STRATFORD MINING COMPLEX
Closure
Environmental Management Strategy

STRATFORD MINING COMPLEX
[STRATFORD EXTENSION PROJECT]

CLOSURE
ENVIRONMENTAL MANAGEMENT STRATEGY

Revision Status Register

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1 INTRODUCTION

1.1 STRATFORD MINING COMPLEX

Stratford Coal Pty Ltd (SCPL), a wholly owned subsidiary of Yancoal Australia Limited (Yancoal), owns the Stratford Coal Mine (SCM), which is located approximately 100 kilometres (km) north of Newcastle, New South Wales (NSW) (Figure 1-1). SCPL also owns the Bowens Road North Open Cut (BRNOC), located to the immediate north of the SCM. The SCM and BRNOC are collectively referred to as the Stratford Mining Complex (SMC).

With the exception of existing road reserves, the SMC Mining Leases (MLs) exist wholly within land owned by Yancoal.

Yancoal also owns the Duralie Coal Mine (DCM), which is located approximately 20 km south of the SMC (Figure 1-1). Run-of-mine (ROM) coal from the DCM was transported by rail to the SMC for processing and export during operation of the DCM. The DCM transitioned to closure following cessation of mining activities in 2021.

The Development Consent SSD-4966 for the Stratford Extension Project (SEP) was granted on 29 May 2015 and modified in January 2021 under Part 4 of the *Environmental Planning and Assessment Act* 1979 (EP&A Act). Development Consent SSD-4966 included the surrender of existing consents for the SMC. Development Consent SSD-4966 involved the extension and continuation of mine operations at the SMC[1], including (among other things):

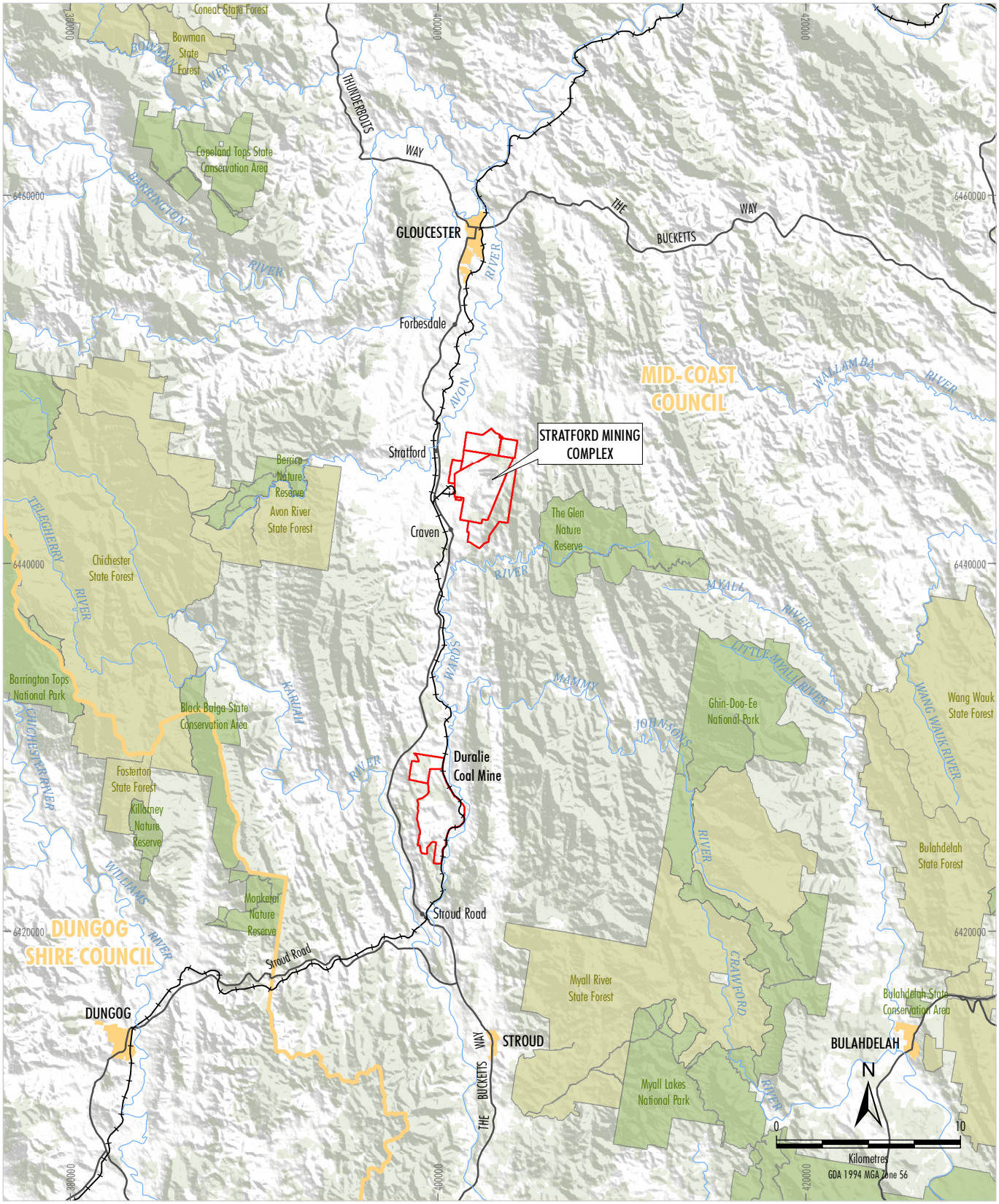
- mining of up to 2.6 million tonnes of ROM coal per annum until 31 December 2025;
- continuation of mining in the BRNOC, the recommencement of mining in the Roseville West Open Cut Pit and the extension of mining into three new open cut mining areas:
  - Roseville West Pit Extension;
  - Avon North Open Cut; and
  - Stratford East Open Cut;
- progressive backfilling of mine voids with waste rock behind the advancing open cut mining operations;
- continued and expanded placement of waste rock in the Stratford Waste Emplacement and Northern Waste Emplacement;
- coal processing at the existing Coal Handling and Preparation Plant (CHPP);
- stockpiling and loading of product coal to trains for transport on the North Coast Railway to Newcastle;
- disposal of CHPP rejects via pipeline to the existing co-disposal area in the Stratford Main Pit and, later in the mine life, the Avon North Open Cut void;
- continued use of existing water storages/dams and progressive development of additional sediment dams, pumps, pipelines, irrigation infrastructure and other water management equipment and structures;
- other associated minor infrastructure, plant, equipment and activities and minor modifications to existing structure, plant and equipment and activities; and
- rehabilitation of the site.

Current Status

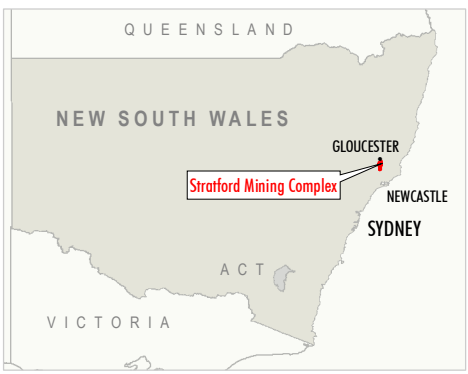
Mining operations ceased in June 2024, earlier than approved. As a result, mining operations at the SMC did not extract all approved coal resources and did not mine the maximum extent of approval, including no mining undertaken at Roseville West Extension and only a portion undertaken at Stratford East Open Cut.

The ‘as developed’ general arrangement of the SMC is provided in Figure 1-2.

[1] A copy of the Development Consent (and other statutory State and Federal licenses and approvals) is available on the Stratford Coal website (www.stratfordcoal.com.au).



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LEGEND

- Mining Lease Boundary
- NSW State Forest
- National Park, Nature Reserve or State Conservation Area
- Local Government Area Boundary

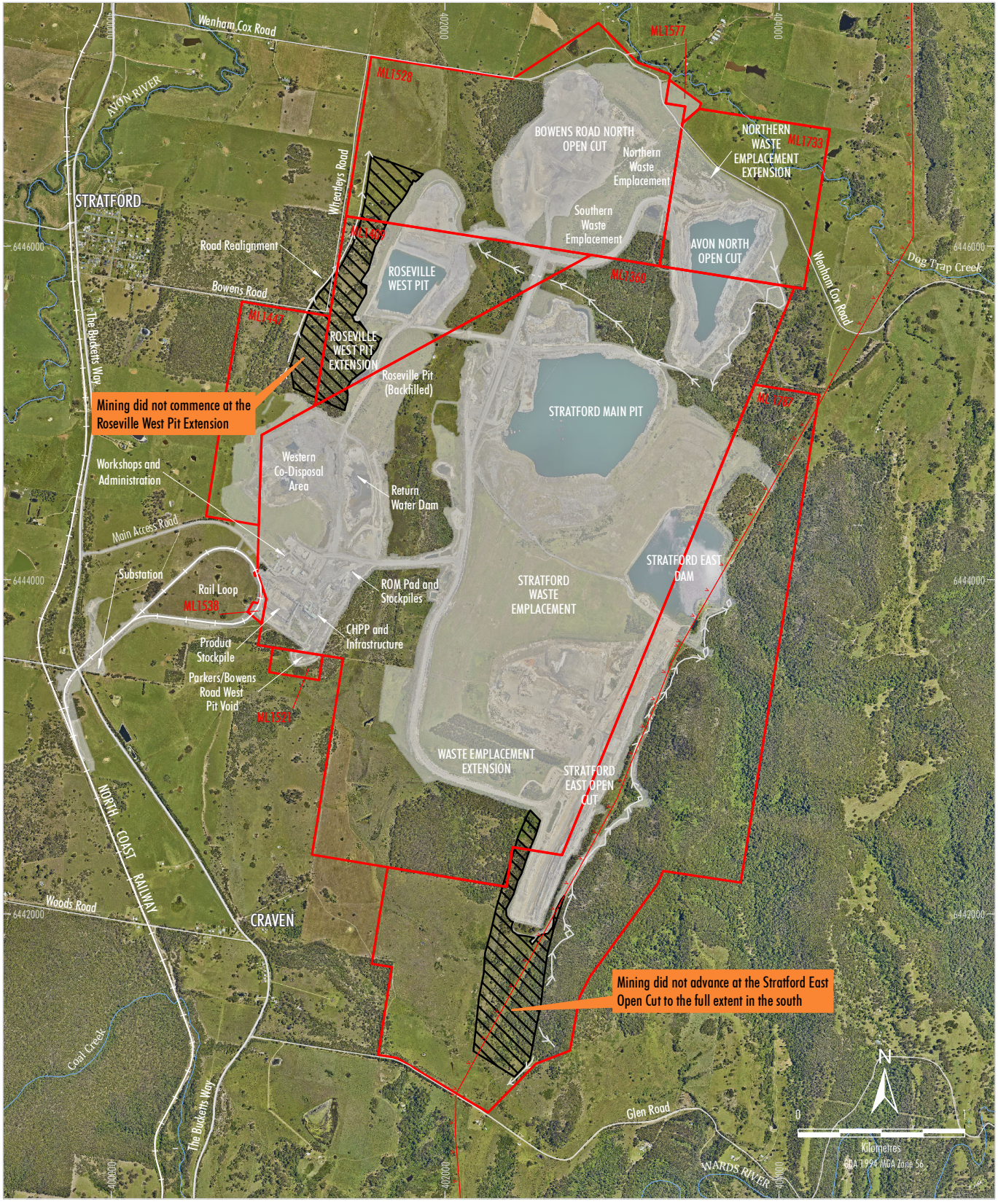
Source: Geoscience Australia (2006); Yancoal (2023); NSW Spatial Services (2026)

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Regional Location

Figure 1-1



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LEGEND

- Mining Lease Boundary
- 132 kV Electricity Transmission Line
- Conceptual Up-Catchment Diversion
- Extent of SMC Surface Development
- Other Approved Surface Development Area

Source: Yancoal (2026); NSW Spatial Services (2026)
Orthophoto: Yancoal (2024)

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As Developed Arrangement

Figure 1-2

The post mining land uses, final landform and final landform features have been developed for land disturbed for mining operations or that require disturbance to undertake closure activities and establish a safe, stable and non-polluting landform. Other areas approved for mining operations that have not been and will not be disturbed, including Roseville West Pit Extension and a portion of Stratford East Open Cut (Figure 1-2), have not required consideration for development of a post mining landform and are not considered further in this section.

The post mining land uses, final landform and final landform features have been developed in consideration of how:

- CHPP rejects were ultimately not required to be placed in Avon North Open Cut as there was sufficient capacity in Stratford Main Pit, and reclamation of Roseville Pit was not required;
- the Eastern Emplacement Area was not filled as it required Stratford East Open Cut to be mined to its full extent;
- Stratford East potentially acid forming (PAF) Containment Cell has been removed following rehandle to the Stratford East Open Cut;
- Stratford East Open Cut has been backfilled; and
- the final voids are located in Avon North Open Cut, Stratford Main Pit and Roseville West Pit.

Now in closure, SCPL has been undertaking detailed mine closure planning, decommissioning of infrastructure and rehabilitation activities including:

- Progressive reduction in the total mobile plant fleet.
- Reduction of vegetation clearance activities.
- Bulk rehabilitation earthworks.
- Open cut pit backfilling activities.
- Water management works.
- Continued progressive rehabilitation of the final landform.
- Infrastructure decommissioning and demolition.
- Technical studies and site investigations to address closure knowledge gaps and develop detailed decommissioning and rehabilitation execution plans.
- Refinement of monitoring programs and Environmental Management Plans (EMPs).

These closure activities will be ongoing for a number of years. To relinquish MLs and surrender consents, government sign-off will be required, including confirmation that completion criteria and environmental outcomes have been achieved.

1.2 OBJECTIVE AND STRUCTURE OF THE CLOSURE ENVIRONMENTAL MANAGEMENT STRATEGY

This Closure Environmental Management Strategy (EMS) has been prepared in accordance with the requirements of Condition 1, Schedule 5 of Development Consent SSD-4966. The objectives of this EMS are to fulfil the relevant consent conditions by providing a strategic framework for environmental management of the closure of the SMC, including all EMPs, strategies, and programs prepared for the SMC. Therefore, this EMS also recognises the EMPs, strategies and programs required by Commonwealth Approval (EPBC 2011/6176).

This EMS has been prepared to manage closure activities required to establish post mining land uses and final landform at the SMC. **Accordingly, the scope of this EMS does not include mining operations.**

The remainder of this EMS is structured as follows:

Section 2: Outlines the statutory requirements applicable to this EMS and the EMPs.

Section 3: Provides background and baseline information on the SMC and its environment.

Section 4: Describes the post mining land uses.

Section 5: Describes the final landform and final landform features.

Section 6: Describes closure activities required to achieve the post mining land uses and final landform.

Section 7: Outlines the environmental management framework.

Section 8: Outlines the protocol for management and reporting of incidents, complaints, enquiries, and independent reviews.

Section 9: Describes the program to review and report on the effectiveness of management measures and improvement of environmental performance over time. Also describes the protocol for periodic review and update of this EMS, as well as a summary of the means for dissemination of information to the local community and relevant agencies.

Section 10: Describes the SMC environmental management structure including roles and responsibilities of key personnel.

Section 11: Lists the references cited in this EMS.

1.3 STAGING OF THE ENVIRONMENTAL MANAGEMENT STRATEGY AND ENVIRONMENTAL MANAGEMENT PLANS

In accordance with Condition 15, Schedule 2 of Development Consent SSD-4966, SCPL requested approval from the Department of Planning, Housing and Infrastructure (DPHI) to stage the submission of the EMS and EMPs to reflect closure activities and works required to establish the post mining land uses and final landform at the SMC.

On 30 March 2026, the DPHI approved SCPL's request to stage the EMS and EMPs to reflect the closure phase.

On 14 September 2026, this EMS was submitted to the DPHI for approval. The DPHI approved this revised EMS on 19 October 2026. The DPHI's letter of approval is provided in Appendix A. The revision status of this EMS is provided on the title page of this EMS.

2 STATUTORY REQUIREMENTS

SCPL's statutory obligations are contained in:

(i) the conditions of Development Consent SSD-4966 (Attachment 1);

(ii) the conditions of Commonwealth Approval (EPBC 2011/6176) (Attachment 2);

(iii) Environment Protection Licence (EPL) 5161;

(iv) relevant licences and permits, including conditions attached to the MLs; and

(v) other relevant legislation.

Obligations relevant to this EMS are described below.

2.1 DEVELOPMENT CONSENT SSD-4966

2.1.1 Environmental Management Strategy Requirements

Condition 1, Schedule 5 of Development Consent SSD-4966 (Attachment 1) requires the preparation of an EMS. Table 2-1 presents these requirements and where they are addressed in this EMS.

Table 2-1
Environmental Management Strategy Requirements in Development Consent SSD-4966

Development Consent SSD-4966 Schedule 5	Relevant Section
Environmental Management Strategy	
1. *The Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:*	This EMS
(a) be submitted to the Secretary for approval at least 3 months prior to the commencement of mining operations in the new mining areas, unless the Secretary agrees otherwise;	Not applicable to this EMS
(b) provide the strategic framework for environmental management of the development;	Sections 1.2, 2 and 7
(c) identify the statutory approvals that apply to the development;	Section 2
(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;	Section 10
(e) describe the procedures that would be implemented to:	
• *keep the local community and relevant agencies informed about the operation and environmental performance of the mining complex;*	Sections 1.3, 7, 8 and 9
• *receive, handle, respond to, and record complaints;*	Section 8
• *resolve any disputes that may arise;*	Section 8
• *respond to any non-compliance;*	Sections 8 and 9
• *respond to emergencies; and*	Section 8
(f) include:	
• *copies of any strategies, plans and programs approved under the conditions of this consent; and*	Section 7
• *a clear plan depicting all the monitoring to be carried out in relation to the development.*	Figure 7-1

2.1.2 Environmental Management Plan Requirements

This EMS provides the strategic framework for environmental management required for closure of the SMC, including all EMPs, strategies, and programs prepared for the SMC. Section 7 provides the closure EMS framework and includes the consolidated list of EMPs required for closure.

2.2 COMMONWEALTH APPROVAL (EPBC 2011/6176)

Commonwealth Approval (EPBC 2011/6176) for the SEP (Attachment 2) was granted on 29 January 2016. Listed threatened species and communities, listed migratory species and water resources were controlling provisions in the approval decision and consequently additional conditions for the protection of listed threatened species and communities and water resources were included. A copy of Commonwealth Approval (EPBC 2011/6176) is available on Stratford Coal's website (www.stratfordcoal.com.au).

2.3 LICENCES, PERMITS AND LEASES

In addition to Development Consent SSD-4966 and Commonwealth Approval (EPBC 2011/6176), all activities undertaken at or in association with the SMC will be conducted in accordance with a number of licences, permits and leases which have been issued or are pending issue.

Key licences, permits and leases pertaining to the SMC include:

- The conditions of EPL 5161 administered by the Environmental Protection Agency (EPA) under the *Protection of the Environment Operations Act 1997* (POEO Act).
- The conditions of MLs 1360, 1409, 1447, 1538, 1521, 1577, 1528, 1733 and 1787 issued by the NSW Minister for Mineral Resources under the *Mining Act 1992*.
- Water supply works, water use approvals and water access licences issued by Water NSW under the *Water Management Act 2000*.

2.4 OTHER LEGISLATION AND RELEVANT REQUIREMENTS

SCPL operates the SMC consistent with Development Consent SSD-4966, the Commonwealth Approval (EPBC 2011/6176), and any other legislation that is applicable to an approved Part 4 Project under the EP&A Act.

In addition to the statutory obligations described in Sections 2.1 and 2.3, the following NSW Acts (and their Regulations) that are or may be applicable to the SMC:

- *Work Health and Safety (Mines and Petroleum Sites) Act 2013*;
- *Contaminated Land Management Act 1997*;
- *Crown Land Management Act 2016*;
- *Biosecurity Act 2015*;
- *Dams Safety Act 2015;*
- *Fisheries Management Act 1994*;
- *National Parks and Wildlife Act 1974*;
- POEO Act;
- *Roads Act 1993*; and
- *Biodiversity Conservation Act 2016.*

In addition to the statutory obligations described in Section 2.2, Commonwealth Acts which are and/or may be applicable to the conduct of SMC include:

- *Environment Protection and Biodiversity Conservation Act 1999*; and
- *Native Title Act 1993*.

Relevant licences or approvals required under these Acts have been obtained and will continued to be obtained as required.

Yancoal is registered on the National Greenhouse and Energy Register (established under section 16 of the Commonwealth *National Greenhouse and Energy Reporting Act 2007* [NGER Act]), which is publicly available on the Commonwealth Clean Energy Regulator website (www.cleanenergyregulator.gov.au). Yancoal reports annually in accordance with the reporting requirements under the NGER Act.

SCPL also provides annual National Pollutant Inventory (NPI) reports to the EPA. Emissions data for the SMC is publicly available on the Commonwealth NPI website (www.npi.gov.au) and is reported in the Annual Reviews. SCPL will continue to provide NPI reports whilst the operation exceeds the NPI reporting threshold.

3 BACKGROUND INFORMATION

The following subsections provide background information on the climate, geology, hydrogeology, hydrology and fluvial networks, soil and topography, surrounding land uses, heritage and flora and fauna, in order to contextualise the environment surrounding the SMC.

3.1 CLIMATE

Long-term regional meteorological data are collected from nearby Commonwealth Bureau of Meteorology (BoM) weather stations, which is published on the BoM website. These weather stations include Waukivory, Craven (Longview) and Gloucester Post Office.

SCPL also operates one meteorological monitoring adjacent to the SMC. SCPL meteorological station is designated to collect data required in accordance with Development Consent SSD-4966, monitoring a range of meteorological data including temperature, humidity, rainfall, wind speed and wind direction.

The months with higher rainfall are typically January to March, with July to September being the driest. The long-term average annual rainfall ranges from approximately 986 to 1,176 millimetres (mm).

January is typically the warmest month and July is the coldest. The long-term average monthly temperature ranges from a maximum temperature of 29.8 degrees Celsius (°C) in January to a minimum temperature of 6.4°C in July.

The long-term average monthly evaporation rate ranges from 1.3 millimetres per day (mm/day) in June to 5.6 mm/day in December and January.

North to north-east and south to south-west are the most common annual and seasonal winds in the locality.

3.2 GEOLOGY

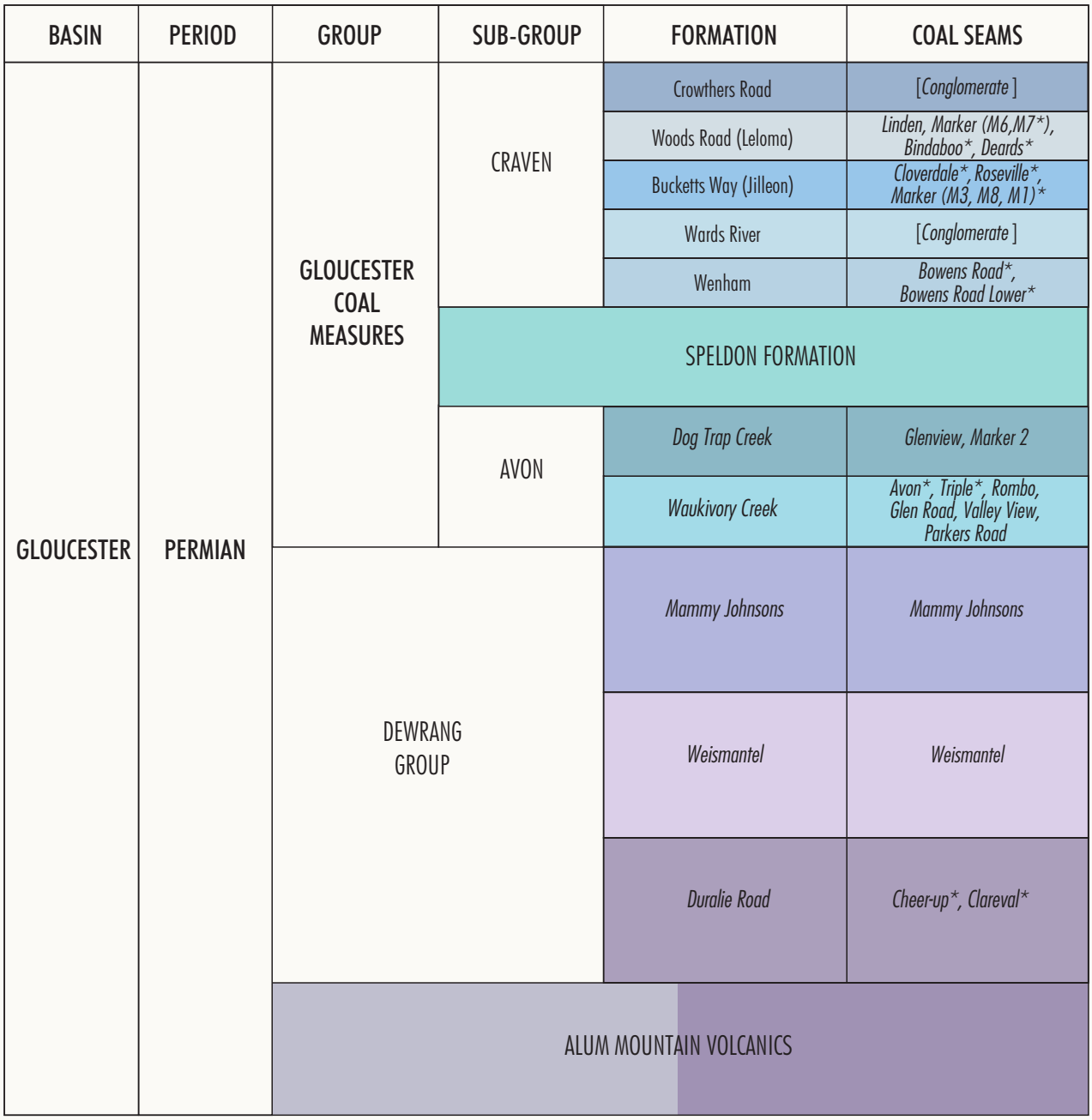
The SMC is located within the Gloucester Basin, which is a small Permian sedimentary basin (SCPL, 2012).

