



REPORT ON A HISTORICAL HERITAGE  
ASSESSMENT UNDERTAKEN AS PART OF  
UPGRADE WORKS TO THE GREAT NORTHERN  
HIGHWAY, MUCHEA TO WUBIN (STAGE 2)  
BINDOON BYPASS

July 2018

For  
The Arup Jacobs Joint Venture

By  
Archae-aus Pty Ltd



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The authors are not accountable for omissions and inconsistencies that may result from information which may come to light in the future but was not forthcoming at the time of this research.

## **ACKNOWLEDGEMENT**

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The authors acknowledge the Yued Noongar people as the Traditional Owners of the land on which the Project Area discussed in this report is located.

## **REPORT FORMAT**

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This report is divided into two sections. Section 1 contains the introduction, details of the Survey Area and the research methodology. Section 2 details the results of the historical heritage assessment and recommendations for future heritage management strategies.

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## EXECUTIVE SUMMARY

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- ◆ This document details the results of a historical heritage assessment of the Bindoon Bypass Project Area, undertaken by Archae-aus P/L for the Arup Jacobs Joint Venture Integrated Project Team on behalf of Main Roads Western Australia, as part of upgrade works to the Great Northern Highway, Muchea to Wubin (Stage 2).
- ◆ The fieldwork was undertaken following a desktop study that was used to identify and produce a list of historical heritage places in the vicinity of the draft Project design.
- ◆ Site inspections and recording were conducted on the 26<sup>th</sup> – 28<sup>th</sup> February 2018 and the 22<sup>nd</sup> – 23<sup>rd</sup> May 2018, inclusive, by Jim Stedman and Rebecca Ryan of Archae-aus P/L.
- ◆ The Survey Area and the draft Project design that was referred to during the fieldwork was supplied to Archae-aus by the Arup Jacobs Joint Venture Integrated Project Team via the online *Great Northern Highway Webmap for Environmental Consultants*, as referenced on 19<sup>th</sup> February 2018, any changes to the project design beyond the Survey Area may require further assessment of historical heritage places.
- ◆ In addition to the places listed on the Shire of Chittering's Municipal Heritage Inventory, a number of previously undocumented historical heritage places were identified and recorded during the fieldwork. The places are summarised below in Appendix 1, Table 18.
- ◆ If any of the heritage places identified during this assessment will be impacted by the final Project design, consultation with the Department of Planning, Lands and Heritage is recommended to determine if these places require submissions under the Government Heritage Property Disposal Process.
- ◆ Based on the results of this assessment, in Archae-aus' opinion, none of the historical heritage places that are impacted by the draft Project design are likely to be assessed by the Heritage Council's Register Committee as meeting the threshold for entry in the State Register of Heritage Places.
- ◆ Any areas that will be impacted by the final Project design and were not inspected during this survey due to land access restrictions should be surveyed, landowners consulted and heritage sites recorded in order to determine the necessary heritage approvals.
- ◆ Monitoring of ground disturbing works by an archaeologist is recommended at historical heritage places where there is considered to be potential for sub-surface historical features or deposits.
- ◆ A  *Finds Discovery Protocol*  should be implemented during the Project's construction phase to mitigate against the potential for impact to any historical heritage places or artefacts that were not identified by this assessment.

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## SECTION ONE – INTRODUCTION

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### PROJECT BACKGROUND

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The Great Northern Highway (GNH) is a strategic freight route that connects regional and remote communities and serves as a tourist route (see Maps 1 to 4). In 2014 Main Roads Western Australia (Main Roads WA) established the Muchea to Wubin Integrated Project Team (the IPT), comprising Main Roads WA and industry partners Arup and Jacobs, forming the Arup Jacobs Joint Venture (ASJV) to conduct a comprehensive planning review of the full Muchea to Wubin link along the GNH.

The Project design passes through a landscape that has historical associations ranging from the mid-nineteenth century to present-day and links some of the oldest farms and earliest settlements in the State.

The ASJV engaged Archae-aus to conduct a comprehensive Non-Indigenous (historical) heritage assessment, comprising a desktop study and field survey, within the Bindoon Bypass Non-Indigenous Heritage Project Area (the Survey Area, see Map 1 to 4). This report documents the results of the historical heritage assessment and is required so that Main Roads WA can meet its requirements under the *Heritage of Western Australia Act 1990*.

### SCOPE OF WORKS

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The Survey Area that is the subject of this report was supplied to Archae-aus as a Shapefile by Jacobs on 19<sup>th</sup> February 2018 (see Maps 1 to 4). Following this, three additional areas were added to the Scope of Works on 23 April 2018, these variations were supplied as screenshots from the online *Great Northern Highway Webmap for Environmental Consultants (Webmap)*. The draft Project design that was referred to during the fieldwork was supplied to Archae-aus by the IPT via a Shapefile and *Webmap*, as referenced on 19<sup>th</sup> February 2018.

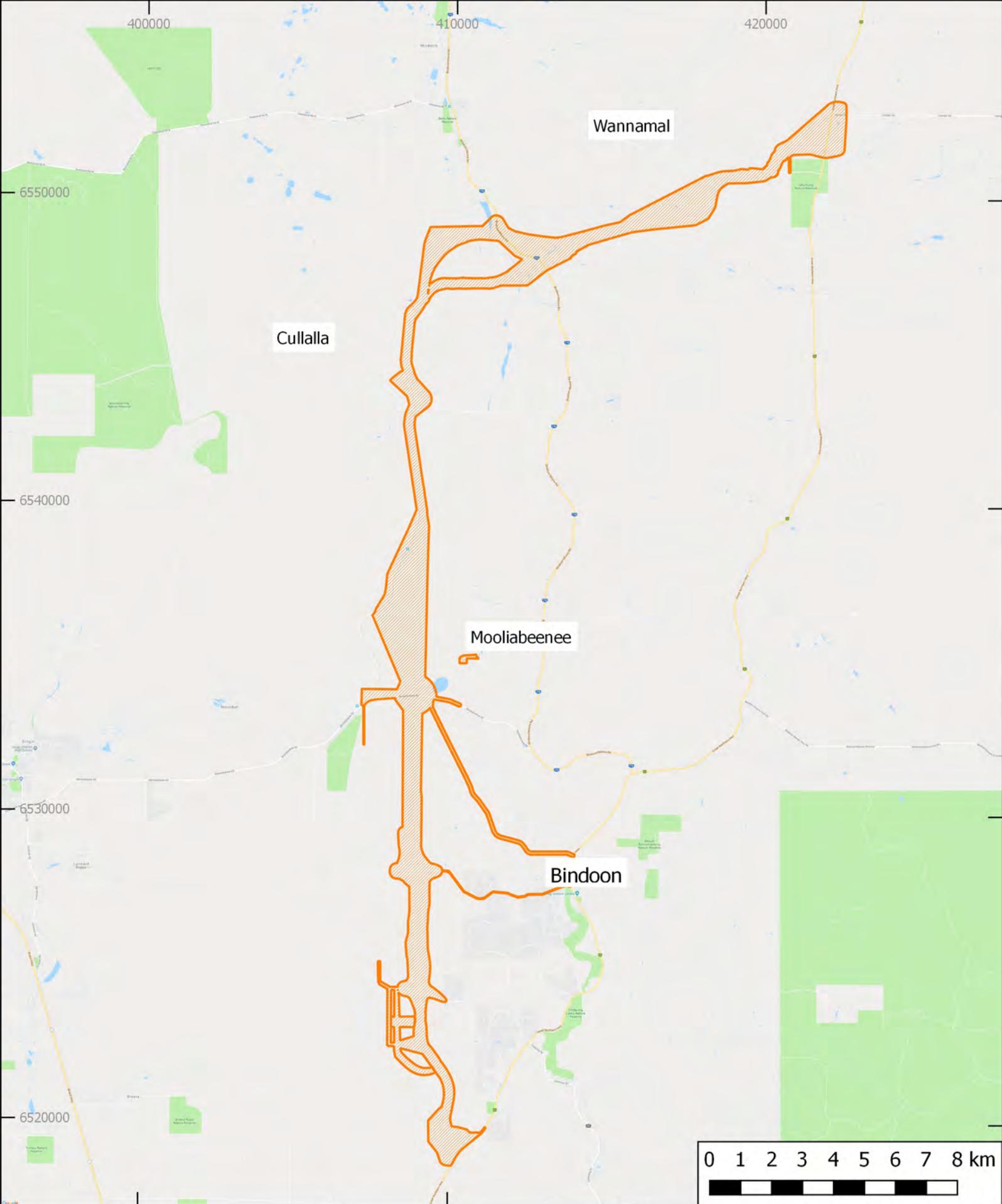
The Scope of Works provided to Archae-aus by the IPT included provision for the following tasks:

1. Determine if the proposed works intersect with any listed Non-Indigenous heritage places and /or places of historical value. This task requires a detailed review and refinement of a desktop study previously completed for the Project, as well as additional research, to produce a list of Non-Indigenous heritage places within the Survey Area.

Specific tasks would include:

- ◆ determine if any of these listed places are heritage places listed on the State Register (protected under the *Heritage of Western Australia Act 1990*);
  - ◆ determine if any of the listed places from the desktop review are listed on Town Planning Schemes (protected under *Planning and Development Act 2005*);
  - ◆ determine if any of the identified places are listed on Municipal Heritage Inventories;
  - ◆ liaise with Local Governments or other listing organisations to identify places of Non-Indigenous heritage and places of cultural significance within the assessment area; and
  - ◆ consult with landowners and long-term residents to ensure locations of any other sites of heritage significance are identified.
2. Undertake site visits to verify and confirm the locations, extents and significance of historical heritage places within the Survey Area, particularly those that are that are more than 60 years old.
  3. Considering the relevant legislative requirements, provide advice on possible approvals or management requirements should any historical places face potential impacts due to the Project works.

4. Undertake detailed documentation of historical heritage places that are potentially impacted by the Project design to avoid or minimise disturbance to heritage places, or where necessary, feed into submissions under the Government Heritage Property Disposal Process (GHPDP).
5. Assist in liaising with relevant stakeholders to define and negotiate management actions for historical places.
6. Provide any new information about historical places within the Survey Area to the Department of Planning, Lands and Heritage and Local Government Authorities, where required.



### Legend

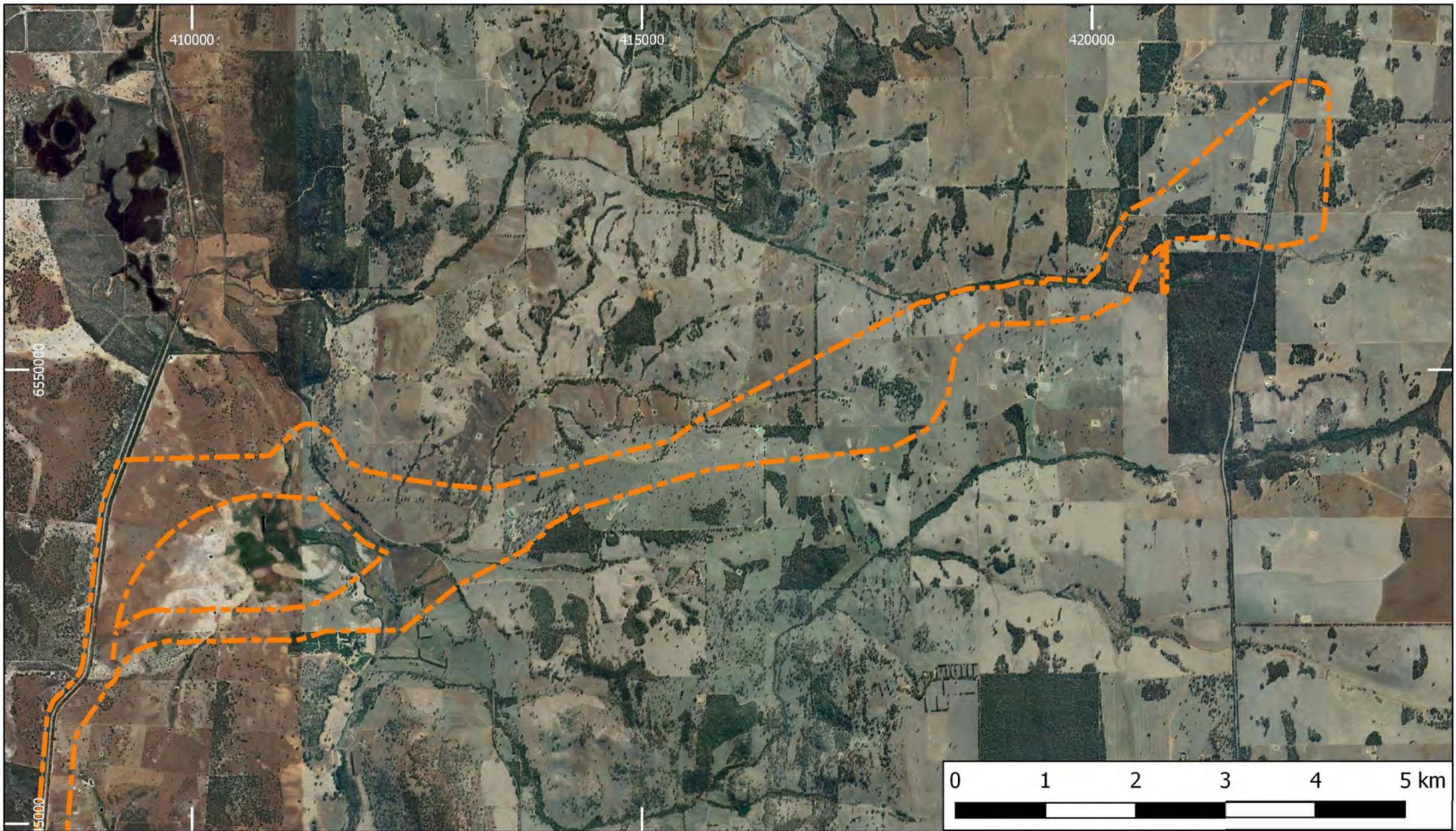
 Historical Heritage Survey Area



archae-**aus**

**Map 1. Overview of Survey Area**

Drafted by Jim Stedman, 12th July 2018  
GDA94, Zone 50.



