

MANGOOLA OPEN CUT

GLENCORE



Historic Heritage Management Plan (HHMP)

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1. Purpose

This Historic Heritage Management Plan (HHMP) has been prepared by Umwelt on behalf of Mangoola Coal Operations Pty Limited (herein referred to as Mangoola) for the Mangoola Coal Continued Operations (MCCO) Project.

Mangoola Coal Mine is an existing open cut coal mine located approximately 20 kilometres (km) west of Muswellbrook and 10 km north of Denman in the Upper Hunter Valley of New South Wales (NSW). Mangoola has operated the Mangoola Coal Mine under Project Approval (PA) 06_0014 since mining commenced at the site in September 2010.

In April 2021, SSD Consent (SSD 8642) was granted by the NSW Independent Planning Commission (IPCN) under Division 4.7 of Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) for the continued mining operations at Mangoola through to 31st December 2030. The Mangoola Coal Project Area includes the existing Approved Project Area for Mangoola Coal Mine and the MCCO Additional Project Area as shown on **Figure 1-1**. The MCCO Additional Project Area includes the MCCO Additional Mining Area and other key features of the MCCO Project to the north of the existing mine as shown in **Figure 1-2**. PA 06_0014 was surrendered 21 November 2022 following commencement of development under SSD 8642 (in accordance with Schedule 2, Condition A15 of SSD 8642).

A Historical Heritage Assessment (HHA) for the MCCO Additional Project Area Project was prepared by Umwelt in 2019 as part of an overarching Environmental Impact Statement (EIS) for the Project (also prepared by Umwelt in 2019). The purpose of the HHA was to identify and assess any impacts of the MCCO Project on historic heritage values and develop mitigation measures to avoid and/or minimise any impacts identified.

The HHA was submitted to the then NSW Heritage Division (Office of Environment and Heritage (OEH)), via the Department of Planning & Environment (DPE – now the Department of Planning, Housing and Infrastructure (DPHI)) for review and comment. In response to the outcomes of this process, as well as to address commitments made in the EIS, the proposed additional management measures as described in the Response to Submissions Report (RTS) (Umwelt, 2019), the HHA and Condition B71 of SSD 8642, this HHMP has been prepared.