Both normal and reverse faults are characteristics of the basin as it is a fault-controlled depositional trough (Heritage Computing Pty Ltd [Heritage Computing], 2012). Resulting compression tectonics have induced folding, which has accentuated the dip of the strata, and in some cases, has resulted in the thrust-faulted repetition of the stratigraphic units (Heritage Computing, 2012). Coal seams nearby the fault planes show highly distorted bedding and cleating (though not intensely brecciated), and normal faulting has been observed. Notably, a significant east-west fault separates Stratford Main Pit from the BRNOC (Heritage Computing, 2012).

This area contains a thick sequence of Carboniferous volcanics overlain by Permian sedimentary strata including coal seams. The Early Permian and Carboniferous strata were folded during formation of the Gloucester Basin. The Permian succession comprises, from oldest to youngest, Stroud Volcanic, Dewrang Group and Gloucester Coal Measures (Figure 3-1).

The Gloucester Coal Measures contain conglomerate, sandstone, siltstone, mudstone and coal. The Gloucester Coal Measures can be divided into the Avon Subgroup from the middle Permian and the Craven Subgroup from the upper Permian. The Avon Subgroup contains the Avon coal seam while the Craven Subgroup contains the Cloverdale, Roseville and Bowens Road coal seams. The Dewrang Group from the early Permian hosts the Weismantel and Clareval coal seams.

There is a thin and narrow deposit of Quaternary to Recent Age alluvial deposits in association with both Avondale Creek and Dog Trap Creek in the vicinity of the SMC (Heritage Computing, 2012).



* Coal reserves mined at the Stratford Mining Complex

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Stratigraphic Units of the SMC Area and Surrounds

Figure 3-1

3.3 HYDROGEOLOGY

Groundwater levels are controlled by ground surface topography, geology and surface water elevations, and are a subdued reflection of topography (Heritage Computing, 2012). Regional groundwater flows in a generally northerly direction, with groundwater flow in the vicinity of the SMC flowing from the south-east to the north-west. A groundwater divide occurs in the Craven area, which separates the surface catchments and groundwater systems, groundwater south of Craven flows in a southerly direction towards Wards River and groundwater north of Craven flows in a northerly direction towards Avon River (SLR Consulting Australia [SLR], 2024).

Two groundwater systems have been identified across the SMC, comprising (SLR, 2024):

- a fractured rock groundwater system, which includes shallow rock groundwater bearing structures and the Gloucester Basin coal measures of the Permian age; and
- an alluvial groundwater system, which includes alluvial and narrow channel sediments of Dog Trap Creek, Avondale Creek and Avon River.

The main aquifers in the fractured rock groundwater system of the SMC are associated with the rocks of the Dewrang Group and underlying Alum Mountain Volcanics and Carboniferous McInnes Formation. The coal seams are intersected by faults that compartmentalise groundwater flow, with the majority of the groundwater present within the coal seams.

The average thickness of alluvium is about 9 metres (m) with an unknown maximum depth. There is a narrow alluvial channel along Dog Trap Creek with a variable depth, generally less than 10 m. Groundwater within the vicinity of the Dog Trap Creek alluvium is present approximately 5 to 8 m below the surface.

Groundwater replenishment into the aquifer is sustained through rainfall infiltration. Discharge to springs occurs at surface watercourses within the surrounding valleys, predominately Avondale Creek, Dog Trap Creek and the Avon River (SLR, 2024).

3.4 HYDROLOGY AND FLUVIAL NETWORKS

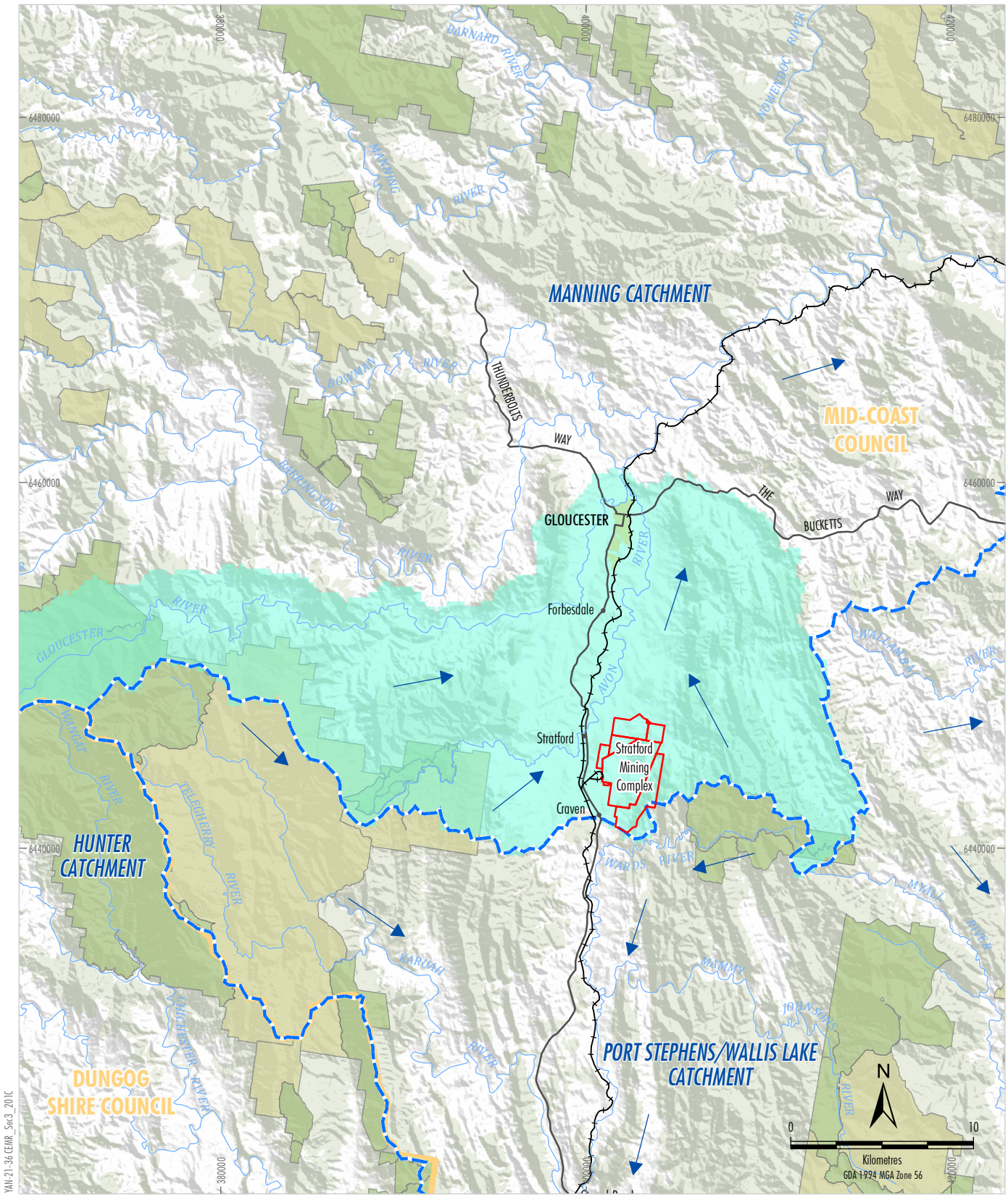
The SMC is located within the Avon River sub-catchment of the Manning River Catchment (Figure 3-2). The Avon River flows into the Gloucester River, a tributary of the Manning River. The Manning River drains into the ocean north-east of the SMC, near Harrington.

The Avon River flows for the majority of the year with the mean daily flow being 125 megalitres per day. Stream water height and monthly average streamflow volume is highest in the months January through April (HydroBalance, 2024).

The local drainage network comprises two ephemeral drainage systems, including Dog Trap Creek and Avondale Creek, both flowing in a southeast to northwest direction towards the Avon River (Figure 3-3) (HydroBalance, 2024).

Dog Trap Creek is a third-order to fourth-order ephemeral stream, with headwaters in the foothills east of the SMC (Gilbert & Associates Pty Ltd, 2012), which experiences some extended periods of no or negligible flow. Dog Trap Creek involves a tightly meandering, well-defined, incised channel.

Avondale Creek, a third-order and fourth-order stream, rises in the timbered foothills south-east of the SMC, where the surface waters flow west before draining northwards through the SMC site (Gilbert & Associates Pty Ltd, 2012). Avondale Creek joins Dog Trap Creek approximately 1 km north.



YAN-21-36 CENR_Sec3_201C

LEGEND

- Mining Lease Boundary
- NSW State Forest
- National Park, Nature Reserve or State Conservation Area
- Local Government Area Boundary
- Regional Catchment Boundaries
- Avon River Sub-catchment
- Direction of Surface Water Flow

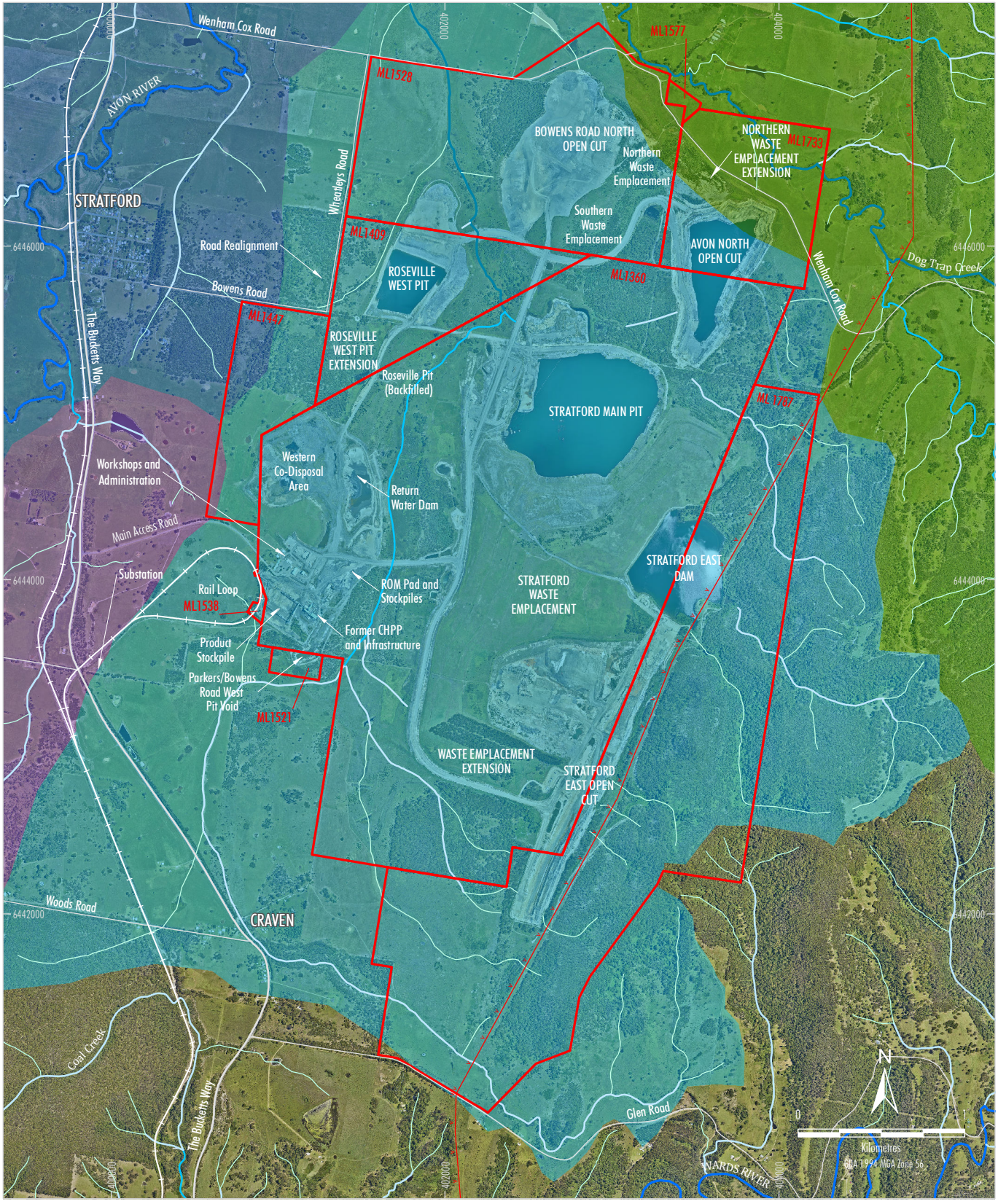
Source: Geoscience Australia (2006); Yancoal (2023); NSW Spatial Services (2026); HydroBalance (2024)

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Regional Catchment

Figure 3-2



YAN-21-36 CEMR_Sec3_2020

LEGEND

Mining Lease Boundary

Electricity Transmission Line

Strahler Stream Order*

1st Order

2nd Order

3rd Order

4th Order

5th Order

Local Catchment

Avon River Catchment

Avondale Creek (Sub-catchment of Avon River and Dog Trap Creek)

Dog Trap Creek (Sub-catchment of Avon River)

Unnamed Tributary (Sub-catchment of Avon River)

** Some drainage lines flow to existing SCPL water infrastructure and others have been previously modified by the SMC*

Source: Yancoal (2026); NSW Spatial Services (2026)
Orthophoto: Yancoal (2024)

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Local Sub-catchments of Avon River

Figure 3-3

3.5 SOIL AND TOPOGRAPHY

The SMC is located in the Gloucester Basin, a linear valley extending approximately 40 km in length and 13 km in width. Dominant elevated topographic features include the Gloucester Bucketts (546 metres above Australian Height Datum [m AHD]) and Mograni Range (480 m AHD), flanking the western and eastern sides of Gloucester respectively (SCPL, 2012). Other elevated features include Cut Hill (359 m AHD) (approximately 7 km north-west of the SMC) and Banks Rocks (460 m AHD) (approximately 3 km north-east of the SMC) (SCPL, 2012).

The surrounding topography is characterised by a north-south ridgeline to the east, which transitions to undulated lowlands and a valley floor floodplain towards the west (SCPL, 2012). The ridgeline to the east is moderately to steeply sloping and mostly timbered (Yancoal, 2024). The elevation within the SMC footprint ranges from approximately 140 m AHD to approximately 115 m AHD (SCPL, 2012).

The dominant soil types within the SMC include Kurosols (38 percent [%]), Kandosols (22%) and Anthroposols (disturbed lands) (16%), with smaller areas of Sodosols, Tenosols, Chromosols and Dermosols also being present (Yancoal, 2024).

The soil landscape units contain groupings of the above soil types, which include (Yancoal, 2024):

- Disturbed lands with a broad range of slopes: Anthroposols.
- Alluvial/Colluvial Plains, less than 3% slope: dominated by Kandosols; sub-dominant Kurosols, Sodosols and Chromosols.
- Alluvial/Colluvial Plains, flat and swampy: dominated by Kandosols; sub-dominant Kurosols, Sodosols and Chromosols.
- Lower slopes, 3% to 10% slope: dominated by Kurosols; sub-dominant Kandosols, Sodosols and Chromosols.
- Mid-slopes, 10% to 25% slope on sedimentary rock: mosaic of Tenosols, Kurosols, Kandosols and Sodosols.
- Mid-slopes, 10% to 25% slope on basalt: Dermosol.
- Upper slopes, greater than 25% slope: Tenosols and Rudosols.

3.6 SURROUNDING LAND USE

Land uses surrounding the SMC are dominated by agricultural production (primarily grazing for beef production) and remnant vegetation, which is generally located along ridgelines, along watercourses and in isolated patches within the cleared landscape (SCPL, 2012). A number of reserved areas are located in the general vicinity of the Project including The Glen Nature Reserve (located approximately 2 km to the south-east), Barrington Tops National Park located to the west and south-west, and the Avon River State Forest located to the west. Settlements located in the vicinity of the SMC site include Stratford to the west and Craven to the south-west.

3.7 HERITAGE

3.7.1 Aboriginal Cultural Heritage

Known Aboriginal cultural heritage sites at the SMC were identified in the SEP Environmental Impact Statement (EIS) (SCPL, 2012). The Heritage Management Plan provides a detailed description of each known Aboriginal cultural heritage site at the SMC and considers the impacts of the SMC on Aboriginal cultural heritage sites. Over the course of the Aboriginal cultural heritage assessments undertaken at the SMC, Registered Aboriginal Parties and/or Aboriginal stakeholders have been consulted about the cultural significance of Aboriginal objects and places, and a number of specific and general cultural values have been identified. Further detail is provided in the Heritage Management Plan.

3.7.2 Historic Heritage

Sites of known or potential non-Aboriginal heritage significance were identified in the SEP EIS (SCPL, 2012). No items of State or regional non-Aboriginal heritage significance were identified in the vicinity of the SMC. Items with identified heritage values in the Gloucester Local Environmental Plan and items identified as having local heritage significance in the vicinity of the SMC are listed in the Heritage Management Plan. Further detail is provided in the Heritage Management Plan.

3.8 FLORA AND FAUNA

Biodiversity Enhancement Areas and Biodiversity Offset Areas for the SMC have been established within and surrounding the SMC to improve vegetation and habitat connectivity across the site. These areas also connect with greater than 60 km of contiguous vegetation from Gloucester to the NSW coastline. Further site flora and fauna detail is provided in the Biodiversity Management Plan.

The Biodiversity Enhancement Areas and Biodiversity Offset Areas have been managed during the life of the SMC in accordance with the Biodiversity Management Plan. An Annual Biodiversity Report is prepared by SCPL each year to review the effectiveness of measures in the Biodiversity Management Plan, including within the MLs, Biodiversity Offset Areas, and Biodiversity Enhancement Areas.

Extensive flora and fauna surveys have been conducted in the locality, including prior to development of the SMC and over the life of the SMC. As required and as reported in the Annual Biodiversity Report, monitoring continues to be undertaken annually.

4 POST MINING LAND USES

This section describes the intended post mining land uses that will remain at the SMC to support long-term, beneficial outcomes for the land, and that reflect the 'as developed' arrangement of the mine.

The post mining land uses for the SMC have been developed to present a clear vision for a stable, functional landscape compatible with surrounding land uses and local topography.

Post mining land use domains have been selected and spatially configured with regard to the final landform design, including designed drainage patterns, long-term stable landform slopes, and rehabilitation outcomes that can be demonstrated and achieved. The overall approach is to develop an integrated land use mosaic that supports biodiversity connectivity within and beyond the site, while enabling beneficial post mining land uses.

Post mining land uses for the SMC include the following (Figure 4-1):

- Native ecosystem.
- Agricultural (grazing).
- Final voids.
- Water storage.
- Infrastructure areas.
- Biodiversity Enhancement Areas.
- Biodiversity Offset Areas.

The post mining land uses have been defined with reference to Development Consent SSD-4966 requirements and closure planning studies. Detailed descriptions of the post mining land uses and consistency with Development Consent SSD-4966 are provided in Sections 4.1 to 4.7.

4.1 NATIVE ECOSYSTEM

Condition 33, Schedule 3 of Development Consent SSD-4966 requires a portion of the mine rehabilitation (350 hectares [ha] of native ecosystem) to form part of the Biodiversity Offset Strategy. The area of disturbed land proposed for rehabilitation to native ecosystem is approximately 350 ha.

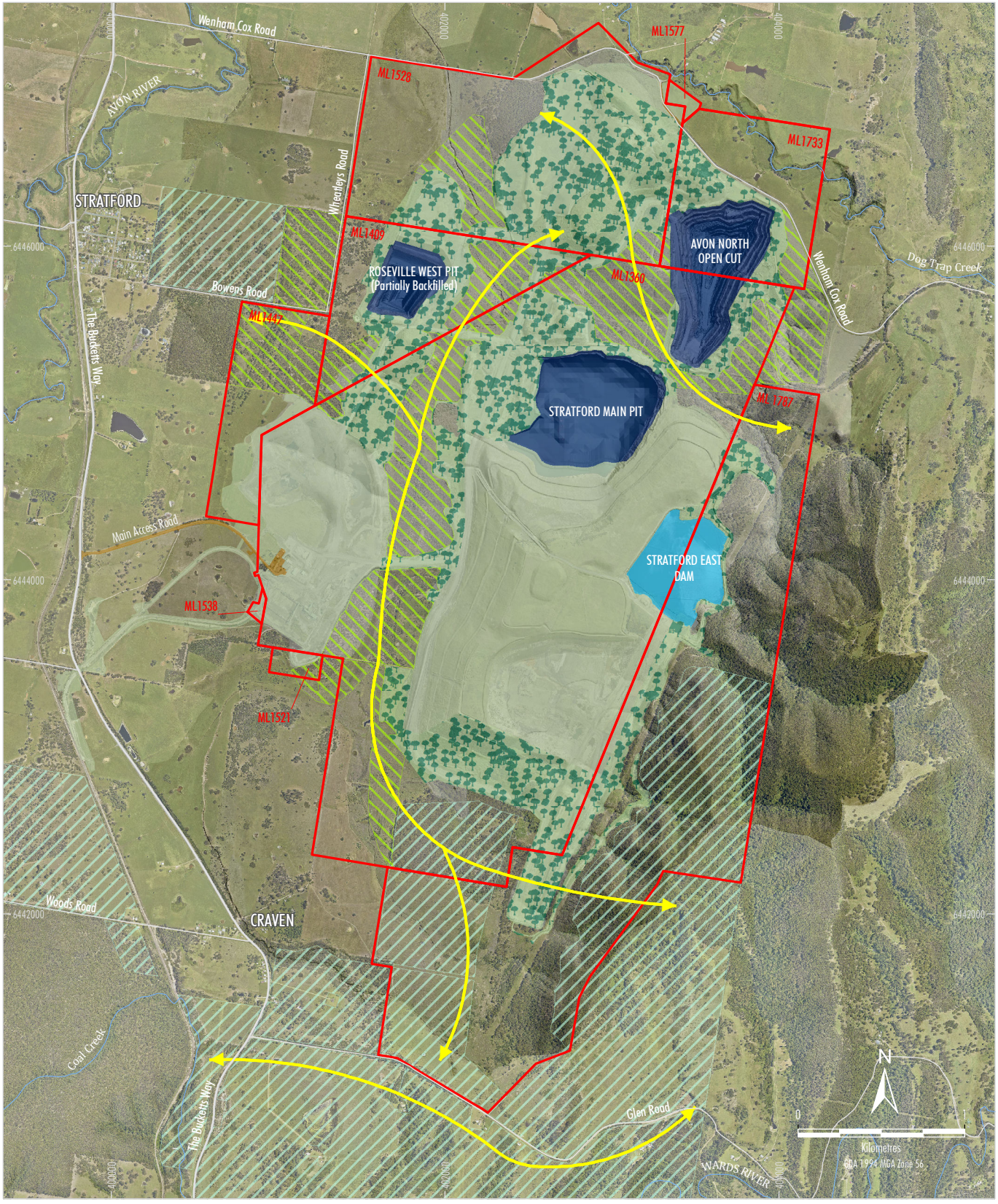
Mine rehabilitation areas targeted for native ecosystem will comprise local native plant species that are consistent with the surrounding environment. The configuration of land that will be rehabilitated to native ecosystem is provided on Figure 4-1. Areas targeted for native ecosystem have been considered with respect to land management in adjacent areas, including connectivity with Biodiversity Enhancement Areas and Biodiversity Offset Areas.

