EPBC Act referral



Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Title of proposal 2021/8951 - Willandra Ancestral Remains Reburial 2021 Section 1 Summary of your proposed action 1.1 Project industry type Science and Research

1.2 Provide a detailed description of the proposed action, including all proposed activities

Proposed Action

The proposed action is the reburial of 108 Willandra Ancestral Remains at 26 separate locations. The activity will involve the excavation of 108 graves. Most graves will disturb an area 50 centimetres by 50 centimetres. Several more complete burials will require a larger grave of 1 metre by 2 metres. The graves will be dug to a depth of 60cm. No markers will be installed to indicate the grave locations and the sites will be returned to existing conditions.

Each reburial will be undertaken with a small private cultural ceremony as the remains are re-interned close to their point of origin. The details of the reburial locations are presented in Attachment A (detailed locations will not be made available due to cultural sensitivity). The proposed action will impact a total area of 28.5 square metres (0.00285 hectares) through the action of the 108 excavations.

Background

Between 1968 and the early 1980s 108 Willandra Aboriginal Ancestors (or Ancestral Remains), including the internationally renowned remains of Mungo Woman and Mungo Man, were removed from what is now Mungo National Park and the Willandra Lakes Region and taken to the Australian National University for study (Bowler et al., 1970, Mulvaney, 1972). See Webb (1989, 2018) for a detailed inventory of the collection. The discovery and subsequent recognition of the archaeological record (now estimated at ca. 41,000 years) of Aboriginal occupation were fundamental in establishing the cultural heritage significance of the Willandra Lakes region and formed part of the nomination of the Willandra Lakes to the World Heritage List (Australian Heritage Commission, 1980).

The Willandra ancestral remains were returned from Canberra to Mungo National Park in November 2017 and are now held in secure storage.

The Aboriginal Advisory Group (AAG) is a community elected peak Aboriginal consultative and advisory body for the Willandra Lakes Region World Heritage property. The AAG represents Barkindji/Paakantji, Mutthi Mutthi and Ngiyampaa peoples and is also part of the Willandra Lakes Region World Heritage Area Advisory Committee. The AAG provides advice to NSW government on Aboriginal Cultural Heritage matters within the World Heritage boundaries. It can also be consulted on matters within Mungo National Park.

At a meeting of the AAG on the 6 November 2018 the following motion was passed:

'In exercising our inalienable rights and as Traditional Owners the Willandra Lakes Region World Heritage Area Aboriginal Advisory Group as duly elected representatives of the 3TTGs [Three Traditional Tribal Groups] unanimously resolves to rebury the Willandra Ancestral Remains collection. This resolution is consistent with past sentiments and views expressed by Elders and members of the various 3 Traditional Tribal Group representative bodies of the Willandra Lakes Region World Heritage Area over the last 40 years.'

This reburial project is being supported by Heritage NSW and NPWS on behalf of the Willandra Lakes Region World Heritage Area AAG. The reburial project is the final stage in the return of the repatriated ancestral collection that is currently held in secure storage at Mungo NP.

The proposed activity will fulfil the long-term aspirations of the three Traditional Tribal Groups and aligns with the

- Willandra Lakes World Heritage Property Plan of Management (Department of Environment, Sport & Territories, 1996)
- Mungo NP Plan of Management (NSW National Parks and Wildlife Service, 2006)
- · Australian Government Policy on Indigenous Repatriation (2016), and the
- United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

This submission describes the impacts of the proposed activity and concludes that the activity will have no significant impacts on:

- the environment:
- threatened species, populations, ecological communities or their habitats;
- critical habitat;

Note: PDF may contain fields not relevant to your application. These fields v	vill appear blank or unticke	ed. Please disregard these fields.
 matters of national environmental significance listed u Biodiversity Conservation Act. 	nder the Commonwe	alth Environment Protection and
1.3 What is the extent and location of your proposed action? See Appendix B		
1.5 Provide a brief physical description of the property on which proposed action (e.g. proximity to major towns, or for off-shore and action (e.g. proximity to major towns).		
Most of the reburial sites (22) are located in Mungo National western NSW within the Willandra Lakes Region World Heritag border towns of Mildura and Wentworth and 140 km north west	ge Area (WHA). MNP	is 110 km north east of the Victorian/NSW
Four (4) sites are located on rangeland grazing properties (V and are also in the WHA.	Vestern Lands Leases	s) that surround the Mungo National Park
Detailed maps of the proposed activity areas are provided in publicly available due to cultural sensitivity reasons).	Attachment A–REF-F	Part2 (This document will not be made
1.6 What is the size of the proposed action area development for avoidance footprint (if relevant)?	otprint (or work area)	including disturbance footprint and
The disturbance footprint of the proposed action will impact a the action of 108 excavations.	a total area of 28.5 sq	uare metres (0.00285 hectares) through
This assumes each reburial site disturbs an overall area of 5 The individual impact areas at each grave will vary considerabl require a very small hole that will be dug with an auger. Severa larger pit.	y: many remains con	sist only of a single bone fragment and will
For full details of the impact areas see Attachment A-REF-Pa detailed locational information has been removed from this Atta providing safety and security for the remains, to make this infor	achment as it is not in	
1.7 Proposed action location		
Address - Mungo National Park, Arumpo Road, Mungo, NSV	V, 2715, Australia	
1.8 Primary jurisdiction	New South Wales	
1.9 Has the person proposing to take the action received any Au ☐ Yes ✓ No	stralian Government	grant funding to undertake this project?
1.10 Is the proposed action subject to local government planning	g approval?	
☐ Yes ☑ No		
1.11 Provide an estimated start and estimated end date for the proposed action	Start Date End Date	06/09/2021 31/12/2021
1.12 Provide details of the context, planning framework and state	e and/or local Govern	

The context, planning framework and impacts of the proposed works have been considered in a Review of Environmental

Factors (REF) prepared by Heritage NSW and the National Parks and Wildlife Service - full details on the state legislation and policies under which this REF was submitted are contained in Attachment A-REF-Part1 Section 3.1 (Legal Permissibility) and Attachment A-REF-Part4 Appendix 10 (Statement of Heritage Impact). Please note. Some detailed locational information has been removed from the latter Attachment as it is not in the public interest, or in best interests of providing safety and security for the remains, to make this information widely available.

The REF complied with the requirements of a wide range of planning matters including the following:

NPW Act 1974: Assessing Impacts on physical, biological, natural, community, and cultural heritage values including Aboriginal Objects and matters of national environmental significance

Environment Protection & Assessment Act (1979): Assessment of environmental impacts (16 matters, including threatened species)

Environmental Planning and Assessment Regulation 2000:Impact on heritage values

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP); Consideration of heritage impacts

NSW Heritage Act (1977) State Heritage Register: impacts on values

Biodiversity Conservation Act (2016) Impacts on threatened species

Coroners Act (2009) Reburial of ancestral remains and local government approval

Crown Land Management Act (2016) Permission to conduct reburials on private leasehold land

Willandra Lakes Regional Environmental Plan No 1 - World Heritage Property (2010) Consultation requirements

Balranald Local Environment Plan (2010) Consultation requirements

Wentworth Local Environment Plan (2011) Consultation requirements

In January 2021 the Review of Environmental Factors was determined and approved under Division 5.1 of the NSW Environmental Planning and Assessment Act 1979.

Copies of the determination letter and determination notice are provided in Attachment B & C.

1.13 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders

A detailed history of discussions and consultation on this matter is included in this referral. Please see Attachment A-REF-Part4, Appendix 16. Further details on previous discussions on repatriation and keeping places is also presented. Please see Attachment J. (Review of Willandra Meetings 1984 - 2015).

At the first meeting of the Willandra Lakes World Heritage Area Consultative Committee in June 1984, a request from Aboriginal Elders for the repatriation of removed Aboriginal Ancestors was tabled. Aboriginal community awareness and concern over the unauthorised removal and study of ancestral remains from the Willandra increased in the 1980s (cf. Cribb, 1990; Stannard, 1988) and in this context the academic and Aboriginal community participants in a Mungo Workshop in 1989 reached an agreement that the Willandra Ancestral Remains collection should be returned to Mungo, and that, as a symbol of reconciliation, keys should be held by both the Aboriginal community and researchers (Attachment K. The Mungo Statement, 1989).

The Plan of Management for the Willandra Lakes (DEST 1996) called for the development of a series of strategies for the return of all human remains "...to the satisfaction of the three Traditional Tribal Groups" (Strategy 33.1) and between 1984 and 2016 ca. 70 Willandra World Heritage meetings discussed repatriation, a research centre and reburial (see Attachment J. Review of Willandra Meetings 1984-2015).

The Three Traditional Tribal Elders Council (3TTGs) were the main advisory and consultation group forum for the Willandra Lakes region from the mid 1990's to 2013. The Willandra Repatriation Traditional Custodians group (WRTC) was formed by the Heritage Division of OEH (now Heritage NSW, Department of Premier and Cabinet) in 2014 to direct the repatriation of the Willandra Ancestral Remains. A repatriation Forum was held in February 2015 and brought together a wide range of scientists and traditional custodians (Attachment G, M Williams 2015). In November 2016 a second Forum was held and options for repatriation and reburial outlined (Attachment H, M Williams 2016). In April 2017, Forum 3 was held presenting options for repatriation. Consensus was made to return all ancestral remains back to Mungo National Park (Attachment I, M Williams 2017). On 17 November 2017, the Willandra ancestral remains collection was returned to Mungo.

In November 2018, the Willandra Aboriginal Advisory Group (AAG) passed a motion to rebury the Willandra ancestral remains collection. The AAG discussed the process and planning for reburial in more detail at their March 2019 meeting, and from 1-5 April 2019, representatives of the AAG/3TTGs were part of the field assessment team which fine-tuned the location of assessment sites selected for reburials and informed the preparation of a Review of Environmental Factors (REF) (Attachment A-REF-Parts 1-4. Please note. Some detailed locational information has been removed from these Attachments as it is not in the public interest, or in best interests of providing safety and security for the remains, to make this information widely available).

In August 2019 a draft REF was made available to a wide range of more than 220 individual Willandra stakeholders and four weeks was allowed for comment. These stakeholders included a wide range of interest groups such as members of the previous Community Management Council (CMC) and Technical and Scientific Advisory Committee (TSAC), former World Heritage Executive Officers, universities, museums, academics, AAG members, Local Aboriginal Land Councils, Aboriginal organisations, native title holders, Elders, community members and NPWS Advisory committee members. Researchers from universities and institutions in Australia, New Zealand and the United States were also included. The REF was revised in light of the comments received during this phase of consultation.

The draft REF was also made available to the new Willandra Lakes Region World Heritage Advisory Committee. This Committee held its first meeting in April 2019 and the committee received a briefing on this project at this first meeting. All members have been kept informed of the draft REF and have been provided opportunity to comment. A letter in support of the proposed reburial, from the Advisory Committee to the Federal Minister for Environment and Energy, is presented in the REF (see Attachment A-REF- Part4 - Appendix 10, Section 12.7. Please note. Some detailed locational information has been removed from tis Appendix as it is not in the public interest, or in best interests of providing safety and security for the remains, to make this information widely available.