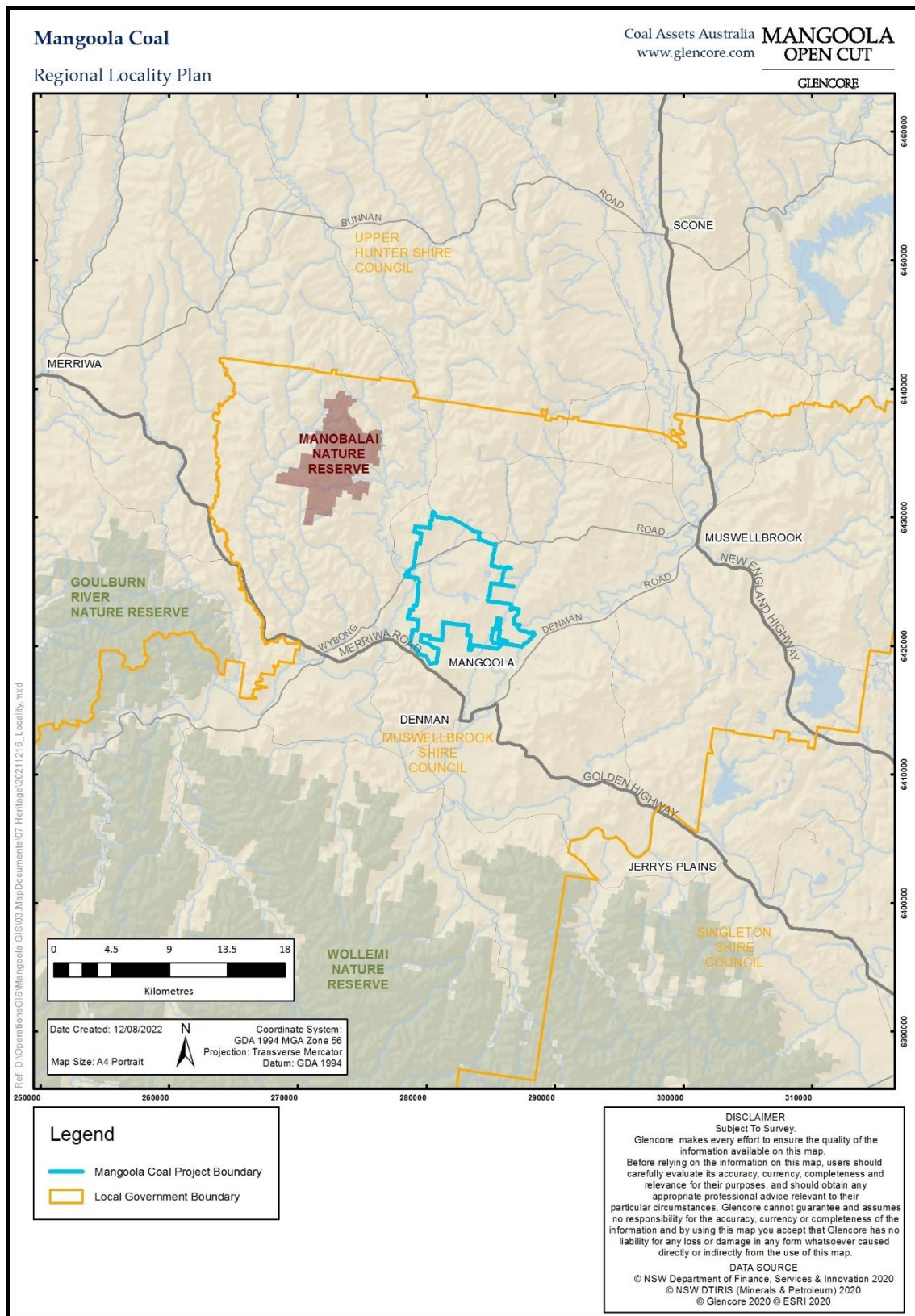


Figure 1-1 – Regional Locality Plan

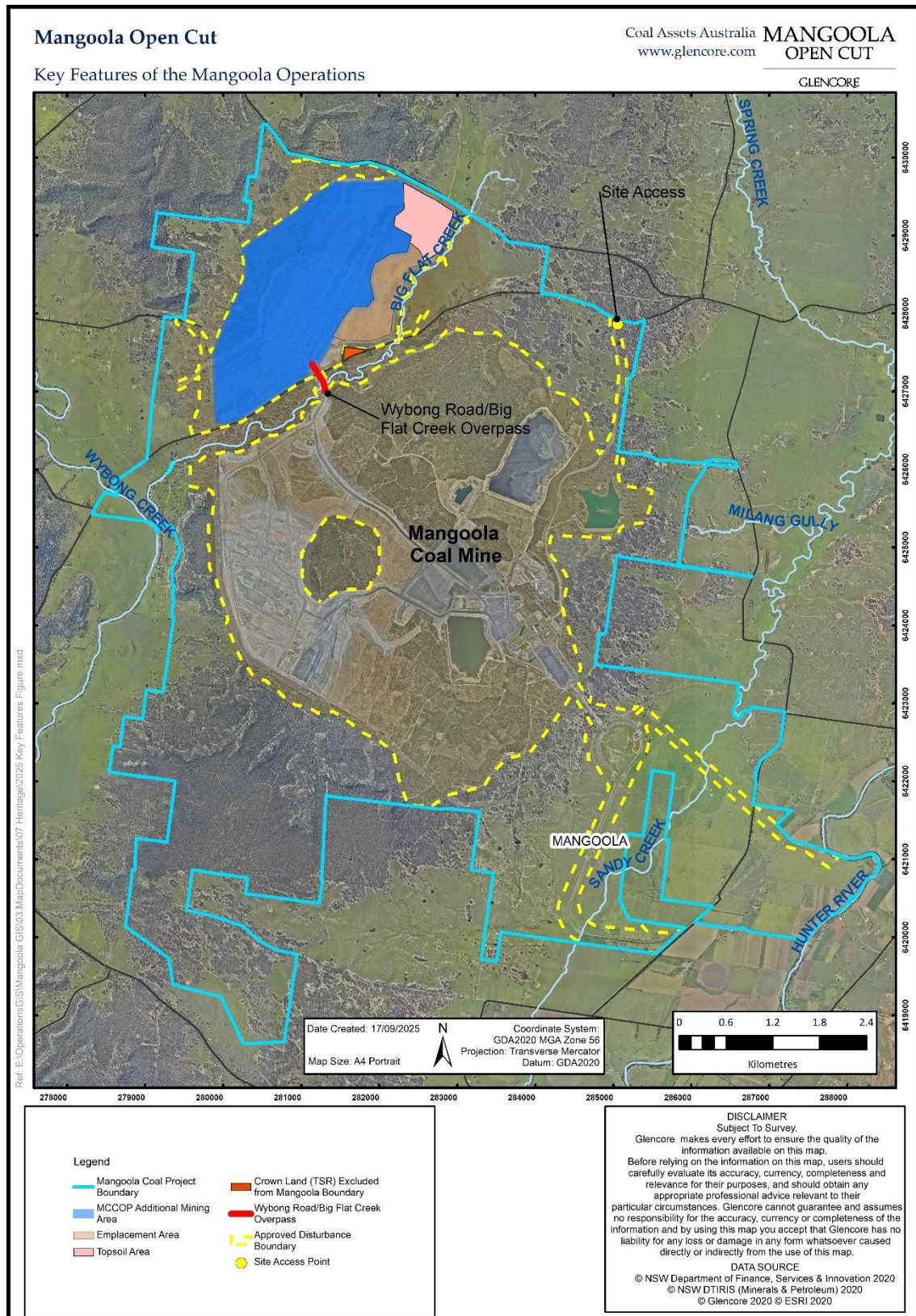


Figure 1-2 – Key Features of the Mangoola Coal operation

2. Scope

This HHMP addresses the historical (non-Aboriginal) heritage and archaeological management aspects associated with the MCCO Project. It does not include a heritage management strategy with regards to Aboriginal cultural heritage. The management of Aboriginal cultural heritage is addressed by a separate Aboriginal Cultural Heritage Management Plan (ACHMP).

This HHMP builds upon the Mangoola Open Cut Conservation Management Strategy (Glencore 2021) to incorporate the MCCO Additional Project Area into a consolidated HHMP for the MCCO Project (refer to **Section 4.0**).

The purpose of this HHMP is to provide a description of the measures to be implemented by Mangoola to manage and protect known heritage values within and in the vicinity of MCCO Project Area.

2.1 Historic Heritage Specialist Endorsement

In accordance with Condition B71(a) this HHMP has been prepared by Tim Adams (Principal Archaeologist, Umwelt); whose appointment has been endorsed by the Planning Secretary.

The Historic Heritage Specialist Endorsement letter provided by the Planning Secretary is attached as **Appendix A**.

2.2 Consultation and Heritage NSW Guidelines

This report has been prepared in response to the outcomes of consultation undertaken with the then NSW Heritage Division to date, as well as to address commitments made in the EIS, RTS and HHA prepared for the Project by Umwelt.

Refer to **Section 8.1** for further discussion regarding consultation with Heritage NSW, Muswellbrook Shire Council (MSC) and relevant landowners.

This report has been prepared with regards to the principles contained in ***The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 2013*** (Australia ICOMOS 2013). It also draws on information provided by the Heritage NSW on the preparation of Conservation Management Plans (CMPs) and Conservation Management Strategies (CMSs) and ***'Conservation Plan: a Guide to the Preparation of Conservation Plans for Places of European Cultural Significance'*** (Kerr 2006).

3. Regulatory Requirements

3.1 Development Consent

On 26 April 2021 the Independent Planning Commission (IPC) approved the MCCO Project under Part 4 of the ***Environmental Planning and Assessment Act 1979*** and issued Development Consent for State Significant Development (SSD) 8642. As outlined in Mangoola's approach to prepare management plans, a full revision of the HHMP was required prior to the commencement of mining in the area north of Wybong Road. This was prepared and approved 30th September 2022 (prior to notified commencement of mining on 1st December 2022).

This HHMP has been prepared to address Condition B71 of SSD 8642 as detailed in ***Table 3-1***.

Condition	Condition Details	HHMP Section
B71	The Applicant must prepare a Historic Heritage Management Plan for the development, in respect of all non-Aboriginal cultural heritage items, to the satisfaction of the Planning Secretary. This strategy must:	
	(a) be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;	<i>Section 2.1 and Appendix A -</i>
	(b) be prepared in consultation with the Heritage NSW, Council and relevant landowners and in accordance with relevant Heritage NSW guidelines;	<i>Section 2.2 and Section 8.1</i>
	(c) build upon the approved Conservation Management Strategy prepared for the Mangoola Coal Project;	<i>Section 4</i>
	(d) describe how historic heritage values of the site would be recorded and preserved;	<i>Section 8</i>
	(e) identify all heritage items in the vicinity of the site and include a statement of significance for each item;	<i>Section 6</i>
	(f) describe the measures to be implemented on the site or within any offset areas to: (i) ensure all workers on the site receive heritage inductions prior to carrying out any activities which may cause impacts to historic heritage, and that suitable records are kept of these inductions	<i>Section 8.3.1</i>
	(ii) protect heritage items located outside the approved disturbance area, particularly 'Castle Hill', from impacts of the development, beyond those predicted in the document/s listed in condition A2(c)	<i>Section 7.1 and Section 8.2</i>
	(iii) protect Anvil Hill Rock and 'The Book' rock formations from the effects of blasting (iv) undertake photographic/archival recording of any items of heritage significance predicted to be impacted by the development, prior to disturbance	<i>Section 8.2 and Section 9</i>

Condition	Condition Details	HHMP Section
	(v) manage any new heritage items discovered during the life of the development	Section 8.3.2
	(g) include a program to monitor the effects of blasting on the heritage items	Section 8.2
	(h) include a strategy for the care, control and storage of heritage relics salvaged from the site	Section 8.3.4

Table 3-1 – SSD 8642 Requirements for Heritage Management

3.2 Statement of Commitments

Table 3-2 provides the MCCO Project Statement of Commitments related to historic heritage

Statement of Commitments - historic heritage	HHMP Section
Mangoola will update and implement the existing Conservation Management Strategy as part of the implementation of the MCCO Project. It is noted that no additional historic heritage management measures are required for new sites identified as part of the MCCO Project, however, ongoing management of the previously recorded sites is required.	This HHMP (2022)
In the unlikely event that unexpected (non-Aboriginal) archaeological remains are discovered during works associated with the MCCO Project they will be managed in accordance with the existing process for management of unknown heritage sites/items as detailed within the existing Conservation Management Strategy.	Section 8.3.2

Table 3-2 – Statement of Commitments

3.3 Response to Submissions

An additional historic heritage commitment was included in the MCCO Project Response to Submissions (Umwelt 2019).

Table 3-3 provides the addition commitment.

Response to Submissions - historic heritage	HHMP Section
Mangoola commits to undertaking archival recording of the Millville property prior to any demolition works. Archival recording during demolition works will be undertaken if deemed to be warranted as a result of information obtained during the recording prior to demolition.	Section 8.2 (Table 8-1)

Table 3-3 – Statement of Commitments

4. Conservation Management Strategy

As required by Condition B71(c) of SSD 8642, this HHMP builds upon the Mangoola Open Cut Conservation Management Strategy (CMS – Mangoola Open Cut, Glencore 2021) to incorporate the MCCO Additional Project Area into a consolidated HHMP for the MCCO Project. The CMS was prepared to address the historical heritage management issues associated with Mangoola Coal, in accordance with Schedule 3, Condition 43 of PA 06_0014 (now surrendered).

Since being developed in 2013, the CMS has been updated several times. The most recent document review included minor administrative updates to permit construction activities associated with SSD 8642 (Version 9.0) being dated August 2021. **Table 4.1** details the CMS amendments and updates that have been undertaken since it was developed.

As outlined in Mangoola's staged approach to prepare management plans, approved by the DPIE (now DPHI), the HHMP is required to be prepared to the satisfaction of the Planning Secretary prior to the commencement of mining in the area north of Wybong Road. This document (Mangoola Open Cut Historic Heritage Management Plan) replaces and supersedes the CMS to include the current Approved Project Area for Mangoola Coal which includes the area south of Wybong Road and the and the MCCO Additional Project Area, north of Wybong Road (as shown on **Figure 1.1**). Version 1 of this document was approved 30th September 2022 and subsequent reviews to the HHMP are documented in **Section 12.3**.

The CMS was prepared to address the identified heritage sites/items within the blast affectation zone including those sites/items outside of the actual project disturbance boundary. The document includes:

- a program for baseline dilapidation surveys of the heritage items
- a program to monitor the effects of blasting on the heritage items
- a description of the measures that would be implemented to protect relevant heritage items (particularly Castle Hill) from the effects of blasting; and
- a description of the measures that would be implemented to protect Anvil Rock and 'The Book' rock formations from the effects of blasting.

