



## **APPENDIX O      HISTORIC HERITAGE ASSESSMENT LETTER**

Meredith Anderson  
Hills of Gold Wind Farm Pty Limited  
Level 23, 2 Southbank Boulevard  
Melbourne 3006



8 November 2022  
Reference: 0550690

Dear Meredith

Subject: Hills of Gold Windfarm Project (SSD-9679) Alternate Project Transport Route Options, Alternate Western Substation, BESS and O&M location, and Transmission Line Widening Amendment – Historic Heritage Assessment Letter.

## 1. INTRODUCTION

### 1.1 Brief Project Background

Hills of Gold Wind Farm Pty Ltd (the Proponent) is seeking approval to construct and operate the Hills of Gold Wind Farm (HoGWF), located on the ridgeline between Hanging Rock and Crawney Pass in the Northern Tablelands region of New South Wales (NSW). The HoGWF will supply renewable energy directly into the national electricity grid, through a proposed connection into the existing TransGrid Liddell to Tamworth 330 kV transmission line.

The proposed development of the HoGWF involves the construction and operation of:

- a maximum of 64 turbines, of approximately 384 megawatts (MW) total install capacity, and maximum height of 230 metres (to blade tip); and
- Ancillary infrastructure including internal access tracks, road upgrades, battery storage, concrete batching facility, underground and overhead electricity cabling, substation and a switching station and grid connection to the 330 kV Liddell to Tamworth transmission line.

To facilitate the construction of the turbines at the HoGWF and due to the size of components required to construct the Wind Farm, several road modifications will be required along the proposed route. Environmental Resources Management Australia Pty Ltd (ERM) has previously prepared a Historical Heritage Assessment (HHA) (Final Report Nov 2020) and two Statement of Heritage Impact (SoHI) (2020; and 2021) and is currently preparing a SoHI of the Peel Inn in Nundle (Final October 2022) and a HHA of the Verden Road Quarry (Final October 2022). These reports will be used to examine and understand the potential impact of the HoGWF project on historic heritage values identified and to assess the potential impact of road amendments and upgrade works on known heritage sites.

ERM was engaged to prepare this report which will examine:

- the increase in transmission line width,
- the proposed alternate transport route to the HoGWF from Nundle via Crawney Road which is an additional 5.8 km of existing road use on Crawney Road beyond the Head of Peel Road including three entrance options into the western side of the HoGWF western boundary,
- and alternate western location footprint for the substation, Battery Energy Storage System (BESS) and Operation and Management (O&M) facility.

The proposed alternate project access of Crawney Road will be used for all oversize/overmass (OSOM) deliveries. The unsealed portion of Crawney Road (extending up to 4.3 km if Option C is used) from the turn off will be sealed following the proposed works, and up to an additional 6.1 km of existing farm tracks will be upgraded on a combination of private and crown land.

## 1.2 Location and Scope of Works

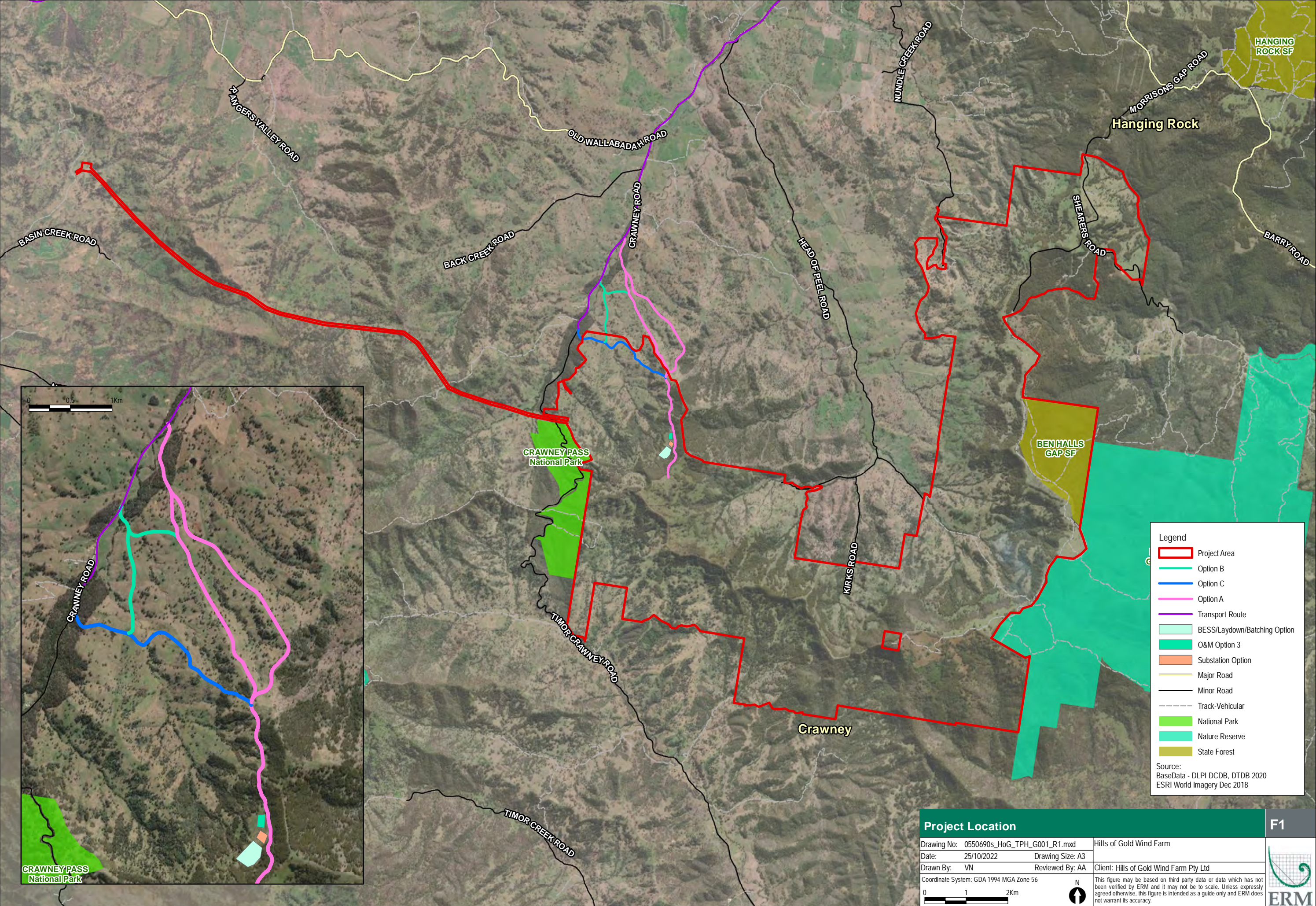
This proposed alternate transport route along Crawney Road (located approximately 9 km south-west of Nundle) has been provided as three options:

1. *Option A* (turn off '1'): through the northern portion of Crown Land (Lot 7301 DP 1136648, Crown Land, part of Travelling Stock Route R339 [TSR]) into the existing host landowner property (Lot 120 DP 755349);
2. *Option B* (turn off '2'): through the southern portion of Crown Land (Lot 7301 DP 1136648, Crown Land, part of TSR) into the existing host landowner property (Lot 120 DP 755349); and
3. *Option C* (turn off '3'): through Crown Land (Lot 7302 DP 11366448, Lot 26 DP 755349 and Lot 1 DP 210662), into the existing host landowner property (Lot 3 DP 1103716). Lot 7302 is Crown Land, part of TSR. Lot 26 is also Crown Land, but does not form part of the TSR.

Associated with the proposed alternate access route along Crawney Road, the proponent seeks optionality for the location of the substation, BESS and O&M facility to be closer to the Crawney Road alternative transport route.

Also part of this amendment HHA to the HoGWF project is the additional transmission line easement increase from 60 m to 90 m to ensure suitable collated easement for the 33kV running in parallel.





**Legend**

- Project Area
- Option B
- Option C
- Option A
- Transport Route
- BESS/Laydown/Batching Option
- O&M Option 3
- Substation Option
- Major Road
- Minor Road
- Track-Vehicular
- National Park
- Nature Reserve
- State Forest

Source:  
BaseData - DLPI DCDB, DTDB 2020  
ESRI World Imagery Dec 2018

Project Location	
Drawing No: 0550690s_HoG_TPH_G001_R1.mxd	Hills of Gold Wind Farm
Date: 25/10/2022	Drawing Size: A3
Drawn By: VN	Reviewed By: AA
Client: Hills of Gold Wind Farm Pty Ltd	
Coordinate System: GDA 1994 MGA Zone 56	
0 1 2Km	
N	
This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.	

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## 1.3 Purpose of Study

This Historic Heritage Assessment (HHA) aims to:

- Identify the statutory requirements in relation to this amendment;
- Identify the potential heritage values of the Project Area;
- explore each of the potential transport route options and assess the potential impacts of these options on any identified heritage values; and
- provide recommendations and mitigation measures, as required.

This report has been prepared as a desktop assessment; a site inspection of the Project Area has not been undertaken. However, Kelleher Nightingale Consultants (KNC) completed an Addendum report in September 2022 in addition their Aboriginal Cultural Heritage Assessment (ACHAR) 2020. The Addendum report assessed and surveyed:

- The alternate HoGWF western access of Crawney Road, including Option A, B, and C;
- The proposed western location for the substation, BESS and O&M facility (The report noted\* 'The increase in this easement is within the existing study area and no further comments are made within this report');
- The proposed overhead power line route with 60m easement increase to 90 m in width (The report noted\* 'The increase in this easement is within the existing study area and no further comments are made within this report').

The survey coverage and photographic log from the KNC 2022 Addendum report has been used here to inform the research that has been completed as part of this HHA.

## 1.4 Statutory Context and Heritage Environment

### 1.4.1 NSW Heritage Act 1977

The NSW *Heritage Act 1977* (Heritage Act) provides protection for heritage places, buildings, works, relics, moveable objects, precincts and archaeological sites; these include items of Aboriginal and non-Aboriginal (historic) heritage significance. Where these recorded heritage items have particular importance to the people of NSW, they are listed on the State Heritage Register (SHR), through gazettal in the NSW Government Gazette. Part 4 Sections 57 to 69 of the Heritage Act address the statutory requirements for items and places listed on the SHR. Works which include demolition, damage or alteration of a heritage item or place require the approval of the Heritage Council of NSW or its delegates.

**There are no heritage items or conservation areas listed on the SHR within 5 km of the Project Area or its boundaries.**

Sections 139 to 146, Divisions 8 and 9 of Part 6 of the Act refer to the requirement that excavation or disturbance of land that is likely to contain, or is believed may contain, archaeological relics is undertaken in accordance with an excavation permit issued by the Heritage Council (or in accordance with a gazetted exception under Section 139(4) of the Act). An archaeological relic is defined as meaning *any deposit, artefact, object or material evidence that:*

*(a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and*

*(b) is of State or local heritage significance.*



In particular Section 139 refers to the need for a permit in certain circumstances:

- 1. A person must not disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit.*
- 2. A person must not disturb or excavate any land on which the person has discovered or exposed a relic except in accordance with an excavation permit.*

### **1.4.2 Environmental Planning and Assessment Act 1979**

The Environmental Planning and Assessment Act 1979 (EP&A Act) regulates a system of environmental planning and assessment for NSW. Land use planning requires that environmental impacts, including those on cultural heritage, must be considered when making decisions about the future of a place.

The EP&A Act allows for the preparation of planning instruments to direct development within NSW. This includes Local Environment Plans (LEP), which are administered by local government. The Project Area is within the Tamworth Regional Council Local Government Area (LGA) and the Tamworth Regional LEP 2010 is relevant. Schedule 5 'Environmental Heritage', Part 1 'Heritage Items' in the Tamworth Regional LEP 2010 identifies historic objects or places of heritage significance.

**There are no listed heritage items within 5 km of the Project Area or its boundaries.**

Although no historical items or places are listed on any relevant heritage registers the Project Area was historically part of a large area used for grazing known as the "Wombramurra Run" (ERM HHA 2020). The Wombramurra Station (woolsheds and its associated buildings), is located approximately 500 m north of the most northern transport route, Option A.

## **2. THE ACTIVITY AREA**

### **2.1 Setting/Description**

The Project Area is within a cattle grazing property. This was historically part of the Wombramurra Run. Elevation in the study area is from 680 metres above sea level (m ASL) at lower elevations near Wombramurra Creek in the north, up to 1140 m ASL on the ridgetop at the southern end. This ridge is at the western end of a large arc shaped range, part of the Liverpool Ranges within the broader Great Dividing Range.

Landforms within the Project Area include moderate to steep slopes and crests of the ridge spurs striking north/north west of the main ridgeline running down to Crawney Road. The spur valleys contain first and second order headwaters of Wombramurra Creek.

The proposed substation and BESS occupy relatively flatter areas on the lower slope, elevated above the main creek valley.