In January 2021 NPWS approved the REF (Attachment B & C) under the NSW Environmental Planning and Assessment Act (1979). This decision has been conveyed to more than 220 individual and organisational Willandra stakeholders.

1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project

The impacts of the proposed works have been considered in a Review of Environmental Factors (REF) (see Attachment A-REF-Parts 1-4). The REF concluded the proposed works will not have any adverse impacts on local, State or World heritage values.

An assessment of the impact of the proposed reburials on Matters of National Environmental Significance (2019) was included in the REF (see Attachment A REF-Part4, Appendix 8).

This assessment concluded that the proposed reburial of the Willandra Lakes Aboriginal Ancestors will not result in one or more of the National Heritage or World Heritage values of the Willandra Lakes Region being lost, degraded or damaged, or notably altered, modified, obscured or diminished.

☐ Yes ☑ No				
1.16 Is the proposed action related to other actions or proposals in the region?				
☐ Yes ☑ No				
1.15 Is this action part of a staged development (or a component of a larger project)?				
In January 2021 the National Parks and Wildlife Service, the NSW consent authority for this proposal, approved the REF under the NSW Environmental Planning and Assessment Act (1979) (see Attachments B & C).				
notably altered, modified, obscured or diminished.				

Section 2
Matters of national environmental significance
2.1 Is the proposed action likely to have any direct or indirect impact on the values of any World Heritage properties?
✓ Yes No
Property
Willandra Lakes Region World Heritage property
Impact

Possible Impact: Permanently remove, destroy, damage or substantially alter the fabric of a World Heritage property.

Assessment: The action may damage/destroy and make inaccessible for research, study or further scientific analysis, human remains which were removed from the property prior to its inscription on the World Heritage List.

An assessment (see Attachment A REF-Part4, Appendix 8) of impacts of the proposed activity of reburial of the Willandra Ancestral Remains on the Outstanding Universal Values (OUV) of the WLRWHA has considered five frames of reference:

- International and Australian Policy relevant to Indigenous heritage protection and management
- Management objectives and strategies for WLRWHA
- Comparative case studies of International and Australian World Heritage properties
- The relationship of the Willandra Ancestral Remains to the OUV of the property
- Matters of National Environmental Significance: Significant Impact Guidelines

The assessment found both the 1981 World Heritage nomination and the 2013 Retrospective Statement of OUV for the Willandra emphasize that it is the stratigraphy of the landscape and cultural deposits therein that holds the OUV of WLRWHA. These cultural deposits including burials, stone artefacts, hearths, middens and trackways demonstrate nearly 50,000 years of Aboriginal social, cultural and economic life.

The Willandra ancestors that were removed from the property for study prior to its inscription on the World Heritage List may be considered to contribute to the values of the property, but are not attributes of OUV. The Willandra ancestors have known scientific significance but the loss of future scientific research opportunities through their reburial is considered an indirect impact of the activity but not a significant impact on the OUV. Further, it should be noted that opportunities exist for further study of newly exposed Aboriginal ancestors. Westaway states (2006, p. 127) '...many burials are still eroding from the Willandra, and present an opportunity to learn more about the region'. Westaway further noted that there were more than 50 other in situ within the Willandra Lakes system (2006, p. 129). That number has now risen to more than 70 individual burials and newly exposed remains are regularly located.

It is concluded that the proposed action of reburial of the Willandra Ancestral Remains in the WLRWHA will

- not have a significant impact on a World Heritage property, including its historic heritage values, or cultural heritage values including Indigenous heritage values:
 - not permanently remove, destroy, damage or substantially alter the fabric of a World Heritage property.

Property

Willandra Lakes Region World Heritage property

Impact

Possible Impact: Permanently remove, destroy, damage or substantially disturb archaeological deposits or artefacts in a World Heritage property

Assessment: The proposed activity will not permanently remove, destroy, damage or substantially disturb archaeological deposits or artefacts in Willandra Lakes Region. A detailed assessment has been undertaken of the proposed activity areas and the likelihood of impacting any archaeological deposits or artefacts is extremely low. On the basis that the total surface impact area is 28.5m2, approximately 0.012 artefacts could be expected to be encountered for all the activity areas combined. No burials are likely to be encountered in the activity areas (see Att A-REF-Part4-Appendix 7 Section 10.3.2. Please note: some detailed locational information has been removed from this Attachment as it is not in the public interest, or in best interests of providing safety and security for the remains, to make this information widely available).

Detailed measures have been planned to mitigate impacts in the event that Aboriginal objects or ancestors are encountered during excavation of the graves.

Property

Willandra Lakes Region World Heritage property

Impact

Possible Impact: Involve activities in a World Heritage property with substantial and/or longterm impacts on its values

Assessment: The activity will not have substantial or long-term impacts on the Outstanding Universal values of Willandra Lakes Region. The activity will have a substantial and long-term impact on ancestral remains which were removed from the property prior to its inscription on the World Heritage List. These ancestors will no longer be available for study. However the action will not close all opportunity for further study and research. Newly exposed Aboriginal ancestors have been located and remain in situ. Westaway states (2006, p. 127) '...many burials are still eroding from the Willandra, and present an opportunity to learn more about the region'. Westaway further noted that there were more than 50 other in situ within the Willandra Lakes system (2006, p. 129). That number has now risen to more than 70 individual burials and newly exposed remains are regularly located. Protocols and a Research Code of Practice (see Att. L.) for the study of such remains have been developed. The Code makes clear the pathway for further research an ancestors in the property.

Property

Willandra Lakes Region World Heritage property

Impact

Extend, renovate, refurbish or substantially alter a World Heritage property/ in a manner which is inconsistent with relevant values

Assessment: The proposed activity will not extend, renovate, refurbish or substantially alter the Willandra Lakes Region in any manner.

2.1.2 Do y	ou consider	this impact	to be significant?
------------	-------------	-------------	--------------------

☐ Yes	✓ No	
-------	------	--

2.2 Is the proposed action likely to have any direct or indirect impact on the values of any National Heritage places?

_,			
√₁	Yes	11	No

Place

Willandra Lakes Region national heritage place

Impact

Possible Impact: Restrict or inhibit the continuing use of a National Heritage place as a cultural or ceremonial site causing its values to notably diminish over time.

Assessment: The proposed activity will not restrict or inhibit use of the place as a cultural or ceremonial site. The proposed activity is in accord with the wishes of the Willandra Lakes Region Aboriginal Advisory Group (AAG) and will enhance Indigenous heritage values through rehabilitation of the landscape and improved associations and connection to country.

Place

Willandra Lakes Region national heritage place

Impact

Possible Impact: Permanently diminish the cultural value of a National Heritage place for an Indigenous group to which its National Heritage values relate

Assessment: The proposed activity will not diminish and will enhance the cultural value of the place for the AAG. The proposed activity is at the request of the Willandra Lakes Region Aboriginal Advisory Group (AAG). The reburial of the Willandra Lakes Aboriginal Ancestors will recover and enhance the Aboriginal cultural heritage and social values for future generations by respecting the ancestors and continuing cultural protocols of caring for the dead.

Place

Willandra Lakes Region national heritage place

Impact

Possible Impact: Remove, destroy, damage or substantially disturb archaeological deposits or cultural artefacts in a National Heritage place

Assessment: The proposed reburials have a very low potential to remove, destroy, damage or substantially disturb archaeological deposits or cultural artefacts. A detailed assessment has been undertaken of the proposed activity areas and the likelihood of impacting any archaeological deposits or artefacts is extremely low. On the basis that the total surface impact area is 28.5m2, approximately 0.012 artefacts could be expected to be encountered for all the activity areas combined. No burials are likely to be encountered in the activity areas (see Att A-REF-Part4-Appendix 7 Section 10.3.2. Please note: some detailed locational information has been removed from this Attachment as it is not in the public interest, or in best interests of providing safety and security for the remains, to make this information widely available).

Detailed measures have been planned to mitigate impacts in the event that Aboriginal objects or ancestors are encountered during excavation of the graves.

Place

Willandra Lakes Region national heritage place

Impact

Possible Impact: Notably diminish the value of a National Heritage place in demonstrating creative or technical achievement

Assessment: The proposed activity will not impact a creative or technical achievement and will not diminish the value of a National Heritage place in demonstrating creative or technical achievement.

Place

Willandra Lakes Region national heritage place

Impact

Possible Impact: Involve activities in a National Heritage place with substantial and/or longterm impacts on the values of the place.

Assessment: The proposed activity will not have a substantial and/or long-term impact on the values of Willandra Lakes Region and will enhance the Indigenous values of the place through rehabilitation of the landscape and developing stronger attachments to country.

The activity will have a substantial and long-term impact on ancestral remains which were removed from the property prior to its inscription on the World Heritage List. These ancestors will no longer be available for study. However the action will not close all opportunity for further study and research. Newly exposed Aboriginal ancestors have been located and remain in situ. Westaway states (2006, p. 127) '...many burials are still eroding from the Willandra, and present an opportunity to learn more about the region'. Westaway further noted that there were more than 50 other in situ within the Willandra Lakes system (2006, p. 129). That number has now risen to more than 70 individual burials and newly exposed remains are regularly located.

makes clear the pathway for further research on ancestors in the property.					
2.2.2	Do you	consider	nis impact to be significant?		
	Yes	\subseteq	lo .		
2.3 I	s the pro	posed ac	on likely to have any direct or indirect impact on the ecological character of a Ramsar wetland?		
	Yes	\subseteq	lo		



2.4 Is the proposed action likely to have any direct or indirect impact on the members of any listed species or any threatened ecological community, or their habitat?
☐ Yes ☑ No
2.5 Is the proposed action likely to have any direct or indirect impact on the members of any listed migratory species or their habitat?
☐ Yes ☑ No
2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)?
☐ Yes ☑ No
2.7 Is the proposed action likely to be taken on or near Commonwealth land?
☐ Yes ☑ No
2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park?
☐ Yes ☑ No
2.9 Is the proposed action likely to have any direct or indirect impact on a water resource from coal seam gas or large coal mining development?
☐ Yes ☑ No
2.10 Is the proposed action a nuclear action?
☐ Yes ☑ No
2.11 Is the proposed action to be taken by a Commonwealth agency?
☐ Yes ☑ No
2.12 Is the proposed action to be undertaken in a Commonwealth Heritage place overseas?
☐ Yes ☑ No
2.13 Is the proposed action likely to have any direct or indirect impact on any part of the environment in the Commonwealth marine area?
☐ Yes ☑ No

Section 3

Description of the project area

3.1 Describe the flora and fauna relevant to the project area

The dominant flora observed at almost all sites was Black Bluebush (Maireana pyramidata) and for many, the only visible live (or dead) plant species. Several other common chenopods observed at some sites including Dillon Bush (Nitraria billardierei), Hedge Saltbush (Rhagodia spinescens), Pop Saltbush (Atriplex holocarpa), Ruby Saltbush (Enchylaena tomentosa), Cannonball (Dissocarpus paradoxus) and Copperburr (Sclerolaena obliquicuspis). A few sites had other shrub species in low numbers including Weeping Pittosporum (Pittosporum angustifolium), Rosewood (Alectryon oleifolius) or Narrow-leaf Hopbush (Dodonea viscosa). One site had Pituri (Duboisia hopwoodii) and Spinifex (Trioidia scariosa) in large numbers, while another site had many Pimelia Daisybush (Olearia pimelioides). A small number of sites had a few trees (sometimes dead) including Slender Cypress Pine (Callitris gracilis) or Yellow Mallee (Eucalyptus incrassata). It is likely that native grasses were common at most sites but had been browsed almost to ground level, leaving tiny tussocks (desiccated), probably of Rough Speargrass (Austrostipa scabra) or other perennial grasses. About 50% of the sites had a variable cover of moss with some sites also having a surface crust and sometimes lichen was present. None of the flora species observed were of conservation significance.