Note: the blast affectation area addressed in the CMS includes all properties predicted to exceed the 5 mm/sec ground vibration criteria as shown in the EA (2009). In accordance with Schedule 3, Condition 47 of PA 06_0014 (now surrendered), Mangoola Coal has previously submitted a report to the then Department of Planning Industry and Environment (DPIE – now DPHI) of the outcomes of a detailed historical research and oral history for all the land within the 40 dB(A) noise contour as outlined in the EA (Umwelt 2006). This **Mangoola Coal Wybong Oral Heritage Report** (Hansen Bailey, 2008) is available on the company website.

Heritage sites/items located outside of the disturbance and blast affectation areas were not specifically addressed within the CMS. Two locally significant heritage items listed under Schedule 5 of the Muswellbrook LEP 2009 located outside but in the vicinity of the MCCO Project Area are discussed in **Section 6.2** of this HHMP.

Version	Date Reviewed	Review team (Consultation)	Amendment
1.0	March 2013	Xstrata Mangoola/ Umwelt	Development of CMS
2.0	July 2014	Mangoola/DPE (now DPHI)	Review following Mod.6 approval and general update
3.0	July 2015	Mangoola Coal	Significance detail included for Sites 20, 21 and 22.
4.0	June 2018	Mangoola Coal	Inclusion of additional sites (identified during site archival recording) in body of Conservation Management Strategy: Umwelt letter dated 16 June 2011 (Surveyor's blaze) Umwelt letter dated 22 August 2013 (Sites associated with ETL relocation) Umwelt letter dated 02 October 2013 (Timber structure associated with Site 8) Umwelt letter dated 16 July 2015 (Sites 20, 21, 22) Simplification of Section 4 to remove duplication and provide clear and concise obligations for managing relevant heritage sites. Inclusion of figure depicting location of heritage sites, status and 5 mm/s blast affectation zone. Update to legislation and related documents (to ensure consistency of management measures). Updated consultation with OEH and relevant landholders.
5.0	September 2018	Mangoola Coal	Update to s1.5 to reflect consultation outcomes with OEH and relevant landholders.
6.0	November 2018	DPE (now DPHI)	CMS approved by DP&E (now DPHI).
7.0	May 2020	Mangoola Coal	Removal of demolished sites from Figure 2 and Table 2 as per 2019 Independent Environmental Audit finding. Update to template. Reviewed legislation and related documents to ensure they are still

Version	Date Reviewed	Review team (Consultation)	Amendment
			relevant (to ensure consistency of management measures). Updated consultation with BCD and relevant landholders.
8.0	September 2020	Mangoola Coal	Update to Table 4 'Management of Historical Heritage Sites' with advice from updated modelling with regards to vibration limit for Site 17 (Castle Hill). Addition of a 'Related Report' and 'Reference' - Castle Hill Blasting Ground Vibration Limit (Terrock 2020). Updated consultation with Heritage NSW, Department of Premier and Cabinet (formally OEH and then BCD) and relevant landowners.
9.0	August 2021	Mangoola Coal / Umwelt	Review and completion of minor administrative updates to permit construction activities associated with SSD 8642.

Table 4-1 – CMS Versions *Prior to Replacement by HHMP*

5. Summary of the Historical Context

As part of NSW heritage assessment procedures, it is essential to have a full understanding of a site or item based on its historical and physical context. This section of the HHMP summarises the historical context of the Project Area prepared as part of the HHA (Umwelt 2019) to provide an understanding of the significance of any heritage items (listed or potential) within the MOCO Project Area. The 2019 assessment (and the 2006 Historical Heritage Assessment – Anvil Hill Project) should be referred to for the full historical context of the Project.

The potential heritage resource of the area generally reflects the documented history of the surrounding region (discussed in detail in the 2019 HHA), which indicates that the land has predominantly been utilised by graziers, agriculturalists and in recent times the mining industry. The potential historical heritage resource of the area generally reflects its history as cleared agricultural and pastoral land and the importance of dairying as a local land use.

5.1 Aboriginal Cultural Heritage

The Aboriginal Archaeological Impact Assessment prepared for the MOCO Project by OzArk (2018) and the Aboriginal Cultural Heritage Management Plan (ACHMP) for the Project should be referred to for further Aboriginal cultural heritage contextual information.

5.2 Regional Context

Following the closure of Newcastle as a convict settlement in the early 1820s, the distribution of land within the Hunter Valley began in earnest; with a push to stimulate the economy and encourage free settlers (rather than convicts) to take up land. The British Government therefore implemented a policy of free land grants. This policy would develop the country and relieve the British government of the cost of maintaining convicts.

By 1826 all the land with the river frontage along the Hunter as far up as the Pages River and the lower parts of the Williams and Paterson Rivers had been alienated or reserved for villages or church and school estates. After this, early settlers followed the Goulburn River and its tributaries such as Wybong Creek.

5.3 Local Context

The first person to select land in the Parish of Wybong was Charles Hunter McIntosh. On 4 April 1827 he was promised 640 acres by Governor Richard Bourke. He was granted the land on 30 September 1834 (Department of Land, LTO, Grant Index Series 34: 103). On 18 March 1836 McIntosh sold the 640 acres to John Pike of Pickering for £320.

In 1831 the British Government passed an Act which allowed the sale of Crown land in New South Wales and ceased to provide free grants of land. The land could be selected, but it was then put up for auction with a reserve of five shillings per acre (King 1957: 41). At the same time the Government allowed the leasing of Crown land annually by auction with a minimum of £1 per section of 640 acres. This was increased to £5 per section in 1840 (King 1957: 41).

John Pike was one of the original settlers in the Denman area. His base station was 'Pickering', but he took up a number of blocks along the Goulburn River and Wybong Creek under lease and purchase. In 1840, Pike indicated that he wished to purchase two 640 acres blocks in the Parish of Wybong. He received his deeds on 5 January 1841 (Department of Land, LTO, Grant Index Series 73: 44-5). Pike was

to remain the sole owner of land within the Parish of Wybong until 16 April 1859 when he sold the three 640 acre blocks (Portion 1-3) to Henry Nowland of Muswellbrook.

In 1861, John Robertson's land reform became law under the Crown Land Alienation Act and the Crown Lands Occupation Act. This radical land reform introduced the concept of conditional purchase, which is actually a purchase on terms subject to conditions such as a residency, fencing and improvements. A deposit was paid and the balance paid off with annual instalments. When all debts to the Crown had been paid, the holder received freehold title to the land. Along with the conditional purchase were additional conditional purchases and conditional leases which allowed the holder of a conditional purchase to take up further land (King 1957: 80). There were a number of changes to the Acts, but they were the system of acquiring land from the Crown in the Parish of Wybong from 1861. The normal sale and lease of land between individuals continued.

Prior to 1861, there had only been three owners of freehold land within the Parish of Wybong: Charles H McIntosh, John Pike and Henry Nowland. Following Robertson's 1861 Land Act, settlers moved into the area (Umwelt 2019).

By the end of the 19th century, most of the Crown land in the Parish of Wybong had been taken up.

World War II led to the increase of settlement within Wybong with soldiers being encouraged to settle in the area. World War II had an important part in the local history of Wybong; for example, the Castle Rock School (which closed in 1950) was noted for its contribution during World War II. Camouflage nets as well as knitted garments were produced by the school's pupils and funds were raised (Doyle, H., 1984).

The Ray property 'Castle Hill', located outside of the MOCO Additional Project Area (but within the wider study area) was also used by the RAAF during WWII for observation as Gordon Ray writes:

The Airforce picked our place during the war time as an observation post to identify enemy planes and lost planes. We were issued with code names which changes each Monday...

(Ray [Gordon Philip] 1984:37)

5.3.1 Religion and Education

Religion was the most important aspect of social life in the nineteenth century. Four years after the gazettal of Muswellbrook the Church of England and Presbyterian Church both officiated church services in the town and it was these two organisations which were first to build churches in the town of Muswellbrook in 1843 (Turner 1995: 36-37).

The original Church of St Thomas Aquinas at Wybong is thought to have been built in 1872, but was not officially blessed and opened until 1888 (Umwelt 2019).

On 7 July 1901 a small convent constructed by a local farmer and builder, John Hogan, was opened in the vicinity of the current church location. The convent was a simple weatherboard building of four main rooms and a detached kitchen. The community of sisters that inhabited and used the convent were the Sisters of St Joseph.

The Sisters of the convent opened a school in the former Church of St Thomas Aquinas around this time, which was known as the Lower Wybong School. A second school, approximately five miles further north on Yarraman Road, was established in 1902 and was known as the Upper Wybong School.

