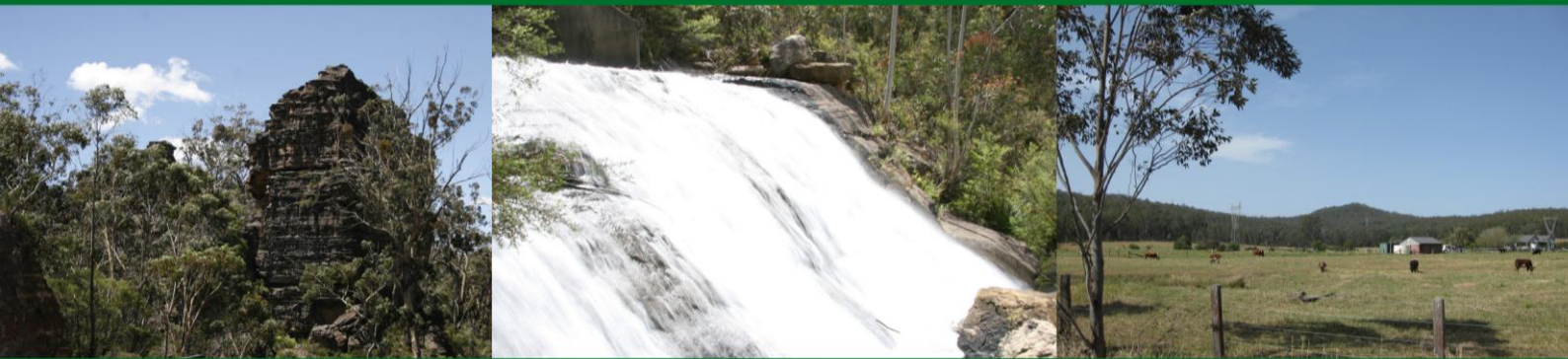




**Centennial Coal**



# **Briefing Paper**

## **Springvale Coal Services Upgrade Project**

**September 2012**

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# Executive Summary

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Centennial Coal Company Limited proposes to upgrade the existing infrastructure within the Springvale Coal Services site at Blackman's Flat to support its ongoing operations in the Western Coalfield of NSW. Specifically, the Springvale Coal Services Site Upgrade involves:

- ❑ Upgrading the existing Washery at the Springvale Coal Services Site by constructing additional processing infrastructure adjacent to the existing facility which is capable of processing a combined total of 7.0 million tonnes per annum;
- ❑ Provision for sufficient reject disposal capacity for a 25 year life;
- ❑ Increasing the rate and utilisation of the return side of existing overland conveyor system to enable up to 6.3 Mtpa to be delivered to Lidsdale Siding;
- ❑ Supply up to 50,000 tpa by road to domestic customers;
- ❑ Construction of additional conveyors and transfer points and other coal handling requirements to cater for the upgraded Washery facility;
- ❑ Construction of a private haul road linking the Springvale Coal Services site with the existing private haul road from Angus Place Colliery to Mount Piper Power Station. This private road will cross a section of the existing Pine Dale Mine operation and over the Castlereagh Highway;
- ❑ Integrate the existing approved transport and processing of coal at Springvale Colliery and Angus Place Colliery into the consent for Springvale Coal Services;
- ❑ Include, the remaining rehabilitation, monitoring and reporting requirements associated with the Lamberts Gully Mine which occupies the Springvale Coal Services Site;
- ❑ The continued use of all existing approved infrastructure, facilities and activities associated with the transport and processing of coal from each mine gate and the point of delivery to either power station and the Lidsdale Siding including existing conveyors, private haul roads, services, access roads, carparking and buildings;
- ❑ Installation of additional pollution control infrastructure.

The Springvale Coal Services Site upgrade will enable the existing operations of Angus Place Colliery and Springvale Coal Mine to have access to Mount Piper and Wallerawang Power Stations and export markets.

This Briefing Paper provides details of the proposed development and the potential environmental impacts relating to the Project. The purpose of this Briefing Paper is to brief relevant government agencies on the Project and to seek the Director-General's requirements to assist in the preparation of the Environmental Impact Statement for the Project to be submitted to the Department of Planning and Infrastructure under Part 4 Division 4.1 of the *Environmental Planning and Assessment Act 1979*.

# 1. Introduction

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## 1.1 Project Background

The Springvale Coal Services site is located off the Castlereagh Highway at Blackmans Flat approximately 18 km north of Lithgow as shown on **Figure 1**. The facility receives coal by overland conveyor from the Springvale Colliery and provides coal storage, handling and processing functions. Coal can be transported by overland conveyor to either Mount Piper Power Station to the north or Lidsdale Rail Siding to the south.

The Springvale Coal Services site is an existing approved facility within the Springvale Colliery development consent. The Project involves upgrading the facility, linking the facility to the Angus Place Mine via a new haul road link and separating the transport and logistics function of the facility away from the source mines.

The Springvale Coal Services site consists of a coal washery, reject and tailings emplacement facilities and a coal distribution network of conveyors from the existing Springvale Colliery to both the Wallerawang and Mount Piper Power Stations and from the Springvale Coal Services site to Lidsdale Siding for export.

The Springvale Coal Services site has current capacity to handle and distribute coal from the Springvale Colliery only. As such, the Springvale Coal Services Project proposes to upgrade the existing facilities to enable coal handling and distribution from a number of Centennial's existing or future operations.

The Springvale Coal Services Project has been developed to provide an upgraded, integrated approach to coal handling and distribution between Centennial's western operations. The mechanisms whereby this will be achieved are described in detail below.

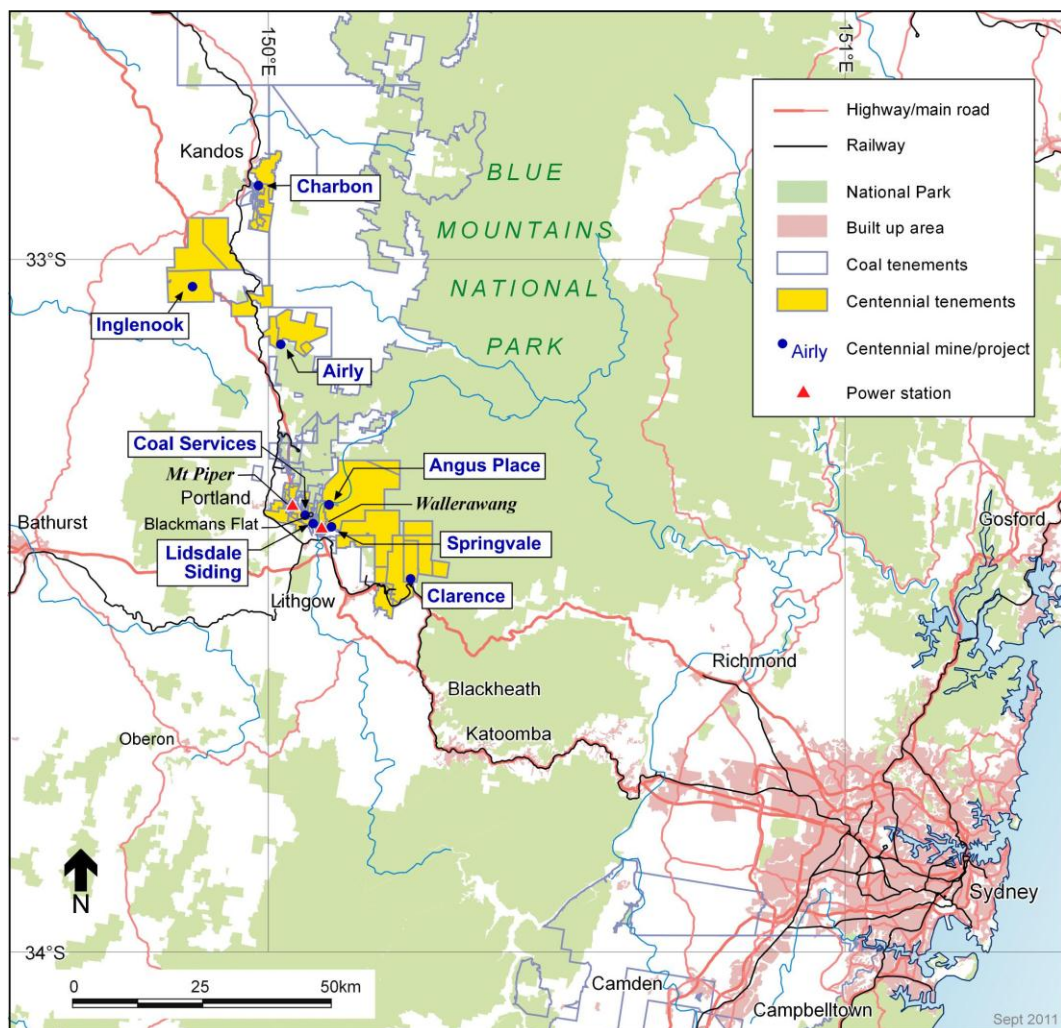
## 1.2 Project Overview

Centennial Coal (Centennial) has developed a long term strategy for its future operations in the Western Coalfield, as shown on **Figure 1**. This strategy is in response to future marketing opportunities for both domestic and export coal sales. The strategy centres on the transport and processing of coal from both Springvale Coal Mine and Angus Place Colliery but may involve coal supplies from other areas.

Maximum coal that could be received by the Project is 9.5 Mtpa, representing coal supplied from Springvale Coal Mine, Angus Place Colliery and other potential Centennial sources. The design of the Project will enable up to 7.0 Mtpa of coal to be washed with up to 6.3 Mtpa of

export coal delivered to Lidsdale Siding via the existing overland conveyor system. The Project will provide flexibility to supply varying quantities of coal to either domestic or export markets. Product will be delivered by overland conveyor to Lidsdale Siding or private road to either power station.

A key part of the Project is the integration of the transport and processing infrastructure into a single development consent rather than portions of coal logistics contained within Springvale Coal Mine, Angus Place Colliery and Lamberts Gully Open Cut consents. This Project therefore covers the infrastructure upgrades from each mine to Mount Piper or Wallerawang Power Station or to Lidsdale Siding for export as well as the continued use of all existing approved infrastructure and facilities.



**Figure 1 Locality Plan**

The environmental impacts to be assessed for the Project have been identified through a risk assessment process and summarised in this Briefing Paper. These issues and any additional matters listed in the requirements for the Environmental Impact Statement (EIS) to be issued by the Director-General of the Department of Planning and Infrastructure (DP&I) will be the focus for the EIS, supporting specialist assessments and stakeholder engagement.

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Key objectives of the Project are to:

- ❑ Provide infrastructure to enable flexibility of supply to both domestic and export markets from nominated mines within the Western Coalfield.
- ❑ Upgrade of the existing Washery at the Springvale Coal Services Site.
- ❑ Integrate into one approval the access, processing and distribution of coal from Springvale Colliery, Angus Place Colliery, Lamberts Gully Open Cut and the Springvale Coal Services Site.

The Project will enable Centennial to supply either Mount Piper or Wallerawang Power Station or the export market via Lidsdale Siding with variable quantity and quality coal in order to meet future market expectations.

### 1.3 Briefing Paper

This Briefing Paper has been prepared to assist relevant government stakeholders in understanding the Project and its potential environmental implications and to support a request to obtain the requirements from the Director-General of the DP&I under the EP&A Act. This Briefing Paper is generally structured as follows:

- ❑ **Section 2** provides a description of the site and an overview of the existing environment;
- ❑ **Section 3** provides an overview of the existing and approved mining operations;
- ❑ **Section 4** provides a description of the Project;
- ❑ **Section 5** summarises the legislation relevant to the Project;
- ❑ **Section 6** provides an overview of the environmental risks associated with the Project and describes the proposed assessment methodology for all key environmental issues identified in the environmental and stakeholder risk assessment for the Project;
- ❑ **Section 7** describes the stakeholder engagement program to be undertaken to ensure all interested parties are consulted with regard to the Project.
- ❑ **Section 8** provides conclusion.

### 1.4 Project Application Area

The Project Application Area is shown on **Figure 2** and consists of:

- ❑ The Springvale Coal Services Site including all existing and proposed infrastructure on Consolidated Coal Lease 733 and Mining Lease 1448;

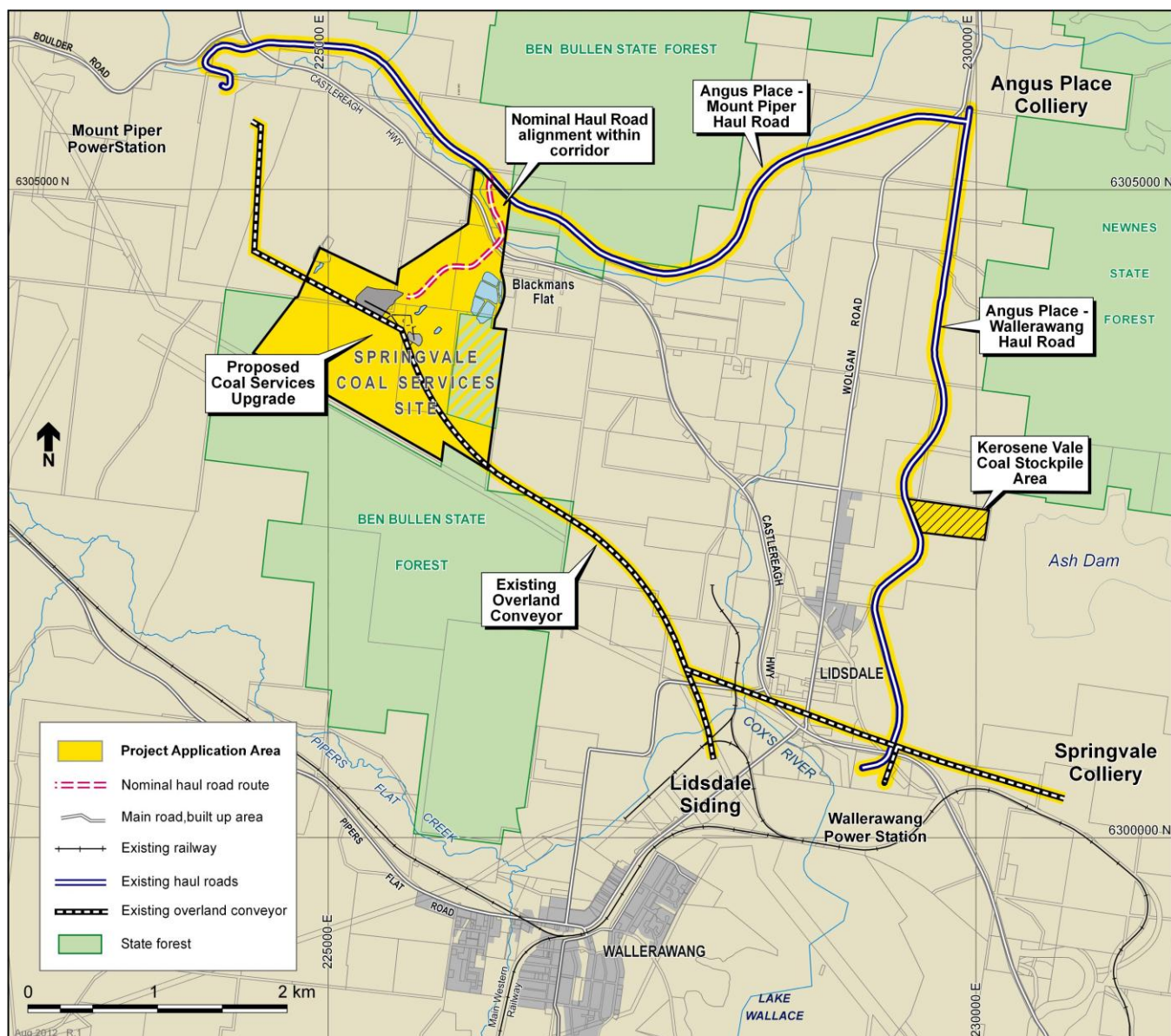


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- ❑ The existing Private Haul Road between Angus Place Colliery and Mount Piper and Wallerawang Power Stations;
  - ❑ A new haul road link between the Springvale Coal Services Site to the existing private haul road between Angus Place Colliery and Mount Piper Power Station. This link road crosses the existing Pine Dale Lease ML1569; and
  - ❑ The existing overland conveyor from Springvale Colliery to Mount Piper Power Station, associated link conveyor to Wallerawang Power Station and the extension to Lidsdale Siding.