The environmental outcome for rehabilitation of native ecosystem is accordingly on track to being achieved by the proposed final landform and land uses

4.2 AGRICULTURAL – GRAZING

Condition 53, Schedule 3 of the Development Consent SSD-4966 requires a portion of the mine rehabilitation (300 ha of agriculture) to meet the Class 4 Agricultural Suitability Classification. Class 4 Agricultural Suitability is defined as (NSW Agriculture, 2002):

> *Land suitable for grazing but not for cultivation. Agriculture is based on native pastures and improved pastures established using minimum tillage techniques. Production may be high seasonally but the overall level of production is low as a result of a number of major environmental constraints, both environmental and edaphic.*



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LEGEND

- Mining Lease Boundary
- Biodiversity Enhancement Area
- Biodiversity Offset Area
- Natural Habitat Linkage

Final Land Use

- Native Ecosystem
- Agricultural - Grazing
- Final Void
- Water Storage (Excluding Final Void)
- Infrastructure

Source: Yancoal (2026); NSW Spatial Services (2026)
Orthophoto: Yancoal (2024)

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Post Mining Land Uses

Figure 4-1

The area of disturbed land proposed for rehabilitation for agricultural (grazing) purposes is approximately 367 ha. Roseville West Pit Extension and a portion of Stratford East Open Cut were approved disturbance areas where mining operations did not take place (Figure 1-2). Agricultural grazing areas within these approved disturbance areas have not been disturbed. The configuration of land that will be rehabilitated for agricultural purposes is provided on Figure 4-1.

The environmental outcome for rehabilitation of agriculture is accordingly on track to being achieved by the proposed final landform and land uses.

4.3 FINAL VOIDS

The final landform includes three final voids consistent with the number of voids approved in the SEP EIS, albeit in different locations. The final void locations and extents reflect that not all of the approved coal resource was extracted prior to cessation of mining activities, with the early cessation of mining at Stratford East Open Cut, not commencing Roseville West Pit Extension, and not requiring disposal of rejects at Avon North Open Cut. The three final voids will remain at (Figure 4-1):

- Avon North Open Cut;
- Roseville West Pit; and
- Stratford Main Pit.

Avon North Open Cut was a mining pit located in the north-east of the SMC. Roseville West Pit was a mining pit located in the north-west of the SMC that is being partially backfilled to be retained as a smaller void in the final landform. Stratford Main Pit was a mining pit located centrally within the SMC which has been used for rejects disposal and water storage, and has been partially backfilled.

The final void landforms and key features are discussed in Sections 5.1.1 and 5.2.3. Additional details on final voids as they relate to use of the land post mining is provided below.

The size and depth of the final voids has been minimised so far as is reasonable and feasible to minimise impacts on the land uses, surface water and groundwater in the surrounding environment. A comparison of the approved size and depth of the final voids against those in the intended final landform is provided in Table 4-1.

Table 4-1
Final Voids Approximate Size and Depth

Final Void	Size (ha)		Depth (m)	
	SEP EIS	Final Landform[1]	SEP EIS	Final Landform[2]
Avon North Open Cut	24	42	30	129
Roseville West Pit Extension	65	Not Applicable (N/A)	140	N/A
Roseville West Pit	N/A	14	N/A	79
Stratford Main Pit	N/A	45	N/A	60
Stratford East Open Cut	49	N/A	180	N/A
Total	**138**	**102**	**Average: ~ 117**	**Average: ~ 89**

[1] Area is defined by highwall crests where there are steep slopes or the median recovery water level where shaped spoil batters exist.

[2] Depth is spillway to approximately lowest point in landform.

The total extent (area) of proposed final voids is less than shown conceptually in Appendix 8 of Development Consent SSD-4966 and the average depth is less than described in the SEP EIS. The combined size and depth of final voids has been minimised through partial backfilling of voids with rejects and overburden, early cessation of Stratford East Open Cut, not commencing Roseville West Pit Extension and not requiring disposal of rejects at Avon North Open Cut.

The environmental outcome for final voids as a land use is accordingly on track to being achieved by the proposed final landform and land uses.

4.4 WATER STORAGE

Stratford East Dam is located in the central east of the SMC and is with an area of approximately 27 ha (defined by extent of water when at the overflow level of approximately 162 m AHD). Post mining, Stratford East Dam will be retained as a water storage for agricultural use, use by a public authority, and/or for environmental benefit consistent with Development Consent SSD-4966.

To facilitate its retention in the final landform, Stratford East Dam will be converted to a flow-through surface water storage structure without any diversion of up-slope surface water. The Stratford East Dam embankment and outflow structures will be upgraded to reflect the change in operation to a flow-through system without upslope diversion structures. Flow will continue to report to the Unnamed Tributary of Avondale Creek to the north of the dam.

Surface water management infrastructure associated with Stratford East Dam that will be retained in the final landform is discussed in Section 5.2.4.

The environmental outcome for the water storage land use is accordingly on track to being achieved by the proposed final landform and land uses.

4.5 INFRASTRUCTURE AREAS

Certain infrastructure at the SMC will be retained to support the future land uses and land-users. The infrastructure areas include:

- buildings and supporting facilities/services; and
- access roads and tracks.

In total, infrastructure areas account for approximately 3.5 ha of disturbed land in the final landform. This area excludes the area associated with the realignment of Wenham Cox Road.

The environmental outcome for infrastructure land use is accordingly on track to being achieved by the proposed final landform and land uses.

4.6 BIODIVERSITY ENHANCEMENT AREAS

Condition 33, Schedule 3 of Development Consent SSD-4966 requires Biodiversity Enhancement Areas (240 ha) to form part of the Biodiversity Offset Strategy (Figure 4-1).

The Biodiversity Enhancement Areas have been managed during the life of the SMC to form a wildlife corridor through the MLs connecting remnant vegetation in the east of the SMC with Biodiversity Offset Areas in the south and west of the SMC. Approximately 243 ha of land within the MLs and adjacent to the SMC form the Biodiversity Enhancement Areas. The Biodiversity Enhancement Area has been subject to minor adjustment, including setbacks from final voids for retained clean water diversions and flood bunds, and from topsoil stockpiles to be reclaimed for rehabilitation.

Avondale Creek is located within the Biodiversity Enhancement Area. The area has been and continues to be improved, including with the re-establishment of flora species characteristic of the Cabbage Gum Open Forest vegetation community consistent with Conditions 30 and 35, Schedule 3 of Development Consent SSD-4966.

Vegetation communities within the Biodiversity Enhancement Areas include:

- Cabbage Gum open forest or woodland on the flats of the North Coast and New England Tablelands;
- Spotted Gum – Grey Ironbark dry open forest of the lower foothills of the Barrington Tops, North Coast;
- Smooth-barked Apple – White Stringybark Shrubby Forest; and
- Derived grasslands in Coastal Valleys.

Suitable habitat is mapped within the Biodiversity Enhancement Area for the following listed threatened fauna species (AGC Woodward-Clyde, 1994; EcoBiological, 2011; Kerle, 2011; AMBS Ecology and Heritage, 2012):

- South-eastern Glossy Black-Cockatoo (*Calyptorhynchus lathami lathami*).
- Speckled Warbler (*Pyrrholaemus sagittatus*).
- Grey-crowned Babbler (eastern subspecies) (*Pomatostomus temporalis temporalis*).
- Varied Sittella (*Daphoenositta chrysoptera*).
- Brush-tailed Phascogale (*Phascogale tapoatafa*).
- Squirrel Glider (*Petaurus norfolcensis*).
- Northern Long-nosed Potoroo (*Potorous tridactylus tridactylus*).
- New Holland Mouse (*Pseudomys novaehollandiae*).

SCPL will continue to improve the Biodiversity Enhancement Area with land management and revegetation efforts comprising local native plant species that are consistent with the surrounding environment in order to enhance its function as a wildlife corridor. Management measures for Biodiversity Enhancement Areas are detailed in the Biodiversity Management Plan.

Accordingly, the environmental outcomes for the Biodiversity Enhancement Area are on track to being achieved by SCPL.

4.7 BIODIVERSITY OFFSET AREAS

Condition 33, Schedule 3 of Development Consent SSD-4966 requires Biodiversity Offset Areas (935 ha, including 490 ha of existing native vegetation) to form part of the Biodiversity Offset Strategy (Figure 4-1).

The Biodiversity Offset Areas are located in land adjacent and in proximity to the SMC and remnant vegetation (Figure 4-1), and comprise approximately 935 ha. SCPL has managed the Biodiversity Offset Areas during the life of the SMC. The Biodiversity Offset Areas have been secured in perpetuity with Public Positive Covenants and Restrictions on the Use of Land for the Biodiversity Offsets registered on title with NSW Land and Property Information in 2019.

The Biodiversity Offset Areas contain a range of vegetation community types including rainforest, riparian forest, wet sclerophyll forest, grassy woodlands, dry sclerophyll forest, aquatic habitats (including artificial wetlands), acacia regeneration, derived grassland/shrub re-growth, plantings and introduced pasture with scattered trees.

Vegetation communities within the Biodiversity Offset Areas include (FloraSearch, 2012):

- Shatterwood – Giant Stinging Tree – Yellow Tulipwood dry rainforest of the North Coast and Northern Sydney Basin;
- Weeping Lily Pilly – Water Gum Riparian Rainforest of Southern North Coast;
- Tallowwood – Brush Box – Sydney Blue Gum moist shrubby forest on coastal foothills of the southern North Coast;
- Grey Gum – Tallowwood – Spotted Gum Forest and Woodland;
- Tallowwood – Small-fruited Grey Gum dry grassy open forest of the foothills of the North Coast;
- Spotted Gum – Red Mahogany – Grey Gum Forest and Woodland;
- Cabbage Gum open forest or woodland on the flats of the North Coast and New England Tablelands;
- Grey Box – Forest Red Gum – Grey Ironbark open forest of the hinterland ranges of the North Coast;
- Spotted Gum – Grey Ironbark dry open forest of the lower foothills of the Barrington Tops, North Coast;
- Rough-barked Apple Grassy Open Forest on the Valley Flats of the North Coast and Sydney Basin; and
- Acacia Regeneration.

In accordance with Condition 37, Schedule 3 of Development Consent SSD-4966, the Biodiversity Offset Areas also provide suitable habitat for the following threatened fauna species:

- South-eastern Glossy Black-Cockatoo (*Calyptorhynchus lathami lathami*).
- Speckled Warbler (*Pyrrholaemus sagittatus*).
- Grey-crowned Babbler (eastern subspecies) (*Pomatostomus temporalis temporalis*).
- Varied Sittella (*Daphoenositta chrysoptera*).
- Brush-tailed Phascogale (*Phascogale tapoatafa*).
- Squirrel Glider (*Petaurus norfolcensis*).
- Northern Long-nosed Potoroo (*Potorous tridactylus tridactylus*).
- New Holland Mouse (*Pseudomys novaehollandiae*).

SCPL will continue to manage the Biodiversity Offset Areas and establish vegetation with flora species characteristic of the Cabbage Gum Open Forest community within the Biodiversity Offset Areas on land that was cleared historically. Management measures for Biodiversity Offset Areas are detailed in the Biodiversity Management Plan.

Accordingly, the environmental outcomes for the Biodiversity Offset Areas are on track to being achieved by SCPL.

5 FINAL LANDFORM AND FINAL LANDFORM FEATURES

This section describes the intended final landform and final landform features that will remain at the SMC to support long-term, beneficial outcomes for the land. The final landform has been developed through progressive planning, technical studies and refinement during operations and closure planning, with consideration of regulatory requirements, landholder and community expectations, and the practicalities of implementing rehabilitation works safely and efficiently. The final design is underpinned by the overarching objective to achieve a landform that is safe, stable and non-polluting, is compatible with surrounding land uses, and minimises residual environmental risks while enabling ongoing land management and access.

Detailed descriptions of the final landform and final landform features, and consistency with Development Consent SSD-4966, are provided in Sections 5.1 and 5.2, respectively.

5.1 FINAL LANDFORM

The final landform has been designed to be integrated with the local topographic setting and to support the intended post mining land uses by promoting stable slopes, appropriate drainage and erosion resilience, and by managing potential geochemical and water-related risks.

The final landform design has been developed iteratively over the life of the project, informed by operational landform development and geotechnical, hydrological and stability assessments to create a safe and stable final landform that can be practically constructed, maintained and monitored over time.

Key components of the final landform include the following:

- Final voids.
- Overburden emplacement areas.
- Mine infrastructure and Codam areas.

The terrain (i.e. contours) of the intended final landform is provided on Figure 5-1.

The final landform has been designed with reference to Development Consent SSD-4966 requirements, closure planning studies and the extent of mining undertaken. Additional detail on the key components of the final landform is provided below.

5.1.1 Final Voids

Details of each of the final void landforms is provided below. Final void upslope diversion and flood bund infrastructure are discussed in Section 5.2.3.

Avon North Open Cut

Avon North Open Cut was a mining pit which will be retained in the final landform. The hill slopes to the east of Avon North Open Cut naturally drain toward the final void. An upslope diversion drain is included in the final landform to divert this runoff around the south of the final void. The void is also supported by a flood bund and void safety measures, which are described in Section 5.2.3.

While rejects were approved to be placed in the Avon North Open Cut, mining operations did not ultimately require placement of rejects in this location. As such, no management of rejects material is required at Avon North Open Cut.



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LEGEND
Mining Lease Boundary
High Point (m AHD)
5 m Contour

Source: Yancoal (2026); NSW Spatial Services (2026)
Orthophoto: Yancoal (2024)

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Final Landform Contours

Figure 5-1

Roseville West Pit

Roseville West Pit is a mining pit that is being partially backfilled to be retained as a smaller void in the final landform. The smaller void associated with Roseville West Pit is located in the southern portion of the pit. A diversion drain has been constructed along the western and southern edge of Roseville West Pit to divert natural flow from this direction. The void is also supported by a flood bund and void safety measures, which are described in Section 5.2.3.

Stratford Main Pit

Stratford Main Pit is a mining pit which will be retained in the final landform. The southern extent of the Stratford Main Pit has been backfilled with overburden. Following the cessation of mining in the Stratford Main Pit in 2003, rejects from the CHPP were pumped as a co-disposed slurry via a pipeline to the Stratford Main Pit. Stratford Main Pit subsequently acted as both the CHPP rejects co-disposal area and contained water storage at the SMC.

Rejects within Stratford Main Pit have been progressively inundated with water to prevent significant pyrite oxidation and acid generation in the long-term, with monitoring of water quality undertaken and provision of lime dosing and limestone treatment as required. The long-term storage of rejects that are PAF within Stratford Main Pit will be below the predicted long-term recovery water level. Further detail on the management of emplacement material is provided in Section 5.2.5.

A system of contour banks to the east and south of Stratford Main Pit direct runoff from the final landform away from the final void. The void is also supported by a flood bund and void safety measures, which are described in Section 5.2.3.

Stability

The three final void landforms are designed to minimise geotechnical instability of high walls, end walls and low walls, including consideration of the effects of long-term erosion and weathering. The voids have been designed commensurate with the following criteria:

- Highwalls (or hanging wall – applicable to Avon North Open Cut) and endwall batter angles up to 70 degrees (°), with an inter-ramp angle (IRA) less than 50°.
- Footwall batter angles between 45° and 60° with an IRA less than approximately 35°, dependent on the dip of the seam floor contact (applicable to the Avon North Open Cut only).
- Weathered slopes less than or equal to 45°.
- For in-pit spoil dumps, a maximum overall slope angle (toe to crest) to not exceed approximately 25°.

A primary performance indicator for the geotechnical stability of the final voids was to target a long-term static global stability Factor of Safety of 1.5 and a pseudo-static Factor of Safety of 1.05. Global stability considers the overall stability of the entire slope or structure, while local stability focuses on the stability of a specific part of it, like the toe or a section of the slope. Global instabilities have the potential to impact on the final landforms beyond the immediate final void and require specific management, whilst local instabilities are limited in extent and have negligible impacts beyond the specific location.

The final, unbuttressed slopes (high walls and end walls) are designed to be geotechnically stable against large-scale failure, with slope configurations being commensurate with recommended design criteria for final landforms. Other void slopes are commensurate to the recommended design criteria for final landforms, and predicted global stabilities meet the static Factor of Safety indicator.

In some localised void batter areas, the local stability Factor of Safety is predicted to be below the global stability performance indicator. As the three final voids at the SMC will be inundated, local instabilities would have negligible impacts to public safety as they are located below the recovery void water levels, or report to the water-filled void. Monitoring will be undertaken to confirm geotechnical stability prior to relinquishment.

Final void flood bunds, upslope diversion drains and contour drains have been included as final landform features to reduce the catchment reporting to the voids, and hence the potential for erosion. Flood bunds and diversion drains located adjacent to the final voids are located in positions with long-term global stability. Other infrastructure is not predicted to be impacted by geotechnical instability over the long-term. Local landform re-profiling will minimise potential ponding of water near highwall crests and downslope of drains.

Final Void Catchments

The catchments that report to the final voids have been minimised through a combination of landform design and inclusion of up-slope drainage works, including contour drains and clean water diversions.

Clean water diversions on the eastern side of Avon North Open Cut, and the western and southern side of Roseville West Pit, will be retained in the final landform to minimise the drainage catchment of the final voids. Contour drains on the east and southern sides of the Stratford Main Pit will be retained in the final landform to also minimise drainage catchments to the final voids. Diversion and contour drains have been established with consideration of the long-term global stability and to minimise on-going maintenance.

A comparison of the final void drainage catchments against those depicted in Development Consent SSD-4966 is provided in Table 5-1.

Table 5-1
Final Voids Approximate Catchment

Final Void	Drainage Catchment (ha)	
	SEP EIS	Final Landform
Avon North Open Cut	45	54
Roseville West Pit Extension	71	N/A
Roseville West Pit	N/A	21
Stratford Main Pit	N/A	72
Stratford East Open Cut	69	N/A
Total	185	147

Function

The water level in the final voids is expected to gradually increase during mine closure works. The recovery water level is predicted to fluctuate with climatic conditions below the spill levels (Table 5-2). Accordingly, all voids are predicted to be non-spilling. The final void water management is supported by up-slope diversions and flood bunds (Table 5-2) with further detail in Section 5.2.1.

Table 5-2
Final Void Function and Features

Final Void	Recovery Water Level		Water Management	Function
	Predicted Range (m AHD)	Spill Level (m AHD)		
Avon North Open Cut	120.8 to 116.2	127.2	Upslope diversion to east. Flood bund to south-west.	Non-spilling Groundwater Sink[1]
Roseville West Pit	112.3 to 106.7	115.9	Upslope diversion to west. Flood bund to west.	Non-spilling Groundwater Sink
Stratford Main Pit	114.6 to 107.6	116.0	Flood bund on north-east. Contour drains to east and south.	Non-spilling Groundwater Sink

[1] Avon North Open Cut would operate as a groundwater sink from the north, with outflow towards the south into the Stratford Main Pit. All outflows would be fully within the capture zone of the Stratford Main Pit.

The final voids have been designed to function as a groundwater sink system in accordance with Condition 53, Schedule 3 of Development Consent SSD-4966, such that the net flux of groundwater from the final voids does not extend beyond the mine footprint. No appreciable change to receiving environment groundwater salinity is expected, consistent with the original EIS assessment predictions.

As assessed and modelled in the SEP EIS (SCPL, 2012), void salinity would increase with time as a result of evapoconcentration associated with functioning as a non-spilling groundwater sink. Functioning as groundwater sinks also ensures saline groundwater will not seep to the outside environment, and therefore, will not be a source of saline groundwater for aquifers and streams.

Accordingly, SCPL is on track to achieving the environmental outcomes for final voids with the proposed final landform, and will continue to monitor performance.

5.1.2 Overburden Emplacement Areas

The overburden emplacement areas are a significant feature of the final landform and have been designed to be long-term safe, stable and non-polluting, and minimise residual environmental risks while enabling ongoing land management and access. The landform design reflects the extent of mining undertaken with not all approved coal resources extracted.

The final landform will include several backfilled pits and waste emplacement areas designed to be free draining to facilitate water movement. Where diversion drains or other surface water management features are required, additional details are provided in Section 5.2.4.

Landform Design Integration and Stability

The design of the final landform has considered the following criteria:

- Landform integrated with the surrounding landforms, minimising the visual prominence.
- Landform profiled to be free-draining to the natural environment, incorporating surface water management features (Section 4.3.4).
- Outer batter grades with a maximum of 1 Vertical : 4 Horizontal or less (15° or less), with localised steeper areas up to 18° permissible.
- Contours with a grade of approximately 1.0% flattening to 0.6%. New contour drain grades will be up to approximately 1:80 based on updated design guidance.
- Use of Landform Evolution Modelling (LEM) to confirm long-term stability.

The final landform and land uses have been designed to be integrated with the surrounding landforms to minimise the visual prominence. Rehabilitation to native ecosystem and agricultural (grazing) post mining land uses on overburden emplacement areas is consistent with surrounding land-uses.

Landform relief and drainage features report to the natural environment, with landforms sympathetic to adjacent areas. The visual impact is also minimised as Roseville West Pit Extension was not mined and Stratford East Open Cut was not mined to the maximum approved extent.

A key management measure to improve stability and minimise erosion is rehabilitation works to establish and achieve native ecosystem and agricultural (grazing) post mining land uses on overburden emplacement areas.

The constructed landform has been designed to be free-draining to the natural environment (excluding final voids). The landform incorporates drainage paths across the landform and drainage control structures, such as contour drains and rock-armoured channels, providing a robust framework for managing surface water, and minimising erosion and potential impacts on downstream surface water quality. Sediment and erosion controls will be implemented in the short term. Additional details on the contour drains and drop structures is provided in Section 5.2.4.

Site calibrated LEM has been used to assess and refine the landform design and drainage features. The LEM demonstrates that the final landform, landform drainage and proposed land uses are predicted to be stable long-term, and meet the required safety and environmental outcomes. The LEM analysis reveals a consistent trend of decreasing erosion rates, ultimately reaching a sustainable level of approximately 5 tonnes per hectare per year, suggesting the final landform will evolve predictably and gradually, and allow for the establishment of productive post mining land uses.

Backfilled Pits

Bowens Road North

The Bowens Road North area consists of a backfilled pit (i.e. BRNOC) with an approximate elevation of 120 m AHD in its western extent.

Along the northwestern edge of the backfilled pit, surface water is directed towards the north. Contour banks are used to the east of the backfilled pit in order to reduce the slope length. A drainage line between Bowens Road North and Avon North Open Cut will minimise catchment reporting to the Avon North Open Cut.

Stratford East

The Stratford East area currently consists of a pit (i.e. Stratford East Open Cut) along the southeastern edge, rehabilitated slopes along the western edge, and a storage area in the centre. A PAF containment cell was located within the storage area, which is no longer required and has been removed. The cell contents were placed in Stratford East Open Cut below the predicted recovery groundwater level, with additional NAF material emplaced above to make the backfilled pit free-draining.

Several natural drainage lines flow from the east of the area toward the west over Stratford East Open Cut. In these areas, rock armouring will be used to protect these drainage lines where required. An existing system of diversion drains along the eastern edge of Stratford East Open Cut will be removed.

Roseville Pit and Parkers Pit

Roseville Pit is a mining pit that has been backfilled. The pit was used for rejects emplacement then covered with overburden to create a free draining landform. Parkers Pit has been partially backfilled prior to use as a water storage. Parkers Pit will be backfilled to create a free draining landform following landform shaping of the Mine Infrastructure Area.

Waste Emplacement Areas

Stratford Waste Emplacement

Stratford Waste Emplacement is in the centre of the SMC (Figure 1-2). Rehabilitation of Stratford Waste Emplacement has been progressively undertaken, and accordingly the current landform associated with Stratford Waste Emplacement is largely reflective of its final landform.

The final landform of Stratford Waste Emplacement reaches approximately 186 m AHD, incorporates visible relief patterns and will drain to the natural environment.

The outer batters of Stratford Waste Emplacement have been constructed to a gradient of approximately 1 Vertical : 5 Horizontal with local maximum gradient of approximately 1 Vertical : 4 Horizontal.