Weeds: No other groundcover was present apart from Wild Sage (Salvia verbenaca), Common Heliotrope (Heliotropium europaeum), Onion Weed (Asphodelus fistulosus) and the ubiquitous exotic pasture plant Burr Medic (Medicago polymorpha). The latter was present only as burrs and were often in large amounts on the surface at most sites. Wild Sage and Heliotrope were usually at low density and drought affected. Barley Grass (Hordeum leporinum) was observed at several sites but only as desiccated, fragmented debris. This widespread grass along with other annual grasses — Brome Grass (Bromus spp.), No Weeds of National Significance were observed in or near the proposed reburial sites. Although not visible as plants, it is noted that Caltrop (Tribulus terrestris) burrs accumulated on vehicle tyres in most areas during the site assessment, indicating that this weed is already widespread in the MNP and likely to be at its maximum level of distribution. None of the weeds observed are listed as Priority Weeds in the Western Region of NSW.

Fauna: The semi-arid landscape of the MNP is home to a diverse range of fauna, however populations have been heavily impacted by the introduction of domestic livestock and other exotic animal species. Many fauna present at the time of European settlement have become locally extinct (DEC, NSW Mungo National Park Plan of Management, 2006). Recorded mammals include Red Kangaroo (Macropus rufus), Western Grey Kangaroo (M. fuliginisis), Eastern Grey Kangaroo (M. giganteus), Echidna (Tachglossus aculeata), Common Dunnart (Sminthopsis murina), Fat-tailed Dunnart (S. crassicaudata), Southern Ningaui (Ningaui yvonneae) and 9 bat species. Threatened species include Little Pied Bat (Chalinobolus picatus), Bolums Mouse (Pseudomys bolami) and Giles Planigale (Planigale gilesi). Reptiles and Amphibians species (n=40) include: Shingleback (Trachydosaurus rugosus), Bearded Dragon (Pogona vitticeps), Mallee Dragon (Amphibolurus fordi), Gould's Goanna (Varanus gouldii), Eastern Brown Snake (Pseudonaja textilis), Western Brown Snake (P. nuchalis) and King Brown Snake (Pseudechis australis). Threatened species include Western Blue-tongue Lizard (Tiliqua occipitalis) and the Spinifex Slender Blue-tongue Lizard (Cyclodomorphous melanops). Gecko (n=10) and skink (n=16) species have also been recorded. Amphibians include Common Spadefoot Toad (Neobatrachus sudelli), Long-thumbed Frog (Limnodynastes fletcheri), Spotted Grass-frog (L. tasmaniensis) and Painted Burrowing Frog (Neobrachus pictus). Recorded bird species (n=150) in the MNP include Emu (Dromaius novaehollandiae), Mallee Ringneck Parrot (Barnardius zonarius barnard), Blue Bonnet Parrot (Northiella haematogaster), Singing Honeyeater (L. virescens), Richard's Pipit (Anthus richardi), Variegated Fairywren (Malurus lamberti), Bluewinged Wren (M. leucopterus), Apostlebird (Struthidea cinereal) and Australian Kestral (Falco cenchroides). Threatened species include Australian Bustard (Ardeotis australis), Chestnut Quail Thrush (Cinclosoma castanotum), Gilbert's Whistler (Pachycephala inornata), Pink Cockatoo (Cacatua leadbeateri) and Malleefowl (Leipoa ocellata). Fauna observed during the fieldwork included: Red Kangaroo, Western Grey Kangaroo, Eastern Grey Kangaroo, Emu, Echidna, Shingleback and Wedge-tailed Eagle. Pest animals: Evidence of the European Rabbit, Feral Goats, Red Foxes and flocks of stray sheep (Dorper) were observed in the field survey.

3.2 Describe the hydrology relevant to the project area (including water flows)

The Mungo National Park is in the semi-arid zone of south eastern Australia, experiencing a mean annual rainfall of 268.0 mm (BOM 047029, Pooncarie, the nearest official weather station 80 km to the west). Mean annual evaporation is 2,100 mm. The nearest rivers are the Darling River (80 km west), the Murray River (100 km south) and the Murrumbidgee (over 100 km south east). A path of a former ephemeral stream — the Willandra Creek — lies to the west close to the most western reburial site. This stream was an effuent of the Lachlan River in a period of wetter climate more that 25,000 years BP and was the source of water for the now dry lakes in and near the Mungo National Park. However the creek ceased to flow approximately 12,000 years BP. The land is generally of low relief, varying between 60 to 100 m AHD. The highest point in the local area are the crests of the lunettes, which are crescent shaped dunes that form on the eastern side of dry or drying lakebeds in the semi-arid zone. The slope on the reburial sites is gently undulating to flat, although some areas of the lunettes have much greater slopes. As a consequence of the low relief and semi arid climate, the local catchments are usually short and closed, with water runoff only occurring after thunderstorms or prolonged rainfall events. Local runoff did not reach the Willandra

Creek even during the exceptionally wet year experienced locally in 2011. Within and near the lunettes much of the surface soil consists of fine sands which rarely have surface runoff. However there are areas of clay soils on the lunettes which readily shed water. It was observed during the field work for this project that some of these areas with the more impermeable soils have suffered severe water erosion including eroded gullies running downslope possibly caused by vehicle tracks or stock routes. Of relevance to this project, sites of serious water erosion including stable depressions on slopes that carry runoff water will be avoided in the micro selection of reburial sites.

3.3 Describe the soil and vegetation characteristics relevant to the project area

The study area sits wholly in the Murray Darling Depression Biogeographic Region (IBRA) in south western NSW. The study area is wholly within the South Olary Plain subregion, is characterised by Quaternary aeolian sediments. A large proportion of the Willandra consists of playas and basins of the relict lakebeds and associated lunettes, surrounded by undulating sandplain and dunefields. The lakebed soils are a mosaic of grey and red heavy clays and relatively stable except they may suffer wind erosion when disturbed and are impassable to vehicles when wet. The lunettes are mostly loosely cemented whitish sands and well consolidated clays, sometimes exhibiting severe gully erosion (by water). The undulating sandplains consist of calcareous loamy to sandy loam soils (red and brown) with isolated depressions of grey clays. The sandplains are generally soils that are alkaline and not susceptible to water erosion but are prone to wind erosion when surface plant cover, dead or alive, is removed. The dunefields vary including parallel dunes of deep loamy sand with narrow swales of calcareous loamy red alkaline earths, dunefields of parabolic and unaligned dunes with deep sandy red soil swales, high unstable dunes of deep white sand interspersed with flats of calcareous loamy brown soils. The white sands have extremely low fertility and water holding capacity. The dunefields are not susceptible to water erosion but are prone to wind erosion when surface cover is removed, or the surface is heavily disturbed.

The plant community types in the Mungo National Park (MNP) include: Grasslands/Herblands; Bluebush/Saltbush Shrublands; Mixed Shrublands; Cypress Pine Woodland; Belar Rosewood Open-woodland; Mallee Open-shrublands; Mallee Open-shrubland and Spinifex; Acacia Open-woodland/Open-shrubland. The dominant communities in the activity areas assessed were Bluebush/Saltbush Shrublands and to a lesser extent there were Mixed Shrublands, Grasslands/Herblands, Mallee Open-shrublands and Mallee Open- shrublands and Spinifex (DEC, NSW Mungo National Park Plan of Management, 2006).

3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area

The Willandra Lakes Regions covers 240,000 hectares of a semi-arid landscape mosaic in the Murray Basin area of far south western New South Wales. The region contains a system of Pleistocene lakes formed over the last two million years which are now dry. Most lakes are fringed in the eastern shore by a lunette (crescent shaped dune) formed by the prevailing winds moving material from the beach or the lakebed (latter when dry). Today the lake beds are flat plains vegetated by Saltbush/Bluebush shrublands and grasses. Part of the World Heritage Area is gazetted as Mungo National Park (110,000 hectare) which includes several lakebeds and lunettes. The Mungo lunette is of great cultural significance. The former lakes consist of five large interconnected basins and 14 smaller basins with the former source of water being a creek (Willandra Creek) which flowed from rivers from the Eastern highlands of SE Australia. Water flows gradually reduced with lakes becoming saline and eventually drying out completely.

The ancient shorelines are stratified into three major layers deposited at different times in the lakes' history - the oldest sediments date from 50,000 years BP. Indigenous people lived in the Willandra Lakes Region for at least 50,000 years. Excavations in 1968 uncovered the cremated remains of Mungo Lady in the dunes of Lake Mungo. Dated at 40,000 years old this is believed to be the oldest site of ritual cremation in the world. In 1974 the ochred burial of an Aboriginal man known as Mungo Man was found nearby, being of a similar age. In 2003, nearly 460 fossilised human footprints were discovered, the largest collection of its kind in the world, dated at 19,000 to 23,000 years BP. The fossil record also provides evidence of people adapting to changes in climatic conditions, changing landscapes and availability of food and water. During the last Ice Age when the lakes were full, the Mungo people camped along the lake shores, taking advantage of the wide range of food including freshwater mussels, yabbies, golden perch and Murray cod, emus, marsupials and plant resources. Even after the lakes dried out, there is ample evidence of human occupation over the last 10,000 years in the top layer of sediments. The region abounds in ancient cultural and archaeological artefacts including human skeletal material, tools, middens and animal bones along with relatively undisturbed landforms spanning thousands of years.

The remains of a large number of animals have been found in the Willandra Lakes Region with more than 55 species being identified of which 40 are no longer present in the region with 11 of these extinct. Recent surveys have recorded 22 species of mammal, including many bats and some 40 species of reptile/amphibians and 137 bird species.

3.5 Describe the status of native vegetation relevant to the project area

Native vegetation in New South Wales is protected under the NSW Biodiversity Conservation Act 2016. The purpose of this Act (Part 1 Preliminary, Sec 1.3 Purpose of Act) is to maintain a healthy, productive and resilient environment for the

greatest well-being of the community, now and into the future consistent with the principles of ecologically sustainable development, and in particular:

- (a) to conserve biodiversity at bioregional and State scales, and
- (b) to maintain the diversity and quality of ecosystems and enhance their capacity to adapt to change and provide the needs for future generations, and.....
- (k) to establish a framework to avoid, minimise and offset the impacts of proposed development and land use changes on biodiversity.