The application includes integrating the existing transport and processing of coal from Springvale Colliery and Angus Place Colliery and rehabilitation activities at Lamberts Gully Open Cut.

## **1.5 Project Applicant**

The Applicant for this Project will be Centennial Coal Company Limited (Centennial). Springvale Colliery and Angus Place Colliery are owned by a Joint Venture between Centennial Springvale Pty Limited and Springvale SK Kores Pty Limited, however for the purposes of this application, Centennial will act as proponent under the provisions of the Joint Venture agreement. Centennial is a wholly owned subsidiary of Banpu Singapore Pte Limited. Centennial is a coal mining and marketing company supplying thermal and coking coal to the domestic and export markets. Centennial's coal fuels approximately 40% of NSW's coal-fired electricity generating capacity.

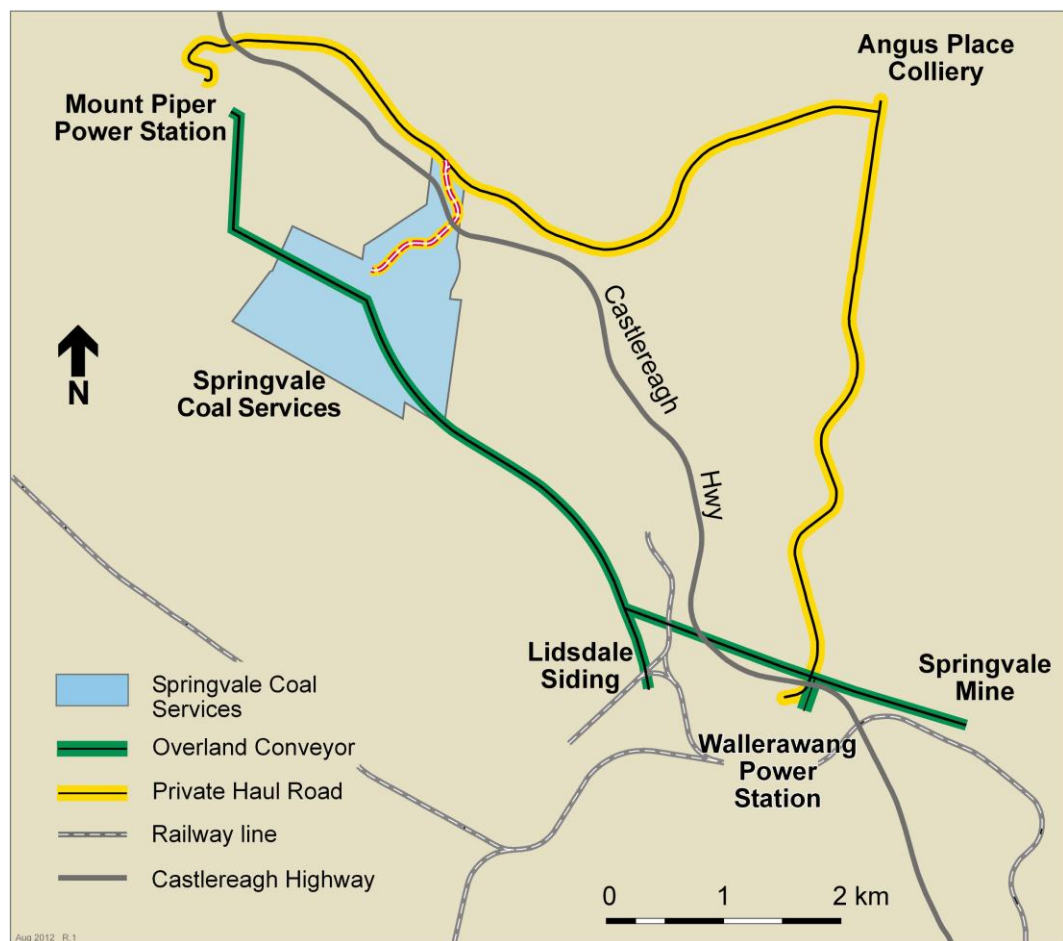


**Figure 2 Project Application Area**

## 2. Site Description

### 2.1 Site Location

Springvale Coal Services Site consists of the main processing site and the overland conveyor system which links the Springvale Colliery pit top to Mount Piper Power Station, Wallerawang Power Station and Lidsdale Siding as shown on **Figure 3**. The site is accessed from the Castlereagh Highway which borders the site on its northern side while Ben Bullen State Forest lies to the south. The site currently consists of coal handling, processing, reject disposal, a centralised communication and control room and support infrastructure and services. The site also includes the Lamberts Gully Open Cut Mine which closed in 2010.



### 2.2 Centennial Western Operations

Centennial's western operations associated with the Project are shown on **Figure 4** and briefly described in sub-sections below.

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### **2.2.1 Springvale Coal Mine**

Springvale Coal Mine is an underground longwall operation currently producing up to 3.4 Mtpa of thermal coal from the Lithgow Seam. The mine commenced in 1995. Springvale supplies coal to Mount Piper and Wallerawang Power Stations as well as services export markets. Coal is transported by overland conveyor to either power station or to the Springvale Coal Services Site for stockpiling and/or processing. Export coal is delivered by conveyor to Lidsdale Siding from the Springvale Coal Services Site.

### **2.2.2 Angus Place Colliery**

Angus Place Colliery is an underground longwall operation producing up to 4 Mtpa of thermal coal from the Lithgow Seam. As shown on **Figure 4**, the Angus Place surface facilities are joined to Wallerawang and Mount Piper Power Station by private haul roads. At present, all production is sold to the local power stations. The operation has approval for 225 permanent staff and 75 temporary contractors engaged in underground development and coal transport. The operation includes a satellite coal storage area at the old Kerosene Vale mine site which is located along the private haul road to Wallerawang Power Station.

### **2.2.3 Springvale Coal Services Site**

This site receives coal from the Springvale Colliery by overland conveyor where it can be stored and processed (washed). Coal can be sent directly to Mount Piper Power Station or washed coal can be sent to Lidsdale Siding for export. The site has existing reject emplacement areas and has a long history of open cut mining including the Lamberts Gully Open Cut Mine. This site controls the overland conveyor system and is the main subject of this Project.

Historically, the Springvale Coal Services Site has been used for the following activities:

- ☐ Underground extraction from Western Main and Eastern Main Collieries;
- ☐ Open cut coal extraction;
- ☐ Coal preparation and handling;
- ☐ Reject disposal;
- ☐ Coal stockpiling;
- ☐ Export coal handling; and
- ☐ Control of coal feed from the Springvale Colliery to the Mount Piper Power Station and Lidsdale Siding.

Mining operations commenced with an open cut in 1940 which extracted the Lidsdale and Lithgow Seams where the current Washery is located. Underground extraction commenced in 1942 with the Western Main

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underground entries being opposite the Washery and Eastern Main being where the current tailings dams are located near the main entrance to the site. The underground workings mined the Lithgow seam until the 1990's. Between 1980 and 1994, three separate open cuts were developed which extracted the remaining coal south of the Castlereagh Highway from Mount Piper Power Station to the Springvale Coal Services site entrance. The Lamberts Gully Open Cut Mine was operational from 1994 to 2010 and extracted coal from both the north and south of the overland conveyor.

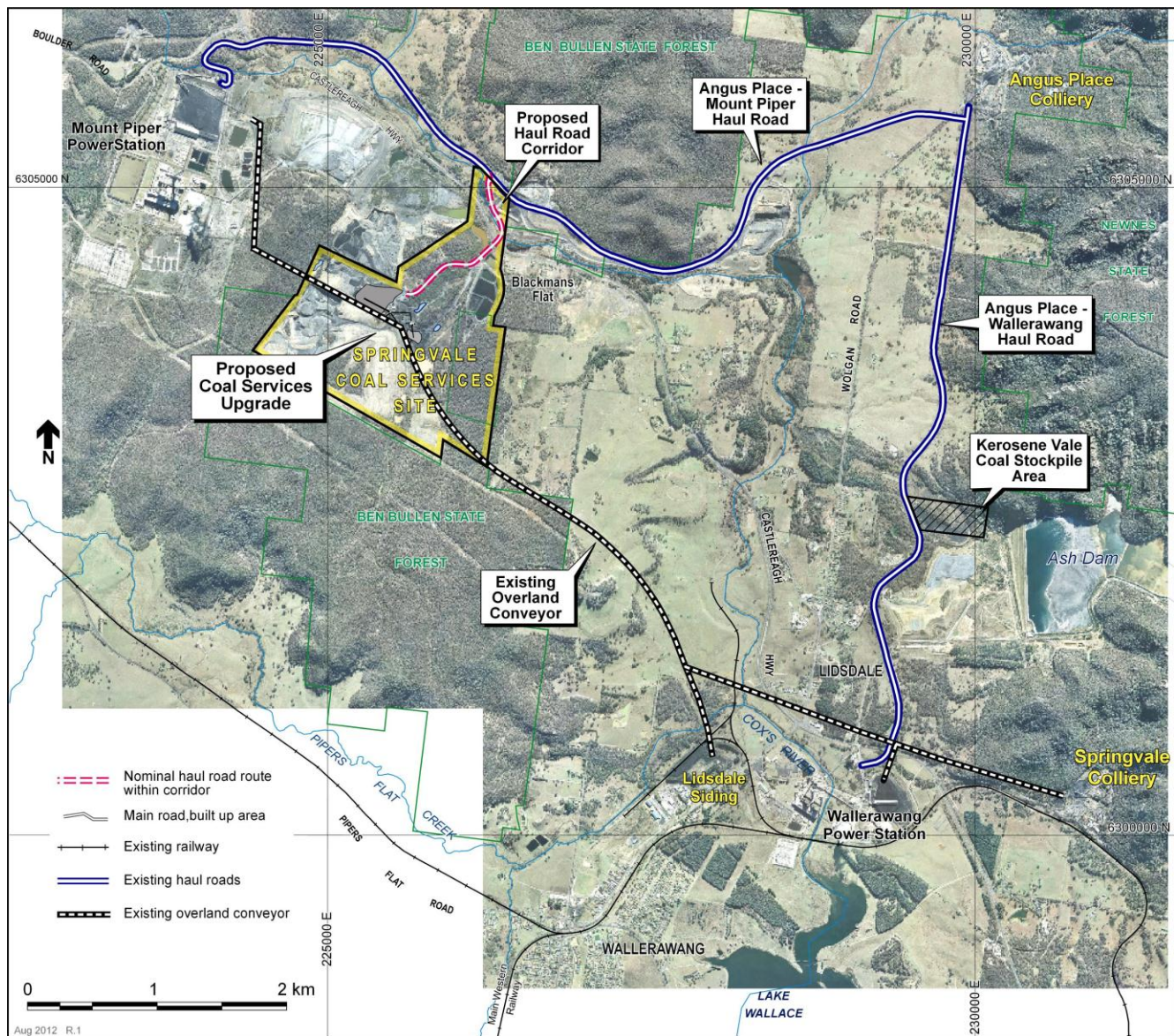
The Springvale Joint Venture purchased the site in October 1994, who under a 1992 planning consent relating to the main Springvale Colliery, constructed the overland conveyor, coal stockpile facilities, reject disposal facilities and rebuilt the existing Washery.

The Washery was originally built in the early 1970s and used to produce export steaming coal which was trucked across the Castlereagh Highway to the Wallerawang Rail Siding (now part of the Pine Dale Mine site). The Washery was upgraded in 1995 following the purchase of the site from Novacoal in 1994.

#### **2.2.4 Lidsdale Siding**

The Lidsdale Siding was originally constructed in the 1950s but has been used exclusively as a coal loading facility since 1974. It receives coal from the overland conveyor from the Springvale Coal Services Site as well as by truck. As shown on **Figure 4**, the Lidsdale Siding is located approximately 500 m from the township of Wallerawang and is joined to the Main Western Rail Line via a separate spur line.





**Figure 4 Site Location**

## 2.3 Existing Land Uses

The Project is located in the Western Coalfield between the existing two power stations and surrounded by coal mining operations and infrastructure. Within the area lies the township of Lidsdale, the locality of Blackmans Flat, rural land and isolated rural residents, transport infrastructure and State Forest. The town of Wallerawang is located to the south west of the Project.

The Project Application area is drained by the Cocks River and its tributaries including Wangcol Creek to the north of the Springvale Coal Services Site, Pipers Flat Creek which joins Cocks River near the Lidsdale Siding and Springvale Creek located to the south of the Springvale Colliery Pit Top.