Drainage on the outer batters of Stratford Waste Emplacement is facilitated via contour benches and drains. Drop structures with rock armouring will convey surface water flow from contour drains to the toe of landforms. Additional details on surface water management infrastructure are provided in Section 5.2.4.

Northern Waste Emplacement

The Northern Waste Emplacement area is in the north of the SMC and collectively refers to the waste emplacements east of BRNOC and north-west of Avon North Open Cut. Rehabilitation of the Northern Waste Emplacement area has also been progressively undertaken.

The final landform of the Northern Waste Emplacement area includes two high points, reaching approximately 165 m AHD in the north and 162 m AHD in the south. The Northern Waste Emplacement area incorporates visible relief patterns and drains to the natural environment.

The outer batters of the Northern Waste Emplacement area have been constructed to a maximum gradient of approximately 1 Vertical : 4 Horizontal with lesser gradients designed where practicable.

Drainage on the outer batters of Northern Waste Emplacement area is facilitated via contour benches and drains. Drop structures with rock armouring will convey surface water flow from contour drains to the toe of slopes. Additional details on surface water management infrastructure are provided in Section 5.2.4.

5.1.3 Mine Infrastructure Areas and Codam Area

The Mine Infrastructure Areas and Codam Area will be rehabilitated to meet final landform objectives. These areas include infrastructure that will be decommissioned, including:

- administration areas, muster areas and bathhouses;
- the CHPP and workshop;
- rail loop, train loading and unloading infrastructure;
- Western Co-disposal Area;
- ROM coal and product stockpiles;
- internal haul roads; and
- relevant water management and rejects management infrastructure that does not form part of the final land use.

Infrastructure areas will be progressively decommissioned where infrastructure is not to be retained. Demolition and decommissioning material will be reused, recycled and/or disposed. Infrastructure areas with potential contamination will be assessed and managed with material reused on site, treated and/or disposed based on the assessments. Contaminated areas will be validated prior to rehabilitation.

The Western Co-disposal Area will be decommissioned following removal of rejects from the Codam cells, eliminating the requirement for encapsulation and/or capping of CHPP rejects cells. The Western Co-disposal Area will be rehabilitated for agricultural (grazing) purposes.

The final landform will be integrated with the surrounding landscape and retained infrastructure areas will comprise rehabilitated slopes no greater than approximately 1 Vertical : 4 Horizontal to minimise erosion and ensure geotechnical stability. Concrete slabs and footings within approximately 1 m of the final landform will be removed and placed in the backfilled pits or re-used on site. Landforms containing retained infrastructure will be maintained.

Consistent with overburden areas, a site calibrated LEM has been used to assess and refine the Mine Infrastructure Areas and Codam Area landform design and drainage features. The LEM demonstrates that the final landform, landform drainage and proposed land uses are predicted to be stable long-term, and meet the required safety and environmental outcomes. The LEM analysis reveals a consistent trend of decreasing erosion rates, ultimately reaching a sustainable level of approximately 5 tonnes per hectare per year, suggesting the final landform will evolve predictably and gradually, and allow for the establishment of productive post mining land uses.

Drainage of the Mine Infrastructure Areas and Codam area will be facilitated through drainage lines in the landform reporting to the Avondale Creek to the east and south of the area. Drainage lines will be vegetated and rock armouring will be used for erosion protection where required. Additional details on surface water management infrastructure are provided in Section 5.2.4.

Accordingly, SCPL is on track to achieving the environmental outcomes for Mine Infrastructure Areas and Codam Area with the proposed final landform, and will continue to monitor performance.

5.2 FINAL LANDFORM FEATURES

Final landform features refer to engineered and/or retained structures that support the function of the post mining land uses and final landform for long-term land use, safety and environmental performance.

Key final landform features include the following (Figure 5-2):

- Buildings and supporting services.
- Access roads and tracks.
- Upslope diversions and flood bunds.
- Surface water management infrastructure.
- Emplaced material.

The final landform features have been designed with reference to Development Consent SSD-4966 requirements and closure planning studies. Additional detail on the final landform features is provided below.

Buildings and Supporting Facilities/Services

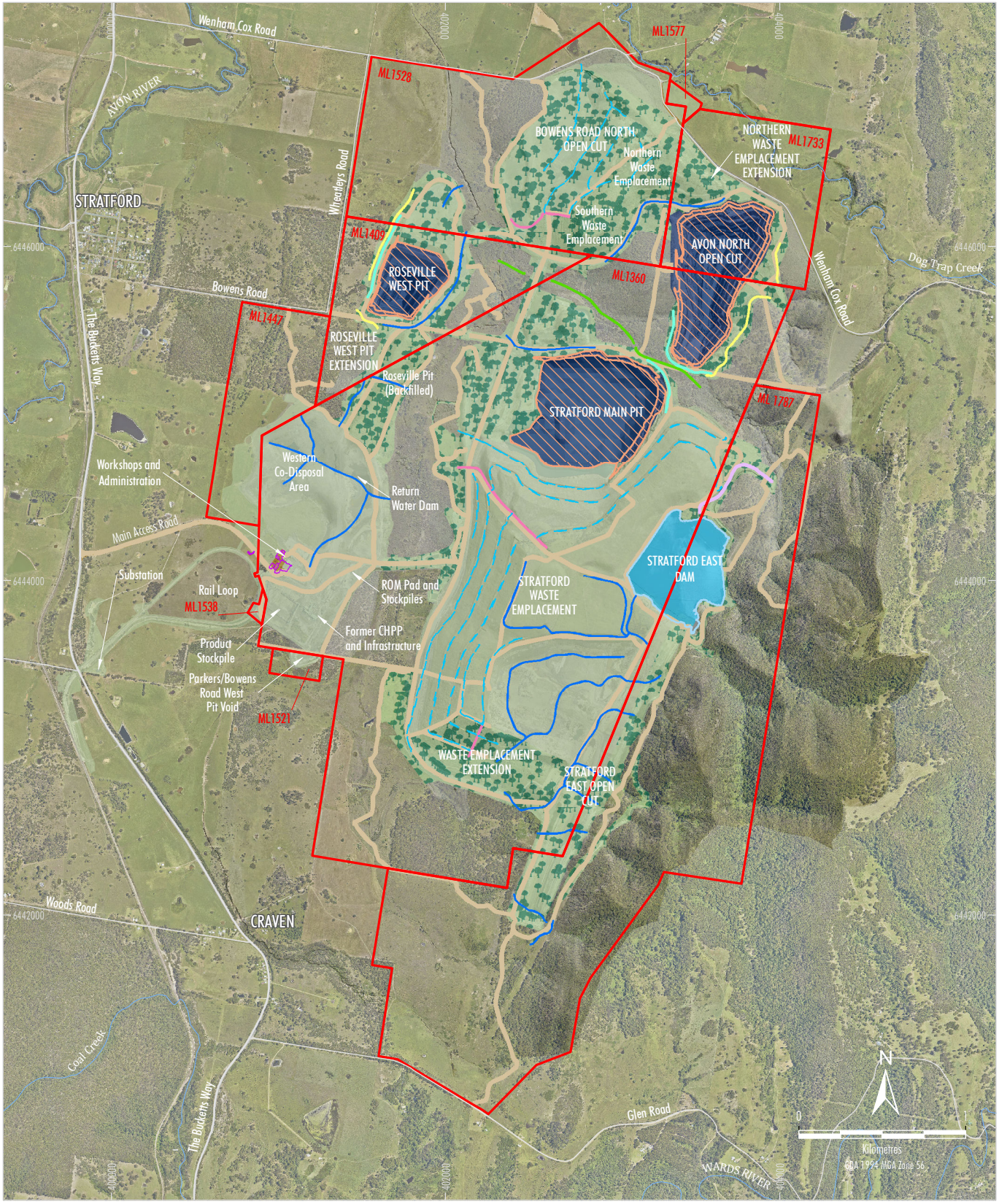
Certain buildings and supporting facilities/services will be retained as features of the final landform given their potential for beneficial reuse post mining. The buildings and supporting facilities/services to be retained include (Figure 5-2):

- main administrative building;
- water tanks;
- car park;
- septic system;
- small sheds;
- light vehicle workshop/wash bay;
- helipad; and
- associated power and services.

In accordance with Condition 53, Schedule 3 of Development Consent SSD-4966, SCPL will seek approval from the Resources Regulator through approval of the Final Landform and Rehabilitation Plan to retain this infrastructure given its potential for beneficial use post-closure of the SMC.

SCPL is planning to decommission and remove all other infrastructure from the SMC unless otherwise approved by the Resources Regulator. This includes, but is not limited to, the decommissioning and removal of, and rehabilitation of land associated with:

- CHPP infrastructure;
- heavy vehicle workshop facilities;
- SMC rail loop;
- The Bucketts Way rail underpass;
- water storages (except Stratford East Dam);
- certain up-catchment diversion drains; and
- certain haul roads.



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LEGEND

Mining Lease Boundary

Final Landform Feature
- Access Track
- Contour Drain
- Diversion Drain
- Drainage Line
- Drop Structure
- Flood Bund
- Retained Water Infrastructure
- Spillway
- Building and Infrastructure Area
- Final Void
- Water Storage

Final Land Use
- Native Ecosystem
- Agricultural - Grazing
- Final Void
- Water Storage (Excluding Final Void)
- Infrastructure

Source: Yancoal (2026); NSW Spatial Services (2026)
Orthophoto: Yancoal (2024)

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Final Landform Features

Figure 5-2

Electricity Supply Infrastructure

Electricity supply infrastructure will be retained in the final landform to provide the power supply to infrastructure post mining. Electrical supply infrastructure is located in the retained infrastructure and agricultural grazing areas (Figure 5-2).

Final Void Safety Infrastructure

To ensure public safety regarding final voids post mining, safety infrastructure will be constructed and retained in the final landform to minimise access to the final voids. This includes a combination of perimeter fencing, signage, and perimeter bunding around the final voids.

Accordingly, SCPL is on track to achieving the environmental outcomes for buildings and support services with the proposed final landform and features.

5.2.1 Access Roads and Tracks

Where required, access roads, tracks and associated drainage will be retained in the final landform to assist with the use of land post mining. This includes (Figures 4-1 and 5-2):

- site access road (sealed);
- main and minor access tracks; and
- Avondale Creek South Crossing.

The tracks assist with post mining land use through supporting land management works, agricultural operations, monitoring and maintenance, bushfire management and general land access. The location and extent of track networks will evolve over time to reflect the land management requirements.

Accordingly, SCPL is on track to achieving the environmental outcomes for access roads and tracks with the proposed final landform and features.

5.2.2 Upslope Diversion and Flood Bunds

The final landform incorporates features that will be retained or constructed to facilitate the movement of surface water across the landform, including flood bunds and clean water diversions. These features improve the final landform performance through diverting clean water around final voids and providing final void flood immunity for events up to and including the Probable Maximum Flood.

Flood Bunds

Roseville West Pit

The Roseville West Pit flood bunds relate to structures that provide flood immunity protection to the southern and western boundary and north of the Roseville West Pit final void (Figure 5-2).

The flood bund on the western and southern boundaries of Roseville West Pit is offset from the crest of the void to be geotechnically stable in the long-term. The flood bund north of Roseville West Pit is located on the boundary of the backfilled portion of Roseville West Pit and undisturbed land in the north and has been integrated into the final landform. Together, the flood bunds have been designed to provide flood protection of the existing catchment that would report to Roseville West Pit and to be geotechnically stable.

Avon North Open Cut

The Avon North Open Cut flood bunds are upgraded structures that provide flood immunity to the southern and western boundaries of the Avon North Open Cut final void.

The flood bunds are located to be geotechnically stable in the long-term considering final void slopes. These flood bunds provide Avon North Open Cut with flood immunity protection from surface water runoff in Unnamed Tributary of Avondale Creek.

Stratford Main Pit

The Stratford Main Pit flood bund is an upgraded structure that provides Stratford Main Pit with flood immunity protection from surface water runoff in Unnamed Tributary of Avondale Creek. The Stratford Main Pit flood bund is located north-east of the final void.

This flood bund is located to be geotechnically stable in the long-term considering final void slopes.

Clean Water Diversions

Roseville West Diversion

A clean water diversion is located adjacent to the flood bund on the western and southern boundaries of Roseville West Pit (Figure 5-2). The clean water diversion diverts local natural flow around Roseville West Pit and into Avondale Creek.

The surface water diversions have been designed in consideration of a 1% Annual Exceedance Probability (AEP), which is equivalent to the 1 in 100 Annual Return Interval (ARI) flood event detailed in Condition 31, Schedule 3 of Development Consent SSD-4966.

The clean water diversion design incorporates erosion and sediment control principles to be safe and stable in the long-term.

Together with the flood bund, the clean water diversion will provide flood protection to Roseville West Pit.

Avon North Diversion

An upgraded clean water diversion will be constructed on the eastern side of Avon North Open Cut (Figure 5-2). The purpose of the clean water diversion is to divert runoff from the hill slopes to the east of Avon North Open Cut toward the south of the final void, where it would flow into the Unnamed Tributary of Avondale Creek.

The surface water diversions have been designed in consideration of a 1% AEP, which is equivalent to the 1 in 100 ARI flood event detailed in Condition 31, Schedule 3 of Development Consent SSD-4966.

The clean water diversion design incorporates erosion and sediment control principles to be safe and stable in the long-term.

Unnamed Tributary of Avondale Creek

A diverted channel forms part of an Unnamed Tributary of Avondale Creek located between Stratford Main Pit and Avon North Open Cut within the Biodiversity Enhancement Area. As described in the SEP EIS, the Unnamed Tributary of Avondale Creek maintained its basic character with no indications of a major change in channel form from mining of Stratford Main Pit (SCPL, 2012; Gippel, 2012).

The Unnamed Tributary of Avondale Creek will remain in its current location in the post mining landscape, noting that the increased catchment area proposed and assessed in the SEP EIS was never fully realised as Stratford East Open Cut was not mined to its approved extent, and geomorphic impacts to this channel would therefore be lower than what was expected.

The Unnamed Tributary of Avondale Creek forms a feature of the final landform, and maintenance works may be undertaken if required during closure (e.g. stabilisation and/or revegetation).

Other Diversions

Clean water diversions located to the west of the Western Co-disposal Area and to the east of Stratford East Open Cut will be removed following rehabilitation of the Western Co-disposal Area and Stratford East Open Cut, respectively.

Accordingly, SCPL is on track to achieving the environmental outcomes for upslope diversions and flood bunds with the proposed final landform and features.

5.2.3 Surface Water Management Infrastructure

The final landform incorporates various surface water management features that will be retained or constructed to facilitate the movement of surface water across the landform. This includes:

- up-catchment drains;
- contour drains;
- drop structures; and
- infrastructure associated with Stratford East Dam (e.g. spillway, embankment and outflow drains).

A description of each of these surface water management features is provided below.

Contour Drains

A system of contours is present on waste emplacement areas to reduce the slope length and direct runoff on the final landform away from any final voids and toward natural drainage ultimately captured by Avondale Creek. The contours are designed with a longitudinal grade of 1% flattening to 0.6%. New contour drain grades will be up to approximately 1:80 based on updated design guidance.

Drop Structures

The final landform incorporates drop structures to convey surface water flow to the toe of landforms. Drop structures will employ a rock layer as erosion protection against scour. Drop structures will be present on Stratford Waste Emplacement and the Northern Waste Emplacement area.

Stratford East Dam

Stratford East Dam is located in the upper reaches of the Unnamed Tributary of Avondale Creek catchment, upstream of the flood bunds associated with Stratford Main Pit and Avon North Open Cut.

Stratford East Dam will be converted to a flow-through surface water storage structure without any diversion of up-slope surface water. Surface water management infrastructure associated with Stratford East Dam in the final landform includes (Figure 5-2):

- embankment;
- spillway; and
- outflow drains.

This infrastructure will attenuate surface water runoff flows from the upstream catchment, temporarily storing these inflows within Stratford East Dam and releasing outflows into Unnamed Tributary of Avondale Creek. Stratford East Dam will perform as a detention basin prior to overflowing via its spillway. This system effectively reduces flood heights downstream in the Unnamed Tributary of Avondale Creek. The embankments, spillway and outflow drain will be upgraded as part of the conversion of Stratford East Dam to a flow-through system.

Embankment

The embankment associated with Stratford East Dam is a constructed zoned earthen embankment wall that was originally developed in two stages. During mining operations, overburden was progressively emplaced against the western face of the embankment as mining advanced.

The embankment will be upgraded for long-term stability and safety. Inlet drains and contour drainage upgrades works will be included as part of the upgrades. The access ramp into the Stratford East Dam will be maintained.

Spillway

The Stratford East Dam spillway will comprise a low-flow pipe, spillway and embankment section. The low-flow pipe will convey normal flows, while the spillway will pass high flows during storm events and provide peak flow attenuation.

Outflow Drains

The Stratford East Dam outflow drain is located on the northern boundary of Stratford East Dam. The existing drain will be upgraded to provide long-term stability as part of the conversion to a flow-through dam.

Accordingly, SCPL is on track to achieving the environmental outcomes for surface water management infrastructure with the proposed final landform and features.

5.2.4 Emplaced Material

The final landform incorporates the strategic emplacement of PAF and rejects materials with waste rock in a manner that minimises geochemical risk.

Emplacement of CHPP Rejects

CHPP reject material has historically been placed in Western Co-disposal Area rejects cells or backfilled into mine voids and covered (including Bowens Road West Pit and Roseville Pit). Following the completion of mining in the Stratford Main Pit in 2003, CHPP rejects were pumped as a slurry via a pipeline to the Stratford Main Pit until the cessation of coal processing.

Rejects were approved to be placed in the Avon North Open Cut final void, however the early cessation of mining meant CHPP rejects were not required to be pumped to Avon North Open Cut.

CHPP rejects placed in Stratford Main Pit have been progressively inundated with water to prevent significant pyrite oxidation and acid generation, with monitoring of water quality undertaken during operations and provision for lime dosing and limestone treatment as required. CHPP rejects within the Stratford Main Pit will be located below the recovery water level.

Some of the rejects from the Western Co-disposal Area cells were reprocessed during operations. The remaining rejects are being transferred to below the predicted recovery water level in Roseville West Pit and Stratford East Open Cut. As a result, the Western Co-disposal Area will be decommissioned and does not require encapsulation or capping prior to rehabilitation.

The final voids with emplaced CHPP reject materials are predicted to be non-spilling and function as localised sinks such that the net flux of groundwater is towards the mine voids, therefore not impacting water quality in the receiving environment (Section 5.1.1).

Emplacement of PAF Overburden Material

PAF material will continue to be emplaced and/or encapsulated and capped to prevent or minimise the migration of pollutants beyond the pit shell or seepage from out-of-pit emplacement areas, in accordance with Condition 31, Schedule 3 of Development Consent SSD-4966. As assessed in the SEP EIS (SCPL, 2012), placing PAF materials below the predicted water level is a sufficient measure to maintain adequate control over acid mine drainage risk.

PAF material previously emplaced in the Stratford East PAF Containment Cell has been rehandled and placed in the backfilled Stratford East Open Cut below the predicted groundwater recovery level as part of the complete backfilling of Stratford East Open Cut. NAF material is being placed over the PAF to create a free draining final landform. The PAF Containment Cell is no longer required and has been removed.

Other PAF overburden has been placed deep within the pit backfill below the recovery groundwater levels. This treatment has serves to control spontaneous combustion.

Most materials within the Stratford Waste Emplacement are considered benign and unlikely to develop spontaneous combustion.

Accordingly, SCPL is on track to achieving the environmental outcomes for emplaced materials with the proposed final landform and features.

6 CLOSURE ACTIVITIES

This section provides a description of the activities required to establish the final landform (Stage 1) and works required to achieve the post mining land uses (i.e. Stage 2) at the SMC.

Within the SMC, certain areas have undergone progressive rehabilitation and successfully established the final landform. These areas exhibit established drainage patterns, stable slopes, and adequate soil profiles to support sustainable vegetation growth (i.e. Stage 2) (Figure 6-1).

Other areas of the SMC require significant decommissioning and landform establishment works to be completed (i.e. Stage 1). These areas will require landform shaping with appropriate erosion control measures implemented and growth media (e.g. topsoil) placed prior to revegetation to support the achievement of closure objectives and compliance with regulatory requirements.

Figure 6-1 depicts the areas of the site with the closure status categorised as Stage 1 versus Stage 2. A description of the closure activities required within each stage is outlined in Sections 6.1 and 6.2.

The categorisation of closure activities into Stage 1 or Stage 2 aligns with the progressive rationalisation of the environmental management and monitoring framework necessary for each stage.

Environmental monitoring requirements for closure are outlined in the sub-EMPs. The monitoring network for the EMPs will be used to demonstrate ongoing compliance with conditions of consent during the period of ongoing closure activities and provide useful data to ultimately relinquish the MLs and other approvals.

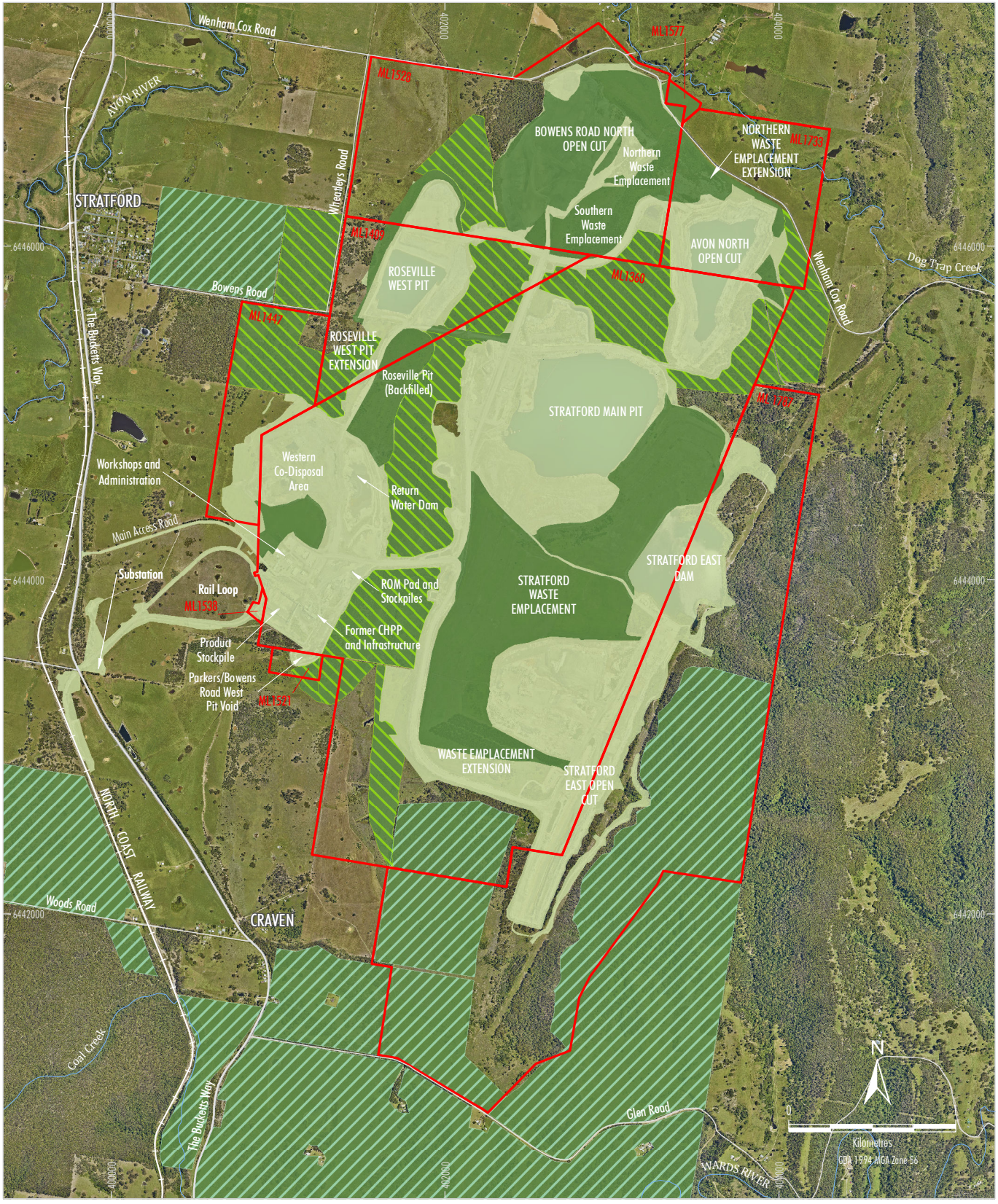
6.1 STAGE 1: ESTABLISHMENT OF FINAL LANDFORM

Stage 1 includes physical works required to establish the final landform. It consists of major decommissioning works (e.g. decommissioning and demolition of major infrastructure), landform establishment (e.g. bulk earthworks and reshaping of landforms), and growth media establishment works (e.g. spreading of topsoil, application of soil ameliorants, and erosion and sediment control works).