### Legend

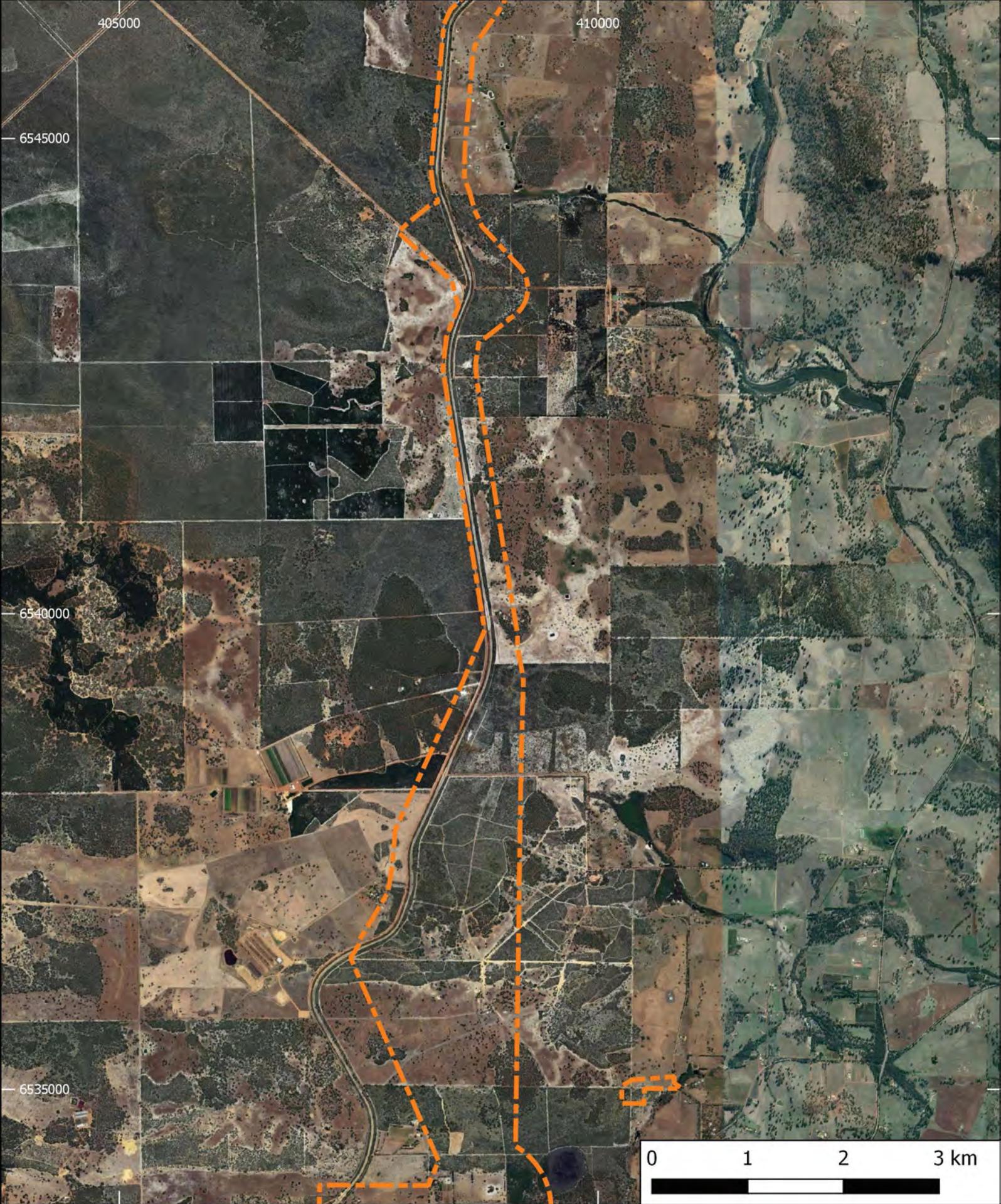
 Historical Heritage Survey Area



archae-aus

**Map 2. Overview of Survey Area (North)**

Drafted by Jim Stedman, 11th July 2018  
GDA94, Zone 50.



## Legend

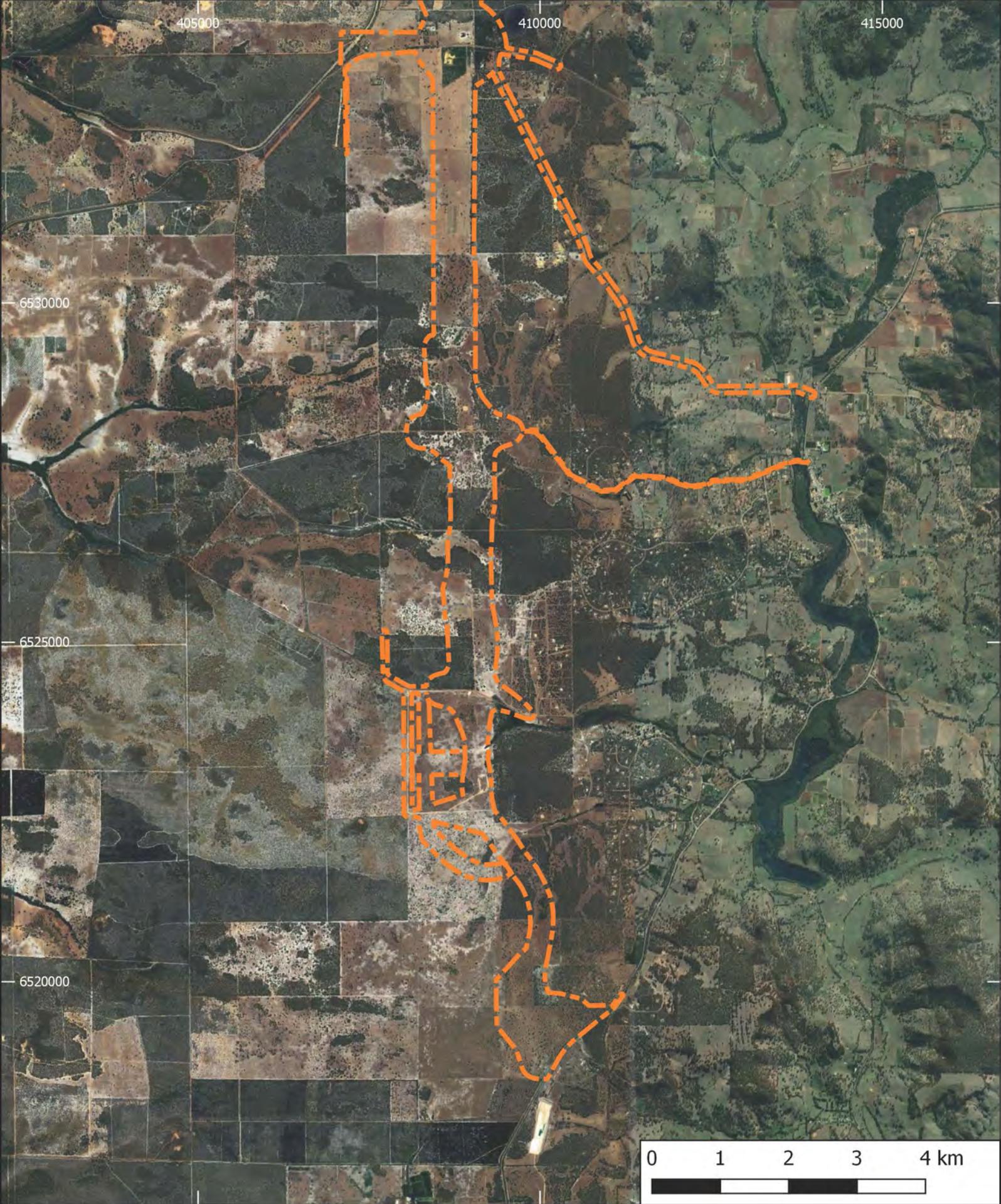
 Historical Heritage Survey Area



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**Map 3. Overview of Survey Area (Central)**

Drafted by Jim Stedman, 11th July 2018  
GDA94, Zone 50.



## Legend

 Historical Heritage Survey Area



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**Map 4. Overview of Survey Area (South)**

Drafted by Jim Stedman, 11th July 2018  
GDA94, Zone 50.

## LEGISLATION AND GUIDING DOCUMENTS

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The proposed Bindoon Bypass alignment is within the local government jurisdiction of the Shire of Chittering. The following section summarises the relevant legislation and guiding principles that may relate to historical heritage places within the Survey Area.

### Heritage Council of WA Assessment Program

When a place is on the Heritage Council's Assessment Program, it means that the Heritage Council has an interest in the place and that it will be assessed and considered for inclusion on the State Register of Heritage Places. Under Section 10 of the *Heritage of Western Australia Act 1990*, local government authorities are required to co-operate with the Heritage Council in protecting the cultural heritage significance of places on the Assessment Program.

### Heritage of Western Australia Act 1990

The Heritage Council of Western Australia is Western Australia's advisory body on heritage matters and focuses on places, buildings and archaeological sites, with a mission to provide for and encourage the conservation of places significant to the cultural heritage of WA under the jurisdiction of the *Heritage of Western Australia Act 1990* (the *HWAA*). The *HWAA* is the main legislative framework for historical heritage, sometimes referred to as European heritage, in the State and the main purpose of this Act is to identify, conserve and enhance places which are of cultural heritage significance and ensure that any development is in harmony with the heritage values of the place or surrounding area.

The *HWAA* requires the keeping of a Register of Heritage Places for places that are protected by the provisions of the Act. Heritage places generally gain registration under the *HWAA* by being shown to be of value to the present community and future generations, as well as by being of cultural heritage significance or possessing special interest relating to or associated with cultural heritage.

More specifically, a place's heritage values are determined by assessing a combination of the following: a place's rarity, aesthetic qualities, relationship to historical people, events or developments, and its ability to educate and answer scientific research questions.

Under section 79 (1) of the *HWAA* it is a crime to damage, despoil or remove any part of, or thing in a registered place whereby the cultural heritage characteristics of that place are detrimentally affected. The penalties for contravention of the Act are severe, including up to a \$1 million fine and imprisonment for two years. Applications to develop, disturb or alter any place entered on the Register can be made under section 11 and 78 of the *HWAA*.

### The Planning and Development Act 2005

The purposes of the *Planning and Development Act 2005* (the *PDA*) are to consolidate the provisions of the Acts repealed by the *Planning and Development (Consequential and Transitional Provisions) Act 2005* (i.e. the *Metropolitan Region Town Planning Scheme Act 1959*, the *Town Planning and Development Act 1928* and the *Western Australian Planning Commission Act 1985*). The *PDA* is intended to provide for an efficient and effective land use planning system in the State, as well as promoting the sustainable use and development of land in the State.

The *PDA* requires that the advice of the Heritage Council be sought in cases relating to places listed on the State Register of Heritage Places or on any inventory maintained under sections 45 or 46 of the *HWAA* (i.e. a Local Government Inventory). In such instances the local government in preparing or amending a local planning scheme is to refer the proposed scheme or amendment to the Heritage Council for advice and is not to proceed without the consent of the Minister of Environment; Heritage.

## The Burra Charter

The Burra Charter (Australia ICOMOS Charter for Places of Cultural Significance) is the foundation stone document for conserving Australia's cultural heritage. The Charter encapsulates two important aspects in conserving heritage places. First, it establishes the best practice principles and processes for understanding and assessing a place's significance, as well as developing and implementing a conservation plan. Second, the Charter defines and explains the four primary cultural values that may be ascribed to any place: aesthetic, historic, social or spiritual and scientific. These values are essential because they delineate the types and quality of information needed to accurately determine a heritage place's significance.

## Heritage Listings

Cultural heritage places in Western Australia are recorded in many different heritage listings. Some of these listings give statutory protection to heritage places, through requirements for heritage related approvals or referrals. Other listings are unofficial or quasi-official designations, often arising from local, community-based or thematic surveys.

The Department of Planning Lands and Heritage's (DPLH) inHerit database sorts these lists into groups:

- ◆ Statutory Listings – lists and other legal instruments that affect or may affect the use and development of land and buildings; and
- ◆ Other Listings and Surveys – lists that do not have any effect on the use and development of land and buildings.

The main types of heritage listings are summarised in Table 1 and Table 2:

**Table 1. Statutory Listings**

Type	Organisation	Legislation	What is Listed	No of Places Listed (Approx)
State Register	Heritage Council (assisted by the Department of Planning, Lands and Heritage (DPLH))	Heritage of Western Australia Act 1990	Places of State significance included in the State Register of Heritage Places	1,400
Conservation Order	Heritage Council (assisted by DPLH)	Heritage of Western Australia Act 1990	Places of State significance or potential State significance (special cases)	5
Heritage Agreement	Heritage Council (assisted by DPLH)	Heritage of Western Australia Act 1990	Places protected by long-term agreement between the parties	100
Heritage List	Local Governments	Planning & Development Act (2005): Local Planning Schemes	Places of local heritage significance	9,000
National Heritage List	Australian Heritage Council	Environment Protection & Biodiversity Conservation Act (1999)	Places of national significance	15

**Table 2. Other Listings and Surveys**

Type	Organisation	Legislation	What is Listed	No of Places Listed (Approx)
Local Government Inventory (Municipal Inventory)	Local Governments	Mandated under the Heritage of Western Australia Act 1990 but controlled by Local Governments	Places of local significance	24,000
List of Classified Places	The National Trust of Australia (WA)	The National Trust of Australia (WA) Act (1964)	Places of local, state or national significance	2,300

Further details of each of those Listing Types are as follows.

## **Statutory Listings**

### ***State Register (Heritage Council)***

The Heritage Council is the State Government's advisory body on historical heritage matters. It encourages the conservation and sensitive development of heritage places and promotes awareness of our State's cultural heritage. The Department of Planning, Lands and Heritage maintains the State Register of Heritage Places.

Planning, building, demolition and other applications affecting a place in the State Register are referred by the relevant decision making authority (usually a Local Government) to the Heritage Council for advice.

### ***Conservation Order***

A Conservation Order is an ongoing protective order that remains in effect indefinitely, unless an end-date is specified. It requires public consultation before the Minister may issue an order. Conservation Orders are rare: they are employed only where urgent protective measures are required, or in other special circumstances where entry in the State Register cannot offer suitable protection.

### ***Heritage Agreement***

A Heritage Agreement is a legally binding contract that sets out a framework for the long-term conservation and maintenance of a place.