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There are a number of existing or proposed operations which will be affected by the Project, namely:

- ❑ Coal Link which holds the consent for the private haul road between Angus Place Colliery and Mount Piper Power Station. The use of this road by Angus Place Colliery is subject to a commercial lease with Centennial.
- ❑ Springvale Colliery which holds the consents covering the operation of the overland conveyor systems, coal processing infrastructure and reject disposal. These approved operations will be included in the separate consent for the Springvale Coal Services Site.
- ❑ Angus Place Colliery which has approval to transport 4 Mtpa by truck via the Mount Piper Power Station private haul road. This operation will be incorporated into the Springvale Coal Services Site consent.
- ❑ Pine Dale Mine current has approval to produce 350,000 tpa by open cut methods and supply customers by both private and public roads. Pine Dale which is seeking to increase its mine life by up to 15 years, increase its production level to 2 Mtpa and re-establish the rail link to the main western rail line for export. The Springvale Coal Services Project will involve a private haul road link which will cross land owned by Pine Dale and subject to their proposed life of mine project.
- ❑ Lamberts Gully Mine which has approval to undertake open cut, rehabilitation and reject disposal activities. The Springvale Coal Services Project will continue reject and tailings disposal activities and rehabilitation activities currently approved at Lamberts Gully Mine.
- ❑ The Lithgow City Council Waste Management Facility was approved in 2007 but has yet to commence operation. The proposed private coal haulage link road will cross Lithgow City Council land. Appropriate intersections and access arrangements will be incorporated into the Springvale Coal Services project and approval.
- ❑ Western Matrix hold a Lithgow City Council approval to operate a facility to crush and blend reject for road base material. The existing and proposed Springvale Coal Services ROM coal stockpile is located within the Western Matrix approved operation and arrangements will be made to continue to supply reject to Western Matrix and maintain suitable road access.
- ❑ Delta Electricity operates an ash emplacement adjacent to the Springvale Coal Services and has approval for ash emplacement at the Lamberts Gully Mine. A portion of the ash emplacement area is on land owned by Centennial and is subject to existing approved coal reject emplacement.

Further discussion on the relevant planning approvals and interactions with these approvals is provided in Sections 3.7 and 4.13.



## 2.4 Land Ownership

Land ownership within the study area and the surrounds is shown on Figure 5. Centennial owns or has access to the majority of the Project footprint. The proposed reject emplacement areas at the Springvale Coal Services Site partly cross an area of Crown Land and Ben Bullen State Forest which lie within Consolidated Coal Lease 733.

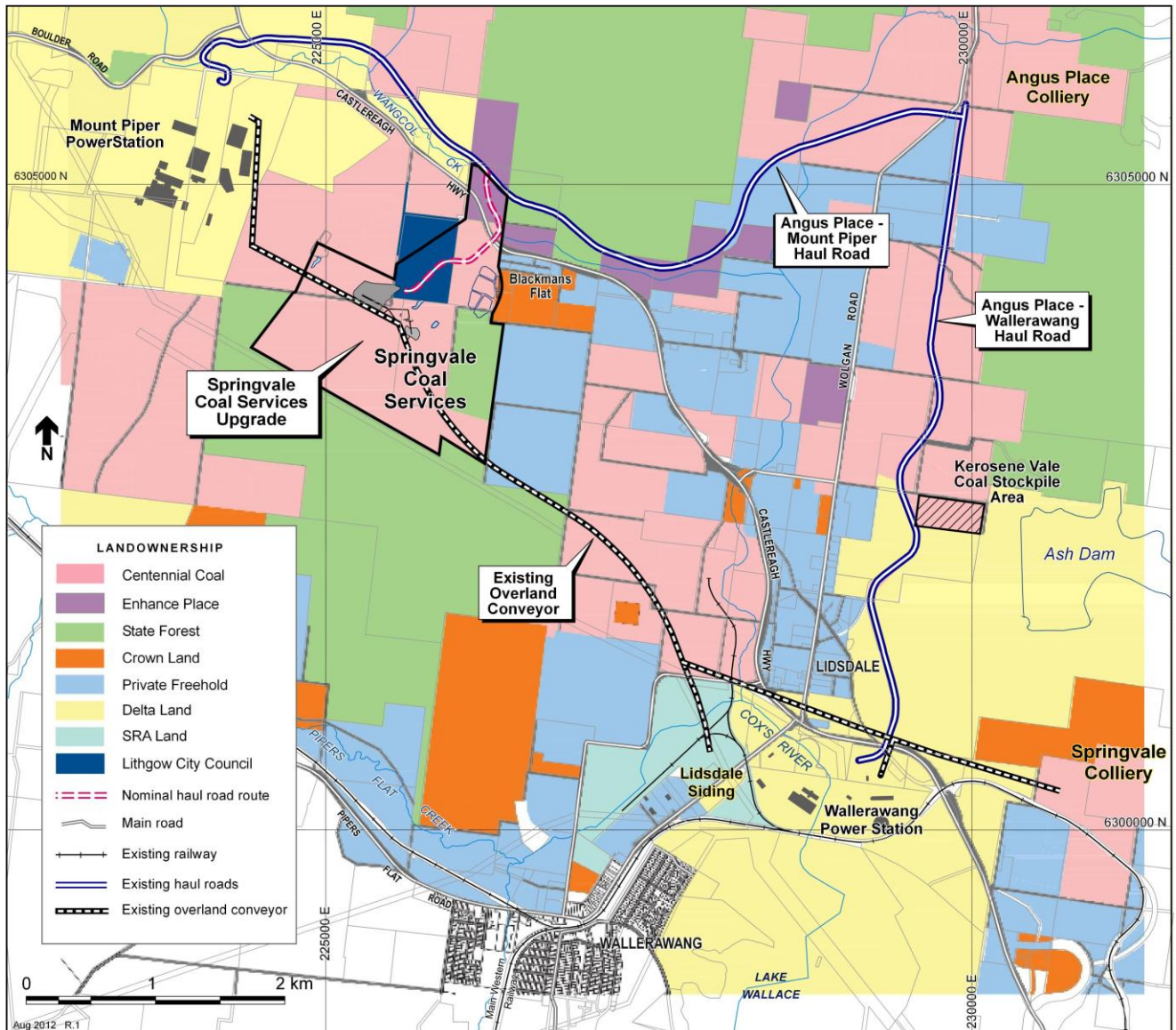


Figure 5 Land Ownership

## 2.5 Climate

The climate of the study area is classified as cool temperate mountain climate with average temperatures of 25°C in summer 12°C in winter temperatures. The annual rainfall is 863 mm falling on 123 rainy days. Rainfall and temperature tends to be seasonally distributed with the highest falls and the highest temperatures occurring in the summer



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months, and the lowest rainfall and temperatures experienced during the winter months.

## **2.6 Soils, Geology and Topography**

### **2.6.1 Soils**

Soils within the Springvale Coal Services site have been developed on the Illawarra Coal Measures, and are naturally low in fertility. The soils have been subject to erosion, physical disturbance due to mining activities and where overgrazing has occurred in the past.

The majority of soils on site are generally shallow and stoney or contain coal material. There are two soil types which occur on site which are more developed, structured and of sufficient depth for low intensity agricultural activities, namely:

- ❑ Structured loams and Gleyed Podzolic Soils – are confined to narrow open drainage depressions with slope gradients >2%, and exist to an average depth of 10 cm; and
- ❑ Yellow Podzolic Soils – are located on convex crests and adjacent side slopes with gradients <10%. These soils may be stripped to an average depth of approximately 20 cm.

These two soil types when encountered by the previous open cut activities were separated and used in the rehabilitation program. The proposed upgrade of the Springvale Coal Services would unlikely involve disturbance to any original undisturbed soils however the proposed private haul road link will cross rehabilitated land which will require removal and reuse of topsoil previously spread for the purposes of rehabilitation.

### **2.6.2 Geology**

The main geological unit in the area is the Cullen Bullen Subgroup of the Illawarra Coal Measures. The Lithgow Coal Seam is the major economic coal seam in the Lithgow, Rylstone and Bylong areas but is overlain by the Lidsdale and Irondale coal seams which have previously been extracted from the Springvale Coal Services Site. The Cullen Bullen Subgroup overlies the well-exposed, bench forming outcrops of the Marrangaroo Formation.

The Lithgow seam ranges in thickness from less than 1 m to 9 m and consists generally of dull coal with minor bright layers, generally increasing towards the base and top of the formation. Some thin carbonaceous or tuffaceous claystone layers are present in the upper half. The coal measures are overlain by massive sandstone units and conglomerates. The sediments that form the Illawarra Coal Measures were deposited in the late Permian era. The seam is relatively horizontal, however depth of cover varies considerably due to the surface topography.

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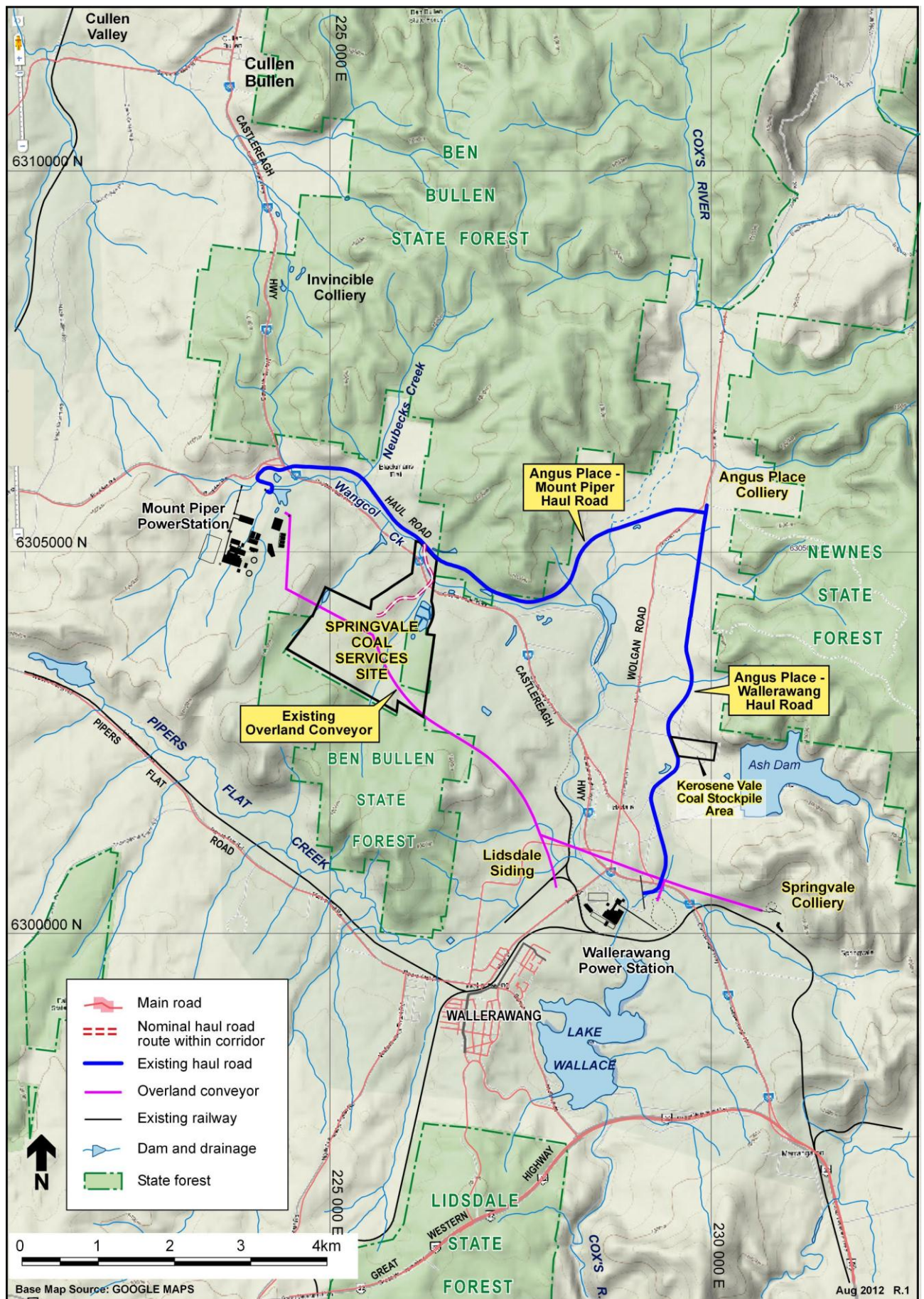
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There are some minor *in situ* coal reserves located at the Springvale Coal Services site however it is not expected that any coal will be sterilised by the proposed development.

### **2.6.3 Topography**

The Project area lies in the gently undulating Coxs River valley as shown on **Figure 6**. The dominant landforms include the forested hills and slopes of the Ben Bullen State Forest which provide the catchment divide between Wangcol Creek and Pipers Flat Creek which are tributaries of the Coxs River.

The Springvale Coal Services site is located on the footslopes of the Ben Bullen State Forest ridge which include significantly modified landforms as a result of previous mining and subsequent rehabilitation activities.



**Figure 6 Topography and Landforms**

### 3. Current Approved Operations

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The current approved operations that are associated with this Project are:

- ❑ Springvale Colliery which extracts the Lithgow Seam by longwall methods but includes the transporting of coal by overland conveyor to both Mount Piper and Wallerawang Power Stations. The existing Springvale Coal Services site is approved within the Springvale Colliery, and consists of coal processing and reject and tailings disposal activities.
- ❑ Angus Place Colliery which extracts coal from the Lithgow Seam by longwall methods and includes the transport of coal to Wallerawang and Mount Piper Power Stations by private haul roads and the storage of coal at the Kerosene Vale stockpile site.
- ❑ Lamberts Gully Open Cut which is located at the Springvale Coal Services Site which has now ceased coal production and is currently being rehabilitated.

These operations are further described in the following sections.

#### 3.1 Springvale Colliery

Springvale Colliery received development approval in 1992 (S91/06569/001) which provided for the construction of an underground longwall operation and associated surface infrastructure. Springvale Colliery currently has approval to produce up to 3.4 Mtpa and will be seeking a new approval to its operations. The Springvale Coal Services Project does not involve any changes to the underground mining operation, coal production rates or mine related infrastructure such as ventilation and boreholes or pit top facilities such as workshop and stores, office and amenities.

The Springvale Coal Services Project does however include all aspects of the overland conveyor system to the power stations and Lidsdale Siding and the Springvale Coal Services Site as described below.

##### 3.1.1 Springvale Overland Conveyor

As shown on **Figure 6**, the overland conveyor links the Springvale pit top (from the rill tower) to the Washery site, Mount Piper Power Station, Wallerawang Power Station and Lidsdale Siding. A single conveyor structure runs the entire route. ROM coal from the mine travels on the upper belt to the Washery, while export coal travels on the return strand of the belt from the Washery to Lidsdale Siding.