The Act enables the provision of offset areas for permitted clearing of native vegetation. None of the land relevant to the reburials is committed as offset area.

- (b) national park estate and other conservation areas, namely:
- (ii) land reserved under the National Parks and Wildlife Act 1974.....
- (vii) a declared World Heritage property within the meaning of the Environment Protection and Biodiversity Conservation Act 1999 of the Commonwealth......

Although there is native vegetation in close proximity to reburial sites, none will be removed, destroyed or lopped. As all sites are in a World Heritage property and most are in a National Park, the land concerned is exempt land regarding regulation of native vegetation in rural areas.

3.6 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area

The ranges of gradients of the land at the 26 sites is documented in the site descriptions (see Attachment A-REF-Part2. This document will not be made publicly available due to cultural sensitivity reasons). The gradient varies at most sites from flat to a maximum of 8%. There is variation at some sites which are amongst dunes or which abut a steep sand wall. Most sites are close to or on the side of a lunette hence the land has a gradient.

3.7 Describe the current condition of the environment relevant to the project area

The region experienced drought conditions due to low rainfall during 2018- 2019. The total rainfall recorded at Pooncarie BOM station for the 14 months (1/3/2018 to 30/4/2019) was 122.2mm compared to the long term annual mean rainfall of 268 mm. As a consequence the landscape at the time of the field assessment was in poor condition, including poor health of shrubs, absence of annual and perennial groundcover plants, and experiencing wind erosion ranging from incipient to severe. The impact of total grazing pressure by kangaroos, feral goats, rabbits and stray sheep was apparent. However, between 1 May and 3 May 2019, 24.4 mm of rainfall was recorded at Pooncarie. Further rainfall through 2020 was above the annual mean rainfall, and has resulted in the recovery of shrubs, annual and perennial groundcover plants.

3.8 Describe any Commonwealth Heritage places or other places recognised as having heritage values relevant to the project

The Willandra Lakes region including Mungo NP is an area of outstanding international and national significance for its landscape and cultural heritage values, its archaeological, geomorphological and palaeontological features. The proposed works areas are:

included within the boundary of the Willandra Lakes Region as inscribed on the World Heritage List in 1981 contained with the boundary of Willandra Lakes Region which was included on the National Heritage List in 2007

The World Heritage Retrospective Statement of Outstanding Universal value for the Willandra makes clear that it is the place, the landscape itself, that holds the OUV of WLR in undisturbed stratigraphic deposits that contain occupation deposits of various kinds of cultural material including stone artefacts, grindstones, middens, trackways and burials, that evidence nearly 50,000 years of Aboriginal social, cultural and economic life (see Attachment A-REF-Part4, Appendix 8).

3.9 Describe any Indigenous heritage values relevant to the project area

The project area contains many Aboriginal cultural heritage places that are of significant value to the Aboriginal community, including Barkindji/Paakantji, Mutthi Mutthi and Ngiyampaa peoples, who have a strong and special association of the property with the Willandra Lakes and the Willandra Lakes Aboriginal Ancestors. Extensive detail on these values and expressions of concern can be found in the Mungo Report by the Western Heritage Group (2017).

- The reburial of the Willandra Lakes Aboriginal Ancestors will recover and enhance the Aboriginal cultural heritage and social values for future generations by respecting the ancestors and continuing cultural protocols of caring for the dead.

- The reburial of the Willandra Lakes Aboriginal Ancestors will recover and enhance the use and association of the Aboriginal community with the place for future generations.
- The proposed works will enhance Aboriginal cultural heritage values for future generations, through rehabilitation of the landscape.
- The proposed works will have a positive impact on the cultural safety of the Aboriginal community, including future generations. The removal and study of ancestors has caused long standing concern for the Aboriginal community and the reburial of the ancestors will resolve this concern.

3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area

The project area consists mainly (22 sites out of 26) of national park (Mungo National Park, reserved under the NSW National Parks and Wildlife Act 1974) and managed by the NSW National Parks and Wildlife Service.

Four of the sites are on leasehold land (Western Lands Lease regulated under the Crown Land Management Act 2016) which is occupied by leaseholders. Western Lands Leases are administered by the Western Lands Commission. Conditions are attached to Western Lands leases to ensure the land is managed sensibly and sustainably. Leases relevant to the project are perpetual (ongoing) and the designated lease purpose is grazing.

3.11 Describe any existing or any proposed uses relevant to the project area

The Mungo National Park is used for conservation and protection of natural assets and Aboriginal cultural heritage assets, landscapes and tourism. The Western Lands leasehold land is used for rangeland grazing of domestic livestock, predominantly sheep (mainly the Dorper variety for meat or merinos). Some graziers run goats commercially. All land relevant to this project is in the Willandra Lakes Region World Heritage Area.

Section 4

Measures to avoid or reduce impacts

4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action

The measures that will be undertaken to minimise impact from the proposed action are described in detail in Attachment A REF-Part1 Section 6.2, and also in Attachment A REF-Part4 Appendix 10.(Please note. Some detailed locational information has been removed from this Attachment as it is not in the public interest, or in best interests of providing safety and security for the remains, to make this information widely available).

The environmental and Aboriginal cultural heritage controls and mitigation measure are as follows:

- •All reburials must be located within the 58m radius of the one-hectare reburial assessment site or a lesser area (semi-circle of 0.5ha) for eight sites.
 - •Locate and flag out all Aboriginal objects within assessment area prior to reburial, so they can be avoided.
 - •The reburial party will travel to each site in a minimum number of vehicles.
 - •Park vehicles away from reburial site and remain on existing tracks where possible.
- •Bare or weedy ground will be the preferred route where there is a justifiable need to travel away from an existing access track.
- •Diesel powered vehicles must be used for transport and carry sufficient fuel to avoid the need to refuel from jerry cans while in the field.
 - •Vehicles used on site must be fitted with a fire extinguisher.

Conduct reburial/s near central grid coordinate to avoid impacts to recorded or observed Aboriginal objects. See Attachment A REF-Part4 Appendix 11. (Please note. Some detailed locational information has been removed from this Attachment as it is not in the public interest, or in best interests of providing safety and security for the remains, to make this information widely available).

- •Where reburials are to be located at the toe of an advancing sand wall (the 0.5ha sites) the reburial locations should be close to the centre point as the assessment area.
- •Selection of the reburial sites in assessment area must be done on foot, ensuring that each reburial location is on bare or weedy ground and avoids established shrubs and outside dripline of trees and avoids areas of severe wind or water erosion.
- •At sites where the soil is sandy throughout the profile, reburials should be at a greater depth than sites with finer soil texture.
- •Reburials should not be located within 10 metres of rabbit warrens as these could become unstable due to soil erosion or further burrowing.

Wherever possible hand tools are to be used to excavate reburial sites. Several complete skeletons will require larger holes and a small backhoe will be used to excavate the holes.

- •Topsoil and surface mulch/seed will be saved prior to excavation of the reburial hole, ensuring that these resources are not cross contaminated with subsoil. Topsoil is to be respread over the disturbed area after the hole is refilled. Then the area must be lightly raked and the stored organic matter spread on the raked area to assist in natural regeneration.
- •The surface area of each hole will be minimised according to the volume of Aboriginal Ancestors to be buried, with the lower limit based on the minimum diameter possible that can be excavated with a shovel (or manual soil auger if used).

The upper fill material in the hole should be well compacted to avoid soil subsidence and thus avoid erosion or enable the burial site to be identified easily; special care must be taken during compaction to avoid damaging any unexpected Aboriginal objects or Aboriginal Ancestors below.

- •In the event that unexpected discoveries of objects or Aboriginal Ancestors occurs during the proposed works:
- works will cease immediately
- •the objects or Aboriginal Ancestors will be recorded and photographed
- •an AHIMS record card will be completed
- •the excavation will be refilled
- •a new grave site will be chosen elsewhere from within previously assessed area.
- •Excavated holes must not be left open overnight to avoid entrapment of wildlife.
- •It is preferable that reburials not be undertaken in Spring to minimise the potential of disturbance of breeding/nesting wildlife.
- •It is preferable that reburials occur in Autumn to optimise natural regeneration while the soil is freshly disturbed, and to minimise the time period the ground at each reburial location remains bare and disturbed to avoid erosion.
 - •It is preferable that reburials occur in Autumn to avoid fire risk days/hot days.
- •Reburials must avoid periods after heavy rainfall to ensure wheel tracks are not created in soft soil and vehicles don't become bogged.
- •Special care must be taken during smoking ceremonies or any other use of naked flame (if such activities occur) to avoid starting a fire.
- •Each site must be checked on completion of reburials to ensure that no items are left on the site(e.g. storage cartons, hand tools, drink bottles, food wrappers, cigarette butts and centre point reference stake).

4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved

Matters of national environmental significance and other matters protected by the EPBC Act revealed in the search area are:

World Heritage Properties (1) Willandra Lakes Region

National Heritage Places (1) Willandra Lakes Region

State and Territory Reserves (1) Mungo National Park

Listed Threatened Ecological Communities (2) Buloke Woodlands of the Riverina and Murray-Darling Depression; Weeping Myall Woodlands

A detailed analysis of the existing environment is included in Attachment A REF-Part1, Section 8. This includes Ecological communities (threatened ecological communities and regionally significant communities).

An assessment of the impact of the proposed reburials on Matters of National Environmental Significance (2019) was also included in the REF (see Attachment A REF-Part4, Appendix 8). This assessment concluded that the proposed reburial of the Willandra Lakes Aboriginal Ancestors will not result in one or more of the National Heritage or World Heritage values of the Willandra Lakes Region being lost, degraded or damaged, or notably altered, modified, obscured or diminished.

The environmental outcomes to be achieved are:

- There will be no detrimental impact on any listed threatened species or ecological communities.
- There will be no loss or modification of habitat to listed threatened species.
- There will be no impact on any Wetlands of International Importance, Listed Marine Species or Listed Migratory Species.
- There will be no change to the distribution or frequency of Invasive Species.
- The proposed reburial of the Willandra Lakes Aboriginal Ancestors will not result in one or more of the National Heritage or World Heritage values of the Willandra Lakes Region being lost, degraded or damaged, or notably altered, modified, obscured or diminished.



Commonwealth Heritage places overseas

Commonwealth marine areas

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Sec	ction 5
Con	clusion on the likelihood of significant impacts
5.1 \ actio	You indicated the below ticked items to be of significant impact and therefore you consider the action to be a controlled
	World Heritage properties
	National Heritage places
	Wetlands of international importance (declared Ramsar wetlands)
	Listed threatened species or any threatened ecological community
	Listed migratory species
	Marine environment outside Commonwealth marine areas
	Protection of the environment from actions involving Commonwealth land
	Great Barrier Reef Marine Park
	A water resource, in relation to coal seam gas development and large coal mining development
	Protection of the environment from nuclear actions
\Box	Protection of the environment from Commonwealth actions

5.2 If no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a significant impact on a matter protected under the EPBC Act and therefore not a controlled action

1. On Ground Impacts

The proposed activity will impact 28.5 square metres in total. Site selection and excavation of small graves within an assessed site using manual methods, along with adoption of controls will ensure there are no significant environmental impacts on protected matters. There will be no loss or destruction of, or harm to, native vegetation. No threatened flora or fauna or threatened ecological communities were observed during the site assessments and there will be no impact on these even if they occur or are likely to occur near the reburial sites due to the benign nature of the action and the adoption of environmental controls.

