



## **APPENDIX O**

### Land Contamination Assessment

South32 Limited  
Land Contamination Review

Dendrobium Mine - Plan for the Future:  
Coal for Steelmaking

15 April 2019  
54463 – 113139 (Rev 0)  
JBS&G Australia Pty Ltd

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Stage 1 Preliminary Assessment of Proposed Carpark

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Photolog from Site Inspection

## List of Abbreviations

A list of the common abbreviations used throughout this report is provided below.

ACM – Asbestos Containing Material  
AEC – Area of Environmental Concern  
BTEX – Benzene, Toluene, Ethylbenzene and Xylene  
COPC – Contaminant of Potential Concern  
EPA – NSW Environmental Protection Authority  
ha – Hectare  
KVCLF – Kemira Valley Coal Loading Facility  
MOP - Mining Operations Plan  
OCPs – Organochlorine Pesticides  
PAHs – Polycyclic Aromatic Hydrocarbons  
PCBs – Polychlorinated Biphenyls  
SEPP 55 – State Environmental Planning Policy No 55 – Remediation of Land  
SMRS – Southern Mines Rescue Service  
South32 – South32 Limited  
TPH – Total Petroleum Hydrocarbons



## Executive Summary

JBS&G Australia Pty Ltd (JBS&G) was engaged by South32 Limited (South32, the client) to undertake a review of the potential for land contamination on the land the subject of the Dendrobium Mine - Plan for the Future: Coal for Steelmaking (the Project). The assessment is to meet the conditions of clause 7(1) of *State Environmental Planning Policy No 55 – Remediation of Land* (SEPP 55), that is:

- whether the land is contaminated, and
- if the land is contaminated whether the land is suitable for the Project, and
- if the land requires remediation whether the land will be remediated before the land is used for that purpose.

The only part of the Project that constitutes a 'change of use' under SEPP 55, and contamination is a potential constraint, is the development of a proposed carpark for the Dendrobium Pit Top. A Stage 1 - Preliminary Investigation has been completed for this land (**Attachment A**). It is noted that the mining areas, Area 5 and Area 6, constitute a 'change of use' under SEPP 55, and that contamination is not a potential constraint.

Based on the results of the assessment, and subject to the limitations stated in **Section 7**, for the Project area, it is likely that any potential contamination (existing under pavement or on unsealed work and storage areas) is not significant. Preferential pathways leading off-site, where they exist, are controlled by site environmental management plans.

No remediation to make the sites suitable for supporting the proposed extension of the underground mining operations has been identified.

During any future ground disturbance works, it is recommended that work, health, safety and environmental management controls (including protocols to manage unexpected finds) should be implemented.

# 1 Introduction

## 1.1 Background

JBS&G Australia Pty Ltd (JBS&G) was engaged by South32 Limited (South 32, the client) to undertake a review of the potential for land contamination on the land the subject of the Dendrobium Mine - Plan for the Future: Coal for Steelmaking (the Project).

It is understood that South32 intends to extend mining within two proposed future mining areas known as Area 5 and Area 6 at the Dendrobium Mine (subject to approval), and preparation of this land contamination review is required to satisfy the requirements of *State Environmental Planning Policy No 55 – Remediation of Land* (SEPP 55) in support of a State Significant Development Application. The location of Project components is shown in **Figures 1 and 2**.

## 1.2 Objectives

The objective of the assessment of this land contamination review supporting the proposed extension of mining operations, is to assess the conditions for meeting clause 7(1) of SEPP 55, therefore:

- whether the land incorporating the Project area is contaminated, and
- if the land is contaminated, whether the land is suitable in its contaminated state (or will be suitable, after remediation) for the Project, and
- if the land requires remediation to be made suitable for the purpose for which the Project is proposed to be carried out, whether the land will be remediated before the land is used for that purpose.

## 1.3 Scope of Works

The scope of works completed for this assessment comprised:

- Review of available historical site information with respect to the identification of areas of environmental concern (AECs);
- Review of infrastructure information to identify site media and potential contaminant transportation pathways at the site;
- Develop and document a preliminary conceptual site model (CSM) upon which site characterisation may be based such that potential development constraints and potential remediation requirements may be quantified;
- Preparation of a Land Contamination Review report in general accordance with relevant Environmental Protection Authority (EPA) Guidelines; and
- Undertake Stage 1 - Preliminary Investigations for any part of the Project that constitutes a 'change of use' and where contamination may be an issue.

## 2 Site Conditions and Surrounding Environment

### 2.1 Site Identification

Key surface infrastructure supporting the underground mining operations include the Dendrobium Pit Top, Kemira Valley Coal Loading Facility (KVCLF), Kemira Valley Rail Line, Dendrobium Coal Preparation Plant (located within the Port Kembla Steelworks precinct), Cordeaux Pit Top and Ventilation Shafts (**Figures 1 and 2**). Public access to the areas is not permitted.

The locations of the proposed Project mining areas (namely Area 5 and Area 6) are also shown on **Figure 2**. Surface infrastructure, such as ventilation shafts, would be required within Areas 5 and 6. The underground mining areas (Area 5 and Area 6) are located within an existing mining lease (Consolidated Coal Lease [CCL] 768).

The elements of the Project that constitute a 'change of use' under SEPP 55 are the development of a proposed carpark for the Dendrobium Pit Top and the mining areas, Area 5 and Area 6.

Area 5 and Area 6 are located within the Metropolitan Special Area, with special protections afforded to the area since 1880. The history of the areas and a detailed inspection (see **Section 3.1** and **Attachment B**) did not identify contamination as a constraint to the development, and a preliminary contamination assessment is considered unnecessary.

Under SEPP 55 the proposed carpark for the Dendrobium Pit Top component of the Project does warrant a preliminary contamination assessment and this is addressed separately in a Stage 1 - Preliminary Investigation provided in **Attachment A**.

### 2.2 Site Description

The **Dendrobium Pit Top** provides administration, workshop, and people and materials access via the Dendrobium Tunnel to the underground workings and covers an area of 9 hectares (ha). The Dendrobium Pit Top area is predominantly cleared of natural vegetation with some remnant stands of trees remaining on site. A relatively large proportion of the Dendrobium Pit Top area working and storage area is sealed. The site property boundary is characterised by steep and densely wooded areas.

The site is in proximity to the Mount Kembla Village and Kembla Heights communities.

The facility includes:

- Administration buildings and offices
- Bathhouses, both permanent and demountable structures
- Workshop, machinery and equipment storage areas
- Current Men and Materials (M&M) portal access to the underground workings via the Dendrobium Tunnel
- Five disused portals (under jurisdiction of NRE Wongawilli Colliery and sealed in 2009)
- Main transport shelter
- A sediment pond and stormwater drainage infrastructure
- A grey water treatment and oily water separation facility
- Fuel and oil storages
- Substation
- Wash bay
- Car park

- Dendrobium Tunnel subsidence repair area – Harry Graham Drive.

The dominant drainage feature is American Creek and this effectively forms the south-eastern boundary to the Dendrobium Pit Top. Clean runoff water from upslope of the site is diverted into this creek as part of the site water management strategy.

It is inferred that the Dendrobium Pit Top benches were possibly constructed with sedimentary rock spoil from mining development activity. The Dendrobium Pit Top trafficable surfaces have been stabilised over time as required with road bases and gravels.

General site runoff termed as “dirty runoff” is drained to the site oily waste treatment plant and sediment pond located on the lower bench.

Treated water is reused underground in the mining operation as per the site’s water management plan. Due to this water management strategy, it is understood the sediment pond discharges infrequently and only in heavy rainfall events.

The KVCLF is 9 ha in area and used for the coal clearance via the Kemira Valley Tunnel, and stockpiling and train loading. The KVCLF is a cleared site with rehabilitated areas predominantly grassed. The majority of roads on the site are sealed.

The KVCLF is in Kemira Valley which has been formed by Brandy and Water Creek and its tributaries draining from the steep escarpment slopes above. Clean runoff from above the site is diverted into Brandy and Water Creek, which flows through the northern edge of the site.

The site has been partly filled with coal wash in the flat areas and other fill materials (e.g. basalt, rock slag), particularly beneath the railway embankment.

The KVCLF borders naturally vegetated areas (escarpment) to the north and west and grassed pastoral lands to the east.

The facility includes:

- The Kemira Valley Bulk Haulage Portal
- Access road to portal
- Sheds
- Water pipeline to Allans Creek
- Coal conveyor
- Rill tower
- Sediment basins, buffer dam and dosing plant
- Retaining walls
- Substation
- Culverts
- Train loading facility
- Coal sizer
- A 150,000-tonne capacity stockpile
- Kemira Valley Rail Line.

The **Kemira Valley Rail Line** from the KVCLF goes eastward down a private rail easement to the BlueScope Steelworks and the Dendrobium Coal Preparation Plant.

The **Dendrobium Coal Preparation Plant** (Dendrobium CPP) is located on reclaimed coastal land within BlueScope Steel’s Port Kembla Steelworks on land owned by BlueScope Steel. The Dendrobium CPP has a capacity of 535 tonnes of coal per hour, as well as large storage areas for raw and clean coal. The coal wash from the Dendrobium CPP is emplaced as

landfill at the West Cliff Coal Wash Emplacement if alternative beneficial uses cannot be found.

Existing ventilation shafts associated with the underground mining operations are:

- **Dendrobium No. 1 Shaft** – downcast ventilation shaft providing fresh air to the mine; and
- **Dendrobium No. 2** (downcast) and **No. 3** (upcast) **Shafts**.

Dendrobium No. 1 Shaft is on private freehold land owned by Dendrobium Coal Pty Ltd, while Dendrobium No. 2 and No. 3 Shafts are located on freehold land owned and managed by WaterNSW.

Dendrobium No.1 Shaft occupies an area of 2 ha and the site is surrounded by natural bushland, with access by unsealed road. The majority of infrastructure at this site has been removed. Remaining infrastructure includes:

- A substation compound (with only footings and some cables remaining)
- Associated services and access road
- Hardstand area.

Dendrobium No. 2 and No. 3 Ventilation Shafts occupy an area of 6 ha and is accessed via the unsealed Fire Trail 6C. The site is surrounded by bushland. The facility includes:

- One upcast ventilation shaft
- Two switch-rooms and fan-houses
- One downcast ventilation shaft
- Three Fans
- A substation
- Associated services and access road
- Two concrete bridges
- Hardstand area
- Communications borehole and pit
- Four sedimentation ponds.

The **Cordeaux Pit Top** is within an area of approximately 10.7 ha and is located within the Metropolitan Special Area. Vegetation at the Cordeaux Pit Top predominantly consists of patches of introduced species as landscaping around road and hardstand areas. The site is surrounded by eucalypt forest.

The site is in care and maintenance, and infrastructure used during the operation of the Cordeaux Colliery remains at the Cordeaux Pit Top. Existing infrastructure is currently used as a storage facility and office space, for the undertaking of environmental, survey and exploration activities within Illawarra Coal tenements.

For the Project, it is proposed that upgrades to the Cordeaux Pit Top would occur to allow it to be used for personnel and materials access to Area 6. Upgrades at the Cordeaux Pit Top would include:

- upgrades to existing shafts, and development of new shafts and/or drifts to facilitate access to, ventilation of, and provision of services to underground workings in Area 6;
- development of new buildings and extensions to existing buildings (e.g. bathhouse facilities, locker facilities, administration facilities and workshop areas);
- upgrades to existing water management infrastructure, and development of new water management infrastructure; and
- upgrades to electricity distribution infrastructure.



Existing infrastructure at the Cordeaux Pit Top that is no longer required would be decommissioned and removed. Other minor upgrades would occur within the existing surface lease area and current disturbance footprint.

The underground mining areas, namely **Area 5 and Area 6**, and the **proposed ventilation shafts** are located within the Metropolitan Special Area declared under the Water NSW Act 2014. Special protections were afforded to the catchment areas surrounding dams constructed under the Upper Nepean Scheme, which commenced in 1880. Complete exclusion or restricted access was mandated by the Water Board. At the time of Upper Nepean Scheme gazettal, much of the land which now makes up the Upper Nepean catchment area was unalienated Crown land where little development had occurred.

Since 1991, Area 5 and Area 6 have been under a mining lease and the subject of exploration activities in conformance with Water NSW Special Areas Activities Approvals. The history of Area 5 and Area 6 does not indicate that contamination is an issue and a preliminary investigation was not considered necessary. The status of the areas was confirmed by a detailed site inspection undertaken by a suitably qualified and experienced environmental consultant (see **Section 3.1**, **Table 3.1** and **Attachment B**).

## 3 Conceptual Site Model

### 3.1 Potential Land Contaminating Activities

In order to assess the potential for historic or current activities within key surface infrastructure areas the following reports were reviewed:

- Environmental Management Strategy, Dendrobium Mine (Version 4, October 2017)
- Dendrobium Mine – Plan for the Future: Coal for Steelmaking Preliminary Environmental Assessment (December 2016)
- Dendrobium Mine and Cordeaux Colliery Closure Plan (September 2016)
- Field Team Emergency Preparedness and Response Plan, Exploration (Version 3, September 2016)
- Mining Operations Plan (MOP) for the Dendrobium Mine Site and Cordeaux Colliery (June 2015)
- Bush Fire Management Plan – Dendrobium Mine (March 2012)
- Preliminary Contamination Assessment of Dendrobium Mine and Kemira Valley Coal Loading Facility, Basix Environmental Solutions (March 2010)
- Preliminary Contamination Assessment of Cordeaux Colliery Pit Top and No. 3 Shaft Sites, Basix Environmental Solutions (March 2010)
- Contaminated Land Assessment, Dendrobium Mine, SEMF Pty Ltd (May 2010)
- Contamination Assessment, Dendrobium Mine, SEMF Pty Ltd (October 2009)

Based on information included in these reports, potential areas of concern and associated contaminants of concern in various areas have been identified as nominated in **Table 3.1**.

**Table 3.1 Areas of Environmental Concern and Associated Contaminants of Potential Concern**

Potential Contaminating Activities	Commentary
<b><i>Dendrobium Pit Top</i></b>	
Leakage of fuel and oil storage and dispensing facilities (particularly diesel and oil).  Leakage of oily wastes from oil sumps and oil treatment plant (at the Dendrobium Pit Top) due to deterioration of holding tanks, e.g. cracks etc.	<ul style="list-style-type: none"> <li>• With the exception of the oily waste tank, no historical underground petroleum storage infrastructure known.</li> <li>• The oily waste tank near the Dendrobium Pit Top sediment pond has undergone a contamination assessment of surrounding soil by SEMF (2009). No issues were identified.</li> <li>• There is an alarm on SCADA for the Dendrobium Pit Top oily waste tank at the waste water treatment plant to minimise potential overfilling.</li> <li>• Historical above ground diesel storage was not banded, however, contemporary storages are banded. Drummed oils are stored in banded and/or on sealed areas in temporary bunds.</li> </ul>
Contamination from historical and current spills, e.g. spills during general operations such as maintenance/storage of oily equipment on site such as miners, drift runners.	<ul style="list-style-type: none"> <li>• No significant spill events identified.</li> <li>• Potential oily water from the sealed area surrounding the workshop drains to the oily waste treatment plant located on the lower bench adjacent to the sediment pond.</li> <li>• Sediment pond has an oil boom in place.</li> <li>• In addition to the permanent banded areas, portable bunds are used for transient storage or transportation of oils and fuels around the site.</li> <li>• Weekly site inspections include assessment of any spills.</li> <li>• Spill kits in all likely spill areas.</li> <li>• Spill response and site awareness training is conducted on an annual basis at the Southern Mines Rescue Service refresher training.</li> <li>• Emergency 'Mock' scenarios are undertaken with site personnel – some of these scenarios involve containing large spills on site.</li> </ul>
Inappropriate landfilling with non-inert wastes	The location of the sediment pond and oily waste treatment plant is located on deep deposits of spent shale from the former Pioneer

Potential Contaminating Activities	Commentary
	Kerosene Works (1865-1878), however assessments (SEMF 2009) did not identify any elevated contaminant concentrations associated with the fill. Periodic clean out of site sediment traps (as required) and sediment pond (every 2-5yrs as required) attenuates build-up of high contaminant concentrations.
Historic disposal of incinerated ash or other waste (e.g. oils) from old incineration & related waste disposal practices.	The incinerator location is now a sealed car park and migration of potential soil contamination off-site or exposure to persons would be significantly attenuated.
It is understood that on at least one occasion used transformer oil may have been disposed of down the bank of American Creek near the incinerator site (located at the present car park about 20 m north of site entry) between 1969 and 1975 when the incinerator is understood to have been operating. The area is also understood to have been used for transformer oil storage.	The analytical results returned from the limited sampling conducted in May 2010 (SEMF) returned non-detect levels for the majority of analytes tested. BTEX, PCBs and phenols all returned non-detect values. PAHs returned concentrations for a number of individual analytes in both of the deeper borehole samples; however, these concentrations were below the respective guideline criteria. Various TPH (Total Petroleum Hydrocarbons) fractions were detected in both of the deeper borehole samples (0.5 m; however, these concentrations were below the current guideline criteria (National Environmental Protection Measures, 2013). This area is covered with healthy vegetation.
<b>Kemira Valley Coal Loading Facility</b>	
The site has been partly filled with coal wash in the flat areas and other fill materials (e.g. basalt, rock slag), particularly beneath the railway embankment.	Site runoff and runoff from the coal stockpile is received by the two treatment and holding ponds on site (referred to as the Buffer Dam and Sediment Pond). Discharge from the sediment pond is avoided where possible but is occasionally released as necessary in high rainfall periods.
Investigations (Basix, 2010) had identified staining on the railway line and some oil drops from used drums under the conveyor near the portal has been observed.	It was considered that the hydrocarbon contamination was localised and minor and did not represent any significant environmental or health threat.
<b>Kemira Valley Rail Line</b>	
Spills and leaks from coal transport by trains at KVCLF. Note: Oily residue was visible on train track ballast during earlier investigation. At the time, there were two known grease pots along the line (which grease the rail tracks) and so there may be some contamination at these locations (Basix, 2010).	It is inferred there may be low levels of hydrocarbon contamination along parts of the track.
<b>Dendrobium Coal Preparation Plant (CPP)</b>	
The site is located wholly within the Port Kembla Steelworks precinct which consists of heavy industrial plant surrounded by coal storage stockpiles, conveyors, access roads, buildings and other industrial plant infrastructure associated with a steelworks. Possible sources of contamination include: <ul style="list-style-type: none"> <li>• Pump stations and flocculation dosing stations</li> <li>• Diesel tanks, soluble oil tanks, chemical storages</li> <li>• Workshop area, wash down areas</li> <li>• Coal loading areas and car parks</li> <li>• Substation transformers</li> <li>• Treatment ponds</li> <li>• Storm water, sediment, treatment and mine water ponds and pond beds</li> <li>• Stockpile areas.</li> </ul>	Most of the Dendrobium CPP site is covered by concrete hard stand areas, buildings or the (lined) Webb's Lagoon, and some stockpile areas are covered by well compacted, low permeability coal, coal refuse or other fill layers. There are still, however, some potential losses to the shallow groundwater system in this area.  The coal blending yards and raw coal stockpiles both have a dirty surface runoff drainage system discharging to a long settling basin which is also known as Webb's Lagoon. After first settling in the primary and secondary basins, excess surface water discharges via an EPA licensed discharge point.