The area between the Washery and the Mount Piper Power Station is isolated from any residential areas and cannot be viewed from any publicly accessible vantage point.

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Access across the conveyor route has been provided for stock and general landholder access. A service and access road has been constructed adjacent to the conveyor for the majority of the route other than in sections where a nearby road exists.

### **3.1.2 Coal Handling and Processing**

Coal handling and processing occur at the Springvale Coal Services Site as shown on **Figure 6**. This site includes a coal processing plant (Washery), raw and product coal stockpiles, coal reject disposal areas, coal handling infrastructure, offices and control room. These facilities were approved as part of the 1992 Springvale Colliery development consent. There are two separate raw coal handling systems. The first allows raw coal to be delivered directly to Mount Piper Power Station from Springvale Colliery while the second provides feed for the Washery. Coal requiring washing is delivered to a 150,000 tonne capacity stockpile which can then be conveyed into the Washery.

Additional stockpile capacity of up to 600,000 tonnes can be used if Mount Piper Power Station is unable to receive coal for an extended period or ROM coal feed for the washery. The stockpile area can also be used to blend reject and to store and feed raw coal produced from the open cut.

### **3.1.3 Coal Rejects and Tailings Management**

At present, the Washery is capable of processing approximately 2 Mtpa, producing over 300,000 tpa of reject (comprised of 150,000 tpa fine and 150,000 tpa coarse reject).

There are currently two active reject emplacement areas located at the Springvale Coal Services Site as shown on **Figure 7**. The first is located near the main entrance to the site which is referred to as the Co-Disposal REA, while the second is located within the final void of the open cut referred to as “A Pit REA”. The A Pit REA is the main current disposal area for both coarse and fine reject produced from the Washery while the Co-Disposal REA is currently, and will continue to be, used intermittently when required.

The coarse reject from the Washery is trucked from the rejects bin to the “A Pit REA” where it is used to construct cells to contain fine reject. The fine reject is pumped from the Washery as a slurry (referred to as tailings) into cells in the “A Pit REA” constructed from coarse reject. Coarse reject is also used as capping material once the cells are full.

As discussed in Section 4.4.1, the proposed development includes provision for a 25 year life of mine reject emplacement. This will involve the expansion of the existing A Pit REA and the continued use of the Co-Disposal REA. .



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### **3.1.4 Coal Production**

Springvale Coal Services Site currently handles all coal produced by Springvale Colliery (other than that delivered to Wallerawang Power Station). In previous years, Springvale Coal Services has also handled a maximum of 400,000 tpa from the Lamberts Gully Open Cut under separate approvals.

### **3.2 Angus Place Colliery**

Angus Place Colliery has approval to extract up to 4 Mtpa which can be transported by private haul road to either Mount Piper or Wallerawang Power Stations. The Springvale Coal Services Project does not involve any changes to the underground mining operation or support infrastructure such as ventilation or service boreholes, pit top facilities or production rates.

The Springvale Coal Services Project does however involve the use of the private haul roads commencing at the truck loading bin at the Angus Place Colliery pit top. The current approved use of the private haul roads is described below.

### **3.3 Private Haul Roads**

Private haul roads link Angus Place Colliery with Wallerawang and Mount Piper Power Station. All coal produced at Angus Place Colliery is loaded into trucks, from the final product bin after stockpiling and sizing and transported directly to either Wallerawang or Mount Piper Power Stations. The private hauls roads are shown on **Figure 4**. The Wallerawang Haul Road is governed by planning consent held by Angus Place Colliery and the Mount Piper Haul Road is governed by planning consent held by Coal Link Pty Limited.

### **3.4 Lamberts Gully Open Cut Operations**

Open cut activities at Lamberts Gully ceased in 2010 and there are still some relevant activities which will need to be included in the future consolidated consent for Springvale Coal Services Site.

The Lamberts Gully Open Cut although now closed still holds a separate Project Approval with conditions relevant to the ongoing operation and rehabilitation of the site. Springvale holds planning approval to emplace 4 million tonnes of coal Washery reject into the currently proposed emplacement area while Lamberts Gully Open Cut provided planning approval to mine the coal beneath the approved REA and prepare the area to receive reject produced from the Springvale Washery.

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### **3.5 Water Management**

The Springvale Coal Service Site operates under a Surface Water Management Plan (approved by the then Department of Planning (DOP) in August 2009. Dirty water is controlled by a series of dam structures with excess water being discharged through Licensed Discharge Point Number 6 (LDP006) of Environment Protection Licence 3607 held by Springvale Colliery.

Contained water within the existing pollution control dams is preferentially used to supply the existing Washery and for other raw water uses such as dust suppression. The SWMP includes a Site Water Balance for the operation which also provides operating procedures for pumping between the various water storages in order to maximise both stormwater retention as well as recycling abilities.

The Environment Protection Licence includes a number of additional water management improvements which have been implemented. These include establishing additional pumping capacity, further recycling initiatives, additional runoff controls around the Washery area and further environmental investigations which may lead to additional controls in future.

### **3.6 Employment**

The Springvale Coal Services employs 15 full time employees. This excludes contractor truck drivers and service providers.

### **3.7 Hours of Operation**

Springvale Coal Services Site operates 24 hours per day 7 days per week. This includes all coal handling, processing, reject disposal and the overland conveyor system.

The private haul road between Angus Place and Mount Piper Power Station operates 24 hours/day, 7 days a week however is limited to 5 loaded trucks per hour between 21:30 and 07:00, while transport to Wallerawang Power Station is limited to the hours of 07:00 to 22:00.

### **3.8 Consents, Leases and Licences**

**Tables 1 to 3** contain lists of the current consents, leases and licenses relevant to each operation, while Table 4 describes the interaction of other overlapping consents.

**Table 1. Springvale Colliery Current Consents, Leases and Licenses**

Consents			
Reference	Description	Expiry Date	Issued By
S91/06569/001	Original Development Consent-Section 102 of the EP & A Act for the construction and operation of an underground coal mine, overland conveyor and coal washery	Consent limited to 21 years from granting of Coal Lease (ML1303); 28-Sept-2014	DOP
S91/06569/Z01	Section 102 EP & A Act-modification to original consent (27/06/1992) to include modifications: <ul style="list-style-type: none"> <li>• Pit Top layout</li> <li>• Storm Water Control</li> <li>• New of mine entry</li> <li>• Relocation of ventilation shafts</li> <li>• Extension of road access to shafts</li> <li>• Utilisation of existing Western Main washery</li> <li>• Relocation of overland conveyor route</li> </ul>	28-Sept-2014	DOP
S91/06569/Z01	Section 102 EP & A Act (1979)-modification to original consent (27/06/1992) by the replacement of Attachment "A" (The Land Description) with Attachment 1 (Schedule of Land and Tenements)	28-Sept-2014	DoP
326/02	Section 81 (1) (a) EP & A Act (1979)-for the construction and operation of a coal conveyor the Castlereagh Highway to Wallerawang Power Station	20-Aug-2007 (If not commenced)	LCC
461/02	Section 81 (1) (a) EP & A Act (1979)-for the construction and operation of a ventilation shaft facility on the Newnes Plateau in the Newnes State Forest	23-Jan-2008 (If not commenced)	LCC
Mining Authorities			
Authority	Type of Authority	Expiry Date	Holder
CL377	Coal Lease	09-Mar-2025	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd
A460	Authorisation	06-Jun-2015	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd
ML1303	Mining Lease	15-Dec-2013	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd
ML1323	Mining Lease	03-Aug-2014	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd



ML1326	Mining Lease	18-Aug-2024	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd
ML1588	Mining Lease	9-Oct-2027	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd
ML1537	Mining Lease for Mining Purposes	16-Jun-2024	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd
EL6974	Exploration Licence	13-Dec-2014	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd
CL 361	Coal Lease	16 July 2032	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd
Licences			
Reference	Description	Expiry Date	Issued By
EPL3607	Issued under Protection of the Environment Operations Act 1997 for coal mining and coal works	Anniversary date 1st January	Office of Environment and Heritage (OEH)
Bore Licences (various)	Springvale holds a number of groundwater bores licensed under Part 5 of the Water Act 1912 for mine dewatering and monitoring purposes.	Various	NSW Office of Water (NOW)

**Table 2. Angus Place Colliery Current Consents, Leases and Licenses**

Consents			
Reference	Description	Expiry Date	Issued By
PA06_0021	Approved the extension of mining operations at Angus Place Colliery and increased the production limit to 3.5 Mtpa and the ability to haul this amount by truck	18/08/2024	DOP
DA105/92	Held by Coal Link Pty Ltd for the purpose of a private haul route	Perpetuity	LCC
PA06_0021 MOD	This modification includes: <ul style="list-style-type: none"> <li>• 2 additional longwall panels;</li> <li>• Increase annual coal production from 3.5 to 4.0 million tonnes and the total extraction to 33.6 million tonnes over the life of the mine;</li> <li>• Modifying the pit-top dirty water management system;</li> <li>• Increase full time staff from 215 to 225; and</li> <li>• Increase the life of mine by two years to 2016.</li> </ul>	18/08/2024	PAC
Mining Authorities			

Authority	Type of Authority	Expiry Date	Holder
ML1424	Mining Lease	18/08/2024	Centennial Springvale Pty Ltd and Springvale SK Kores Pty Ltd
CCL702	Sublease	24/11/2024	Coalpac Pty Limited
CCL704	Consolidated Coal Lease	14/01/2023	Centennial Springvale Pty Ltd and Springvale SK Kores Pty Ltd
EL6856	Exploration license	8/08/12	Centennial Springvale Pty Ltd and Springvale SK Kores Pty Ltd
EL6293	Exploration license	16/09/14	Centennial Springvale Pty Ltd and Springvale SK Kores Pty Ltd
EL7415	Exploration Licence		Centennial Springvale Pty Limited and Springvale SK Kores Pty Ltd
EL5899	Exploration licence	23/10/13	Boulder Mining Pty Ltd
Licences			
Reference	Description	Expiry Date	Issued By
EPL467	Environment Protection License 467 issued under the Protection of the Environment Operations Act 1997	Anniversary 1 January	OEH
Bore Licences (various)	Angus Place holds a number of groundwater bores licensed under Part 5 of the Water Act 1912 for mine dewatering and monitoring purposes.	Various	NOW

**Table 3. Lamberts Gully Open Cut and Springvale Coal Services  
Current Consents, Leases and Licenses**

Consents			
Reference	Description	Expiry Date	Issued By
110/98	Open Cut Mine Lot 501, DP 825541, Castlereagh Highway Lidsdale (referred to as Lambert's Gully Open Cut)	Perpetuity	LCC
06-0017	Lambert's Gully Mine Additional Operations Within Existing Mining Leases	12/5/2014	DoPI
06-0017 MOD	Modification to Project Approval allowing ramp construction for Lithgow City Council	12/5/2014	DoPI
Mining Authorities			

Authority	Type of Authority	Expiry Date	Holder
CCL733	Consolidated Coal Lease	03-Jul-2027	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd
ML 1448	Mining Lease	30 May 2020	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd
ML1352	Mining Lease	22-Jun-2015	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd
MPL314	Mining Purposes Lease	02-Aug-2014	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd
ML 204	Mining Lease	27 May 2012	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd
CL 394	Coal Lease	26 May 2013	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd
ML 1319	Mining Lease	5 July 2014	Western Main Collieries Pty Ltd
ML 564	Mining Lease	2 May 2023	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd
PLL 133	Private Lands Lease	10 August 2024	Centennial Springvale Pty Ltd & Springvale SK Kores Pty Ltd
Licences			
Reference	Description	Expiry Date	Issued By
EPL3607	<p>Issued under Protection of the Environment Operations Act 1997 for coal mining and coal works.</p> <p>LDP 6 represents the discharge point from the Coal Service Site.</p>	Anniversary date 1st January	OEH

### 3.9 Overlapping Consents

**Table 4** identifies the overlapping consents which will need to be incorporated into the Springvale Coal Services Site consent.

**Table 4. Springvale Coal Services: Overlapping development consents**

Consent and Consent Holder	Consented Use (Date of Consent)	Centennial's Interaction
Coal Link	Haul road from Angus Place to Mt Piper Power Station (1992)	Haul road intersection linking to the upgraded coal washery
Springvale Colliery	Washery, reject and tailings management (1992)	Continued use of washery, placement of reject in

Consent and Consent Holder	Consented Use (Date of Consent)	Centennial's Interaction
		approved reject emplacement area
Angus Place Colliery	Project Modification (2006)	Continued use of Mount Piper private haul road to transport 4 Mtpa by road
Pine Dale	Open cut coal mine (2005)	Haul road crossing land owned by Pine Dale
Lamberts Gully	Open cut mine and reject emplacement area (2006)	Proposing to emplace reject in already approved reject emplacement area
Lithgow City Council	Waste management facility (2007)	Haul road intersecting land owned by Lithgow City Council
Weston Matrix	Crushing of reject material for road base (2011)	Proposed coal stockpile located within consented area
Delta Electricity	Ash emplacement at Lamberts North and Lamberts South (February 2012)	Lamberts South is equivalent to Area 6 (currently under negotiation with Delta) on land owned by Centennial.  The Project is proposing to emplace reject in this area.

### 3.10 Environmental Management System

Springvale Coal Services has an established Environmental Management System (EMS) that has been developed in accordance with the Centennial Coal Environmental Management System Framework (July 2011).