Topography in the Project Area is dominated by a series of north-west running spurs and smaller ridges, with steep side slopes, separated by deep tributary creek gullies. On lower slopes nearer to Wombramurra Creek there are underlying older Devonian rocks.

Landform elements included creek bank and active floodplain adjacent to Wombramurra Creek, steep lower slopes immediately above Wombramurra Creek, small hill crests, spurs with narrow crests, mid slope saddles, steep side slopes, level basalt caps, steep ridge sides, and a high ridgetop saddle.

The Project Area has been gradually cleared over many decades to increase pasture for grazing stock. This has increased considerably over recent years particularly on the high



ridgetops. On slopes below the ridgetops, vegetation is open box woodland with eucalypts, rough barked Angophoras, occasional Kurrajong trees, and a grassy understorey. Casuarinas grow along the larger creek lines. There are patches of less disturbed forest in the? TSR reserves along the southern side of Wombramurra Creek, and on the steep side slopes off the highest ridge top. Drainage is dominated by north-west flowing tributaries, which emanate on the upper slopes, and eventually run to Wombramurra Creek. Creeks include Ryans Oaky Creek and Limestone Oaky Creek, and other unnamed headwaters. There are a few springs on the upper slopes below the ridgetop. The proposed routes would require a few creek crossings, two across Wombramurra Creek, and one across Ryans Oaky Creek.

## 2.2 Summary Historical Background

The below historical back ground has been largely extracted from Joanna Boileau's *Thematic History of Nundle, Manilla and Barrabba: Tamworth Regional Council Community Based Heritage Study* 2007 and ERMs HHA 2020.

The region surrounding Nundle was one of the first wool producing areas in Australia, with the first land grants in the region being to the Australian Agricultural Company in 1837 (Goonoo Goonoo Station). The village of Nundle was established in 1853 on the northern corner of the Wombramurra Run. Set on the banks of the Peel River, the village grew out of the gold rushes but by the 1860s the Nundle area was famous throughout the UK and Europe for producing the finest merino wool in the world.

In 1841, Armitage and Company are recorded as holding Wombramurra Station (Photograph 1) in the vicinity of the present town of Nundle, under pasture licence. Covering approximately 25,000 acres and 5000 head of sheep the boundaries of the run extended from the range at Crawney in the south, along Wombramurra Creek and the Peel River to the west and along spurs of the Great Dividing Range on the north and east. The township of Nundle was later laid out within the northern tip of Wombramurra run. In 1847, Dr Jenkins acquired Wombramurra in addition to his already extensive land holdings in the area, including Woolloomon (25,600 acres), Wollombol (12,000 acres) and Piallimore (6,400 acres). When the boundaries of pastoral holdings were gazetted in 1848, Jenkins' 'Wombramurra' run had absorbed Sempill's earlier 'Nundul' station. According to recollections of early Nundle resident William Telfer, Dr. Jenkins:

*[...] made a fortune on the place working in connection with Dungowan and Wombramurra stations running about twenty-eight or thirty thousand sheep also fifteen hundred head of cattle also one hundred and fifty horses also carrying on a butchering establishment and store on the goldfields and having another business as a gold buyer on the field at Hanging Rock. (Warner, R: 1990 pp. 27-93).*

Between 1848 and 1865 several large selections and the whole of the Peel River goldfield were excised from Wombramurra. Despite this, in 1865 the area of Wombramurra was estimated at 30,000 acres, significantly higher than the figure given in 1848. In about 1873, Wombramurra was bought by John Charles Bonarius, who had been a storekeeper at Hanging Rock in the early 1860s, before moving to Newcastle. Figure 2 and Figure 3 are 1880 and 1896 maps of the Parish of Wombramurra showing the land holdings at the time which the transport route options traverse.

During the 1880s selectors continued to take up portions of Wombramurra. George Ignatius Moore and Matthew Keniff acquired land to the west of Wombramurra Creek, James Fogarty selected at the foot of Crawney, and James Tongue held 80 acres fronting the Peel. Other small selectors were David Nicol, near Wombramurra Creek, and John Portsmouth, the boundary rider, on the Peel. The family of William, Patrick and James Heyman also selected portions of the station, and had a long association with Wombramurra, working as shearers.

In a parallel development, J.C. Bonarius put considerable effort into buying out selectors in order to secure land titles on Wombramurra. Between 1875 and 1878 he purchased most of



the lands held by the sons of William McIlveen on the upper Peel. The McIlveen lands secured for the station absolute freehold title over 750 acres, the largest single such acquisition made by any of its proprietors, along with a further 956 acres of conditional purchase land. Bonarius also bought up George Ignatius Moore's 100-acre selection, and selected 40 acres in his own name.

In 1880 Bonarius returned to Newcastle, and sold Wombramurra to Thomas McClelland, Alexander's brother and William McIlveen's brother-in-law, with finance provided by a mortgage to the Bank of New South Wales. Just over two years later, in January 1883, Thomas McClelland sold Wombramurra to brothers Frederick and Theophilus H. Cooper. Upon taking possession the Cooper brothers began energetically to build up the run, acquire selectors' titles and generally improve it. It was while the Coopers were on Wombramurra that the next major change in the law concerning land titles was made. The Crown Lands Act of 1884 divided all pastoral holdings into two portions: a 'Resumed Area', open to selection, leased to the holder of the run under an occupation licence renewed annually, and a 'Leasehold Area', not open to selection, but only returned to the lessee for a non-renewable fixed term. Under the new legislation, the north-east portion of Wombramurra became Resumed Area No. 411, the south-west, Leasehold Area No. 411A, with the lease on this portion due to expire in August, 1890. The total area of both portions of Wombramurra under the new arrangements was reported as 43,200 acres.

The sale of Wombramurra to Messrs S.J. Payne & Co. of Melbourne in 1886 began a new chapter in the history of the station. At the time of the sale the assets of the station included 1,057 acres freehold, 5,045 acres under conditional purchase, 10,548 sheep, 40 cattle and 15 horses.

