee. It has been prepared in the context of strong, new partnerships being developed with a range of researchers and research organisations, and the establishment of new, on Country infrastructure like the Willandra Lakes Research and Learning Centre. This opened in 2022, following the repurposing of the former Leaghur Homestead, and is located on Mungo National Park, within the Willandra Lakes Region World Heritage property. It provides an opportunity for researchers to work on Country with members of the Barkindji/Pakaantyi, Mutthi Mutthi and Ngiyampaa Nations, to study both archived and current research materials and to discuss the presentation and dissemination of research results.

Researchers are invited to partner with the Willandra Lakes Region World Heritage Advisory Committee, which includes the Aboriginal Advisory Group who are the elected representatives of the Three Traditional Tribal Groups (3TTG), to contribute to this exciting new era of research endeavour.

¹ The term 'continuing living cultural landscape' is used here synonymously with the definitions of cultural landscapes published in Operational Guidelines for the Implementation of the World Heritage Convention, published by UNESCO's Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage in 2008.



Barkindji/Pakaantyi, Mutthi Mutthi and Ngiyampaa people walk on Country with our ancestors. We maintain our Cultural and Spiritual beliefs through the stories, songs, dance and practices that connect us to Country and we maintain our cultural Identity, relationships and responsibilities within the continuing living cultural and natural landscape that is the Willandra Lakes.

We are dedicated to the preservation of the interconnected natural, cultural and spiritual values of the Willandra Lakes Region through the continuation of our cultural knowledge and practices.

INTRODUCTION TO COUNTRY

The Willandra Lakes Region World Heritage property was inscribed on UNESCO's World Heritage list in 1981 based on its outstanding cultural and natural values and in 2007, it was added to Australia's National Heritage List in recognition of its national significance including its continued cultural connection (see below table).



Kulthi/Emu. Mungo NP. Photo credit: Dan Rosendah

CRITERIA FOR LISTING THE WILLANDRA LAKES REGION ON THE WORLD HERITAGE LIST AND NATIONAL HERITAGE REGISTER

(Commonwealth of Australia Gazette, No. S99, 21 May 2007).

LISTING	CRITERION	DESCRIPTION
World Heritage	(iii)	to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared
World Heritage	(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
National Heritage	(a)	the place has outstanding heritage value to the nation because of the place's importance in the course, or pattern, of Australia's natural or cultural history
National Heritage	(b)	the place has outstanding heritage value to the nation because of the place's possession of uncommon, rare or endangered aspects of Australia's natural or cultural history;
National Heritage	(c)	the place has outstanding heritage value to the nation because of the place's potential to yield information that will contribute to an understanding of Australia's natural or cultural history
National Heritage	(g)	the place has outstanding heritage value to the nation because of the place's strong or special association with a particular community or cultural group for social, cultural or spiritual reasons



To leave those footprints for us to find was unique. The Aboriginal people were very clever, in making sure that they left a sign for future generations. And we are the generation that's here today.

Mutthi Mutthi woman, Mary Pappin Senior

It's almost like it happened yesterday. Like you can walk across that site and you just feel like it was your mob that just walked across here the day before.

> Paakantyi woman, Leanne Mitchell "No Distance Between Us" 2018





All Aboriginal people can relate to the footprint site. It shows we have always been here: we have been telling people we have come from here, this is where our Dreaming began - here in Australia. And it's like the scientists are only just catching up with that.

Paakantyi woman, Leanne Mitchell "No Distance Between Us" 2018

THE WILLANDRA LAKES

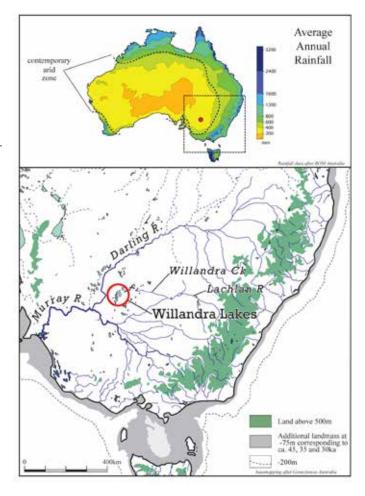
The Willandra Lakes lie in the southwest corner of NSW Australia, in the Murray Darling Basin, near the junction between the Riverine Plain and Mallee. They are an interconnected series of dry lake basins, once fed by water that flowed westward from the southeast highlands via a former channel of the Lachlan River, which filled the lakes cascade fashion, from north to south.