The EMS has been developed and implemented to ensure the effective management of environmental issues and compliance with all regulatory requirements while providing a means for continued improvement in the environmental performance of the Washery Upgrade and Coal Distribution Project. The EMS incorporates a number of environmental management plans that are designed to assist in meeting community and regulatory expectations. The plans cover the operation of the Springvale Coal Services Site, overland conveyors and private haul roads. The following management plans are relevant to the project:

- EMS Framework Document
- Rehabilitation and Landscape Plan Coal Services
- Water Management Plan Coal Service Site
- Dust Management Plan Coal Services Site
- Noise Management Plan Coal Services Site
- Stakeholder Engagement Plan
- Contractor Environmental Management Plan
- Wallerawang Haul Road Inspection Protocol
- Wallerawang Haul Road Landscape Management Plan

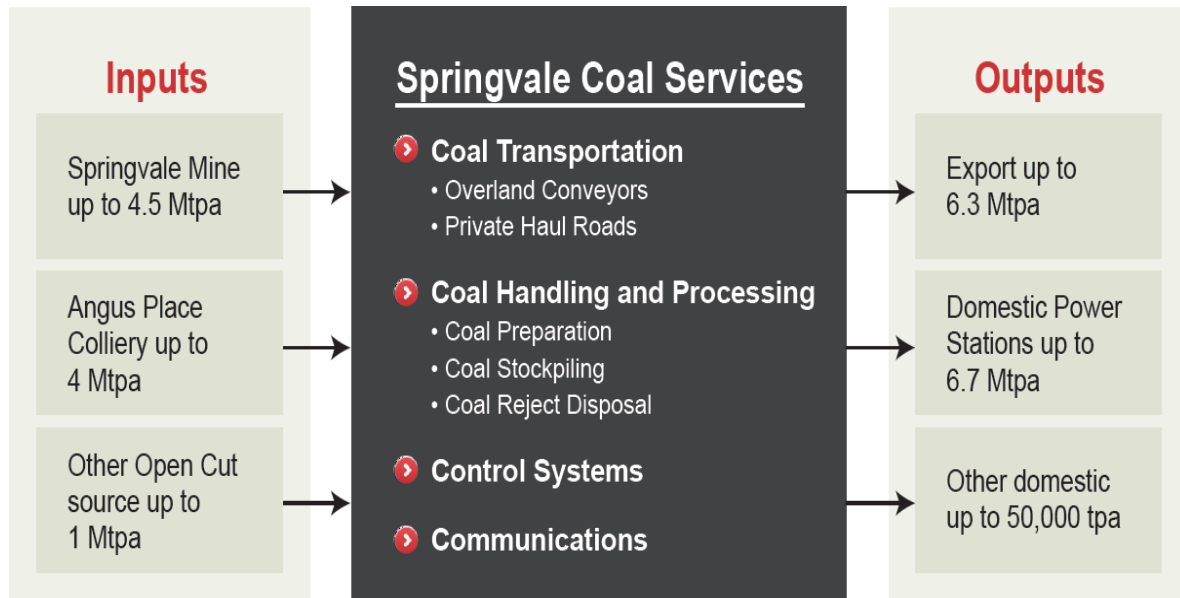
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|---|---|
| • Erosion and Sediment Control Plan Coal Services   | • Noise Management Plan (Haul Roads)  |
| • Bushfire Management Plan                          | • Inspections and Maintenance Program System (Springvale Coal Services)         |
| • Hazardous Substances Management Plan              | • Order 34 Training and Competency Management System (Springvale Coal Services) |
| • Slope Stability Management Plan Coal Services     | • Subsurface Drainage Management System (Springvale Coal Services)              |
| • Mechanical Engineering Management Plan            | • Reject Emplacement Procedure System (Springvale Coal Services)                |
| • Electrical Engineering Management Plan            | • Cultural Heritage Plan  |
| • Lambert's Gully Surface Transport Management Plan | • Environmental Monitoring Plan   |
| • General Environmental Management Procedures       |   |

These documents provide a framework for the planning of operations associated with the Springvale Coal Services Site including operation of the transport infrastructure while considering potential environmental issues and their management on-site. Springvale and Angus Place Collieries have other management plans and systems covering their respective mining operations however these are not relevant to the operation of the coal transport and processing operations.

## 4. Proposed Project

### 4.1 Project Overview

An overview of the project is shown in the following diagram.



The purpose of the Project is to develop suitable infrastructure to enable flexibility to supply both domestic and export markets from nominated mines within the Western Coalfield. The key elements of this Project include:

- ☐ Upgrading the existing Washery at the Springvale Coal Services Site by constructing additional processing infrastructure adjacent to the existing facility which is capable of processing 7.0 Mtpa.
- ☐ Provision for sufficient reject disposal capacity for a 25 year life;
- ☐ Increasing the rate and utilisation of the return side of existing overland conveyor system to enable up to 6.3 Mtpa to be delivered to Lidsdale Siding;
- ☐ Supply up to 50,000 tpa by road to domestic customers;
- ☐ Construction of additional conveyors and transfer points and other coal handling requirements to cater for the upgraded Washery facility;
- ☐ Construction of a private haul road linking the Springvale Coal Services site with the existing private haul road from Angus Place Colliery to Mount Piper Power Station. This private road will cross a section of the existing Pine Dale Mine operation and over the Castlereagh Highway;
- ☐ Integrate the existing approved transport and processing of coal at Springvale Colliery and Angus Place Colliery into this consent;

- 
- ❑ Include, the remaining rehabilitation, monitoring, water management and reporting requirements associated with the Lamberts Gully Mine which occupies the Springvale Coal Services Site; and
  - ❑ The continued use of all existing approved infrastructure, reject disposal, support facilities and activities associated with the transport and processing of coal from each mine gate and the point of delivery to either power station and the Lidsdale Siding including existing conveyors, private haul roads, services, access roads, car parking and buildings.

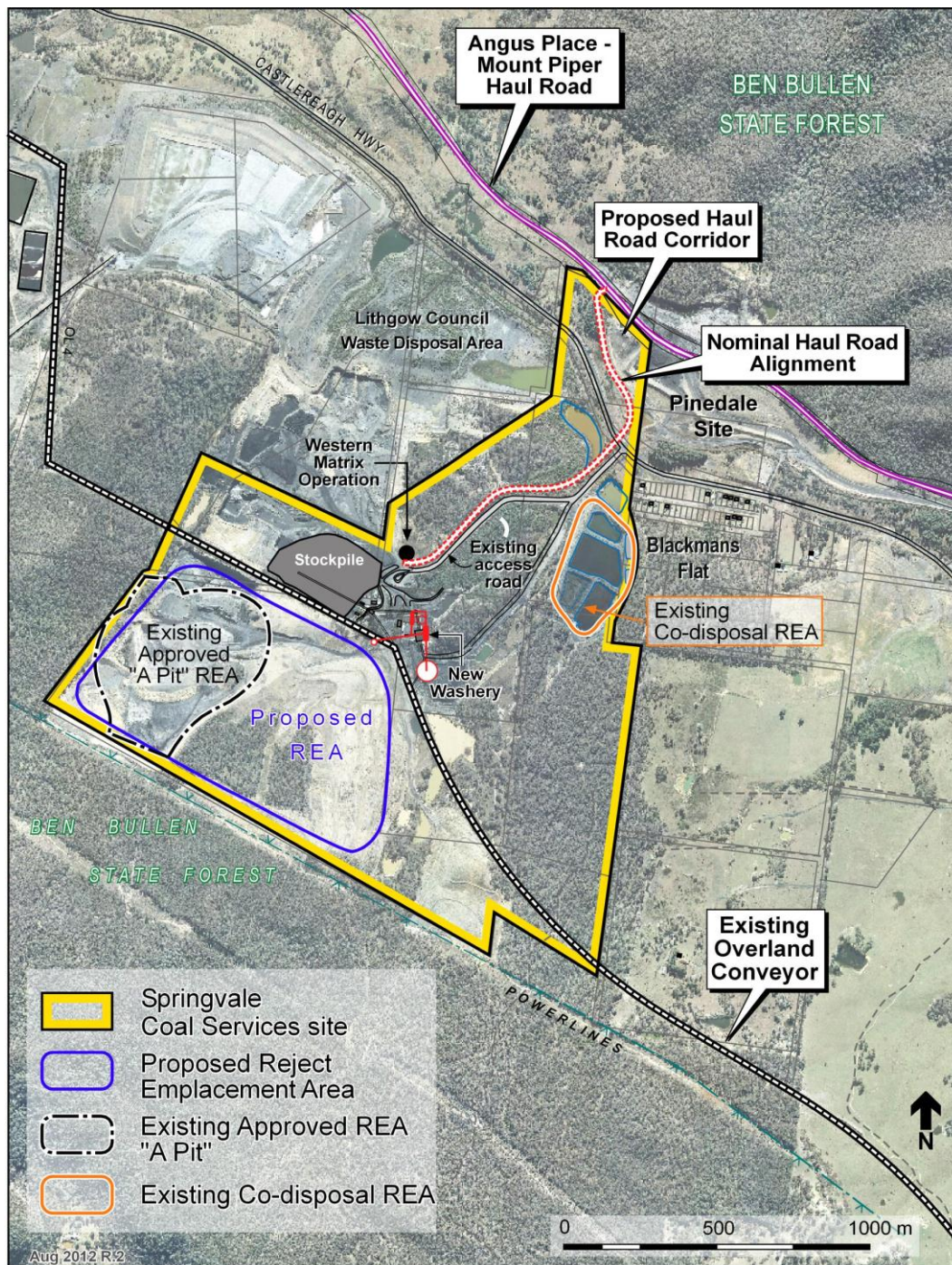
The components of the Project are shown on **Figure 7** and discussed further in the following sections along with ancillary components such as the operation of existing infrastructure and facilities involved in the transport and processing of coal from the source mines.

The proposed upgrade to the Springvale Coal Services Site will enable a total of 7.0 Mtpa of coal to be processed on site, making up to 6.0 Mtpa of product coal available for export if the whole export component is washed. The delivery capacity of the overland conveyor system to Lidsdale Siding is 6.3 Mtpa which will be used for both processed and unprocessed coal. The factors that have been considered in reaching this future production level include:

- ❑ The physical limitations of the existing overland conveyor system.
- ❑ A potential production level at Springvale of 4.5 Mtpa subject to approval;
- ❑ An approved production at Angus Place Colliery of up to 4 Mtpa;
- ❑ The ability to export coal from Angus Place Colliery should the need arise; and
- ❑ The ability to export coal from other local resources should the need arise.

Components of the Project are described in the following sections.





**Figure 7 Springvale Coal Services Upgrade Components**

#### **4.2 Springvale Overland Conveyor**

Springvale currently operates an overland conveyor from the pit top to Mount Piper Power Station via the Springvale Coal Services Site. A separate conveyor link is provided to Wallerawang Power Station while the underside of a section of conveyor is used to transport washed coal from the Springvale Coal Services Site to Lidsdale Siding for export.

There are no changes proposed to the physical structure and location of the Springvale overland conveyor. Some minor electrical and control



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system upgrades will be required to maximise its carrying capacity and may involve increasing the conveyor speed.

### **4.3 Washery Upgrade**

The existing Washery has a nominal capacity of 2.0 Mtpa of Run of Mine (ROM) sized coal per annum. The Washery currently produces separately the coarse reject material and fine reject slurry (tailings). The tailings are pumped to traditional tailings ponds including various open cut voids on site for dewatering. This existing unit will still operate at its nominal capacity.

The upgrade, will enable an additional 5.0 Mtpa of sized ROM coal per annum to be processed and will include waste recovery and water recycling circuits which enable both a dry coarse and fine reject. In order to maintain the ability to process coal for export during the upgrade, the majority of the facility will be constructed adjacent to the existing Washery building which will continue to process up to 2 Mtpa.

The new Washery may be required to process coal from other mines in the region.

#### **4.3.1 Washery Components**

The Washery will consist of two separate modules:

- ❑ Fine Coal Module, where de-sliming and classifying is undertaken and includes equipment such as the classify cyclones and spirals; and
- ❑ Dense Medium Module, to beneficiate the larger particles of the feedstock and includes items such as the dense medium cyclone.

Two main floor levels above ground level are proposed. Sumps and pumps will be located at ground level while screens will be located on the first level. All process cyclones (dense medium, classifying and dewatering) will be mounted on the second level along with other miscellaneous equipment. A belt press filter will also be added to provide additional dewatering of fine rejects and increase water recovery for recycling. The belt press filter will treat fines from both the new Washery and existing Washery.

The plant and its associated thickener are proposed to be erected on sloped, concrete floor slabs. Raised curbing (bundling) and floor sumps are provided to contain and manage spillages within the plant. Stairs, cross-bridges and walkways allow full maintenance access to each module and to the plant's Control Room, to be located at the first level.

This design allows for both modules to be either constructed concurrently or consecutively and provide minimal disruption to the existing coal handling processes during the construction phase.

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### 4.3.2 Ancillary Components

There will also be a number of minor upgrades or modifications to existing coal handling infrastructure to cater for the new Washery facility. These include extensions to existing conveyors, a new reject and surge bin, product coal stacker and reclaim system, upgraded electrical and communication systems.

## 4.4 Reject Production and Emplacement

The proposed Washery upgrade will have an economic life of around 25 years. It is anticipated that reject production will represent approximately 15% of throughput with an equal split between coarse and fine reject. With the upgraded Washery, tailings will be dewatered via a belt press filter and combined with the coarse reject and conveyed to the rejects bin located to the south of the existing overland conveyor. From here, rejects will be trucked to main emplacement site.

At full production of 7.0 Mtpa ROM feed, up to 1 Mt of reject will be produced per annum depending on actual production, coal quality and product specification. Over the 25 year life of the Washery, total reject production is expected to be up to 25 million tonnes.

Over the past 10 years, approximately 100,000 tpa of reject has been blended with other coal for sale to Mount Piper Power Station as well as other commercial uses. Investigations into beneficial reuse of reject will continue as part of the ongoing operation.

### 4.4.1 Reject Disposal

The two existing approved reject emplacements at the Springvale Coal Services Site will be incorporated into the Project. These are described below and shown on **Figure 7**

- ❑ Expansion of the existing reject emplacement. This approved facility will be enlarged to take into account the area disturbed by the previous Lamberts Gully Open Cut, including the void created on completion of mining.
- ❑ Continued use of the existing tailings dams located adjacent to the site entrance road, referred to as the co-disposal REA. This emplacement has been used for tailings disposal and will continue on an as needs basis in the event that the belt press filters are unavailable. This may occur during maintenance periods or breakdown.

The reject emplacement has been designed with batters of 1:3 (V:H) for a height of 5 m and then a 3m bench which would grade toward the rejects. All reject material will be moist when emplaced and compacted.

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The total volume of reject to be stored in the proposed emplacements is approximately 15 million m<sup>3</sup>. At a conservative density of 2 tonnes/m<sup>3</sup> the available storage capacity meets the required reject production over the 25 year life of the facility.

The Project also includes the ability to emplace reject at the future Neubeck Open Cut should the opportunity arise. The Project will include the ability to transport reject using the proposed transport corridor (without the use of public roads) at a rate equivalent to the peak reject production rate.

## **4.5 Private Haul Roads**

The Project includes the use of private haul roads from Angus Place Colliery to transport coal by truck to either power station or to the Springvale Coal Services Site via a new connection as described below.