The SMC has been delineated into six “Closure Areas” (Figure 6-2) with distinct Stage 1 closure activities:

- Area 1: Mine Infrastructure Area (MIA) comprising the former CHPP, infrastructure, and Western Co-disposal Areas.
- Area 2: Roseville and Roseville West Pits.
- Area 3: Stratford Waste Emplacement, Stratford East Open Cut and Stratford East Dam.
- Area 4: BRNOC and the Northern Waste Emplacement.
- Area 5: Stratford Main Pit.
- Area 6: Avon North Open Cut.

Table 6-1 provides a detailed overview of the remaining closure activities scheduled for Stage 1, structured by each Closure Area. It identifies the specific tasks that need to be completed for which further monitoring and management measures are required (as outlined in the sub-EMPs).



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LEGEND

- Mining Lease Boundary
- Biodiversity Enhancement Area
- Biodiversity Offset Area

Closure Stage

- Stage 1 (Landform Establishment works still required)
- Stage 2 (Landform Establishment works complete, and Ecosystem and Land Use being established)

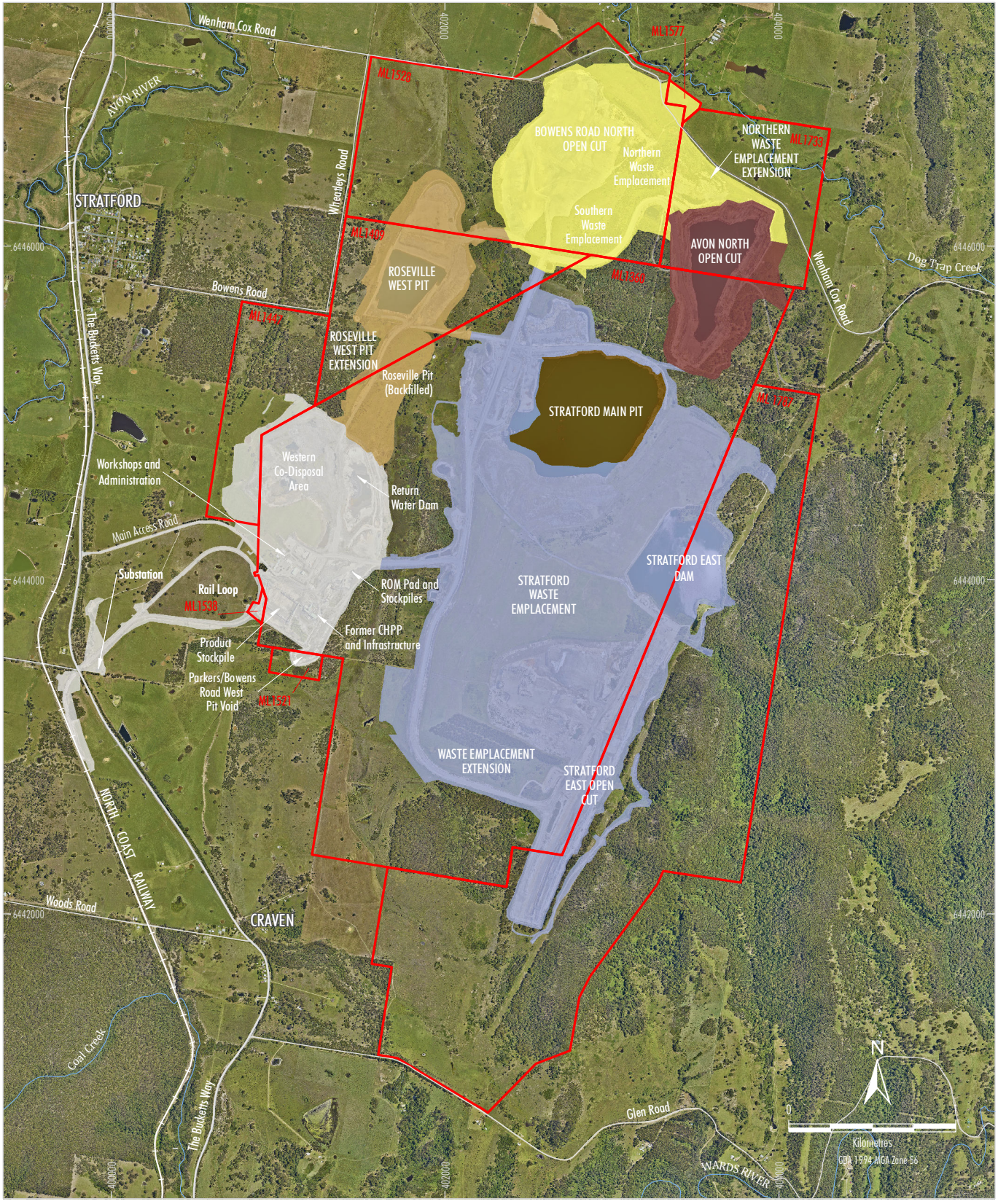
Source: Yancoal (2026); NSW Spatial Services (2026)
Orthophoto: Yancoal (2024)

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Current Status of Stratford Mining Complex Closure Stages

Figure 6-1



YAN-21-36 CEMR_Sec6_2030

LEGEND

Mining Lease Boundary

Stage 1 Closure Areas

- Area 1
- Area 2
- Area 3
- Area 4
- Area 5
- Area 6

Source: Yancoal (2026); NSW Spatial Services (2026)
Orthophoto: Yancoal (2024)

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Stage 1 Closure Areas

Figure 6-2

Table 6-1
Stage 1 Closure Activities

Area	Decommissioning	Landform Establishment	Growth Media Establishment
All Areas – General Works	• Continued and progressive decommissioning of infrastructure not to be retained. • Major fleet removed from the site following completion of bulk rehandle. • Reuse, recycling and/or disposal of demolition and decommissioning material. • Assessment, management and validation of potential contamination with re-use on site, treatment and/or disposal. • Management of land and infrastructure prior to decommissioning.	• Rehandle of material (overburden and carbonaceous material) to back fill pits and establish final landform by excavator and haul truck movement, with supporting dozers. • Reshaping, rehandle of material and deep ripping of haul roads by excavator and haul truck movement, with supporting dozers. • Progressive stockpiling of material for future filling of temporary sediment dams. • Progressive reshaping of landform (with appropriate equipment) to achieve final landform design.	• Progressive substrate conditioning and amelioration, including deep ripping of compacted substrates, lime treatment (if required) and topsoil placement, in areas where reshaping is complete. • Progressive topsoil rehandling and application with appropriate equipment in areas where reshaping/conditioning is complete.
Area 1: MIA comprising the CHPP, infrastructure, and former Western Co-disposal areas	• Continued and progressive decommissioning of infrastructure not to be retained, including off-site removal and contamination management. Includes CHPP, rail loop, heavy vehicle workshops, fuel facilities and bathhouse. • Dewatering and decommissioning of Return Water Dam, and conversion to sediment dam.	• Continued rehandle of reject material from the former Western Co-disposal Area Cells to Stratford East Open Cut, Roseville West Pit and/or Stratford Main Pit by excavator and haul truck movement, with supporting dozers. • Reshaping of chitter walls within the former Western Co-disposal Area. • Removal of carbonaceous material from hardstands and stockpiles and disposal to pits. • Deep ripping and reshaping of hardstands and previous stockpiles as required. • Backfilling of Parkers Pit. • Reshaping and deep ripping of haul road across Avondale Creek and rehandle of excess material.	• Lime treatment of the former Western Co-disposal Area where required (e.g. reshaped chitter walls).

Table 6-1 (Continued)
Stage 1 Closure Activities

Area	Decommissioning	Landform Establishment	Growth Media Establishment
Area 2: Roseville and Roseville West Pits	• General works.	• Rehandled material (from MIA and former Western Co-disposal Area, etc.) transported to southern end of Roseville West Pit. • Backfilling and shaping northern Roseville West Pit. • Reshaping of Roseville West Pit void, including backfilled areas and the north and east batters. • Installation of landform drainage and sediment dams, and erosion and sediment controls. • Reshaping and deep ripping of haul road from Roseville West Pit to the MIA.	• General works.
Area 3: Stratford Waste Emplacement, Stratford East Open Cut and Stratford East Dam	• Continued and progressive decommissioning of infrastructure not to be retained, including off-site removal and contamination management. Includes Truck park-up, Reload facility. • Removal of the former Stratford East PAF Containment Cell. • Stratford East Dam conversion to a flow-through dam.	• Rehandling of material to BRNOC and Roseville West Pit, as required. • Reshaping of the turkeys nest overburden area. • Placement of reject material from the former Western Co-disposal Area below the predicted recovery groundwater level. • Rehandling of NAF and free-dig material to complete backfill of Stratford East Open Cut. • Reshaping of Stratford Main Pit southern batter. • Installation of landform drainage sediment dams, and erosion and sediment controls. • Reshaping and deep ripping of Stratford East haul road.	• General works.

Table 6-1 (Continued)
Stage 1 Closure Activities

Area	Decommissioning	Landform Establishment	Growth Media Establishment
Area 4: BRNOC and the Northern Waste Emplacement	• General works. *Major decommissioning activities complete.*	• Continued reshaping of Avon North Open Cut and Ellis Dam backfill. • Reshaping and deep ripping of haul road (from BRNOC to Avon North Open Cut). • Installation of landform drainage, sediment dams, and erosion and sediment controls.	• General works.
Area 5: Stratford Main Pit	• Decommissioning Truck park-up and electric pumps.	• Reshaping of void, including southern and western batters, and minor shaping of northern crest. • Reshaping and deep ripping of hardstand area.	• General works.
Area 6: Avon North Open Cut	• General works. *Major decommissioning activities complete.*	• Backfilling of western access area. • Reshaping of void, including northern and eastern crest, by excavator and haul truck movement, with supporting dozers. • Upgrade of diversion drains and flood bund.	• General works.

6.2 STAGE 2: ESTABLISHMENT OF POST MINING LAND USES

Stage 2 encompasses activities required following Stage 1 to achieve the designated post mining land uses at the SMC (Figure 4-1). Stage 2 includes two key phases:

- ecosystem and land use establishment (e.g. application of seed and installation of tubestock); and
- ecosystem and land use development (e.g. management and maintenance activities to ensure post mining land uses will be achieved).

Stage 2 also includes minor decommissioning works (e.g. removal of pumps, pipes, sediment dams, upslope diversions, power and communications, monitoring equipment and buildings, and other minor infrastructure required for monitoring and maintenance), establishment of landform features (e.g. access tracks, fences, flood bunds, etc.), management of water (e.g. rehabilitation run-off, void water, etc.), potential civil works required at Stratford East Dam, and management of the Biodiversity Enhancement Areas and Biodiversity Offset Areas.

The scope and nature of Stage 2 works will vary significantly across the site, depending on the target post mining land use for each area. For example, areas designated for native ecosystem and agricultural (grazing) post mining land uses will have a different regime for establishing the land use than that of the final voids. The Stage 2 works are expected to be less intensive, than Stage 1.

Ultimately, Stage 2 represents the final stage required to allow areas to achieve rehabilitation completion, which refers to formal signoff of rehabilitation areas by regulators. Rehabilitation completion is required for all land disturbed by the SMC.

Further rehabilitation details are provided in the SMC Rehabilitation Management Plan.

6.2.1 Ecosystem and Land Use Establishment and Development

Native Ecosystem and Agricultural (Grazing)

Ecosystem and Land Use Establishment

Closure activities that are required within the ecosystem and land use establishment phase to achieve native ecosystem and agricultural (grazing) post mining land uses include the following:

- Direct and broadcast seeding by hand or machinery following preparation of the surface to allow successful establishment of applied seed.
- Supplementary seeding and infill planting (e.g. tubestock) where required.
- Application of surface mulch to reduce erosion, where required.
- Weed control (by mechanical removal or chemical treatment) and pest animal control.
- Maintenance and installation of access tracks and fire breaks.
- Monitoring of vegetation establishment (e.g. visual monitoring, Landscape Function Analysis, Ecosystem Function Analysis, and fauna monitoring) as detailed in the Rehabilitation Management Plan.
- Other rehabilitation monitoring (e.g. surface water monitoring, groundwater monitoring, erosion and sediment control monitoring) as detailed in the Rehabilitation Management Plan.

Areas of the SMC already within this phase are depicted on Figure 6-1.

Ecosystem and Land Use Development

Closure activities that are required within the ecosystem and land use development phase to achieve native ecosystem and agricultural (grazing) post mining land uses include the following:

- Supplementary seeding and infill planting (e.g. tubestock) as required.
- Weed control (by mechanical removal or chemical treatment) and pest animal control.
- Erosion repair (as required).
- Maintenance and installation of access tracks and fire breaks.
- Reduction of fuel loads via strategic slashing, hazard reduction, burning and grazing.
- Monitoring of vegetation establishment (e.g. visual monitoring, Landscape Function Analysis, Ecosystem Function Analysis, and fauna monitoring) as detailed in the Rehabilitation Management Plan.
- Other rehabilitation monitoring (e.g. surface water monitoring, groundwater monitoring, erosion and sediment control monitoring) as detailed in the Rehabilitation Management Plan.

Final Voids and Water Storages

Closure activities required for final voids and water storages (i.e. Stratford East Dam) within the 'ecosystem and land use establishment' and 'ecosystem and land use development phases' relate to environmental monitoring activities and implementation of management measures where required.

In addition, void access restrictions (i.e. perimeter bunding and/or fencing) will be installed and maintained around the final voids where appropriate to support public safety and the exclusion of stock.

In some areas, vegetation may be established within these post mining land uses (e.g. on flood bunds) as a form of erosion and sediment control. Any established vegetation would be monitored consistent with the approach for vegetation within native ecosystem and agricultural (grazing) post mining land use areas.

6.2.2 Water Management

Certain surface water management infrastructure will remain in the landform and continue to be used and maintained until it is no longer required for rehabilitation purposes. This includes surface water management infrastructure required for:

- management of sediment water, rehabilitation run-off and water levels in the final voids;
- erosion and sediment controls (such as sediment dams, pipes and pumps);
- upslope diversions at Stratford East Open Cut and former Western Co-disposal Area;
- maintenance of landform drainage until established and safe, stable and non-polluting; and
- monitoring purposes.

Once no longer required to facilitate rehabilitation, this surface water management infrastructure will be decommissioned and removed from the final landform. Any areas disturbed by decommissioning and removal of the surface water management infrastructure would be further rehabilitated as required (e.g. graded, growth media established, and post mining land use established).

6.2.3 Retained Infrastructure

Retained infrastructure refers to key infrastructure that supports future land use or site management, including access roads, floods bunds, clean water diversions and laydown areas.

Closure activities required for retained infrastructure during Stage 2 relate to environmental monitoring and implementation of management measures if required.

In some areas, vegetation may be established within infrastructure areas as a form of erosion and sediment control.

Some minor infrastructure required for rehabilitation, maintenance and monitoring, and not retained will be decommissioned and removed during Stage 2. This may include water management infrastructure (sediment dams, pumps and pipes), power and communications, monitoring equipment and buildings.

6.2.4 Biodiversity Enhancement Areas and Biodiversity Offset Areas

Closure activities required for Biodiversity Enhancement Areas and Biodiversity Offset Areas during Stage 2 relate to monitoring and implementation of management measures required to meet performance and completion criteria. Habitat and vegetation condition monitoring and management measures for Biodiversity Enhancement Areas and Biodiversity Offset Areas are detailed in the Biodiversity Management Plan.

7 CLOSURE ENVIRONMENTAL MANAGEMENT STRATEGY

7.1 CLOSURE ENVIRONMENTAL MANAGEMENT STRATEGY FRAMEWORK

The integrated environmental management systems at the SMC include various EMPs, strategies and programs that have been developed and implemented since operations commenced at the SMC. SCPL continues to build on and improve its implementation of the EMPs, strategies and programs.

The categorisation of closure activities into Stage 1 or Stage 2 aligns with the progressive rationalisation of the environmental management and monitoring framework necessary for each stage. Table 7-1 provides a breakdown of which stages the EMPs, strategies and programs apply to.

Figure 7-1 shows the locations of the monitoring sites associated with the environmental monitoring programs listed in Table 7-1.

In accordance with Condition 11, Schedule 5 of Development Consent SSD-4966, copies of the approved EMPs, strategies and programs that are required under the consent conditions are available on Stratford Coal's website (www.stratfordcoal.com.au).

Table 7-1
Applicability of Environmental Management Plans, Strategies and Programs to the Closure Stages

Document	Required by	Applicability to Closure Stages		Commentary
		Stage 1: Establishment of Final Landform	Stage 2: Establishment of Post Mining Land Uses	
This EMS	Condition 1, Schedule 5 of Development Consent SSD-4966	✓	✓	
Water Management Plan, including:	Condition 32, Schedule 3 of Development Consent SSD-4966	✓	✓	
• Site Water Balance		✓	✓	
• Surface Water Management Plan		✓	✓	
• Groundwater Management Plan		✓	✓	
Biodiversity Management Plan	Condition 39, Schedule 3 of Development Consent SSD-4966	✓	✓	
Squirrel Glider Management Plan	Condition 38, Schedule 3 of Development Consent SSD-4966	✓	✓	
Air Quality Management Plan	Condition 23, Schedule 3 of Development Consent SSD-4966	✓	-	Establishment of the post mining land uses will not result in impacts to air quality.
Noise Management Plan	Condition 6, Schedule 3 of Development Consent SSD-4966	✓	-	Establishment of the post mining land uses will not result in the generation of noise.
Blast Management Plan	Condition 16, Schedule 3 of Development Consent SSD-4966	✓	-	Establishment of the post mining land uses will not involve blasting.
Waste Management and Minimisation Strategy	Condition 52, Schedule 3 of Development Consent SSD-4966	✓	✓	
Heritage Management Plan	Condition 43, Schedule 3 of Development Consent SSD-4966	✓	✓	
Rehabilitation Management Plan	Condition 55, Schedule 3 of Development Consent SSD-4966 and MLs	✓	✓	
PIRMP	EPL 5161 and Part 5.7A of the POEO Act	✓	✓	
Transport Monitoring Program	Conditions 48 and 49, Schedule 3 of Development Consent SSD-4966	-	-	The Transport Monitoring Program has been completed.



YAN-21-36 CENR_Sec7_201C

LEGEND

- Mining Lease Boundary
- 132 kV Electricity Transmission Line
- Conceptual Up-Catchment Diversion
- Extent of SMC Surface Development

Monitoring Sites

- Groundwater Monitoring Site
- Surface Water Quality Monitoring Site
- Meteorological Station
- Static Dust Gauge
- High Volume Air Sampler
- Noise Monitoring Site
- Real-time Noise Monitoring Site
- Blast Monitoring Site
- TEOM Monitoring Site
- Macroinvertebrate Monitoring Site
- Inversion Tower

Source: Yancoal (2026); NSW Spatial Services (2026)
Orthophoto: Yancoal (2024)

STRATFORDCOAL
Part of the Yancoal Australia Group

STRATFORD MINING COMPLEX

Environmental Monitoring Sites

Figure 7-1

8 PROTOCOL FOR INCIDENTS, COMPLAINTS, ENQUIRIES AND INDEPENDENT REVIEW

Incidents

An incident is defined as a set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in the Development Consent SSD-4966.

The reporting of incidents will be conducted in accordance with Condition 7, Schedule 5 of the Development Consent SSD-4966:

- SCPL will notify at the earliest opportunity, the Secretary and any other relevant agency of any incident that has caused, or threatens to cause, material harm to the environment.
- For any other incident SCPL will notify, the Secretary and any other relevant agency as soon as practicable after becoming aware of the incident.

Within seven days of the date of the incident, SCPL will provide the Secretary and any relevant agencies with a detailed report on the incident and such further reports as may be requested.

A detailed procedure for the management of environmental incidents at the SMC is also provided in the SMC Pollution Incident Response Management Plan (PIRMP). The PIRMP is available on Stratford Coal's website (www.stratfordcoal.com.au).

Complaints Enquiries and Independent Review

The Environment and Community Superintendent is responsible for maintaining a system for recording complaints.

SCPL will maintain public signage advertising the Community Information and Complaints hotline telephone number on which environmental complaints can be made. The Environment and Community Superintendent is responsible for ensuring that the currency and effectiveness of the service is maintained.

Complaints and enquiries do not have to be received via the telephone line and may be received in any form (e.g. letter, email). Any complaint or enquiry relating to environmental management or performance is to be relayed to the Environment and Community Superintendent as soon as practicable. All employees are responsible for ensuring the prompt relaying of complaints. All complaints will be recorded in a complaints register.

For each complaint, the following information will be recorded in the complaints register:

- Date and time of complaint.
- Method by which the complaint was made.
- Personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect.
- Nature of the complaint.
- The action(s) taken by SCPL in relation to the complaint, including any follow-up contact with the complainant.
- If no action was taken by SCPL, the reason why no action was taken.

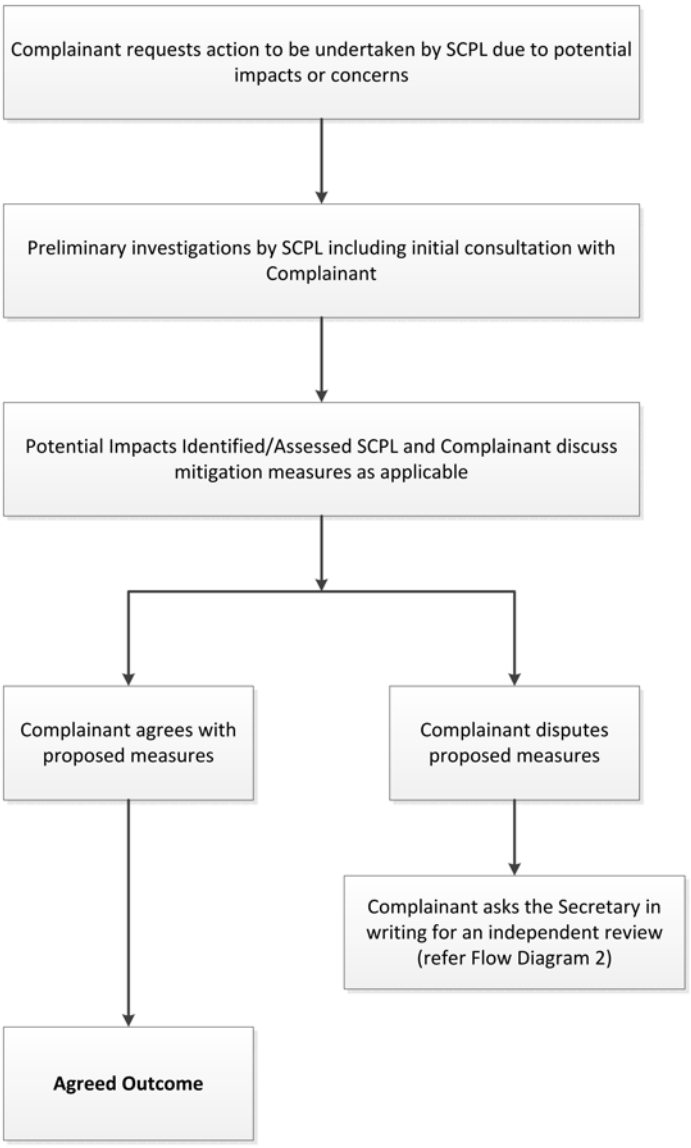
The Environment and Community Superintendent will be responsible for ensuring that all complaints are appropriately investigated, actioned and that information is fed back to the complainant, unless requested to the contrary.

The process for the management of complaints is shown in Flow Diagram 1.

If the complainant is not satisfied with how their complaint has been addressed, Condition 4, Schedule 4 of Development Consent SSD-4966 provides a process for Independent Review (Flow Diagram 2).