Five large and numerous smaller lake basins cover an area of about 1,200 km². The eastern (downwind) margins of the lakes are fringed by transverse, crescent-shaped dunes, known as lunettes, that rise 40 metres or more above the now dry lake beds.

A long and detailed history of environmental change has been captured in the landforms making up this landscape. This evidence is found in channel and floodplain deposits, within the sediments deposited on the lake floors and on the lunettes bounding their eastern margins, and the parabolic and linear dunes-fields on the surrounding plains (Criterion (viii)).

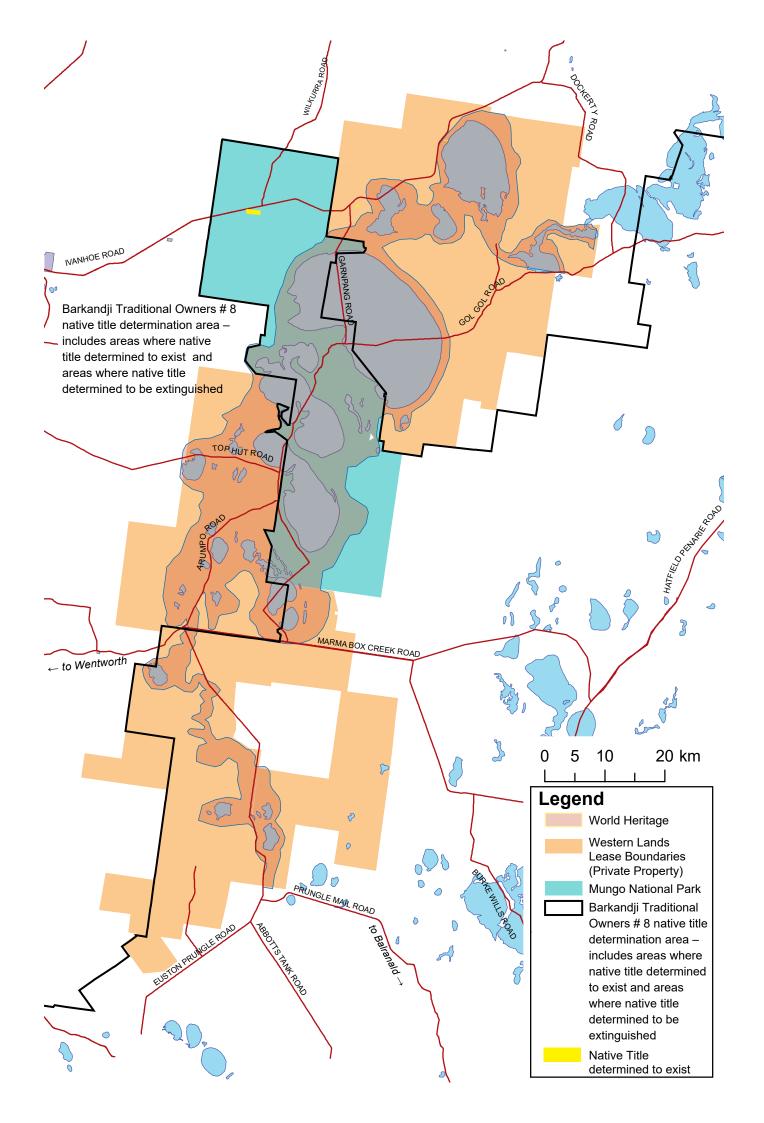


Evidence of long human occupation and the cultural activities of the First Nations were incorporated into these landforms as they formed. This evidence is remarkable for the images it evokes of traditional cultural knowledge and activities: graves that reveal the elaborate rituals associated with burial; footprints of a family group making its way across the landscape, and not far away, those of a group of men hunting, all impressed into a muddy surface at the height of the last 'ice age' some 20,000 years ago; the remains of a fire lit 19,000 years ago to cook a bettong, a small wallaby and a bandicoot while someone sat nearby to craft a few stone tools (Criterion (iii)).