Each reburial site has been selected to avoid areas likely to erode and avoid impacts on flora and cultural heritage. Selection of burial sites will target bare, stable ground between widely scattered shrubs within the assessed area. The burial sites will have the minimum surface dimension required. It is possible that at some sites a manually operated soil auger will be used if the amount of Willandra Ancestral Remains to be buried is small.

The cultural heritage assessment of the project (Attachment A REF-Part4, Appendix 7) found there is a very low likelihood existing stone, burials or shell artefacts will be encountered during the reburials and if this occurs they will be flagged beforehand so they can be readily avoided during reburials.

Vehicles will be kept off-site on existing tracks where possible. The reburial will occur with a small number of people over a short time. Timing of the action will target non-breeding times of fauna (late Spring or Autumn). Timing in Autumn would ensure that natural regeneration of groundcover by annual weeds in the first instance, is likely to follow reburial with a minimum lag time.

The reburial operation will occur under supervision of local staff from Heritage NSW and the NSW NPWS with Aboriginal Elders present and involved at all sites.

In summary the activity is regarded as having no significant detrimental environmental impacts.

2. Impact on World Heritage Values

The reburial of the Willandra Lakes Aboriginal Ancestors will recover and enhance the Aboriginal cultural heritage and social values for future generations by respecting the ancestors and continuing cultural protocols of caring for the dead.

An assessment (see Attachment A REF-Part4, Appendix 8) of impacts of the proposed activity of reburial of the Willandra Ancestral Remains on the Outstanding Universal Values (OUV) and National Heritage values of the WLRWHA has considered five frames of reference:

- International and Australian Policy relevant to Indigenous heritage protection and management
- Management objectives and strategies for WLRWHA
- Comparative case studies of International and Australian World Heritage properties
- The relationship of the Willandra Ancestral Remains to the OUV of the property
- Matters of National Environmental Significance: Significant Impact Guidelines



The assessment finds both the 1981 World Heritage nomination and the 2013 Retrospective Statement of OUV for the Willandra emphasize that it is the stratigraphy of the landscape and cultural deposits therein that holds the OUV of WLRWHA. These cultural deposits including burials, stone artefacts, hearths, middens and trackways demonstrate nearly 50,000 years of Aboriginal social, cultural and economic life. The Willandra ancestors that were removed from the region for study may be considered to contribute to the values of the property, but are not attributes of OUV.

The reburial will impact on the ancestral human remains that were removed from the property prior to inscription on the World Heritage Listing and the National Heritage List. The Willandra ancestors have known scientific significance but the loss of future scientific research opportunities through their reburial is considered an indirect impact of the activity and not a significant impact on the OUV.

In summary (please see Att A-REF-Part4-Appendix 8 for details) reburial of the Willandra ancestors:

- will impact the ancestral remains that were removed from the property prior to inscription on the World Heritage Listing and the National Heritage List,
- will present an indirect impact on the scientific research potential of the ancestral remains, though this impact is mitigated by the potential for further research on new ancestors (see Section 8 of this application for further details).
 - will not be a significant impact on the cultural values, or outstanding universal values, of the World heritage property,
 - will not be a significant impact on the historic heritage values of the National heritage place, and
 - will be a beneficial impact on the indigenous values of the National heritage place.



Section 6

Environmental record of the person proposing to take the action

6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Explain in further detail

Yes, the Heritage NSW, Department of Premier and Cabinet, have a satisfactory record on responsible environmental management. The action is being planned and conducted under the guidance of the Heritage NSW, Department of Premier and Cabinet (formerly the Office of Environment and Heritage) and the NSW National Parks and Wildlife Service, Buronga Office. The project manager is Mr Harvey Johnston, Senior Team Leader, Regional Heritage Operations, Heritage NSW. Assistance will be provided by Aboriginal Heritage Officers from Heritage NSW as well as Willandra Lakes Region Aboriginal Rangers and Mungo National Park Aboriginal Rangers.

6.2 Provide details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either (a) the person proposing to take the action or, (b) if a permit has been applied for in relation to the action — the person making the application

This application is lodged by Heritage NSW, Department of Premier and Cabinet (formerly the Office of Environment and Heritage), State of NSW. There are no past or present proceedings against the person proposing the action, or the person making the application.

6.3 If it is a corporation undertaking the action will the action be taken in accordance with the corporation's environmental policy and framework?
☐ Yes ☑ No
6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?
Yes No
6.4.1 EPBC Act No and/or Name of Proposal
EPBC Act No 2017/8040 - Willandra ancestral remains repatriation project 2017

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.
Section 7
Information sources
Reference source
DE (Commonwealth Department of the Environment), 2013, Matters of National Environmental Significance.
Reliability
High
Uncertainties
Low
Reference source
DEC (Department of Environment and Conservation), 2006, Mungo National Park: Plan of Management, Hurstville, NSW, National Parks and Wildlife Service
Reliability
High
Uncertainties
Low
Reference source
DEE (Commonwealth Department of the Environment and Energy), 2017, EPBC Act referral - Willandra ancestral remains repatriation project.
Reliability
High
Uncertainties
low
Reference source
DEST (Commonwealth Department of the Environment, Sport and Territories), 1996, Sustaining the Willandra: The Willandra Lakes Regions World Heritage Property Plan of Management. Prepared for the Commonwealth Department of the Environment, Sport and Territories by Manidis Roberts Consultants, Surry Hills, NSW.
Reliability
High
Uncertainties
Low
Reference source
OEH (NSW Office of Environment and Heritage), 2013 Attachment A - Confidential Information associated with Willandra Ancestral remains return to country proposal. Submitted under EPBC referral 2017/8040.
Reliability
High
Uncertainties
Low

Kete	erenc	e soi	irce

Michael Williams & Associates, 2015, Key Outcomes Report of a Willandra Repatriation Forum held in Mildura 17-18 February 2015.

Reliability

High

Uncertainties

Low

Reference source

Michael Williams & Associates 2016, Key Outcomes Report of a Second Willandra Repatriation Forum held in Buronga 9 November 2016.

Reliability

High

Uncertainties

Low

Reference source

Michael Williams & Associates, 2017, Key outcomes Report of a 3rd Willandra Repatriation Forum held at Inland Botanic Gardens, Buronga on 5 April 2017.

Reliability

High

Uncertainties

low

Reference source

Australian Archaeological Survey Consultants Ltd. (2004). Our Past, Our Future. The Willandra. Willandra Lakes World Heritage Area Three Traditional Tribal Groups Plan of Management, Employment Strategy, Keeping Place and Research Centre Feasibility Study. Unpublished report to Mutthi Mutthi, Ngiyampaa and Paarkinji.

Reliability

High

Uncertainties

Low

Reference source

Godden Mackay Logan. (2003). Mungo National Park Historic Heritage: Conservation Management and Cultural Tourism Plan. Report prepared for NSW National Parks and Wildlife Service.

Reliability

High

Uncertainties

Low

Reference source

Office of Environment & Heritage. (2018). Repatriation of Aboriginal Ancestors and Cultural Material Policy. Sydney: Office of Environment & Heritage.

Reliability

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.
High
Jncertainties
low
Reference source
Western Heritage Group Western Heritage Group. (2017). The Mungo Report. Statement of Significance of the Willandra Lakes World Heritage Area to Aboriginal People of Western NSW. Retrieved from http://westernheritagegroup.com.au
Reliability
High
Jncertainties
Low
Reference source
Westaway, M. (2016). A report to the Willandra Elders on two possible Ice Age child cremations. Unpublished report to the Aboriginal Advisory Group.
Reliability
High
Jncertainties
Low
Reference source
Westaway, M. (2006). The Pleistocene human remains collection from the Willandra Lakes World Heritage Area, Australia, and its role in understanding modern human origins. National Science Museum Monographs, 34, 127-138.
Reliability
High
Jncertainties
Low
Reference source
Webb, S. (2018). Made in Africa. Hominin explorations and the Australian skeletal evidence. New York: Academic Press.
Reliability
High
Jncertainties
Low
Reference source
Bowler, J., Jones, R., Allen, H., & & Thorne, A. (1970). Pleistocene human remains from Australia: a living site and human cremation from Lake Mungo. World Archaeology, 2, 39 - 60.
Reliability
High
Jncertainties
I ow

Reference source Mulvaney, J. (1972). Prehistoric man in Australia. Nature, 240, 9-10. Reliability High Uncertainties Low Reference source Australian Heritage Commission. (1980). Nomination of Willandra Lakes Region for inclusion in the World Heritage List. Canberra: Australian Heritage Commission. Reliability High
Reliability High Uncertainties Low Reference source Australian Heritage Commission. (1980). Nomination of Willandra Lakes Region for inclusion in the World Heritage List. Canberra: Australian Heritage Commission. Reliability
High Uncertainties Low Reference source Australian Heritage Commission. (1980). Nomination of Willandra Lakes Region for inclusion in the World Heritage List. Canberra: Australian Heritage Commission. Reliability
Uncertainties Low Reference source Australian Heritage Commission. (1980). Nomination of Willandra Lakes Region for inclusion in the World Heritage List. Canberra: Australian Heritage Commission. Reliability
Reference source Australian Heritage Commission. (1980). Nomination of Willandra Lakes Region for inclusion in the World Heritage List. Canberra: Australian Heritage Commission. Reliability
Reference source Australian Heritage Commission. (1980). Nomination of Willandra Lakes Region for inclusion in the World Heritage List. Canberra: Australian Heritage Commission. Reliability
Australian Heritage Commission. (1980). Nomination of Willandra Lakes Region for inclusion in the World Heritage List. Canberra: Australian Heritage Commission. Reliability
Canberra: Australian Heritage Commission. Reliability
High
Uncertainties
Low
Reference source
Webb, S. (2016). A basic assessment of future RCKP research programs and aims. Report presented to the Aboriginal Advisory Group.
Reliability
High
Uncertainties
Low
Reference source
Webb, S. (1989). The Willandra Lakes Hominids. Canberra: Department of Prehistory, Research School of Pacific Studies, Australian National University.
Reliability
High
Uncertainties
Low
Reference source
Cribb, J. (1990). Bones of Contention. The Weekend Australian: 19.
Reliability
High
Uncertainties
Low

Reference source

Stannard, B. (1988). Bones of Contention. The Bulletin: 40-47.

Reliability

High

Uncertainties

Note: PDF may contain fields not relevant t	your application.	These fields will appear blank of	or unticked. Please disregard these fields.
---	-------------------	-----------------------------------	---

Low			

Section 8

Proposed alternatives

Do you have any feasible alternatives to taking the proposed action?

