



METROPOLITAN COAL CONSTRUCTION MANAGEMENT PLAN

SURFACE WORKS ASSESSMENT FORM

LONGWALL 305 GOAF BOREHOLE

December 2021

Metropolitan Coal

Proposed Installation of Longwall 305 Goaf Borehole

Background

The subject Surface Works Assessment Form (SWAF) is submitted to Department of Planning, Industry & Environment (DPIE) and WaterNSW for the proposed vegetation clearance and installation of a post mining goaf borehole.

The borehole will be drilled using a truck mounted rig and track mounted rod handler. The borehole will be drilled to 99mm diameter and depth of 380m. Vibrating wire piezometers (VWP) will be installed at various depths to measure groundwater behaviour.

A summary of the borehole proposed in this SWAF is provided in Table 1.

Table 1

Site	Easting	Northing	Vegetation Clearing	Borehole Instrumentation	Borehole diameter
Longwall 305 Goaf Borehole	312388	6217168	0.15 ha	VWP	99 mm

This SWAF provides details of construction and environmental management measures for the proposed works as outlined in the Metropolitan Coal Construction Management Plan (ConMP), approved by DP&E on 25 August 2015.

Site Location

The site is within the Woronora Special Area in the local government area (LGA) of Wollongong City Council. The Woronora Special Area covers a region of approximately 75 square kilometres (km²) and includes the catchment of Woronora Dam. WaterNSW manages the Woronora Special Area and public access is restricted.

The proposed activities are situated within the Metropolitan Coal mining lease (Consolidated Coal Lease (CCL) 703). The township of Helensburgh is located approximately 5 km to the east (Figure 1).

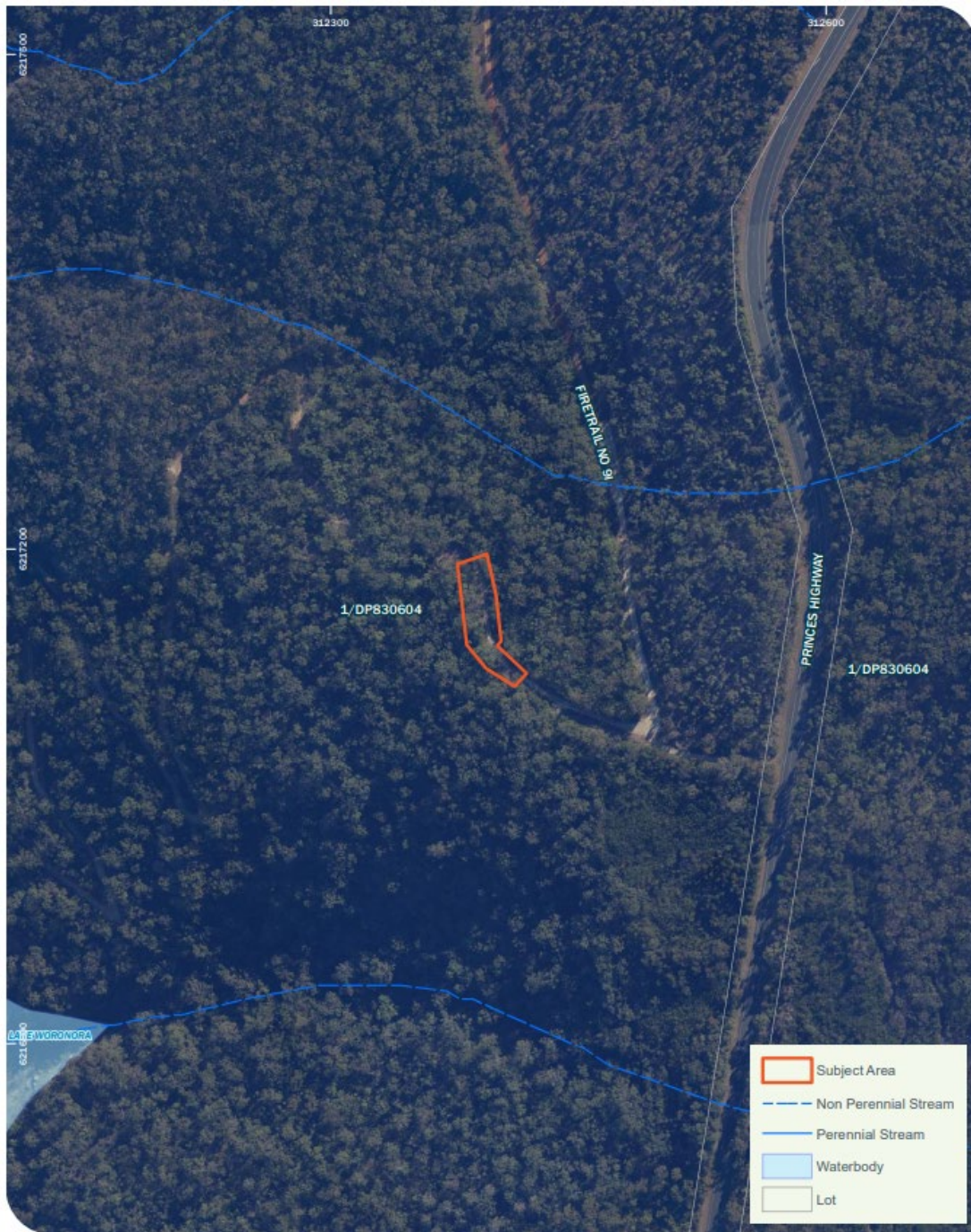


Figure 1. Location of proposed borehole activities.

Water Management and Cuttings Containment

The borehole will require approximately 40,000 litres of water to lubricate the drill bit and flush the well of cuttings which will then be deposited into a closed reticulated system (i.e. the above ground containerised drill water sumps).