### ***Local Planning Scheme – Local Government 'Heritage List'***

Many local governments have established a list of heritage places under the provisions of the local planning scheme. Weight is given to the heritage significance of these places when planning applications are submitted. Local Planning Scheme Heritage Lists typically comprise all or, or a subset of, the Local Government Inventory.

### ***National Heritage List***

The National Heritage List is a list of places deemed to be of outstanding heritage significance to Australia. The Australian Heritage Council is an independent body of heritage experts that advises the Australian Government on heritage matters, and assesses places nominated for the National Heritage List.

## **Other Listings & Surveys**

### ***Local Government Inventory or 'Municipal Inventory'***

A local government inventory is essentially a survey of heritage places in the local district, and is used as the basis of informed local conservation strategies. The purposes of an inventory can be summarised as:

- ◆ to provide a cultural and historical record of the local district;
- ◆ to determine local government conservation policies; and
- ◆ to provide information about local heritage that may be required under a local planning scheme for that district.

### ***List of Classified Places***

This list is maintained by the National Trust of Australia (WA), a non-profit, community-based organisation involved in heritage identification, education, promotion, interpretation, advocacy and management of heritage sites across WA.

## PERSONNEL

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- ◆ The historical heritage assessment was managed by the IPT's Senior Environment and Heritage Advisor, Susan Regan, who also provided logistical support to the Archae-aus team throughout the fieldwork.
- ◆ The desktop heritage assessment, stakeholder consultation and fieldwork were undertaken by Jim Stedman and Rebecca Ryan of Archae-aus. The fieldwork was conducted on the 26<sup>th</sup> – 28<sup>th</sup> February and the 23<sup>rd</sup> – 24<sup>th</sup> May 2018, inclusive.
- ◆ This report was drafted by Jim Stedman and Rebecca Ryan with editorial assistance from Monica Jimenez-Lozano and Fiona Hook.
- ◆ Jim Stedman and Nigel Bruer compiled the GIS, report maps and figures.

## METHODS

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The historical heritage assessment comprised a desktop study, two short fieldtrips of three and two days, respectively, as well as ongoing stakeholder liaison.

### Desktop Study

The desktop study used the following sources to identify and produce a list of historical heritage places within the Survey Area:

- ◆ the DPLH's inHerit database;
- ◆ Big Island Research's 2015 review of heritage sites within the GNH Muchea to Wubin Stage 2 upgrade project (Big Island Research 2015);
- ◆ Archae-aus' desktop research into historical heritage places in the Shire of Chittering, undertaken in 2016 as part of the GNH Muchea to Wubin Stage 2 upgrade project (Archae-aus 2016a; Archae-aus 2016b). This work involved a review of the Shire of Chittering's Municipal Heritage Inventory, held in the Shire offices at Bindoon; and
- ◆ *Webmap* was used to view the Survey Area and draft Project design in relation to the cadastral boundaries of historical heritage places on the Shire of Chittering's Municipal Heritage Inventory (from a GIS Shapefile supplied by the Department of Planning, Lands and Heritage).

### Stakeholder Liaison

Prior to undertaking the fieldwork, the ASJV provided Archae-aus with maps of the Survey Area showing land tenure and a contacts list for property owners. Telephone calls were made to all landowners within the Survey Area and where possible, they were asked if they have knowledge of any historical heritage places within, or in proximity to, the Survey Area.

Messages were left for any landowners who could not be contacted by telephone.

Where required or requested, appointments were made to meet with specific landowners during the site visits.

The process of stakeholder liaison was continued throughout the course of the heritage assessment.

### Fieldwork

Two fieldtrips of three and two days, respectively, were used to meet with specific landowners (see above), ground truth the locations of any historical heritage places within the Survey Area and undertake site recording, as necessary.

The IPT arranged land access to private properties and advised Archae-aus on the protocols to be observed when accessing private properties.

## SECTION TWO – RESULTS

### DESKTOP STUDY

Full results of the desktop study are provided as a spreadsheet in Appendix 2, but are summarised here.

- ◆ The desktop assessment identified 15 places listed on the Shire of Chittering's Municipal Inventory that are within the Survey Area but are not impacted by the draft Project design.
- ◆ The assessment identified one historical heritage place (*Cullalla Siding* - State Heritage # 14194) listed on the Shire of Chittering's Municipal Inventory that is impacted by the draft Project design.

### STAKEHOLDER LIAISON

The results of the stakeholder liaison are presented in Table 3, Table 4 and Table 5.

**Table 3. Landowners who were contacted by telephone and the survey team visited their properties to assess potential heritage sites**

Name	Lot #	Address	Advice	Actioned	Recommended Action
Kirkwood	3281	Great Northern Highway, Wannamal 6505	Mr Kirkwood advised of a potentially historical house on his property.	The small timber-framed house was inspected and recorded.	Although the house is within the Survey Area, it will not be directly impacted by the draft Project design. If the design changes and this building will be impacted, it may require a submission under the GHPDP.
Harris	2138	1121 Hay Flat Road, Wannamal 6505	Mr Harris took the archaeologists to three historical wells, a sheep dip and a fig tree on his property. The fig tree is adjacent to the site of a house that has since been removed.	The historical features were inspected and recorded.	Well 2 is impacted by the draft Project design. If any of the historical features on the Harris property will be impacted, they may require submissions under the GHPDP.
Worth	21	470 Cook Road, Mooliabeenee 6504	Mr Worth advised of potentially historical features on his property.	A potentially historical bore, dam and channel, corrugated iron clad shed, timber fruit drying rack and second dam were inspected and recorded.	The majority of these features will be impacted by the draft Project design and a submission may be required under the GHPDP.
Haeusler	3246	9219 Great Northern Highway, Wannamal	Mr Haeusler advised of a section of the old road from Perth to New Norcia on his property.	A section of historical road was inspected and recorded.	The section of historical road is impacted by the draft Project design and may require a submission under the GHPDP.
Taylor	2	Kangaroo Gully Road	Mr Taylor advised of a historical creek crossing on his property. The Municipal Inventory place <i>Old Cyril Page's House</i> (14164) is also on Mr Taylor's property.	Both locations were inspected.	The historical creek crossing is outside the Survey Area. <i>Old Cyril Page's House</i> (14164) is not impacted by the draft Project design but if the design changes and this site will be impacted, it may require a submission under the GHPDP.
Glover	3252, 5214, 200, 201	1080 Hay Flat Road, Wannamal 177 Head Road, Wannamal	Mr Glover did not advise of any specific historical places on his properties, but said that 'the whole lot' (ie. all of his land within the Survey Area) is historically important.	The Archae-aus team tried to find Mr Glover during the fieldwork and left him telephone messages attempting to arrange a meeting.	Mr Glover has stated that his land is historically important to him, but no specific historical places were identified by the desktop study on the Glover properties.

**Table 4. Landowners who advised Archae-aus that they are not aware of any historical heritage places on their properties**

Name	Lot #	Address	Advice
Greenfield	2917	75 Kangaroo Gully Road, Wannamal 6505	Advised that there is nothing historical on the property.
Verrall	3	2087 Bindoon-Moora Road, Wannamal 6505	Veronica Verrall advised that there are no heritage places 'in the area where the road is going.'
Rechichi	1	2261 Bindoon-Moora Road, Wannamal 6505	Mr Rechichi advised that his timber-framed farmhouse is outside the draft Project design and that he is currently renovating it. Other than this house he knows of no other historical heritage places on his property.
Bruce from Noremac P/L	7776	No address provided.	Advised that there is nothing historical on the property.
Stipinovich	54	798 Gingilling Road, Wannamal 6505	Advised that there is nothing historical on the property.
Godfrey	53	644 Gingilling Road, Wannamal 6505	Advice provided to the IPT: ' <i>Nothing historical in road reserve.</i> '
Mackay	3	451 Cook Road, Mooliabeenee 6504	Advised that there is nothing historical on the property.
Venn	2	434 Gingilling Road, Mooliabeenee 6504	Advised that there is nothing historical on the property.
Robinson	1	428 Gingilling Road, Mooliabeenee 6504	Mr and Mrs Robinson advised that although there are historical places in the area that relate to the Benedictine monks from New Norcia, there are no historical places on their property. Mr Robinson added that there was formerly a shed at Cullalla Siding, which has been removed.
Cray	M 1364	16 Cullalla Road, Mooliabeenee 6504	Mr Cray did not know of any historical places on his property, but discussed the former Mooliabeenee township, the natural water source at Lake Nanga and the pool at Cullalla Siding.
Kelly	102	482 Mooliabeenee Road, Mooliabeenee 6504	Advised that there is nothing historical on the property.
Price	55	828 Gingilling Road, Wannamal 6505	Advised that there is nothing historical on the property.
Mr Rawson from Illinois P/L	20 & 21	541 Gray Road, Bindoon 6502	Advised that there is nothing historical on the property.
Marouchtchak	1	537 Teatree Road, Bindoon 6502	Advice provided to the IPT: 'Nothing historical.' Mr Marouchtchak advised Archae-aus that a structure on his property that is visible on <i>Webmap</i> is a machinery shed with no historical significance.
Twine	4	383 Teatree Road, Bindoon 6502	Advised that there is nothing historical on the property.
Mike from Fazari Holdings P/L	18	5077 Great Northern Highway, Chittering 6084	Advised that there is nothing historical on the property.
King	61	5259 Great Northern Highway, Chittering 6084	Advised that there is nothing historical on the property.
Talgrath Enterprises P/L	501 & 502	737 Crest Hill Road, Mooliabeenee 6504	Advised that there is nothing historical on the property.
Julien	2082	176 Gingilling Road, Mooliabeenee	Mr Julien advised that there is nothing of historical significance on his property and that the linear features visible on <i>Webmap</i> are dog pens.

Name	Lot #	Address	Advice
Dobra	54	575 870 Cullalla Road, Cullalla	Advised that there is nothing historical on the property.
Guida	56	842 Gingilling Road, Wannamal	Advised that there is nothing historical on the property.
Petersen	55	828 Gingilling Road, Wannamal	Advised that there is nothing historical on the property.
Stuurstraat	25	620 Gray Road, Bindoon	Advised that the 'block was empty when it was purchased' and that there is nothing historical on the property.
Whinnen	18	534 Teatree Road, Bindoon	Advised that there is nothing historical on the property.
Fletcher	101	1 Barn Road, Mooliabeenee	Advised that there is nothing historical on the property.
Murphy	300	870 Cullalla Road, Mooliabeenee	Advised that there is nothing historical on the property.

**Table 5. Landowners who were not able to be contacted and telephone messages were left**

Name	Lot #	Address	Action
Glover	3252, 5214, 200, 201	1080 Hay Flat Road, Wannamal 6505 177 Head Road, Wannamal 6505	As well as leaving multiple telephone messages for Mr Glover, the archaeologists visited the Glover family's properties on both of the fieldtrips.
Ellis	52	630 Gingilling Road, Wannamal 6505	Left telephone message
Mike from Wildcross P/L	51	431 Cullala Road, Moondah 6503	Left telephone message
LeBlanc	1	173 Barn Road, Mooliabeenee 6504	Left telephone message
From	1	173 Barn Road, Mooliabeenee 6504	Left telephone message
Manning	37	573 Crest Hill Road, Mooliabeenee 6504	Left telephone message
Leo from Odelon P/L	900	No address provided.	Left telephone message
Foulkes-Taylor	27 & 103	444 Gray Road, Bindoon 6502	Left telephone message

## ACCESS RESTRICTIONS

Due to restricted access to some privately owned Lots, some parts of the Project Area were off-limits to the survey team. These properties are marked in red on the maps in Appendix 3. Further, on advice from the IPT the following landowners were not contacted.

- ◆ Mr Jabado – 504 Barn Road, Mooliabeenee
- ◆ Mr Clausen – 204 Cullalla Road, Cullalla
- ◆ Parkwood Properties Pty Ltd - Lot 9504 Teatree Road, Bindoon.

## FIELDWORK

The draft Project design will impact upon the curtilage of *Cullalla Siding* (14,194) which is listed on the Shire of Chittering's Municipal Heritage Inventory (MI). This place may require a submission under the GHPDP if it will be impacted by the final Project design.

In addition, a number of previously undocumented historical heritage places were identified and recorded during the fieldwork. All of these places may require submissions under the GHPDP if they will be impacted by the final Project design.

The historical heritage places that were recorded during the fieldwork are summarised below in Table 6 and full site descriptions follow below. Full coordinates for the places' boundaries are provided in Appendix 1, Table 18.

Statements of Significance are provided for those historical heritage places that are impacted by the draft Project design. The Statements of Significance are based on the Burra Charter's four primary cultural values that may be ascribed to a place: aesthetic, historic, social or spiritual and scientific.

Based on the results of this assessment, in Archae-aus' opinion, none of the historical heritage places that are impacted by the draft Project design are likely to be assessed by the Heritage Council's Register Committee as meeting the threshold for entry in the State Register of Heritage Places.

**Table 6. Summary of historical heritage places recorded during the fieldwork**

Place Name	Property	Indicative Coordinate	Notes
Kirkwood House	Kirkwood	420348 / 6551493	May require a submission under the GHPDP if place will be impacted by the final Project design
Emu Springs Bore	Worth	408767 / 6543807	May require a submission under the GHPDP if place will be impacted by the final Project design
Emu Springs Dam and Channel	Worth	408711 / 6543890	May require a submission under the GHPDP if place will be impacted by the final Project design
Emu Springs Building	Worth	408624 / 6543869	May require a submission under the GHPDP if place will be impacted by the final Project design
Emu Springs Fruit Drying Rack	Worth	408609 / 6543963	May require a submission under the GHPDP if place will be impacted by the final Project design
Emu Springs Dam 2 and Shed	Worth	408509 / 6544228	May require a submission under the GHPDP if place will be impacted by the final Project design
Harris Sheep Dip	Harris	420143 / 6551188	May require a submission under the GHPDP if place will be impacted by the final Project design
Harris Well 1	Harris	420146 / 6551194	May require a submission under the GHPDP if place will be impacted by the final Project design
Harris Well 2	Harris	420092 / 6550967	May require a submission under the GHPDP if place will be impacted by the final Project design
Harris Well 3	Harris	420266 / 6551689	May require a submission under the GHPDP if place will be impacted by the final Project design
Harris Fig Tree	Harris	420316 / 6551534	May require a submission under the GHPDP if place will be impacted by the final Project design
Spring Valley Artefact Scatter	From / LeBlanc	410778 / 6535053	Site has historical and Aboriginal components and a Heritage Information Submission Form should be submitted for it to the DPLH. The site should be avoided until consultation has been undertaken with Yued Noongar representatives and it has been assessed by the ACMC.  The historical component may require a submission under the GHPDP if it will be impacted by the final Project design.
Haeusler Historical Road	Haeusler	421784 / 6551970	May require a submission under the GHPDP if it will be impacted by the final Project design
Cullalla Siding	Railway Reserve	408665 / 6538814	May require a submission under the GHPDP if it will be impacted by the final Project design

## HISTORICAL ROAD (Haeusler Property, 9219 Great Northern Highway, Wannamal)

### *Background*

During a telephone conversation with Mr Haeusler on 28<sup>th</sup> February 2018, he advised of a historical road alignment on his property (9219 Great Northern Highway, Wannamal). A site visit was undertaken on 23<sup>rd</sup> May 2018.