### **4.5.1 Service Corridor to Springvale Coal Services Site**

It is proposed to construct a new private haul road linking the Springvale Coal Services Site with the current private haul road between Angus Place and Mount Piper Power Station as broadly indicated on **Figure 2**. This road will cross the Castlereagh Highway adjacent to the existing access road intersection. The existing intersection will remain for normal access of private vehicles from the highway. The design of the crossing and the final alignment of the road will be subject to further investigation as part of the EIS.

The link crosses a portion of ML1569 associated with the Pine Dale operation but will not interfere with the current or proposed future operation of Pine Dale. The land is owned by Enhance Place Pty Limited (Pine Dale) and use of this land for the proposed coal haulage link is included in stakeholder consultation.

The purpose of the link is to enable coal from Angus Place Colliery to be delivered to the Springvale Coal Service Site for processing and export. This will provide access to export markets as well as processing poorer quality coal for the domestic market.

The coal transport link will also enable access to the Springvale Coal Services Site from other potential small scale operations that have access to the existing private haul road network.

## **4.6 Lamberts Gully Open Cut**

As part of the Project, Springvale Coal Services will take over management of the remaining rehabilitation and monitoring activities of the existing Lamberts Gully consent. These include:

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- ❑ Continuation of the rehabilitation activities within the approved Rehabilitation and Landscape Management Plan and the identified “additional rehabilitation initiatives”;
  - ❑ Monitoring of rehabilitation works after establishment of vegetation; and
  - ❑ Maintain access to Lithgow City Council’s Waste Disposal Facility.

Other management and monitoring plans approved by DoPI under the Lamberts Gully Open Cut consent will be integrated into existing environmental management plans for the Springvale Coal Services Site.

#### **4.7 Water Management and Supply**

The upgraded Springvale Coal Services Washery will utilise the same water supply system as the current Washery. This water is sourced from various dams on site. Although the water demand will increase slightly due to water lost within the product coal, there is no requirement to provide additional water supply infrastructure or storage. The Springvale Coal Services Site is currently upgrading its water management system.

The design of the upgraded Washery does not produce any additional dirty water, other than for washdown purposes. Additional concrete sumps will be incorporated into the design to capture coal solids and direct dirty water into the existing dirty water management system.

It is anticipated that the site will still be a net producer of water for all but drought years, even after the increase in coal processing capacity. Treated excess water will continue to be discharged through the licensed discharge point. The licence is currently part of the Springvale Colliery licence and it is proposed to seek a separate Environment Protection Licence for the Coal Services operation.

Centennial is working towards a regional water strategy involving beneficial reuse of mine water from the Springvale Coal Services Site, Springvale Colliery, Angus Place Colliery and other future Centennial operations. This Project will seek approval to participate in this strategy once developed.

#### **4.8 Operating Hours**

Operating hours will be 24 hours per day, 7 days per week.

#### **4.9 Employment**

The Project will create an additional 3 permanent employees, while the construction program will involve an average of 50 workers with a peak of 120 during the 18 month construction program.

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#### 4.10 Power

The existing bulk power supply to the Springvale Coal Services Site will require upgrading for the proposed upgrade.

#### 4.11 Construction

The construction phase is anticipated to be undertaken in three separate packages being:

- ❑ Materials handling section including conveyors, surge bins, together with associated civil, drainage and electrical installation.
- ❑ Coal Preparation Plant (Washery) installation
- ❑ Earthworks covering both the Springvale Coal Services Site and the new coal haul road link.

The construction phase will extend over an 18 month period with the majority of the works being completed within 12 months with the remaining 6 month period being final fitout, wet and dry commissioning.

#### 4.12 Summary of Approved Operations and Proposed Changes

**Table 5** summarises the currently approved operation and aspects under existing development consents that are proposed to be modified within the new development application.

**Table 5. Summary of Existing Operations and Proposed Changes**

Key Feature	Current Approval	Proposed Change
Production	3.4 Mtpa ROM from Springvale Colliery 400,000 tpa from open cut production	Total facility throughput 9.5 Mtpa Total Washery throughput 7.0Mtpa Total export capacity 6.3 Mtpa Ability to split supplies to either power station or export in any combination Ability to receive coal from future Centennial projects via the private haul roads.
Operate Coal Preparation Plant	Location of plant, conveyors and stockpiles as built	New Washery located adjacent to existing plant, additional coal feeders and minor modifications to conveyors
Overland Conveyor	Operate at 900 tpa in location defined by approved plans	Capacity and location unchanged however, transfer rate and utilisation will be increased on parts of the system.
Reject Emplacement	Two approved REAs with sufficient capacity for a 25 year life of current Springvale	Additional reject emplacement capacity required to cater for future 25 year life of mine proposals as

Key Feature	Current Approval	Proposed Change
	Colliery development consent Lamberts Gully Open Cut Approval allowed for extraction of remaining coal beneath one REA and create void for reject emplacement	well as to cater for processing of coal from Angus Place and other approved mine developments. Possible reject emplacement at other Centennial operations Approval to reclaim and supply reject/tailings to third parties.
Hours of Operation	24 hours per day, 7 days per week, 52 weeks per annum	No change
Workforce	15 full time employees	18 full time employees
Water Management	Water Management Plans approved through EMPs for Springvale Colliery and later Lamberts Gully Mine approval. Water supply and reuse activities.	Minor modifications required to cater for additional reject emplacement area. Consolidation of plans and approvals required. Water management structures upgraded as required.
Environmental Offsets and Rehabilitation	Additional rehabilitation proposals included in Lamberts Gully Project Approval as described in Section 4.5	Revised rehabilitation initiatives required as new REA will encroach on existing rehabilitation areas and approved additional revegetation provisions of the Lamberts Gully Open Cut Consent.
Pollution Control	Springvale Coal Services Site is covered by the existing Springvale Colliery Environment Protection Licence and includes all existing facilities and infrastructure.	New EPL to be sought to cover the Springvale Coal Services operation.
Coal Transport	Only by overland conveyor or by private haul road from open cut developments	By overland conveyor and a new private haul road from the existing Angus Place to Mount Piper haul road. Take over all transport operations on existing private haul roads

#### **4.13 How the Project's Proposed Development Consent would Interact with the Existing Planning Approvals for Angus Place Colliery, Springvale Colliery and Lamberts Gully Open Cut**

The Project includes land and infrastructure which are currently regulated by the planning approvals for the Angus Place Colliery, Springvale Colliery and Lamberts Gully Open Cut. The Springvale Coal Services Project will procure a development consent that regulates the construction and maintenance of all transport and processing infrastructure which is part of the Project. The grant of such a development consent for the Project will have implications for the existing planning approvals for Angus Place Colliery, Springvale Colliery and Lamberts Gully Open Cut. This section explains how the Project's implications for our existing approvals could be managed.

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#### **4.13.1 Harmonising the Existing Part 3A Approval for the Angus Place Colliery**

In order that the existing Part 3A Approval for the Angus Place Colliery is ultimately compatible with the proposed development consent for the Project, it is our intention in due course, to lodge a new application for the life of mine extension project which will align the approvals.

The grant of a development consent for the Project, would necessitate the following modifications to be incorporated into the new approval for the Angus Place Colliery:

- ❑ Express approval being granted to haul coal from the Colliery to the Washery at Western Coal Services via the Project's proposed private haul road. The conditions which regulate the construction and maintenance of this new private haul road would be contained in the development consent for the Project, but the conditions regulating the use of the private haul road should be contained in the Part 3A Approval for the Colliery. For example, it would be expected that the Minister would want to modify conditions 19 and 21 of the Colliery's Part 3A Approval to make reference to the new private haul road. Those conditions relevantly state:

19. The Proponent shall not use the Wallerawang Power Station haul road at night.

21. The Proponent shall:

(a) ..

(b) investigate ways to reduce the noise generated by the project, including noise generated from use of the Wallerawang Power Station haul road; and

(c) report on these investigations and the implementation and effectiveness of these measures in the AEMR,

to the satisfaction of the Director-General.

- ❑ The deletion of conditions which impose responsibility for the maintenance and landscaping of the existing private haul road from the Colliery to the Wallerawang power station. These conditions, which are conditions 26 and 29 in Schedule 3 of the Part 3A Approval, will be redundant because the maintenance and landscaping of the road would be regulated by the new development consent for the Project.

#### **4.13.2 Harmonising the Existing Development Consents for Springvale Colliery with the Project's Proposed Development Consent**

The grant of a development consent for the Project would have the following consequences for the existing planning approvals for the Springvale Colliery:

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- ❑ The regulation of the Washery and the overland conveyors from the Springvale Colliery to the Mt Piper Power Station and to the Lidsdale Siding by the modified Ministerial Development Consent (S91/06569/001) would be redundant. This is because those items of infrastructure, in an upgraded form, would be regulated by the Project's proposed development consent.
  - ❑ The Development Consent (326/02) granted by Lithgow City Council for the construction and use of the overland conveyor to the Wallerawang Power Station would be redundant. This is because the overland conveyor would be regulated by the Project's proposed development consent.

As stated earlier, Springvale Colliery is currently considering seeking a development consent for its life of mine operation. If Springvale Colliery proceeds in this manner it will facilitate the Minister granting a new development consent for the Springvale Colliery which is compatible with the Project's proposed development consent. In this scenario, it would be anticipated that the new development consent for the Springvale Colliery would contain a condition which requires the surrender of the modified Ministerial Development Consent and Development Consent (326/02) granted by Lithgow City Council.

#### **4.13.3 Proposed Surrender of the Development Consents for the Lamberts Gully Open Cut**

The Lamberts Gully Open Cut is within the Project Site. As stated earlier, it is the intention that the proposed development consent for the Project would regulate, among other things:

- ❑ The continued rehabilitation of the Lamberts Gully Open Cut;
- ❑ Monitoring of those rehabilitation works after establishment of vegetation; and
- ❑ The REAs shown on **Figure 7**.

It would be anticipated that the proposed development consent for the Project would contain a condition which requires the surrender of the three existing development consents which relate to the Lamberts Gully Open Cut.



## **5. Planning Considerations**

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### **5.1 Introduction**

The Project will be assessed in full consideration of the applicable statutory planning instruments of the Commonwealth and State, as well as associated planning and environmental frameworks. This section describes the statutory planning instruments relevant to the proposed development, and assesses their implications in relation to the required approval process.

### **5.2 Commonwealth Legislation**

#### **5.2.1 Environment Protection and Biodiversity Conservation Act 1999**

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) came into effect on 16 July 2000 and is administered by the Commonwealth Department of the Sustainability, Environment, Water, Population and Communities (SEWPaC). Part 3 of the EPBC Act states that an action that has, will have or is likely to have a significant impact on a Matter of National Environmental Significance (MNES), may not be undertaken without prior approval of the Minister for SEWPaC.

An assessment of whether the Project will have a significant impact on these MNES will be undertaken as part of the Environmental Impact Statement process. If required, a referral will be submitted to SEWPaC, following completion of the biodiversity assessment, to determine if the Project is a controlled action under the EPBC Act.

#### **5.2.2 National Greenhouse and Energy Reporting Act 2007**

The *National Greenhouse and Energy Reporting Act 2007* (NGER Act) provides a single National framework for the reporting and dissemination of information regarding greenhouse gas emissions, greenhouse gas projects and energy use, and production by corporations. The NGER Act mandates registration and reporting by corporations whose energy production or use, or greenhouse gas emissions meet specified thresholds. Centennial reports emissions from the corporation which includes emissions from the Project.

The Greenhouse Gas and Energy assessment for the Project will be undertaken in accordance with the requirements of the NGER Act and supporting regulations.

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### **5.2.3 Native Title Act 1993**

The *Native Title Act 1993* recognises that Aboriginal people have rights and interests to land which derives from their traditional laws and customs. Native title rights can include rights to: live on the land, access the land for traditional purposes, protect important places and sites, collect food and medicinal resources from native plants, hunt and fish, teach traditional law and customs, and to have input into land use practices and development planning.

Native title issue will not need to be dealt with in this Project as no new mining leases are required nor any additional interests in Crown land (over which native title has not been extinguished) are being sought.

## **5.3 NSW Legislation**

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

The development assessment and approval system in NSW is set out in Parts 4 and 5 of the EP&A Act. Schedule 1 of SEPP (State and Regional Development) 2011 identifies development which is classified as State significant. The anticipated capital investment for the Coal Services Washery Upgrade and Coal Distribution Project is in excess of \$30 Million. As such, the Project is a State Significant Development listed under Clause 5 (3) of Schedule 1 of SEPP (State and Regional Development) 2011, therefore Part 4 Division 4.1 of the EP&A Act applies.

### **5.3.2 State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007**

*State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* (SEPP) aims to provide for the proper management and development of mineral, petroleum and for the social and economic welfare of the State. Under Regulation 3 of this Policy, mining includes the stockpiling, treatment and transportation of materials extracted and therefore applies to this Project. This Policy consolidates and updates planning provisions related to these industries as well as ensuring that potential environmental and social impacts are adequately addressed during the assessment and determination of development proposals.

### **5.3.3 State Environment Planning Policy No 55 - Remediation of Land**

*State Environment Planning Policy No 55 - Remediation of Land* (SEPP 55) seeks to promote the remediation of contaminated land in order to reduce risks to human health and the environment. Where land is contaminated, SEPP 55 requires that it be suitably remediated prior to any development occurring on that land. The SEPP contains provisions relating to the level of remediation required, and the consent mechanisms

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in relation to the remediation works. SEPP 55 may have potential relevance to the Project.

#### **5.3.4 State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011**

*State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011* policy replaces the Drinking Water Catchments Regional Environmental Plan No 1 and specifically requires all proposed development in the Sydney drinking water catchment to demonstrate a neutral or beneficial effect on water quality. This Project will provide an assessment in accordance with this Policy as part of the EIS.

### **5.4 Local Planning Controls**

The Project is located in the Lithgow City Local Government Area (LGA). The *Lithgow City Local Environmental Plan 1994* is the principal planning instrument governing land use and development decisions in the Lithgow City LGA. The Plan defines zones and the permissibility of development within each zone. The project area is located within land zoned Rural (General) 1(a), which includes the village of Blackmans Flat.

The objective of this zone is to promote the proper management and utilisation of natural resources. This includes protecting, enhancing and conserving valuable deposits of minerals, coal and extractive materials, by controlling the location of development for other purposes in order to ensure the efficient extraction of those deposits.

While the Project is not directly responsible for the extraction of coal it does facilitate this process by providing for the transportation and processing of coal once it has been extracted. Under the Rural (General) 1(a) zone the upgrade of the Springvale Coal Services site would be permissible with development consent.

### **5.5 Other NSW State Legislation**

The provisions and requirements of additional NSW legislation will be considered and addressed within the EIS. A summary of potentially relevant legislation is included in **Table 6**.