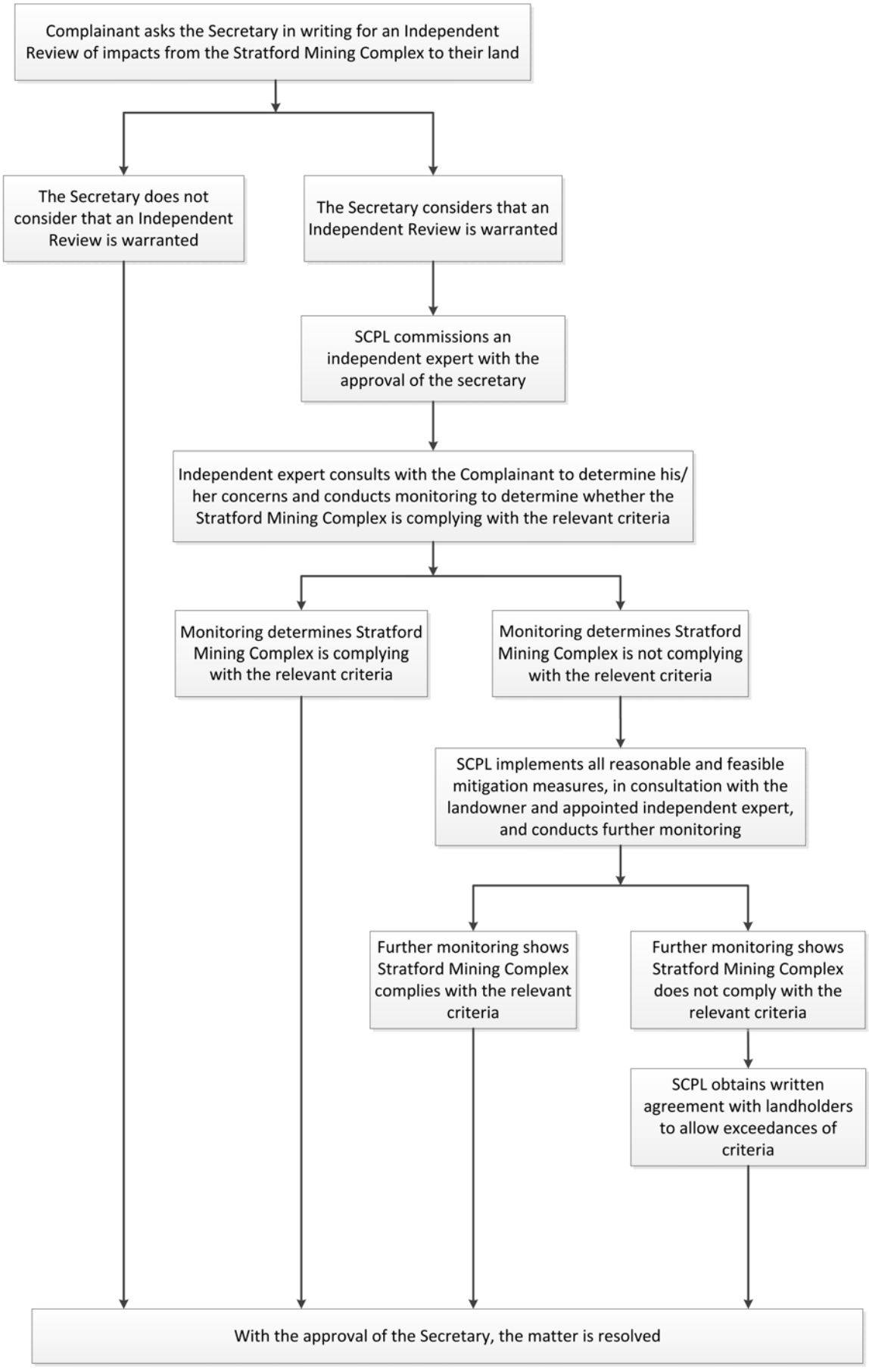
Flow Diagram 1

Process for the Management of Complaints



Flow Diagram 2

Independent Review



In accordance with Condition 3(a), Schedule 4 of the Development Consent SSD-4966, affected landowners or tenants will be notified of an exceedance of relevant consented criteria and be provided regular (relevant) monitoring results until the SMC is again complying with the criteria.

In the event of a complaint where the Independent Review process demonstrates that impacts from the SMC are in accordance with the relevant Development Consent SSD-4966 conditions, the resolution process will be one of informed discussion involving the complainant and the Environment and Community Superintendent. The complainant will be made fully aware of the monitoring and reporting procedures used for the SMC.

Every effort will be made to ensure that concerns are addressed in a manner that results in a mutually acceptable outcome.

In accordance with Condition 11(a), Schedule 5 of the Development Consent SSD-4966, the complaints register will be made publicly available on the Stratford Coal website and updated on a monthly basis.

A summary of complaints will be included in the Annual Review.

Compliance with Statutory Requirements

Compliance with SCPL's statutory licences and approvals is to be achieved via (inter alia):

- adherence to the conditions of Development Consent SSD-4966, Commonwealth Approval EPBC 2011/6176, EPL 5161, MLs and water licences, and all other applicable statutory licences and approvals;
- monthly evaluation of monitoring data against criteria and performance indicators (as described in the various EMPs);
- review of the SMC's EMPs on an annual basis, following a reported incident, after an Independent Environmental Audit or modification to the development consent;
- compliance auditing (both internal and external);
- implementation of corrective procedures/strategies following complaint or monitoring inspection and identification and approval from necessary authorities and stakeholders; and
- annual compliance reporting in the Annual Review.

Compliance with all approvals, plans and procedures will be the responsibility of all personnel (staff and contractors) employed by or in association with the SMC.

The Environment and Community Superintendent will undertake regular inspections and review of environmental monitoring results to continually assess the performance of environmental management and mitigation measures implemented at the SMC. Where required, the Environment and Community Superintendent will initiate directions identifying any remediation/rectification works to address areas of potential or actual non-compliance.

Emergency Response

An environmental emergency will be addressed through the implementation of SCPL's Emergency Management System and the PIRMP, as appropriate. The PIRMP is a requirement of the POEO Act and is routinely tested and revised to ensure its accuracy.

A risk register is included in the PIRMP which includes designated environmental emergencies such as flooding, chemical spills or releases and serious vehicle incidents.

Any emergency situations or incidents which do or could potentially have caused environmental harm will be reported to the EPA and other relevant authorities in accordance with the PIRMP.

All site personnel will receive an appropriate level of emergency preparedness and response training, with regular updates through toolbox talks (or similar). Any changes to emergency procedures are to be documented and communicated to all personnel (including SCPL staff, mine employees and contractors) as appropriate.

9 REVIEW AND REPORTING

9.1 ENVIRONMENTAL MANAGEMENT STRATEGY REVIEW AND UPDATE

In accordance with Condition 5, Schedule 5 of Development Consent SSD-4966, this EMS will be reviewed (to the satisfaction of the Secretary) within three months of the submission of:

- an Annual Review (Condition 4, Schedule 5 of Development Consent SSD-4966);
- an incident report (Condition 7, Schedule 5 of Development Consent SSD-4966);
- an independent environmental audit (Condition 9, Schedule 5 of Development Consent SSD-4966); or
- any modification to the conditions of Development Consent SSD-4966 (unless the conditions require otherwise).

The reviews will be undertaken to ensure the EMS is updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of the SMC.

Where a review leads to revisions in the EMS then, within four weeks of the review, the revised EMS will be submitted for the approval of the Secretary.

The revision status of this EMS is indicated on the title page of each copy. The approved EMS will be made publicly available on Stratford Coal's website (www.stratfordcoal.com.au) in accordance with Condition 11(a), Schedule 5 of Development Consent SSD-4966.

9.2 REPORTING

In accordance with Condition 8, Schedule 5 of Development Consent SSD-4966, SCPL will provide regular reporting on the environmental performance of the SMC on Stratford Coal's website (www.stratfordcoal.com.au). Key reporting components required under Development Consent SSD-4966 relevant to reporting of environmental performance and compliance include the Annual Review and Independent Environmental Audit.

9.2.1 Annual Review

In accordance with Condition 4, Schedule 5 of the Development Consent SSD-4966, SCPL will prepare an Annual Review of the environmental performance of the SMC by the end of March each year, or other timing as may be agreed by the Secretary. The Annual Review will be made publicly available on Stratford Coal's website (www.stratfordcoal.com.au), in accordance with Condition 11, Schedule 5 of Development Consent SSD-4966.

The Annual Review will specifically address the following aspects of Condition 4, Schedule 5 of Development Consent SSD-4966, which are directly relevant to this EMS:

- Describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the current calendar year.
- Include a comprehensive review of the monitoring results and complaints records for the SMC over the previous calendar year, including a comparison of these results against the:
  - relevant statutory requirements, limits or performance measures/criteria;
  - monitoring results of previous years; and
  - relevant predictions in the SEP EIS (SCPL, 2012).
- Identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance, including adaptive management.

- Identify any trends in the monitoring data over the life of the SMC.
- Identify any discrepancies between the predicted and actual impacts of the SMC, and analyse the potential cause of any significant discrepancies.
- Describe what measures will be implemented over the next year to improve the environmental performance of the SMC.

A report addressing compliance with the conditions of the Commonwealth Approval (EPBC 2011/6176) will also be submitted to the Commonwealth Department of Climate Change. Energy, the Environment and Water within three months of every 12-month anniversary of the commencement of the action.

9.2.2 Independent Environmental Audit

In accordance with Condition 9, Schedule 5 of the Development Consent SSD-4966, an Independent Environmental Audit of the SMC will be conducted by a suitably qualified, experienced and independent team of experts (including auditor and experts in noise, blasting, air quality, ecology, and any other fields specified by the Secretary) whose appointment has been endorsed by the Secretary.

The Independent Environmental Audit will assess the environmental performance of the SMC and review the adequacy of this EMS. If necessary, appropriate measures or actions to improve the environmental performance of the SMC or this EMS will be recommended.

As required by Condition 9, Schedule 5 of the Development Consent SSD-4966, Independent Environmental Audits will be conducted every three years.

An Independent Environmental Audit was conducted in 2023 with future audits to be conducted every three years. A copy of the 2023 Independent Environmental Audit, and SCPL's response to the recommendations in the audit, was submitted to the Secretary in accordance with Condition 10, Schedule 5 of Development Consent SSD-4966, and has been made publicly available on Stratford Coal's website (www.stratfordcoal.com.au), in accordance with Condition 11, Schedule 5 of Development Consent SSD-4966.

The next Independent Environmental Audit is planned for late 2026.

9.3 COMMUNITY ENGAGEMENT AND INFORMATION DISSEMINATION

SCPL is committed to a policy of regular liaison with the local community and strives to maintain positive relationships with stakeholders.

SCPL's community objectives aim to:

- ensure employees and contractors are informed about SCPL's policies and are made aware of their environmental and community responsibilities in relation to SCPL's activities;
- inform the community of SCPL's activities and consult with the community in an open and honest fashion in relation to SCPL's projects; and
- address complaints/conflicts and consult to achieve mutually acceptable outcomes.

Dissemination of information to the local community and relevant agencies regarding SCPL, its progress and environmental management performance will be achieved via the following communication and reporting mechanisms.

9.3.1 Community Consultative Committee

In accordance with Condition 6, Schedule 5 of Development Consent SSD-4966, a Community Consultative Committee (CCC) has been established for the SMC to the satisfaction of the Secretary (the CCC). The CCC is operated in general accordance with the *Community consultative committee guideline: State significant projects* (NSW Government, 2023).

The membership of the CCC is comprised of an independent chair and appropriate representation from SCPL, MidCoast Council, and local community. The CCC currently convenes twice per year with the frequency of meetings to progressively reduce as mine closure progresses.

In accordance with Condition 11, Schedule 5 of Development Consent SSD-4966, a copy of the minutes of the CCC meetings will be made publicly available on Stratford Coal's website (www.stratfordcoal.com.au).

In addition to their tabling at CCC meetings, relevant environmental monitoring results pertaining to individual landholders will be provided to those landholders upon request. SCPL will seek advice from each relevant landholder as to their desire to receive monitoring results.

Copies of all management plans/strategies or monitoring programs, together with the results of independent audits and annual reviews will also be provided to the CCC and made publicly available via Stratford Coal's website (www.stratfordcoal.com.au).

9.3.2 Stratford Coal Website

In accordance with Condition 11, Schedule 5 of Development Consent SSD-4966, Stratford Coal's website will be maintained to the satisfaction of the Secretary as a means of providing information to stakeholders and interested parties about the operation and environmental performance of SCPL. In accordance with best practice guidelines and Development Consent SSD-4966, copies of the following will be made available on Stratford Coal's website:

- Copies of all Environmental Assessment and EIS documents.
- Copies of and/or hyperlinks to all current statutory approvals held for the SMC including Development Consent SSD-4966.
- Copies of all approved EMPs, strategies and monitoring programs, including this EMS, as required under the conditions of Development Consent SSD-4966.
- A comprehensive summary of the environmental monitoring results for the SMC, reported in accordance with the EMPs, strategies and monitoring programs approved under the conditions of Development Consent SSD-4966.
- A complaints register, updated on a monthly basis.
- Minutes of CCC meetings.
- Copies of the last five Annual Reviews.
- A copy of any Independent Environmental Audit report and SCPL's response to the recommendations in any audit.
- Any other matter required by the Secretary.

9.3.3 Community Information and Complaints Hotline

SCPL operates a dedicated Community Information and Complaints hotline (1300 658 239) 24 hours a day.

The number is advertised within the local telephone directory, the local newspaper (Gloucester News of the Area) on a six-monthly basis and on Stratford Coal's website (www.stratfordcoal.com.au).

SCPL also uses local media outlets to communicate information on the SMC.

10 ROLES AND RESPONSIBILITIES

The various roles and responsibilities of SCPL personnel and contractors regarding the implementation of this EMS are provided in Table 10-1.

Through retaining the responsibilities identified in Table 10-1, the environmental management team members may, at their discretion, delegate specific tasks to suitably qualified and/or experienced operational personnel and/or consultants. Notwithstanding such delegation, the authority and accountability remain with the environmental management team members as defined in Table 10-1.

Table 10-1
Site Environmental Management – Roles and Responsibilities

Environmental Management Team Member(s)	Role and Responsibility
Operations Manager - SMC and DCM	• Overall site management responsibility and overview of compliance with the EMS. • Responsible for ensuring all works are carried out in an environmentally competent manner (i.e. in accordance with legislation and approvals). • Provide adequate resourcing to support site environmental management. • Provide strategic direction.
SMC Environment and Community Superintendent	• Management of the implementation and compliance with EMPs, environmental approvals, licensing and permits. • Responsible for site environmental monitoring, including monitoring equipment. • Annual reporting (Annual Review). • Progressive rehabilitation planning, implementation and reporting. • Staff environmental training (in conjunction with contractor staff). • External consultation (government and community). • Ongoing environmentally related approvals and planning. • Responsible for community enquiry and initiatives management. • Responsible for monitoring and maintaining the Stratford Coal website and Community Complaints Line. • Responsible for maintaining the complaints register and representation on the CCC. • Responsible for the rehabilitation implementation and performance of landforms.
General SCPL Staff, SMC Mine Personnel and Contractors	• All employees and contractors trained in environmental procedures and protocols as part of the induction process and regular site meetings. • All employees and contractors responsible for immediately reporting environmental incidents. • All employees and contractors responsible for undertaking works in an environmentally sound manner and in accordance with this EMS and related sub-plans, procedures, and programs.
Mine Planning Superintendent	• Responsible for landform design. • Responsible for repair and maintenance of dams, spillways, flood bunds and diversions. • Responsible for providing technical support to the Operations Manager for bulk rehandle and shaping.

11 REFERENCES

AGC Woodward-Clyde Pty Ltd (1994) *Avifauna. Attachment A8.3 of Appendix 8.2 of Stratford Coal (1994) Stratford Coal Project Environmental Impact Statement*.

AMBS Ecology and Heritage (2012) *Terrestrial Fauna Assessment for the Stratford Extension Project.* Prepared for Stratford Coal Pty Ltd.

EcoBiological (2011) *Fauna Survey Report: Stratford Coal Mine, Gloucester, New South Wales*. Prepared for Gloucester Coal Limited.

FloraSearch (2012) *Stratford Extension Project: Flora Assessment*. Prepared for Stratford Coal Pty Ltd.

Gilbert & Associates Pty Ltd (2012) *Stratford Extension Project: Surface Water Assessment*. Prepared for Stratford Coal Pty Ltd.

Gippel, C. J. (2012). *Fluvial geomorphological assessment for Stratford Extension Project EIS.* Fluvial Systems Pty Ltd, Stockton. Prepared for Stratford Coal Pty Ltd.

Heritage Computing Pty Ltd (2012) *Groundwater Assessment: A Hydrogeological Assessment in Support of the Stratford Coal Project Environmental Impact Statement*. Prepared for Stratford Coal Pty Ltd.

HydroBalance (2024) *Stratford Renewable Energy Hub: Surface Water Assessment.* Prepared for Yancoal Australia Limited.

Kerle, A. (2011) *Stratford Coal Mine New Holland Mouse (Pseudomys novaehollindae) Targeted Survey Programme.*

NSW Agriculture (2002) Agricultural Land Classification.

NSW Government (2023) *Community consultative committee guideline: State significant projects.*

SLR Consulting Australia (2024) *Groundwater Impact Assessment: Stratford Renewable Energy Hub*. Prepared for Yancoal Australia Limited.

Stratford Coal Pty Ltd (2012) *Stratford Extension Project Environmental Impact Statement*.

Yancoal Australia Limited (2024) *Stratford Renewable Energy Hub: Environmental Impact Statement*.

APPENDIX A

DPHI LETTER OF APPROVAL OF EMS

Department of Planning, Housing and Infrastructure

Our ref: SSD-4966-PA-42

Mr John Cullen
Operations Manager
Stratford Coal Pty Ltd
3364 Bucketts Way South
Stratford, NSW, 2422

19/10/2026

Subject: Stratford Extension Project Closure Environmental Management Strategy

Dear Mr Cullen

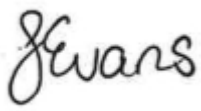
I refer to the Closure Environmental Management Strategy submitted in accordance with Condition 1, Schedule 5 of the consent for the Stratford Extension Project (SSD-4966).

The Department has carefully reviewed the document and is satisfied that it meets the requirements of the relevant conditions in the consent. Accordingly, as nominee of the Planning Secretary, I approve the Closure Environmental Management Strategy (Revision 05-A, dated September 2026).

You are reminded that if there are any inconsistencies between the Strategy and the conditions of consent, the conditions prevail. Please ensure you make the document publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact James McDonough on 02 9585 6313.

Yours sincerely



Jessie Evans
Director, Resource Assessments
Resource Assessments

As nominee of the Planning Secretary

ATTACHMENT 1

DEVELOPMENT CONSENT SSD-4966

Development Consent

Section 89E of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning, the Planning Assessment Commission of NSW approves the development application referred to in Schedule 1, subject to the conditions in Schedules 2 to 5.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the development.

Member of the Commission **Member of the Commission**

Sydney 2015

SCHEDULE 1

Application Number:	SSD-4966
Applicant:	Stratford Coal Pty Ltd
Consent Authority:	Minister for Planning
Land:	See Appendix 1
Development:	Stratford Extension Project

14 January 2021 Mod 2 Red Type

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DEFINITIONS

Annual review	The review required by condition 4 of Schedule 5
Applicant	Stratford Coal Pty Ltd, or any other person entitled to benefit from this consent
BCA	Building Code of Australia
BCD	Biodiversity Conservation Division, within the Department
Blast misfire	The failure of one or more holes in a blast pattern to initiate
BOS	Biodiversity offset strategy described in the EIS, required by condition 34 of Schedule 3 of this consent and depicted conceptually in Figure 1 in Appendix 8
Bowens Road North Offset	The offset strategy described in Section 3.1 of the environmental assessment titled Bowens Road North Open Cut June 2010 Modification, and depicted generally in Figure 2 of Appendix 8
CCC	Community Consultative Committee
CHPP	Coal Handling and Preparation Plant
Conditions of this consent	Conditions contained in Schedules 2 to 5 inclusive
CPI	Australian Bureau of Statistics Consumer Price Index
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning, Industry and Environment
Development	The development described in the EIS
DPIE Water	Water Group within the Department
DRG	The Division of Resources and Geosciences, within the Department
EEC	Endangered ecological community, as defined under the TSC Act
EIS	• Environmental Impact Statement titled *Stratford Extension Project Environmental Impact Statement,* dated November 2012, and associated response to submissions titled *Stratford Extension Project Environmental Impact Statement Responses to Submissions,* dated May 2013; and • Modification Report titled *Stratford Coal Mine (SSD 4966) – MCC Water Access Modification* dated 19 December 2019
EPA	Environment Protection Authority, or its successor
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build or implement
GLC	Great Lakes Council (now known as Mid-Coast Council following its merger with Gloucester Shire Council)
GSC	Gloucester Shire Council (now known as Mid-Coast Council following its merger with Great Lakes Council)
Heritage item	An item as defined under the *Heritage Act 1977* and/or an Aboriginal Object or Aboriginal Place as defined under the *National Parks and Wildlife Act 1974*
Incident	A set of circumstances that: • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this consent
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in Schedules 3 and 4 of this consent where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Mine water	Water that accumulates within, or drains from, active mining areas, emplacements, stockpiles, tailings dams and infrastructure areas (synonymous with 'dirty water')
Mining operations	Includes the removal, transportation and emplacement of overburden and extraction, processing, handling and storage and transportation of coal carried out on the site
Minor	Not very large, important or serious
Mitigation	Activities associated with reducing the impacts of the development

Negligible	Small and unimportant, such as to be not worth considering
Negotiated agreement	An agreement involving the negotiation of a package of mitigation and/or compensatory benefits for landowners of affected land. The agreement is negotiated between the applicant and the landowner.
New mining areas	The areas shown on Figure 1 of Appendix 3 as Roseville West Pit Extension, Northern Waste Emplacement Extension, Avon North Open Cut, Stratford East Open Cut and Waste Emplacement Extension
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
POEO Act	*Protection of the Environment Operations Act 1997*
Privately-owned land	Land that is not owned by a public agency or a mining or petroleum company (or its subsidiary)
Public infrastructure	Linear and related infrastructure and the like that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, costs versus benefits provided, and the nature and extent of potential improvements
Rehabilitation	The treatment or management of land disturbed by the development for the purpose of establishing a safe, stable and non-polluting environment
Remediation	Activities associated with partially or fully repairing or rehabilitating the impacts of the development or controlling the environmental consequences of this impact
ROM coal	Run-of-mine coal, including coal recovered from the Western Co-disposal Area
Secretary	Secretary of the Department, or any person authorised to act on their behalf
Site	All land to which the development application applies as listed in Appendix 1 and shown in Appendix 2
TSC Act	*Threatened Species Conservation Act 1995*

SCHEDULE 2
ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this consent, the Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development.

TERMS OF CONSENT

2. The Applicant shall carry out the development generally in accordance with the:
   (a) EIS;
   (b) statement of commitments; and
   (c) conditions of this consent.

   Notes:
   - *The general layout of the development is shown in Appendix 3.*
   - *The Applicant's statement of commitments is shown in Appendix 9.*

3. If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.

4. The Applicant shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
   (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this consent; and
   (b) the implementation of any actions or measures contained in these documents.

LIMITS ON CONSENT

Mining Operations

5. The Applicant may carry out mining operations on the site until 31 December 2025.

   Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of the Secretary and the Resources Regulator. Consequently, this consent will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.

Coal Extraction

6. The Applicant shall not extract more than 2.6 million tonnes of ROM coal from the site in any calendar year.

Coal Processing

7. The Applicant shall not process on site more than 5.6 million tonnes of ROM coal in any calendar year.

Coal Transport

8. The Applicant shall ensure that:
   (a) all product coal is transported from the site by rail;
   (b) no more than an average of 2.5 laden trains leave the site each day over any calendar year;
   (c) no more than 6 laden trains leave the site in any 24-hour period; and
   (d) no more than 2 laden trains leave the site during any night.

   Note: This condition does not apply to movements of the Duralie shuttle train.

SURRENDER OF EXISTING DEVELOPMENT CONSENTS

9. Prior to the end of December 2015, or as otherwise agreed by the Secretary, the Applicant shall surrender all existing development consents for the site in accordance with section 104A of the EP&A Act.

   Note: This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 4A of the EP&A Act. Surrender of a consent should not be understood as implying that works legally constructed under a valid consent can no longer be legally maintained or used.

10. Prior to the surrender of existing development consents, the conditions of this consent shall prevail to the extent of any inconsistency with the conditions of these consents.