### *Assessment*

A relict section of historical road runs for approximately 100 m on the Haeusler property (Plate 1 and Plate 2). On the ground, the road is difficult to discern, but is characterised by a compact, fine gravel surface that has been cleared of larger stones and rocks (Plate 3). Mr Haeusler said that it is clear to him that the ground surface at this location differs from the surrounding areas on his farm and appeared to him to have been compacted and crushed, perhaps by wagon traffic. The road is roughly aligned northeast / southwest, and when viewed from its southern end it can be seen running on a 15° alignment. Mr Haeusler showed the archaeologists a broken 'black' glass bottle base that he found at the location (Plate 5), and a small, flat piece of wrought iron was also identified during the site inspection (Plate 6). Black glass was imported to Western Australia and was produced in Europe pre 1880.

Mr Haeusler thinks that the historical road continued northeast then veered slightly to the east, to Rocky Hole Well approximately 2 – 3 km away, and was the original road from Perth to New Norcia. Elsewhere on his property, and on the Kirkwood property to the south, it has been ploughed out. When viewed on *Webmap*, the section of historical road is on a bearing of 10° and 830 m from Wannamal (Shannons) Well, where there is a historical crossing over Udumung Brook (Plate 4), outside the Survey Area. It is possible that the section of historical road on the Haeusler property was actually a stopping point along the road, close to Wannamal (Shannon's) Well, but on higher ground out of the creek bed and above the bank.

When the archaeologists asked Mr Haeusler if a continuation of the historical road could survive in the paddock on the north side of his driveway, at the location of the proposed truck pull-in bay, he said that this area had been heavily disturbed in the past and that there are no historical features surviving there.



Plate 1. Historical Road (Haeusler Property) - view north along section of historical road



Plate 2. Historical Road (Haeusler Property) - view south along section of historical road



Plate 3. Historical Road (Haeusler Property) - view north showing western edge of historical road



Plate 4. Historical Road (Haeusler Property) - view south of historical road towards crossing of Udumung Brook and Wannamal (Shannons) Well



Plate 5. Historical Road (Haeusler Property) - 'Black glass' bottle base fragment



Plate 6. Historical Road (Haeusler Property) - small piece of flat wrought iron

Table 7. Coordinates for relict section of historical road

Place Name	Waypoint	Easting	Northing
Haeusler Historical Road	1	421791	6552023
	2	421810	6551996
	3	421786	6551917
	4	421757	6551926
	5	421791	6552023

(Datum GDA 94; Zone 50J; Accuracy  $\pm 10$  m)

Table 8. Statement of Significance for section of historical road

Aesthetic	The road does not display significant aesthetics but would have been a visible and noted feature in the landscape when it was in use.
Historic Value	The section of road has historic value as it was once the main route that linked Perth with New Norcia and early farming settlements such as Walebing and Berkshire Valley, therefore its physical remains are of historical value.
Scientific (Archaeological) Value	The section of road has limited scientific value beyond the fact that within its compacted surface it may contain historical objects.
Social Value	The section of road has social significance for its connection to the historical settlement of the Victoria Plains and the operation of the Benedictine monastery at New Norcia.
Rarity	Historical road alignments in agricultural areas are often destroyed during road upgrade works or by ploughing. The relict section of road is a relatively rare archaeological feature.
Representativeness	The road is representative of historical transport, travel, rural settlement and farming.
Physical Condition	The road has survived at this location as a compacted surface with discernible edges that runs for approximately 100 m.
Integrity	The road has been impacted by farming but this surviving section retains a moderate degree of integrity.
Authenticity	The road is an authentic historical surface that likely dates to the second half of the 19 <sup>th</sup> century.

### Recommendations

The southeast boundary of this section of historical road is impacted by the draft Project design.

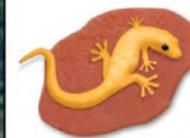
It is **recommended** that:

- consultation is undertaken with the Department of Planning, Lands and Heritage to ascertain whether a submission under the GHPDP is necessary for this place; and
- ground disturbing works in this area are monitored by an archaeologist to mitigate against the potential for impact to any sub-surface historical features or deposits.



**Legend**

 Historical Road



archae-aus

**Figure 1. Location of Historical Road on Haeusler Property (9219 Great Northern Highway, Wannamal)**

Drafted by Jim Stedman, 6th July 2018  
GDA94, Zone 50.

## HOUSE (Kirkwood Property, 9071 Great Northern Highway, Wannamal)

### *Background*

At a pre-fieldwork meeting, the IPT advised Archae-aus of a potentially historical structure on the Kirkwood Property (9071 Great Northern Highway, Wannamal). Following a telephone call with Mr Kirkwood a site visit to assess the structure was made on 26<sup>th</sup> February 2018.

### *Assessment*

The small timber-framed house on the Kirkwood property is clad and rooved with corrugated iron. Roughly dressed pieces of laterite have been laid with mortar to build a water tank stand and a wall base on the southern side of the building. The house is surrounded by a fenced yard that contains enclosures, yards, dongas and fowl coops.



Plate 7. House (Kirkwood property) - view southeast of house



Plate 8. House (Kirkwood property) - view north of house and water tank



Plate 9. House (Kirkwood property) - view northwest of house



Plate 10. House (Kirkwood property) - view south from fence to alignment of draft Project design

Table 9. Coordinates for house on Kirkwood property

Place Name	Waypoint	Easting	Northing
Kirkwood House	1	420354	6551499
	2	420339	6551497
	3	420340	6551486
	4	420357	6551491

(Datum GDA 94; Zone 50J; Accuracy ±10 m)

### *Recommendations*

The draft Project design passes approximately 70 m to the southeast of the house's front fence and gate.

It is **recommended** that:

- if the Project design changes and will impact upon the house and / or its yard, consultation is undertaken with the Department of Planning, Lands and Heritage to ascertain whether a submission under the GHPDP is necessary for this place.



Legend

 Kirkwood House



**Figure 2. Location of House on Kirkwood Property (9071 Great Northern Highway, Wannamal)**

Drafted by Jim Stedman, 6th July 2018  
GDA94, Zone 50.

## **HISTORICAL FEATURES (Worth Property, 470 Cook Road, Mooliabeenee)**

### ***Background***

At a pre-fieldwork meeting, the IPT advised Archae-aus of potentially historical features on the Worth Property (470 Cook Road, Mooliabeenee). Following a telephone call with Mr Worth, a site visit to assess the features was made on 27<sup>th</sup> February 2018.

### ***Assessment***

Mr Worth advised that the property was formerly used as a vineyard and was called Emu Springs. He pointed out where the potentially historical features are located and left the archaeologists to conduct the assessment.

### **Bore, Windmill and Shed**

There is an old water bore with a windmill and a small shed in the paddock directly in front of the house (Plate 11). The shed is constructed with bush poles, clad with corrugated iron with a corrugated iron skillion roof and a concrete floor (Plate 12). The south side of the structure is open for access and it may have housed a pump and / or generator (a timber power pole has been installed centrally through the structure). On the north side of the shed there is an exotic tree (possibly a Cape Lilac) which was likely planted during the early settlement of the farm.

### **Dam 1 and Channel**

North of the bore there is circular, steep-sided farm dam that was holding water at the time of the site inspection (Plate 13). On the dam's southern side there is a small shed with bush pole uprights and jarrah beams, clad with corrugated iron, which presumably served as a pump house. Southwest of the dam, and feeding into it, there is a channel approximately 40 m long and 8 m wide with timber sleepers placed along its south and west sides (Plate 14). Both the dam and the channel appear to be machine-excavated and there are mature trees growing on the dam bank and within the channel.

### **Building**

Approximately 100 m west of the dam on the western side of the property there is a timber framed, steel clad building (Plate 15). The building is constructed on metal stumps with pieces of laterite and concrete supporting its eastern end. Northwest of the building there is a gate that accesses the track on the east side of the railway line; this appears to have been the original entrance to the property.

### **Fruit Drying Rack**

Next to the gate on the railway line track there is a timber fruit drying rack (Plate 16). The rack is constructed from timber bush poles, beams and chicken wire. The rack is approximately 20 m long by 1.5 m wide (Plate 17). Mr Worth advised that the property was previously used as a vineyard and that the rack had been used for drying grapes to make sultanas.

### **Dam 2 and Shed**

There is a second farm dam and small timber and corrugated iron shed at the north end of the Worth property. The dam is close to the track on the east side of the railway and was almost dry at the time of the site inspection (Plate 18).



Plate 11. Worth property - view northwest of bore, windmill and shed



Plate 12. Worth property - view northwest of shed



Plate 13. Worth property - view northwest of dam 1



Plate 14. Worth property - view southwest of timber lined channel



Plate 15. Worth property - view south of timber framed building



Plate 16. Worth property - view northeast of fruit drying rack



Plate 17. Worth property - view northwest of fruit drying rack



Plate 18. Worth property - view north of dam 2

Table 10. Coordinates for historical features on Worth property

Place Name	Waypoint	Easting	Northing
Emu Springs Bore	1	408774	6543806
	2	408764	6543799
	3	408759	6543812
	4	408774	6543815
Emu Springs Dam 1 and Channel	1	408725	6543884
	2	408754	6543907
	3	408726	6543931
	4	408711	6543905
	5	408686	6543877
	6	408667	6543857
	7	408676	6543848
	8	408699	6543869
Emu Springs Building	1	408616	6543875
	2	408627	6543876
	3	408631	6543867
	4	408617	6543862
Emu Springs Fruit Drying Rack	1	408593	6543953
	2	408605	6543963
	3	408621	6543977
	4	408624	6543971
	5	408612	6543961
	6	408596	6543949
Emu Springs Dam 2 and Shed	1	408518	6544256
	2	408531	6544237
	3	408530	6544220
	4	408512	6544199
	5	408491	6544217
	6	408487	6544233
	7	408495	6544255

(Datum GDA 94; Zone 50J; Accuracy  $\pm 10$  m)

Table 11. Statement of Significance for historical features on Worth property

Aesthetic	The features do not display significant aesthetics.
Historic Value	The features are typical of a 20 <sup>th</sup> century fruit farm in the Shire of Chittering and are of limited historical value.
Scientific (Archaeological) Value	The features have limited scientific value.
Social Value	The features have some social value in that they are indicative of rural life and society in the Mooliabeenee area.
Rarity	The features are not considered to be rare.
Representativeness	The features are representative of rural settlement and fruit farming.
Physical Condition	The features are in relatively good physical condition.
Integrity	The features retain a significant degree of integrity.
Authenticity	The features are authentic historical farming infrastructure that likely date to the second half of the 20 <sup>th</sup> century.

### *Recommendations*

The draft Project design impacts upon the majority of the historical features on the Worth property.

It is **recommended** that:

- ◆ consultation is undertaken with the Department of Planning, Lands and Heritage to ascertain whether a submission under the GHPDP is necessary for this place.



**Figure 3. Locations of Historical Features on Worth Property (470 Cook Road, Mooliabeenee)**

Drafted by Jim Stedman, 6th July 2018  
GDA94, Zone 50.

## HISTORICAL WELLS, SHEEP DIP AND FIG TREE (Harris Property, 1121 Hay Flat Road, Wannamal)

### *Background*

At a pre-fieldwork meeting, the IPT advised Archae-aus of potentially historical wells on the Harris Property (1121 Hay Flat Road, Wannamal). Following a telephone call with Mr Harris, a site visit to assess the wells was made on 27<sup>th</sup> February 2018.

### *Assessment*

Mr Harris guided the archaeologists to the features on his property and discussed them in terms of their historical and contemporary significance to him and the farm.

#### **Well 1 and Sheep Dip**

The Well 1 and Sheep Dip are on the north side of a crossing over a tributary of Udumung Brook that flows south through the Harris property. Well 1 is round, approximately 2 m in diameter and does not appear to be stone-lined (Plate 19).

Immediately southwest of the well there is a stone-lined, horseshoe shaped pit with approximate dimensions 3 x 2 m; Mr Harris thinks that this feature was used to dip sheep (Plate 20, Plate 21 and Plate 22). There are the remains of hand-drilled hardwood posts and historical wire around the top of the Sheep Dip (Plate 23).

#### **Well 2**

This historical well is located next to a natural pool at the confluence of Udumung Brook and the tributary that flows south through the Harris property. It is approximately 2 m in diameter and is stone-lined (Plate 24 and Plate 25). A cast iron fitting that may derive from an old pump or superstructure was found next to the well (Plate 26).

#### **Well 3**

This timber lined historical well is located in the bed of the tributary of Udumung Brook that flows south through the Harris property. Well 3 is outside the Survey Area (Plate 27).

#### **Fig Tree and site of former house**

Mr Harris advised that a large fig tree in his paddock that borders the Kirkwood property is growing at the approximate location of a historical house that has since been removed (Plate 28).