Members of the Paakantyi/Barkandji, Mutthi Mutthi and Ngiyampaa Nations work in partnership with scientists to share their understanding of this continuing living cultural and natural landscape and to protect and enhance the Outstanding Universal Value of the Willandra Lakes Region World Heritage property.

The central portion of the Willandra Lakes World Heritage property is protected by Mungo National Park (New South Wales National Parks and Wildlife Service). The remaining areas of the World Heritage property consists of 12 privately managed grazing stations. The Willandra Lakes World Heritage property is guided in its management by a Ministerially appointed Advisory Committee, the majority of whose members are elected from the Barkindji/ Paakantyi, Mutthi Mutthi and Ngiyampaa Nations, together with a representative of the Barkindji Registered Native Title Group Aboriginal Corporation.



THE WILLANDRA LAKES REGION IS INSCRIBED ON THE WORLD HERITAGE LIST

FOR BOTH OUTSTANDING CULTURAL AND NATURAL UNIVERSAL VALUES²:

- to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared
- 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

WORLD HERITAGE VALUES

The outstanding natural and cultural heritage value of the Willandra Lakes Region World Heritage property are embedded in many parts of its living cultural and natural landscape.

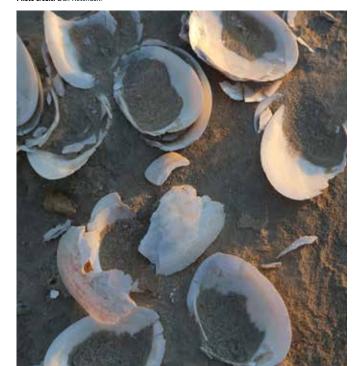
The landforms in this area have been sculpted over millennia by the forces of wind and water, preserving a detailed record of successive changes in landscape and environment. The lunettes bounding the eastern margins of the lakes are particularly rich archives of the environmental changes that have taken place over the past 65,000 years. They formed as a consequence of almost continuous deposition, and the environmental conditions that prevailed in the adjacent lakes are recorded in their alternating layers of sand and clay. These hydrologic changes can be linked to regional and global shifts in climate. The study of these landforms has been pivotal in forging an understanding of the way low-latitude, semi-arid landscapes respond to global climate changes (Criterion (VIII)).

The ecology of this living cultural landscape has changed over time. Micro-fossils embedded within the Willandra's landforms, provide insights into the different plant communities that clothed the landscape at different times. Well-preserved fossils of now extinct, giant marsupials (mega-fauna) are found in some locations and these, together with the remains of locally extinct and extant species, contribute to an understanding of these ecological changes (Criterion (VIII)).

The cultural landscape has been shaped by more than 1600 generations, spanning millennia. Within it lies evidence that provides remarkable insights into the cultural landscape that is the Willandra Lakes Region. Archaeological features offer a glimpse of a vast culture, which preserved material traces of individual events,



Y Freshwater midden, Mungo NP.
Photo credit: Dan Rosendahl



² The full wording of the criteria for which the Willandra Lakes Region World Heritage area has been listed can be found at https://whc.unesco.org/en/list/167/





such as a ceremonial burial, a patch of tool-making debris, a small cooking fire with an associated scatter of food remains, a shell tool or a cache of unworked shells, grinding stones used to process seeds that were stashed for future use, and worn-out ochre crayons. Each is preserved in sediments that record information about the conditions that prevailed in the adjacent lake, and each provides a window into the activities that linked people to the land. The distinctive layers of sediment in which these traces are embedded, can be linked to shifts in global climatic conditions, but the potential to build a local record of environmental change has yet to be realized. Despite this, the link to lake conditions means that these material traces, and the cultural values they embody, provide unique insights into the way people responded to changes in the environment over more than 50,000 years. The study of this continuing living cultural and natural landscape has profoundly altered the way Settler Australians understand the relationship between First Nations and the Country to which they belong (Criterion (III)).

< Elders Yarning Circle at the 2019 Mungo Youth Project.