**Table 6. Summary of NSW Legislation Relevant to the Project**

<b>Legislation</b>	<b>Relevance to the Project</b>
<i>Protection of the Environment Operations Act 1997 (POEO Act)</i>	<p>The POEO Act is administered by the DECCW and requires licensing for environmental protection, including waste generation and disposal, water, air and noise pollution. Under the POEO Act, an EPL is required for premises at which a scheduled activity is conducted. Schedule 1 of the POEO Act lists activities that are scheduled activities for the purposes of the Act.</p> <p>EPL3607 held by Springvale Colliery covers the mining operation, surface facilities, overland conveyors and the Springvale Coal Services Site. EPL 467 held by Angus Place Colliery covers the mining operation, surface facilities and road haulage of coal. It is proposed to apply for a separate EPL covering the Springvale Coal Services Site inclusive of all coal transport infrastructure and operations.</p>
<i>Mining Act 1992</i>	No new mining titles will be required for the Project.
<i>Water Management Act 2000 and Water Act 1912</i>	<p>The <i>Water Management Act 2000</i> (WMA) and the <i>Water Act 1912</i> are administered by the NSW Office of Water (NoW) and contain approval requirements for some developments to protect watercourses from any adverse effects resulting from works within or in proximity of these watercourses.</p> <p>The Project lies within the Hawkesbury Nepean water management area which forms part of the Greater Metropolitan Region Unregulated River Water Sources plan which commenced on 1 July 2011. The Project is also situated in the Sydney Basin Richmond Groundwater Source, the Sydney Basin Cocks River Groundwater Source, the Hawkesbury and Lower Nepean Rivers Water Source / Colo River Management Unit / Colo River Catchment Sub Zone and the Upper Nepean &amp; Upstream Warragamba Water Source / Wywandy Management Zone.</p> <p>Centennial hold a number of licences under the <i>Water Act 1912</i>.</p> <p>Cooks Dam and the DML Dam require surface water licences</p>
<i>National Parks and Wildlife Act 1974 (NPW Act)</i>	The <i>National Parks and Wildlife Act 1974</i> (NPW Act) is administered by the National Parks and Wildlife Service and provides for the establishment, care, control, and management of National Parks, historic sites, nature reserves, State conservation areas, Aboriginal areas, and State game reserves. An archaeological survey will be conducted as part of the EIA, which will identify the presence of any known Aboriginal sites, as well as

Legislation	Relevance to the Project
	strategies for the management and mitigation of any identified impacts on such sites.
<i>Heritage Act 1977</i>	<p>The purpose of the <i>Heritage Act 1977</i> (Heritage Act) is to protect and conserve non-indigenous cultural heritage, including scheduled heritage items, sites, and relics.</p> <p>The archaeological survey to be undertaken as part of the Environmental Impact Statement will identify any items of heritage significance in the Project Application Area and recommend appropriate management strategies if and where required.</p>
<i>Threatened Species Conservation Act 1995</i>	The <i>Threatened Species Conservation Act 1995</i> (TSC Act) provides for the conservation of threatened species, populations, and ecological communities of animals and plants. The Environmental Impact Statement will identify any threatened species in the Project Application Area, as well as strategies for the management and mitigation of impacts.
<i>Roads Act 1993</i>	The Project involves the crossing of the Castlereagh Highway which may require separate approvals from the NSW Roads and Traffic Authority.
<i>Contaminated Land Management Amendment Act 2008</i>	This Act provides regulatory controls to ensure that land is not allowed to be put to an inappropriate use given its land use history and that processes are put in place to identify and investigate any contamination at an early stage in the environmental planning and assessment process. Any necessary remediation can therefore be made an integral part of any redevelopment. A preliminary contamination assessment will form part of the EIS for this project.

## **6. Key Environmental Issues**

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This Section describes the key environmental issues that will form the basis of the Environmental Impact Assessment for the Project. These issues have been identified during a Risk Assessment conducted for the Project.

### **6.1 Identification of Environmental Issues**

Centennial utilises a Risk Assessment process to identify environmental, safety and business risks to all its operations. This process involves its employees (and contractors where appropriate) identifying existing and recommending any necessary additional controls for all risks identified. The focus is on the inter-relationship between people, machinery, methods of work, the environment and the community.

Centennial has an Environmental Policy that clearly states that it values its role in sustainable development and aims to manage its business to achieve balanced environmental, economic and social aspects. The Policy states Centennial's commitment to minimising environmental impacts and to continual improvement in environmental management and performance. The key project-related issues warranting detailed assessment in the Environmental Impact Statement will be identified through:

- ☐ The existing environmental context of the Project Application Area and surrounding locality;
- ☐ The legislative framework applicable to the Project (discussed in Section 5.0);
- ☐ An environmental and stakeholder risk assessment;
- ☐ The outcomes of consultation undertaken (and to be undertaken) with government agencies and other relevant stakeholders; and
- ☐ Specialist studies completed as part of the preparation of the EIS.

The outcomes of the environmental and stakeholder risk assessment, including the issues identified for further detailed assessment in the EIS, are discussed in Sections 6.1.1 and 6. These issues will form the basis of the EIS for the project, subject to the outcomes of consultation with government agencies, including the Director-General's requirements and other relevant stakeholders, as well as outcomes of the specialist assessments as they progress.

### **6.2 Preliminary Broad-Brush Risk Assessment**

A preliminary Broad-Brush Risk Assessment (BBRA) for the Project was conducted on 5 April 2011. The BBRA included representatives from



Springvale Coal Services, Springvale Coal Mine, Angus Place Colliery, environmental personnel from each operation, design consultants, Centennial project management personnel and external facilitator. A primary objective of the BBRA was to assemble the relevant internal stakeholders in the Project to identify the activities, aspects and possible impacts associated with the proposed activities of the Project. The BBRA was then followed up by additional desk top data review and gap analysis to determine the scope of any future environmental studies. The key environmental issues identified and specifically assessed included:

- ☐ Noise impacts on nearby communities
- ☐ Dust impacts on nearby communities
- ☐ Ecological implications
- ☐ Surface water management
- ☐ Groundwater
- ☐ Visual impacts of the private haul road crossing over the Castlereagh Highway.
- ☐ Community Issues.

### 6.3 Pre-Project Risk Assessment

An environmental and stakeholder risk assessment was conducted on 24 November 2011 with the aim of:

- ☐ Identifying those issues relating to the Project that represent the greatest risk to the local environment and community; and
- ☐ Assisting in setting the level of assessment required to address each identified risk within the Environmental Impact Assessment.

This risk assessment was undertaken by the personnel listed in **Table 7**.

**Table 7. Participants of Risk Assessment for Springvale Coal Services Upgrade Project**

Name	Title	Company
Graeme Glazebrook	Coal Distribution Manager	Centennial Springvale Coal Services
Fiona Bartier	Regional Environmental Officer - Western Projects	Centennial Coal Company Limited
Bruce Lean	Principal Planner/Project Director	RPS
Katherine Hayward	Principal Environmental Planner	RPS
Tony Proust	Senior Planner Coal Services EIS	RPS
Sam Rowe	Planner Lidsdale Siding	RPS

Name	Title	Company
Lyndon Bryant	Project Manager	Centennial-West
Rob Hunt	Environment & Community Coordinator	Centennial Ivanhoe Centennial Coal Company Limited
Robert Byrnes	Consulting Environmental Co-ordinator	International Environmental Consultants

The issues that were specifically assessed in the risk assessment included:

- Flora and Fauna (ecology)
- Aboriginal/Cultural Heritage
- European Heritage
- Noise
- Air Quality
- Groundwater
- Visual Amenity
- Surface Water
- Water Management
- Planning Issues
- Greenhouse and Energy
- Social Impacts
- Waste
- Rehabilitation

Once they were identified, the various project risks were assessed in light of the mitigation measures and management strategies already in place (i.e. documented in management plans and operational procedures). Where the risks were considered unacceptable, or a knowledge gap was identified in the information available, specialist consultants have been engaged to undertake further assessments and to present additional mitigation measures that may be required.

These key environmental issues are discussed in Sections 6.3 to 6.9. Community and Social issues are discussed in Section 6.10 while other issues which will need to be addressed in the EIS are discussed in Sections 6.11 to 6.14. These other issues include Archaeology and Heritage, Greenhouse Gas Emissions, Transportation, Agricultural Land Capability and Rehabilitation. Although these issues are not considered key risk areas for the Project within the Risk Assessment process, they will still require adequate assessment within the EIS and the development of appropriate mitigation strategies.

The environmental and stakeholder risk assessment was undertaken using Centennial's Risk Assessment Standard where identified risks are ranked in accordance with **Table 8**:

**Table 8. Risk Management in Accordance with Centennial Risk Standard**

<b>Risk Category</b>	<b>Consequences</b>	<b>Generic Management Actions</b>
Extreme	Major offsite impact	Immediate Intervention required from Senior Management to eliminate or reduce this risk
High	Minor offsite impact or major onsite impact	Imperative to eliminate or reduce risk to lower level by the introduction of control measures, management planning required at senior level
Significant	Moderate onsite impact	Corrective action required, senior management attention needed to eliminate or reduce risk
Moderate	Minor onsite impact	Corrective action to be determined, management responsibility must be specified
Low	Negligible impact	Monitor and manage by corrective action where practicable

A summary of the results of the environmental and stakeholder risk assessment, follow-up work undertaken and current status is provided in Table 9.

**Table 9. Priority Risk Categories for Management and Current Status**

<b>Risk Category</b>	<b>Highest Risk Category-Existing Controls</b>	<b>Proposed Additional Controls</b>	<b>Status</b>
Noise	High	Design to include noise mitigation systems to meet required noise goals at the nearest residential receptors	Noise consultant engaged to work with Design Consultant to investigate noise mitigation strategies.
Dust	Moderate	Existing dust controls operating on coal handling infrastructure, stockpiles and overall site will be expanded to include additional infrastructure	Air Quality Consultant engaged.
Ecology	Moderate	Crossing of Wangcol Creek requires additional investigations, some clearing of previously rehabilitated land but remaining site footprint is highly disturbed by existing mining operations	Ecological Consultant employed and background surveys commenced.
Surface Water	Moderate	Existing water management plan will be expanded to include additional REA's, expanded infrastructure, and haul road.	Additional water management and pollution control studies have commenced as part of the design process.

Groundwater	Moderate	No additional controls proposed	Groundwater study commissioned.
Visual	Moderate	Specialist visual assessment required for EIS	Yet to be commissioned.
Community Issues	Moderate	Current Stakeholder Engagement Plan to be expanded to include required approval process	Work commenced on Stakeholder Engagement Plan. Direct consultation with community stakeholders yet to commence.
Archaeology and Heritage	Low	Development footprint already highly disturbed, specialist study required for EIS	Consultant commissioned.
Transportation	Low	Avoidance of coal trucks on public roads, Project to incorporate use of private roads. Transport study to include construction and employee traffic	Consultant commissioned.
Agricultural Land	Low	No controls required, existing land heavily disturbed by mining activities with no agricultural capability.	An agricultural assessment will be contained in the EIS.
Rehabilitation	Low	Current rehabilitation plan to be updated to accommodate new infrastructure, REA development and loss of previously rehabilitated land	Initial planning work commenced including design of REAs and new infrastructure activities. Closure planning commenced.

The results of current environmental investigations are summarised in the following sections.

#### 6.4 Noise

The methodology proposed for the EIS will follow that required by the Industrial Noise Policy and the Interim Construction Noise policy which includes the following:

- ☐ Monitoring of existing environmental sound levels in residential receiver locations potentially affected by noise emissions from the Project components. Monitoring will be a combination of attended and unattended measurements over a period of at least 7 days during fine weather;
- ☐ Development of Project Specific Noise Levels from the results of the monitoring and the requirements of the INP;
- ☐ Identification of source sound levels associated with the operation and construction of the Project from measurement of similar sources within the Project area or from other information sources.

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- ❑ Prediction of sound levels from the Project components at residential and noise sensitive receiver areas, including operational noise, construction noise, road traffic and rail traffic noise;
  - ❑ Identification of noise management procedures or requirements to minimise the effects of noise impacts from the Project
  - ❑ Assessment of the Project by comparison of predicted sound levels with the guidelines and objectives developed from the relevant policies.

The Noise Impact Assessment will include an assessment of truck movements on the private haul roads. Given the need to maintain flexibility of supply to the power stations, a range of scenarios will be modelled.

## **6.5 Air Quality and Dust**

The air dispersion modelling as part of an Air Quality Impact Assessment will be conducted for this assessment and will be based on an advanced modelling system using the models TAPM and CALMET/CALPUFF. This system substantially overcomes the basic limitations of the steady-state Gaussian plume models such as AUSPLUME and ISCMOD.

The modelling system works as follows:

- ❑ TAPM is a prognostic meteorological model that generates gridded three-dimensional meteorological data for each hour of the model run period.
- ❑ CALMET, the meteorological pre-processor for the dispersion model CALPUFF, calculates fine resolution three-dimensional meteorological data based upon observed ground and upper level meteorological data, as well as observed or modelled upper air data generated for example by TAPM.
- ❑ CALPUFF then calculates the dispersion of plumes within this three-dimensional meteorological field.

As with any air dispersion model, CALPUFF requires inputs in three major areas:

- ❑ Meteorology (this will include site meteorology provided by the client as well as other sourced data (e.g. from the Bureau of Meteorology);
- ❑ Emission rates and source details (this will be in the form of emission inventories created for each modelling scenario); and
- ❑ Terrain and geophysical data (terrain, land use), as well as specification of specific receptor locations.

The data available from the existing monitoring network, detailed topographic survey and source information will enable a robust air quality

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assessment to be provided in the EIS. Given the need to maintain flexibility of supply to the domestic or export markets, a range of scenarios will be modelled.

## **6.6 Flora and Fauna**

A Terrestrial Ecological Impact Assessment will be undertaken as part of the EIS. Work on the necessary ecology studies commenced in December 2010 with the first background surveys undertaken by RPS in January 2011, the second in September 2011 with an intervening winter bird survey and targeted searches for Bathurst Copper Butterfly. The surveys were undertaken in order to identify threatened flora and fauna species, populations and ecological communities, listed under the TSC Act EPBC Act known or likely to occur within the project area, as well as record any other flora and fauna present. Additionally, ground-truthing of the vegetation mapping undertaken in DEC (2006) was undertaken to determine the likely accuracy of these maps. Although the Project will result in little disturbance to vegetation communities, the study area included vegetation surrounding the development footprint.