Delivery of drilling water to the borehole site will involve deployment of water tanks to the drill site, to act as a large volume reservoir for supply water.

Drill cuttings and fines will be captured in the containerised drill water settling tanks (mud tanks) (Figure 2). Solids from these tanks will be pumped out by enclosed vacuum truck as required and disposed of at a registered landfill site or utilised back at the mine site.

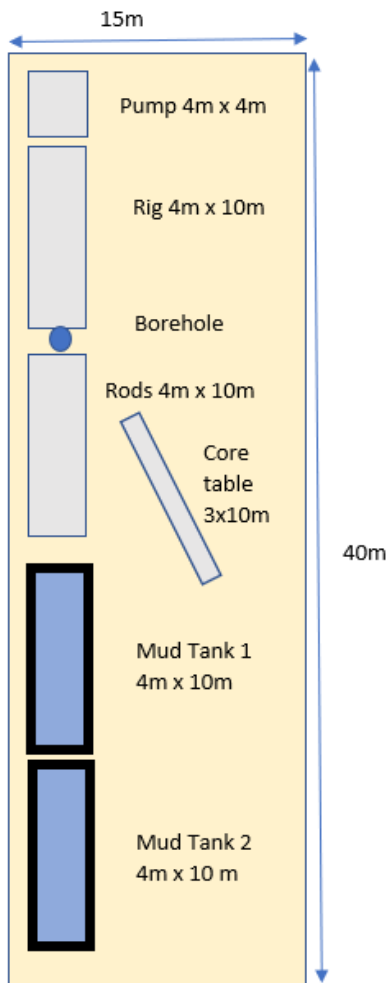


Figure 2. Approximate drill site layout.

Installation and Operation of Equipment

The borehole will be grouted following the completion of relevant test work and installation of VWP's.

Site Rehabilitation

Construction sites will be rehabilitated in accordance with Metropolitan Coal's Rehabilitation Management Plan.

The area disturbed by the footprint of the drill rig, rod carriers, settling tanks and access tracks will be reviewed and remediated as necessary (eg: sediment fencing, brushmatting etc).

Fuel Management

Large quantities of fuel will not be stored on site with fuel brought to site for refuelling only if and when required. Care will be taken not to spill fuel. Oil/fuel absorbent materials or other containment materials will be made available at the site to prevent contact with the surrounding environment.

Equipment (e.g. drill rigs, pumps) will be regularly inspected for leaks of oil/fuel/coolant. Impervious bunding will be provided with greater than 110% of the capacity of the item being banded. Spill containment/treatment resources (i.e. spill kits) will be provided. The spill kits will include: absorbent material 40 L bag of Organic Oil/Fuel absorbent; absorbent pads: 20 of 480 X 430 mm pads; garbage bags; shovel; and a bag of rags.

Any spill that occurs will be immediately cleaned up and reported to:

- the site supervisor;
- the Metropolitan Coal Environment & Community Superintendent (Stephen Love 0417 584 121); and
- WaterNSW (via the incident Management Number 1800 061 069).

The site supervisor and the Metropolitan Coal Environment & Community Superintendent will investigate any spills.

Human Waste Water

A portable toilet will be located near the drill site. The toilet will be serviced fortnightly.

Construction Management Plan Surface Works Assessment Form

**Note, this form must be completed in full
prior to the commencement of surface disturbance works**

Date: November 2021

Name and position: Stephen Love (Environment and Community Superintendent)

Register number (i.e. Number 1, 2, etc.): 17

RMP register number: 17

Site name:
Longwall 305 Goaf Borehole.

Site type:

Post-mining borehole to measure height of fracturing above goaf and installation of vibrating wire piezometers for deep groundwater monitoring

Site co-ordinates (easting/northing):

Site	Easting	Northing
Longwall 305 Goaf Borehole	312388	6217168

Expected duration of works: 4 weeks (weather permitting)

Works schedule:

- Describe the activities (including timing) to be conducted during construction works.
 - *Establishment and implementation of pre-construction management measures (e.g. erosion and sediment controls, vegetation clearance)*

LW 305 Goaf Borehole

Borehole site development occurs in two (2) stages: site preparation and drilling

Site preparation will involve:

- *Use of existing tracks and fire trails, negating the need to prepare a new access track*
- *Use of trittering attachment to mulch vegetation in-situ*
- *Excavator to prepare borehole site (including a level drill pad and border set down and work area)*
- *Erosion and sediment controls*

Drilling of boreholes will involve:

- *Delivery of tray and track mounted drill rigs to site (including ancillary equipment)*
- *Water delivery (each borehole will use approximately 40,000 litres of water to lubricate and flush cuttings which will be deposited into a closed reticulated system)*

i.e. an above-ground containerised drill water sump). Containerised drill water and cuttings will be removed from site.

- *Use of rotary or hammer drilling to target depth using appropriate drilling techniques to prevent well head pressure loss and aquifer contamination*
- *Recovering core material from drill column, cataloguing and removing from site*
- *Installation of VWP's at various depths*
- *Sealing of the Borehole(s) to the surface with a cement/bentonite mix as per the standard requirements of Division of Resources and Geoscience (DRG)*
- *Revegetation (Brush Matting, planting and/or direct seeding)*
- *Site clean-up (e.g. removal of equipment, materials and waste)*
- *Monitoring during and following completion of construction*

Review of baseline information - site features (refer Section 5 of the ConMP)

Are any of the following features located within the proposed disturbance area or immediate surrounds?

Are there occurrences of the Southern Sydney Sheltered Forest on transitional Sandstone Soils EEC in the general area? **No**

Are there occurrences of the O'Hares Creek Shale Forest EEC in the general area? **No**

Are upland swamps located in the general area? **Yes**

Are there records of known threatened flora species in the general area? **Yes**

The proposal aims to avoid threatened flora.