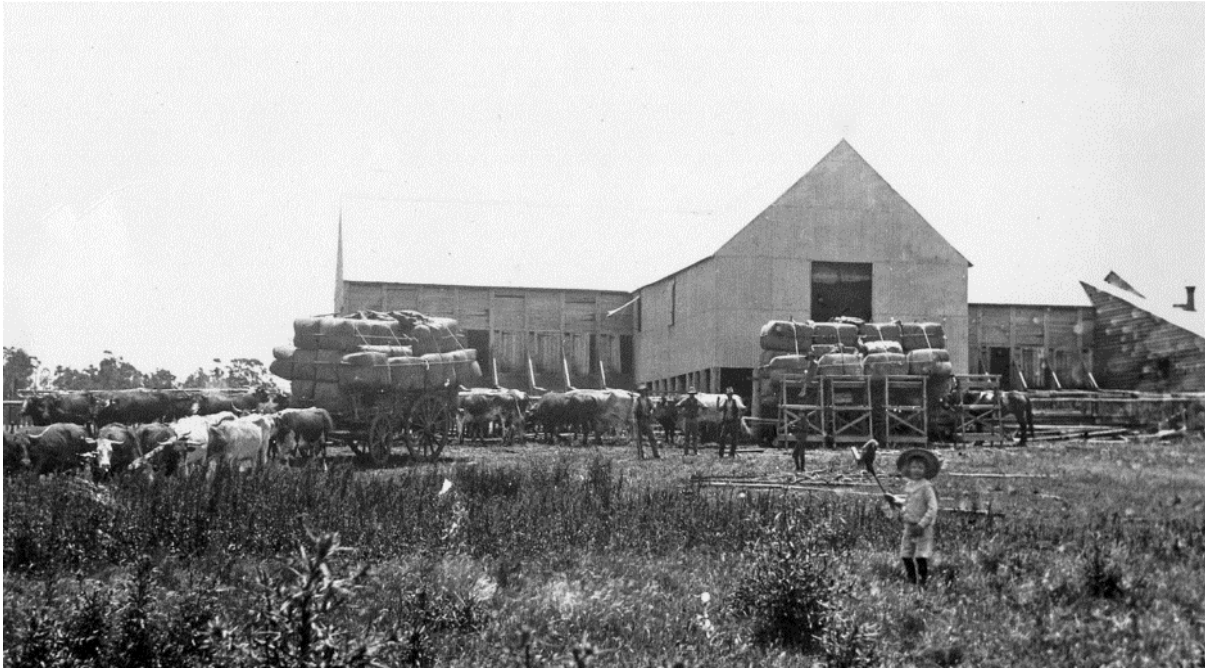
Frank Payne, son of the owner, was installed as manager of the station and he began to make improvements to the Wombramurra flock, making a series of purchases of rams from Boonoke, near Jerilderie from 1890 onwards. In 1891 he diversified into cattle, purchasing the original stock of the Wombramurra Devon herd. He went on to purchase 20 heifers and a bull from Muswellbrook in the Hunter Valley and 13 cows and heifers at Mr Reginald Wyndham's dispersal sale at Leconfield station.

This proved to be a propitious business decision; within five years Wombramurra Devons were winning prizes at the Tamworth Show. By this time the area of the former head station was no longer part of Wombramurra, but had become the centre of a cluster of farm selections. In 1958 the Land Board resumed a total area of about 2,936 acres from Wombramurra, paying compensation of £10 per acre.

In 2005 Wombramurra Station was owned by Peter and Judy Howarth; when they purchased the property in 1987 it covered approximately 20,000 acres. For many years the Howarths ran over 6,000 sheep on Wombramurra and bred Simmental cattle, employing a team of stockmen, station hands and shearers. In 2005 the couple sold most of the property, retaining the homestead. Today the Wombramurra Station is known as the DAG Sheep Station and is used as a hotel, tourist attraction with activities, and for wedding and conference functions. It still retains the station's original historic wool shed (Photograph 2), shearers quarters and mess hall. It features a licensed indoor/outdoor bar, open fireplace and large outdoor deck overlooking Wombramurra Creek (Photograph 5). The accommodation choices include the original 85-year-old Cook's Cottage (Photograph 3), Coachman's Cottage, the original Overseer's Hut, the Shearer's Quarters comprise eight queen rooms and two twin rooms (Photograph 6), and the Shearer's Digs contains four large rooms with the 14 dorm beds per room (Photograph 7).

The DAG Sheep Station boundary is located approximately 500 m north of Option A, 1.6 km north from Option B and 2.9 km north from Option C.

Historical aerials (Figure 4 and Figure 5) dating from 1959 and 1982 show that minimal changes have occurred within the transportation route options, the alternate substation, BESS, and O&M locations or the transmission line easement areas.



**Photograph 1 Loading wool bales at the Wombramurra Station, 1906 (DAG Sheep Station 2014)**





**Photograph 2 Wombramurra Station today  
(The DAG Sheep Station  
[www.thedag.com.au](http://www.thedag.com.au))**



**Photograph 5 Original 85 year old Cooks  
Cottage (The DAG Sheep Station  
[www.thedag.com.au](http://www.thedag.com.au))**