The Former Church of St Thomas Aquinas was either subject to extensive renovations or substantially rebuilt in 1919; suggesting the extant weatherboard church on Wybong Road was constructed around 1919 to replace the original slab building (Umwelt 2019).

The Wybong Cemetery is also located at Wybong off Yarraman Road. This cemetery was dedicated in March 1877. It contains the graves of members of notable local families, including the McTaggart, Thornton, Moloney, and Boorer families. It is a locally listed heritage item under Schedule 5 of the Muswellbrook LEP 2009 (refer to **Section 6.2.1**).

5.4 Industry

Throughout the nineteenth and early twentieth centuries, a number of core industries characterised the local area of Wybong, and strongly influenced the spatial distribution and nature of development and land use within the landscape.

5.4.1 Dairying

Dairying was one of the initial impetuses for the division of large estates in the Upper Hunter. By the early 20th century the Upper Hunter was mostly occupied by dairy farms of up to 500 acres in size (Heritage Office & DUAP, 1996:49). The 1828 census indicates that of the 191 large (over 1,000 acre) estates occupying the Upper Hunter Valley ‘only one third were sheep grazing enterprises with cattle raising being much more common’ (Turner 1995: 18).

By the 1890s dairying had become an important industry in the Upper Hunter. This importance coincided with the ‘development of the mechanical separation of milk and refrigeration causing a re-shaping of the pattern of farming’ in the Muswellbrook LGA, due to the increased demand for dairy products in Australia and overseas (Turner 1995:19).

In 1893 there was a creamery established at Kayuga, in 1903 the creamery at ‘Overton’ was set up by Thomas Blunt, and the Denman Co-operative Dairy Company was founded in 1907. These were the earliest creameries within the locality.

In 1905, dairying had commenced on many of the farms within the region.

5.4.2 Timber and Charcoal Retorts

The timber industry was common in the Upper Hunter Valley where dense timber has been felled in accessible areas and large regions of open forest thinned and/or ringbarked (Heritage Office & DUAP, 1996:46). Timber was being used for mining props and commercial sale.

Timber was also used for charcoal retorts during World War II on the northern bank of Big Flat Creek. The charcoal was used to fuel early cars during the War years.

6. Identification of Heritage Items

The 2019 MCCO Project HHA (Umwelt 2019) concluded that as no potential historical heritage items of heritage significance were identified, the MCCO Project would not result in any adverse direct historical heritage impacts. No further management recommendations were identified as being required with regard to historical heritage for any of the properties, items, or structures located within the MCCO Proposed Disturbance Area. In addition, it was concluded that the MCCO Project would not result in any identified adverse historical archaeological impacts. No indirect impacts to any listed or potential historical heritage items, properties or sites within the wider study area were identified.

As a result, and as discussed in **Table 3-2**, the MCCO Project Statement of Commitments related to historic heritage notes that:

... no additional historic heritage management measures are required for new sites identified as part of the MCCO Project, however, ongoing management of the previously recorded sites is required.

As no additional heritage items have been identified, this section of the HHMP discusses all previously recorded heritage items within and in the vicinity of the MCCO Project Area that are listed, or that have been assessed to have heritage significance on some level. As this HHMP builds upon the Mangoola Open Cut CMS to incorporate the MCCO Additional Project Area into a consolidated HHMP for the MCCO Project, all items and potential items discussed in the CMS are included in this (and subsequent) sections.

They are separated, for ease of reference, into items located within the MCCO Project Area, and items located outside but in the vicinity of the MCCO Project Area.

Naming conventions/site identification (I.D) numbers utilised in the 2021 CMS (Glencore 2021) have been retained for consistency.

6.1 Within the Project Area

6.1.1 Listed Heritage Items

There are no listed heritage items located within the MCCO Project Area.

6.1.2 Non-listed Heritage Items/Sites

A number of previously recorded potential heritage items are located within the MCCO Project Area. These items are discussed in **Table 6.1** and shown on **Figure 6.1**.

Site I.D. and Name	Description	Assessed Significance
Site 13 Charcoal Retorts	Note this site has not been identified since 2006. It is suspected the 2007 floods likely washed the site away. In 2006 this site was described as being the remains of charcoal retorts along Big Flat Creek - consisting of small fragments of charcoal on the ground surface.	Local significance Demonstrates the production of charcoal in the area using local fire wood as an alternate fuel for cars during World War II (Umwelt 2006)

Site I.D. and Name	Description	Assessed Significance
Site 18 Anvil Rock	Natural geological formation.	Local significance Social significance as an important place to the community
Site 19 The Book Formation	Natural geological formation.	Local significance. Social significance as an important place to the community
Site 20A Windmill	Derelict and collapsed metal windmill and associated moveable farm equipment.	Nil
Site 21A Timber post and eight wire fence	North to south aligned timber post and eight wire fence.	Nil
Site 22A Mortise and tenon timber fence	Mortise and tenon timber post and one-rail fence.	Nil
Site 1 'Yards and structures' Lot 655 DP 263080	Complex of various elements, including a modern shed, well and water tank (late 20th century onward), stockyards, and ruins of a former shed structure.	Nil
Site 2 Millville Property	Property that contains a single dwelling, an open shed, a grain silo, dilapidated timber structure and a 'Sunshine Harvester' located norther of the dwelling.	Nil
Site 3 'Structures' Lot 3 DP 7590	Consisting of a H V McKay 'Sun' Seed and Fertilizer Drill and timber stockyards in the vicinity of the former dwelling and ancillary structures shown on the 2008 aerial imagery. Other unlabelled agricultural equipment comprising, at least in part, machinery used as a chaff cutter. To the immediate west of the H V McKay drill are timber stockyards.	Nil
Site 4 Wybong Post Office Road	Road	Nil

Site I.D. and Name	Description	Assessed Significance
Site 5 'Timber stockyards' Lot 42 DP 531030	Timber stockyards that feature a combination of post and wire and mortise and tenon construction.	Nil

Table 6-1 – Previously recorded potential heritage items

6.2 In the Vicinity of the Project Area

6.2.1 Listed Heritage Items

Two locally significant heritage items listed under Schedule 5 of the Muswellbrook LEP 2009 are located outside but in the vicinity of the MCCO Project Area:

- Brogheda - Early 1900s Federation style homestead, and associated sheds and remnant stockyards
- Wybong Cemetery - Wybong Roman Catholic Cemetery

The two listed items and a statement of significance as included in each item's state heritage inventory (SHI) citation are discussed in **Table 6.2**. The items are shown on **Figure 6.1**.

6.2.2 Non-listed Heritage Items

Castle Hill slab hut/outbuildings (Site 17) is a previously recorded potential heritage item located adjacent to (outside) the Mangoola Coal Project Area. The significance of this item is discussed in **Table 6.2** and the item shown on **Figure 6.1**.

Item Name	Location	Significance
Listed Heritage Items		
Brogheda Item ID 150	6 Yarraman Road Not within MCCO Project Area	Local significance. The building has remained in the one family for over a century and thus has considerable local significance (NSW Government SH). Note that ownership of the property has changed since the SHI citation was authored.
Wybong Cemetery Item I128	Yarraman Road Not within MCCO Project Area.	Local significance. Historically the cemetery has local significance for identifying the comparative spread of Irish Catholic immigration into the Upper Hunter by the late 19th century. Aesthetically the cemetery has local landscape significance for its siting and for the quality of the engraving on the headstones. Socially the cemetery has great local significance for the descendants of those buried there. Scientifically the site is of local, possibly regional significance for its potential to provide information about the number of both Catholic and Irish

Item Name	Location	Significance
		in the area in the closing decades of the 19th century (NSW Government SHI).
Non-listed Heritage Item		
Site 17 Castle Hill	Extended slab hut and outbuildings.	Local significance. Early slab construction has historical, associative aesthetic and scientific significance (Umwelt 2006)

Table 6-2 –Heritage Items in the Vicinity (Outside) of Project Area

It is noted that other than those discussed in **Table 6.1** and **6.2** there are no other identified statutorily listed or potential heritage items or sites within or in the vicinity of the MCCO Project Area. In addition, no potentially significant conservation areas, natural heritage areas, gardens, landscapes, or trees have been identified within or in the vicinity of the MCCO Project area.

The historical (non-Aboriginal) archaeological potential of the MCCO Project Area has been assessed to be very low, with any archaeological resource present unlikely to have any significance or research potential. On this basis, it was concluded that the MCCO Project would not result in any identified adverse historical archaeological impacts.

6.3 Indirect Impacts

Potential indirect impacts associated with the MCCO Project are identified to be potential impacts resulting from vibration due to blasting activity which has the theoretical potential to damage/destroy/disturb historical heritage items, and potential impacts to any identified significant views or vistas.