STRUCTURAL ADEQUACY

11. The Applicant shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

Notes:

- *Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works; and*
- *Part 8 of the EP&A Regulation sets out the requirements for the certification of the development.*

DEMOLITION

12. The Applicant shall ensure that all demolition work is carried out in accordance with *Australian Standard AS 2601-2001: The Demolition of Structures,* or its latest version.

PROTECTION OF PUBLIC INFRASTRUCTURE

13. Unless the Applicant and the applicable authority agree otherwise, the Applicant shall:
    (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and
    (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

Note: This condition does not apply to damage to roads caused as a result of general road usage.

OPERATION OF PLANT AND EQUIPMENT

14. The Applicant shall ensure that all plant and equipment used at the site is:
    (a) maintained in a proper and efficient condition; and
    (b) operated in a proper and efficient manner.

STAGED SUBMISSION OF STRATEGIES, PLANS OR PROGRAMS

15. With the approval of the Secretary, the Applicant may submit any strategy, plan or program required by this consent on a progressive basis.

Notes:

- *While any strategy, plan or program may be submitted on a progressive basis, the Applicant will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times.*
- *If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.*

16. Until they are replaced by an equivalent strategy, plan or program approved under this consent, the Applicant shall implement the existing strategies, plans or programs for the site that have been approved under existing development consents.

COMMUNITY ENHANCEMENT

17. From 31 March 2015 until mining operations under this consent cease on the site, unless the Secretary agrees otherwise, the Applicant shall pay to GSC a total of $550 a year for each full-time equivalent employee/contractor on the site. This payment is for the provision of infrastructure and services generated by the development. It is also to be indexed in accordance with the CPI for the December quarter of the previous year (except for the initial payment).

Note: The number of full-time equivalent employees/contractors is to be calculated for the first time in March 2015, and then recalculated in March each year prior to the next payment.

18. The Applicant's obligations to make payments to GSC under condition 15 of Schedule 2 of DA 23-98/99 shall cease on 31 March 2015, unless the Secretary agrees otherwise.

GLOUCESTER GAS PROJECT

19. The Applicant shall use its best endeavours to co-operate with the proponent of the Gloucester Gas Project, with the aim of maximising the outcomes of both developments with respect to:
    - resource recovery;
    - operational efficiencies;
    - biodiversity conservation; and
    - rehabilitation,

    to the satisfaction of the Secretary.

    Note: See also the Applicant's Statement of Commitments (Appendix 9).

SCHEDULE 3
ENVIRONMENTAL PERFORMANCE CONDITIONS

ACQUISITION UPON REQUEST

1. Upon receiving a written request for acquisition from an owner of the land listed in Table 1, the Applicant shall acquire the land in accordance with the procedures in conditions 5-6 of Schedule 4.

Table 1: Land subject to acquisition upon request

Property ID	
40/51/Cr1 – L. Blanch	42 – D. Blanch
Cr7 – Pryce-Jones	Cr 2 – Boorer

Note: To interpret the location referred to in Table 1 see the applicable figure in Appendix 5.

However, the obligation to acquire a property does not apply if the Applicant has a negotiated agreement with the owner/s of the relevant land that sets aside acquisition under the terms of this consent, and the Applicant has advised the Department in writing of the terms of this agreement.

ADDITIONAL MITIGATION UPON REQUEST

2. Upon receiving a written request from the owner of any residence on the land listed in Tables 1 and 2, the Applicant shall implement additional noise mitigation measures (such as double glazing, insulation, and/or air conditioning) at the residence in consultation with the owner. These measures must be reasonable and feasible and directed towards reducing the noise impacts of the development on the residence.

If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

Table 2: Land subject to additional noise mitigation upon request

Property ID	***Property ID***
31(1) – Isaac	60 – Healy / Greenwood
44 – Cross / Jane	36 – Wallace
37 – Worth	29 – Ward
15(3) – Falla	

Note: To interpret the locations referred to in Table 2 see the applicable figure in Appendix 5.

However, the obligation to implement noise mitigation measures does not apply if the Applicant has a negotiated agreement with the owner/s of the relevant residence or land that sets aside noise mitigation measures under the terms of this consent, and the Applicant has advised the Department in writing of the terms of this agreement.

NOISE

Hours of Operation

3. The Applicant shall comply with the operating hours in Table 3.

Table 3: Operating hours

Activity	***Operating Hours***
• Open cut mining operations in the Bowens Road North and Roseville West Extension pits • Recovery and transport of CHPP rejects for re-processing • Construction of the noise mitigation bunds on the western side of the Avon North, Roseville West Extension and Stratford East pits	7 am to 6 pm, 7 days per week
• Open cut mining operations in the Avon North and Stratford East pits • Coal processing, loading and dispatch of product coal trains	24 hours a day, 7 days per

• Maintenance activities	week
• Water truck access to the Bowens Road Water Fill Point	7 am to 6 pm, Monday to Saturday

Noise Criteria

4. The Applicant shall ensure that the noise generated by the development does not exceed the criteria in Table 4 at any residence on privately-owned land.

Table 4: Noise criteria dB(A)

Land	***Day*** $L_{Aeq(15\ min)}$	***Evening*** $L_{Aeq(15\ min)}$	***Night*** $L_{Aeq(15\ min)}$	***Night*** $L_{A1\ (1\ min)}$
40/51/Cr1 – L. Blanch	43	43	43	50
Cr7 – Pryce-Jones	43	43	43	49
42 – D. Blanch	42	42	42	50
Cr 2 – Boorer	41	41	41	49
31(1) – Isaac	40	40	40	48
36 – Wallace	39	39	39	47
44 – Cross / Jane				
60 – Healy / Greenwood	39	39	39	45
37 – Worth	38	38	38	46
29 – Ward	38	38	37	45
23 – Bagnall	37	37	37	45
31(2) – Isaac				
296 – Watson				
297 – Bosma				
298 – Yates	36	36	36	45
15(3) – Falla	39	35	35	45
15(2) – Falla	36	35	35	45
Stratford Village	37	36	35	45
All other privately-owned residences	35	35	35	45

- *To interpret the locations referred to in Table 4 see the applicable figure(s) in Appendix 5.*
- *Stratford village is shown on the figure(s) in Appendix 5.*

Noise generated by the development is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy*. Appendix 6 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

However, these criteria do not apply if the Applicant has a negotiated agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

Operating Conditions

5. The Applicant shall:
   (a) implement best management practice to minimise the construction, operational, road and rail noise of the development;

(b) operate a comprehensive noise management system that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day-to-day planning of mining operations, and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this consent;
(c) minimise the noise impacts of the development during meteorological conditions under which the noise limits in this consent do not apply (see Appendix 6);
(d) only use locomotives and rolling stock that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL (No. 3142);
(e) co-ordinate noise management on site with the noise management of the Gloucester Gas Project to minimise cumulative noise impacts; and
(f) carry out regular monitoring to determine whether the development is complying with the relevant conditions of this consent,

to the satisfaction of the Secretary.

Noise Management Plan

6. The Applicant shall prepare and implement a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
   (a) be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to 31 December 2015, unless otherwise agreed by the Secretary;
   (b) describe the measures that would be implemented to ensure:
      - compliance with the noise criteria and operating conditions of this consent; and
      - the noise impacts of the project are minimised during meteorological conditions when the noise limits of this consent do not apply;
   (c) describe the proposed noise management system in detail;
   (d) include a monitoring program that:
      - includes monitoring of inversion strength at an appropriate sampling rate to determine compliance with noise limits;
      - provides for the biennial validation of the noise model for the project.
      - evaluates and reports on:
         - the effectiveness of the on-site noise management system;
         - compliance against the noise criteria in this consent; and
         - compliance with the noise operating conditions;
      - includes a program to calibrate and validate real-time noise monitoring results with attended monitoring results over time (so the real-time noise monitoring program can be used as a better indicator of compliance with the noise criteria and as a trigger for further attended monitoring); and
      - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

Night-time Noise

7. Within 2 years of the commencement of night-time mining operations, and every 2 years thereafter, the Applicant shall engage an independent acoustic expert to undertake a review of compliance with the relevant conditions of consent for night-time operations, to the satisfaction of the Secretary.

   Should any review report show that night-time mining operations have been/are non-compliant, the Applicant must modify its operations and conduct another independent review with 30 days.

   If this second review demonstrates compliance, the Applicant may continue its modified night-time mining operations. If not, the Applicant must immediately cease night-time mining operations.

   Night-time mining operations may only restart if the Secretary is satisfied that the proposed operations would be compliant with the relevant conditions of consent.

Record of Noise Limit Exemptions

8. The Applicant shall record and make available on its website:
   (a) when the real-time monitoring and management system detects any potential exceedance of the noise limits;
   (b) when exemptions from noise limits due to meteorological conditions apply;
   (c) the specific reasonable and feasible measures that were taken when either (a) or (b) apply; and
   (d) facilitate the regular review of this information by the CCC,

   to the satisfaction of the Secretary.

BLASTING

Blasting Criteria

9. The Applicant shall ensure that blasting on site does not cause any exceedence of the criteria in Table 5.

Table 5: Blasting criteria

Location	***Airblast overpressure (dB(Lin Peak))***	***Ground vibration (mm/s)***	***Allowable exceedence***
Residence on privately-owned land	120	10	0%
	115	5	5% of the total number of blasts over a period of 12 months
All public infrastructure	-	50 *(or a limit determined by the structural design methodology in AS 2187.2-2006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Secretary)*	0%

However, these criteria do not apply if the Applicant has a written agreement with the relevant owner to exceed these criteria, and the Applicant has advised the Department in writing of the terms of this agreement.

Blasting Hours

10. The Applicant shall only carry out blasting on site between 9 am and 5 pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Secretary.

Blasting Frequency

11. The Applicant may carry out a maximum of:
    (a) 1 blast per day on site; and
    (b) 3 blasts per week, averaged over a calendar year.

    This condition does not apply to blasts required to ensure the safety of the mine or its workers.

    Note: For the purposes of this condition a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.

Property Inspections

12. If the Applicant receives a written request from the owner of any privately-owned land within 2 kilometres of any approved open cut pit on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection report updated, then within 2 months of receiving this request the Applicant shall:
    (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to:
        - establish the baseline condition of any buildings and/or structures on the land, or update the previous property inspection report; and
        - identify any measures that should be implemented to minimise the potential blasting impacts of the development on these buildings and/or structures; and
    (b) give the landowner a copy of the new or updated property inspection report.

    If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or landowner disagrees with the findings of the independent property investigation, either party may refer the matter to the Secretary for resolution.

Property Investigations

13. If any owner of privately-owned land claims that the buildings and/or structures on his/her land have been damaged as a result of blasting on site, then within 2 months of receiving this claim in writing from the landowner, the Applicant shall:
    (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to investigate the claim; and
    (b) give the landowner a copy of the property investigation report.

    If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Applicant shall repair the damages to the satisfaction of the Secretary.

    If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or landowner disagrees with the findings of the independent property investigation, either party may refer the matter to the Secretary for resolution.

Operating Conditions

14. The Applicant shall:
    (a) implement best management practice to:
        - protect the safety of people and livestock in the surrounding area;
        - protect public infrastructure and private property in the surrounding area from any damage; and
        - minimise the dust and fume emissions of any blasting;
    (b) ensure that blasting on the site does not damage Aboriginal cultural heritage site CTS-1;
    (c) minimise the frequency and duration of any required road closures; and
    (d) operate a suitable system to enable the public to get up-to-date information on the proposed blasting Schedule on site,

    to the satisfaction of the Secretary.

15. The Applicant shall not undertake blasting within 500 metres of:
    (a) any public road; or
    (b) any land outside of the site not owned by the Applicant,

    unless the Applicant has:
        - demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the road or land without compromising the safety of people or livestock, or damaging buildings and/or structures; and
        - updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land or road; or
        - a written agreement with the landowner or GSC (in the case of any public road) to allow blasting to be carried out closer to the land or road, and the Applicant has advised the Department in writing of the terms of this agreement.

Blast Management Plan

16. The Applicant shall prepare and implement a Blast Management Plan for the development to the satisfaction of the Secretary. This plan must:
    (a) be prepared in consultation with the EPA and submitted to the Secretary for approval at least 3 months prior to the commencement of mining operations in the new mining areas, unless otherwise agreed by the Secretary;
    (b) describe the measures that would be implemented to ensure compliance with the blasting criteria and operating conditions of this consent;
    (c) propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site (if relevant);
    (d) include a monitoring program for evaluating and reporting on compliance with the blasting criteria and operating conditions; and
    (e) include a specific blast fume management protocol to demonstrate how emissions will be minimised including risk management strategies if blast fumes are generated.

AIR QUALITY

Odour

17. The Applicant shall ensure that no offensive odours, as defined under the POEO Act, are emitted from the site.

Air Quality Criteria

18. The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria in Table 6 at any residence on privately-owned land.

Note:
"Reasonable and feasible avoidance measures" includes, but is not limited to, the operational requirements in conditions 23 and 24 to develop and implement a real-time air quality management system that ensures operational responses to the risks of exceedance of the criteria.

Table 6: Air quality criteria

Pollutant	***Averaging Period***	***Criterion***	
Particulate matter < 10 µm (PM_{10})	Annual	[a,d] 30 µg/m^3	
Particulate matter < 10 µm (PM_{10})	24 hour	[b] 50 µg/m^3	
Total suspended particulates (TSP)	Annual	[a,d] 90 µg/m^3	
[c] Deposited dust	Annual	[b] 2 g/m^2/month	[a,d] 4 g/m^2/month

Notes to Table 6:
a Cumulative impact (ie increase in concentrations due to the development plus background concentrations due to all other sources).
[b] Incremental impact (ie increase in concentrations due to the development alone, with zero allowable exceedances of the criteria over the life of the development.
[c] Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.
[d] Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary.

Mitigation Measures

19. If the development causes an exceedance of the air quality criteria in Table 6, the Applicant shall, upon receiving a written request for air quality mitigation measures from the landowner, undertake air quality mitigation measures directed towards reducing the potential human health and amenity impacts of the development at a residence. These measures may include (for example):
    (a) air conditioning, including heating;
    (b) insulation;
    (c) first flush water systems;
    (d) installation and regular replacement of water filters;
    (e) cleaning of rainwater tanks;
    (f) clothes dryers; and
    (g) regular cleaning or any residence and its related amenities, such as barbeque areas and swimming pools.

    If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

Mine-owned Land

20. The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria in Table 6 at any occupied residence on mine-owned land unless:
    (a) the tenant and landowner (if the residence is owned by another mining or petroleum company) has been notified of any health risks associated with such exceedances in accordance with the notification requirements under Schedule 4 of this consent;
    (b) the tenant of any land owned by the Applicant can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice;
    (c) air mitigation measures such as those listed in condition 19 are installed at the residence, if requested by the tenant or landowner (if the residence is owned by another mining or petroleum company);
    (d) air quality monitoring is regularly undertaken to inform the tenant or landowner (where owned by another mining or petroleum company) of the actual particulate emissions at the residence; and

(e) data from this monitoring is presented to the tenant or landowner in an appropriate format for a medical practitioner to assist the tenant and/or landowner (where owned by another mining or petroleum company) in making informed decisions on health risks associated with occupying the property,

to the satisfaction of the Secretary.

Air Quality Acquisition Criteria

21. If particulate matter emissions generated by the development exceed the criteria, or contribute to an exceedance of the cumulative criteria, in Table 7 at any residence on privately-owned land, or on more than 25% of any privately owned land where there is an existing dwelling or where a dwelling could be built under existing planning controls, then upon receiving a written request for acquisition from the landowner the Applicant shall acquire the land in accordance with the procedures in conditions 5-6 of Schedule 4.

Table 7: Air quality land acquisition criteria

Pollutant	***Averaging Period***	***Criterion***	
Particulate matter < 10 µm (PM_{10})	Annual	[a,d] 30 µg/m^3	
Particulate matter < 10 µm (PM_{10})	24 hour	[b] 50 µg/m^3	
Total suspended particulates (TSP)	Annual	[a,d] 90 µg/m^3	
[c] Deposited dust	Annual	[b] 2 g/m^2/month	[a,d] 4 g/m^2/month

Notes to Table 7:
a Cumulative impact (ie increase in concentrations due to the development plus background concentrations due to all other sources).
[b] Incremental impact (ie increase in concentrations due to the development alone, with up to 5 allowable exceedances of the criteria over the life of the development.
[c] Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.
[d] Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary.

Operating Conditions

22. The Applicant shall:
    (a) implement best practice management to minimise the off-site odour, fume and dust emissions of the development;
    (b) implement all reasonable and feasible measure to minimise the release of greenhouse gas emissions from the site;
    (c) minimise the surface disturbance of the site;
    (d) minimise any visible off-site air pollution generated by the development;
    (e) operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting, predictive and real-time air dispersion modelling and real-time air quality monitoring data to guide the day-to-day planning of mining operations and implementation of both proactive and reactive air quality mitigation measures (such as relocate, modify and/or suspend) to ensure compliance with the relevant conditions of this consent; and
    (f) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d to Tables 6 and 7 above),

    to the satisfaction of the Secretary.

Air Quality Management Plan

23. The Applicant shall prepare and implement an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:
    (a) be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to 31 December 2015, unless otherwise agreed by the Secretary;
    (b) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this consent;
    (c) describe the proposed air quality management system; and
    (d) include an air quality monitoring program that:

- uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the development against the air quality criteria in this consent;
- adequately supports the proactive and reactive air quality management system;
- evaluates and reports on:
  - the effectiveness of the air quality management system; and
  - compliance with the air quality operating conditions; and
- defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.

METEOROLOGICAL MONITORING

24. For the life of the development, the Applicant shall ensure that there is a meteorological station in the vicinity of the site that:
    (a) complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline and the *NSW Industrial Noise Policy*; and
    (b) is capable of continuous real-time measurement of temperature lapse rate data that are able to be transformed accurately and repeatably, and no more favourably, to those that would be obtained by the use of a 60 m tower,
    to the satisfaction of the EPA.

SOIL AND WATER

Water Supply

25. The Applicant shall ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of operations on site to match its available water supply.

    Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licences for the development.

Compensatory Water Supply

26. The Applicant shall provide a compensatory water supply to the owner of any privately-owned land whose water supply is adversely and directly impacted (other than a negligible impact) as a result of the development, in consultation with DPIE Water, and to the satisfaction of the Secretary.

    The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributed to the development. Equivalent water supply should be provided (at least on an interim basis) within 24 hours of the loss being identified.

    If the Applicant and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

    If the Applicant is unable to provide an alternative long-term supply of water, then the Applicant shall provide alternative compensation to the satisfaction of the Secretary.

Water Pollution

27. Unless an EPL authorises otherwise, the Applicant shall comply with Section 120 of the POEO Act.

Irrigation

28. The Applicant shall only carry out irrigation on parts of the site that drain directly to mine water storages, and in accordance with the relevant requirements of an approved Water Management Plan.

Avondale and Dog Trap Creeks

29. The Applicant shall not carry out any mining operations within 40 metres of Avondale or Dog Trap Creeks, with the exception of the construction and/or use of the proposed and existing haul road crossings of Avondale Creek shown in the figure(s) in Appendix 3.

30. The Applicant shall improve the riparian habitat along Avondale Creek to the satisfaction of the Secretary. These improvements must be made within the area of the proposed Biodiversity Enhancement Area (see Appendix 8) and include the re-establishment of flora species characteristic of the Cabbage Gum open forest vegetation community.

Offsite Water Transfer

30A. The Applicant may allow a public authority to collect and transport water offsite by road:
a) where this water is intended for use for a public purpose; and
b) up to a maximum rate of 25 road registered water trucks per day.

Notes:
- *The transport and use of water by the public authority may be subject to separate regulatory requirements, including processes under Part 5 of the EP&A Act, and relevant controls, restrictions and/or exemptions under the POEO Act.*
- *This condition does not restrict or affect water that may be taken under the provisions of the Rural Fires Act 1997."*

Water Management Performance Measures

31. The Applicant shall comply with the performance measures in Table 8 to the satisfaction of the Secretary.

Table 8: Water Management Performance Measures

Feature	***Performance Measure***
Water Management – General	• Minimise the use of clean water on site • Maximise as far as reasonable and feasible the separation of clean and dirty water within the site
Construction and operation of linear infrastructure	• Design, install and maintain erosion and sediment controls generally in accordance with the series *Managing Urban Stormwater: Soils and Construction including Volume 1, Volume 2A – Installation of Services and Volume 2C – Unsealed Roads* • Design, install and maintain infrastructure within 40 m of watercourses generally in accordance with the *Guidelines for Controlled Activities on Waterfront Land (July 2012), or its latest version* • Design, install and maintain creek crossings generally in accordance with the *Policy and Guidelines for Fish Friendly Waterway Crossings (NSW Fisheries 2003)* and *Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003), or their latest versions*
Mine Sediment Dams	• Design, install and maintain the dams generally in accordance with the series *Managing Urban Stormwater: Soils and Construction – Volume 1* and *Volume 2E – Mines and Quarries*
Clean Water Diversion and Storage Infrastructure	• Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site • Design, install and maintain the clean water system to capture and convey the 1 in 100 year ARI flood
Stream diversion of tributary of Avondale Creek	• Design, install and maintain the tributary diversion to convey the modelled peak water flows for its altered catchment • Establish and maintain geomorphic stability of the diversion channel using appropriate revegetation and stabilisation techniques • Demonstrate that the channel is appropriately vegetated and stabilised prior to the release of flows into the diversion channel • Control water flows entering the diversion channel by the construction of a stormwater detention basin
Mine Water Storages and out-of-pit emplacement of potentially acid-forming materials	• No discharges to surface waters • Adequate freeboard to minimise the risk of discharge to surface waters
In-pit emplacement of CHPP rejects and potentially acid forming materials	• Emplacement, and/or encapsulation and/or capping to prevent or minimise the migration of pollutants beyond the pit shell or seepage from out-of-pit emplacement areas • Emplacement of CHPP rejects below the predicted post-mining groundwater level • Adequate freeboard within the pit to minimise the risk of discharge to surface waters
Chemical and petroleum storage	• Chemical and hydrocarbon products to be stored in bunded areas in accordance with relevant Australian Standards
Aquatic and riparian ecosystem, in the Avon River and its tributaries, particularly	• Develop site-specific in-stream water quality objectives in accordance with ANZECC 2000 and *Using the ANZECC Guidelines and Water Quality Objectives in NSW* (DECC 2006),

Feature	*Performance Measure*
Avondale and Dog Trap Creeks	or their latest versions

Water Management Plan

32. The Applicant shall prepare and implement a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
    (a) be prepared in consultation with the EPA and DPIE Water, by suitably qualified and experienced person/s whose appointment has been approved by the Secretary;
    (b) be submitted to the Secretary for approval prior to 31 December 2015, unless otherwise agreed by the Secretary; and
    (c) in addition to the standard requirements for management plans (see condition 3 of Schedule 5), include a:
        (i) Site Water Balance, that:
            - includes details of:
                - sources and security of water supply, including details of Water Access Licences held, and contingency supply for future reporting periods;
                - water use and management on site;
                - any off-site water discharges; and
                - reporting procedures, including the preparation of a site water balance for each calendar year; and
            - investigates and implements all reasonable and feasible measures to minimise water use on site;
        (ii) Surface Water Management Plan, that includes:
            - detailed baseline data on water flows and quality in the watercourses that could potentially be affected by the development;
            - a detailed description of the water management system, including the:
                - clean water diversion systems;
                - erosion and sediment controls (mine water system); and
                - mine water management systems, including irrigation areas;
            - detailed plans, including design objectives and performance criteria for:
                - design and management of final voids;
                - design and management for the emplacement of coal reject materials and potential acid-forming or sulfate-generating materials;
                - management of sodic and dispersible soils;
                - diversion of the key tributary of Avondale Creek;
                - reinstatement of drainage lines on the rehabilitated areas of the site; and
                - control of any potential water pollution from the rehabilitated areas of the site;
            - performance criteria for the following, including trigger levels for investigating any associated potentially adverse impacts:
                - mine water management system;
                - downstream surface water quality;
                - downstream flooding impacts, and
                - stream and riparian vegetation health for the Avon River and its tributaries, including Avondale and Dog Trap Creeks;
            - a program to monitor and report on:
                - effectiveness of the mine water management system;
                - effectiveness of the stream diversion for the key tributary of Avondale Creek;
                - surface water flows (with a focus on base flow and low flows) and quality in the watercourses potentially affected by the development; and
                - downstream flooding impacts;
            - reporting procedures for the results of the monitoring program; and
            - a plan to respond to any exceedences of the performance criteria, and repair, mitigate and/or offset any adverse surface water impacts of the development;
        (iii) Groundwater Management Plan that includes:
            - detailed baseline data of groundwater levels, yield and quality in the region that could be affected by the development, including licensed privately-owned groundwater bores and a detailed survey/Schedule of groundwater dependent ecosystems;
            - groundwater assessment criteria including trigger levels for investigating any potentially adverse groundwater impacts;
            - a program to monitor and report on:
                - groundwater inflows to the open cut pits;
                - the seepage/leachate from water storages, emplacements and final voids;
                - background changes in groundwater yield/quality against mine-induced changes; and
                - impacts of the development on:

- regional and local (including alluvial) aquifers;
- groundwater supply of potentially affected landowners; and
- groundwater dependent ecosystems and riparian vegetation;

- a program to validate the groundwater model for the development, including an independent review of the model every 3 years, and comparison of monitoring results with modelled predictions; and
- a plan to respond to any exceedences of the performance criteria; and

(iv) protocol that has been prepared in consultation with the owners of nearby resource developments, including the Gloucester Gas Project, to:

- minimise and manage the cumulative water quality and quantity impacts of these developments;
- review opportunities for water sharing/water transfers between these developments;
- co-ordinate water quality monitoring programs as far as practicable;
- undertake joint investigations/studies in relation to complaints/exceedences of trigger levels where cumulative impacts are considered likely; and
- co-ordinate modelling programs for validation, re-calibration and re-running of the groundwater and surface water models using approved mine and gas production operation plans.