☑ Yes N

8.0 Provide a description of the feasible alternative

Alternatives that were considered for the Willandra ancestral remains collection at a November 2016 forum (Attachment H) were:

- Reburial of all remains in individual unmarked graves OR reburied in three cemeteries located near Lakes Mungo, Gogolo and Garnpang
 - Safekeeping in a Keeping Place of the Mungo Man and Mungo Woman ancestral remains, either at Joulni or Leaghur
- Establishment of a Research Centre for on-going study, assessment and conservation of cultural heritage using existing buildings at Leaghur or Joulni.

This 2016 forum concluded that the priority was to develop a facility where future research could be carried out on Country, not construction of a Keeping Place. A Keeping Place has long been encouraged by scientific stakeholders (Attachment J). Concerns from the scientific community over the reburial of the Willandra Aboriginal Ancestors, and the adverse impact this would have on knowledge about human history, have frequently been raised in Willandra meetings and workshops. For example, John Mulvaney (Attachment A REF-Part1, Section 7.2) stated '....there is just so much of significance to the history to Aboriginal people and globally humankind to those remains'.

One of clearest statements on this concern comes from Webb (2018, p. xv) who wrote, 'If the Willandra collection is buried or scientific enquiry about them denied, it will be a great tragedy not only for understanding our origins but also Australia's Aboriginal community. Future generations will question why scientific research into that story and their heritage could not continue: moreover it will be the destruction of an important stage in Australia's history that can never be replaced. Aboriginal people themselves will not have the opportunity that I have had to study the collection and that is why the data need to be put on the record as evidence of the final stages of exploration and travel of our ancestors and who crossed the planet as far as their ingenuity could take them'.

A repatriation Forum in February 2015 (Attachment G) included a wide range of both scientists and traditional custodians explored these concerns. One of the consensus outcomes of this forum was that 'We recognise that learning and education are important opportunities for the future. In partnership with museums and universities, we should be able to tell our story and present our culture to visitors'.

In this context further opportunities for research on Aboriginal Ancestors in the Willandra Lakes are likely, provided the appropriate research protocols are followed. There are numerous in situ burials in the region - two examples from Webb and Westaway are cited to support the view that the reburial of the Willandra Aboriginal Ancestors will not limit future study.

Webb (2016) outlined the future potential research of the Willandra. 'The continued exposure of human remains across the 3000 km2 region will inevitably bring forth those of world scientific significance. The focus of modern human evolutionary study focuses on places across the world and the Willandra is one of those. So far Lake Mungo has the oldest dates for humans in Australia and they represent people at the end of the longest of human journeys. That story is not at an end but just beginning. Future study of human remains from the region is a vital addition to the world story of humanity...'

Westaway states (2006, p. 127) '...many burials are still eroding from the Willandra, and present an opportunity to learn more about the region'. Westaway further noted that there were more than 50 other in situ within the Willandra Lakes system (2006, p. 129). That number has now risen to more than 70 individual burials and newly exposed remains are regularly located. For example, Westaway (2016) recently located two graves containing child burials that are indicative of the research potential that exists in the Willandra. Westaway concluded; 'These findings are potentially very important. If they are children and they do date to the Last Ice Age, as the exposed evidence suggests, then these burials expand our understanding of behavioural complexity in ancient Aboriginal Australia as reflected in sophisticated burial rituals for children living in the Ice Age. In terms of our understanding of human complexity at this early stage, there really are no other sites like this in the world'.

This would indicate that scientific research in the Willandra Lakes has a future. The protocols that can lead this have already been developed by the AAG, including principles such as,

- All research must be developed in partnership
- No research project or question is to be developed on Aboriginal Ancestors without the AAG
- No remains are to be off country or out of the ground for an indefinite period
- A date must be set by which time remains are to be reburied (Attachment L: Willandra Lakes Region World Heritage Area AAG 2021 Research Code of Practice).

8.1 Select the relevant alternatives related to your proposed action ☐ Timeframes ☐ Locations ☐ Activities
8.4 Provide a brief physical description of the property on which the alternative proposed action will take place and the project
location (e.g. Proximity to major towns, or for off-shore projects, shortest distance to mainland)
Mungo National Park (MNP) is situated in the rangelands of south western NSW and forms part of the Willandra Lakes Region World Heritage Area. MNP is 110 km north east of the Victorian/NSW border towns of Mildura and Wentworth and 140 km north west of the NSW town of Balranald. Leaghur, Joulni and Garnpang are in Mungo National Park The Willandra property encompasses most of the MNP but extends well beyond the park boundary to the south, west and north east.
8.5 What is the size of the development footprint or work area of the alternative?
the size of the alternative was not determined
8.6 Describe the location
Address - Arumpo Road, Buronga, NSW, 2739, Australia
8.7 Is there a different local government area and council contact for the alternative? ☐ Yes ☐ No
8.8 Provide details of the context, planning framework and State/Local Government requirements
The Environmental Planning and Assessment Act 1979 (EP&A Act) consider aims and objectives of relevant environmental planning instruments, zoning and permissible uses, development controls, etc. Clause 65 of State Environmental Planning Policy (Infrastructure) 2007 provides that development for any purpose may be undertaken within lands reserved under the National Parks and Wildlife Act 1974 without consent. This removes the need for development consent under Part 4 of the EP&A Act (e.g. council approval), meaning that most activities within National Parks land are assessed under Part 5, which required internal consent from the Secretary via a Review of Environmental Factors.
8.9 Describe any public consultation that has been, is being or will be undertaken (including with Indigenous stakeholders)
Repatriation forums between 2015, 2016 and 2017 all considered the merits of retaining the ancestral remains in a keeping place, and debated the pros and cons of this option in detail. These options were • Reburial of approx. 108 individuals in individual unmarked graves OR reburied in three cemeteries located near Lakes Mungo, Gogolo and Garnpang • Safekeeping in a simple purpose built Keeping Place of the Mungo Man and Mungo Woman ancestral remains, either at Joulni or Leaghur • Establishment of a Research Centre to allow on-going study, assessment and conservation of cultural heritage in the
Willandra Lakes, preferably using existing buildings at Leaghur or Joulni.
However, in November 2018 the Willandra Aboriginal Advisory Group (AAG) decided to proceed with the option to rebury the Willandra ancestral remains collection.
8.10 Describe any environmental impact assessments that have been, is being or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project for the alternative
No Environmental impact assessments have been carried out for the alternative project. No environmental impacts have been identified.
8.11 Is this action part of a staged development (or a component of a larger project)? ☐ Yes ☑ No

8.12 Nominate any matters of National Environmental Significance that are likely to be impacted by this alternative proposal by ticking the relevant checkboxes

World Heritage properties

National Heritage places

8.12.1 Provide further information on potential impacts of matters of environmental significance that you have nominated above

The alternative proposals that have been discussed for this project involve the construction and establishment of a Keeping Place (a small building). This alternative has not been endorsed and there are no environmental impact assessments completed or under way for any alternative options in relation to this activity.

8.13 Describe any impacts on the flora and fauna relevant to the alternative proposal

No impacts.

8.14 Describe the hydrology relevant to the alternative proposal (including water flows)

No impacts

8.15 Describe the soil and vegetation characteristics relevant to the alternative proposal

No environmental impact assessments have been carried out for the alternative project. No impacts on soil and vegetation have been identified.

8.16 Describe any outstanding natural features and/or unique values relevant to the alternative proposal

No environmental impact assessments have been carried out for the alternative project. No environmental impacts have been identified.

8.17 Describe the remnant native vegetation relevant to the alternative proposal

No environmental impact assessments have been carried out for the alternative project. No environmental impacts have been identified.

8.18 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the alternative proposal

Not relevant.

8.19 Describe the current state of the environment relevant to the alternative proposal

The alternative proposal would take place In existing buildings, or within purpose built buildings. No environmental impact assessments have been carried out for the alternative project. No environmental impacts have been identified.

8.20 Describe any Commonwealth Heritage places or other places recognised as having heritage values relevant to the alternative proposal

Willandra Lakes Region World Heritage Area

8.21 Describe any Indigenous heritage values relevant to the alternative proposal

Not the preferred option.

8.22 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the alternative proposal

Mungo National Park

8.23 Describe any existing or any proposed uses relevant to the alternative proposal

Mungo National Park



8.24 What are the proposed measures for any alternative action to avoid or reduce the impact?

Keeping Place alternatives that were considered for repatriation and reburial of the Willandra ancestral remains collection at the November 2016 forum were:

- Reburial of approx. 108 individuals in individual unmarked graves OR reburied in three cemeteries located near Lakes Mungo, Gogolo and Garnpang
- Safekeeping in a simple purpose built Keeping Place of the Mungo Man and Mungo Woman ancestral remains, either at Joulni or Leaghur
- Establishment of a Research Centre to allow on-going study, assessment and conservation of cultural heritage in the Willandra Lakes, preferably using existing buildings at Leaghur or Joulni.

While there has been consideration of these alternatives (whether or not the collection, or parts of the collection, will be reburied or placed in an underground long term keeping place) they have not been progressed or endorsed by the community, and do not form part of this proposed activity.

8.25	Do vou	have and	ther alternativ	ie?			
0.20	Do you	nave and	tilei alterilativ	c.			
	Ves	√	No				
\Box	103						



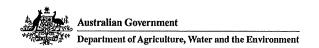
Section 9				
Person proposing the action				
9.1.1 Is the person proposing the action an organisation or business?				
Yes No				
Organisation	DEDARTMENT OF PREMIED AND CARINET			
Organisation name (as registered for ABN/ACN)	DEPARTMENT OF PREMIER AND CABINET			
Business name	NSW Department of Premier and Cabinet 34945244274			
ABN	34943244274			
ACN Business address	PO Box 318, Buronga, 2739, NSW, Australia			
Dusiliess address	TO Box 616, Bullinga, 2765, NOW, Australia			
Postal address				
Main Phone number	03 50218914			
Fax	hanvay jahnatan@anviranmant zawazawa			
Primary email address	harvey.johnston@environment.nsw.gov.au			
Secondary email address 9.1.2 I qualify for exemption from fees under Regulation 5.23(1)(ii) of the	EDBC Regulations because I am:			
Small business	e Er DO negulations because I am.			
✓ Not applicable				
9.1.2.2 I would like to apply for a waiver of full or partial fees under Reg	ulation 5.21A of the EPBC Regulations			
Yes □ No	ŭ			
9.1.2.3 Under sub regulation 5.21A(5), you must include information about	out the applicant (if not you) the grounds on which the			
waiver is sought and the reasons why it should be made				
The applicants seek exemption from the fees associated with this a • This application is submitted for the benefit of the Aboriginal command Mutthi Mutthi people who have lived on, managed and cared for t • The action's primary objective is to protect and manage cultural he	nunity of western NSW, and the Barkandji, Ngiyampaa he land.			
EPBC Act and the Australian Government Policy (2016) on Indigenou				
"Communities of origin are the rightful custodians of their ancestral				
They should determine when and how repatriation should be undertaken				
the local community, the Australia Government will seek the unconditi	onal return of ancestral remains and associated notes			
and data.".	M 1111 '' A BI (M			
• The proposed work is consistent with the Willandra Lakes Region				
of Environment, Sport & Territories, 1996) which clearly articulates the the rest of the Willandra Lakes Aboriginal Ancestors should also be re				
and associated actions to 'locate and manage all Aboriginal human re				
satisfaction of the 3TTGs.	maine and ether arenaerogical material to the			
9.1.3 Contact (for an organisation - the contact details of the pers				
First name	Pauline			
Last name	McKenzie			
Job title	Executive Director, Heritage NSW			
Phone				
Mobile				
Fax	nouling makenzio@ervirenment new zev zv			
Email Drimony address	pauline.mckenzie@environment.nsw.gov.au Heritage NSW, Locked Bag 5020, Parramatta, 2124, NSW,			
Primary address	Australia			
Address				