Potential Contaminating Activities	Commentary
Coal wash produced is classified as an inert waste and is able to be directly deposited to landfill without further processing.	
<b>Dendrobium Ventilation Shafts</b>	
<i>In-situ</i> corrosion of existing lead painted, galvanised metal structures present an ongoing potential contamination risk.	Clean water is diverted around the sites. Sediment ponds with underflow drainage are installed to control sediment transfer off site.
There is no above or underground bulk fuel or oil storages on site, however, minor lubricant/fuel staining of building floors has been observed at similar installations.	Any clean water from seepage generated on site is directed away from the sediment ponds.
<b>Cordeaux Pit Top</b>	
<p>Possible sources of historic contamination at Cordeaux Pit Top include:</p> <ul style="list-style-type: none"> <li>• Chemical dosing plant and storage areas</li> <li>• Diesel tanks, soluble oil tanks, and waste oil tanks</li> <li>• Workshop area</li> <li>• Coal loading area</li> <li>• Coal bins</li> <li>• Substation transformers and compressor buildings.</li> </ul>	<p>Large areas are permanently covered by pavements and buildings, with vegetation on unsealed areas.</p> <p>Hydrocarbon/chemical storages are generally banded.</p> <p>A former underground diesel storage was monitored and had no issues recorded, however was replaced. The current underground diesel tank has volume monitoring monthly to assist loss detection.</p> <p>Drainage around the workshop area and fuelling facility drains to the oily water treatment system. The system is pumped out by a licensed contractor on an as needs basis, while cleaner water from the system is discharged to a primary separator lagoon via the grease trap inlet.</p> <p>Reportedly a small area receiving runoff from the substation had vegetation growth inhibited due to leachate and/or precipitate from slag fill used as the base of the substation.</p>
Rainfall runoff	<p>The surface facilities at the Cordeaux Pit Top have been designed to prevent dirty water runoff from the Cordeaux Pit Top entering the Metropolitan Special Area. Due to the cessation of mining activities, the amount of dirty water generated at the surface facilities has significantly reduced. Water from potentially dirty areas is retained within the mine water holding dams/lagoons, with the overflow from these dams being directed into the mine's underground workings, thereby negating the need for surface disposal except during heavy rainfall events.</p> <p>Rain water runoff from clean areas (such as sealed carpark areas and high side site perimeter diversion drains) is drained to an underflow discharge sand filter lagoon system on site and passively discharged into Cordeaux Creek.</p>
<b>Underground Mining Areas 5 and Area 6 and Proposed Ventilation Shaft Areas</b>	
<p>Original vegetation remains over most of the area, except for fire trails, Picton Road, powerlines, underground gas main, public picnic and lookout area, and the Maldon-Dombarton rail corridor, as well as other minor disturbances.</p> <p>The area has been subject to extensive exploration activities as part of the proposed mining.</p>	<p>The infrastructure crossing the area has the potential to impact soils and surface runoff, however, WaterNSW provides close management of the area to prevent and mitigate the potential impacts.</p> <p>In relation to assessment and exploration activities by South32, the conditions of an Activities Approval from WaterNSW have been implemented, in part, to minimise the risk of environmental impacts and ensure compliance with environmental requirements. This has been inclusive of minimising risk of fuels and lubricants entering sensitive watercourses/stored water, controlling the use of chemicals, and restoring areas to pre-activity state. To facilitate management of environmental incidents (if any), Illawarra Coal personnel and contractors involved in field activities undergo an induction process before field activities are undertaken, which includes the presentation of a preparedness and response plan, as well as the Illawarra Coal Project Occupational Health, Safety and Environmental Management Plan.</p> <p>A detailed site inspection undertaken on 14 June 2018 identified minor potential contamination issues within an extensive bushland water catchment: the potential use of Asbestos Containing Materials (ACM) in buildings and pipes; storage/use of sodium hypochlorite; exploratory bore drilling; and filling used in rail and road formations (see <b>Attachment B</b>).</p> <p>The inspection did not identify any land contamination that would preclude the development, nor land activities listed in Table 1 of SEPP 55 as potentially a cause of contamination.</p>

Based on the potential land contaminating activities outlined in **Table 3.1**, contaminants of potential concern (COPC) are metals, petroleum hydrocarbons (as TRH/BTEX and PAHs), OCPs, PCBs and asbestos.

### 3.2 Potentially Contaminated Media

Based on the potential land contaminating activities outlined in **Table 3.1**, soil and fill material in the sites are considered to be a potentially contaminated media based upon:

- The handling, storage and use of petroleum and other chemical products;
- The potential for fill material at the site to contain waste materials associated with historical site activities, including building demolition;
- The historical presence of electrical equipment containing PCBs (particularly transformers);
- The potential application of pesticides as part of building and rail maintenance;
- The presence of ACM from its use in buildings and utilities; and
- Presence of galvanised and lead painted structures.

Mobilisation of contamination into groundwater from potential shallow contamination under paved surfaces would be greatly reduced by the reduction in infiltration caused by the paved surfaces.

### 3.3 Potential for Migration

Contaminants generally migrate from site via a combination of windblown dusts, rainwater infiltration, groundwater migration and surface water runoff. The potential for contaminants to migrate is a combination of:

- the nature of the contaminants (solid/liquid and mobility characteristics);
- the extent of the contaminants (isolated or widespread);
- the location of the contaminants (surface soils or at depth); and
- the site topography, geology, hydrology and hydrogeology.

The potential contaminants identified as part of the site history review and previous investigations are generally in either a solid form (e.g. heavy metals, asbestos, etc.) or liquid form (e.g. fuel, lubricants, pesticides, transformer oils, etc).

Given the current ground surface (paved or vegetated) at the sites, the potential for:

- Migration of solid contaminants via windblown dust is considered low; and
- Hydrocarbon and heavy metal soil contamination, if present, is likely to be shallow and relatively localised. Pockets of such contamination from past activities, if they exist under the existing paved surfaces, would present a low risk of potential harm to environment and health.

Mobilisation of potential contamination is mitigated by the oil, soil and water management systems on the various sites.

The migration of contaminants into groundwater from potential shallow contamination under paved surfaces (if any), would be greatly attenuated by the reduction in infiltration as a result of paved surfaces.

### 3.4 Potential Exposure Pathways

Based on the COPCs identified in soils as discussed above and existing site uses, as well as consideration of future site development activities, the exposure pathways considered to be potentially complete during and following development works is the potential dermal



and oral contact to impacted soils present at shallow depths and/or accessible by future service excavations across the extent of the sites.

### **3.5 Receptors**

Potential receptors of contaminant media at the sites, and which are addressed by current Workplace Health & Safety and environmental management plans, include:

- Excavation / construction / maintenance workers conducting activities at, or in the vicinity of the sites, who may potentially be exposed to COPCs through direct contact with impacted soils and/or groundwater present within excavations and/or inhalation of dusts / fibres associated with impacted soils;
- Site users of open space and landscaped areas or non-paved areas whom may potentially be exposed to COPCs through direct contact with impacted soils and/or inhalation of dusts / fibres associated with impacted soils; and/or
- The downstream environments.

### **3.6 Preferential Pathways**

For the purpose of this assessment, preferential pathways have been identified as natural and/or man-made pathways that result in the preferential migration of COPCs as either associated with sediments or liquids. Man-made preferential pathways would principally be overland or piped stormwater flows which are currently controlled by site environmental management plans.

## 4 Future Changes of Land Use

The Project would use existing Dendrobium Mine surface facilities, as well as involve the following surface activities within Area 5 and Area 6:

- Development of surface infrastructure associated with mine ventilation and gas management and abatement, and other ancillary infrastructure, including:
  - Two additional ventilation shaft sites to support Area 5 (Site No 5A and Site No 5B), and
  - Two additional ventilation shaft sites to support Area 6 (Site No 6A and Site No 6B);
- Monitoring, rehabilitation and remediation of subsidence and other mining effects; and
- Other associated minor infrastructure, plant, equipment and activities.

Upgrades to existing infrastructure which are required to support the Project would be progressively developed in parallel with ongoing mining operations. Apart from the proposed carpark at the Dendrobium Pit Top (see **Attachment A**), upgrades to existing surface facilities would occur within the current disturbance footprint.

Following completion of Project activities, a number of post-mining land uses have been considered and may be appropriate if agreed with the final landholder and relevant stakeholders. The final land uses considered for various components of the Project include:

- Native vegetation/conservation.
- Light/heavy industrial land uses (Dendrobium CPP).
- Special-purpose historical tourism (Pit Tops and KVCLF).
- Continuation of use of the Kemira Valley Rail Line for materials handling/transportation.
- Rail terminus/line for tourist activity (KVCLF and Kemira Valley Rail Line).
- Residential development opportunities in land surrounding the Dendrobium Pit Top.
- Pastoral land.
- Wildlife/green corridor (Kemira Valley Rail Line).

With a change of land use, remediation of the land may be required to render the land suitable for these uses.

As a component of the MOP for the Dendrobium Mine, rehabilitation planning for when mining ceases is considered. For the key infrastructure, it is envisaged that all infrastructure is removed to ensure the sites are safe and free of hazardous materials (subject to heritage and alternative end land use considerations) and the sites are non-polluting in relation to water quality and soil contamination.

## 5 Conclusions

Based on the assessment of existing site information, and subject to the limitations stated in **Section 7**, for the land contamination review supporting the proposed extension of the underground mining operations, it is likely that any potential contamination (existing under pavements or on unsealed work and storage areas) is not significant, and not likely to migrate off-site. Preferential pathways, where they exist, are controlled by the implementation of site environmental management plans.

No requirement for remediation measures to make the sites suitable for supporting the proposed extension of the underground mining operations has been identified.

During any future ground disturbance works, it is recommended that work, health, safety and environmental management controls (including protocols to manage unexpected finds) should be implemented.

With a change of land use after mining ceases in the future, remediation of the land may be required to render the land suitable for alternative land uses.

## 6 References

- Environmental Management Strategy, Dendrobium Mine*. South32 Limited (Version 4), October 2017, Ref. DENMP0039
- Dendrobium Mine – Plan for the Future: Coal for Steelmaking Preliminary Environmental Assessment*, South32 Limited, December 2016, Ref. 00812397
- Dendrobium Mine and Cordeaux Colliery Closure Plan*. South32 Limited, September 2016
- Field Team Emergency Preparedness and Response Plan, Exploration*, South32 Limited, September 2016, Version 3
- Mining Operations Plan (MOP) for the Dendrobium Mine Site and Cordeaux Colliery*. South32 Limited, June 2015
- National Environment Protection (Investigation of Site Contamination) Amendment Measure*, National Environment Protection Council, 2013
- Bush Fire Management Plan – Dendrobium Mine*. Illawarra Coal, March 2012, Ref. DENMP0034 Version 4
- Guidelines for Consultants Reporting on Contaminated Sites*, NSW Office of Environment and Heritage, 2011
- Preliminary Contamination Assessment of Dendrobium Mine and Kemira Valley Coal Loading Facility*, Basix Environmental Solutions, March 2010, Ref. Report 1001 Rev 0
- Preliminary Contamination Assessment of Cordeaux Colliery Pit Top and No. 3 Shaft Sites*, Basix Environmental Solutions, March 2010, Rev0
- Contaminated Land Assessment, Dendrobium Mine*, SEMF Pty Ltd, May 2010, Project No: 3578.008
- Contamination Assessment, Dendrobium Mine*, SEMF Pty Ltd, October 2009, Project No: 3139.007
- Managing Land Contamination, Planning Guidelines, SEPP 55 – Remediation of Land*, Department of Urban Affairs and Planning and Environment Protection Authority, 1998

## 7 Limitations

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The advice herein relates only to this project and all results, conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose. This report should not be reproduced without prior approval by the client, or amended in any way without prior approval by JBS&G.

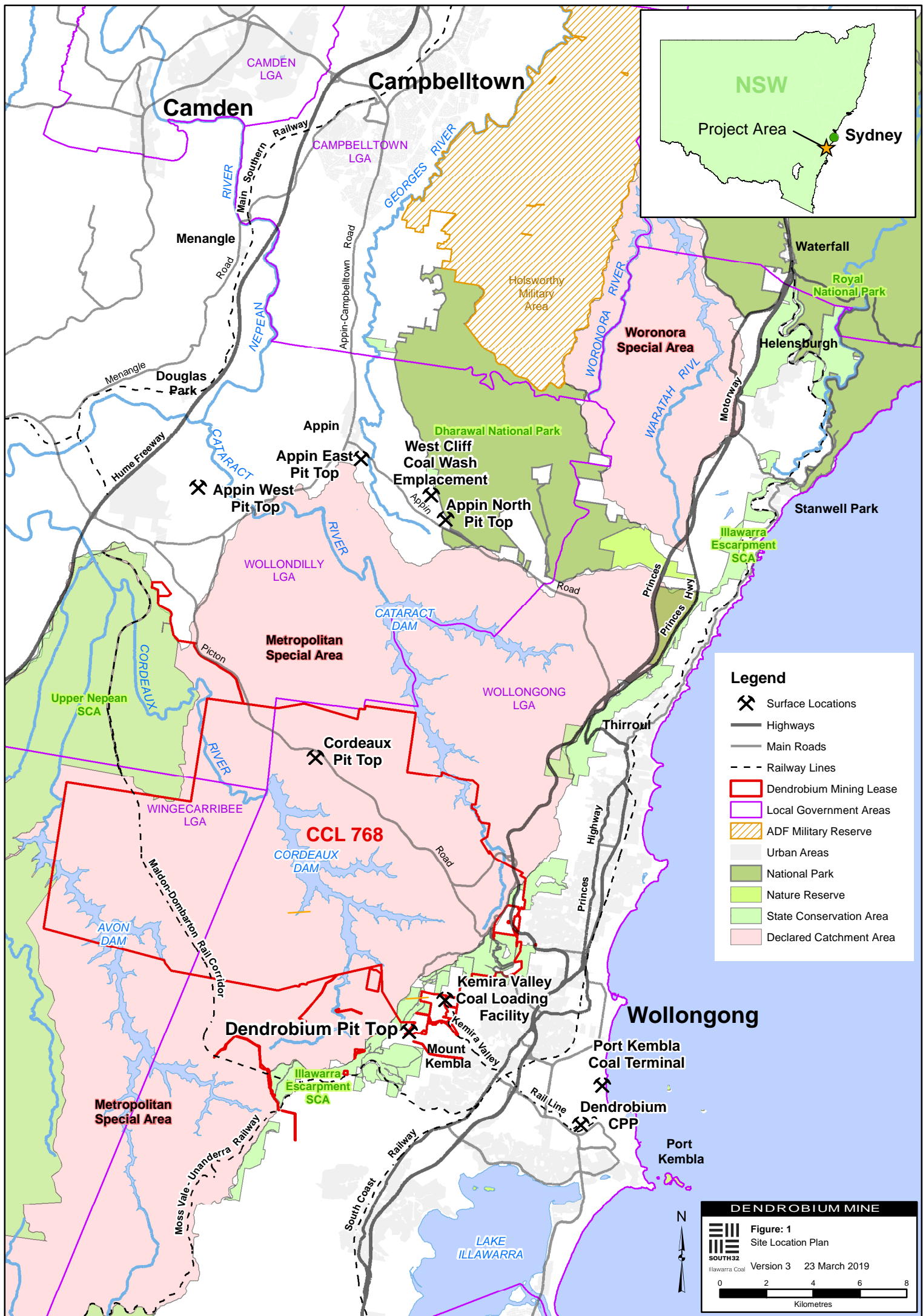
Ground conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, that were not identified in the site history and which may not be expected at the site.

Changes to the subsurface conditions may occur subsequent to the advice provided herein, through natural processes or through the intentional or accidental addition of contaminants. The advice is based on the information obtained or available at the time the advice is provided.