Photo credit: Paul Jones, Centre of Excellence for Australian Biodiversity and Heritage



KEY PRINCIPLES GOVERNING RESEARCH

The Advisory Committee for the Willandra Lakes Region World Heritage property advises the Australian and New South Wales governments about the identification, protection, conservation, management, presentation, and transmission of the area's Outstanding Universal Value (OUV). This includes providing advice about scientific research priorities as well as the technical and scientific basis for management practices, and the maintenance and integrity of the world heritage values. The committee has 18 members, the majority of whom are elected, they are representatives of the Barkindji/Pakaantyi, Mutthi Mutthi and Ngiyampaa Nations; they serve with other ministerially appointed members representing scientific, landholder, local government, and tourist industry stakeholders.

The Aboriginal Advisory Group is the peak Aboriginal Representative body for the Willandra Lakes Region World Heritage property and research priorities are developed through consultation between the two groups. The Aboriginal Advisory Group is the first contact for anyone wishing to undertake research in the Willandra Lakes Region.

The companion document to this Research Prospectus, the Willandra Lakes Region World Heritage Aboriginal Advisory Group's Research Code of Practice, implemented in 2021, sets a new benchmark for research within this world heritage property. It marks the start of an era in which research activities are shaped by the priorities of the Barkindji/Pakaantyi, Mutthi Mutthi and Ngyiyampaa Nations and every stage of the research is undertaken in partnership with them.

< Bearded Dragon, Mungo National Park.

Photo credit: Leanne Mitchell



PROJECTS PROPOSALS

are aligned to research priorities



RESEARCH PLANS

are developed in partnership with the AAG



RESEARCH

is conducted on Country, in partnership with the AAG



RESEARCH RESULTS

are discussed regularly with the AAG



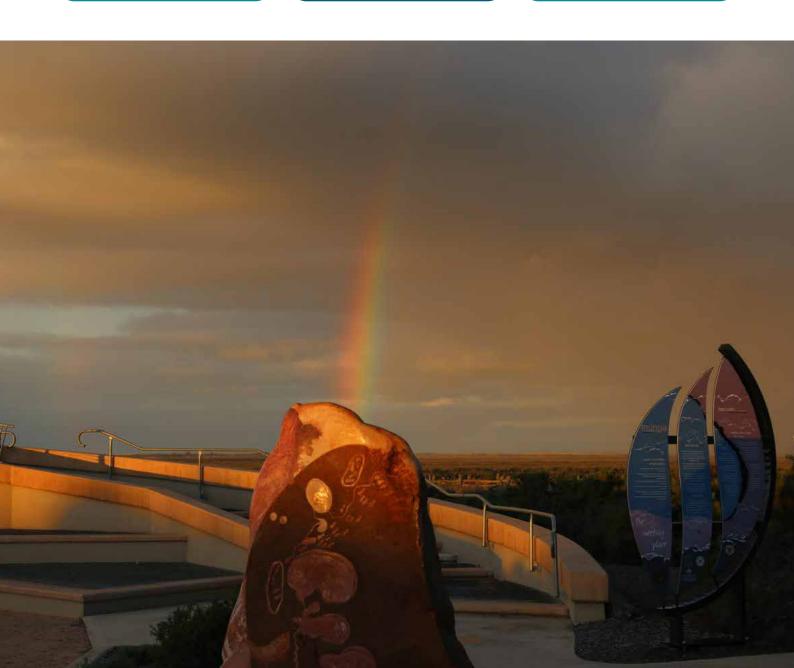
RESULTS

are presented and disseminated in collaboration with the AAG



PLANS

for sharing and archiving data are part of every research proposal





BROAD OUTLINE OF RESEARCH THEMES

Research Priorities for the Willandra Lakes Region are encapsulated in five key themes



A Cultural Protocols at the Mungo Youth Project 2019.

Photo credit: Paul Jones, Centre of Excellence for Australian Biodiversity and Heritage



A Yarning with Elders at the 2019 Mungo Youth Project.

Photo credit: Paul Jones, Centre of Excellence for Australian Biodiversity and Heritage

1.

LANGUAGE AND LORE

Traditional knowledge and skills

RATIONALE

The sharing and passing on of Traditional Cultural and Ecological Knowledge, is fundamental to sustaining the continuing living cultural and natural landscape of the Willandra Lakes Region. This knowledge also provides a basis for documenting tangible and intangible elements of the continuing living cultural and natural landscape, and contributes to an understanding of how these have changed over the past 200 years. It is also fundamental to integrating Traditional Knowledge with the information generated through scientific research (Criterion (III)).