**Photograph 3 View of Wombramurra  
Station (The DAG Sheep Station  
[www.thedag.com.au](http://www.thedag.com.au))**



**Photograph 6 Court yard (The DAG  
Sheep Station [www.thedag.com.au](http://www.thedag.com.au))**

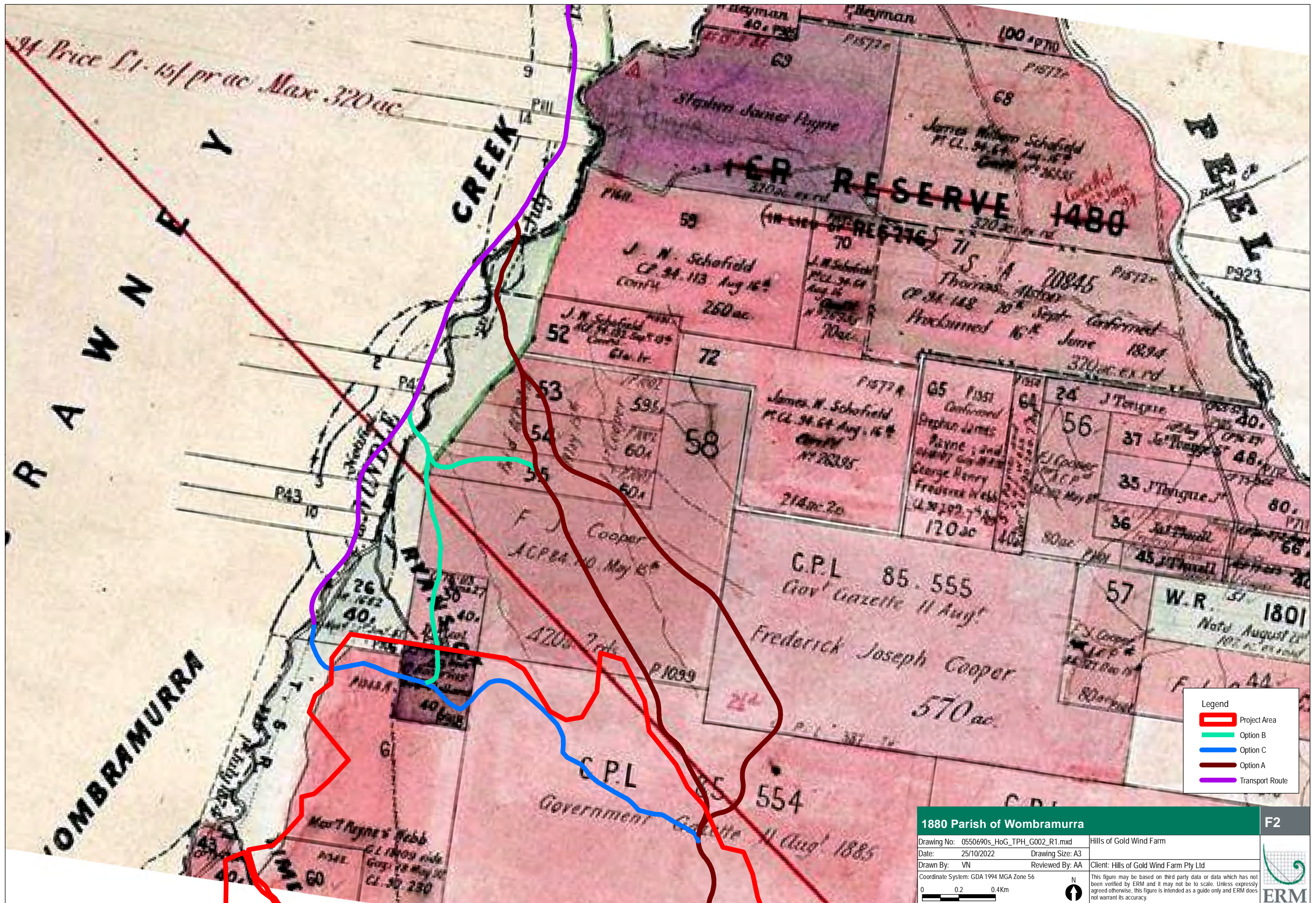


**Photograph 4 Shearer's Quarters (The  
DAG Sheep Station [www.thedag.com.au](http://www.thedag.com.au))**



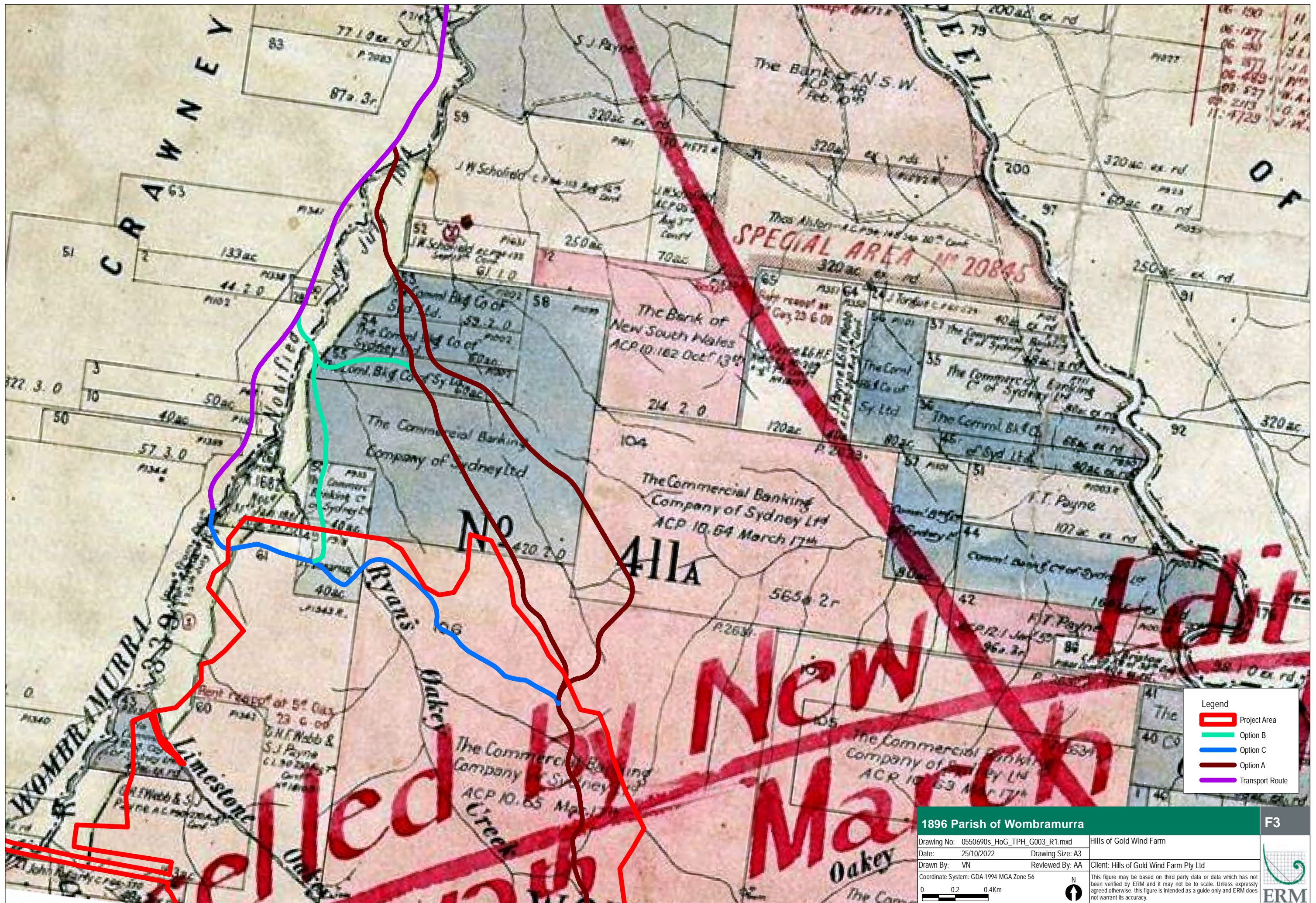
**Photograph 7 Shearer's Digs (The DAG  
Sheep Station [www.thedag.com.au](http://www.thedag.com.au))**





1880 Parish of Wombramurra		F2
Drawing No: 0550690s_HoG_TPH_G002_R1.mxd	Hills of Gold Wind Farm	
Date: 25/10/2022	Drawing Size: A3	Client: Hills of Gold Wind Farm Pty Ltd
Drawn By: VN	Reviewed By: AA	
Coordinate System: GDA 1994 MGA Zone 56		This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.
0 0.2 0.4Km		