The Ecological Assessment for the Project will involve:

- ☐ A review of previous ecological investigations undertaken in proximity to the Project Application Area in addition to database searches within the locality;
- ☐ Vegetation community survey and mapping;
- ☐ Targeted seasonal threatened flora surveys;
- ☐ Fauna Surveys,
- ☐ Identification of mitigation or management measures as required; and
- ☐ Identification of any residual environmental risk.

Full details of the ecology studies and proposed management provisions will be documented in the EIS.

## **6.7 Surface Water System**

The Springvale Coal Services site generally drains in a north-easterly direction to Wangcol Creek, which flows south-east to the Coxs River. The Coxs River flows to Lake Wallace, then Lake Lyell and finally into LLake Burragorang (Warragamba Dam) approximately 60 km to the south-east. The Washery is located within an old open cut area on the floor of the Lithgow Seam. The main raw coal stockpile area lies mid-slope between the rising hills to the south and the broad Wangcol Creek valley to the north. Terrain to the south rises to RL 1050 m while the site elevation is between RL 960 m to RL 920 m with the overall terrain sloping to the north east.



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The existing water quality leaving the Springvale Coal Services site can be broadly divided into categories:

- ☐ clean runoff from undisturbed areas entering the Lease area or in pit rainwater inflows;
- ☐ dewatering pumps at the base of the old open cut area (currently not in use);
- ☐ water generated from the reject disposal system;
- ☐ run-off from disturbed areas which enters the main pollution control ponds.

Water leaving the site is monitored under the requirements of EPL3607 (Licensed Discharge Point 6). The site is currently revising its water management system as part of a Pollution Reduction Program under its licence. The Project will be incorporated into the revised water management system as required.

#### **6.7.1 Impacts on Water Quality**

The water management system for the proposed works will represent a simple extension to the existing system. The proposed works will not increase the loading on the existing system, as the Project will not increase the dirty water catchment area, including the new REAs.

All water pumped from the new Washery and future reject emplacement area will enter the existing retention dam (located below the existing reject disposal facility), where is captured prior to re-use in the Washery or excess water is released off site at the licensed discharge point.

It is therefore considered that the proposed works will not result in a deterioration in water quality leaving the site nor increase the volume of water requiring treatment.

Water management procedures are continually being reviewed, as is the required treatment system to ensure that water quality leaving the site meets the required discharge standards. No additional discharge points are necessary to cater for the Project however, it is likely that a new Environment Protection Licence will be sought to cover the separation of the Springvale Coal Services Site from the Springvale Colliery EPL. This licence will include the operation of the existing haul roads and overland conveyors, currently operating under the Angus Place and Springvale EPLs respectively.

#### **6.7.2 Surface Water Management Assessment Methodology**

The following investigations will be included in the EIS:

- ☐ Detailed water balance for the site;

- 
- ❑ Description of any additional water management and pollution control structures or facilities required to contain and treat dirty runoff from the new reject emplacement areas;
  - ❑ Verification of the suitability of the current water management system to cater for both the existing and proposed upgrade.

## **6.8 Groundwater**

Local groundwater systems have been monitored by Mount Piper Power Station via a series of 29 piezometers around the ash disposal area and within the floodplain of Wangcol Creek. These show that the groundwater varies in depth from 5 m to 35 m below existing ground surface. The shallow aquifers represent the coal seams while deeper groundwater reserves occur below the seams. Some water bearing zones also occur in fractures within interburden sequences.

The old Western Main Underground mine required dewatering to enable extraction of the Lithgow Seam. When the previous open cut extracted the seam adjacent to the Castlereagh Highway, the underground workings became free draining. Based on the north easterly dip of the coal seams, all seepage through the seams reports to the existing dams at the base of the site, just to the north of the entrance to the Springvale Services Site.

### **6.8.1 Impact on Groundwater Systems**

Although some local recharge has occurred since underground extraction ceased, the old workings which were intersected by the now closed Lamberts Gully open cut were largely dry. The last underground workings exposed by the open cut and which are now being used for reject disposal, referred to as A Pit, were also dry.

Although the open cut removed the seam, any groundwater seepage will still report to the old open cut voids and dam systems and will be recycled for use in the Washery as currently occurs.

### **6.8.2 Management of Groundwater**

Although it is anticipated that no ground water will be intersected by the construction of the new Washery or additional reject disposal areas, it may be possible for incidental groundwater interaction during the haul road construction. This will be investigated and assessed in the EIS. No specific groundwater management procedures are considered necessary. The EIS for the Project will document the existing groundwater regime for the site and provide details of any additional mitigation or amelioration measures considered necessary.

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## **6.9 Visual**

Although mining and power generation activities have been visible from public roads for many years, the Project will introduce a new element into the landscape being the new private haul road which will cross the Castlereagh Highway near the current entrance road to the Springvale Coal Services Site. The impact of this overpass will be assessed in the EIS with particular emphasis on the implications for the township of Blackmans Flat.

## **6.10 Community and Social Issues**

### **6.10.1 Land Use**

The EIS will identify and discuss current competing land uses for the Springvale Coal Services Site and along the existing overland conveyors and private haul roads as well as the proposed new private haul road. The study area has had a long mining history but has also been associated with the disposal of fly ash from Mount Piper Power Station and has approval for Lithgow City Council to use a portion of the Springvale Coal Services site for municipal waste disposal. These uses are not considered mutually exclusive and the proposed development will be designed to accommodate such uses as far as practicable.

### **6.10.2 Social and Economic**

A Social Impact Assessment commenced early 2012 and builds on the Community Engagement Strategy that has been implemented by Centennial Coal (refer Section 7).

Direct consultation with residents of Blackmans Flat is underway to identify in detail the impacts of the proposed project as well as the development of appropriate mitigation and management strategies.

An Economic Impact Assessment will also be undertaken as part of the EIS to identify impacts of the proposed Project on the community. It is anticipated that the scope of the assessment include:

- ☐ A benefit cost analysis;
- ☐ A regional economic impact assessment of the Project;
- ☐ Quantification of the economic cost, benefits and impacts of the Project; and
- ☐ The provision of recommendations on any relevant management and mitigation.

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### 6.10.3 Cumulative Impacts

The EIS will include an assessment of the combined impacts of the Project plus other existing activities in the region such as Mount Piper Power Station, fly ash disposal activities, the Castlereagh Highway, existing coal conveyors and the open cut operation at Pine Dale. The assessment will also consider known other projects in the vicinity such as the future Neubeck Open Cut and Lithgow Council's approved Municipal Waste Disposal Area.

The residents of Blackmans Flat are key stakeholders likely to be impacted upon by the cumulative impacts of the Project, particularly with respect to noise and dust.

### 6.11 Archaeology and Heritage

There have been several archaeological and heritage studies undertaken at the Springvale Coal Services Site, primarily as part of the Lamberts Gully Open Cut approvals. Previous studies undertaken over the current study area (OzArk 2005, Rich and Gorman 1992, Rich 1993a and 1993b and Brayshaw 1993) have identified eight Aboriginal sites within the boundaries of the Springvale Coal Services Site. Consent to Destroy under Section 90 of the *National Parks and Wildlife Act 1974* has been obtained for those sites within the impact area of the open cut.

The proposed Washery development lies within the floor of an old open cut while the new REAs are all located within existing open cut spoil and reject disposal areas. The only area that may contain relics would be associated with the new haul road linking the site to the private haul road between Mount Piper Power Station and Angus Place Colliery. The road will cross Wangcol Creek and the Castlereagh Highway in an area that has had significant land disturbance from previous mining operations dating back to the 1920s.

Aboriginal and European Impact Assessments will be undertaken as part of the EIS.

### 6.12 Greenhouse

A Greenhouse gas assessment will be undertaken as part of the EIS. The assessment will:

- ❑ Calculate Scope 1, 2 and 3 greenhouse gas estimations for the on-site activities associated with the Project in accordance with the requirements of the NGER Act, and by applying all relevant emission factors and methods including those documented in the NGER System Measurement, Technical Guidelines (June 2010);

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- ☐ Assess the significance of greenhouse gas emissions for the Project in relation to national greenhouse gas objectives, and report on the Project's greenhouse gas implications in terms of Federal and NSW Government policies and protocols;
  - ☐ Determine mitigation or management measures as required; and
  - ☐ Identify any residual environmental risk.

### **6.13 Transportation**

A traffic and transport assessment will be carried out and will include:

- ☐ Characterisation of the existing road transport environment;
- ☐ Identification of potential impacts of the Project to the public road network;
- ☐ Quantification of traffic generated by the Project during the operational and construction phases;
- ☐ Potential impacts on traffic conditions; and
- ☐ Measures to mitigate and/or manage potential impacts from traffic.

### **6.14 Rehabilitation**

Although not considered a constraint to the proposed development, underlying geology, existing soil systems and surrounding topography are relevant in the development of appropriate rehabilitation strategies for the Project. These strategies will be provided in the EIS along the proposed design of final landforms covering the proposed Reject Emplacement Areas.

The proposed expansion of the reject emplacements will need to use previously mined overburden as final capping material. As there are no remaining topsoil stockpiles, alternative topdressing material will need to be imported to the site or manufactured on site using available overburden. The EIS will detail the required future topdressing materials for the reject emplacements as well as final closure provisions of the site. The current Rehabilitation Plan for the site will be modified as part of the EIS to address decommissioning, final landform design, rehabilitation methodologies, and maintenance and monitoring following cessation of operations.

### **6.15 Agricultural Land**

Areas that have been subject to previous mining which are not required for the ongoing operation of the Coal Services Site will be rehabilitated which are currently designed to replace previous native forest vegetation communities as the site would be unsuitable for future agricultural

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activities. The EIS however will include an agricultural capability assessment of the site. This assessment will include determining if any of the land covered by this application is still in its natural state and potential loss if any of future agricultural potential.



## 7. Stakeholder and Community Consultation

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Centennial will lead the stakeholder consultation for the Project. A detailed stakeholder consultation plan has been developed for the Project, which provides a framework to identify and appropriately consult with stakeholders that may be influenced by or have an interest in the Project. Key stakeholders include:

- ☐ Community, and in particular the residents of Blackmans Flat;
- ☐ Delta Electricity;
- ☐ Pine Dale Mine;
- ☐ Non-government organisations and community bodies;
- ☐ Centennial employees.
- ☐ Government (Federal, State and Local);

Centennial has commenced the consultation process having held discussions with key government agencies, Delta Electricity and Enhance Place Pty Ltd (Pine Dale Mine) and conducted community information sessions.

A stakeholder consultation log will be maintained as a record of the consultation activities undertaken, and the contents of this log will be summarised in the EIS. Consultation to be undertaken as part of the Project will include:

- ☐ Updates provided to key Non-Government organisations.
- ☐ Distribution of a newsletter to residents.
- ☐ Letters informing people of the Project to relevant stakeholders.
- ☐ Project updates provided on the Centennial coal website;
- ☐ Project updates provided in local print media;
- ☐ Information sessions; and
- ☐ Face to face meetings with relevant landowners and other regulatory and industry stakeholders where required or requested.

Centennial maintains separate community complaints and enquiries lines for each mine site which will also be made available to the community for people to obtain up to date and factual information regarding the Project.

Recent consultation activities are discussed in the following sections.

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## **7.1 Community Consultation**

In early 2012, Centennial commenced a regional consultation process involving four projects, the Springvale Coal Services Upgrade, Lidsdale Siding Upgrade, Springvale Mine and Angus Place Colliery life of mine projects. The consultation process comprised:

- ❑ A letter box drop during early March 2012 inviting the regional community to Community Information Sessions;
- ❑ An article placed in the Lithgow Mercury, in Centennial's News Page to provide the regional community with an update on the four projects in the area
- ❑ further project updates in the Lithgow Mercury advertising the three forthcoming Community Information Sessions; and
- ❑ A further advertisement placed in the Lithgow Mercury on 17 March 2012.

Community Information Sessions were subsequently held at the Country Women's Association in Wallerawang on:

- ❑ Wednesday 14 March, evening session from 4 pm to 8 pm;
- ❑ Saturday 17 March, morning session 9 am to 1 pm; and
- ❑ Tuesday 20 March, morning session 9 am to 1 pm.

Centennial representatives from all four projects were present at all three sessions. Information boards with project plans and illustrations were on display. The sessions were then reported in an article in the Lithgow Mercury on 21 April 2012.

Issues raised during the Community Information Sessions specifically regarding the Springvale Coal Services Upgrade came mainly from residents of Blackmans Flat. The key issues raised were noise and dust impacts, the social impacts of being surrounded by industry (mining developments and power station) and the loss of property values.

## **7.2 Government Agency Consultation**

Consultation with government agencies commenced in early 2012 associated with all four current Centennial projects in the Western Coalfield. A series of meetings have already been held with the following key agencies to discuss a number of Centennial's Western Operations:

- ❑ Lithgow City Council
- ❑ Department of Planning and Infrastructure
- ❑ Office of Environment and Heritage
- ❑ Division of Resources and Energy

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- ☐ Sydney Catchment Authority
  - ☐ NSW Office of Water
  - ☐ Roads and Maritime Services
  - ☐ Department of Primary Industries (Forests NSW)

## **8. Project Justification**

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This Project has been developed to provide the Applicant with market flexibility to respond to changing market trends.

It provides both, security for the existing operations of Angus Place and Springvale mines, and opportunity for future projects in the local area.

This is achieved by the upgrading of existing operations to provide additional capacity and the flexibility to access both the domestic and the export markets.

This continued utilisation of existing infrastructure for the transport, beneficiation and loading of coal will result in less overall community and environmental impact than would result from the development of a new site as current operations will be expanded and enhanced.

Continued community benefits of private road haulage are maintained with the provision of a link road from the existing Mt Piper haul road to the Coal Services Site and therefore continuing to keep trucks off public roads.

This project also provides for the integration of the coal transport and handling portions of the Springvale and Angus Place consents, providing for efficiencies and benefits in the management and regulation of these activities.

## 9. Conclusion

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This Briefing Paper has been prepared to broadly describe the Project and to provide a preliminary overview of the likely environmental risk areas that have been identified through initial studies. This document also provides a general scope of the anticipated environmental studies that will be produced as part of the EIS.

It is anticipated that this document will be used to brief a range of government stakeholders and will provide the basis of seeking the requirements of the Director-General of the DoPI for the necessary EIS. It is anticipated that the Director-General will use the documentation to confirm that the Project is to be assessed under the Part 4 of the EP&A Act, and as a basis for issuing the environmental assessment requirements for the Project.