- Recording and sharing language, Lore, song, dance, stories and spiritual beliefs
- Oral history and cultural mapping
- Documenting individual biographies
- Developing strategies to preserve tangible and intangible heritage. These two types of heritage are inter-twined.
 - Tangible heritage refers to physical places and objects.
 - Intangible heritage encompasses cultural knowledge and cultural expression, including language, stories, beliefs, Lore, ceremony, song, dance, and law, as well as knowledge of nature, the universe and traditional crafts.

2.

ENHANCING

the continuity of connection to Country

RATIONALE

The Barkindji/Paakantyi, Mutthi Mutthi and Ngiyampaa have an enduring and ongoing interconnection with Country. The right to maintain and revitalize cultural traditions and customs, is enshrined in the articles of United Nations Declaration on the Rights of Indigenous Peoples (2007). Ongoing connections to Country have yet to be documented fully, through oral history research and systematic study of archaeological traces accumulated since the lakes dried out around 15,000 years ago. This is fundamental to documenting the continuity of the cultural and natural landscape in the Willandra Lakes Region and to strengthening the relationships that people maintain with Country, family and Community. The ability to enhance the interconnections between Country and customary practices, contributes to the social and economic wellbeing of Australia's First Nations (Criterion (III)).

- Documenting and sharing knowledge of language, Lore, song, stories and ceremony
- Developing strategies to maintain the cultural practices and values involved in Caring for Country
- Identifying and studying the benefits of maintaining connections to Country
- Researching Aboriginal place names for the Willandra Lakes region
- Identifying opportunities for enhancing economic and socioeconomic wellbeing



A Welcome to Country at the Mungo Youth Project 2019.

Photo credit: Paul Jones, Centre of Excellence for Australian Biodiversity and Heritage

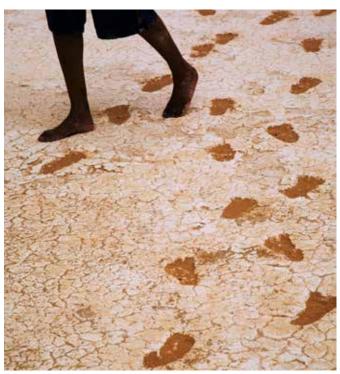


A Smoking ceremony, Munog Youth Project 2019.

Photo credit: Paul Jones, Centre of Excellence for Australian Biodiversity and Heritage



^ Mungo Woolshed, Mungo NP.
Photo credit: Paul Jones, Centre of Excellence for Australian Biodiversity and Heritage



A Walking with the Ancestors at the Willandra Fossil Trackway.

Photo credit: Michael Amendolia

3.

SUSTAINING

the health of Country and its cultural and natural values

RATIONALE

On-going erosion of landforms in the Willandra Lakes Region, together with invasive weeds, pest animals and stock grazing pressure, have impacted, and continue to impact, the cultural and natural values embedded in the living cultural and natural landscape. In some areas, visitors, invasive weeds and pest animals impact fragile landforms; these factors also impact the ecological communities and cultural features of the World Heritage property. Climate change exacerbates these impacts. Erosion, invasive plants and animals, and total grazing pressure also affect the productivity of the pastoral leases that lie within the World Heritage property. Key research priorities include reducing total grazing pressure, mitigating the effects of erosion, monitoring plant communities and ensuring active conservation management of rare and threatened plant communities, and developing strategies for eliminating invasive weeds, monitoring wildlife and reducing feral animal populations, and monitoring the effects of this work on cultural values (Criteria (iii) and (viii)).