Are there records of known threatened fauna species in the general area? **Yes**

The proposal aims to avoid threatened fauna.

Are existing (or proposed) monitoring sites located nearby? **No**

What vegetation type is present?

Vegetation at the subject area is mapped as Coastal Sandstone Gully Forest (PCT 1250). Sydney Peppermint (Eucalyptus piperita) and Smooth-barked Apple (Angophora costata) form a moderately tall open forest. This PCT does not have an associated Threatened Ecological Community (TEC). Potential threatened flora species that are known to occur in close proximity to the subject area and within PCT 1250 include Prickly Bush-pea (Pultenaea aristata), Woronora Beard-heath (Leucopogon exolasius), Thick-leaf Star-hair (Astrotricha crassifolia), and Epacris purpurascens var. purpurascens. The vegetation within the subject area has been recently burnt, therefore little vegetation will require clearing as a result of the proposed works.

Are known Aboriginal heritage sites present? **Yes**

Is this an area in which disturbance is to be avoided and/or limited? (refer Sections 6.1.1 and 6.1.2 of the ConMP) **No**

If the proposed disturbance area is located in an area to be avoided or limited, relocate site where appropriate in accordance with the requirements of the ConMP

Date of survey for threatened flora.

30th August 2021

Name of suitable qualified ecologist conducting survey

Freya Gordon (Senior Ecologist Niche Environment and Heritage)

Have any threatened flora been identified within the proposed disturbance area or immediate surrounds. **No**

Scientific names of threatened flora species recorded.

Will works be relocated to avoid or minimise impacts on the threatened flora species? **N/A**

If it is not feasible to relocate the works, have the impacts of the proposed works on the population of the threatened flora species been assessed by a suitably qualified and experienced ecologist? **N/A**

If No, do not proceed

Has the assessment concluded that the proposed surface activities are likely to have a significant impact on a population of the threatened flora species? **No**

If Yes, the proposed works are to be modified to avoid such an outcome

[Attach any relevant ecological reports to this assessment form]

Flora, Fauna and Archaeological Assessment – Metropolitan Coal Exploration Borehole Sites and Subsidence Monitoring Survey Line (Attachment 1)

Vegetation clearance and site access (refer Section 6.1.6 of ConMP)

Is vegetation clearing required for the construction works? If yes, describe extent (e.g. m²) and method of clearing (e.g. slashing/lopping branches/removal)? **Yes**

The proposed borehole site will result in up to approximately 0.15 hectares of primary clearing, works will occur on previously cleared areas along existing tracks Fire Trail 9I with no impact on any TEC, or threatened species.

Describe the access requirements for the construction site (e.g. vehicle/pedestrian/helicopter) and where the access will be from (e.g. which fire road).

Existing Fire Trail 9I will be used for siting/delivery of equipment and for access to sites.

Is vegetation clearing required for site access? If yes, describe the extent and method of clearing? **No**

Vegetation management measures to be implemented (refer Section 6.1.4 of the ConMP)

Disturbance would be appropriately limited by the following mitigation measures:

- *Care will be taken to minimise disturbance to vegetation.*
- *Existing fire trails, tracks and exposed bedrock will be used for access and placement of equipment.*
- *Erosion and sediment controls to be implemented as appropriate on downslope sides of the site as per Metropolitan Coal Construction Management Plan to ensure that no sediment from drilling or other earth works enters adjacent table drains.*
- *Cleared vegetation will be placed within the footprint of clearing and not on adjacent vegetation.*

Niche Environment and Heritage's "LW 305 Goaf Borehole – pre-clearing assessment" is attached as Attachment 1.

Site Layout Plan (refer Section 6.1.5 of ConMP)

Has a Site Layout Plan been prepared and attached to the Works Assessment Form? **Yes**

Have the following been indicated on the Site Layout Plan? **Yes**

- Site location
- Works design
- Management measures (e.g. erosion and sediment controls, spill kits)
- Access track/s (indicate type of access, e.g. pedestrian/vehicle. Also indicate location of nearest fire trail where access will be from)
- Areas of vegetation clearance
- Location of equipment (e.g. pump, generator, fuel storage, portable toilets)
- Equipment storage areas
- Safety equipment (e.g. fire extinguisher and first aid kit)

Attach photographs, where appropriate



Photo showing proposed location of LW305 Goaf Borehole off Fire Trail 9I.

Aboriginal heritage pre-clearance survey (refer Section 6.2 of the ConMP)

Date of pre-clearance survey for Aboriginal heritage sites.

A visual inspection was conducted on the 30th August 2021 with an extensive search of the Aboriginal Heritage Information Management System (AHIMS) on the 24th August 2021.

Name of suitably qualified archaeologist conducting survey

Renee Regal (Senior Heritage Consultant and Team Leader Aboriginal Heritage) and Kosta Contos (Heritage Consultant).

Are any Aboriginal heritage sites identified within the proposed disturbance area or immediate surrounds? **No**

Description of recorded Aboriginal heritage sites. **N/A**

Will works be relocated to avoid impacts on the Aboriginal heritage site? **N/A**

If it is not feasible to relocate the works to avoid impacts to the Aboriginal heritage site, management and/or mitigation measures to be implemented in accordance with the Metropolitan Mine Heritage Management Plan. Describe measures below. **N/A**

Where avoidance is not practicable, has a comprehensive baseline record been obtained and salvage considered in consultation with Aboriginal stakeholders prior to disturbance. **N/A**

Niche Environment and Heritage's "Longwall 305 Goaf Borehole, Aboriginal Objects Due Diligence Assessment" is attached as Attachment 2.

Known Aboriginal heritage sites located close to surface disturbance works

Details of demarcation (e.g. fencing, sign-posting or temporary flagging) implemented to avoid accidental damage to known Aboriginal heritage sites located close to surface disturbance works.