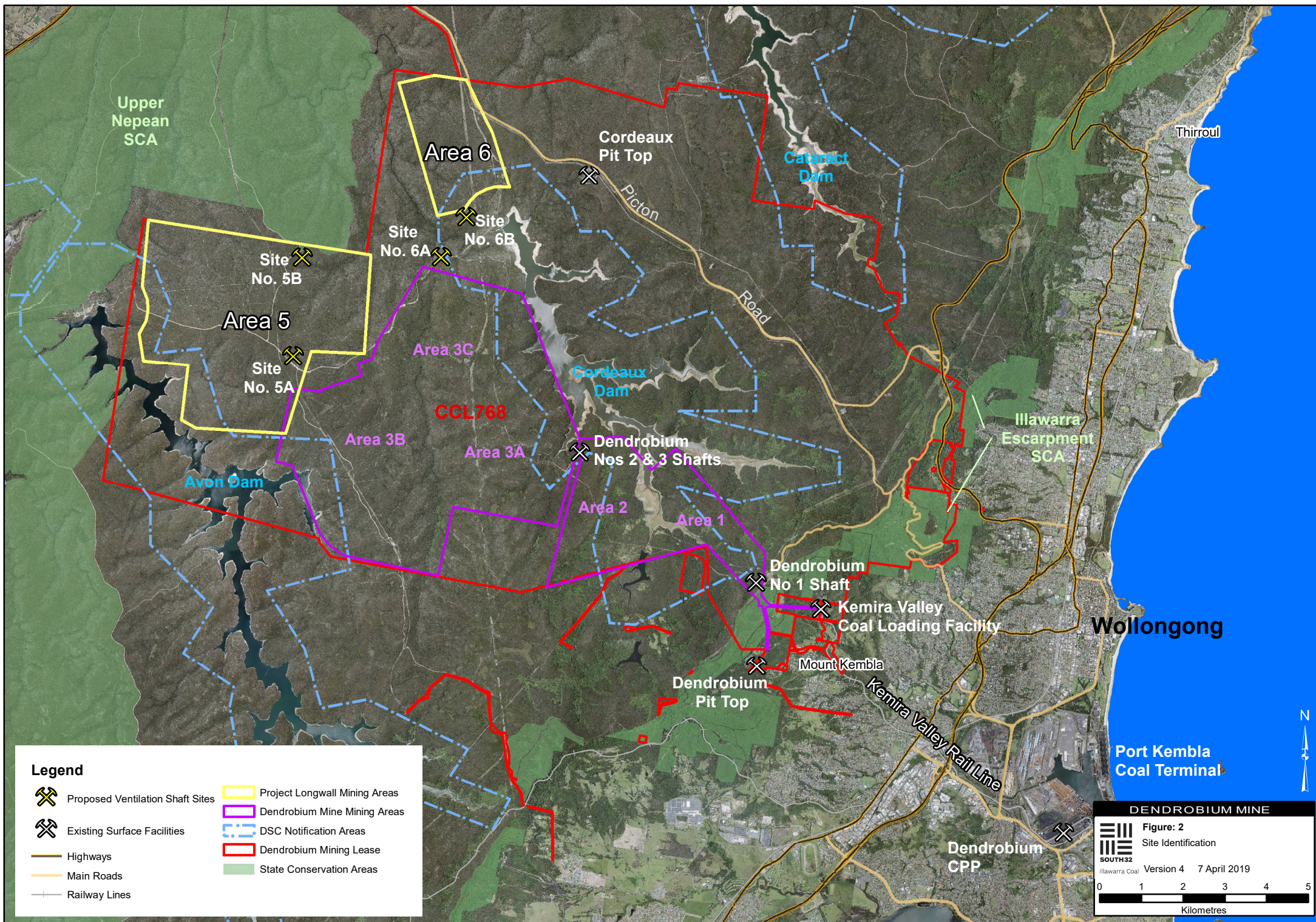
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## Figures









## **Attachment A - Stage 1 Preliminary Assessment of Proposed Carpark**



South32 Limited  
Stage 1 Preliminary Assessment of Proposed Carpark

Dendrobium Mine - Plan for the Future:  
Coal for Steelmaking

15 April 2019  
54463 – 113120 (Rev 0)  
JBS&G Australia Pty Ltd



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Appendix F – NSW and Australian Heritage Registers Information

Appendix G – Local History Walking Tour Guide

Appendix H – Wollongong City Council Planning Certificate

## List of Abbreviations

A list of the common abbreviations used throughout this report is provided below.

ACM – Asbestos Containing Material  
AEC – Area of Environmental Concern  
COPC – Contaminant of Potential Concern  
CSM – Conceptual Site Model  
EPA – NSW Environmental Protection Authority  
OCPs – Organochlorine Pesticides  
NEPC - National Environment Protection Council  
PAHs – Polycyclic Aromatic Hydrocarbons  
PCBs – Polychlorinated Biphenyls  
SEPP55 – State Environmental Planning Policy No 55 – Remediation of Land  
SCS NSW – Soil Conservation Service of NSW  
South32 – South32 Limited  
TPH – Total Petroleum Hydrocarbons

## Executive Summary

JBS&G Australia Pty Ltd (JBS&G) was engaged by South32 Limited (South32, the client) to undertake a Land Contamination Assessment of a proposed carpark associated with the Dendrobium Mine - Plan for the Future: Coal for Steelmaking (the Project).

Based on the results of the Stage 1 - Preliminary Investigation, and subject to the limitations stated in **Section 6**, there is a low potential for the site to have become contaminated as a result of historical and/or current site uses.

Based on the review of available information and site inspection, no contamination which would preclude the development of the site as a carpark has been identified.

It is recommended that work, health, safety and environmental management controls (including protocols to manage unexpected finds) should be implemented during any future ground disturbance works.

# 1 Introduction

## 1.1 Background

JBS&G Australia Pty Ltd (JBS&G) was engaged by South32 Limited (South32, the client) to undertake a Land Contamination Assessment of a proposed carpark associated with the Dendrobium Mine Plan for the Future: Coal for Steelmaking (the Project).

It is understood that South32 intends to extend mining within Area 5 and Area 6 at the Dendrobium Mine (subject to approval). The only part of the Project that constitutes a 'change of use' under *State Environmental Planning Policy No 55 – Remediation of Land* (SEPP 55) is the development of a proposed carpark for the Dendrobium Pit Top. Preparation of a Land Contamination Assessment is required for the proposed carpark to satisfy the requirements of SEPP 55 in support of a State Significant Development Application. The location of the carpark is shown in **Figures 1 and 2**.

The scope of the assessment has been developed in general accordance with relevant guidelines made or approved by the NSW Environment Protection Authority (EPA).

## 1.2 Objectives

The objective of the Land Contamination Assessment is to complete a "Stage 1 - Preliminary Investigation" for the proposed carpark expansion area in accordance with the Managing Land Contamination, Planning Guidelines, SEPP 55 – Remediation of Land, National Environment Protection (Investigation of Site Contamination) Amendment Measure 1999, National Environment Protection Council (NEPC 2013) and the NSW EPA (2011) Guidelines for Consultants Reporting on Contaminated Sites. This objective has been met by undertaking desktop review of previous land use, site inspection, identification of potentially contaminated areas, and providing recommendations for any management/remediation measures and a conclusion as to whether the land is suitable in its current state (or will be suitable, after remediation).

## 1.3 Scope of Works

The scope of works completed for this assessment comprised:

- Review and documentation of available historical site use information with respect to the identification of areas of environmental concern (AECs) and associated contaminants of potential concern (COPCs);
- Review and documentation of regional geological, hydrogeological, topographical and services infrastructure information to identify site media and potential contaminant transportation pathways at the site;
- Development and documentation of a preliminary conceptual site model (CSM) upon which subsequent site characterisation investigations may be based such that potential development constraints and potential remediation requirements may be quantified; and
- Preparation of a Stage 1 – Preliminary Investigation report in general accordance with relevant EPA Guidelines.

## 2 Site Conditions and Surrounding Environment

### 2.1 Site Identification

The location of the site is shown in **Figures 1 and 2** and has approximate co-ordinates of 298830.214 E and 6187631.789 N (MGA 56). The site has a total area of approximately 2,500 m<sup>2</sup>. Details of the site within the Dendrobium Mine are summarised in **Table 2.1**.

**Table 2.1 Summary of Site Details**

Site Portion By Address	Lot/DP Identification	Title Holder	Zoning (PLEP 2011)
Cordeaux Road, Mount Kembla	Lot 1 D.P. 1103781	Dendrobium Coal Pty Limited	Mining

### 2.2 Site Description

The site comprises an area of 2,500 m<sup>2</sup> of previously cleared land with some regrowth (see **Appendix A, Photos 1-4**), plus an existing access road from Cordeaux Road (**Photos 5 and 6**).

The part of the access road within the site is generally level and the levelling has formed a low embankment (**Photo 7**).

The site is an irregular shape, dictated by the presence of a corrugated iron building (“core shed”, **Photos 3 and 8**) and embankment in the south-east corner, as shown in **Figure 2**.

An inspection around the “core shed”, which is adjacent to the site, identified coarse coal waste (**Photo 9**) and a single fragment of potential asbestos containing materials (ACM) (100 mm x 75 mm). A “core shed” is a building used to store the drill core obtained through exploration drilling activities.

Through the site passes a 33-kV power line, including supporting stanchion (**Photo 10**), and to the east of the “core shed” a buried gas main is located (**Photo 11**).

Vehicle access from Cordeaux Road is restricted by a locked gate and the placement of concrete blocks (**Photo 12**). No dumping was apparent on the site.

Surrounding the site are bushland and grassed areas (**Photo 10**).

Reference should be made to the site photographs included in **Appendix A**.

### 2.3 Surrounding Land Use

The surrounding land uses are:

- North – Continuation of low bushland, thence open stormwater drain, Cordeaux Road, entrance to Dendrobium Mine, mine staff carpark and transformer yard. Beyond is American Creek.
- East – “Core shed” and access (circular) road, bushland and beyond residential housing and livestock grazing.
- South – Rising elevation, with bushland and access track for overhead powerlines and buried gas main. Beehives are located on the first rise.
- West – Bush-covered steep hill (part of Mt Kembla).

### 2.4 Topography

The site is located in the foothills of the Illawarra Escarpment at an elevation of approximately 215 m AHD. The site slopes generally down to the north east.

## 2.5 Geology

A review of the 1:100,000 'Wollongong-Port Hacking' Geological Survey of NSW Sheet 9029-9129 (GSNSW 1985<sup>1</sup>), indicates the geology of the area mainly comprises Illawarra Coal Measures including interbedded quartz-lithic sandstone, grey siltstone and claystone, carbonaceous claystone, clay, laminate, and coal.

Review of the 1:100,000 'Wollongong Port Hacking' Soil Landscape Survey of NSW Sheet 9029-9129 (SCS NSW 1990<sup>2</sup>), indicates the site is located in the Gwynneville Group, in the foothills of the Illawarra Escarpment and with isolated rises of the Wollongong Plains. This landscape unit is characterised by broad to moderately rounded ridges and gently to steeply inclined slopes. Soils on the upper slopes are shallow (50-100 cm), Brown Podzolic Soils, and Xanthozems.

## 2.6 Hydrology

The site is within the catchment of American Creek.

A review of available flood mapping and the site inspection did not indicate the site was flood prone.

## 2.7 Hydrogeology

A review of the registered groundwater bores from the NSW Department of Industry - Water database (accessed 22 December 2017), revealed that there were three groundwater bores within a 1.0 km radius of the site (GW100198, GW072298 and GW105494). Details of licensed wells and their location are included in **Appendix B** and are summarised in **Table 2.2**.

**Table 2.2 Groundwater Bore Summary Details**

Groundwater Bore Number	Location (approx. from central portion of site)	Intended Purpose	Drilled Depth (m bgs)	Standing Water Level (m) (bgl)	Water Bearing Zones (m) (bgl)	Geological Profile
GW100198	1 km NE	Stock, Domestic	3	N/R	N/R	N/R
GW072298	1 km E	Domestic	27	N/R	4 – 6 Fractured	0-1 Brown Clay 1-2 Brown Shale 2-6 Brown Wet Shale 6-27 Black Shale with layers of white sandstone
GW105494	1 km SE	Stock, Domestic	150	25	N/R	N/R

Notes: N/R – Not Recorded

Based on the available geological and groundwater information reported in the licence documents, it is anticipated that regional groundwater underlying the site occurs within sandstone/shale bedrock at significant depths. The groundwater is anticipated to occur within zones of relatively higher permeability associated with inconsistencies in the bedrock (faults, joints, weathered zones, etc) and this is anticipated to move, at a regional level in sympathy with the regional topography.

<sup>1</sup> Stroud W.J., Sherwin L., Roy H.N. and Baker C.J., 1985, Wollongong - Port Hacking 1:100 000 Geological Sheet 9029-9129, 1st edition. Geological Survey of New South Wales, Sydney.

<sup>2</sup> Hazelton P.A. and Tille P.J., 1990, Soil Landscapes of the Wollongong-Port Hacking 1:100,000 Sheet map and report, Soil Conservation Service of NSW, Sydney

Localised shallow subsoil groundwater seepage may also be expected, particularly following periods of significant wet weather. This would generally occur as a perched condition close to the soil-bedrock interface and/or within the initial highly weathered rock.

## **2.8 Acid Sulfate Soils**

A review of the Wollongong Acid Sulfate Soil Risk Map (Department of Land and Water Conservation, 1997<sup>3</sup>) indicates that the site is located within an area of 'no known occurrence of Acid Sulfate Soils'.

On the basis of the reported geology and the absence of identified potential risk, no further consideration of potential requirements for management of acid sulfate soils are required.

## **2.9 Meteorology**

A review of average climatic data for the nearest Bureau of Meteorology monitoring location (Port Kembla Aeronautical Meteorological Office<sup>4</sup>) indicates the site is located within the following meteorological setting:

- Mean minimum temperatures vary from 9.8°C in July to 18.7°C in February;
- Mean maximum temperatures vary from 16.7°C in July to 24.4°C in February;
- The average annual rainfall is approximately 1,260 mm with rainfall greater than 1 mm occurring on an average of 97 days per year; and
- Mean monthly rainfall varies from 55 mm in September to 184 mm in March, with the wettest periods occurring on average from January to March.

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<sup>3</sup> 1:25 000 Wollongong Acid Sulfate Soil Risk Map – Edition Two, 1997, Department of Land and Water Conservation

<sup>4</sup> [http://www.bom.gov.au/climate/averages/tables/cw\\_068053.shtml](http://www.bom.gov.au/climate/averages/tables/cw_068053.shtml) Commonwealth of Australia, Bureau of Meteorology, Product IDCJCM0028 prepared at 28 December 2017 and accessed by JBS&G on 4 January 2018.



## 3 Site History

### 3.1 Aerial Photographs

Aerial photographs from 1948, 1970, 1974, 1984, 1998, 2005 and 2017 were obtained from the Department of Land and Property Information with printed images included as **Appendix C**.

- 1948** The site appeared generally cleared, with some vegetation in drainage paths. Possible agricultural use of the land. A structure (possible residential dwelling) was located in the north-west corner of the site, and structures (possible sheds) were present in the central southern area of the site. Surrounding areas appeared less vegetated than currently. The mine appeared to be in active development, with large areas cleared of vegetation. To the east there was a cleared area followed by bushland (possible drainage path) and thence clear land and possible farm house (Gallagher's dairy farm).
- 1970** The "core shed" was present adjacent to the site, and the structures in the north-west corner and central southern areas of the site were absent. Some regrowth was apparent. The mine to the north had been developed, with the mine carpark and transformer yard present. To the east it appeared that the land has been sub-divided along Cordeaux Road and some suburban housing built.
- 1974** Similar to the 1970 photograph, with more mature trees on site. Residential housing was apparent on the north side of Cordeaux Road, east north-east of the site.
- 1984** Similar to the 1970 and 1974 photographs. Possibly some vegetation clearance in the alignment of the overhead powerlines. A large dwelling was apparent south of the original farm dwelling to the east of the site.
- 1998** Similar to the 1970, 1974 and 1984 photographs, however, with the assumed alignment of the buried gas main exhibiting disturbed vegetation and the presence of rainfall run-off controls. The gas main runs in a general north south direction, immediately to the east of the "core shed".
- 2005** Similar to the 1970, 1974, 1984 and 1998 photographs, however, there appeared to be some storage of materials on the western side of the roadway in the southern area of the site. The disturbed area of the gas main alignment appeared to have been revegetated.
- 2017** Similar to previous years, however, the storage on the site was not apparent. It is not clear but a small stockpile may have been present in the area of the previous storage.

## 3.2 Title Details

A review of historical title records was conducted on behalf of JBS&G by Scott Ashwood Pty Ltd for the site which is within Lot 1 DP 1103781. The search results are presented in **Appendix D**. The summary of historical land title records information is presented in **Table 3.1**.

**Table 3.1 Summary of Historical Title Records**

Lot 1 D.P. 1103781 – Cordeaux Road, Mount Kembla	
29.07.1915 (1915 to 1946)	Mount Kembla Collieries Limited
26.06.1946 (1946 to 2002)	Australian Iron & Steel Limited, Then Australian Iron & Steel Proprietary Limited and Now BHP Steel (AIS) Pty Limited
25.09.2002 (2002 to date)	Dendrobium Coal Pty Limited

## 3.3 EPA Records

A search of the NSW EPA's public register maintained under the *Protection of the Environment Operations Act 1997* (POEO Act) was undertaken for the subject site and surrounding area (Mount Kembla). The results of the search identified only a POEO Act licence, issued August 2000 and s.58 Licence Variation (latest 05 Sep 2013) for the Dendrobium Mine, however, not specifically related to the proposed carpark site. The search identified that there were no current or former prevention, clean-up or prohibition notices for the site and immediate surrounds.

A search was also undertaken through the EPA public contaminated land register. The search identified that there have been no notices issued for the site under the *Contaminated Land Management Act 1997* or any nearby surrounding properties (Mount Kembla).

## 3.4 Australian and NSW Heritage Register

A search of the Australian Heritage Trust database and the NSW Heritage Inventory was undertaken and the resulting records are included in **Appendix F**. The search indicated that there are a number of heritage items located within the site and on surrounding properties that have local, NSW and/or Australian heritage significance. These include the Village of Mount Kembla and properties in Kembla Heights, which are of local heritage significance.

In the vicinity of the site are reported<sup>5</sup> (**Appendix G**) to have been:

- Brownley's Orchard.
- Powder Magazine for Nebo Colliery mine explosives.
- Dairy Farm Morris family to 1940s, Barretts; 1950s - Gallaghers - supplied milk to Mount Kembla and Kembla Heights.