In terms of potential indirect impact by blasting as a result of vibration, for heritage items the:

...applicable assessment criteria are 5 mm/s and 133 dBL. These specified assessment criteria are well below the blast damage levels as discussed in Section 6.2.1 (i.e. the lowest transient vibration value for cosmetic damage is estimated as 15 mm/s at 4 Hz) and highlighted in Appendix 1¹. The assessment criteria are in line with the ACARP Report (No. C14057) findings for Heritage Sites, which recommends 'safe' vibration limits such as those used by British Standard BS7385. Note that these assessment criteria are not limits that must be met, but indicate the levels at which no impacts are predicted (Enviro Strata 2019).

An assessment of the potential impacts of blasting on the listed and potential historical heritage items, properties or sites within the wider study area was prepared by Enviro Strata (2019). This assessment concluded that vibration exposures for the listed and non-listed potential heritage items as a result of the MCCO Project will be below the applicable criteria of 5 mm/s and therefore no blasting vibration impacts are predicted on heritage sites. This data is for all modelled charge masses.

The only significant views or vistas identified within the study area were those to and from the eastern (principal) façade of 'Brogheda' and views from the 'Wybong Cemetery'. No potential impacts to these views/vistas as a result of the MCCO Project were identified.

Overall, no indirect impacts to any listed or potential historical heritage items, properties or sites have been identified as a result of the MCCO Project.

¹ Appendix 1 of the Enviro Strata, 2019 report

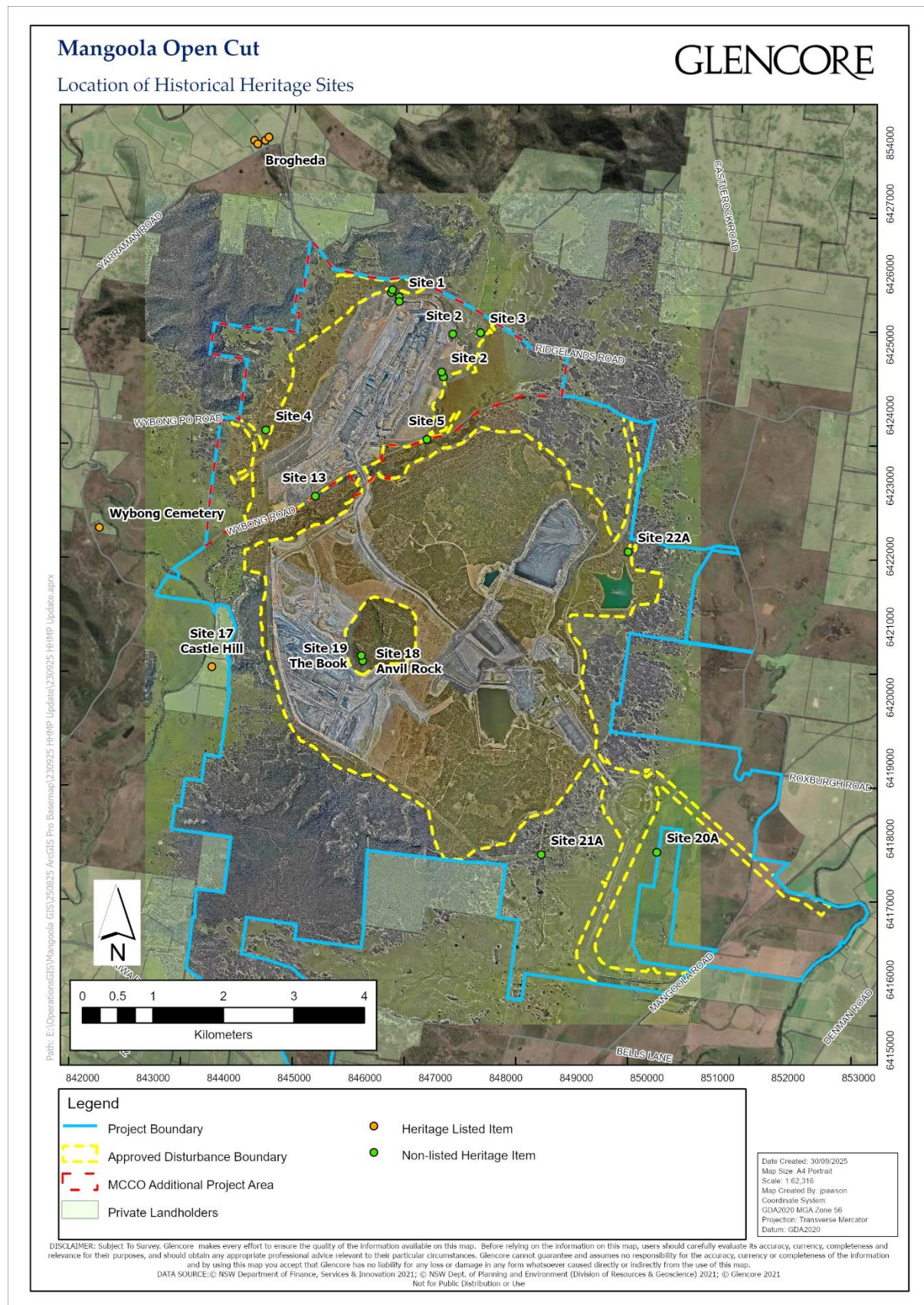


Figure 6-1 – Heritage Items / Sites

7. Potential Impacts

This section of the HHMP identifies the potential impacts of the MCCO Project on the items discussed in *Section 6.0*.

7.1 In the Vicinity of the Project Area

7.1.1 Listed Heritage Items

Table 7.1 summarises the potential impacts to the two locally significant heritage items located outside but in the vicinity of the MCCO Project Area.

No direct or indirect impacts will occur to the listed heritage items as a result of the MCCO Project.

Item ID	Site Name	Potential Impact
Item I50	Brogheda	Not within MCCO Project Area – no physical impacts. Potential impact by blasting as a result of vibration. Blast vibration and airblast overpressure impacts will be below the assessed criteria level (Enviro Strata 2019) – no indirect impact.
Item I128	Wybong Cemetery	Not within MCCO Project Area – no physical impacts. Potential impact by blasting as a result of vibration. Blast vibration and airblast overpressure impacts will be below the assessed criteria level (Enviro Strata 2019) – no indirect impact.

Table 7-1 – Potential Impacts - Listed Heritage Items

As **Table 7-1** demonstrates, the following listed heritage items will not be subject to any identified impacts as a result of vibration caused by blasting:

- Brogheda
- Wybong Cemetery

As such, no further management measures are required for these items, and they are not considered within the remainder of this HHMP.

7.1.2 Non-listed Heritage Item

Table 7.2 summarises the potential impacts to the non-listed heritage item located outside but in the vicinity of the MCCO Project Area.

No direct or indirect impacts will occur to the listed heritage item as a result of the MCCO Project.

Item ID	Site Name	Potential Impact
Site 17	Castle Hill	This site is outside the Mangoola Coal approved disturbance area. No potential direct impacts.

Item ID	Site Name	Potential Impact
		Potential impact by blasting as a result of vibration. Ground vibration levels for blasting activities south of Wybong Road are predicted to remain below 20mm/s (as modelled by Terrock in 2020). For blasting activities in the MCCO Project additional mining area (see Figure 6-1) blast vibration and airblast overpressure impacts will be below the assessed criteria level (Enviro Strata 2019) – no indirect impact.

Table 7-2 – Potential Impacts – Non-listed Heritage Item

7.2 Within the Project Area

As discussed in **Section 6.1.2**, a number of previously recorded potential heritage items are located within the MCCO Project Area. **Table 7.2** summarises the potential impacts to these items.

Site ID	Site Name	Impacts
Site 13	Charcoal Retorts	This site is outside the Mangoola Coal approved disturbance area and within an offset area for cultural heritage and will not be disturbed as a result of the MCCO Project. As noted in Table 6.1 this site has not been identified since 2006. It is suspected the 2007 floods likely washed the site away.
Site 18	Anvil Rock	This site is outside the Mangoola Coal approved disturbance area. No potential direct impacts. Potential impact by blasting as a result of vibration, though for blasting activities in the MCCO Project additional mining area were assessed (see Figure 6-1) blast vibration and airblast overpressure impacts will be below the assessed criteria level (Enviro Strata 2019) – no indirect impact.
Site 19	“The Book” Formation	This site is outside the Mangoola Coal approved disturbance area. No potential direct impacts. Potential impact by blasting as a result of vibration, though for blasting activities in the MCCO Project additional mining area (see Figure 6-1) blast vibration and airblast overpressure impacts will be below the assessed criteria level (Enviro Strata 2019) – no indirect impact.
Site 20A	Windmill	Within disturbance boundary however no mining impacts – the site was identified during 500kV ETL Relocation MOD. Assessed as having no heritage significance No further management measures are required for this item and it is not considered within the remainder of this HHMP.
Site 21A	Timber post and eight wire fence	Within disturbance boundary however no mining impacts – the site was identified during 500kV ETL Relocation MOD. Assessed as having no heritage significance No further management measures are required for this item and it is not considered within the remainder of this HHMP.
Site 22A	Mortise and tenon timber fence	Within disturbance boundary however no mining impacts – site is partially within RWD inundation area. Assessed as having no heritage significance No further management measures are required for this item and it is not considered within the remainder of this HHMP.