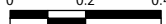

1896 Parish of Wombramurra		F3
Drawing No: 0550690s_HoG_TPH_G003_R1.mxd	Hills of Gold Wind Farm	
Date: 25/10/2022	Drawing Size: A3	ERM
Drawn By: VN	Reviewed By: AA	
Client: Hills of Gold Wind Farm Pty Ltd		This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.
Coordinate System: GDA 1994 MGA Zone 56		
0 0.2 0.4km		



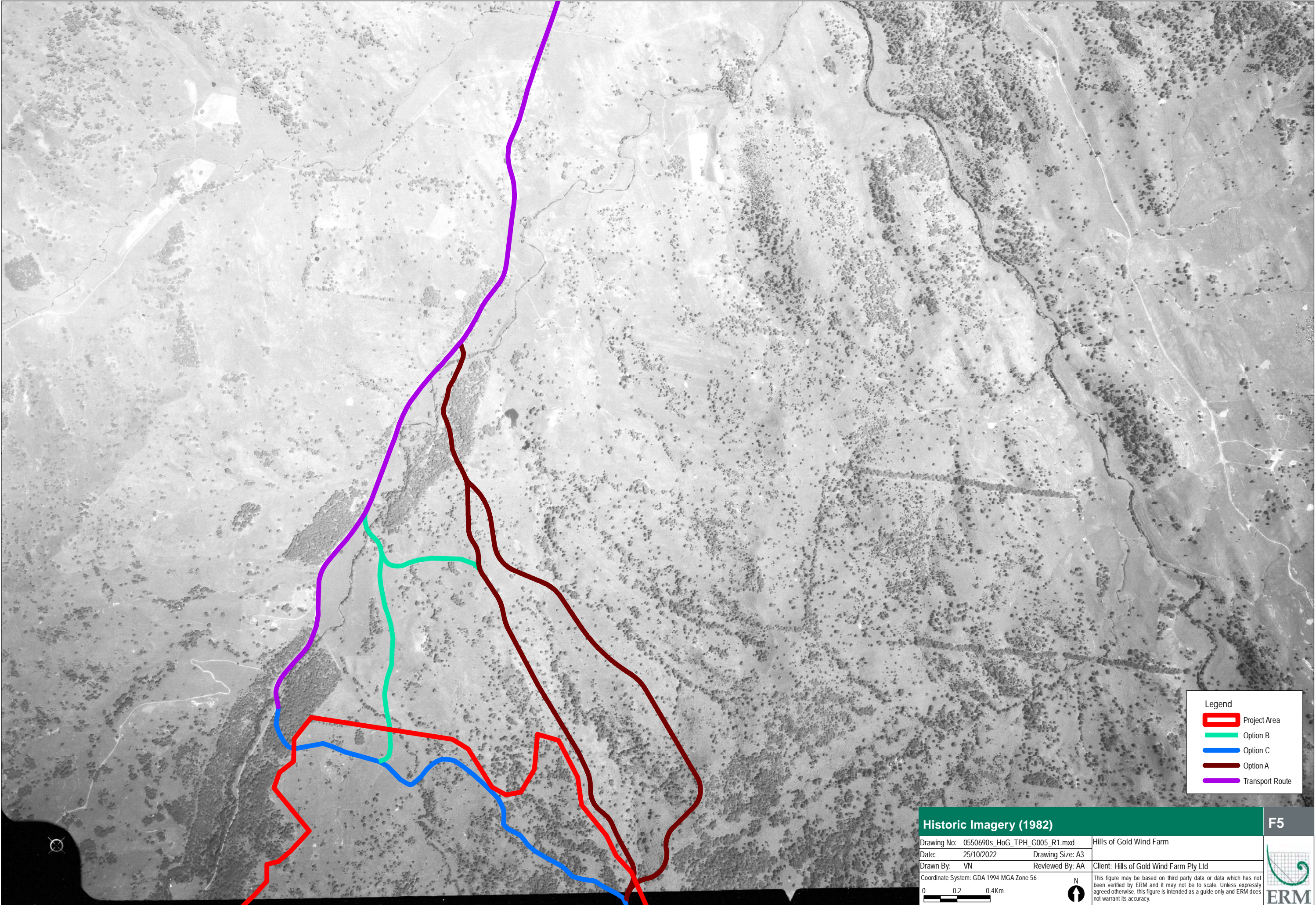


Legend

- Project Area
- Option B
- Option C
- Option A
- Transport Route

Historic Imagery (1959)		F4
Drawing No: 0550690s_HoG_TPH_G004_R1.mxd	Hills of Gold Wind Farm	
Date: 25/10/2022	Drawing Size: A3	
Drawn By: VN	Reviewed By: AA	
Client: Hills of Gold Wind Farm Pty Ltd		<p>This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.</p>
Coordinate System: GDA 1994 MGA Zone 56		
<p>0 0.2 0.4Km</p> 		<p>N</p> 







Legend

- Project Area
- Option B
- Option C
- Option A
- Transport Route

Historic Imagery (1982)

F5

Drawing No: 0550690s_HoG_TPH_G005_R1.mxd		Hills of Gold Wind Farm
Date: 25/10/2022	Drawing Size: A3	
Drawn By: VN	Reviewed By: AA	Client: Hills of Gold Wind Farm Pty Ltd
Coordinate System: GDA 1994 MGA Zone 56		<p>This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.</p> 
<p>0 0.2 0.4Km</p> 		



## 2.3 Current Land Use

The aim of this HHA was to conduct a comprehensive desktop HHA of the Project Area and to investigate if any historical archaeological sites or areas with potential to contain historical archaeological objects are present. The assessment included the proposed access routes along Crawney Road, and the alternate substation, BESS and O&M location, and the transmission line easement increase.

The following set of photos has been taken wholly from the recent ACHAR complete by Kelleher Nightingale Consulting (KLC). They surveyed all three transport route options, the alternate substation, BESS and O&M location in September 2022. A review of the photographs was undertaken to assess the evidence of both current land use and historical impacts, and the presence or likelihood of historical landscape features being present.

Large portions of the Project Area were found to be disturbed or located across unfavourable landforms. This included erosion and colluvial movement on the steep landforms traversed by the proposed access routes, agricultural disturbance, and installation of existing tracks. The flatter, gentler landforms have generally been the focus for contemporary land use and exhibit higher disturbance, reducing their archaeological potential. This HHA also took into consideration historical landscape features such as exotic trees, old windbreaks, old fence lines, culverts and tracks as they contribute to the historical significance of properties.