Declaration: Person proposing the action (To be signed by the person at 9.1.3)	
Pauline McKenzie	. declare that
to the best of my knowledge the information I have given on, or attached to the EPBC Act Re correct. I understand that giving false or misleading information is a serious offence. I declar behalf or for the benefit of any other person or entity. Signature:	
Pauline McKenzie	, the person
proposing the action, consent to the designation of Heritage NSW	as the proponent for the
purposes of the action described in this EPBC Act Referral.	
Signature:	



B 11 ' 11 '			
Proposed designated proponent			
9.2.1 Is the proposed designated proponent an organisation or busines	s?		
✓ Yes □ No			
Organisation			
Organisation name (as registered for ABN/ACN)	DEPARTMENT OF PREMIER AND CABINET		
Business name	NSW Department of Premier and Cabinet		
ABN	34945244274		
ACN			
Business address	Locked Bag 5020, Parramatta, 2124, NSW, AUSTRALIA		
Postal address			
L	00 5004 004 4		
Main Phone number	03 5021 8914		
Fax			
Primary email address	harvey.johnston@environment.nsw.gov.au		
Secondary email address			
9.2.2 Contact (for an organisation - the contact details of the personal state of the pe	on authorised to sign on behalf of the organisation)		
First name	Pauline		
Last name	McKenzie		
Job title	Executive Director, Heritage NSW		
Phone	02 9873 8584		
Mobile			
Fax			
Email	pauline.mckenzie@environment.nsw.gov.au		
Primary address	Locked Bag 5020, Parramatta, 2124, NSW, Australia		
Address			
Declaration: Proposed Designated Proponent			
I, Pauline McKenzie	,the		
proposed designated proponent, consent to the designation of			
myself as the proponent for the purposes of the action described in this	S EPBC Act Referral.		
Signature:			



Referring party (person preparing the information)	
9.3.1 Is the referring party an organisation or a business?	
✓ Yes □ No	
Organisation	
Organisation name (as registered for ABN/ACN)	DEPARTMENT OF PREMIER AND CABINET
Business name	
ABN	34945244274
ACN	
Business address	PO Box 318, Buronga, 2739, NSW, Australia
Postal address	
Main Phone number	0350218914
Fax	
Primary email address	harvey.johnston@environment.nsw.gov.au
Secondary email address	
9.3.2 Contact (for an organisation - the contact details of the person	on authorised to sign on behalf of the organisation)
First name	Harvey
Last name	Johnston
Job title	Senior Team Leader
Phone	03 5021 8914
Mobile	0407214227
Fax	
Email	harvey.johnston@environment.nsw.gov.au
Primary address	Heritage NSW, PO Box 318, Buronga, 2739, NSW, Australia
Address	Australia
Declaration: Referring party (person preparing the information)	
1. CARVEY JOHNSTON	, declare that
to the best of my knowledge the information I have given on, or attached	d to this EPBC Act Referral is complete, current and
correct. I understand that giving false or misleading information is a ser	ious offence.
Signature: Date: 13/5/2	1

Appendix A	
Attachment	
Document Type	File Name
action_area_images	Att A-REF-Part1.pdf
action_area_images	*Att A-REF-Part2-App1.PDF
action_area_images	*Att A-REF-Part3-App2.PDF
action_area_images	Att A-REF-Part4-App3-18.pdf
govt_approval_conditions	Att D-Heritage Act s60 Approval.pdf
govt_approval_conditions	Att B-REF Determination Letter.pdf
govt_approval_conditions	Att C-REF Determination Notice.pdf
localgov_approval_consent	Appendix 12 Response from Local Councils.PDF
impact_reduction_docs	Att E-WHA Draft POM.pdf
impact_reduction_docs	Att F-The Willandra Elders POM.pdf
impact_reduction_docs	Att G-Repatriation Forum 1 Report.pdf
impact_reduction_docs	Att H-Repatriation Forum 2 Report.pdf
impact_reduction_docs	Att I-Repatriation Forum 3 Report.pdf
impact_reduction_docs	Att J-Review of Meetings.PDF
impact_reduction_docs	Att K-Mungo Statement 1989.pdf
impact_reduction_docs	Att L-WLRWHA AAG Research Code Of Practice V8.2.pdf

* Not Published - Sensitive Information

Appendix B
Coordinates
Area 1
-33.277519247,143.43749995
-33.28778842,143.433380076
-33.293872843,143.430267373
-33.300144184,143.425903251
-33.302249885,143.416870074
-33.307628552,143.415161171
-33.317325576,143.413162255
-33.324512555,143.408889832
-33.333869944,143.407470775
-33.339477605,143.403381412
-33.344070385,143.404266374
-33.3475876,143.407440266
-33.351623486,143.415954603
-33.35280986,143.425293048
-33.345180484,143.434295715
-33.336040521,143.441039962
-33.331680256,143.444793714
-33.330547358,143.450668254
-33.325515701,143.462493946
-33.316249843,143.468246446
-33.312553423,143.471893245
-33.306549131,143.481903082
-33.301086477,143.490737943
-33.303043316,143.504303047
-33.308601356,143.51295468
-33.311328827,143.522949261
-33.310745279,143.533462515
-33.309333766,143.54078679
-33.30715179,143.54605096
-33.306209496,143.568435671
-33.310390389,143.570709178
-33.313396475,143.577926667
-33.344238358,143.573287955
-33.340545628,143.565429753
-33.334224666,143.562881487
-33.331848062,143.552703845

Note: PDF may contain fields not relevant to your application. The	ese
-33.329223687,143.542144825	٦
-33.330566469,143.531524619	ヿ
-33.328002948,143.522827221	ヿ
-33.325160979,143.511825638	ヿ
-33.321067761,143.501403747	┪
-33.322254135,143.495483441	┪
-33.324752781,143.489883492	┪
-33.330204035,143.489196846	ᅥ
-33.331478084,143.49800103	ᅥ
-33.337985962,143.503555381	\dashv
-33.342716205,143.50781255	\dashv
-33.350277017,143.509704513	\dashv
-33.357334076,143.513458265	\dashv
-33.366046897,143.518722603	\dashv
-33.373306296,143.521331722	\dashv
	\dashv
-33.381133987,143.52212532	\dashv
-33.37194826,143.436264122	4
-33.368858355,143.424072308	4
-33.362789187,143.408782879	4
-33.358455575,143.401107737	4
-33.352954867,143.392379829	4
-33.343292209,143.384109573	_
-33.334312508,143.378616409	_
-33.32899855,143.374496536	_
-33.319332203,143.369323728	_
-33.311672151,143.360015792	
-33.298660251,143.354415843	
-33.296615569,143.341384833	
-33.304637889,143.341003456	
-33.313766452,143.341827397	
-33.323345124,143.340728697	
-33.332496653,143.334884667	
-33.339561424,143.320358326	
-33.34017565,143.308059727	
-33.341751112,143.297622749	
-33.336574617,143.286956777	
-33.328212662,143.280609162	
-33.327091164,143.271972617	
-33.331184382,143.266037055	\exists
-33.335201325,143.25553889	\blacksquare
-33.334796983,143.246353162	T
-33.335735253,143.226348911	
-33.341663438,143.209014968	ヿ
-33.348548836,143.19506832	┪
-33.360111168,143.205505297	ヿ
-33.368476811,143.214294394	ヿ
-33.376121442,143.222839409	ᅥ
-33.382202177,143.231338491	ᅥ
-33.385417978,143.238464282	ᅱ
-33.392463639,143.250366249	\dashv
-33.39809041,143.258743291	ㅓ
-33.408042915,143.270202693	ᅱ
	\dashv

Note: PDF may contain fields not relevant to your application. These
-33.418457094,143.280471867
-33.427284243,143.288482619
-33.441440607,143.300109827
-33.447425789,143.305099407
-33.45432661,143.307907177
-33.461349472,143.31080631
-33.468910283,143.313400341
-33.482727013,143.319946272
-33.495216384,143.320007292
-33.511631,143.319702191
-33.524562768,143.314727866
-33.540145899,143.308319064
-33.549518544,143.302444523
-33.56407925,143.293701192
-33.57584761,143.284378001
-33.584724381,143.271820066
-33.590198434,143.261184772
-33.595363698,143.254257129
-33.603401105,143.253051811
-33.611564576,143.251434271
-33.616615344,143.24932857
-33.621837604,143.242843659
-33.624656606,143.233535723
-33.621921591,143.225280722
-33.608867615,143.223114
-33.598880745,143.218902597
-33.597763102,143.207763718
-33.60582415,143.195414464
-33.606060012,143.195053065
-33.627661911,143.192079438
-33.631885495,143.191497796
-33.642182753,143.195758829
-33.647224377,143.197845412
-33.647394563,143.197865018
-33.654034761,143.198630041
-33.654243551,143.198654097
-33.661510493,143.195175105
-33.664001427,143.177749631
•
-33.678214956,143.155990546
-33.679473918,143.141677776
-33.710380509,143.137191781
-33.723495505,143.146713288
-33.73912809,143.17631532
-33.746818486,143.180435193
-33.763282723,143.17634583
-33.779258799,143.164657602
-33.781845119,143.148208619
-33.795398656,143.138305736
-33.795418163,143.138295898
-33.798756245,143.13661226
-33.806621522,143.132644598
-33.821178373,143.124145516