Site ID	Site Name	Impacts
Site 1	'Yards and structures' Lot 655 DP 263080	Was within the approved disturbance boundary associated with establishment of new mining area. Assessed as having no heritage significance No further management measures are required for this item and it is not considered within the remainder of this HHMP
Site 2	Millville Property	Was within the approved disturbance boundary associated with establishment of new mining area. Assessed as having no heritage significance However, the <i>Mangoola Coal Continued Operations Project Response to Submissions</i> (RTS) (Umwelt 2019c) included the commitment to undertake a complete archival recording of the property prior to any demolition works. This was completed and reports distributed to Heritage, Department of Premier and Cabinet, MSC and Muswellbrook Shire Local Family and History Society in 2021.
Site 3	'Structures' Lot 3 DP 7590	Was within the approved disturbance boundary associated with establishment of new mining area. Assessed as having no heritage significance No further management measures are required for this item and it is not considered within the remainder of this HHMP
Site 4	Wybong Post Office Road	Partly within the approved disturbance boundary associated with establishment of new mining area. Assessed as having no heritage significance Has been partially removed in accordance with Condition B102 of SSD 8642 and in consultation with MSC.
Site 5	'Timber stockyards' Lot 42 DP 531030	Was within the approved disturbance boundary associated with establishment of new mining area. Assessed as having no heritage significance No further management measures are required for this item and it is not considered within the remainder of this HHMP

Table 7-3 – Potential Impacts - Previously recorded potential heritage items

8. Historic Heritage Management Strategy

This section of the HHMP details the management strategies that have been developed for the historical (non-Aboriginal) heritage and archaeology associated with the Project.

It addresses the outcomes of consultation undertaken with DPE (now DPHI) and the Heritage NSW, as well as commitments made in the EIS and HIS for the Project.

8.1 Consultation

As per Schedule 3, Condition 43(a) of PA 06_0014 (surrendered 21 November 2022), the CMS was prepared in consultation with the relevant landowners and Heritage NSW, Department of Premier and Cabinet NSW (formally Office of Environment and Heritage (OEH) and then Biodiversity Conservation Division (BCD)):

- There is only one relevant landholder requiring consultation. As detailed in the CMS no comments have been received from the landowner.
- Consultation with Heritage NSW was undertaken through the DPIE (now DPHI) portal on 28 September 2020. A response dated 12 October 2020 (Reference DOC20/797207) was received with no comments made.

In accordance with Schedule 2, Condition B71(b) this document has been prepared in consultation with Heritage NSW, MSC and relevant landowners, and in accordance with the relevant Heritage NSW guidelines:

- This HHMP was submitted to Heritage NSW on 17 August 2022 with a request to provide comment. Correspondence was received from Heritage NSW on 29th August 2022 (email with letter dated 26th August 2022). Heritage NSW stated that the management measures contained within the HHMP are reasonable and appropriate for the heritage items and had no further comments.
- This HHMP was submitted to MSC on 17 August 2022 with a request to provide comment. Correspondence was received from MSC on 12th September 2022 stating the documents were reviewed and no objections from Council.
- This HHMP was submitted to relevant landowners on 17 August 2022 with a request to provide comment. Correspondence was received on 12th and 15th September by the joint landholders of the land on which the Castle Hill Slab Hut is. Neither had comments in relation to the HHMP other than one co-owner stating that land access (for the purpose of property inspections/archival recording and other rights as per **Section 8.2**) was still denied. The landowner of Brogheda Homestead responded 15th September 2022 stating he had no comments to record.

8.1.1 Castle Hill

It is to be noted that various requests have been made to gain access to undertake a baseline dilapidation assessment of the Castle Hill slab hut (Site 17) located on private property, which to date has not been granted but landholder is aware they can trigger this if that changes.

8.2 Monitoring and Management of Heritage Structures

It is noted that in accordance with Schedule 3, Condition 42 (b) of PA 06_0014 (now surrendered) all items of heritage value within the project disturbance and blast affectation areas that were able to be identified and accessed have previously been archivally recorded as part of:

- Archival Recording of Heritage Sites and Structures within Mangoola Disturbance and Blast Affectation Areas (Umwelt 2010)
- Archival Recording of “The Book” Heritage Site (Umwelt 2015).

Table 8.1 discusses the management all other heritage items requiring further management (as identified in **Table 7.2**)

Site I.D.	Site Name	Monitoring & Management of Identified Heritage Sites
Site 13	Charcoal Retorts	The charcoal retorts are understood to have been located in what is an offset area for cultural heritage. However, they have been unable to be re-identified since the initial heritage assessment undertaken for the original EIS and may have been washed away in the 2007 floods. Prior to any potential disturbance activities within any offset areas, a Ground Disturbance Permit must be completed. This process includes specific checks for heritage listed sites within the site GIS database. Should the charcoal retorts be re-identified, archival recording shall be undertaken in accordance with the requirements of Condition B71(iv) of SSD 8642 and Program/Procedures for Photographic/Archival Recording discussed in Section 9.0 of this HHMP.
Site 17	Castle Hill	Existing management measures currently being undertaken will continue; including: • Consulting with the landholder to gain access to Castle Hill to undertake a baseline dilapidation survey; • While blasting south of Wybong Road, continue to undertake representative blast vibration monitoring to inform ground vibration impacts to the Castle Hill slab hut structure (not predicted to be indirectly impacted by blasting activities in the MCCO Project additional mining area and does not have criteria under SSD 8642); and • Not predicted to exceed the 20mm/s ground vibration limit for blasting activities south of Wybong Road (consistent with modelling conducted by Terrock, 2020). Should an agreement be reached to gain access to Castle Hill (privately owned) the following management measures shall be undertaken subject to landholders' permission: • A detailed recording of the buildings and associated features to Heritage NSW standards for archival recordings of local heritage significance by a qualified heritage consultant shall be undertaken in accordance with Condition B71(iv) of SSD

Site I.D.	Site Name	Monitoring & Management of Identified Heritage Sites
		8642 and Program/Procedures for Photographic/Archival Recording discussed in Section 9.0 of this HHMP. - A site-specific historical investigation including further detailed historical research concerning the construction date and history of settlement with the property; and - Further assessment, monitoring and review of the structures by a qualified heritage architect with the input of a noise and vibration engineer qualified in understanding the potential impacts of blasting on historical structures. Although not predicted to exceed, in the event blasting results confirm 20 mm/s vibration levels are on the limit or have exceeded at the representative monitoring location, the following actions will be undertaken: - Contact the landholder to advise of their rights under Schedule 2, Part B, Condition B18 of SSD 8642 to request a property investigation.
Site 18	Anvil Rock*	Completed management and conservation works to date include: - archival recording completed in 2010; - specialist advice/assessment from geotechnical/engineering consultant regarding impact assessment; - six monthly site survey completed with performance reported in Annual Review; - blast monitoring and data review; and - visual assessment. Existing and on-going management measures include: - Representative blast monitoring to inform ground vibration impacts at the structure; - Limiting blast designs to minimise vibration; - Manage blast vibration to comply with ground vibration limit of 50mm/s as defined in Table 3 Blasting Criteria (Schedule 2, Part B, Condition B11 of SSD 8642). ; and - Six-monthly structural integrity monitoring as described in the Blast Management Plan (BMP); and - Blast monitoring results and six-monthly structural integrity monitoring outcomes are reported in the Annual Review. Public access to these formations during the life of the mine shall be supervised by Mangoola Coal.
Site 19	"The Book" Formation *	Completed management and conservation works to date include: Archival recording completed in 2015;