An Aboriginal Objects Due Diligence Assessment has concluded there will be no risk of harm to Aboriginal objects.

Erosion or sediment control measures required?

- Is any erosion or sediment control required? **Yes**
- If yes, has an Erosion and Sediment Control Plan been prepared and attached to the Surface Works Assessment Form? **Yes**

Fuel and spill management measures required?

- Are compressors and pumps bunded and with sufficient capacity? **Yes**
- Where fuels are used, are spill kits available at the construction site? **Yes**
- Have personnel been trained in spill clean-up procedures? **Yes**

List Hazardous Materials and Storage Requirements

- What hazardous materials are required to be used and how will they be stored on site?

If fuel (diesel or petrol) is required at the sites it will be stored on-site during construction works in bunded containers.

- Are Materials Safety Data Sheets (MSDS) for hazardous materials located at the construction site? **Yes**

Bushfire Preparedness and Management

- Have MCPL staff and contractors been provided with fire awareness and fire safety training? **Yes**
- Has a Hot Work Permit been obtained from the Water NSW if required? **N/A**

Erosion and Sediment Control Plan

Correct location, design of the work site and work practices will minimise the risk of erosion and sedimentation at each of the sites. Effectively managing this issue will be achieved by carrying out the following:

- Minimise the disturbance area of the access trails and work site, this will accordingly reduce the likelihood and severity of erosion needing to be controlled
- Slashing or vegetation disturbance will be conducted following the strategies listed in the vegetation management section above;
- Correct aspect and site location. The site has been selected in appropriate areas that will minimise the risk of erosion (i.e. relatively flat sites, not on hard rock);
- Sediment control will be managed in accordance with the Blue Book (Volume 1 and Volume 2E), including the installation of sediment fences as per the standard drawing 6-8 of the Blue Book Volume 1;
- Whilst drilling is being conducted, the collar of the drill hole will have a section installed to allow sediment to be deposited directly into a baffled tank for collection. Cuttings will be removed upon completion of the bore;
- All workers will be trained in the appropriate work practices and the drilling operation will be constantly manned whilst in operation.

Attachment 1

“LW 305 Goaf Borehole – pre-clearing assessment” dated 9 September 2021

Attachment 2

“Longwall 305 Goaf Borehole, Aboriginal Objects Due Diligence Assessment” dated 3 September 2021

14 September 2021

Mr Kane Organ
Environment & Community Superintendent
Metropolitan Coal
Parkes Street
HELENSBURGH NSW 2508
Via email: korgan@peabodyenergy.com

Dear Kane,

Re: LW 305 Goaf Borehole – pre-clearing assessment (Niche ref: #6913)

Metropolitan Coal are proposing to undertake proposed vegetation removal works for the proposed exploration borehole on the Longwall 305 Goaf at the Metropolitan Colliery.

Niche Environment and Heritage (Niche) conducted background searches and a pre-clearing inspection of the subject area to assess whether any ecological communities or threatened species have the potential to be impacted by the works. No significance impact assessments under s7.3 of the BC Act or the EPBC significant impact criteria are required.

Yours sincerely,



Freya Gordon
Senior Ecologist
Niche Environment and Heritage

Aim of assessment

The primary aim of this project was to assess ecological values associated with vegetation removal works for the proposed exploration borehole on the Longwall 305 Goaf (the subject area) at the Metropolitan Colliery, and to identify biodiversity values to avoid and to mitigate potential impacts where possible. The subject area is approximately 0.15 ha (including the existing fire trail) (Figure 1).

Methods

Background review

Literature and data sources reviewed included:

- Vegetation mapping that covers the subject area (OEH 2016)
- BioNet Vegetation Classification database (DPIE 2021a)
- BioNet Atlas records (accessed August 2021) (DPIE 2021b).

Field survey

A senior ecologist conducted a flora and fauna survey of the subject area on 30 August 2021. The survey examined the plant community types (PCTs) at the subject area through the collection of rapid data points (RPD) which included the identification of the major flora species present (Annex 1). Any fauna habitat features were also noted.

Results

The subject area is located alongside an existing fire trail which is subject to edge effects (Annex 2). Vegetation at the subject area is mapped as Coastal Sandstone Gully Forest (PCT 1250). This community is widely distributed along the eastern extent of the Sydney sandstone plateaus. It occupies sheltered aspects on infertile Hawkesbury sandstone in areas that receive more than 1000 millimetres of mean annual rainfall. Sydney Peppermint (*Eucalyptus piperita*) and Smooth-barked Apple (*Angophora costata*) form a moderately tall open forest. These are rocky environments and the understorey is a diverse mix of heath and shrub species such as banksias, tea-trees and wattles (see Table 1). This PCT does not have an associated Threatened Ecological Community (TEC). Potential threatened flora species that are known to occur in close proximity to the subject area and within PCT 1250 include Prickly Bush-pea (*Pultenaea aristata*), Woronora Beard-heath (*Leucopogon exolasius*), Thick-leaf Star-hair (*Astrotricha crassifolia*), and *Epacris purpurascens* var. *purpurascens* (Figure 1). The vegetation within the subject area has been recently burnt (Plate 2), therefore little vegetation will require clearing as a result of the proposed works. No overstorey trees would require removal, and vegetation which is required to be trimmed would only be cut above ground level to maintain the rootmat, so as to minimise the risk of erosion. Vegetation would be allowed to recover once works are complete. An inspection of the area to be impacted did not detect any threatened flora species. Fauna habitat was limited and included small, low rock shelves, however, these would not be impacted.