### Option A



**Photograph 8 View to north-west. Option A runs past a modern existing fence line and continues to a gravel quarry behind hill in far right distance, where it re-joins Option B**



**Photograph 9 View to north, along eastern route on crest of basalt cap.**



**Photograph 10 View to south. This broad saddle is intersection option A, B and C.**



**Photograph 11 View to west down gravelled farm road to property gate of Option A. The bushland in background is on steep slopes above Wombramurra Creek.**

### Option B



**Photograph 12 View to south-east from crest looking to saddle. Option B.**



**Photograph 13 View to north-east. Southern end of Option B. On ridge crest saddle.**

### Option C



**Photograph 14** View to west along alternative Option C from central route. Bushland in distance is on steep slopes above Wombramurra Creek.



**Photograph 15** Option C - view to north-west down steep slopes to a saddle, around base of conical hill, following an older farm track cut into side slopes.



**Photograph 16** View to north. Western route runs to this hill crest which has existing vehicle tracks, cattle yards, and small shed.

### Substation, BESS and O&M



**Photograph 17** View to south. Central route, which ends on top of forested saddle in far distance. Area of the proposed alternate substation and BESS.



### 3. HISTORIC HERITAGE ASSESSMENT (OPTIONS ANALYSIS)

Based on the background information, site predictions and the site survey carried out by KNC, the Project Area might contain archaeological evidence in the form of pastoral activities, which includes paddock fences, sheds, watering troughs, and farm machinery, as well as historical land scape features such as wind breaks and exotic tree plantings.

This section provides a summary of the potential impacts and a preliminary analysis of consequence for Option A, B and C of the transport route, the alternate location for the substation BESS and O&M facilities, as well as the transmission line easement widening. Recommendations for mitigation of impacts are provided at the end of this report. The sections below outline the metrics utilised to undertake the impact assessment.

#### 3.1 Consequence Ratings

The following 'consequence ratings' are used to provide an assessment of level of impact to heritage items. The consequence ratings have been devised to illustrate the level of impact, and provide a framework against which mitigation and management recommendations can be made.

**Table 1 Consequence Ratings**

Rating	Consequence or Impact to heritage item
5 - Major	Permanent detrimental impact to the heritage item would occur, beyond salvage and where replacement is not possible. The impact would cause irreversible negative impact to the overall heritage significance of the heritage item or place.
4 - Major	Permanent detrimental impact on one or more of the following would occur, but may be reduced through mitigation measures: the significance, any of the values that contribute to significance, the functionality of the item or place, and / or the item or place's availability for access.
3 - Significant	Some damage or change may occur that would require remedial action, and permanent impact would occur to one or more of the following: the significance, any of the values that contribute to significance, the functionality of the item or place, and / or the item or place's availability for access.
2 - Minor	Minor damage or change could be relatively and easily remedied or repaired, with no permanent negative impact to the heritage item's significance or heritage values contributing to significance, the functionality of the item or place, or the item or place's availability for access.
1 - Insignificant	Damage or change, if it occurred at all, would be of an extremely slight or minor nature.

#### 3.2 Options Assessment

The following impact definitions (Table 2) have been utilised in the impact assessment to demonstrate the effect of the proposed works can have on identified heritage items. Table 3 below provides an evaluation of each of the three options for the proposed transport route amendment and the alternate substation and BESS.

**Table 2 Types of Impact**

Type of Impact	Description
Direct	Direct impact is defined as physical impact on the heritage item or its listed curtilage. Direct impact may result from construction activities, proposed road upgrades, or transportation of materials.
Indirect/Potential	Indirect or temporary impact may include reduction of the listed curtilage of an item, temporary visual impact, or temporary modification of the item. Potential impact is identified where an item has been identified in proximity to works, and has been flagged for further review.
No impact	The heritage item will not be impacted by the proposed works

**Table 3 Options Impact Assessment**

LGA	Impact Type	Impact Assessment	Consequence Rating
Option A	No Impact	The Wombramurra Run has a low chance to be impacted as it was mainly grazing land. The majority of the buildings now exist with the DAG Sheep Station which is located approximately 500 m away. No historical features were identified and therefore will not be impacted.	1 – Insignificant
Option B	No Impact	The Wombramurra Run has a low chance to be impacted as it was mainly grazing land. The majority of the buildings now exist with the DAG Sheep Station which is located approximately 1.6 km away. No historical features were identified and therefore will not be impacted.	1 – Insignificant
Option C	No Impact	The Wombramurra Run has a low chance to be impacted as it was mainly grazing land. The majority of the buildings now exist with the DAG Sheep Station which is located approximately 2.9 km away. No historical features were identified and therefore will not be impacted.	1 – Insignificant
Substation and BESS	No Impact	The Wombramurra Run has a low chance to be impacted as it was mainly grazing land. The majority of the buildings now exist with the DAG Sheep Station which is located approximately 4.7 km away. No historical features were identified and therefore will not be impacted.	1 – Insignificant
Transmission line easement widening	No Impact	The Wombramurra Run has a low chance to be impacted as it was mainly grazing land. The majority of the buildings now exist with the DAG Sheep Station which is located approximately 5 km away. No historical features were identified and therefore will not be impacted.	1 – Insignificant



As demonstrated by the above analysis, it can be concluded that Options A, B or C will not impact on any identified heritage features relating to the historical landscape of Wombramurra Run. Option C would be preferable in the terms of impact to setting from a heritage perspective as it is the furthest from the DAG Sheep Station buildings. The Wombramurra Run or the DAG Sheep Station is not a listed heritage item however the both have a long historical background of grazing and agriculture in the region. With historical land holding such as the Wombramurra Run large portions of the properties were open grass land utilised for grazing. There is however always a chance that historical fence lines or items such as remnant machinery are strewn across the large holding, however these are unlikely to hold any particular scientific significance owing to the frequency of other similar historical properties, and grazing land in the region.

Section 4.2 of the NSW Department of Planning 2009 guidelines for *Assessing Significance for Historical Archaeological Sites and Relics* is used for assessing the archaeological significance and research potential of an archaeological site within a relative framework. If an archaeological site or relic was present within the Project Area they would be subject to the following questions and answers:

**Can the site contribute knowledge that no other resource can?**

No.

**Can the site contribute knowledge that no other site can?**

No.

**Is this knowledge relevant to general questions about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions?**

No.