**Plate 19. Harris property - view southwest Well 1**



**Plate 20. Harris property - view west of Sheep Dip next to Well 1**



Plate 21. Harris property - view south of Sheep Dip next to Well 1



Plate 22. Harris property - view south of stone-lined wall of the Sheep Dip



Plate 23. Harris property - view southwest of hand-drilled timber post



Plate 24. Harris property - view east of Well 2



Plate 25. Harris property - view southeast of natural pool adjacent to Well 2



Plate 26. Harris property - cast iron fitting found at Well 2



Plate 27. Harris property - view southeast of Well 3



Plate 28. Harris property - view northwest of fig tree

Table 12. Coordinates for Historical Features on the Harris Property

Place Name	Waypoint	Easting	Northing
Harris Sheep Dip	1	420143	6551188
Harris Well 1	1	420146	6551194
Harris Well 2	1	420092	6550967
Harris Well 3	1	420266	6551689
Fig Tree (site of former house)	1	420316	6551534

(Datum GDA 94; Zone 50J; Accuracy  $\pm 10$  m)

### Discussion

Well 3 is outside the Survey Area and is not discussed further.

Wells 1 and 2 and the stone-lined pit that is interpreted as a Sheep Dip are historically significant features that likely date to around the turn of the 20<sup>th</sup> century. In a documented history of Wannamal it is recorded that Henry Goate took up a 160 acre lease in the area in 1909, and there is also mention of Goate 'sinking wells' (Buchanan 1997:83). It is also possible that Well 2 was constructed by the Benedictine monks of New Norcia, in the mid to late 19<sup>th</sup> century. Wannamal (Shannon's) Well 1.6 km to the east of Wells 2 is attributed to this period.

Mr Harris told the archaeologists that the wells on his property are all vital sources of water for the farm, and that in times of drought, the reliable water source from Well 2 is critical.

Table 13. Statement of Significance for Well 2

Aesthetic	The well does not display significant aesthetics.
Historic Value	The well has historic value as it at least dates to around the turn of the 20 <sup>th</sup> century and possibly earlier, therefore its physical remains are of historical value.
Scientific (Archaeological) Value	The well has significant scientific value as it may contain historical deposits and / or objects.

Social Value	The well has social significance as it has been a historically important water source for farmers and probably also travellers. The well has continuing social value and continues to be used as an important water source for the Harris farm.
Rarity	With continuity of use for likely over 100 years, the well is a relatively rare historical feature.
Representativeness	The well is representative of historical rural settlement, farming and travel.
Physical Condition	The well is in good condition and continues to provide a reliable source of water for the Harris farm.
Integrity	The well has a significant degree of integrity.
Authenticity	The well is an authentic historical feature that likely dates to the turn of the 20 <sup>th</sup> century, but may feasibly date to the mid to late 19 <sup>th</sup> century.

### *Recommendations*

The draft Project design abuts Well 2 and will ultimately affect the reliability and quality of the water in the well. If the road design cannot be amended to avoid Well 2, with a reasonable buffer (to be determined by a hydrologist), it is **recommended** that:

- consultation is undertaken with the Department of Planning, Lands and Heritage to ascertain whether a submission under the GHPDP is necessary for this place, or any of the other historical features on the Harris property.



**Legend**

 Historical Features



**Figure 4. Locations of Historical Features on Harris Property (1121 Hay Flat Road, Wannamal)**

Drafted by Jim Stedman, 6th July 2018  
GDA94, Zone 50.

## SPRING VALLEY HISTORICAL ARTEFACT SCATTER (LeBlanc Property, 173 Barn Road, Mooliabeenee)

### *Background*

At a pre-fieldwork meeting, the IPT advised Archae-aus of potential for historical material at this location (173 Barn Road, Mooliabeenee). An initial survey was made on 27<sup>th</sup> February 2018 when the artefact scatter was identified, with a return visit for additional site recording the following day. The site was reinspected by Archae-aus personnel on 23<sup>rd</sup> May and 10<sup>th</sup> July 2018.

### *Assessment*

Spring Valley Historical Artefact Scatter is an archaeological site with both Indigenous and historical artefacts, but owing to the scope of this survey, the Indigenous component of the site was not recorded in any detail and is not discussed here.

The historical artefact scatter is in the southeast corner of a cropped paddock, on the west side of where Barn Road crosses a watercourse, close to the historical *Spring Valley* farm (Plate 29). The ground surface at the site is loose white / grey sand and a low mound of sand on the west side of the creek is the redeposited spoil from where the creek bed has been dug out to deepen and widen it, creating a small pond within the channel (Plate 30). In the northwest of the site the pitted and uneven ground surface and residual granite blocks indicates that there may have once been an outcrop there, which is now largely removed.

The watercourse that the site is adjacent flows through a valley of undulating low hills with granite outcrops on the slopes, before draining into Lake Nangar, 1.2 km to the southwest. Historically, the area has been used for farming wheat and sheep since the 1870s.

The site boundary was determined using a series of radial transects extending out from an identified concentration of ceramic sherds but is undetermined to the south at the fenced property boundary, which was not crossed and inspected (

Table 14).

Leaf litter along the fence line on Barn Road and crop stubble in the paddock both reduce the ground surface visibility level. Despite this variability, the surface visibility was generally good and estimated to be 80% at the time of the recording. There is also a noticeable drop in artefact number on the bank of the pool in the creek in the southeast. The vegetation across the site is characterised by planted crop in the paddock, small shrubs and reeds around the pool and *Eucalyptus* spp. trees along the fence lines.

The scatter is moderately dense and exhibits high diversity in artefact types and raw materials. The site measures 90 m by 113 m with a total area of 5,729 m<sup>2</sup> (bearing in mind that the southern boundary remains open) and the estimated minimum artefact population visible on the surface was 50.

The site has been disturbed by historical and contemporary impacts including farming and upgrades to Barn Road. Although a fire break following the fence line runs through the site and ploughing of the paddock has impacted it, the artefact assemblage does retain some archaeological integrity (Plate 31).

### **Ceramics**

A range of ceramics was identified at the site, including crockery such as plate and bowl sherds, and a cup handle from a child's tea set (Plate 32). Clear glazed, blue transfer, brown floral transfer print and teal earthenwares were also observed in the assemblage (Plate 33).

### **Glass**

A diverse range of glass artefacts was observed at the site including: clear, milk, brown, olive, cobalt blue, light blue and amethyst (purple). Of the glass artefacts, some were identifiable as bottle bases (Plate 34), beer bottles, a bottle stopper (Plate 35) and milk glass screw top jar fragments (Plate 36). Brand names and manufacture marks were visible on some glass shards such as barrel and star motifs and "AGM" or Australian Glass Manufacturer.

**Metal**

A small fragment of hammered copper alloy sheet was identified.



**Plate 29. Spring Valley Artefact Scatter - view southeast towards creek**



**Plate 30. Spring Valley Artefact Scatter - view east of excavated pool in creek channel**



**Plate 31. Spring Valley Artefact Scatter - view south of redeposited sand mound and vehicle track through site**



**Plate 32. Spring Valley Artefact Scatter - ceramic child's tea set cup handle**



**Plate 33. Spring Valley Artefact Scatter - ceramic sherd with brown floral transfer print**



**Plate 34. Spring Valley Artefact Scatter - cobalt blue bottle base fragment**



Plate 35. Spring Valley Artefact Scatter – broken clear glass bottle stopper



Plate 36. Spring Valley Artefact Scatter – broken milk glass jar with screw top

Table 14. Boundary Coordinates for Spring Valley Artefact Scatter

Place Name	Waypoint	Easting	Northing	Notes
Spring Valley Artefact Scatter	1	410770	6535097	Site Boundary open to the south between points 8 and 12. Points 9 – 11 demarcate fence line on property boundary
	2	410746	6535098	
	3	410729	6535095	
	4	410721	6535085	
	5	410724	6535060	
	6	410726	6535039	
	7	410730	6535023	
	8	410732	6535008	
	9	410757	6535010	
	10	410782	6535011	
	11	410797	6535009	
	12	410834	6535016	
	13	410818	6535032	
	14	410797	6535042	
	15	410783	6535053	
	16	410770	6535062	
	17	410771	6535078	

(Datum GDA 94; Zone 50J; Accuracy ±10 m)

### Discussion

It is the opinion of the authors that Spring Valley Artefact Scatter demonstrates two separate phases of past human activity. The site's later, historical phase is likely associated with the historical farm *Spring Valley*, which is immediately across Barn Road and is place number 14112 on the Shire of Chittering's Municipal Inventory. The property is associated with the Glover family and was the first historical settlement in Mooliabeenee. It is likely that the historical component of Spring Valley Artefact Scatter is the remnant material culture deriving from a small workers' camp or another focus of activity associated with *Spring Valley* farm.

Datable artefacts identified at the site include amethyst glass, produced by adding manganese to clear glass, which has a date range from 1885-1920. The cobalt blue bottle base at the site dates from 1850 – 1920, based on its form. Additionally, brown transfer-printed earthenwares were produced from 1818 –

1869, with continuous floral borders dating between 1820 -1836. These dates are generally consistent with the history of *Spring Valley*, where Charles Anslam Glover first took a grazing lease in 1871, building a wattle and daub cottage. Later in 1893, Glover built a substantial mud brick house at the site.

There is significant potential for sub-surface cultural material from both phases of occupation at Spring Valley Artefact Scatter. Artefacts were observed semi-buried in the sand and individual artefacts were observed during the July and May 2018 site visits that were not visible in February 2018. This indicates that buried cultural material is moving to the surface through natural (such as water and wind) and human (such as vehicle traffic) processes.

**Table 15. Statement of Significance for historical component of Spring Valley Artefact Scatter**

Aesthetic	The artefact scatter does not display significant aesthetics.
Historic Value	The artefact scatter has historic value as it at least dates to around the turn of the 20 <sup>th</sup> century and possibly earlier, therefore its physical remains are of historical value.
Scientific (Archaeological) Value	The artefact scatter has significant scientific value as it may contain sub-surface historical features and / or objects associated with farming activities.
Social Value	The scatter has social significance as it is associated with <i>Spring Valley</i> farm which was the first settlement in Mooliabeenee.
Rarity	Artefact scatters are not particularly rare historical deposits, especially around historical farms.
Representativeness	The artefact scatter is representative of historical rural settlement, domestic life and farming.
Physical Condition	The artefact scatter is diffuse but in relatively good physical condition.
Integrity	The artefact scatter has been disturbed by farming but retains a moderate degree of integrity.
Authenticity	The artefact scatter is an authentic historical deposit that includes objects dating from the late 19 <sup>th</sup> century.

### **Recommendations**

The draft Project design impacts upon the northern part of Spring Valley Artefact Scatter.

It is **recommended** that:

- ◆ the Spring Valley Artefact Scatter site may constitute an Aboriginal Site under the *Aboriginal Heritage Act 1972*, and should be avoided;
- ◆ consultation with Yued Noongar Traditional Owners should be undertaken regarding the site;
- ◆ a Heritage Information Submission Form for the site should be submitted to the Department of Planning, Lands and Heritage;
- ◆ if the Project design cannot be amended to avoid the site (with a 30 m buffer), consultation is undertaken with the Department of Planning, Lands and Heritage to ascertain whether submission(s) under the GHPDP and / or Section 18 of the *Aboriginal Heritage Act 1972* is / are necessary for this place; and
- ◆ ground disturbing works in this area are monitored by an archaeologist and a Yued representative to mitigate against the potential for impact to any sub-surface cultural material.



410700

410800

410900

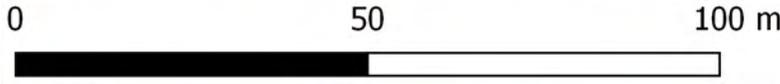
6535100

6535000

Spring Valley Artefact Scatter

**Legend**

 Artefact Scatter  Survey Area



**Figure 5. Location of Spring Valley Artefact Scatter (Barn Road, Mooliabeenee)**

Drafted by Jim Stedman, 6th July 2018  
GDA94, Zone 50.

## **CULLALLA SIDING (Railway Reserve, Cullalla Road, Mooliabeenee)**

### ***Background***

The desktop assessment identified *Cullalla Siding*, place number 14194 on the Shire of Chittering's Municipal Inventory, as a historical heritage place that is partially impacted by the draft Project design. An initial site inspection was made on 26<sup>th</sup> February 2018, with a return visit for additional site recording made on May 22<sup>nd</sup> 2018.

Cullalla Siding is a historical rail siding that is associated with a train robbery that took place in 1953. The perpetrators Stephen Doyle, Robert Steele and Victor Hessel targeted railway employees' wages which were being transported in the rear van on the Midland to Walkaway train. Doyle and Steele waited in the bushes while Hessel was in their getaway car. A sum of £3,832 was stolen from the Midland Railway Company when the train stopped to rewater at Cullalla Siding. The perpetrators were eventually apprehended, and the case finalised in 1954.

Cullalla Siding is a historical site where trains stopped to rewater at the railway water supply dam, or what later became known to local people as 'Bindoon Beach'. The dam has not held water for some time, however, local property owners consulted during this assessment recalled swimming there as children.

The rectangular boundary of the MI listed place extends on both sides of the railway line and measures 440 m (north / south) by 130 m (east / west), with a total area of 58,070 m<sup>2</sup>.

### ***Assessment***

The site is surrounded by dense Banksia heath on loose white sand and the ground surface visibility at the time of the inspection was estimated at 20%. There is historical and contemporary rubbish littered across the site.

The most striking feature at Cullalla Siding is the large hollow of the former dam. This measures approximately 120 m x 45 m x 10 m deep (Plate 37 and Plate 38).

Close to the railway line, north of the dam, are the collapsed remains of the galvanised iron, cement lined water tank (4 m diameter x 1.8 m high) that used to hold water for transfer to the trains (Plate 39 and Plate 40). The sides and top of the water tank have collapsed inwards and the tank has fallen off its three concrete bases. There is a steel bracket on the outside of the tank that appears to have held a vertical water pipe (Plate 41).

Approximately 60 m southeast of the water tank there is a circular concrete footing with remnant steel cladding or formwork (1.3 m diameter x 20 cm thick) (Plate 42). The footing is on raised ground at the north end of the dam and may be the remains of a base for a small vertical boiler that was used to power a steam pump to raise water from the dam to the tank. The concrete footing is surrounded by a mound of what appears to be dumped ash (approximate dimensions 35 m x 30 m), which would support the theory that a boiler was operated at this location.

Mr Robinson of 428 Gingilling Road, Mooliabeenee advised the archaeologists that there was formerly a shed at the site, but no remains of this were identified during the site inspection.

The Project draft design impacted upon the southwest side of the cadastral boundary of Cullalla Siding, in a strip of land between the railway line and Cullalla Road. A close inspection of this area was made but no significant historical finds were identified.