Site I.D.	Site Name	Monitoring & Management of Identified Heritage Sites
		- Specialist advice/assessment from geotechnical/engineering consultant regarding impact assessment; - Six monthly site survey completed with performance reported in the Annual Review; - Blast monitoring and data review; and - Visual assessment. Existing and on-going management measures include: - Representative blast monitoring to inform ground vibration impacts at structure; - Limiting blast designs to stay below vibration limit; - Manage blast vibration to comply with ground vibration limit of 50mm/s as defined in Table 3 Blasting Criteria (Schedule 2, Part B, Condition B11 of SSD 8642). - Six-monthly structural integrity monitoring as described in the Blast Management Plan (BMP); and - Blast monitoring results and six-monthly structural integrity monitoring outcomes are reported in the Annual Review. Public access to these formations during the life of the mine shall be supervised by Mangoola Coal.
Site 2	Millville Property	Mangoola committed to <i>...undertaking archival recording of the Millville property prior to any demolition works. Archival recording during demolition works will be undertaken if deemed to be warranted as a result of information obtained during the recording prior to demolition (Umwelt 2019).</i> Mangoola completed the archival recording in 2021 prior to demolition to provide for an appropriate record of the site in accordance with the Program/Procedures for Photographic/ Archival Recording discussed in Section 9.0. Section 5.1 of the <i>Photographic Archival Recording of Dwelling known as "Millville", Wybong (Umwelt, June 2021)</i> considered the need for further archival recording during demolition and considered it was not warranted as internal and external archiving was completed prior to demolition. It was considered unlikely that further recording during demolition would contribute meaningfully to an understanding of Millville's history or aesthetic significance. A copy of the final Archival Report was provided to Heritage NSW, MSC (for their libraries) and Muswellbrook Shire Local Family and History Society for their records on 9th November 2021.
Site 4	Wybong Post Office Road	Was partially removed in accordance with Condition B102 of SSD 8642 and in consultation with MSC. (Completed 2022).

Site I.D.	Site Name	Monitoring & Management of Identified Heritage Sites
*Advice received from suitably qualified consultants is that any structural supports could only be temporary, and still have the potential to cause further damage to the rock formations (Terrock 2013).		

Table 8-1 – Management of Heritage Items

8.3 General Management Strategies

8.3.1 Historic Heritage Induction

The site and visitor induction is given to all relevant personnel (e.g. staff, contractors, visitors) and considers the management of historic heritage as per the HHMP. If there is work at or in the vicinity of listed or potential heritage items in or within the vicinity of the Project Area, the following details will be considered and communicated as part of planning the work.

These considerations should, at a minimum, include:

- the nature and location of the heritage sites
- the historical heritage values and significance of the heritage sites
- the nature of the protection measures being undertaken
- any relevant content of this HHMP
- information related to the relevant legislation for the protection of historical heritage sites/items (particularly provisions Section 139 and 146 of the **Heritage Act 1977 (NSW)**) and the penalties which may arise if sites/items are disturbed/destroyed.

Suitable records of the historic heritage inductions undertaken are to be made and kept up to date.

8.3.2 Management of Discovery of New Heritage Sites/Items

If during the course of works any previously unknown historical archaeological material or heritage sites/items are uncovered or identified, all work in the immediate vicinity of the item(s) shall cease immediately and a qualified heritage consultant/archaeologist will be consulted. If the archaeologist considers the material uncovered constitutes an archaeological 'relic' or a heritage item, Heritage NSW will be consulted, in accordance with Section 146 of the **Heritage Act 1977 (NSW)**, to determine an appropriate course of action prior to the recommencement of work in the immediate vicinity of the item.

A 'relic' under the **Heritage Act** is defined as any deposit, object or material evidence that:

- relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement; and
- is of State or local heritage significance.

Appropriate management strategies for the discovery of new and/or unexpected Aboriginal archaeological material are provided separately in the ACHMP (Mangoola Open Cut, Glencore, 2022 or latest version).

8.3.3 Potential Human Skeletal Remains

In the event that a potential burial site or potential human skeletal remains are exposed in any area subject to surface disturbance or remediation works, the procedure below is to be implemented in accordance with the Policy Directive – Exhumation of Human Remains (NSW Department of Health 2008), ***Skeletal Remains – Guidelines for the Management of Human Skeletal Remains under the Heritage Act 1977*** (NSW Heritage Office 1998) and the ***Aboriginal Cultural Heritage Standards and Guidelines Kit (NPWS 1997)***:

- as soon as remains are exposed, work is to halt immediately in the vicinity and the E&C Department notified to allow assessment and management, including consultation with a qualified heritage consultant/archaeologist
- contact local police and Heritage NSW
- a physical or forensic anthropologist will inspect the remains in situ, and make a determination of ancestry (Aboriginal or non-Aboriginal) and antiquity (pre-contact, historical or forensic)
- if the remains are identified as forensic the area is deemed as crime scene; or
- if the remains are identified as Aboriginal and not forensic, the site is to be secured and Heritage NSW and all registered Aboriginal parties are to be notified in writing; or
- if the remains are non-Aboriginal (historical) remains and not forensic, the site is to be secured and the Heritage NSW is to be contacted.

The above process functions only to appropriately identify the remains and secure the site. From this time, the management of the remains is to be determined through liaison with the appropriate stakeholders (New South Wales Police Force, forensic anthropologist, Heritage NSW and registered Aboriginal parties etc.) and in accordance with the ***Public Health Act 1991 (or later version not referenced within the 1998 guideline)***.

Approval from NSW Health, under the ***Public Health Act 1991 (or later version)***, will be required prior to removing/exhuming any skeletal remains. If removal/exhumation is required and approved, controlled excavation and removal by the site archaeologists and other appropriate specialists (forensic anthropologist, Aboriginal stakeholders, New South Wales Police Force, as appropriate) will be undertaken in accordance with ***Heritage Council Skeletal Remains Guidelines*** and any requirements of Heritage NSW and NSW Health.

If removal/exhumation is required, a site-specific management policy for the removal of any potential human skeletal remains uncovered within the Project Area will be developed, in consultation with a physical anthropologist, Heritage NSW and relevant stakeholder groups. The management policy will consider the issues detailed in the ***Heritage Council Skeletal Remains Guidelines***. These issues include but are not limited to:

- excavation issues – including personnel who may need to be required, Occupational Health and Safety and recording
- access issues – including limited access, security and public and professional participation
- management issues – including management during excavation and analysis, publicity, interpretation, location of interim resting place (in consultation with relevant stakeholders), ongoing curation of recovered materials and professional access to data
- re-interment and commemoration.

8.3.4 Care and Control Strategy

Mangoola is responsible for the care, control and storage of any historical artefacts / relics salvaged from the Project and should make arrangements for any collection to be stored in an appropriate repository.

A suitable storage facility will be nominated by Mangoola in which to store artefacts retained from the excavations. Mangoola will be responsible for the long-term management of any recovered artefacts. Long-term management may include the conservation of artefacts.

Aboriginal artefacts are considered under the Mangoola Coal ACHMP (2025 or later version).

9. Photographic/Archival Recording - Program/Procedures

All photographic/archival recording will be undertaken prior to the commencement of any activities that would potentially disturb/impact the item nominated for photographic/archival recording.

The archival recordings will be undertaken in accordance with Heritage Council guidelines *Guidelines for preparing archival recordings of heritage items as a condition of consent* (DCCEEW, 2025) which replaces **Photographic Recording of Heritage Items Using Film or Digital Capture** (2006).

The photographic recordings will include:

- a brief report detailing purpose, background information/description of the item and methodology in addition to the actual archival record
- detailed photographs of site/item
 - this will include contextual photographs/key images showing site/item and remains, and relevant relationships to other sites/items and surroundings. Includes key views, elevations and characteristics as relevant.
- photographic catalogue sheets (photographic record sheets including thumbnail sheet and image log)
- photographic plans (base plans) (referenced to the photographic catalogue sheets) particular to each site showing the locations of all of the photographic images unless nature of item does not warrant a photographic plan
- Any results from other recording methods such as measured plans of the sites/item (unless nature of site/item does not warrant a site plan, in these instances the photographs will be accompanied by an appropriate plan indicating the location of the site only), video or oral history or samples of materials and finishes as relevant.

Millville Property (Site 2) was required to have a Photographic/Archival recording as per the RTS commitment (completed June 2021). The Photographic Archival Recording report was submitted to Heritage NSW (Department of Premier and Cabinet) and MSC (for inclusion in their respective libraries) and the Muswellbrook Shire Local Family and History Society for their records in November 2021.

Other sites to have Photographic/Archival recording completed include:

- Charcoal retorts (Site 13) - should they be re-identified.
- Castle Hill (Site 17) - should an agreement be reached to gain access to Castle Hill (privately owned)

10. Review and Improvement

10.1 Approval of Changes to the HHMP

Any modifications of this HHMP must be submitted to the Secretary of Department of Planning, Housing and Infrastructure (DPHI) for approval prior to implementing the changes.