Note: PDF may contain fields not relevant to your application. The
-33.829776697,143.118041982
-33.836704172,143.100479045
-33.864994101,143.096649186
-33.865072581,143.096902343
-33.869274068,143.110458371
-33.877101927,143.11471554
-33.891990702,143.113403269
-33.905014,143.111572326
-33.921646043,143.1033936
-33.933471735,143.092620843
-33.940730967,143.078247052
-33.946544655,143.059539818
-33.9465294,143.038757392
-33.942810014,143.002746557
-33.933078792,142.987442039
-33.920532257,142.982253977
-33.911376871,142.971069333
-33.900234304,142.969985888
-33.891715944,142.978149359
-33.881938956,142.981445291
-33.873031676,142.986495891
-33.862545076,142.983673033
-33.852268192,142.977340673
-33.84432986,142.973571834
-33.83947372,142.968231221
-33.83750917,142.958724969
-33.841060582,142.950897277
-33.847732578,142.942901612
-33.853546098,142.935668868
-33.857654571,142.927627605
-33.861183185,142.924758983
-33.86640159,142.929382273
-33.874588027,142.941543576
-33.883419033,142.951171869
-33.890853948,142.950744559
-33.899562914,142.946258565
-33.903026652,142.933136024
-33.904724154,142.92015078
-33.90750879,142.91455083
-33.916797616,142.91210935
-33.925945289,142.908401531
-33.928123411,142.902145446
-33.92542645,142.896377523
-33.913684912,142.895828174
-33.900928494,142.893478391
-33.887599926,142.889816337
-33.876586943,142.890243479
-33.871620163,142.888244562
-33.875198397,142.883071923
-33.886035863,142.876098682
-33.89248272,142.872405951
-33.902774859,142.87947089
· · · · · · · · · · · · · · · · · · ·

Note: PDF may contain fields not relevant to your application. The	es
-33.911762271,142.877716054	
-33.930385519,142.876907368	
-33.936473798,142.874618606	
-33.939212837,142.871047915	
-33.942901544,142.872329675	
-33.947833959,142.873428375	
-33.954139664,142.870208719	
-33.960479736,142.864761319	
-33.970661234,142.865508985	
-33.978324808,142.864227224	
-33.9858132,142.85794063	
-33.994583186,142.856521573	
-34.006339979,142.857177709	
-34.0096054,142.863693298	
-34.00382239,142.868011486	
-33.998081289,142.869506818	
·	
-33.994159732,142.87913511	
-33.995670318,142.889389028	
-34.003032647,142.893142779	
-34.009490904,142.910461467	
-34.017929133,142.919921954	
-34.026508346,142.91275023	
-34.030365027,142.904190128	
-34.045646745,142.907821671	
-34.057102125,142.904464719	
-34.062862337,142.893691962	
-34.066608377,142.899276656	
-34.075607355,142.903274488	
-34.083209909,142.905502399	
-34.092819259,142.914398112	
-34.092739127,142.91902157	
-34.089073218,142.931945794	
-34.089962035,142.939071585	
-34.096866544,142.955047661	
-34.105899889,142.968307496	
-34.107475352,142.975769066	
-34.116466452,142.986114514	
-34.125839263,142.984237638	
-34.131885465,142.985534654	
-34.132175479,142.994522065	
-34.131710116,143.002960127	
-34.135513321,143.009170615	
-34.141410828,143.012573165	
-34.15154656,143.012908944	
-34.158222243,143.012847923	
-34.166114811,143.018066329	
-34.175704881,143.028625515	
-34.181491915,143.031570413	
-34.188076068,143.032592837	
-34.197452568,143.03305049	
-34.205215383,143.029296906	
-34.21277234,143.023284902	
「・UT.L I L I I LUT. I TU.ULULUTJUL	

Note: PDF may contain fields not relevant to your application. These
-34.219718926,143.029556242
-34.22588348,143.03613285
-34.238136314,143.042327916
-34.24938969,143.038879433
-34.256298055,143.033416779
-34.263359137,143.034835835
-34.269867015,143.033905108
-34.27559286,143.031326332
-34.294509809,143.024139353
-34.30730445,143.022476216
-34.31506341,143.021652274
-34.312911943,143.003906277
-34.298252162,143.003860511
-34.289539341,143.006607094
-34.282379184,143.009613012
-34.27708048,143.009964046
-34.271476675,142.999176034 -34.260391273,142.989379935
-34.247695874,142.988906861
-34.240757,142.991363597
-34.224079192,142.985015814
-34.218349491,142.97486885
-34.220027883,142.955490057
-34.221729242,142.942764316
-34.223083422,142.925323421
-34.219840966,142.904892028
-34.214336403,142.884903033
-34.191776343,142.891250649
-34.182964281,142.914688126
-34.179100056,142.935699545
-34.179901198,142.951232889
-34.182247125,142.960205045
-34.175956674,142.96116645
-34.1635818,142.957244892
-34.153011382,142.954147277
-34.141338408,142.955642775
-34.127048437,142.952682454
-34.119659453,142.937042159
-34.130847953,142.923263484
-34.133628902,142.912704464
-34.130935628,142.897934042
-34.1285897,142.888061502
-34.12606809,142.87907409
-34.119953156,142.879318171
-34.109451302,142.880249065
-34.102359709,142.883377024
-34.098056775,142.897033658
-34.091529787,142.890594513
-34.088916812,142.877380443
-34.085250903,142.86485285
-34.081020389,142.861907952
-34.077053066,142.86662294
, , , , , , , , , , , , , , , , , , ,

-34.077426899,142.878173874
-34.077468809,142.891891529
-34.073215496,142.892394946
-34.067195949,142.883300749
-34.062007886,142.869354268
-34.057941489,142.870468223
-34.053020474,142.883819588
-34.04629517,142.885620189
-34.041713789,142.884445213
-34.035945866,142.891815253
-34.025596563,142.883010902
-34.019237548,142.8877564
-34.01819618,142.893890445
-34.013469625,142.8870545
-34.007133409,142.881439128
-34.014202036,142.879287661
-34.021934509,142.869506818
-34.02156822,142.855529827
-34.012599919,142.837158204
-34.015674568,142.829391533
-34.019092541,142.818435714
-34.018032063,142.796127279
-34.008239821,142.786743235
-34.000747741,142.781631448
-33.989158586,142.77856451 -33.981956519,142.781631448
-33.972618073,142.798675545
-33.972045924,142.812026911
-33.969944078,142.822967474
-33.96595379,142.826324426
-33.959247597,142.826278661
-33.953441619,142.831466724
-33.950656816,142.841049251
-33.949260726,142.851898116
-33.944282547,142.847762988
-33.93792722,142.845199634
-33.931434597,142.852325425
-33.92929453,142.860336345
-33.921550825,142.85906984
-33.911983553,142.856124942
-33.921504892,142.847671457
-33.924594797,142.835937463
-33.923282694,142.824050919
-33.914386812,142.817733813
-33.903797116,142.821456887
-33.892025068,142.81689445
-33.879341069,142.812973061
-33.844272695,142.81799315
-33.834762587,142.819488482
-33.830055311,142.824981645
-33.821468386,142.831893866
-33.815105516,142.840667707

Note: PDF may contain fields not relevant to your application. The	356
-33.809597097,142.844772325	٦
-33.802425373,142.848037747	ヿ
-33.786991104,142.853759737	ヿ
-33.774356894,142.861755402	ヿ
-33.765453301,142.874526907	ヿ
-33.752193465,142.879440379	ヿ
-33.740963056,142.875030493	┪
-33.730590786,142.882919372	ᅥ
-33.722080305,142.882247982	ᅥ
-33.720725957,142.878143364	ᅥ
-33.717395826,142.862823423	ᅥ
-33.708217642,142.847564672	ᅱ
-33.699382782,142.839752235	ᅱ
-33.659675527,142.844711305	ᅱ
	ᅱ
-33.650295339,142.850311254	ᅱ
-33.642524645,142.866226141	ᅱ
-33.640933926,142.88151557	ᅱ
-33.639923069,142.894561836	4
-33.632980338,142.914062501	4
-33.624568931,142.919830256	4
-33.614799487,142.923950129	4
-33.608474671,142.915618852	4
-33.605464898,142.913711467	4
-33.602924343,142.918869019	_
-33.600261747,142.925979555	_
-33.596527106,142.932403614	_
-33.590522814,142.945648194	_
-33.575573019,142.954635606	_
-33.563941955,142.964843758	_
-33.55096811,142.968597342	Ц
-33.542942102,142.96743779	Ц
-33.542590169,142.967143779	Ц
-33.531177598,142.957611014	╝
-33.523872435,142.951461715	╝
-33.504558518,142.955184956	╝
-33.502671194,142.957025471	
-33.498424473,142.96116645	
-33.496402489,142.973276757	
-33.496360849,142.973526069	٦
-33.501964487,142.996261646	٦
-33.49737925,143.004501392	٦
-33.471523258,143.008010895	٦
-33.44062421,143.003891022	┨
-33.414161704,143.014190704	ヿ
-33.40805817,143.017913778	┪
-33.397670812,143.021347006	ᆌ
-33.38832851,143.024536152	ヿ
-33.381668082,143.028167695	┪
-33.375495984,143.032806408	ㅓ
-33.366088806,143.039642354	\dashv
-33.360870401,143.048278731	\dashv
-33.357139616,143.056793237	ᅱ
33.33333.10,110.0007.00207	\dashv

Note: PDF may contain fields not relevant to your application. Thes
-33.353588037,143.063873262
-33.350524954,143.071167027
-33.345859586,143.07577523
-33.344169627,143.080810574
-33.342884011,143.086395269
-33.338245466,143.090377845
-33.334697741,143.092178278
-33.334338523,143.092559937
-33.326251968,143.101150436
-33.323013368,143.109710705
-33.321399683,143.120391765
-33.318271557,143.136505135
-33.316532145,143.145462038
-33.310936051,143.148834244
-33.301086477,143.156326324
-33.295894559,143.167617754
-33.297405313,143.176605166
-33.286655354,143.173614503
-33.27743526,143.166152933
-33.265579226,143.163375841
-33.255538879,143.165222206
-33.247409774,143.172470038
-33.245658795,143.185958867
-33.244693703,143.195754965
-33.24625391,143.206802313
-33.246520957,143.223312315
-33.249961896,143.233932523
-33.253734591,143.246887257
-33.261104631,143.254043558
-33.271400458,143.2562713
-33.278209749,143.255203278
-33.281906168,143.257675101
-33.283367134,143.266509963
-33.283756221,143.274429352
-33.281475003,143.27795411
-33.275012891,143.28358457
-33.267944264,143.284439021
-33.26303096,143.284042389
-33.260284378,143.279418931
-33.257091544,143.277008129
-33.253376014,143.279464697
-33.250759183,143.287918014
-33.249607007,143.296981869
-33.238880182,143.295379584
-33.228103569,143.293060311
-33.213413279,143.288742122
-33.195049367,143.291427684
-33.189327209,143.294586153
-33.175361618,143.307266296
-33.164447709,143.3190308
-33.149467403,143.333160342
-33.142452254,143.354278547

-33.13957592,143.367614826
-33.141536783,143.378265374
-33.144916533,143.407989447
-33.158164969,143.418563889
-33.16461937,143.420394831
-33.172100051,143.421111988
-33.179912487,143.421356236
-33.19258492,143.422546467
-33.200729447,143.428787296
-33.203933681,143.43382264
-33.209522231,143.437957769
-33.217174574,143.439590396
-33.224140102,143.435165422
-33.230720568,143.431076059
-33.239578227,143.432327309
-33.245235509,143.433410586
-33.254459458,143.434448266
-33.260097462,143.435256952
-33.270889329,143.436614988
-33.277519247,143.43749995