A Bush Blitz team at Mungo NP Photo credit: Daryl Pappin

> Earless Dragon, Mungo NP.
Photo credit: David Egan



A Lakebed forbland vegetation, Mungo NP Photo credit: David Egan

- Systematic surveys of the Willandra's soils, plant and animal (biota) communities, water resources, and their embedded cultural values
- Researching and documenting the cultural values embedded within the landforms and plant and animal communities of the Willandra Lakes Region
- Developing methods for monitoring, managing and reducing total grazing pressure
- Monitoring endangered plant communities like Acacia loderi (nelie woodlands), Acacia melvillei (yarran), and Native Pine woodland and developing strategies to enhance their survival
- Monitoring endangered fauna like the mallee fowl and the endangered dasyurid Southern Ningaui and developing strategies to enhance their survival
- Developing effective strategies for reducing and eliminating pest animals like foxes, cats, rabbits and goats whilst protecting cultural heritage values
- Enhancing techniques for assessing the impact of invasive weeds, preventing incursions, reducing their spread, and eliminating them
- Developing methods for monitoring erosion and reducing its impact on landforms, vegetation and fauna
- Assessing the potential for re-introducing locally extinct species
- Monitoring impacts on the property's Outstanding Universal Value (OUV)
- Monitoring and mitigating the impacts of climate change, with a focus on World and National Heritage values (Matters of National Environment Significance – MNIES)





A Cultural research protocols on Country.

Photo credit: Sunraysia Life



A Guided tour for the 2017 Mungo Youth Project.

Photo credit: Dan Rosendahl

A Listening to Elder. Mungo Youth Project 2019.

Photo credit: Paul Jones, Centre of Excellence for Australian Biodiversity and Heritage

4. CHANGING

cultural and natural landscapes

RATIONALE

Embedded within this continuing living cultural and natural landscape is information about how it has been shaped over time. Geological, geomorphological, and archaeological studies have the potential to enhance current knowledge of how people lived in this landscape for more than 50,000 years, and maintained the cultural values that are part of it. Integrating this information with traditional cultural and ecological knowledge will help to realise the unique potential of this extraordinary cultural and natural landscape (Criterion (III)).

- Integrating Traditional Knowledge into the interpretation of archaeological and landscape features
- · Investigating changes in landscape and environment
- Studying landscape scale changes in land use and occupancy
- Documenting the changes in land use and occupancy that followed the establishment of the pastoral industry
- Studying the oral histories of the shared cultural landscape following pastoral settlement



5.

SHARING

and archiving information

RATIONALE

Capturing and archiving the data and information generated through past, ongoing and future research in the Willandra Lakes Region is an integral part of a rights-based approach to research. The archive needs to be accessible to the property managers, members of the Aboriginal Advisory Group and the Willandra Lakes Region World Heritage Advisory Committee, on an ongoing basis, to facilitate decision-making and advice on future research priorities. Research is needed to identify appropriate ways for organising and managing knowledge, including a repository that can integrate data acquired in different ways, at different times, and which can be updated continuously. It is essential that information can be extracted in different formats and not rendered obsolete by future technological innovations (Criteria (iii) and (viii)).

PRIORITIES INCLUDE

- Developing tools to capture and archive different types of knowledge about the Willandra Lakes Region
- Integrating different types of knowledge and data
- Developing strategies to prepare past research data for future use

- Developing mechanisms for information retrieval to facilitate future research
- Developing tools to ensure that data are accessible to the Aboriginal Advisory Group so that it can be visualized and interpreted in ways that meet their needs for informed decision-making and site interpretation
- Developing tools to support the analysis and interpretation of archival data
- Developing systems for tracking biological, geological and archaeological samples
- Providing a basis for reviewing, identifying knowledge gaps, regular updating and disseminating of the research prospectus
- Studying data sovereignty platforms and other archiving systems and assessing the application and/or modification of these for archiving information about the Willandra Lakes World Heritage property
- Developing an Indigenous Cultural Intellectual Property (ICIP) agreement to support the Aboriginal Advisory Group to retain copyright and ownership of all materials they share.

v Recording oral histories with Elders.

Photo credit: Daryl Pappin



THE RESEARCH **PROCESS**

Developing a research partnership with the Aboriginal Advisory Group timelines depend on the commitments of the AAG and can take 6 – 12 months

READ the Willandra Lakes Region Research Code of Practice which are the principles supporting the rights of the Three Traditional Tribal Groups to self-determination and respect for Traditional Knowledge.

INITIATE contact with the Aboriginal Advisory Group

REVIEW local, state and Commonwealth permit requirements, including requirements for human and animal ethics approval

MEET with the Aboriginal Advisory Group

DISCUSS knowledge gaps and research priorities to develop a project plan in partnership with the Aboriginal Advisory Group

MAINTAIN ongoing discussion with the Aboriginal Advisory Group as research progresses

With the Aboriginal Advisory Group,
DEVELOP A PLAN for writing up, publishing,
disseminating and archiving research results