Conclusion and Recommendations

The proposed works would not impact on any TEC or threatened species. The subject area is already moderately disturbed due to its location along an existing fire trail. A recent fire has impacted understorey and midstorey vegetation along the south-western side of the trail, therefore minimal vegetation removal would be required. No overstorey vegetation or sandstone features would be impacted. Given the results

of the survey, impacts to 0.15 ha of PCT 1250, a locally common vegetation community, is unlikely to have any impacts on threatened biodiversity.

To mitigate any potential impacts to biodiversity, beyond the clearing proposed, Niche recommend the following:

- Establish exclusion zones to ensure no over-clearing occurs, including damage to overstorey vegetation
- Ensure machinery are free of weeds prior to entering the site.

References

DPIE (2021a). BioNet Vegetation Classification.

<https://www.environment.nsw.gov.au/NSWVCA20PRapp/search/pctsearch.aspx>. (Accessed August 2021).

DPIE (2021b). *BioNet Atlas of NSW Wildlife*. Department of Infrastructure and Environment, Sydney.

https://www.environment.nsw.gov.au/atlaspublicapp/UI_Modules/ATLAS_/AtlasSearch.aspx. Accessed: August 2021.

OEH (2016). *The Native Vegetation of the Sydney Metropolitan Area*. Volume 1: Technical Report. Version 3.0. Office of Environment and Heritage, Sydney.

Annex 1: Flora species recorded

Stratum	Scientific name	Common name
Canopy	<i>Angophora costata</i>	Sydney Red Gum
Canopy	<i>Corymbia gummifera</i>	Red Bloodwood
Canopy	<i>Melaleuca</i> sp.	-
Midstorey	<i>Allocasuarina littoralis</i>	Black She-Oak
Midstorey	<i>Banksia serrata</i>	Old-man Banksia
Midstorey	<i>Banksia ericifolia</i>	Heath-leaved Banksia
Midstorey	<i>Banksia serrata</i>	Old-man Banksia
Midstorey	<i>Doryanthes excelsa</i>	Gymea Lily
Midstorey	<i>Hakea teretifolia</i>	Needlebush
Midstorey	<i>Leptospermum trinervium</i>	Slender Tea-tree
Midstorey	<i>Persoonia linearis</i>	Narrow-leaved Geebung
Understorey	<i>Eriostemon australasius</i>	-
Understorey	<i>Grevillea diffusa</i>	-
Understorey	<i>Grevillea oleoides</i>	Red Spider Flower
Groundcover	<i>Bossiaea scolopendria</i>	-
Groundcover	<i>Caustis flexuosa</i>	Curly Wig
Groundcover	<i>Epacris microphylla</i>	Coral Heath
Groundcover	<i>Lomandra obliqua</i>	-
Groundcover	<i>Pteridium esculentum</i>	Bracken