10.2 Reporting and Review

All internal and external reporting will be undertaken in accordance with the Mangoola Coal Environmental Management System (EMS).

10.2.1 Internal reporting

The Mangoola Coal Environment and Community Manager will report any instances of the following to the Mangoola Coal Management Team:

- Any complaints relating to historical heritage items/sites or their management (as well as outcomes of any investigation);
- If blast monitoring results have triggered, significant further action necessary for the prevention of blast damage to relevant site identified (e.g. structural support or significant change to blasting practices that may have operational impacts); or
- Any incident relating to historical heritage items/sites (and investigation outcomes).

10.2.2 External reporting

The Annual Review will be prepared each year by Mangoola Coal as per Condition D11 of SSD 8642.

Mangoola Coal will report on the implementation of any measures undertaken during the reporting period with the aim of preventing damage to the historical heritage items/sites outlined in this plan.

In accordance with Conditions D9 of SSD 8642 the Department and any other relevant agencies (for example Heritage NSW) will be notified of any incident relating to historical heritage items/sites (and investigation outcomes).

In accordance with Conditions D10 of SSD 8642 the Department will be notified of any non-compliance relating to historical heritage items/sites (and investigation outcomes).

In accordance with Condition D11 of SSD 8642 this HHMP and the management of historical heritage items/sites will form part of any Independent Environmental Audit undertaken for the Project.

10.2.3 Review

In accordance with Conditions D7 of SSD 8642, Mangoola Coal will review and where necessary revise the HHMP within three months of the submission of an incident report, Annual Review, audit, or any modification to the conditions of the Project Approval.

The HHMP will further be subject to a 3-year periodic review. Reviews will also consider, where relevant, the progression of blasting activities and monitoring/measurement requirements in consultation with suitably qualified and experienced person/s (i.e. as blasting activities cease south of Wybong Road).

The document review table is to be completed as part of each review.

10.3 Incidents and Complaints Management

Incidents involving historical heritage items/sites are reported at Mangoola Coal Operations in accordance with the internal and external reporting procedure contained within the Mangoola Open Cut Environmental Management Strategy. Mangoola operates a 24-hour community hotline for receipt of community complaints.

All complaints and disputes are managed in accordance with **Section 4.4** of the **Mangoola Environmental Management Strategy (MANOC-1772150304-4652)**. As part of the complaint management process, complaints are responded to within 24 hours (where requested or possible) of receipt. All complaints are investigated and the results reported to the complainant in a timely manner. This includes any measures implemented to resolve or close out the complaint.

11. Accountabilities

Responsibility for the implementation of this HHMP lies with Mangoola, with input from external specialists and contractors as required.

Relevant accountabilities associated with the HHMP are presented in **Table 11.1**.

Role	Responsibilities
Operations Manager	Provide sufficient resources for the implementation of this HHMP.
Mine Manager	Implementation of this plan for mining operations to ensure compliance with consent requirements.
Environment and Community Manager (or delegate)	- Coordinating monitoring and systematically reviewing the outcomes of monitoring as part of ongoing mine planning; - Ensuring that the plan is relevant to current operations; - Oversee the implementation of this HHMP; - Ensure that monitoring results are used to develop/trigger management measures for heritage sites; - Coordinate the ongoing refinement of impact criteria for heritage sites using monitoring results; and - Coordinate periodic reviews of this HHMP.

Table 11-1 – Roles and Responsibilities

12. Document Information

Relevant legislation, standards and other reference information must be regularly reviewed and monitored for updates and should be included in the site management system. Related documents and reference information in this section provides the linkage and source to develop and maintain site compliance information.

12.1 Related Documents

Related documents, listed in **Table 12-1** below, are *documents* directly related to or referenced from within this document.

Number	Title
MANOC-1772150304-3567	Mangoola Open Cut Conservation Management Strategy (replaced by this document)
MANOC-1772150304-4601	Mangoola Coal Blast Management Plan
GCAA – 625378177-10043	Ground Disturbance Permit
MANOC-1772150304-4652	Mangoola Environmental Management Strategy

Table 12-1 – Related documents

12.2 Reference Information

Reference information, listed in **Table 12-2** below, is *information* that is directly referred to for the development of this document.

Reference	Title
Australia ICOMOS. 2013	The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013, with associated Guidelines and Code on the Ethics of co-existence.
Australian Heritage Commission (AHC), 2001	Significance Assessment of Heritage Places. Australian Heritage Commission, Canberra.
Department of Climate Change, Energy, the Environment and Water, 2025	Guidelines for preparing archival recordings of heritage items as a condition of consent
Department of Land, LTO	Grant Index Series 73
Doyle, H., 1984	Spring Creek' pp.24-25 in <i>I Remember When..., Volume 2, The Valley Year</i> , Senior Citizens of Denman, Denman and District Retirement Centre Ladies Auxiliary.

Reference	Title
EnviroStrata Consulting Pty Ltd, 2019	Blasting Impact Assessment for Mangoola Coal Continued Operations Project, prepared for Umwelt Environmental and Social Consultants on behalf of Mangoola Coal Operations Pty Ltd.
Heritage Office and Department of Urban Affairs and Planning (1996).	Regional Histories of New South Wales. Crown Copyright.
Kerr, 2006	Conservation Plan: a Guide to the Preparation of Conservation Plans for Places of European Cultural Significance
King, C.J., 1957	An Outline of Closer Settlement in New South Wales, Dept of Agriculture: Sydney.
OzArk, 2018	<i>Aboriginal Archaeology Impact Assessment: Mangoola Coal Continued Operations Project</i> , prepared for Umwelt (Australia) Pty Limited on behalf of Mangoola Coal Operations Pty. Limited.
Terrock 2013	XMC-1604_Structural Support Requirements of Aboriginal and European Cultural Heritage Sites_Final.
Terrock 2018	XMC-1805_GV_Investigation_Castle Hill_Final.
Terrock 2020	Castle Hill Blasting Vibration Limit
Turner, J W 1995	Historical Themes of the Shire of Muswellbrook, Unpublished report by Hunter History Consultants.
Umwelt, 2006	Historical Heritage Assessment – Anvil Hill Project. In Environmental Assessment, Anvil Hill Project. A report prepared for Centennial Hunter Pty Limited.
Umwelt 2010	Archival Recording of Heritage Sites and Structures within Mangoola Disturbance and Blast Affectation Areas.
Umwelt 2011	Historical Scarred Tree, Mangoola Coal.
Umwelt 2013	Previously Unidentified Timber Structure – Mangoola Coal.
Umwelt 2013	Potential Historical Heritage Site 21, 500kV Electricity Transmission Line Project.
Umwelt 2015	Archival Recording of “The Book” Heritage Site.
Umwelt 2015	Historical Significance Assessment of Sites 20, 21 and 22 at Mangoola Coal.
Umwelt 2019	Mangoola Coal Continued Operations Project Historical Heritage Assessment

Reference	Title
Umwelt 2019	Mangoola Coal Continued Operations Project Environmental Impact Statement (and Appendices)
Umwelt 2019	Mangoola Coal Continued Operations Project Response to Submissions
Umwelt 2021	Photographic Archival Recording, Dwelling known as “Millville”, Wybong

Table 12-2 – Reference information

12.3 Change Information

Full details of the document history are recorded in the document control register, by version. A summary of the current change is provided in **Table 12-3** below.

Version	Date	Change Details
1.0	30/09/2022	New document (Refer to document archive for details)
2.0	17/09/2025	Review of references and formatting. Updated details about current operational phase. Other minor changes to improve document flow/readability. Corrected Table errors to show Castle Hill slab hut is outside the Mangoola Coal Project Area – which is correctly reflected in Figure 6-1.

Table 12-3 – Change information

Appendix A - Authority Correspondence

To be added post approval



Mr Mitchell Green
Acting Environment and Community Manager
Mangoola Coal Operations Pty Limited
PO Box 495
Muswellbrook, NSW, 2333

22/10/2021

Dear Mr. Green

**Mangoola Continued Operations (SSD-8642)
Historic Heritage Specialist Endorsement**

I refer to your request (SSD-8642-PA-21) for the Secretary's endorsement of a suitably qualified person to prepare the Historic Heritage Management Plan for the Mangoola Continued Operations (SSD-8642).

The Department has reviewed the nominations and information you have provided and is satisfied that this expert is suitably qualified and experienced. Consequently, I can advise that the Secretary approves the appointment of Tim Adams of Umwelt to prepare the Historic Heritage Management Plan.

If you wish to discuss the matter further, please contact Wayne Jones on (02) 6575 3406.

Yours sincerely

Stephen O'Donoghue
Director
Resource Assessments
As nominee of the Secretary