The land is within the Illawarra Heritage Escarpment Conservation Area listed in Schedule 5 Part 2 of *Wollongong Local Environmental Plan 2009* (see **Section 3.5** and **Appendix H**).

<sup>5</sup> Walk 1, Self-Guided Walking Tours. Historic Mining Community of Mt Kembla Village - Kembla Heights Windy Gully

### 3.5 Council Records

The Wollongong City Council (WCC) s.149 planning certificate is included in **Appendix H** for Lot 1 DP 1103781. The following is noted in the certificate:

- The Council has not been advised that any of the matters contained in section 59(2) as amended in the *Contaminated Land Management Act 1997* pertain to the land, i.e. the land is **not** the subject of:
  - a. Significantly contaminated land within the meaning of the *Contaminated Land Management Act 1997*
  - b. A management order within the meaning of the *Contaminated Land Management Act 1997*
  - c. An approved voluntary management proposal within the meaning of the *Contaminated Land Management Act 1997*
  - d. An ongoing maintenance order within the meaning of the *Contaminated Land Management Act 1997*
  - e. A site audit statement within the meaning of the *Contaminated Land Management Act 1997*.
- The land is **not** identified as containing Acid Sulfate Soils.
- The land is **not** known to be the subject of a set aside area under section 60ZC of the *Local Land Services Act 2013* (Native Vegetation Clearing Set Aside).
- The Department of Finance, Services and Innovation has not notified Council that the land is affected by the operation of sections 38 and 39 of the *Coastal Protection Act 1979*.
- The land is **not** proclaimed to be a mine subsidence district within the meaning of section 15 of the *Mine Subsidence Compensation Act 1961*.
- The land is recorded in Council's records as bushfire prone land.
- The land is within the Illawarra Heritage Escarpment Conservation Area listed in Schedule 5 Part 2 of *Wollongong Local Environmental Plan 2009*.

### 3.6 WorkCover Dangerous Goods Database

A search of licences held for the storage of dangerous goods by NSW WorkCover was not completed as a review of background documents and the site inspection did not identify the potential for storage of Schedule 11 hazardous chemicals (*Work Health and Safety Regulation 2017*) on the subject site.

### 3.7 Hazardous Materials Survey Reports

Reportedly no hazardous materials survey assessments or asbestos registers for the site are available.

### 3.8 Previous Site Contamination Investigation Information

Assessment of available information as provided by the client and held in publicly accessible records has not identified the presence of previous site investigation documents.

### 3.9 Integrity Assessment

The information obtained from formal published sources noted above has been found to be in general agreement regarding the history of the site.

Based on the range of sources and the general consistency of the historical information, it is considered that the historical assessment has an acceptable level of accuracy with respect to the potentially contaminating activities historically occurring at the site.

## 4 Conceptual Site Model

### 4.1 Potential Areas of Environmental Concern

Based on the review of site history and site inspection, general categories of environmental concern are presented in (Table 4.1.).

**Table 4.1 Areas of Environmental Concern and Associated Contaminants of Potential Concern**

Area of Environmental Concern (AEC)	Contaminants of Potential Concern (COPC)
Previous agricultural use of the land	OCPs, TPH, asbestos, heavy metals
Demolition of previous structures on the site	Heavy metals, asbestos
Importation of fill to level the site	Heavy metals, PAHs, OCPs, PCBs, TPH/BTEX, asbestos
Road construction	PAHs, TPH/BTEX

### 4.2 Potentially Contaminated Media

Based on the available site history and current site use information, soil and fill material in the site, there is considered to be a low potential for contaminated media based upon:

- The potential application of pesticides as part of historic farming activities;
- The potential for fill material at the site to contain waste materials associated with historical site activities, including building demolition;
- The presence in the surface soils of the adjacent “core shed” of coal waste and a suspected ACM fragment; and
- The result of road construction.

### 4.3 Potential for Migration

Contaminants generally migrate from site via a combination of windblown dusts, rainwater infiltration, groundwater migration and surface water runoff. The potential for contaminants to migrate is a combination of:

- The nature of the contaminants (solid/liquid and mobility characteristics);
- The extent of the contaminants (isolated or widespread);
- The location of the contaminants (surface soils or at depth); and
- The site topography, geology, hydrology and hydrogeology.

The potential contaminants identified as part of the site history review and previous investigations are generally in either a solid form (e.g. heavy metals, asbestos, etc.) and liquid form (e.g. fuel, lubricants, pesticides, etc.).

Given the current ground surface (vegetated or paved) at the site, the potential for migration of solid contaminants (if any) via windblown dust is considered low. The potential for surface water migration of contaminants and also infiltration of groundwater and migration through the soil profile is similarly low.

### 4.4 Potential Exposure Pathways

Based on the contaminants of potential concern identified in soils as discussed above, existing site uses and with consideration of future site development activities, the exposure pathways considered to be potentially complete for the site currently, during and following development works is the potential for dermal and oral contact to impacted soils (if any) as present at shallow depths and/or accessible by future service excavations across the extent of the site.

## 4.5 Receptors

Potential receptors of environmental impact present within the site which are required to be addressed with respect to the suitability of the site for the proposed carpark use include:

- Excavation / construction / maintenance workers conducting activities at or in the vicinity of the site, who may potentially be exposed to COPCs through direct contact with impacted soils and/or groundwater present within excavations and/or inhalation of dusts / fibres associated with impacted soils;
- Future site users of public open space and landscaped areas or non-paved areas whom may potentially be exposed to COPCs through direct contact with impacted soils and/or inhalation of dusts / fibres associated with impacted soils; and/or
- Down-gradient flora species in the vegetated areas.

## 4.6 Preferential Pathways

For the purpose of this assessment, preferential pathways have been identified as natural and/or man-made pathways that result in the preferential migration of COPCs as either associated with sediments or liquids.

Man-made preferential pathways would principally be overland or piped stormwater flows.

## 5 Conclusions

Based on the results of the preliminary site assessment and subject to the limitations stated in **Section 6**, there is a low potential for the site to have become contaminated as a result of historical and/or current site uses.

Based on the review of available information and site inspection, no contamination which would preclude the development of the site as a carpark has been identified.

It is recommended that work, health, safety and environmental management controls (including protocols to manage unexpected finds) should be implemented during any future ground disturbance works.

## 6 Limitations

This advice is provided for use by the client who commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties. The advice has been prepared specifically for the client for the purposes of the commission. No warranties, express or implied, are offered to any third parties and no liability will be accepted for use or interpretation of this advice by any third party.

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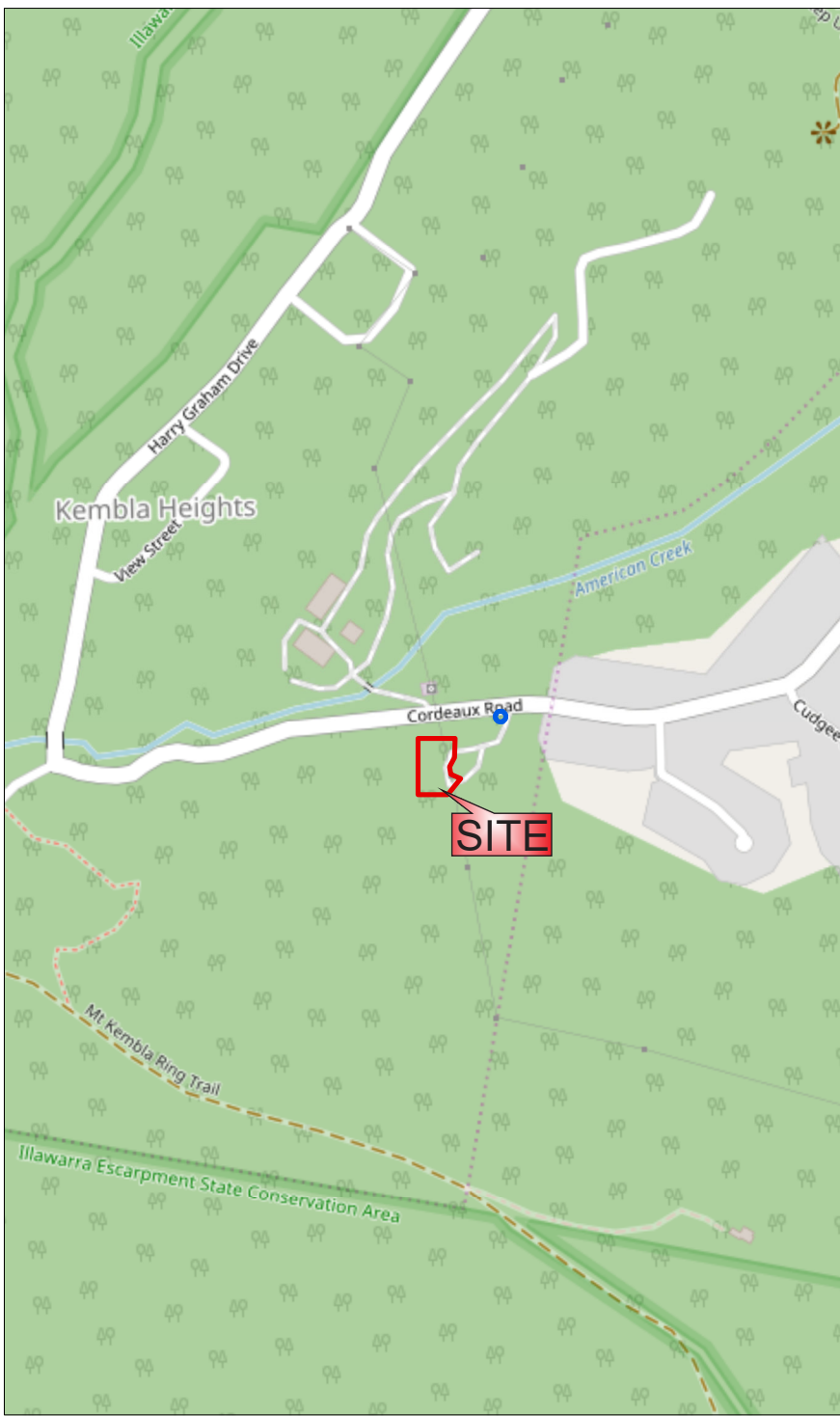
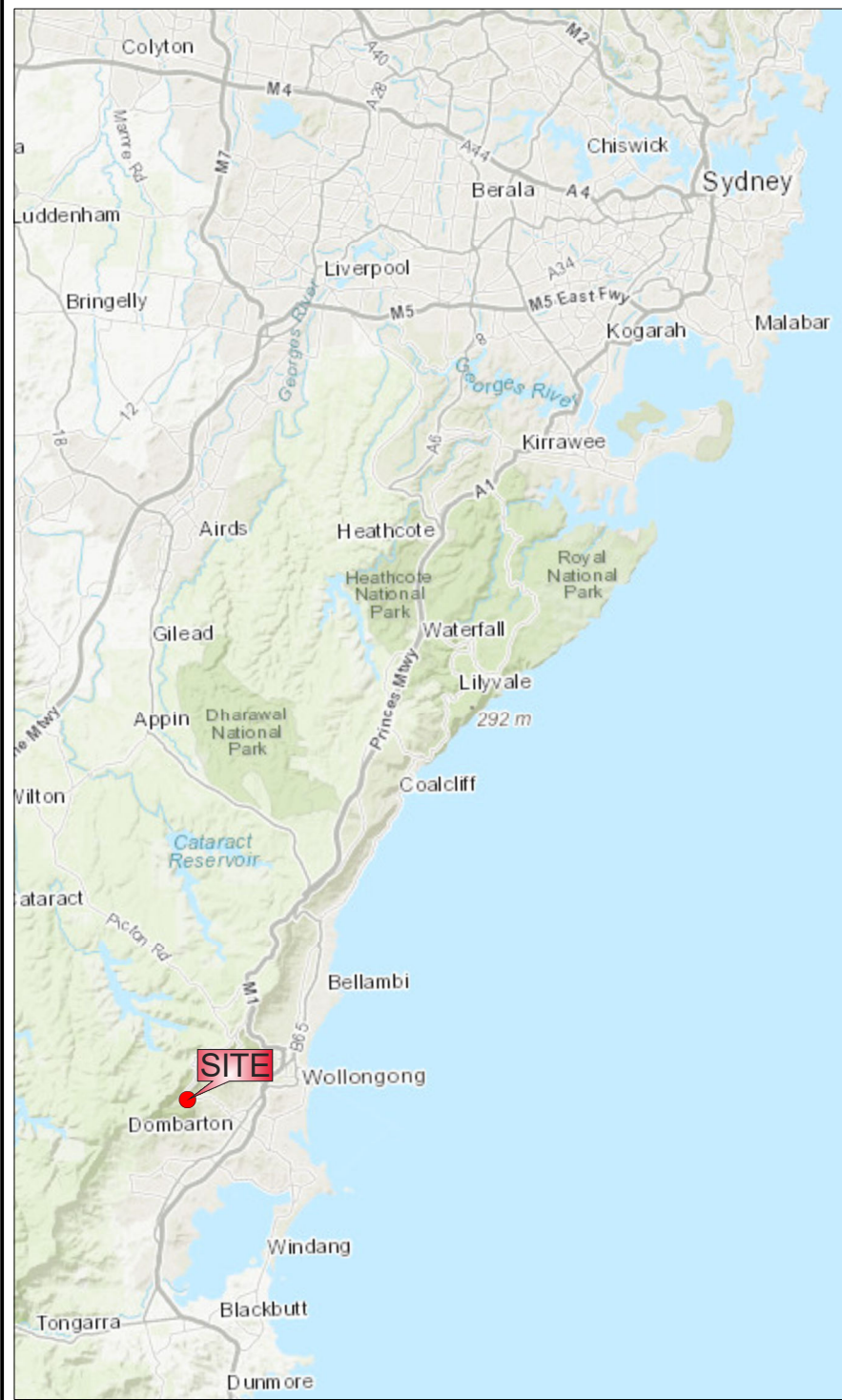
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## Figures



#### Legend:

- Approximate Proposed Car Park Expansion Area
- Proposed Entrance for the Expansion Area



Job No: 54463

Client: South32 Limited

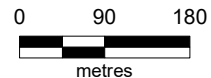
Version: R001 Rev 1

Date: 16-Apr-2019

Drawn By: FH

Checked By: SM

Scale 1:8,000



Coor. Sys. GDA 1994 MGA Zone 56

**Part of Lot 1 DP1103781  
Cordeaux Road  
Kembla Heights, NSW**

**SITE LOCATION**

**FIGURE: 1**



**Legend:**

- Approximate Proposed Car Park Expansion Area
- Proposed Entrance for the Expansion Area
- Lot Boundary



Job No: 54463

Client: South32 Limited

Version: R001 Rev 1 Date: 16-Apr-2019

Drawn By: FH Checked By: SM

Scale 1:1,250



0 10 20  
metres

Coor. Sys. GDA 1994 MGA Zone 56

**Part of Lot 1 DP1103781  
Cordeaux Road  
Kembla Heights, NSW**

**SITE LAYOUT****FIGURE: 2**

## Appendix A: Site Photographs



PHOTO 1: PANORAMA OF SITE



PHOTO 2: PANORAMA OF SITE



PHOTO 3: PANORAMA OF SITE (CORE SHED OFF-SITE)



PHOTO 4: PANORAMA OF SITE



Job No: 54463

Client: South32

Version: Rev 0

Date: 11/01/18

Drawn By: SM

Checked By: EH

Not to Scale

Coord. Sys n/a

**Dendrobium Mine**  
**Cordeaux Road, Mount Kembla**

**APPENDIX A**



**PHOTO 5: ENTRANCE GATE OFF CORDEAUX ROAD**



**PHOTO 6: ACCESS ROAD LOOKING TOWARD ENTRANCE**



**PHOTO 7: EMBANKMENT CREATED BY ROADWAY WITHIN SITE**



**PHOTO 8: CORE SHED ADJACENT TO SITE**



Job No: 54463

Client: South32

Version: Rev 0

Date: 11/01/18

Drawn By: SM

Checked By: EH

Not to Scale

Coord. Sys n/a

**Dendrobium Mine,  
Cordeaux Road, Mount Kembla**

**APPENDIX A**



**PHOTO 9: COARSE COAL WASTE ADJACENT TO CORE SHED**



**PHOTO 10: POWER LINE TRAVERSES SITE**



**PHOTO 11: GAS MAIN EAST OF CORE SHED AND UNDER ACCESS ROAD**



**PHOTO 12: CONCRETE BLOCKS AND LOCKED GATE PREVENTS UNAUTHORISED VEHICLE ACCESS TO SITE**



Job No: 54463

Client: South32

Version: Rev 0

Date: 11/01/18

Drawn By: SM

Checked By: EH

Not to Scale

Coord. Sys n/a

**Dendrobium Mine  
Cordeaux Road, Mount Kembla**

**APPENDIX A**

## **Appendix B: Registered Groundwater Bore Search Results**



# NSW Office of Water

## Work Summary

GW100198

Licence: 10BL150454	Licence Status: CONVERTED
Authorised Purpose(s): STOCK,DOMESTIC Intended Purpose(s): STOCK, DOMESTIC	
Work Type: Bore	
Work Status:	
Construct.Method:	
Owner Type:	
Commenced Date:	Final Depth: 3.00 m
Completion Date: 01/01/1994	Drilled Depth:
Contractor Name:	
Driller:	
Assistant Driller:	
Property: WILSON 268 CORDEAUX RD MOUNT KEMBLA 2526 NSW	Standing Water Level:
GWMA: - GW Zone: -	Salinity: Yield:

### Site Details

Site Chosen By:			
County Form A: CAMDE Licensed: CAMDEN		Parish CAMDE.31 KEMBLA	Cadastre 101 717057 Whole Lot 101/717057
Region: 10 - Sydney South Coast		CMA Map:	
River Basin: - Unknown Area/District:	Grid Zone:	Scale:	
Elevation: 0.00 m (A.H.D.) Elevation Source: Unknown	Northing: 6187846.0 Easting: 299744.0	Latitude: 34°25'53.3"S Longitude: 150°49'14.2"E	
GS Map: -	MGA Zone: 0	Coordinate Source: GIS - Geographic Information System	

### Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1	1	Casing		-0.30	3.00	76			

### Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
----------	--------	---------------	----------	------------	------------	-------------	----------------	---------------	-----------------

### Geologists Log

### Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
----------	--------	---------------	----------------------	---------------------	----------

### Remarks

01/01/1994: Form A Remarks:

FORM "AG"

**\*\*\* End of GW100198 \*\*\***

**Warning To Clients:** This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

# NSW Office of Water

## Work Summary

GW105494

Licence: 10BL162576	Licence Status: CONVERTED
Authorised Purpose(s): STOCK,DOMESTIC Intended Purpose(s): STOCK, DOMESTIC	
Work Type: Bore	
Work Status:	
Construct.Method:	
Owner Type:	
Commenced Date:	Final Depth:
Completion Date: 07/02/2005	Drilled Depth:
Contractor Name:	
Driller:	
Assistant Driller:	
Property: MORRIS STAFF RD UNANDERRA 2526	Standing Water Level: 25.000
GWMA: -	Salinity:
GW Zone: -	Yield:

### Site Details

Site Chosen By:	County Form A: CAMDE Licensed: CAMDEN	Parish CAMDE.31 KEMBLA	Cadastre Whole Lot 1//794558
Region: 10 - Sydney South Coast	CMA Map: 9029-2S		
River Basin: 214 - WOLLONGONG COAST Area/District:	Grid Zone:	Scale:	
Elevation: 0.00 m (A.H.D.) Elevation Source: (Unknown)	Northing: 6186783.0 Easting: 299697.0	Latitude: 34°26'27.8"S Longitude: 150°49'11.4"E	
GS Map: -	MGA Zone: 0	Coordinate Source: Unknown	

### Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel  
Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	150.00	0			Unknown
1	1	Casing	Steel	0.00	0.00	130			

### Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
----------	--------	---------------	----------	------------	------------	-------------	----------------	---------------	-----------------

### Geologists Log

### Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
----------	--------	---------------	----------------------	---------------------	----------

### Remarks

02/11/2009: no form A in file

**\*\*\* End of GW105494 \*\*\***

**Warning To Clients:** This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

# NSW Office of Water

## Work Summary

GW072298

Licence:	Licence Status:
Authorised Purpose(s): Intended Purpose(s): DOMESTIC	
Work Type: Bore	
Work Status:	
Construct.Method: Rotary Air	
Owner Type: Private	
Commenced Date:	Final Depth: 27.00 m
Completion Date: 15/12/1994	Drilled Depth: 27.00 m
Contractor Name:	
Driller:	
Assistant Driller:	
Property:	Standing Water Level (m):
GWMA:	Salinity Description:
GW Zone:	Yield (L/s):

### Site Details

Site Chosen By:				
Form A: CAMDE Licensed:		County CAMDE	Parish CAMDE.031	Cadastre L6 DP751278
Region: 10 - Sydney South Coast		CMA Map:		
River Basin: 214 - WOLLONGONG COAST Area/District:		Grid Zone:		Scale:
Elevation: 0.00 m (A.H.D.) Elevation Source: Unknown		Northing: 6187445.0 Easting: 299913.0		Latitude: 34°26'06.5"S Longitude: 150°49'20.5"E
GS Map: -		MGA Zone: 0		Coordinate Source: GD.,ACC.GIS

### Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Annulus	(Unknown)	4.00	6.00				
1	1	Casing	P.V.C.	-0.30	6.00	150			Driven into Hole
1	1	Opening	Slots	4.00	6.00	150		1	Sawn, SL: 100.0mm, A: 0.05mm

### Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
4.00	6.00	2.00	Fractured	6.00		0.05			

### Geologists Log

### Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	1.00	1.00	Brown Clay	Clay	
1.00	2.00	1.00	Brown Shale	Shale	
2.00	6.00	4.00	Brown Wet Shale	Shale	
6.00	27.00	21.00	Black Shale With Layers Of White	Shale	

			Sandstone		
--	--	--	-----------	--	--

Remarks



\*\*\* End of GW072298 \*\*\*

Warning To Clients: This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.




## Appendix C: Historical Aerial Photographs



- Legend:**
-  Approximate Proposed Car Park Expansion Area
  -  Proposed Entrance for the Expansion Area



Job No: 54463	
Client: Illawara Coal	
Version: Aerials	Date: 18-Dec-2017
Drawn By: AV	Checked By: EH

Scale 1:2,000 

02040

metres

Coor. Sys. GDA 1994 MGA Zone 56



Part of Lot 1 DP1103781

HISTORICAL AERIAL  
PHOTOGRAPH - 1948

FIGURE: 1948







- Legend:**
-  Approximate Proposed Car Park Expansion Area
  -  Proposed Entrance for the Expansion Area



Job No: 54463	
Client: Illawara Coal	
Version: Aerials	Date: 18-Dec-2017
Drawn By: AV	Checked By: EH

Scale 1:2,000 

02040



metres

Coor. Sys. GDA 1994 MGA Zone 56



**Part of Lot 1 DP1103781**

**HISTORICAL AERIAL  
PHOTOGRAPH - 1970**

**FIGURE: 1970**




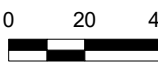


- Legend:**
-  Approximate Proposed Car Park Expansion Area
  -  Proposed Entrance for the Expansion Area



Job No: 54463	
Client: Illawara Coal	
Version: Aerials	Date: 18-Dec-2017
Drawn By: AV	Checked By: EH

Scale 1:2,000 

  
metres

Coor. Sys. GDA 1994 MGA Zone 56



**Part of Lot 1 DP1103781**

**HISTORICAL AERIAL  
PHOTOGRAPH - 1974**

**FIGURE: 1974**




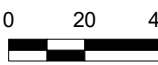


- Legend:**
-  Approximate Proposed Car Park Expansion Area
  -  Proposed Entrance for the Expansion Area



Job No: 54463	
Client: Illawara Coal	
Version: Aerials	Date: 18-Dec-2017
Drawn By: AV	Checked By: EH

Scale 1:2,000 

  
0 20 40  
metres

Coor. Sys. GDA 1994 MGA Zone 56



**Part of Lot 1 DP1103781**

**HISTORICAL AERIAL  
PHOTOGRAPH - 1984**

**FIGURE: 1984**







- Legend:**
-  Approximate Proposed Car Park Expansion Area
  -  Proposed Entrance for the Expansion Area



Job No: 54463	
Client: Illawara Coal	
Version: Aerials	Date: 18-Dec-2017
Drawn By: AV	Checked By: EH

Scale 1:2,000 

02040



metres

Coor. Sys. GDA 1994 MGA Zone 56

**Part of Lot 1 DP1103781**



**HISTORICAL AERIAL PHOTOGRAPH - 1998**

**FIGURE: 1998**





**Legend:**


-  Approximate Proposed Car Park Expansion Area
-  Proposed Entrance for the Expansion Area




Job No: 54463

Client: Illawara Coal

Version: Aerials	Date: 18-Dec-2017
Drawn By: AV	Checked By: EH

Scale 1:2,000 

  
0 20 40  
metres

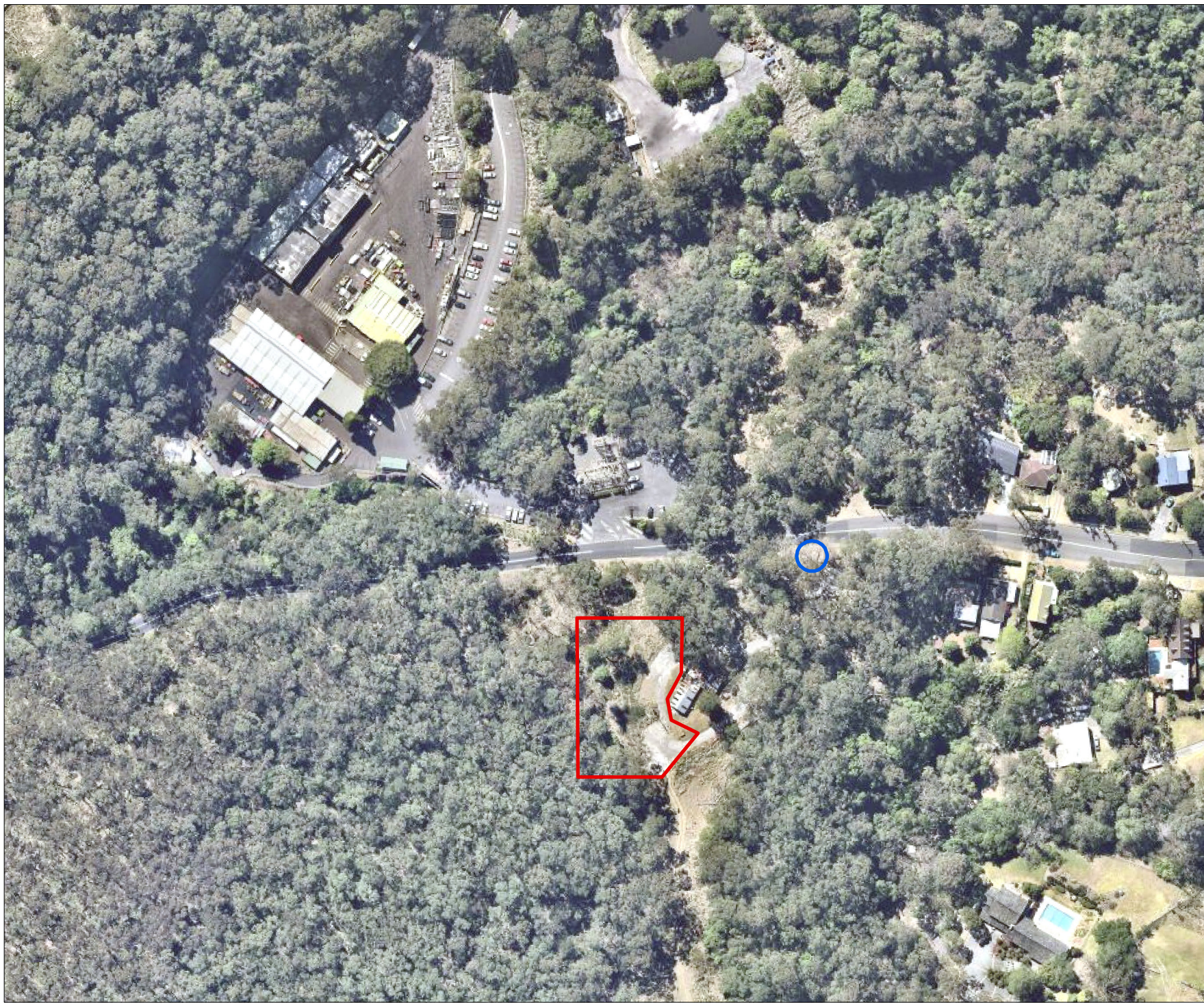
Coor. Sys. GDA 1994 MGA Zone 56

**Part of Lot 1 DP1103781**



**HISTORICAL AERIAL  
PHOTOGRAPH - 2005**

**FIGURE: 2005**





**Legend:**

-  Approximate Proposed Car Park Expansion Area
-  Proposed Entrance for the Expansion Area



Job No: 54463

Client: Illawara Coal

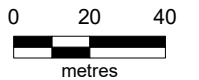
Version: Aerials

Date: 18-Dec-2017

Drawn By: AV

Checked By: EH

Scale 1:2,000



Coor. Sys. GDA 1994 MGA Zone 56

**Part of Lot 1 DP1103781**

**HISTORICAL AERIAL  
PHOTOGRAPH - 2017**

**FIGURE: 2017**



## Appendix D: Historical Title Records

**ABN: 42 166 543 255**  
**Ph: 02 9099 7400**  
**Fax: 02 9232 7141**  
(Ph: 0412 199 304)

**Level 14, 135 King Street, Sydney**  
**Sydney 2000**  
**GPO Box 4103 Sydney NSW 2001**  
**DX 967 Sydney**

**Summary of Owners Report**

**LRS NSW (Formerly LPI)**

**Sydney**

**Address: - Cordeaux Road, Mount Kembla**

**Description: - Lot 1 D.P. 1103781**

<b><u>Date of Acquisition and term held</u></b>	<b><u>Registered Proprietor(s) &amp; Occupations where available</u></b>	<b><u>Reference to Title at Acquisition and sale</u></b>
29.07.1915 (1915 to 1946)	Mount Kembla Collieries Limited	Book 1063 No. 252
26.06.1946 (1946 to 2002)	Australian Iron & Steel Limited Then Australian Iron & Steel Proprietary Limited Now BHP Steel (AIS) Pty Limited	Book 1992 No. 219
25.09.2002 (2002 to date)	# Dendrobium Coal Pty Limited	Book 4364 No. 378 Now 1/1103781

**# Denotes Current Registered Proprietor**

**Leases: - NIL**

**Easements: -**

- 10.11.1992 (D.P. 646915 Easement for Pipeline 4 metres wide
- 21.12.2001 (D.P. 1016610 & Gazette) Pipeline Easement 20 wide

Yours Sincerely  
Mark Groll  
20 December 2017

## Appendix E: EPA Database Records Search Results

Number	Name	Location	Type	Status	Issued date
3241	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	POEO licence	Issued	1-Aug-00
1007305	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	30-Aug-01
1013588	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	20-Dec-01
1023750	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	9-Jan-03
1027351	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	26-Aug-03
1037647	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	9-Sep-04
1040989	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	11-Oct-04
1043713	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	13-Jan-05
1046243	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	12-May-05
1050667	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	31-Aug-05
1053902	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	23-Nov-05
1061069	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	14-Sep-06
1067616	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	12-Dec-06
1071389	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	27-Jun-07
1077998	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	25-Sep-08
1096988	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	5-Mar-09
1104174	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	2-Nov-09
1117496	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	29-Oct-10
1128025	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	12-May-11
1129879	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	30-Jun-11
1500739	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	8-Aug-11
1503454	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	16-Jan-12
1515435	DENDROBIUM COAL PTY LTD	CORDEAUX ROAD, MOUNT KEMBLA, NSW 2526	s.58 Licence Variation	Issued	5-Sep-13

## **Appendix F: NSW and Australian Heritage Registers Information**



[Home](#) > [Topics](#) > [Heritage places and items](#) > [Search for heritage](#)

# Search for NSW heritage

[Return to search page where you can refine/broaden your search.](#)

## Statutory listed items

Information and items listed in the State Heritage Inventory come from a number of sources. This means that there may be several entries for the same heritage item in the database. For clarity, the search results have been divided into three sections.

- **Section 1** - contains Aboriginal Places declared by the **Minister for the Environment** under the National Parks and Wildlife Act. This information is provided by the Heritage Division.
- **Section 2** - contains heritage items listed by the **Heritage Council of NSW** under the NSW Heritage Act. This includes listing on the State Heritage Register, an Interim Heritage Order or protected under section 136 of the NSW Heritage Act. This information is provided by the Heritage Division.
- **Section 3** - contains items listed by **local councils** on Local Environmental Plans under the Environmental Planning and Assessment Act, 1979 and **State government agencies** under s.170 of the Heritage Act. This information is provided by local councils and State government agencies.

## Section 1. Aboriginal Places listed under the National Parks and Wildlife Act.

Your search did not return any matching results.

## Section 2. Items listed under the NSW Heritage Act.

Your search did not return any matching results.

## Section 3. Items listed by Local Government and State Agencies.

Your search returned 11 records.

Item name	Address	Suburb	LGA	Information source
<a href="#"><u>4 Cottages and Gardens</u></a>	Lot 17 Farmborough Road	Kembla Heights	Wollo ngong City	LGOV
<a href="#"><u>Cemetery</u></a>	Cordeaux Road, Windy Gully	Kembla Heights	Wollo ngong City	LGOV
<a href="#"><u>Former Post Office</u></a>	Harry Graham Drive	Kembla Heights	Wollo ngong City	LGOV
<a href="#"><u>General Store</u></a>		Kembla Heights	Wollo ngong City	GAZ
<a href="#"><u>House</u></a>	Lot 1 Harry Graham Drive	Kembla Heights	Wollo ngong City	LGOV
<a href="#"><u>Mine Manager's residence</u></a>	East of Harry Graham Drive	Kembla Heights	Wollo ngong City	LGOV



<b><u>Mt Kembla Colliery Including Site of Mine workings, Portal, Mine Air Shaft and Pit Pony Stables</u></b>	Harry Graham Drive	Kembla Heights	Wollongong City	LGOV
<b><u>Nebo Colliery*</u></b>	Harry Graham Drive	Kembla Heights	Wollongong City	LGOV
<b><u>Pit Pony Stables</u></b>	West end of Farmborough Road	Kembla Heights	Wollongong City	LGOV
<b><u>Row of Miners' Cottages and club room</u></b>	Cordeaux Road	Kembla Heights	Wollongong City	LGOV
<b><u>Site of Pioneer Kerosene Works</u></b>	Between American Creek and Cordeaux Road	Kembla Heights	Wollongong City	LGOV

There was a total of 11 records matching your search criteria.

**Key:**

LGA = Local Government Area

GAZ= NSW Government Gazette (statutory listings prior to 1997), HGA = Heritage Grant Application, HS = Heritage Study, LGOV = Local Government, SGOV = State Government Agency.

**Note:** While the Heritage Division seeks to keep the Inventory up to date, it is reliant on State agencies and local councils to provide their data. Always check with the relevant State agency or local council for the most up-to-date information.

## Search Results

12 results found.