Annex 2: Plates

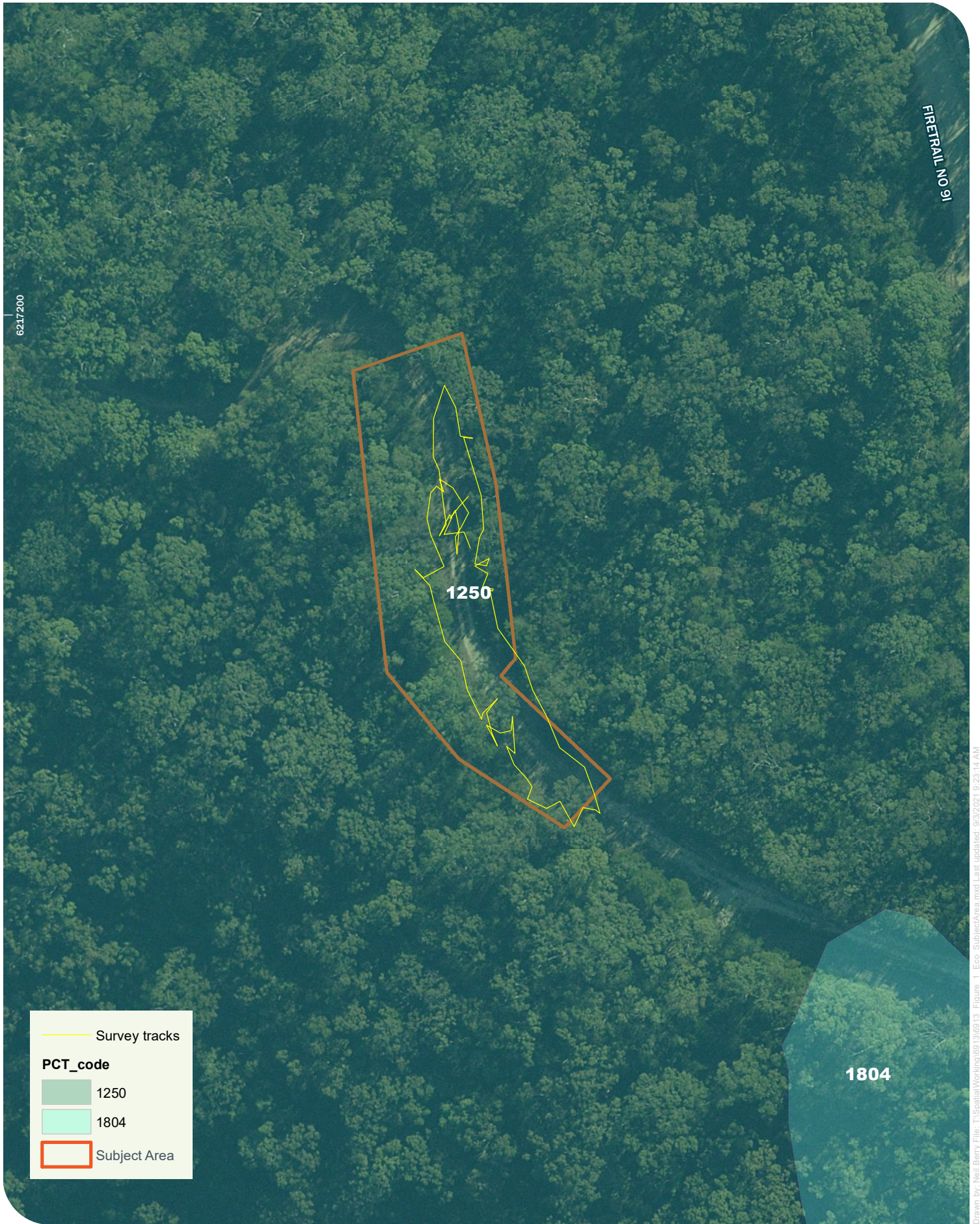


Plate 1: Proposed location of Goaf Borehole



Plate 2: Vegetation at RDP (PCT 1250)

Figures



Drawn by: Neill Berry File: T:\Spatial\Working\6913\6913_Figure_1_Eco_SubjectArea.mxd Last updated: 9/3/2021 9:23:14 AM



3 September 2021

Mr Kane Organ
 Environment and Community Coordinator
 Peabody Energy- Metropolitan Coal
 Parkes Street
 Helensburgh NSW 2508

Via Email: KOrgan@peabodyenergy.com

Dear Mr Organ,

Re: Longwall 305 Goaf Borehole, Aboriginal Objects Due Diligence Assessment (Niche ref: #6913)

Niche Environment and Heritage (Niche) was commissioned by Peabody Energy Metropolitan Colliery (Peabody Energy) to conduct an Aboriginal Objects Due Diligence Assessment for the proposed vegetation clearance and goaf borehole located within Longwall 305 (LW 305) (hereon referred to as the 'Activity Area'). The proposed Activity Area is located west of the Princes Highway Helensburgh NSW along Fire Trail 9I, within the Peabody Energy Metropolitan Colliery Mine lease area (see Figure 1). The following assessment has been prepared to satisfy the NSW Minerals Council (2010) *NSW Minerals Industry Due Diligence Code of Practice for the Protection of Aboriginal Objects*, referred to as 'The Code.'

Table 1: Proposed Metropolitan Coal Goaf Borehole

Area	Site	Figure Number	Proposed works
LW 305	Goaf Borehole	2	<ul style="list-style-type: none"> Minimal vegetation clearance Development of a borehole

Step 1. Are there any relevant confirmed site records or other associated landscape feature information on AHIMS?

Yes.

An extensive search of the Aboriginal Heritage Information Management System (AHIMS) was conducted on 24 August 2021 (Client ID#616198). A total of 47 Aboriginal cultural heritage sites were identified within the search. Previously recorded Aboriginal cultural heritage sites within a 100m proximity to the proposed Activity Area of the goaf borehole is listed below in Table 2. There are no sites identified within the Activity Area (see Figure 3).

Table 2: AHIMS sites within a 100 m proximity of the Subject Area

AHIMS ID	Site Name	Site type
52-2-3501	Flat Rock Creek 309	Open Camp Site
52-2-0207	Flat Rock Creek 86	Shelter with Art
52-2-0869	Flat Rock Creek 90;	Shelter with Deposit and Midden
52-2-0345	Flat Rock Creek 88 Blue Gum Forest	Shelter with Art

Flat Rock Creek 309 (AHIMS ID# 52-2-3501) is recorded as an Open Camp Site and is located approximately 100m south of the Activity Area (see Figure 3). Flat Rock Creek 86 (AHIMS ID# 52-2-0207) is recorded as a Shelter with Art and is located approximately 80m east from the Subject Area. Flat Rock Creek 90 (AHIMS

ID# 52-2-0869) is recorded as a Shelter with Deposit and Midden, and is located approximately 100m northeast from the Activity Area. Flat Rock Creek 88 Blue Gum Forest (AHIMS ID# 52-2-0345) is recorded as a Shelter with Art and is located approximately 100m northeast from the Activity Area. The proposed works associated with the goaf borehole will not harm any of the listed Aboriginal cultural heritage sites.

Step 2. Is the activity defined as a 'low impact activity', as defined by the NPW Regulation?

No.

The activity is not low impact as defined under Clause 80B (1)-(3) of the Code.

Step 3. Are there landscape features that are likely to indicate the presence of Aboriginal objects?

Yes.

The proposed investigation sites are located within the WaterNSW drinking water catchment area. A number of previous Aboriginal Cultural Heritage Assessments have been carried out within proximity to the Subject Area.

These studies suggest that the majority of the Aboriginal site types within the WaterNSW drinking water catchment areas are sandstone shelters containing art, artefacts and/ or potential archaeological deposit or sandstone rock platforms containing axe grinding grooves.

During the site assessment, no further Aboriginal cultural heritage sites were identified within the Subject Area.

Step 4: Does a desktop assessment and visual inspection confirm that there are Aboriginal objects or that they are likely?

A visual inspection was conducted by Kane Organ (Peabody Energy), Renée Regal (Discipline Manager- NSW Heritage) and Freya Gordon (Senior Ecology Consultant) on 30 August 2021 to assess the proposed goaf borehole and associated vegetation clearance (see Plate 1 and Figure 4).

No new Aboriginal objects were found during the survey. The desktop assessment and visual inspection has confirmed that there are no known Aboriginal objects or sites within the Activity Area of the proposed goaf borehole. No Aboriginal cultural heritage sites will be harmed by the proposed goaf borehole.



Plate 1: General photograph of proposed area for Goaf Borehole, facing north west.

Step 5: Can the activity be relocated away from the known/ Likely area for Aboriginal Objects?

Not applicable. The results of this assessment indicate there is a negligible risk of harm to Aboriginal objects, meaning harm is avoided, so there is no compelling reason to avoid the activity.