Plate 37. Cullalla Siding - view west of former dam



Plate 38. Cullalla Siding - view southeast of former dam



Plate 39. Cullalla Siding - view southwest of collapsed water tank



Plate 40. Cullalla Siding - view southeast of collapsed water tank



Plate 41. Cullalla Siding - view southwest of steel bracket



Plate 42. Cullalla Siding - circular concrete footings

Table 16. Coordinates for Municipal Inventory listing: Cullalla Siding (14194)

Place Name	Waypoint	Easting	Northing
Cullalla Siding	1	408514	6538639
	2	408633	6538585
	3	408817	6538989
	4	408698	6539043
	5	408514	6538639

(Datum GDA 94; Zone 50J; Accuracy ±10 m)

Table 17. Statement of Significance for Cullalla Siding

Aesthetic	The site does not display significant aesthetics.
Historic Value	The site has significant associations with an event of national note (the 1953 train robbery), therefore its physical remains are of historical value.
Scientific (Archaeological) Value	The site has limited scientific value.
Social Value	The site has social significance as it was an important watering point on the railway north of Mooliabeenee and provided a source of employment for local people. In living memory, the dam at the site was used as a swimming pool by local people.
Rarity	The site itself is rare due to its association with a notable train robbery, however the physical features there are not considered to be rare.
Representativeness	The site is representative of historical railways, transport, travel and technology.
Physical Condition	The historical features at the site are in relatively poor physical condition and the dam is dry.
Integrity	The site is relatively undisturbed and retains a moderate degree of integrity.
Authenticity	The site is an authentic historical railway siding and watering point that dates to the turn of the 20 <sup>th</sup> century and was the site of a notable and well documented train robbery in 1953.

### Recommendations

The draft Project design impacts upon the southwest side of the cadastral boundary of Cullalla Siding.

It is **recommended** that:

- consultation is undertaken with the Department of Planning, Lands and Heritage to ascertain whether a submission under the GHPDP is necessary for this place.



**Legend**

 Municipal Inventory Place Boundary  Survey Area

0 50 100 m



**Figure 6. Locations of Features at Cullalla Siding (Cullalla Road, Mooliabeenee)**

Drafted by Jim Stedman, 6th July 2018  
GDA94, Zone 50.

## CONCLUSION

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A historical heritage assessment of the Bindoon Bypass Project Area was undertaken by Archae-aus for the Arup Jacobs Joint Venture Integrated Project Team on behalf of Main Roads Western Australia, as part of upgrade works to the Great Northern Highway, Muchea to Wubin (Stage 2). The assessment comprised a desktop study that was used to identify and produce a list of historical heritage places in the vicinity of the draft Project design. This was followed by two fieldtrips to undertake site inspections and recording.

- ◆ The assessment identified 15 places listed on the Shire of Chittering's Municipal Inventory that are within the Survey Area but are not impacted by the draft Project design (Appendix 2).
- ◆ The assessment identified one historical heritage place (*Cullalla Siding* - State Heritage # 14194) listed on the Shire of Chittering's Municipal Inventory that is impacted by the draft Project design (Table 16).
- ◆ In addition to the places listed on the Shire of Chittering's Municipal Inventory, previously undocumented historical heritage places were identified and recorded during the fieldwork, including features and structures on the Haeusler, Harris and Worth properties and an artefact scatter with Aboriginal and historical components on the From & LeBlanc property. The places are summarised below in Appendix 1, Table 18. A well on the Harris property and the artefact scatter on the From & LeBlanc property are impacted by the draft Project design.

If any of the heritage places identified during this assessment will be impacted by the final Project design, consultation with the Department of Planning, Lands and Heritage is recommended to determine if these places require submissions under the Government Heritage Property Disposal Process. Based on the results of this assessment, in Archae-aus' opinion, none of the historical heritage places that are impacted by the draft Project design are likely to be assessed by the Heritage Council's Register Committee as meeting the threshold for entry in the State Register of Heritage Places. A *Finds Discovery Protocol* and monitoring of works in specified areas by an archaeologist should be implemented during the Project's construction phase.

With the exception of the 16 places on the Shire of Chittering's Municipal Inventory (Appendix 2) and the historical features and structures on the Haeusler, Kirkwood, Harris and Worth properties (Table 6), the remainder of the Project Area is considered **low risk** for historical heritage, provided that the final Project design remains within the boundary of the Survey Area.

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## SUMMARY OF RECOMMENDATIONS

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It is **recommended** that the IPT are advised that:

1. the fieldwork was conducted in accordance with the Scope of Works provided to Archae-aus on 19/2/2018 and the draft Project design referenced on 19/2/2018, and that any changes to the Project design beyond the Survey Area will require further assessment of heritage places;
2. the curtilage of Cullalla Siding (State Heritage#14194) will be impacted by the draft Project design. If the Project design cannot be amended to avoid this place, consultation with the Department of Planning, Lands and Heritage should be undertaken to determine if a submission under the Government Heritage Property Disposal Process will be required;
3. previously undocumented historical heritage places were identified and recorded during the fieldwork. The places are summarised in Appendix 1, Table 18. If any of these places will be impacted by the final Project design, consultation with the Department of Planning, Lands and Heritage should be undertaken to determine if they require submissions under the Government Heritage Property Disposal Process;
4. the Spring Valley Artefact Scatter site may constitute an Aboriginal Site under the *Aboriginal Heritage Act 1972*, and should be avoided until it has been assessed by the Aboriginal Cultural Materials Committee;
5. consultation with Yued Noongar Traditional Owners should be undertaken regarding the Spring Valley Artefact Scatter site;
6. a Heritage Information Submission Form for the Spring Valley Artefact Scatter site should be submitted to the Department of Planning, Lands and Heritage;
7. any areas that will be impacted by the final Project design and were not inspected during this survey due to land access restrictions should be surveyed, landowners consulted and heritage sites recorded in order to determine the necessary heritage approvals;
8. monitoring of ground disturbing works by an archaeologist is recommended at historical heritage places where there is considered to be potential for sub-surface historical features or deposits; and
9. a  *Finds Discovery Protocol* is implemented during the Project's construction phase to mitigate against the potential for impact to any historical heritage places or artefacts that were not identified by this assessment.

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## REFERENCES

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## APPENDIX 1 – COORDINATES FOR IDENTIFIED HERITAGE PLACES

Table 18. Historical Heritage Place Coordinates, 2018

Place Name	Waypoint	Easting	Northing
Kirkwood House	1	420354	6551499
	2	420339	6551497
	3	420340	6551486
	4	420357	6551491
Emu Springs Bore	1	408774	6543806
	2	408764	6543799
	3	408759	6543812
	4	408774	6543815
Emu Springs Dam 1 and Channel	1	408725	6543884
	2	408754	6543907
	3	408726	6543931
	4	408711	6543905
	5	408686	6543877
	6	408667	6543857
	7	408676	6543848
	8	408699	6543869
Emu Springs Shed	1	408616	6543875
	2	408627	6543876
	3	408631	6543867
	4	408617	6543862
Emu Springs Fruit Drying Rack	1	408593	6543953
	2	408605	6543963
	3	408621	6543977
	4	408624	6543971
	5	408612	6543961
	6	408596	6543949
Emu Springs Dam 2 and Shed	1	408518	6544256
	2	408531	6544237
	3	408530	6544220
	4	408512	6544199
	5	408491	6544217
	6	408487	6544233
	7	408495	6544255
Harris Sheep Dip	1	420143	6551188
Harris Well 1	1	420146	6551194
Harris Well 2	1	420092	6550967
Harris Well 3	1	420266	6551689
Harris Fig Tree (Site of former house)	1	420316	6551534
Spring Valley Artefact Scatter  Site Boundary open to the south between points 8 and 12. Points 9 – 11 demarcate fence line on property boundary	1	410770	6535097
	2	410746	6535098
	3	410729	6535095
	4	410721	6535085
	5	410724	6535060

	6	410726	6535039
	7	410730	6535023
	8	410732	6535008
	9	410757	6535010
	10	410782	6535011
	11	410797	6535009
	12	410834	6535016
	13	410818	6535032
	14	410797	6535042
	15	410783	6535053
	16	410770	6535062
	17	410771	6535078
Haeusler Historical Road	1	421791	6552023
	2	421810	6551996
	3	421786	6551917
	4	421757	6551926
	5	421791	6552023

(Datum GDA 94; Zone 50J; Accuracy  $\pm 10$  m)

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## APPENDIX 2 – LIST OF HERITAGE PLACES

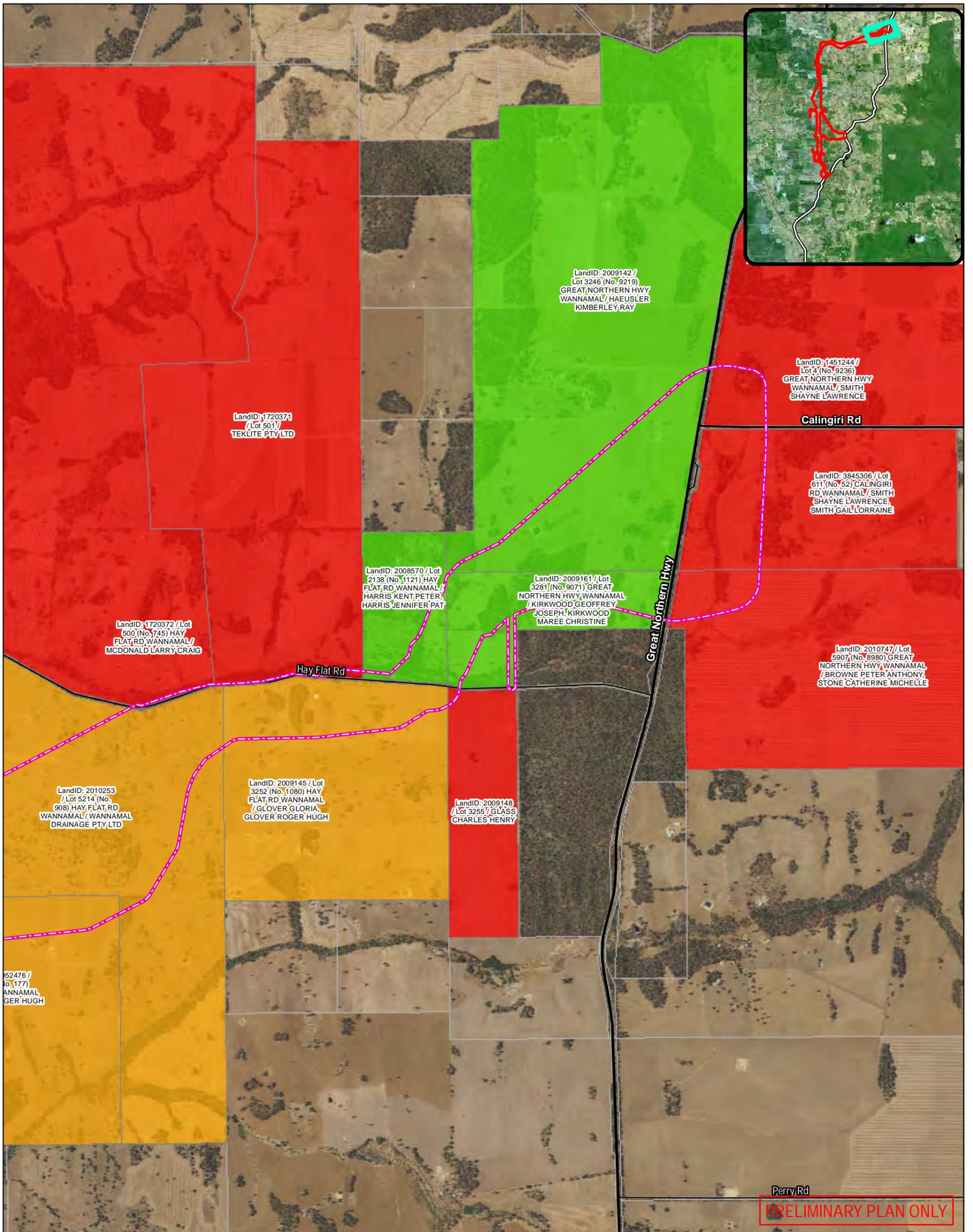
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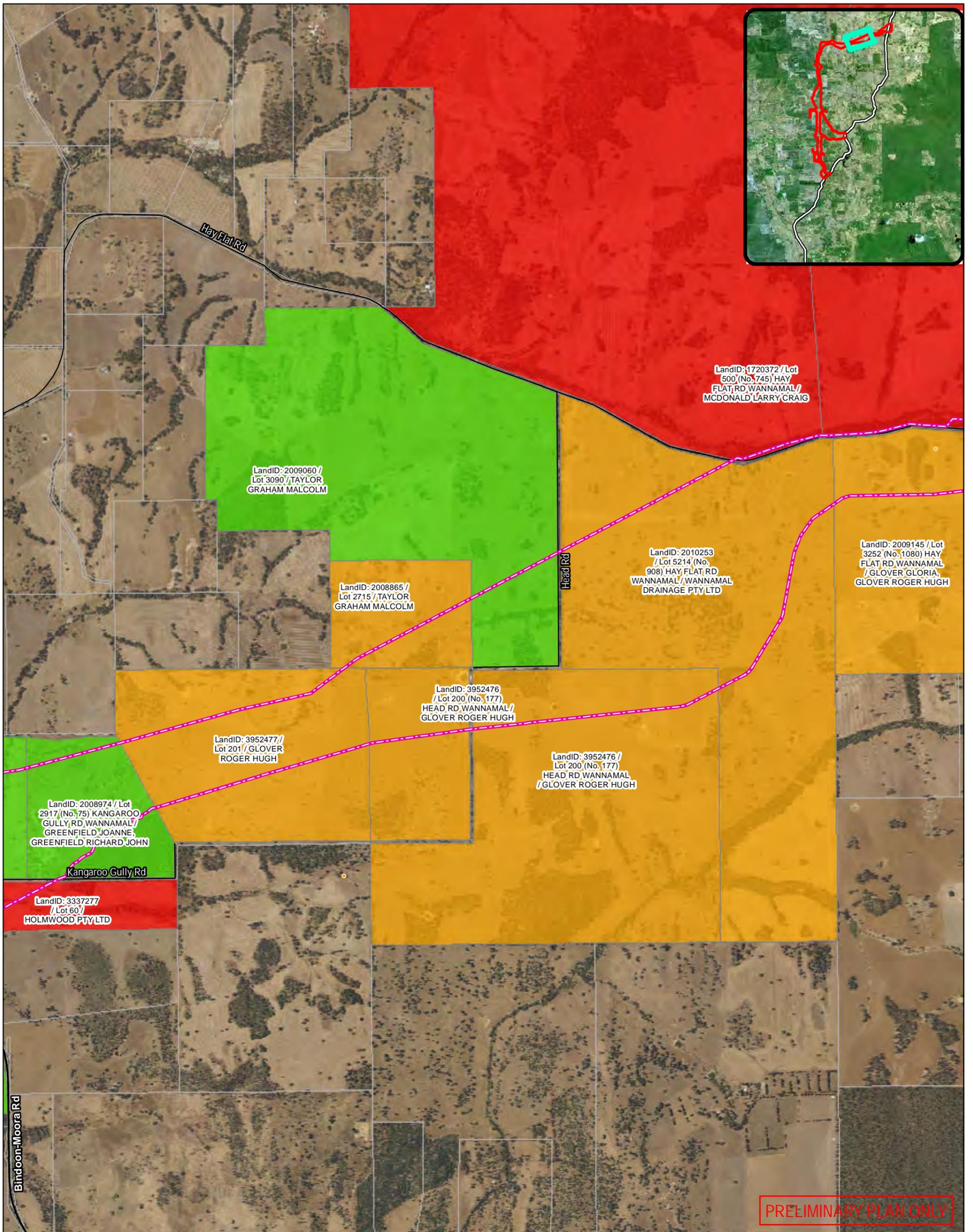
Shire	Project Area	SHO Place No.	Place Name	Location / Address	Heritage Listings	Condition	Relationship to Survey Area
Chittering	Bindoon Bypass	14265	West Vale	Great Northern Hwy, Wannamal	MI(cat5)	Unknown	Within Survey Area. Not impacted by current Project design.
Chittering	Bindoon Bypass	14164	Old Cyril Page's House	Hay Flat Rd, Wannamal	MI(cat4)	Intact	Within Survey Area. Not impacted by current Project design.
Chittering	Bindoon Bypass	14194	Cullalla Siding	Cullalla Rd, Mooliabeenie	MI(cat5)	Site	Within Survey Area, impacted by design.
Chittering	Bindoon Bypass	14190	Mooliabeenie Railway Precinct	Bindoon Gingin Rd, Mooliabeenie	MI(cat5)	Site	Within Survey Area. Not impacted by current Project design.
Gingin	Bindoon Bypass	17904	Mooliabeenee Rail Siding Site	Mooliabeenee Road, Gingin	MI(cat 4)	Site	Within Survey Area. Not impacted by current Project design.
Chittering	Bindoon Bypass	14191	Mooliabeenee Shop & Well	Bindoon Gingin Rd, Mooliabeenee	MI(cat5)	Site	Within Survey Area. Not impacted by current Project design.
Chittering	Bindoon Bypass	14189	Mooliabeenee Rifle Range	Bindoon Gingin Rd, Mooliabeenee	MI(cat5)	Site	Within Survey Area. Not impacted by current Project design.
Chittering	Bindoon Bypass	14203	Wards Saw Mill	Bindoon Gingin Rd, Mooliabeenee	MI(cat5)	Site	Within Survey Area. Not impacted by current Project design.
Chittering	Bindoon Bypass	14201	Mooliabeenee School & Quarters	Bindoon Gingin Rd, Mooliabeenee	MI(cat5)	Site	Within Survey Area. Not impacted by current Project design.
Chittering	Bindoon Bypass	14097	Doubleview	Cresthill Rd, Bindoon	MI(cat4)	Good	Partially within Survey Area. Not impacted by current Project design.
Chittering	Bindoon Bypass	14175	Godfrey's House Site and Pepper Trees (Niela (fmr), Alec De Marchi (fmr))	Great Northern Hwy & Crest Hill Rd, Bindoon	MI(cat5)	Site	Partially within Survey Area. Not impacted by current Project design.
Chittering	Bindoon Bypass	14096	A de Marchi's House	Great Northern Hwy & Crest Hill Rd, Bindoon	MI(cat4)	Good	Partially within Survey Area. Not impacted by current Project design.
Chittering	Bindoon Bypass	14070	Claremont Cottage (Clune's Bindoon Pony Club)	Gray Rd, Bindoon	MI (cat2)	Good	Abuts Survey Area. Not impacted by current Project design.
Chittering	Bindoon Bypass	14170	Blacksmith	9 Gray Rd, Bindoon	MI(cat5)	Site	Abuts Survey Area. Not impacted by current Project design.
Chittering	Bindoon Bypass	14169	Sandalwood Pool	Gray Rd, Bindoon	MI(cat5)	Site	Abuts Survey Area. Not impacted by current Project design.
Chittering	Bindoon Bypass	14174	Bindoon Soldier Settler Precinct	Great Northern Hwy, Bindoon	MI(cat5)	Site	Partially within Survey Area. Not impacted by current Project design.