<a href="#">Berkeley Nature Reserve</a> Holborn St	Berkeley, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
<a href="#">Five Islands Nature Reserve</a>	Port Kembla, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
<a href="#">Illawarra Escarpment</a> Princes Hwy	Wollongong, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
<a href="#">Illawarra Lake, Foreshore and Catchment</a> Princes Hwy	Dapto, NSW, Australia	(Rejected Place) Register of the National Estate (Non-statutory archive)
<a href="#">Indigenous Place</a>	Mount Kembla, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
<a href="#">Indigenous Place</a>	Port Kembla, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
<a href="#">Indigenous Place</a>	Wilton, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
<a href="#">Port Kembla Copper Refining and Smelting Area</a> Military Rd	Port Kembla, NSW, Australia	(Nomination now ineligible for PPAL) National Heritage List
<a href="#">Port Kembla Telephone Exchange Old Building</a> Five Islands Rd	Port Kembla, NSW, Australia	(Interim list) Register of the National Estate (Non-statutory archive)
<a href="#">Port Kembla Telephone Exchange Old Building</a> Five Islands Rd	Port Kembla, NSW, Australia	(Ineligible place) Commonwealth Heritage List
<a href="#">Red Point Geological Site</a> Military Rd	Port Kembla, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

<a href="#">Village of Mount Kembla</a> Cordeaux Rd	Mount Kembla, NSW, <a href="#">(Indicative Place)</a> Australia	Register of the National Estate (Non-statutory archive)
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Report Produced: Thu Jan 11 11:54:19 2018

## **Appendix G: Local History Walking Tour Guide**

- 14 Catholic Church** St Clement's, Patron saint of miners 1894 -1981, built on the site called 'The Willows' on private property
- 15 Dairy Farm** Morris family to 1940's, Barrett's; 1950's - Gallagher's - supplied milk to Mt Kembla and Kembla Heights
- 16 Powder Magazine for Nebo Colliery** mine explosives were kept here
- 17 Dendrobium Mine Main Buildings** 2001 newly refurbished mine offices & works buildings; near original kerosene works. Formerly Nebo Colliery 1946 - 1970
- 18 Brownley's Orchard**
- 19 Saw Mill\*** no remains, on private property
- 20 Farmhouse** Harry Lehaney then Rees - recently renovated
- 21 Stafford's Farmhouse 1840's** additions over time have disguised this little farmhouse.
- 22 Miner's Cottage** remains in the original style - on private property
- 23 Shop** Jack James (blacklisted during miners' strike)
- 24 Blacksmith\*** Benjamin Road
- 25 Site of old Oxley family home** Lock Lomond
- 26 Miner's Cottage** 13 Benjamin Road - recently renovated
- 27 Miner's Cottage** 12 James Rd (restored)
- 28 Home** Mrs May Perry (Mr Fred Kirkwood's sister) born in 1899. May had limited recollections of the mine disaster of 1902. Died aged 107 years in 2007

\* Denotes no remains present

## Mt Kembla Area History Timeline

1770	25th April Lt. James Cook notes 'Hat Hill' in ship's log, hill shaped like Admiral's Hat
1810	Cedar getters active in area
1818	First land grants
1820's	Small, self-sufficient farms
1840's	The village of American Creek was formed
1849	Oil bearing shale found by Rev W B Clarke
1858	Church of England built
1859	First school 'Violet Hill' - also the name given to the area
1864	Methodist Church built in Kembla Heights
1865 to 1878	Kerosene oil was refined on the site of the present Dendrobium Mine Buildings
1865	Graham Bros. sent first load of kerosene from shale oil production on American Creek to Wollongong
1874	Graham Bros. sold kerosene works to the Mt Kembla Coal & Oil Company
1879	Mt Kembla Coal & Oil Co floated in England with British capital
1881	Rail line authorized to be built from Mt Kembla to Red Point (Kembla Bay)
1883	Mt Kembla Mine opens & Post Office established at Mt Kembla
1883	900ft long Kembla Jetty designed by William Burrell completed at Port Kembla
1883	27 Jan - SS Arawatta brings 75 dignitaries from Sydney to visit Mt Kembla Mine and the first load of Mt Kembla coal leaves Port Kembla
1883	John Graham was appointed Post Master
1884	A larger school built - name changed to Mt Kembla School
1888	Presbyterian Church built in Kembla Heights
1893	Roman Catholic Church, St Clements built on private land "The Willows"
1893	The telephone was connected
1895	A fine stone school and residence built
1902	July 31 - Mt Kembla Mine explosion - 96 men and boys killed at approximately 2.03pm. 336 men employed at Mt Kembla Mine
1913	Mine name changed to Mt Kembla Collieries Ltd
1955	New Kembla Heights Hall opened after funding by local public subscriptions
1970	Mt Kembla Mine closed
1878 - 1970	Coal mined - over 14 million tonnes
1970 - present	The predominately mining community has changed to a more diverse mix of occupations - an escarpment village community
1973	A modern building on the site of the original school
2001 - present	New BHPB Dendrobium Mine approved by NSW Government for Mt Kembla. It is the first new mine in NSW in more than 20 years
2002 - present	2002 present Mt Kembla Mining Heritage Festival (Annual end July) Community commemorates Centenary of Mt Kembla Mine Disaster 1902

*An initiative of Mt Kembla Mining Heritage Inc - Proudly supported by Dendrobium Mine Community Enhancement Program*

## Historic Mining Community of Mt Kembla Village

### Kembla Heights

### Windy Gully



*Visit*

## Walk 1

## Mt Kembla Village

Site of Australia's most devastating mine disaster

31st July, 1902

96 Souls

*The past we inherit  
- the future we build*

**Self-Guided Walking Tours**

### 13 Kerosene Shale Mine



### 11 Slow's Corner



### 4 Mt Kembla Hotel



### 9 Mt Kembla School



### 5 Memorial Church



- 1 **Wilson's Slaughter Yards\*** now private property
- 2 **Mt Kembla Rural Fire Service**
- 3 **Wilson's Butchery** 1920's - 30's (Wilsons lived nearby in James Road\* & Bob Napier's Greengrocery 1940's - 1950's)
- 4 **Mount Kembla Hotel** built in 1898 for Mr John O'Halloran on Robert Wilson's land
- 5 **Mount Kembla Soldiers' & Miners' Memorial Anglican Church** 1856 -1860 School held in the Church; 1858 a church was built east of the school; 1932 a new church was built in memory of the mine disaster victims and the soldiers of WW1
- 6 **Village General Store** c 1850's. The first store was set up opposite the present store (probably the same house) by James Beadle; 1883 John Graham was appointed Post Master. The telephone was connected in 1893; 1925 - Rutty's Bus Service Depot beside store
- 7 **Brown's General Store & Dance Hall** built 1904, burnt down in 1973\*
- 8 **1859 'Violet Hill' School Site**, original school; 1884 changed name to Mount Kembla School after new coal mine; 1973, the modern building added to the school
- 9 **1895 Mount Kembla Public School & Residence** stone buildings built. The sandstone Residence is now used as the school's Administration Building
- 10 **1953 P.A.F.S. Hall** Protestant Alliance Friendly Society well-used meeting place now in private ownership converted for use as a pre-school
- 11 **'Slow's Corner'** original Kerosene Works Mine Manager's Residence c. 1865 'Slow's' comes from the respected Slow family, who lived in the residence for many years; the name, an appropriate warning as the road here has a sharp corner which has claimed numerous vehicles over time.
- 12 **'Kerosene Track'** to Kerosene Shale Mine, later used as a quick route to Kembla Heights on private property
- 13 **1865 - 1878 Kerosene Shale Mine** 1st Kerosene Shale Mine in Australia - site near present Dendrobium Works Buildings



## **Appendix H: Wollongong City Council Planning Certificate**

Frank Cook

<b>CERTIFICATE</b>	<b>201706198</b>
<b>Issued</b>	<b>13 December 2017</b>
<b>Certificate Type</b>	<b>Sections 149(2) &amp; (5)</b>
<b>Fee</b>	<b>\$269.00</b>
<b>Your Reference</b>	<b>S149 DP1103781:140222</b>
<b>Council Property Reference</b>	<b>385688</b>

## PLANNING CERTIFICATE

**Issued Under Section 149 of the Environmental Planning and Assessment Act 1979**

<b>PROPERTY DETAILS</b>	<b>Legal Description</b>	<b>Lot 1 DP 1103781</b>
	<b>Location</b>	<b>Lot 1 Harry Graham Drive KEMBLA HEIGHTS NSW 2526</b>

This certificate provides information on how a property (such as land and buildings) may be used and the limits on its development. The certificate contains information Council is aware of through its records and environmental plans, along with data supplied by the State Government.

## SECTION 149 (2) DETAILS

As at the date of this certificate, the following prescribed matters under section 149(2) of the Act relate to the abovementioned land:

### 1. NAMES OF RELEVANT PLANNING INSTRUMENTS & DEVELOPMENT CONTROL PLANS

**(1) The name of each environmental planning instrument that applies to the carrying out of development on the land**

Wollongong Local Environmental Plan 2009

#### State Environmental Planning Policies

State Environmental Planning Policy (Three Ports) 2013  
 State Environmental Planning Policy (Rural Lands) 2008  
 State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011  
 State Environmental Planning Policy (State and Regional Development) 2011  
 State Environmental Planning Policy (Urban Renewal) 2010  
 State Environmental Planning Policy (Affordable Rental Housing) 2009  
 State Environmental Planning Policy (Exempt and Complying Codes) 2008 (Amendment 2017)  
 State Environmental Planning Policy (Infrastructure) 2007  
 State Environmental Planning Policy (Miscellaneous Consent Provisions) 2007  
 State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007  
 State Environmental Planning Policy (State Significant Precincts) 2005  
 State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004  
 State Environmental Planning Policy (Housing for seniors or People with a Disability) 2004



State Environmental Planning Policy No 70 (Affordable Housing (Revised Schemes))  
 State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development  
 State Environmental Planning Policy No. 64 – Advertising and Signage  
 State Environmental Planning Policy No. 62 – Sustainable Aquaculture  
 State Environmental Planning Policy No. 55 – Remediation of Land  
 State Environmental Planning Policy No. 50 – Canal Estate Development  
 State Environmental Planning Policy No. 44 – Koala Habitat Protection  
 State Environmental Planning Policy No. 36 – Manufactured Home Estates  
 State Environmental Planning Policy No. 33 – Hazardous and Offensive Development  
 State Environmental Planning Policy No. 30 – Intensive Agriculture  
 State Environmental Planning Policy No. 21 – Caravan Parks  
 State Environmental Planning Policy No. 26 – Littoral Rainforests  
 State Environmental Planning Policy No. 14 – Coastal Wetlands  
 State Environmental Planning Policy – Vegetation (in Non Rural areas) 2017  
 State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

**(2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not yet been approved)**

Paper Subdivisions: Draft Environmental Planning & Assessment Amendment (Subdivision works) Regulation 2013  
 Draft State Environmental Planning Policy - Advertising and Signage Amendments  
 Draft State Environmental Planning Policy - Infrastructure – Amendment (Shooting Ranges) 2013  
 Draft State Environmental Planning Policy - Infrastructure – Amendment (Sport and Recreation) 2013  
 Draft State Environmental Planning Policy – Koala Habitat Protection  
 Draft State Environmental Planning Policy – Infrastructure – (Amendments Review) 2017  
 Draft State Environmental Planning Policy – Primary Production and Rural Development.

**(3) The name of each development control plan that applies to the carrying out of development on the land**

#### **Wollongong Development Control Plan 2009**

Wollongong Development Control Plan 2009, contains detailed development controls which supplement the provisions of Wollongong Local Environmental Plan 2009.

**Note:** The Wollongong Development Control Plan 2009 should be consulted to ascertain its full effect on the land.

**(4) In this clause, proposed environmental planning instrument includes a planning proposal for a Local Environmental Plan or a draft environmental planning instrument.**

## 2. ZONING AND LAND USE UNDER RELEVANT LEPs

Wollongong Local Environmental Plan 2009.

**For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a State Environmental Planning Policy or proposed State Environmental Planning Policy) that includes the land in any zone (however described):**

- (a) the identity of the zone, whether by reference to a name (such as “Residential Zone” or “Heritage Area”) or by reference to a number (such as “Zone No 2(a)”)**

E3 – Environmental Management

- (b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent**

Home occupations.

- (c) the purposes for which the instrument provides that development may not be carried out within the zone except with development consent**

Animal boarding and training establishments; Bed and breakfast accommodation; Building identification signs; Business identification signs; Community facilities; Dwelling houses; Environmental facilities; Environmental protection works; Extensive agriculture; Farm buildings; Farm stay accommodation; Forestry; Home based child care; Recreation areas; Roads; Secondary dwellings.

- (d) The purposes for which the instrument provides that development is prohibited within the zone.**

Industries; Multi dwelling housing; Residential flat buildings; Retail premises; Seniors housing; Service stations; Warehouse or distribution centres; Any development not specified in subclause (2) or (3).

**Note:** For subdivision consent requirements see Clause 2.6, of Wollongong Local Environmental Plan 2009.

Demolition of a building or work requires consent see Clause 2.6AA, of Wollongong Local Environmental Plan 2009.

Development below the mean high water mark requires consent see Clause 5.7, of Wollongong Local Environmental Plan 2009.

**Note: Wollongong Local Environmental Plan 2009 should be consulted to ascertain its full effect on the land.**

### **Clause 4.2A Erection of dwelling houses in certain rural and environmental protection zones**

1. This clause applies to land in the following zones:  
Zone RU1 Primary Production,  
Zone RU2 Rural Landscape,  
Zone E3 Environmental Management.
2. Development consent must not be granted for the erection of a dwelling house on land

to which this clause applies, and on which no dwelling house has been erected, unless the land is:

- (a) a lot created in accordance with 4.1, or
- (b) a lot created before this Plan commenced that met the minimum lot size specified to permit the erection of a dwelling house under Wollongong Local Environmental Plan 1990 in effect immediately before that commencement, or
- (c) a lot created before this Plan commenced that is at least the minimum lot size specified for that lot by the Lot Size Map, or
- (d) land that will be a lot in a subdivisions for which development consent was granted or approval under Part 3A of the Act was given before this Plan commenced and on which the erection of a dwelling house would have been permissible immediately before that commencement, or
- (e) an existing holding with an area of not less than 10 hectares, or
- (f) a lot that was created after 30 April 1971 but before 23 February 1984 and which has an area of not less than 20 hectares, or
- (g) a lot that was created on or after 23 February 1984 but before the commencement of this Plan and which has an area of not less than 40 hectares, or
- (h) a lot that was created before the commencement of this Plan, but only if the subdivision requirements for the land, or number of dwelling houses to be erected on the land, were specified in Schedule 2 to the *Wollongong Local Environmental Plan 1990* immediately before that commencement.

*Note. A dwelling cannot be erected on a lot created under clause 9 of State Environmental Planning Policy (Rural Lands) 2008 or clause 4.2.*

- 3. Land ceases to be an existing holding for the purposes of subclause (2) (e), if an application for development consent referred to in subclause (2) is not made in relation to that land before 31 December 2012.
- 4. Despite any other provision of this clause, development consent may be granted for the erection of a dwelling house on land in a zone to which this clause applies if:
  - (a) there is a lawfully erected dwelling house on the land and the dwelling house to be erected is intended only to replace the existing dwelling house, or
  - (b) the land would have been a lot or a holding referred to in subclause (2) had it not been affected by:
    - (i) a minor realignment of its boundaries that did not create an additional lot, or
    - (ii) a subdivision creating or widening a public road or public reserve or for another public purpose.
- 5. In determining whether to grant consent for the erection of a dwelling house, the consent authority must consider the extent to which the development is likely to affect the environmental and ecological conservation of the land with respect to the extent of clearing required for the development, including any clearing required for the provision of infrastructure, access and any asset protection zone identified for the land in a bush fire risk management plan in force under the *Rural Fires Act 1997*.
- 6. In this clause:  
**existing holding** means all adjoining land, even if separated by a road or railway, held in the same ownership:
  - (a) on 30 April 1971, and
  - (b) at the time of lodging a development application for the erection of a dwelling house under this clause, and includes any other land adjoining that land

acquired by the owner since 30 April 1971.

Note: The owner in whose ownership all the land is at the time the application is lodged need not be the same person as the owner in whose ownership all the land was on the stated date.

**For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a State Environmental Planning Policy or proposed State Environmental Planning Policy) that includes the land in any zone (however described):**

- (a) **the identity of the zone, whether by reference to a name (such as “Residential Zone” or “Heritage Area”) or by reference to a number (such as “Zone No 2(a)”)**

E4 – Environmental Living

- (b) **the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent**

Building identification signs; Home occupations.

- (c) **the purposes for which the instrument provides that development may not be carried out within the zone except with development consent**

Bed and breakfast accommodation; Business identification signs; Community facilities; Dwelling houses; Environmental facilities; Environmental protection works; Home base child care; Recreation areas; Roads; Secondary dwellings.

- (d) **The purposes for which the instrument provides that development is prohibited within the zone.**

Industries; Service stations; Warehouse or distribution centres; Any development not specified in subclause (2) or (3).

**Note:** For subdivision consent requirements see Clause 2.6, of Wollongong Local Environmental Plan 2009.

Demolition of a building or work requires consent see Clause 2.6AA, of Wollongong Local Environmental Plan 2009.

Development below the mean high water mark requires consent see Clause 5.7, of Wollongong Local Environmental Plan 2009.

**Note:** Wollongong Local Environmental Plan 2009 should be consulted to ascertain its full effect on the land.

**For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a State Environmental Planning Policy or proposed State Environmental**

**Planning Policy) that includes the land in any zone (however described):**

- (a) the identity of the zone, whether by reference to a name (such as “Residential Zone” or “Heritage Area”) or by reference to a number (such as “Zone No 2(a)”)**

RU1 – Primary Production

- (b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent**

Building identification signs; Extensive agriculture; Home occupations.

- (c) the purposes for which the instrument provides that development may not be carried out within the zone except with development consent**

Agricultural produce industries; Agriculture; Animal boarding or training establishments; Business identification signs; Dwelling houses; Environmental protection works; Extractive industries; Farm buildings; Forestry; Intensive livestock agriculture; Intensive plant agriculture; Open cut mining; Roads; Roadside stalls.