Step 6. Further investigations and impact assessment

No Aboriginal objects were discovered during the site inspection survey. The desktop assessment and site inspection undertaken in accordance with *the Code* and consideration of previous Aboriginal cultural heritage assessments indicates that no Aboriginal objects are located within immediate proximity to the proposed Activity Area. Therefore, no further investigations or impact assessment is necessary.

The following recommendations are made:

- Standard work procedures for protection and reporting of Aboriginal objects of Metropolitan Colliery and sites be implemented;
- Should Aboriginal objects or sites be identified during any works, works should cease in the vicinity of the find and a qualified archaeologist should be consulted on appropriate management actions.

In conclusion there are no constraints relating to Aboriginal cultural heritage for the proposed investigation works, and the works may proceed with caution.

Please do not hesitate to contact me if you would like to discuss this assessment further.

Yours sincerely,




Kosta Contos

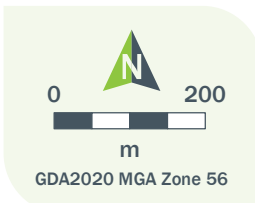
Heritage Consultant

Niche Environment and Heritage



Drawn by: Neil Berry File: T:\spatial\projects\6900\6913_GoafBoreholes_DD_NSWMapsreport\DD6913_Figure_1_LocationMap.mxd Last updated: 8/23/2021 4:14:06 PM

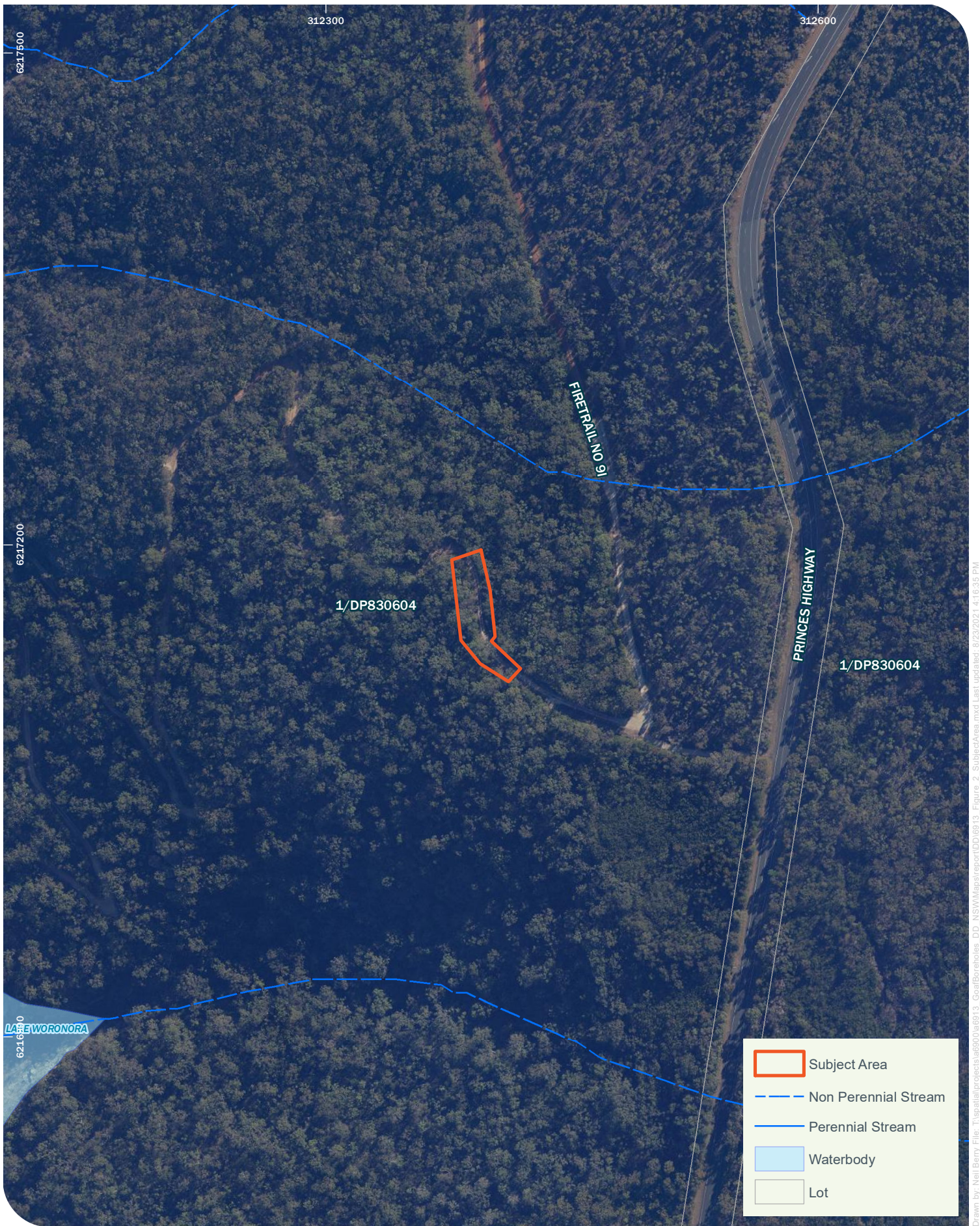
 Subject Area



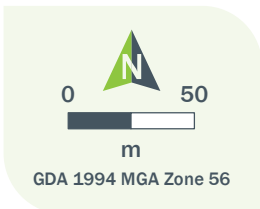
Niche PM: Renée Regal
 Niche Proj. #: 6913
 Client: Peabody Energy