**Table 4 Archaeological Potential Assessment**

Location	Potential Archaeological Resource	Integrity of Archaeological Evidence	Archaeological Potential	Potential significance level (Research Value)
Option A	Fence lines; abandoned farming machinery; animal feeding stations etc	Items would generally have been abandoned. Low ground disturbance has occurred within the area as the land holdings have been mostly subject to grazing uses.	Low	Low at a Local level of significance (research value)
Option B	Fence lines; abandoned farming machinery; animal feeding stations etc	Items would generally have been abandoned. Low ground disturbance has occurred within the area as the land holdings have been mostly subject to grazing uses.	Low	Low at a Local level of significance (research value)
Option C	Fence lines; abandoned farming machinery; animal feeding stations etc	Items would generally have been abandoned. Low ground disturbance has occurred within the area as the land holdings have been mostly subject to grazing uses.	Low	Low at a Local level of significance (research value)
Substation and BESS	Fence lines; abandoned farming machinery; animal feeding stations etc	Items would generally have been abandoned. Low ground disturbance has occurred within the area as the land holdings have been mostly subject to grazing uses.	Low	Low at a Local level of significance (research value)
Transmission line easement	Fence lines; abandoned farming machinery; animal feeding stations etc	Items would generally have been abandoned. Low ground disturbance has occurred within the area as the land holdings have been mostly subject to grazing uses.	Low	Low at a Local level of significance (research value)



## 4. IMPLICATIONS FOR DEVELOPMENT

### 4.1 Summary Statement

The key findings of this historic heritage assessment are summarised below:

- No historic heritage sites or features have been identified within the Project Area.
- Project works at the transportation route Option A, B or C to the HoGWF site, the alternate substation and BESS, and transmission line easement increase will result in no impacts to any listed historic heritage items.
- There is low potential for intact historical archaeology related to 19<sup>th</sup> century agricultural activities to be present within the Project Area boundaries, and any potential evidence would have low integrity and therefore low research value

## 5. RECOMMENDATIONS

Although no historical heritage listings are within the Project Area, the Wombramurra Run has a long history associated with sheep grazing in the region. Historical artefacts or material may be unearthed unexpectedly. These could potentially be located on the ground surface or subsurface. In the event of the discovery of any historical artefacts or material during project activities the steps in Figure 6 should be followed.

Based on the results of this report, as summarised above, the following recommendations are made:

### *Recommendation 1*

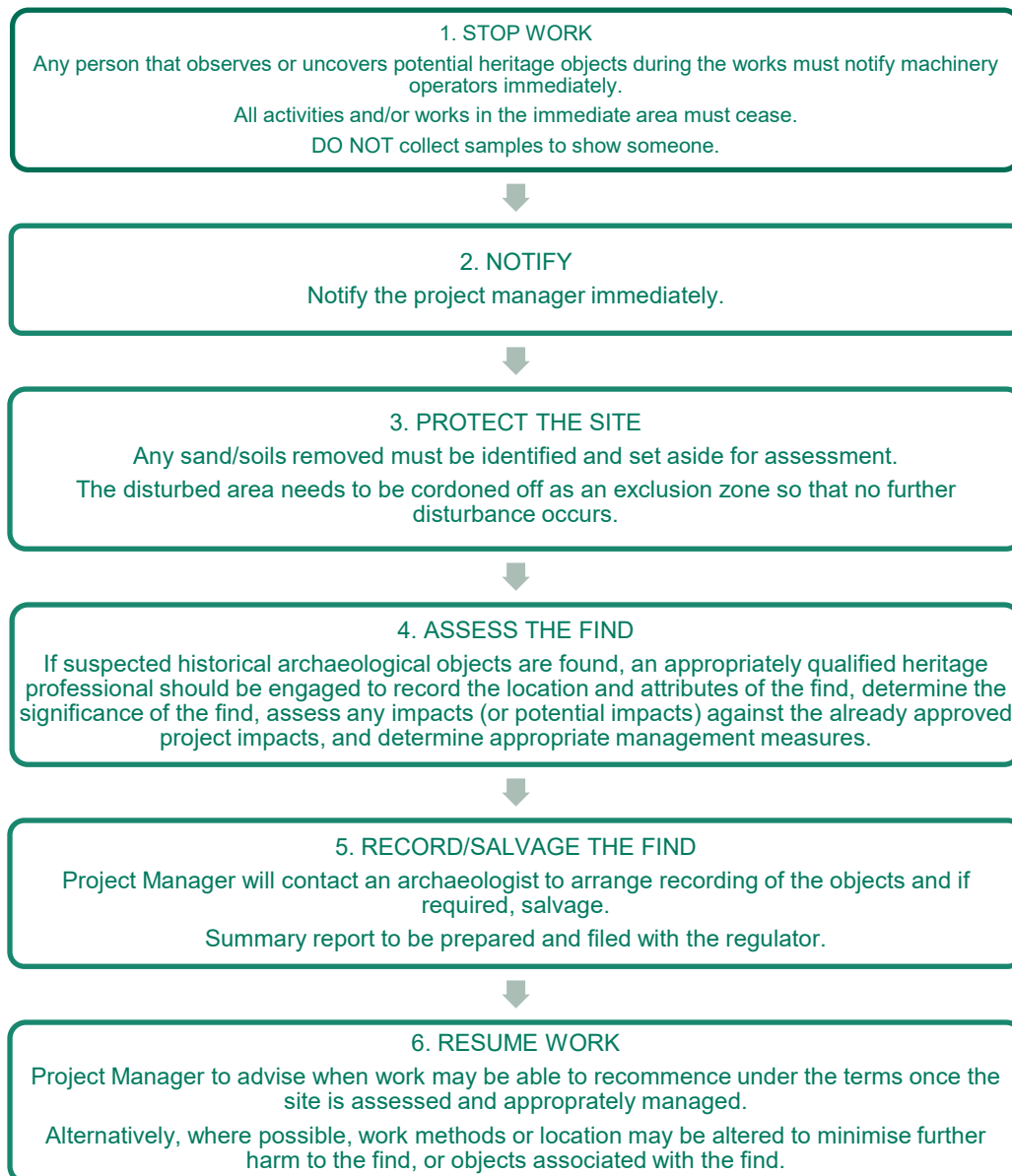
Unexpected Finds Protocol to be included in the Construction Environmental Management Plan (CEMP) for the Project.

### *Recommendation 2*

If suspected human remains are identified, the following procedure should be followed:

1. cease work in the immediate area;
2. notify site supervisor and protect the suspected remains until an initial assessment can be undertaken by a technical specialist;
3. preliminary notification to NSW Police; and
4. no works to recommence in the area until cleared by the relevant authorities.

**Figure 6 Unexpected Finds Procedure**



Yours sincerely,

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Lucy Baker  
ERM Partner