- (d) the purposes for which the instrument provides that development is prohibited within the zone.**

Any development not specified in subclause (2) or (3).

**Note:** For subdivision consent requirements see Clause 2.6, of Wollongong Local Environmental Plan 2009.

Demolition of a building or work requires consent see Clause 2.6AA, of Wollongong Local Environmental Plan 2009.

Development below the mean high water mark requires consent see Clause 5.7, of Wollongong Local Environmental Plan 2009.

#### **Clause 4.2 Rural Subdivision**

1. The objective of this clause is to provide flexibility in the application of standards for subdivision in rural zones to allow land owners a greater chance to achieve the objectives for development in the relevant zone.
2. This clause applies to the following rural zones:
  - (a) Zone RU1 Primary Production,
  - (b) Zone RU2 Rural Landscape,
  - (c) Zone RU4 Rural Small Holdings
  - (d) Zone RU6 Transition
3. Land in a zone to which this clause applies may, with consent, be subdivided for the purpose of primary production to create a lot of a size that is less than the minimum size shown on the Lot Size Map in relation to that land.
4. However, such a lot cannot be created if an existing dwelling would, as the result of the



subdivision, be situated on the lot.

5. A dwelling cannot be erected on such a lot.

**Note.** A dwelling includes a rural worker's dwelling (see definition of that term in the Dictionary).

**Note.** This Plan does not include Zone RU6.

#### **Clause 4.1AA Minimum subdivision lot size for community title schemes**

1. The objectives of this clause are as follows:
  - (a) to ensure that land to which this clause applies is not fragmented by subdivisions that would create additional dwelling entitlements.
2. This clause applies to a subdivision (being a subdivision that requires development consent) under the Community Land Development Act 1989 of land in any of the following zones:
  - (a) Zone RU1 Primary Production
  - (b) Zone RU2 Rural Landscape
3. The size of any lot resulting from a subdivision of land to which this clause applies (other than any lot comprising association property within the meaning of the Community Land Development Act 1989) is not to be less than the minimum size shown on the Lot Size Map in relation to that land

#### **Clause 4.2A Erection of dwelling houses in certain rural and environmental protection zones**

1. This clause applies to land in the following zones:  
Zone RU1 Primary Production,  
Zone RU2 Rural Landscape,  
Zone E3 Environmental Management.
2. Development consent must not be granted for the erection of a dwelling house on land to which this clause applies, and on which no dwelling house has been erected, unless the land is:
  - (a) a lot created in accordance with 4.1, or
  - (b) a lot created before this Plan commenced and on which the erection of a dwelling house was permissible immediately before that commencement, or
  - (c) a lot created before this Plan commenced that is at least the minimum lot size specified for that lot by the Lot Size Map, or
  - (d) land that will be a lot in a subdivisions for which development consent was granted or approval under Part 3A of the Act was given before this Plan commenced and on which the erection of a dwelling house would have been permissible immediately before that commencement, or
  - (e) an existing holding with an area of not less than 10 hectares, or
  - (f) a lot that was created after 30 April 1971 but before 23 February 1984 and which has an area of not less than 20 hectares, or
  - (g) a lot that was created on or after 23 February 1984 but before the commencement of this Plan and which has an area of not less than 40 hectares, or
  - (h) a lot that was created before the commencement of this Plan, but only if the subdivision requirements for the land, or number of dwelling houses to be erected on the land, were specified in Schedule 2 to the *Wollongong Local Environmental Plan 1990* immediately before that commencement.

*Note. A dwelling cannot be erected on a lot created under clause 9 of State Environmental Planning*

*Policy (Rural Lands) 2008 or clause 4.2.*

3. Land ceases to be an existing holding for the purposes of subclause (2) (e), if an application for development consent referred to in subclause (2) is not made in relation to that land before 31 December 2012.
4. Despite any other provision of this clause, development consent may be granted for the erection of a dwelling house on land in a zone to which this clause applies if:
  - (a) there is a lawfully erected dwelling house on the land and the dwelling house  
to be erected is intended only to replace the existing dwelling house, or
  - (b) the land would have been a lot or a holding referred to in subclause (2) had it not been affected by:
    - (i) a minor realignment of its boundaries that did not create an additional lot, or
    - (ii) a subdivision creating or widening a public road or public reserve or for another public purpose.
5. In determining whether to grant consent for the erection of a dwelling house, the consent authority must consider the extent to which the development is likely to affect the environmental and ecological conservation of the land with respect to the extent of clearing required for the development, including any clearing required for the provision of infrastructure, access and any asset protection zone identified for the land in a bush fire risk management plan in force under the *Rural Fires Act 1997*.
6. In this clause:  
***existing holding*** means all adjoining land, even if separated by a road or railway, held in the same ownership:
  - (a) on 30 April 1971, and
  - (b) at the time of lodging a development application for the erection of a dwelling house under this clause, and includes any other land adjoining that land acquired by the owner since 30 April 1971.

Note: The owner in whose ownership all the land is at the time the application is lodged need not be the same person as the owner in whose ownership all the land was on the stated date.

**Clause 4.2B – No strata plan or community title subdivision in certain rural zones.**

1. The objective of this clause is to ensure that land to which this clause applies is not fragmented by subdivisions that would create additional dwelling entitlements.
2. This clause applies to Land in the following zones that is used, or proposed to be used, for residential accommodation or tourist and visitor accommodation:
  - (a) Zone RU1 Primary Production
  - (b) Zone RU2 Rural Landscape
3. Development consent must not be granted for the subdivision of a lot to which this clause applies under a strata plan that would create lots below the minimum size shown on the Lot Size Map for that land.

Note: Part 6 of State Environmental Planning Policy (Exempt and Complying Development) Codes 2008 provides that the strata subdivision of a building in certain circumstances is specified complying development.

**Note: Wollongong Local Environmental Plan 2009 should be consulted to ascertain its full effect on the land.**

**(e) Whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling- house on the land, and if so, the minimum land dimensions so fixed**

See Clauses 4.1, 4.1AA, 4.1A, 4.2 and 4.2A of the Local Environmental Plan.

**(f) Whether the land includes or comprises critical habitat**

Nil

**(g) Whether the land is in a conservation area (however described)**

The land is within the Illawarra Heritage Escarpment Conservation Area listed in Schedule 5 Part 2 of Wollongong Local Environmental Plan 2009.

The Kembla Heights Mining Village, Harry Graham Drive and Soldiers Road, is a Heritage Conservation Area – General, listed in Schedule 5 Part 2 of Wollongong Local Environmental Plan 2009.

**(h) Whether an item of environmental heritage (however described) is situated on the land**

The land is within the Illawarra Heritage Escarpment Conservation Area listed in Schedule 5 Part 2 of Wollongong Local Environmental Plan 2009.

The Kembla Heights Mining Village, Harry Graham Drive and Soldiers Road, is a Heritage Conservation Area – General, listed in Schedule 5 Part 2 of Wollongong Local Environmental Plan 2009.

The “Nebo Colliery” is a Heritage Item listed in Schedule 5 Part 1 of Wollongong Local Environmental Plan 2009.

The site of Pioneer Kerosene Works is a Heritage Item listed in Schedule 5 Part 1 of Wollongong Local Environmental Plan 2009.

**2A. ZONING AND LAND USE UNDER STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGIONAL GROWTH CENTRES) 2006**

**To the extent that the land is within any zone (however described) under:**

- (a) Part 3 of the State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (the 2006 SEPP), or**
- (b) a Precinct Plan (within the meaning of the 2006 SEPP),**
- (c) a proposed Precinct Plan that is or has been the subject of community consultation or on public exhibition under the Act,**

**the particulars referred to in clause 2 (a) – (h) in relation to that land (with a reference to “the instrument” in any of those paragraphs being read as a reference to Part 3 of the 2006 SEPP, or the Precinct Plan or proposed Precinct Plan, as the case requires).**

Not Applicable.

### 3. COMPLYING DEVELOPMENT

(1) The extent to which the land is land on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18 (1), (c3) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

(2) The extent to which complying development may not be carried out on that land because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18(1)(c3) and 1.19 of that Policy and the reasons why it may not be carried out under those clauses.

(3) If the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement that a restriction applies to the land, but it may not apply to all of the land, and that council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.

#### State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

(1) Subject to the terms of each code, and the zoning of the land, complying development **may be** carried out for the following codes to the extent that the land is not affected by the provisions identified at (2) below.

- Housing Code
- Rural Housing Code
- Housing Alterations Code
- General Development Code
- Commercial and Industrial (New Buildings and Additions) Code
- Commercial and Industrial (Alterations) Code
- Subdivision Code
- Demolition Code
- Container Recycling Facilities CodeFire Safety Code

(2) Complying development **may not** be carried out on the land to the extent that it is **partially identified as Environmentally Sensitive Land** zoned RU1, E2, E3, W1 or W2 because of the provisions of clauses 1.17A, 1.18 or 1.19 of *State Environmental Planning Policy (Exempt and Complying Codes) 2008*

- Housing Code
- Rural Housing Code
- Commercial and Industrial (New Buildings & Additions) Code
- Commercial and Industrial (Alterations) Code

#### State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

(1) Subject to the terms of each code, and the zoning of the land, complying development **may be** carried out for the following codes to the extent that the land is not affected by the

provisions identified at (2) below.

- Housing Code
- Rural Housing Code
- Housing Alterations Code
- General Development Code
- Commercial and Industrial (New Buildings and Additions) Code
- Commercial and Industrial (Alterations) Code
- Subdivision Code
- Demolition Code
- Container Recycling Facilities CodeFire Safety Code

- (2) Complying development **may not** be carried out on the land to the extent that it is **partially identified as land that comprises, or on which there is an item of Environmental Heritage or Draft Environmental Heritage** because of the provisions of clauses 1.17A, 1.18 or 1.19 of *State Environmental Planning Policy (Exempt and Complying Codes) 2008*

- Housing Code
- Rural Housing Code
- Housing Alterations Code
- General Development Code
- Commercial and Industrial (New Buildings & Additions) Code
- Commercial and Industrial (Alterations) Code
- Subdivision Code
- Demolition Code

#### **State Environmental Planning Policy (Exempt and Complying Development Codes) 2008**

- (1) Subject to the terms of each code, and the zoning of the land, complying development **may be** carried out for the following codes to the extent that the land is not affected by the provisions identified at (2) below.

- Housing Code
- Rural Housing Code
- Housing Alterations Code
- General Development Code
- Commercial and Industrial (New Buildings and Additions) Code
- Commercial and Industrial (Alterations) Code
- Subdivision Code
- Demolition Code
- Container Recycling Facilities CodeFire Safety Code

- (2) Complying development **may not** be carried out on the land to the extent that it is **partially identified as Environmentally Sensitive Land - Illawarra Escarpment** because of



provisions of clauses 1.17A, 1.18 or 1.19 of *State Environmental Planning Policy (Exempt and Complying Codes) 2008*

- Housing Code
- Rural Housing Code
- Commercial and Industrial (New Buildings and Additions) Code

#### **State Environmental Planning Policy (Exempt and Complying Development Codes) 2008**

- (1) Subject to the terms of each code, and the zoning of the land, complying development **may be** carried out for the following codes to the extent that the land is not affected by the provisions identified at (2) below.

- Housing Code
- Rural Housing Code
- Housing Alterations Code
- General Development Code
- Commercial and Industrial (New Buildings and Additions) Code
- Commercial and Industrial (Alterations) Code
- Subdivision Code
- Demolition Code
- Container Recycling Facilities Code
- Fire Safety Code

- (2) Complying development **may not** be carried out on the land to the extent that it is **partially affected by Ecologically Sensitive Land – Natural Resource/ Biodiversity** because of provisions of clauses 1.17A, 1.18 or 1.19 of *State Environmental Planning Policy (Exempt and Complying Codes) 2008*

- Housing Code
- Rural Housing Code
- Commercial and Industrial (New Buildings and Additions) Code

#### **State Environmental Planning Policy (Exempt and Complying Development Codes) 2008**

- (1) Subject to the terms of each code, and the zoning of the land, complying development **may be** carried out for the following codes to the extent that the land is not affected by the provisions identified at (2) below.

- Housing Code
- Rural Housing Code
- Housing Alterations Code
- General Development Code
- Commercial and Industrial (New Buildings and Additions) Code
- Commercial and Industrial (Alterations) Code
- Subdivision Code

- Demolition Code
  - Container Recycling Facilities CodeFire Safety Code
- (2) Complying development **may not** be carried out on the land to the extent that it is **partially affected by a Heritage Conservation Area or Draft Heritage Conservation Area - Landscape** because of the provisions of clauses 1.17A, 1.18 or 1.19 of *State Environmental Planning Policy (Exempt and Complying Codes) 2008*
- Housing Code
  - Rural Housing Code
  - Commercial and Industrial (New Buildings & Additions) Code

**State Environmental Planning Policy (Exempt and Complying Development Codes) 2008**

- (1) Subject to the terms of each code, and the zoning of the land, complying development **may be** carried out for the following codes to the extent that the land is not affected by the provisions identified at (2) below.
- Housing Code
  - Rural Housing Code
  - Housing Alterations Code
  - General Development Code
  - Commercial and Industrial (New Buildings and Additions) Code
  - Commercial and Industrial (Alterations) Code
  - Subdivision Code
  - Demolition Code
  - Container Recycling Facilities CodeFire Safety Code
- (2) Complying development **may not** be carried out on the land to the extent that it is **partially affected by a Heritage Conservation Area or Draft Heritage Conservation Area - General** because of the provisions of clauses 1.17A, 1.18 or 1.19 of *State Environmental Planning Policy (Exempt and Complying Codes) 2008*
- Housing Code
  - Rural Housing Code
  - Commercial and Industrial (New Buildings & Additions) Code

## 4. COASTAL PROTECTION

**Whether or not the land is affected by the operation of section 38 or 39 of the Coastal Protection Act 1979, but only to the extent that the council has been so notified by the Department of Finance, Services and Innovation.**

The Department of Finance, Services and Innovation has not notified Council that the land is affected by the operation of sections 38 and 39 of the Coastal Protection Act 1979.

### 4A. CERTAIN INFORMATION RELATING TO BEACHES AND COASTS

**(1) In relation to a coastal council – whether an order has been made under Part 4D of the Coastal Protection Act 1979 in relation to temporary coastal protection works (within the**

meaning of that Act) on the land (or on public land adjacent to that land), except where the council is satisfied that such an order has been fully complied with.

Nil

(2) In relation to a coastal council:

- (a) whether the council has been notified under section 55X of the Coastal Protection Act 1979 that temporary coastal protection works (within the meaning of that Act) have been placed on the land (or on public land adjacent to that land) and,

Nil

- (b) if works have been so placed – whether the council is satisfied that the works have been removed and the land restored in accordance with that Act.

Not applicable

#### **4B. ANNUAL CHARGES UNDER LOCAL GOVERNMENT ACT 1993 FOR COASTAL PROTECTION SERVICES THAT RELATE TO EXISTING COASTAL PROTECTION WORKS**

In relation to a coastal council- whether the owner (or any previous owner) of the land has consented in writing to the land being subject to annual charges under section 496B of the Local Government Act 1993 for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act)

*Note: “Existing coastal protection works” are works to reduce the impact of coastal hazards on the land (such as seawalls, revetments, groynes and beach nourishment) that existed before the commencement of section 553B of the Local Government Act 1993*

Not applicable

#### **5. MINE SUBSIDENCE**

Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the Mine Subsidence Compensation Act 1961

The land is not proclaimed to be a mine subsidence district within the meaning of section 15 of the Mine Subsidence Compensation Act 1961.

#### **6. ROAD WIDENING AND ROAD REALIGNMENT**

Whether or not the land is affected by any road widening or road realignment under:

- (a) Division 2 of Part 3 of the Roads Act 1993 or  
(b) Any environmental planning instrument or  
(c) Any resolution of the council

Council has no record that the land is affected by any Road Widening or Road Realignment under:

- a) Division 2 of Part 3 of the *Roads Act 1993*, or  
b) any environmental planning instrument, or  
c) any resolution of the Council.

## **7. COUNCIL AND OTHER PUBLIC AUTHORITY POLICIES ON HAZARD RISK RESTRICTIONS**

**Whether or not the land is affected by a policy:**

**a) adopted by the council, or**

**b) adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council, that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils or any other risk (other than flooding).**

Council has adopted "Wollongong Development Control Plan 2009 – Chapter E12 Geotechnical Assessment".

Council has adopted Acid Sulfate Maps, Wollongong Local Environmental Plan 2009 – Clause 7.5 Acid Sulfate Soils.

Council has adopted "Wollongong Development Control Plan 2009 – Chapter E16 Bushfire Management". The Rural Fire Service has endorsed the Bush Fire Prone Land map.

Unhealthy Building Land Policy, adopted by the Environmental Protection Authority.

Council has adopted Wollongong City Council Coastal Zone Study (Cardno, Lawson, Treloar 2010).

### **7A. FLOOD RELATED DEVELOPMENT CONTROLS INFORMATION**

**(1) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.**

Development on the land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls as contained in Wollongong Development Control Plan 2009 Chapter E13 Floodplain Management and Wollongong Local Environmental Plan 2009 Clause 7.3 Flood Planning.

**(2) Whether or not development on that land or part of the land for any other purpose is subject to flood related development controls.**

Development on the land or part of the land for any other purpose is subject to flood related development controls as contained in Wollongong Development Control Plan 2009 Chapter E13 Floodplain Management and Wollongong Local Environmental Plan 2009 Clause 7.3 Flood Planning.

**(3) Words and expressions in this clause have the same meaning as in the instrument set out in the Schedule to the Standard Instrument (Local Environmental Plans) Order 2006**

Further flood information relating to this parcel of land is available by application under section 149(5) of the Environmental Planning & Assessment Act 1979.

## **8. LAND RESERVED FOR ACQUISITION**

**Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act.**

Nil.