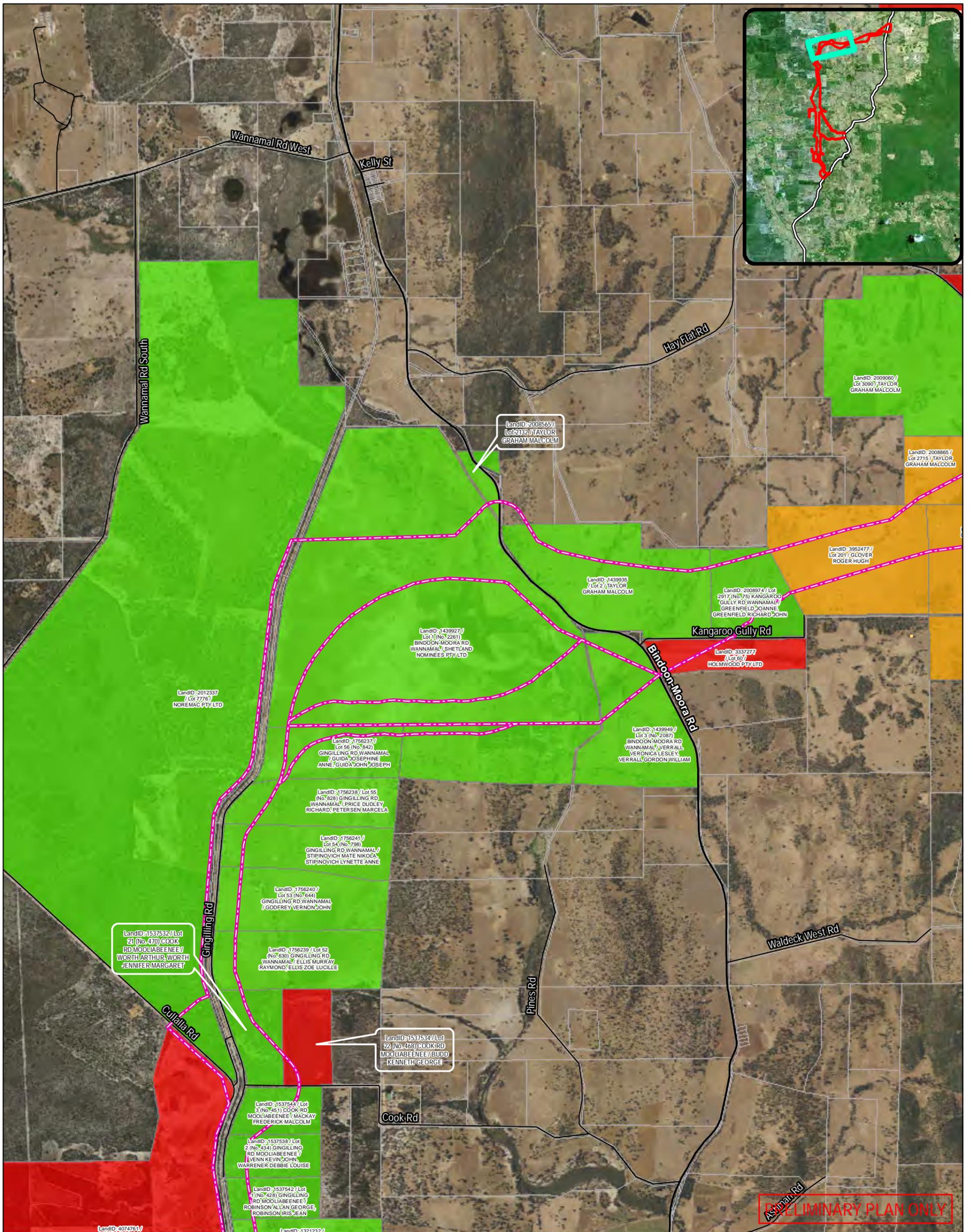
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## APPENDIX 3 – LAND TENURE AND ACCESS MAPS

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**PRELIMINARY PLAN ONLY**

**Legend**

**Survey Area**

BB - B

**Access Granted**

No

Yes

Pending

— Cadastral Boundary

— Aboriginal Places (DAA)

— Major Road

— Minor Road

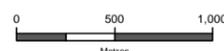
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Coordinate System: GDA 1994 MGA Zone 50



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Main Roads Western Australia

Great Northern Highway  
 Bindoon Bypass

**Survey Area - BB - B**  
**Current Land Access**  
**(2108/01/29)**

Map 3 of 4

Drawing No  
 GNH-CN12-E-EA-GD-00003

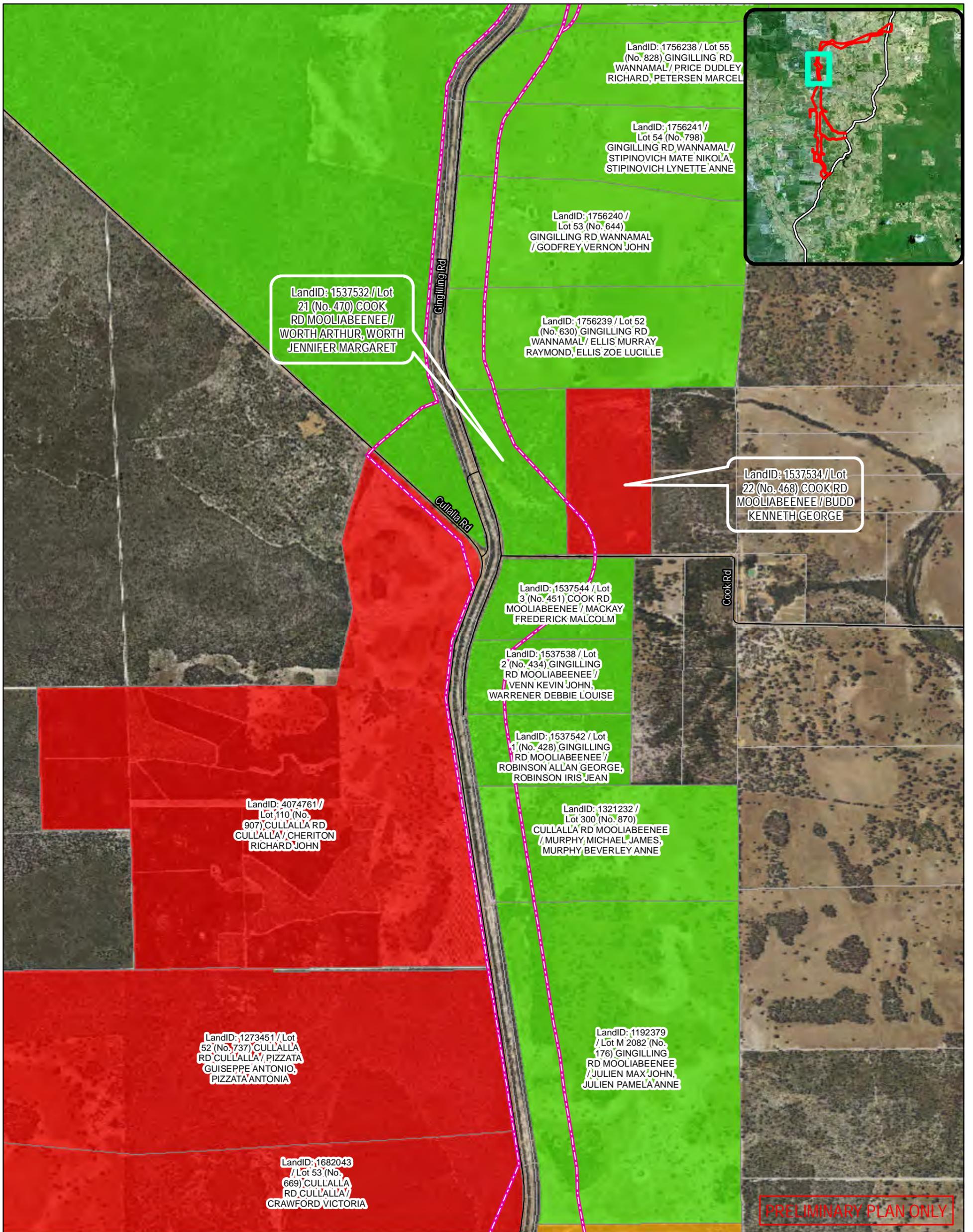
Task No  
 GNH-1740

Drawing Status / Other  
 Draft

Client  
 Project

Date	By	Chkd	Appd
29/01/2018	BG	SR	XX

Issue  
 B



**Legend**

- Survey Area**
- BB - B
  - No
  - Yes
  - Pending
- Access Granted**
- Cadastral Boundary
  - Minor Road

Data Source: Main Roads WA, Landgate, Geoscience Australia

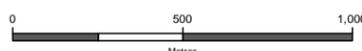


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Coordinate System: GDA 1994 MGA Zone 50



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Main Roads Western Australia