Location Map
 LW 305 Goaf Borehole

Figure 1



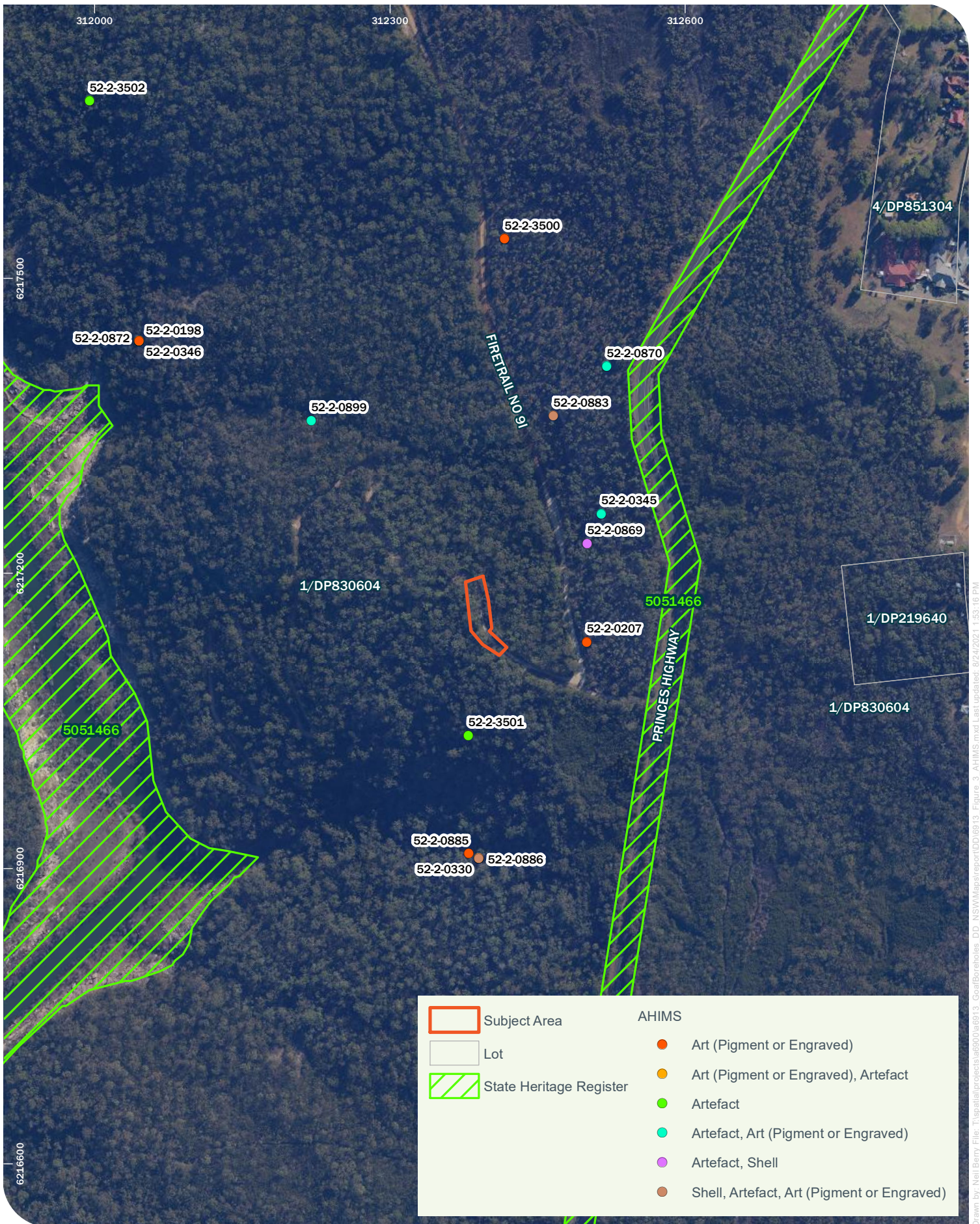
Drawn by: Neil Berry File: T:\spatial\projects\6900\6913_GoafBoreholes_DD_NSWMap\report\DD6913_Figure_2_SubjectArea.mxd Last updated: 8/23/2021 4:16:35 PM







Niche PM: Renée Regal
 Niche Proj. #: 6913
 Client: Peabody Energy

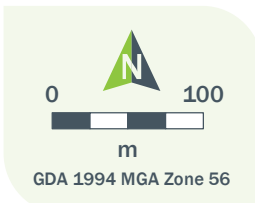
**Location of the Subject Area
 LW 305 Goaf Borehole**

Figure 2



	Subject Area	AHIMS
	Lot	 Art (Pigment or Engraved)
	State Heritage Register	 Art (Pigment or Engraved), Artefact
		 Artefact
		 Artefact, Art (Pigment or Engraved)
		 Artefact, Shell
		 Shell, Artefact, Art (Pigment or Engraved)

Drawn by: Neil Berry File: T:\spatial\projects\6913_GoafBoreholes_DD_NSWMap\report\DD6913_Figure_3_AHIMS.mxd Last updated: 8/24/2021 1:53:16 PM



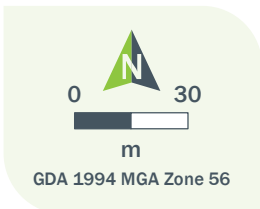
Niche PM: Renée Regal
 Niche Proj. #: 6913
 Client: Peabody Energy

Location of AHIMS Sites and Heritage Items
 LW 305 Goaf Borehole

Figure 3



Drawn by: Neil Berry File: T:\spatial\projects\ae600\ae6913_GoafBoreholes_DD_NSWMMaps\report\DD6913_Figure_5_Steinspection.mxd Last updated: 9/27/2021 12:44:39 PM



Site inspection results and Aboriginal heritage constraints
LW 305 Goaf Borehole

Niche PM: Renée Regal
Niche Proj. #: 6913
Client: Peabody Energy

Figure 4