## **9. CONTRIBUTION PLANS**

**The name of each contributions plan applying to the land.**

**Wollongong Section 94A Development Contributions Plan (2017)**

Note: The purposes of this contributions plan are:

- To authorise the imposition of a condition on certain development consents and complying development certificates requiring the payment of a contribution pursuant to section 94A of the EP&A Act 1979.
- To assist the council to provide the appropriate public facilities which are required to maintain and enhance amenity and service delivery within the Wollongong Local Government area.
- To publicly identify the purposes for which the levies are required.
- Any party wishing to undertake construction of any new, or alterations to any existing, building or other development should review this policy or contact Council to determine if any contributions may be payable.

## **9A. BIODIVERSITY CERTIFIED LAND**

**If the land biodiversity certified land under Part 8 of the *Biodiversity Conservation Act 2016*, a statement to that effect.**

Note: Biodiversity certified land includes land certified under Part 7AA of the Threatened Species Conservation Act 1995 that is taken to be certified under Part 8 of the *Biodiversity Conservation Act 2016*.

Nil.

## **10. BIODIVERSITY STEWARDSHIP SITES**

**If the land is a biodiversity stewardship site under a biodiversity stewardship agreement under Part 5 of the *Biodiversity Conservation Act 2016*, a statement to that effect (but only if the council has been notified of the existence of the agreement by the Chief Executive of the Office of Environment and Heritage).**

Note: Biodiversity stewardship agreements include bio-banking agreements under Part 7A of the *Threatened Species Conservation Act 1995* that are taken to be biodiversity stewardship agreements under Part 5 of the *Biodiversity Conservation Act 2016*.

Nil.

## **10A. NATIVE VEGETATION CLEARING SET ASIDES**



If the land contains a set aside area under section 60ZC of the Local Land Services Act 2013, a statement to that effect (but only if the council has been notified of the existence of the set aside by Local Land Services or it is registered in the public register under that section).

Nil.

## **11. BUSH FIRE PRONE LAND**

If any of the land is bush fire prone land (as defined in the Act), a statement that all or, as the case may be, some of the land is bush fire prone land.

If none of the land is bush fire prone land, a statement to that effect.

The land is recorded in Council's records as bushfire prone land.

## **12. PROPERTY VEGETATION PLANS**

If the land is land to which a property vegetation plan approved under Part 4 of the Native Vegetation Act 2003 (and that continues in force), a statement to that effect (but only if the council has been notified of the existence of the plan by the person or body that approved the plan under the Act).

Council has not been notified that the land is affected by a Property Vegetation Plan issued under the Native Vegetation Act 2003.

## **13. ORDERS UNDER TREES (DISPUTES BETWEEN NEIGHBOURS) ACT 2006**

Whether an order has been made under the Trees (Disputes Between Neighbours) Act 2006 to carry out work in relation to a tree on the land (but only if the council has been notified of the order)

Council has not been notified of an order.

## **14. DIRECTIONS UNDER PART 3A**

If there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.

Nil

## **15. SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR SENIORS HOUSING**

If the land is land to which State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 applies:

- (1) A statement of whether there is a current site compatibility certificate (seniors housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:
  - (a) the period for which the certificate is current, and
  - (b) that a copy may be obtained from the head office of the Department of Planning, and
- (2) A statement setting out any terms of a kind referred to in clause 18(2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004  
Nil.

## **16. SITE COMPATIBILITY CERTIFICATE FOR INFRASTRUCTURE**

A statement of whether there is a valid site compatibility certificates (infrastructure), or site compatibility certificate (schools or TAFE establishments) of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:

- (a) the period for which the certificate is valid, and
- (b) that a copy may be obtained from the head office of the Department.

State Environmental Planning Policy (Infrastructure) 2007  
Nil.

## **17. SITE COMPATIBILITY CERTIFICATE AND CONDITIONS FOR AFFORDABLE RENTAL HOUSING**

- (1) A statement of whether there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:
  - (a) the period for which the certificate is current, and
  - (b) that a copy may be obtained from the head office of the Department.
- (2) A statement setting out any terms of a kind referred to in clause 17 (1) or 38 (1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 that have been imposed as a condition of consent to a development application in respect of the land.

State Environmental Planning Policy (Affordable Rental Housing) 2009  
Nil.

## **18. PAPER SUBDIVISION INFORMATION**

**(1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to the consent ballot.**

Nil

**(2) The date of any subdivision order that applies to the land.**

Not applicable

**(3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.**

## **19. SITE VERIFICATION CERTIFICATES**

**A statement of whether there is a current site verification certificate, of which the council is aware, in respect of the land and, if there is a certificate, the statement is to include:**

**(a) the matter certified by the certificate, and**

*Note: A site verification certificate sets out the Director-General's opinion as to whether the land concerned is or is not biophysical strategic agricultural land or critical industry cluster land-see Division 3 of Part 4AA of State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries 2007).*

**(b) the date on which the certificate ceases to be current (if any), and**

**(c) that a copy may be obtained from the head office of the Department.**

Nil

## **20. LOOSE-FILL ASBESTOS INSULATION REGISTER**

**If the land includes any residential premises (within the meaning of Division 1A of Part 8 of the Home Building Act 1989) that are listed on the register, that is required to be maintained under that Division, a statement to that effect.**

For register information contact [www.fairtrading.nsw.gov.au](http://www.fairtrading.nsw.gov.au)

Nil.

## **CONTAMINATED LAND MANAGEMENT ACT 1997**

**Note: The following matters are prescribed by section 59 (2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate:**

- (a) that the land to which the certificate relates is significantly contaminated within the meaning of that Act- if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued,**
- (b) that the land to which the certificate relates is subject to a management order within the meaning of the Act- if it is subject to such an order at the date when the certificate is issued,**

- (c) that the land to which the certificate relates is the subject of an approved voluntary management proposal within the meaning of that Act – if it is the subject of such an approved proposal at the date when the certificate is issued,
- (d) that the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,
- (e) that the land to which the certificate relates is the subject of a site audit statement within the meaning of the Act – if a copy of such a statement has been provided at any time to the local authority issuing the certificate

Council has **not** been advised that:

- a) The land is significantly contaminated land within the meaning of the Contaminated Land Management Act 1997
- b) The land is subject to a management order within the meaning of the Contaminated Land Management Act 1997
- c) The land is subject to an approved voluntary management proposal within the meaning of the Contaminated Land Management Act 1997
- d) The land is subject to an ongoing maintenance order within the meaning of the Contaminated Land Management Act 1997
- e) The land is the subject of a site audit statement within the meaning of the Contaminated Land Management Act 1997.

## **SECTION 149 (5) DETAILS**

As at the date of this certificate, the following additional information, provided in good faith pursuant to section 149 (5) of the Act, relate to the abovementioned land. Council has selected these matters as those most likely to be of concern but they do not comprise an exhaustive list of matters likely to affect the land.

When information pursuant to section 149 (5) is requested the Council is under no obligation to furnish any of the information supplied herein pursuant to that section. Council draws your attention to section 149 (6) which states that a council shall not incur any liability in respect of any advice provided in good faith pursuant to subsection (5). The absence of any reference to any matter affecting the land shall not imply that the land is not affected by any matter referred to in this certificate.

## **RESOLUTION TO PREPARE PLANNING PROPOSAL**

Council on 17 July 2017 resolved to commence the preparation of a draft Planning Proposal to introduce Housing Affordability provisions or SEPP 70 Housing Affordability provisions into the Wollongong Local Environmental Plan 2009. The form of the provisions will be subject to a future report and subsequent community consultation.

## **PROPOSED DRAFT DEVELOPMENT CONTROL PLANS**

The following plans have been placed on exhibition pursuant to the provisions of section 72 of the Environmental Planning and Assessment Act 1979:

### **Draft Development Control Plan 2009 Review**

The Wollongong Development Control Plan 2009 came into force on 3 March 2010. A review commenced after 6 months of operation. The following chapters are available for public exhibition.

1. Chapter E7 Waste Management
2. Chapter E19 Earthworks
3. Chapter E20 Contaminated Land Management
4. Chapter E21 Demolition and Hazardous Materials Management
5. Chapter E22 Soil Erosion and Sediment Control

## **LAND STABILITY**

Council's land constraint/stability assessment maps show that the land is located in an area where landslip and/or subsidence have occurred, or land stability is suspected. The services of a suitably qualified geotechnical engineer should be sought to ascertain the likely effect if any, on the land.

**Note:** The advice provided by Council in respect of the stability of the land is based on information contained in Council's land constraint maps. The maps have been compiled from data received by Council and considered by Council to be reasonably reliable. Council does not warrant that its land constraint maps contain all information ever received by Council relating to the stability of the land.

## **FLOOD AND DRAINAGE**

### **1 Classification of Flood Risk**

Council records indicate that this property is located within an **Uncategorised Flood Risk** precinct.

However, Council's flood maps show that the land is located in an area where flooding has occurred or is suspected. The services of a suitably qualified engineer should be sought to ascertain the likely effect, if any, on the land.

**Note:** Advice given by Council relating to the likelihood of land being flooded or the nature or extent of such flooding is based on information contained in Council's flood maps. The maps are compiled from data received by Council and/or studies prepared by Council and considered by Council to be reasonably reliable. Council does not warrant that its flood maps contain all information ever received by Council relating to the likelihood of land being flooded or the nature or extent of any such flooding.

Council has prepared a development control plan known as Wollongong Development Control Plan 2009 that provides details of flood related development controls that may be applicable.

'Please note that flood levels may change due to Council's flood study and Floodplain Risk Management Study currently being reviewed. As part of the review, design parameters for these studies are changing, and therefore the flood levels, velocities and flood risks may vary from the current flood study.'

## **ACID SULFATE SOILS**

Nil.

## **CONTAMINATED LAND**

No advice provided.

## **STATE SIGNIFICANT DEVELOPMENT**

Nil.

## **BUILDING LINES**

Wollongong Development Control Plan 2009 details the setbacks applicable to the land.

## **OTHER HERITAGE MATTERS KNOWN TO COUNCIL**

### **Aboriginal Heritage**

All development within the Wollongong Local Government Area is subject to the Aboriginal Heritage requirements of the National Parks and Wildlife Act 1974. To determine if your property is affected by an Aboriginal Site, it is recommended that an Aboriginal Heritage Information Management System (AHIMS) search be undertaken by contacting the AHIMS Administrator on (02) 9995 5000. Further detail on Council's Aboriginal Heritage requirements for Development is contained within Chapter E10 of the Wollongong Development Control Plan 2009.

## **DEVELOPMENT HISTORY**

Application may be made for a Building Certificate under section 149B of Environmental Planning and Assessment Act 1979 if written certification of existing buildings on the land is required.

The history of development consent approval applicable to the land may be obtained by consulting the Development Consent Register. Enquiries concerning the register may be made at Council's Customer Service Centre, 41 Burelli Street Wollongong during office hours.

## **LOOSE-FILL ASBESTOS**

Council recommends you make your own enquiries as to the age of the buildings on the land to which this certificate relates and, if it contains a building constructed prior to 1980, the Council also strongly recommends that any potential purchaser obtain advice from a licensed asbestos assessor to determine whether loose-fill asbestos is present in any building on the land and, if so, the health risks (if any) this may pose for the building's occupants.

Contact NSW Fair Trading for further information.

## **OTHER INFORMATION**

### **Illawarra Regional Strategy**

The Minister for Planning released the Illawarra Regional Strategy on 1 February 2007. The strategy is the NSW Government 25 year land use strategy for the Illawarra Region.

The Department of Planning and Environment released the Illawarra Shoalhaven Regional Plan, November 2015.



The land is within an Environmentally Sensitive Area (Illawarra Escarpment).

The land is included in the Natural Resources Biodiversity Sensitivity Maps of Wollongong Local Environmental Plan 2009.

## GENERAL INFORMATION

The following general information is brought to the attention of land owners.

### 1. Tree Management Policy

The Wollongong Tree Management Policy allows proper assessment to be made of the environmental importance and viability of trees before they are pruned, removed or damaged in any way. This Policy prohibits the ringbarking, cutting down, topping, lopping, removing, injuring or destruction of any tree except with the prior written consent of Council.

The Tree Management Policy applies to any tree that:

- Is 3 metres or more in height,
- Has a trunk diameter of 200mm or more at a height of 1 metre from the ground, or
- Has a branch spread of 3 metres or more

Please note that:

- A dead/dying tree is subject to the Tree Management Policy
- Pruning of major structural or anchor roots is also subject to the Tree Management Policy

Some trees may be exempt and do not require a permit to prune or remove them. Following is a list of the exempt tree species:

Salix Species	Willow
Erythrina X Sykesii	Coral Tree
Cupressus Macrocarpa “Brunniana”	Golden Cypress
Lagunaria Pattersonii	Itchy Pod Tree
Harpephyllum Caffrum	Kaffir Plum
Syagrus Romanzoffina	Cocos Palm
Poplar Species	Poplar
Ficus Elastica “Decora” and hybrids	Ornamental Rubber tree
Ligustrum Lucidum	Large Leafed Privet
Cinnamomum Camphora	Camphor Laurel
Schefflera Actinophylla	Umbrella Tree
False Acacia	Black Locust
Peppercorn	Pepper Tree
Alnus	Alder
Acer negundo	Box Elder

For the full list of other exemptions please refer to the Tree Management Policy document available via Council’s website.

Any person acting on a permit issued under this Policy must comply with all conditions of that permit.

Any person who contravenes, or causes or permits the contravention of this Policy is guilty of an offence under the Environmental Planning and Assessment Act 1979.

Development Consents may contain restrictions relating to trees.

Further information regarding Council's Tree Management Policy including how to lodge an application can be made by contacting Council's Customer Service on telephone 4227 7111. Alternatively information can be obtained from Council's website via the following link <http://www.wollongong.nsw.gov.au/services/household/trees/Pages/Lodgeatmp.aspx>.

## **2. Termite Management for Buildings**

Australian Standards 3660.1-2000 (New Buildings) AS 3660.2-2000 (Existing Buildings) Termite Management, recommends that buildings be inspected and be maintained in order to achieve termite management of buildings. Licensed Pest Control Contractors should be contacted to achieve necessary termite control.

## **3. Lead Paint and Building Renovations**

Your attention is drawn to the hazards associated with lead-based paints during building renovation. Suitable precautions should be taken when removing flaking paint or sanding painted surfaces suspected to have been treated with lead-based paint to prevent contamination of the immediate environment and associated health risk from lead dust.

AS 4361 – Part 2 – Guide to Lead Paint Management – Residential and Commercial.

## **4. Sewage Management Systems**

Where a property has on-site sewage management system (this includes septic tanks, disposal trenches, aerated waste water treatment systems, composting toilets and pump out systems) the new owner must obtain an "Approval to Operate" from Council within 3 months of land ownership being transferred or otherwise conveyed.

## **5. Asbestos**

Exposure to asbestos is a serious health hazard. In Australia, asbestos was gradually phased out of building materials in the 1980s and the supply and installation of asbestos containing goods has been prohibited since 31 December 2003. However, asbestos legacy materials still exist in many homes, buildings and other assets and infrastructure.

Council on the 27 October 2014 adopted an Asbestos policy which states Council's commitment to and responsibilities for safely managing asbestos, and provides information for Council and the local community on safely managing asbestos. The policy can be viewed on Council's website:

[www.wollongong.nsw.gov.au](http://www.wollongong.nsw.gov.au).

This letter is authorised by

**Margaret Kampen**

LIS Information Officer Section 149 Systems

Wollongong City Council

Telephone (02) 4227 7111

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**Document Status**

Rev No.	Author	Reviewer	Approved for Issue		
		Name	Name	Signature	Date
A	Ellen Howley Seth Molinari	Joanne Rosner	Issued for Client Review		19/01/2018
B			Issued for Resource Strategies Review		23/01/2018
C			Issued for Client and Resource Strategies Second Review		23/02/2018
D			Issued for Client and Resource Strategies Third Review		07/05/2018
0			Final		15/04/2019



## **Attachment B – Photolog from Site Inspection**



**PHOTOGRAPH A: AREA 5, EXPLORATION DRILLING ACTIVITIES**



**PHOTOGRAPH B: AREA 5, FILL MATERIAL IN RAILWAY FORMATION**



**PHOTOGRAPH C: AREA 5, FILL MATERIAL IN ROADWAY AND BUSHLAND**



**PHOTOGRAPH D: AREA 6, POTENTIAL ASBESTOS CEMENT CLADDING**



Job No: 54463

Client: South32 Limited

Version: R01 Rev 0

Date: 15/04/2019

Drawn By: EH

Checked By: SM

Not to Scale

Coord. Sys n/a

**Picton Road.  
Cordeaux NSW**

**ATTACHMENT B**



**PHOTOGRAPH E: AREA 6, SODIUM HYPOCHLORITE STORAGE SHED**



**PHOTOGRAPH F: AREA 6, POTENTIAL ASBESTOS PIPE**



**PHOTOGRAPH G: AREA 6, PICNIC AREA**



**PHOTOGRAPH H: AREA 6, TRANSMISSION EASEMENT**



Job No: 54463

Client: South32 Limited

Version: R01 Rev 0

Date: 15/04/2019

Drawn By: EH

Checked By: SM

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**ATTACHMENT B**



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F	1 X Electronic Copy	Gary Brassington and Joanna Hinks	19/07/18
0	1 X Electronic Copy	Gary Brassington and Sam Webber	15/04/19

**Document Status**

Rev No.	Author	Reviewer	Approved for Issue		
		Name	Name	Signature	Date
A	Ellen Howley Seth Molinari	Joanne Rosner	Issued for Client Review		22/01/2018
B			Issued to Resource Strategies for Review		23/01/2018
C			Issued for Client and Resource Strategies Second Review		23/02/2018
D			Issued for Client and Resource Strategies Third Review		07/05/2018
E			Issued for Client and Resource Strategies Fourth Review		15/06/2018
F			Issued for Client and Resource Strategies Fifth Review		19/07/2018
0			Final		15/04/2019