Client  
Project  
**Great Northern Highway Bindoon Bypass**

**Survey Area - BB - B  
Current Land Access  
(2108/01/29)**

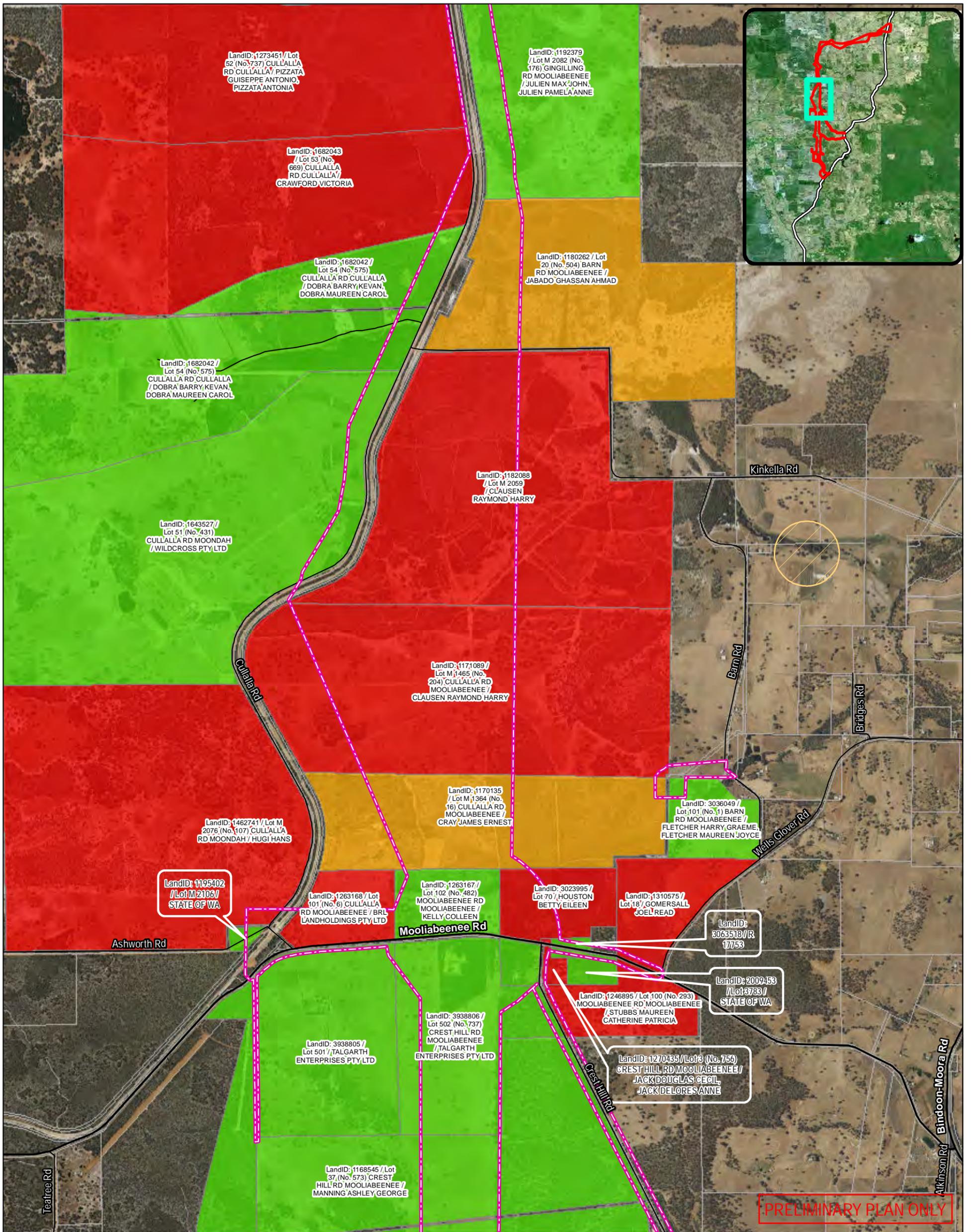
**Map 4 of 4**  
Drawing No  
GNH-CN12-E-EA-GD-00003

Issue  
B

Task No  
GNH-1740

Drawing Status / Other  
Draft

Date	By	Chkd	Appd
29/01/2018	BG	SR	XX



**PRELIMINARY PLAN ONLY**

**Legend**

- Survey Area**
- Cadastral Boundary
  - BB - B
  - Aboriginal Places (DAA)
- Access Granted**
- No
  - Yes
  - Pending
- Roads**
- Major Road
  - Minor Road

Data Source: Main Roads WA, Landgate, Geoscience Australia

Joint Venture Partners:

**Arup Pty Ltd**  
 Level 12 Exchange Tower  
 2 The Esplanade  
 Perth WA 6000  
 Tel +61 8 9327 8300 Fax +61 8 9481 1334  
 www.arup.com

**JACOBS Group (Australia) Pty Ltd**  
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 www.jacobs.com

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0 500 1,000  
 Metres

Coordinate System: GDA 1994 MGA Zone 50

**mainroads**  
 WESTERN AUSTRALIA

IN PARTNERSHIP WITH

**JACOBS ARUP**

**Main Roads Western Australia**

Client: **Great Northern Highway Bindoon Bypass**

**Survey Area - BB - B**  
**Current Land Access**  
**(2108/01/29)**

**Map 5 of 4**

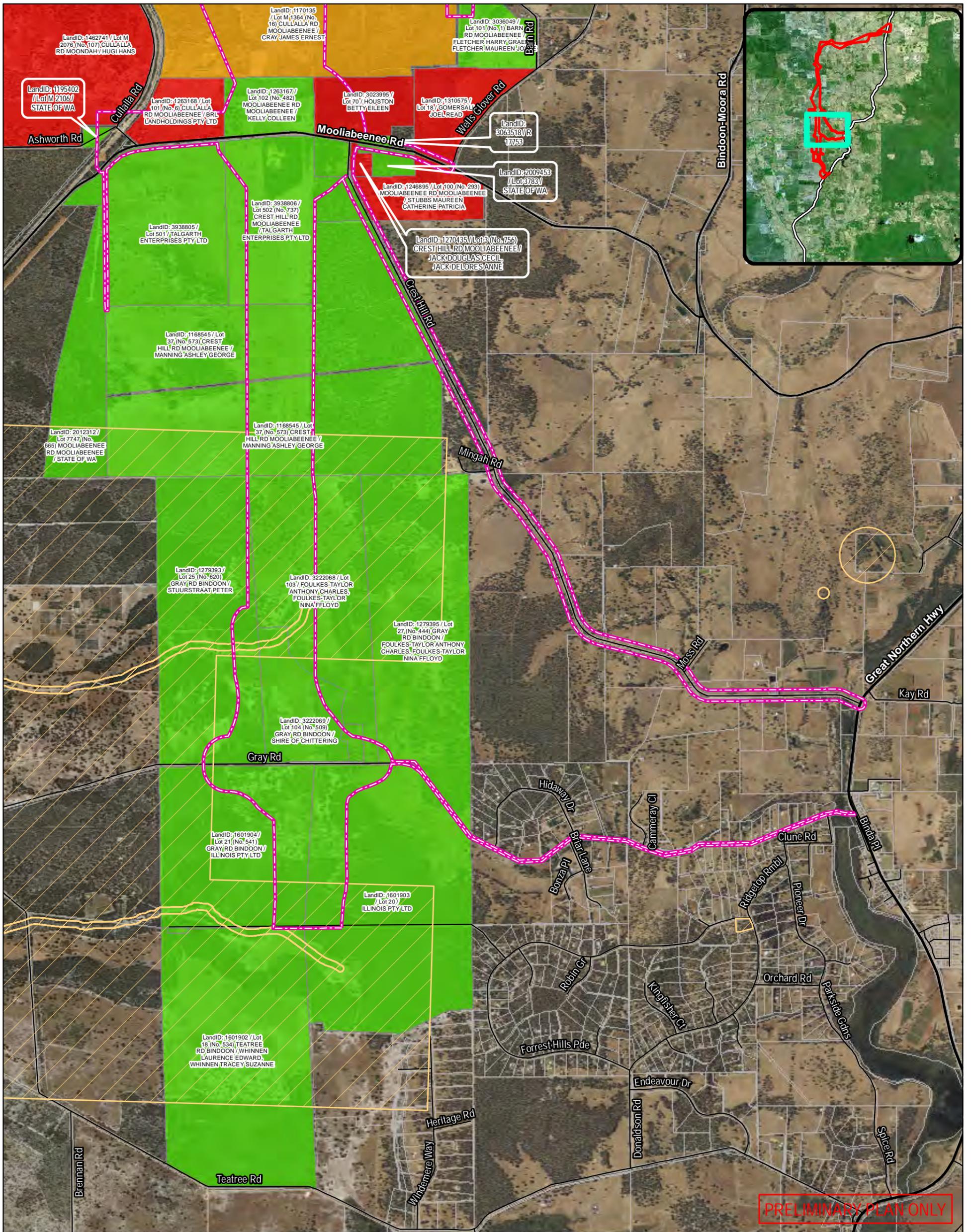
Drawing No: **GNH-CN12-E-EA-GD-00003**

Task No: **GNH-1740**

Drawing Status / Other: **Draft**

Date	By	Chkd	Appd
29/01/2018	BG	SR	XX

Issue: **B**



PRELIMINARY PLAN ONLY

**Legend**

**Survey Area**

BB - B

**Access Granted**

No

Yes

Pending

Cadastral Boundary

Aboriginal Places (DAA)

Freeway / Highway

Major Road

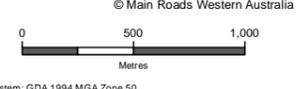
Minor Road

Data Source: Main Roads WA, Landgate, Geoscience Australia



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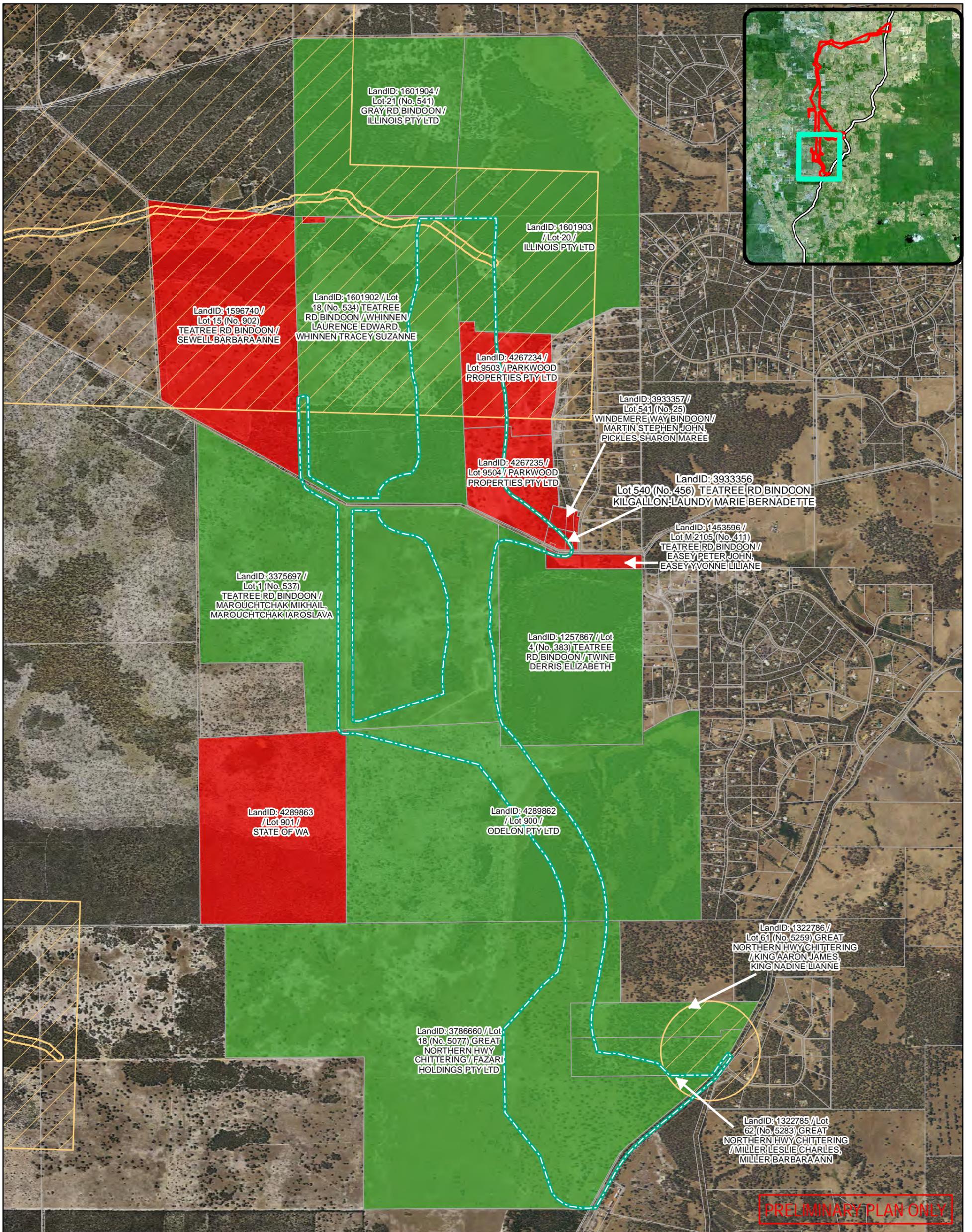
Main Roads Western Australia

Client: Great Northern Highway Bindoon Bypass

**Survey Area - BB - B**  
**Current Land Access**  
**(2108/01/29)**

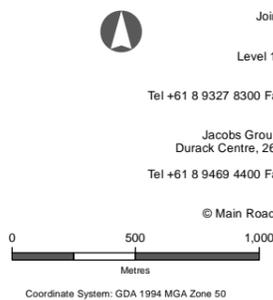
Map 6 of 4

Drawing No	GNH-CN12-E-EA-GD-00003	Issue	B
Task No	GNH-1740	Drawing Status / Other	Draft
Date	29/01/2018	By	BG
		Chkd	SR
		Appd	XX



- Legend**
- Access Granted - (BB - A)
    - Yes
    - No
    - Cadastral Boundary
  - Survey Area
  - Aboriginal Places (DAA)
  - BB-A Survey Area

Data Source: Main Roads WA, Landgate, Geoscience Australia



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Client  
 Project  
**Great Northern Highway Bindoon Bypass**

**Survey Area  
 Current Land Access  
 (2108/01/15)**

Drawing No: **GNH-CN12-E-EA-GD-00001** Issue: **A**

Task No: **GNH-1740** Drawing Status / Other: **Draft**

Date	By	Chkd	Appd
16/01/2018	BG	SR	XX