Note: The protocol can be developed in stages and will need to be subject to ongoing review, dependent upon the determination of, and commencement of, other mining developments in the area.

BIODIVERSITY

Biodiversity Offset Strategy

33. The Applicant shall implement the biodiversity offset strategy described in the EIS, summarised in Table 9 and shown conceptually in Figure 1 in Appendix 8, to the satisfaction of the Secretary.

Table 9: Summary of the biodiversity offset strategy

Area	***Offset Type***	***Minimum Size (ha)***
Biodiversity Offset Area, including Offset Areas 1, 2, 3 and 4	Existing vegetation to be enhanced and additional vegetation to be established.	935 Includes 490 ha of existing native vegetation.
Biodiversity Enhancement Area	Existing vegetation to be enhanced and additional vegetation to be established, including Cabbage Gum open forest within the Avondale Creek riparian area.	240
Rehabilitation Area	Native woodland vegetation communities to be re-established.	350

Note: For the purposes of this consent the vegetation community referred to in the EIS as Cabbage Gum open forest on flats of the North Coast or New England Tablelands is considered equivalent to Subtropical Coastal Rainforest of the NSW North Coast Bioregion EEC under the TSC Act.

Enhancement of Biodiversity Offset Strategy

34. At least 3 months prior to the commencement of mining operations in the new mining areas, the Applicant shall notify the owner of Property 44 (Cross / Jane) that they may request the Applicant to acquire their property. Upon receiving a written request from the owner to acquire their property, the Applicant shall acquire this property in accordance with conditions 5 and 6 of Schedule 4.

Should the Applicant acquire Property 44, then the property, exclusive of the residence and its immediate surrounds, shall be added to the Biodiversity Offset Strategy for the development described in condition 34 above, and managed in accordance with the requirements applicable to this Strategy.

Should the Applicant not acquire Property 44 in accordance with this condition, then the Applicant shall use its best endeavours to enter into an agreement with the owner that conserves, enhances and provides long-term security for the native vegetation on the property. This agreement must require that the vegetation on this property is managed in accordance with the Biodiversity Management Plan in condition 40.

Cabbage Gum Open Forest

35. The Applicant shall ensure the establishment of vegetation in the Biodiversity Offset Area and Biodiversity Enhancement Area includes the establishment of flora species characteristic of the Cabbage Gum Open Forest community as described in the note below Table 9.

Long Term Security of Offset

36. Prior to 30 June 2016, unless the Secretary agrees otherwise, the Applicant shall make suitable arrangements to protect the Biodiversity Offset Area in perpetuity to the satisfaction of the Secretary.

Note: For the purposes of this consent suitable arrangements may include a biobanking agreement or the use of Public Positive Covenants in combination with Restrictions In Use of Land on the land titles of the Offset lands. Other arrangements such as dedication of land under the National Parks and Wildlife Act 1974, Trust Agreements under the Nature Conservation Trust Act 2001 or a Property Vegetation Plan registered on title under the Native Vegetation Act 2003 would be considered for their suitability by the Secretary.

Habitat for Threatened Fauna Species

37. The Applicant shall ensure that the Biodiversity Offset Area and Biodiversity Enhancement Area provides suitable habitat for all the threatened fauna species recorded in the surface development area, namely the:
    - Glossy-black Cockatoo;
    - Speckled Warbler;
    - Grey-crowned Babbler (eastern subspecies);
    - Varied Sittella;
    - Brush-tailed Phascogale;
    - Squirrel Glider;
    - Long-nosed Potoroo; and
    - New Holland Mouse.

Squirrel Glider Management Plan

38. The Applicant shall prepare and implement a Squirrel Glider Management Plan to the satisfaction of the Secretary. This Plan must be prepared in consultation with BCD and approved by the Secretary prior to any clearing within 500 metres of a Squirrel Glider colony and shall include:
    (a) measures to establish the home range of each colony;
    (b) a census of suitable tree hollows in home ranges and offset areas suitable for Squirrel Gliders;
    (c) establishing the food resources utilised by each colony;
    (d) measures to enhance food resources utilised by Squirrel Gliders, particularly for Offset Area 1;
    (e) a vegetation clearing protocol to protect individual Squirrel Gliders;
    (f) relocation of trees containing suitable tree hollows;
    (g) installation of suitable nest boxes at a ratio of least 3:1 for each suitable hollow destroyed by the development and their long term management;
    (h) measures to assess the rate of tree hollow development within the Offset Areas;
    (i) implementation of Yancoal's proposed Glider crossings of haul roads with the establishment of suitable vegetation adjacent to each crossing;
    (j) implementation of Yancoal's proposals to enhance vegetation, particularly in Offset Area 3, to create recruitment and dispersal pathways for Squirrel Gliders; and
    (k) installation of Gliders crossings of The Bucketts Way and Main Northern Railway, should Yancoal acquire Property 44, unless their installation is prevented by the relevant transport authority.

Biodiversity Management Plan

39. The Applicant shall prepare and implement a Biodiversity Management Plan for the development to the satisfaction of the Secretary. This plan must:
    (a) be prepared in consultation with BCD, and be submitted to the Secretary for approval prior to 31 December 2015;
    (b) describe the short, medium, and long-term measures that would be implemented to:
        - manage the remnant vegetation and habitat on the site; and
        - implement the biodiversity offset strategy;
    (c) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);
    (d) include a detailed description of the measures that would be implemented over the next 3 years for:
        - enhancing the quality of existing vegetation and fauna habitat;
        - establishing native vegetation and fauna habitat in the Biodiversity Offset Area, Biodiversity Enhancement Area and Rehabilitation Area through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features (where necessary);
        - enhancing the landscaping of the site and along public roads to minimise visual and lighting impacts, particularly along Glen Road;
        - protecting vegetation and soil outside approved disturbance area;

- maximising the salvage of resources within the approved disturbance area – including vegetative and soil – for beneficial reuse in the biodiversity offset strategy;
- collecting and propagating seed;
- minimising the impacts to fauna on site, including undertaking pre-clearance surveys;
- managing any potential conflicts between the proposed restoration works in the Biodiversity Offset Area and any Aboriginal heritage values (both cultural and archaeological);
- managing salinity;
- controlling weeds and feral pests;
- controlling erosion;
- managing grazing and agriculture;
- controlling access; and
- managing bushfire risk;

(e) include a program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;

(f) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and

(g) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

Note: The Biodiversity Management Plan and Rehabilitation Management Plan need to be substantially integrated for achieving biodiversity objectives for the rehabilitated mine-site.

Conservation Bond

40. By the end of June 2016, unless the Secretary agrees otherwise, the Applicant shall lodge a Conservation Bond with the Department to ensure that the Biodiversity Offset Strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan.

The sum of the bond shall be determined by:

(a) calculating the full cost of implementing the Biodiversity Offset Strategy (other than land acquisition costs); and

(b) employing a suitably qualified quantity surveyor to verify the calculated costs.

If the Offset Strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond.

If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all, or part of, the conservation bond, and arrange for the satisfactory completion of the relevant works.

Notes:

- *Alternative funding arrangements for long-term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by BCD as part of a Biobanking Agreement or transfer to conservation reserve estate can be used to reduce the liability of the conservation and biodiversity bond.*
- *The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy.*

Bowens Road North Open Cut Offset Strategy

41. The Applicant shall implement the Bowens Road North Offset Strategy, as described in the modification application Bowens Road North Mod 4 and accompanying Environmental Assessment titled *Bowens Road North Open Cut June 2010 Modification*, in conjunction with the biodiversity offset strategy for the Duralie Extension Project, and comply with the relevant requirements for the implementation of this strategy in the Duralie Extension project approval (see MP 08_0203).

Note: The lands to which the Bowens Road North Offset Strategy applies are shown conceptually in Figure 2 of Appendix 8 and are located about 20 km south of the Stratford Mine and contiguous with more extensive lands of the Duralie Mine Offset Strategy.

HERITAGE

Protection of Aboriginal Sites

42. The Applicant shall ensure that the development does not cause any direct or indirect impact on identified Aboriginal sites located outside the approved disturbance area of the development on the site.

Heritage Management Plan

43. The Applicant shall prepare and implement a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:
    (a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Secretary;
    (b) be prepared in consultation with BCD and local Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);
    (c) be submitted to the Secretary for approval prior to 31 December 2015, unless the Secretary agrees otherwise;
    (d) include the following:
        - a detailed archaeological salvage program for Aboriginal sites/objects within the approved disturbance area, including methodology and procedures/protocols for:
            - staged salvage, based on anticipated mine planning (sites OS-3, OS-4, OS-5, IF-1, IF-2, IF-3, IF-4 shown on the figure in Appendix 7);
            - salvage of scarred trees (sites ST-2; ST-4 shown on the figure in Appendix 7);
            - monitoring of topsoil stripping during construction associated with the Wenham Cox / Bowens Road realignment in the vicinity of Dog Trap Creek;
            - site assessment and reporting;
            - protection, storage, management and long-term protection of salvaged Aboriginal objects; and
            - addressing relevant statutory requirements under the *National Parks and Wildlife Act 1974*; and
        - a description of the measures that would be implemented for:
            - protecting, monitoring and managing Aboriginal sites outside the approved disturbance area (including sites OS-1, OS-2, ST-1, ST-3, IF-5, PAD-1, PAD-2, CTS-1 shown on the figure in Appendix 7);
            - maintaining and managing reasonable access for Aboriginal stakeholders to cultural heritage items on site and in the Biodiversity Offset Area;
            - managing the discovery of any human remains or previously unidentified Aboriginal objects on site, including (in the case of human remains) stop work provisions and notification protocols;
            - ongoing consultation with local Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage both on-site and in the Biodiversity Offset Area; and
            - ensuring any workers on site receive suitable heritage inductions prior to carrying out any activities which may disturb Aboriginal sites, and that suitable records are kept of these inductions.

TRANSPORT

Road Realignments

44. The Applicant shall construct the proposed realignment of:
    (a) Bowens Road to Wenham Cox Road to the east of the Avon North pit; and
    (b) Wheatleys Lane and Bowens Road to the west of the Roseville West pit extension,
    to the satisfaction of GSC.

Intersection Upgrades

45. Prior to 31 December 2015, unless the Secretary agrees otherwise, the Applicant shall:
    (a) improve the warning signage, re-paint line markings and install raised reflective markers at the intersection of the Stratford Mine Access Road and The Bucketts Way; and
    (b) upgrade/repair road drainage on the southwestern corner of the intersection of Wenham Cox Road and Wheatleys Lane to ensure it does not pose an unacceptable safety risk to traffic,
    to the satisfaction of GSC.

Road Maintenance – The Bucketts Way

46. From the commencement of mining operations in the new mining areas until their cessation, unless otherwise agreed by the Secretary, the Applicant shall pay GSC and GLC annual contributions for the maintenance and resealing of The Bucketts Way in accordance with the terms in Appendix 4.

Road Maintenance – Wenham Cox Road

47. From the commencement of mining operations in the new mining areas until their cessation, unless otherwise agreed by the Secretary, the Applicant shall pay GSC annual contributions for the maintenance of Wenham Cox Road. The contribution shall be based on the proportion of all heavy vehicles using this road

due to the Applicant's mining operations and exploration activities, or a figure of $5000 per annum (2014 dollars, subject to annual indexation in accordance with the CPI), as the Applicant decides. Any dispute about this condition shall be referred to the Secretary for resolution.

Transport Monitoring

48. The Applicant shall monitor and report on:
    (a) the amount of coal transported from the site; and
    (b) the date and time of each train movement to and from the site;
    to the satisfaction of the Secretary.

49. Prior to 31 December 2015, the Applicant shall submit a detailed Transport Monitoring Program for the development, which has been prepared in consultation with GSC and GLC, to the Secretary for approval. This Program shall monitor heavy vehicle movements to and from the mine and on The Bucketts Way to the north and south of the mine and require these data to be reported directly to the Applicant, GSC and GLC.

VISUAL

Operating Conditions

50. The Applicant shall:
    (a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development;
    (b) ensure no fixed outdoor lights shine above the horizontal;
    (c) ensure no in-pit mobile lighting rigs shine above the pit wall and other mobile lighting rigs do not shine above the horizontal;
    (d) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting* or its latest version;
    (e) provide for the establishment and monitoring of trees and shrubs:
        - along the Glen Road; and
        - at other areas identified as necessary for the maintenance of satisfactory visual amenity; and
    (f) ensure that the visual appearance of all buildings, structures, facilities or works (including paint colours and specifications) is aimed at blending as far as possible with the surrounding landscape,
    to the satisfaction of the Secretary**.**

BUSHFIRE MANAGEMENT

51. The Applicant shall:
    (a) ensure that the development is suitably equipped to respond to any fires on site; and
    (b) assist the Rural Fire Service, emergency services and National Parks and Wildlife Service as much as possible if there is a fire in the surrounding area.

WASTE

52. The Applicant shall:
    (a) implement all reasonable and feasible measures to minimise the waste (including coal reject) generated by the development;
    (b) ensure that the waste generated by the development is appropriately stored, handled and disposed of; and
    (c) monitor and report on the effectiveness of waste minimisation and management measures in the Annual Review.

REHABILITATION

Rehabilitation Objectives

53. The Applicant shall rehabilitate the site to the satisfaction of the Resources Regulator. This rehabilitation must be generally consistent with the proposed Rehabilitation Strategy described in the EIS (and depicted conceptually in Appendix 8) and comply with the objectives in Table 10.

Table 10: Rehabilitation objectives

Feature	***Objective***
Mine site (as a whole)	Safe, stable and non-polluting Constructed landforms drain to the natural environment Minimise visual impact of final landforms as far as is

Feature	*Objective*
	reasonable and feasible and be sympathetic to the original Gloucester valley landform
Final voids	Minimise the size and depth of final voids so far as is reasonable and feasible Minimise the drainage catchment of final voids so far as is reasonable and feasible Minimise high wall instability risk so far as is reasonable and feasible The size and depth of final voids must be designed having regard to their function as long-term groundwater sinks, to maximise groundwater flows across back-filled pits to the void and to not be a source of saline groundwater for aquifers and streams Designed and constructed to ensure adequate freeboard to ensure no spillage under any foreseeable conditions Minimise risk of flood interaction for all flood events up to and including the Probable Maximum Flood
Surface infrastructure	To be decommissioned and removed, unless the Deputy Secretary, Resources and Energy agrees otherwise
Agricultural land	Establish a minimum of 300 hectares of land with Class 4 agricultural suitability
Other land	Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprising: • a wildlife corridor (shown as Biodiversity Enhancement Area in the figure in Appendix 8); • local native plant species; and • a landform consistent with the surrounding environment
Stratford and Glen heritage railway corridors	Road and transmission alignments to avoid heritage railway corridors Rehabilitation activities to avoid or minimise impacts
Community	Ensure public safety, with an emphasis on final voids Minimise the adverse socio-economic effects associated with mine closure

Progressive Rehabilitation

54. The Applicant shall progressively rehabilitate the site, including the Western Co-disposal Area, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies must be employed where areas prone to dust generation are not subject to active mining operations but cannot yet be permanently rehabilitated.

    Note: It is accepted that parts of the site that are progressively rehabilitated may be subject to further disturbance in future.

Rehabilitation Management Plan

55. The Applicant shall prepare and implement a Rehabilitation Management Plan to the satisfaction of the Resources Regulator. This plan must:
    (a) be prepared in consultation with the Department, DPIE Water, BCD, and GSC;
    (b) be submitted to the Resources Regulator for approval at least 3 months prior to the commencement of mining operations in the new mining areas; unless the Resources Regulator agrees otherwise;
    (c) be prepared in accordance with any relevant DRG guideline;
    (d) describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity offset strategy;
    (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);

(f) describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including mine closure, final landform and final land use;
(g) include interim rehabilitation where necessary to minimise the area exposed for dust generation;
(h) include a program to monitor, independently audit and report on the effectiveness of the rehabilitation measures and progress against the detailed performance and completion criteria; and
(i) build to the maximum extent practicable on the other management plans required under this consent.

Note: The Biodiversity Management Plan and Rehabilitation Management Plan require substantial integration to achieve biodiversity objectives for the rehabilitated mine site.

SCHEDULE 4
ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS/TENANTS

1. Within 1 month of the date of this consent, unless the Secretary agrees otherwise, the Applicant shall:
   (a) notify in writing the owners of:
      - the land listed in Table 1 of Schedule 3 that they have the right to require the Applicant to acquire their land at any stage during the development;
      - any residence listed in condition 2 of Schedule 3, including those on the land listed in Table 1 of Schedule 3, that they have the right to request the Applicant for additional noise mitigation measures to be installed at their residence at any stage during the development; and
      - any privately-owned land within 2 kilometres of the approved open cut mining pit/s that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated;

   (b) notify the tenants of any mine-owned land of their rights under this consent; and
   (c) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the EIS identify that dust emissions generated by the development are likely to be greater than the relevant air quality criteria in Schedule 3 at any time during the life of the development.

2. Prior to entering into any tenancy agreement for any land owned by the Applicant that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Table 1 that is subsequently purchased by the Applicant, the Applicant shall:
   (a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and
   (b) advise the prospective tenants of the rights they would have under this consent,

   to the satisfaction of the Secretary.

3. As soon as practicable after obtaining monitoring results showing:
   (a) an exceedance of any relevant criteria in Schedule 3, the Applicant shall notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria; and
   (b) an exceedance of the relevant air quality criteria in Schedule 3, the Applicant shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).

INDEPENDENT REVIEW

4. If an owner of privately-owned land considers the development to be exceeding the criteria in Schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the development on his/her land.

   If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision, the Applicant shall:
   (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to:
      - consult with the landowner to determine his/her concerns;
      - conduct monitoring to determine whether the development is complying with the relevant impact assessment criteria in Schedule 3; and
      - if the development is not complying with these criteria then:
         - determine if more than one mine or development is responsible for the exceedance, and if so the relative share of each mine or development regarding the impact on the land; and
         - identify the measures that could be implemented to ensure compliance with the relevant criteria; and

   (b) give the Secretary and landowner a copy of the independent review.

   Should noise monitoring undertaken under this condition, and/or regular noise compliance monitoring at a residence, indicate that the development is responsible for sustained exceedances of the noise criteria in Table 4 of Schedule 3 (defined as 3 or more exceedances within a 2 year period) then the Applicant must offer the landowner additional noise mitigation measures in accordance with, condition 2 of Schedule 3.

LAND ACQUISITION

5. Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant shall make a binding written offer to the landowner based on:
   (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development, having regard to the:
      - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
      - presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of additional noise and/or air quality mitigation measures under Schedule 3;
   (b) the reasonable costs associated with:
      - relocating within the Gloucester or Great Lakes local government area, or to any other local government area determined by the Secretary; and
      - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
   (c) reasonable compensation for any disturbance caused by the land acquisition process.

   However, if at the end of this period, the Applicant and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution.

   Upon receiving such a request, the Secretary will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:
   - consider submissions from both parties;
   - determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above;
   - prepare a detailed report setting out the reasons for any determination; and
   - provide a copy of the report to both parties.

   Within 14 days of receiving the independent valuer's report, the Applicant shall make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.

   However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.

   Within 14 days of this determination, the Applicant shall make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.

   If the landowner refuses to accept the Applicant's binding written offer under this condition within 6 months of the offer being made, then the Applicant's obligations to acquire the land shall cease, unless the Secretary determines otherwise.

6. The Applicant shall pay all reasonable costs associated with the land acquisition process described in condition 5 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.

SCHEDULE 5
ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. The Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:
   (a) be submitted to the Secretary for approval at least 3 months prior to the commencement of mining operations in the new mining areas, unless the Secretary agrees otherwise;
   (b) provide the strategic framework for environmental management of the development;
   (c) identify the statutory approvals that apply to the development;
   (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
   (e) describe the procedures that would be implemented to:
      - keep the local community and relevant agencies informed about the operation and environmental performance of the mining complex;
      - receive, handle, respond to, and record complaints;
      - resolve any disputes that may arise;
      - respond to any non-compliance;
      - respond to emergencies; and
   (f) include:
      - copies of any strategies, plans and programs approved under the conditions of this consent; and
      - a clear plan depicting all the monitoring to be carried out in relation to the development.

Adaptive Management

2. The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

   Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:
   (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;
   (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
   (c) implement remediation measures as directed by the Secretary,
   to the satisfaction of the Secretary.

Management Plan Requirements

3. The Applicant shall ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:
   (a) detailed baseline data;
   (b) a description of:
      - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
      - any relevant limits or performance measures/criteria;
      - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;
   (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
   (d) a program to monitor and report on the:
      - impacts and environmental performance of the development;
      - effectiveness of any management measures (see c above);
   (e) a contingency plan to manage any unpredicted impacts and their consequences;
   (f) a program to investigate and implement ways to improve the environmental performance of the development over time;
   (g) a protocol for managing and reporting any:
      - incidents;
      - complaints;
      - non-compliances with statutory requirements; and
      - exceedances of the impact assessment criteria and/or performance criteria; and
   (h) a protocol for periodic review of the plan.

Annual Review

4. By the end of March each year, or other timing as may be agreed by the Secretary, the Applicant shall review the environmental performance of the development to the satisfaction of the Secretary. This review must:
   (a) describe the development that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;
   (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the:
      - the relevant statutory requirements, limits or performance measures/criteria;
      - the monitoring results of previous years; and
      - the relevant predictions in the EIS;
   (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
   (d) identify any trends in the monitoring data over the life of the development;
   (e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
   (f) describe what measures will be implemented over the next year to improve the environmental performance of the development.

Revision of Strategies, Plans and Programs

5. Within 3 months of:
   (a) the submission of an annual review under Condition 4 above;
   (b) the submission of an incident report under Condition 7 below;
   (c) the submission of an audit report under Condition 9 below; or
   (d) any modification to the conditions of this consent, (unless the conditions require otherwise),

   the Applicant shall review the strategies, plans, and programs required under this consent, to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Secretary.

   Note: The purpose of this condition is to ensure that strategies, plans and programs are regularly updated to incorporate any measures recommended to improve environmental performance of the development.

Community Consultative Committee

6. The Applicant shall operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version).

   Notes:
   - *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent; and*
   - *The CCC should be comprised of an independent chair and appropriate representation from the Applicant, GSC, recognised environmental groups and the local community to the satisfaction of the Secretary.*

REPORTING

Incident Reporting

7. The Applicant shall notify, at the earliest opportunity, the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the development, the Applicant shall notify the Secretary and any other relevant agencies as soon as practicable after the Applicant becomes aware of the incident. Within 7 days of the date of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

Regular Reporting

8. The Applicant shall provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.

INDEPENDENT ENVIRONMENTAL AUDIT

Independent Environmental Audit

9. Prior to 31 December 2015, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
   (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
   (b) include consultation with the relevant agencies;
   (c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent, and any other relevant approvals, relevant EPL/s and/or Mining Lease/s (including any assessment, plan or program required under these approvals);
   (d) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and
   (e) recommend measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under these approvals.

   Note: This audit team must be led by a suitably qualified auditor, and include experts in noise, blasting, air quality, ecology, and any other fields specified by the Secretary.

10. Within 3 months of commissioning this audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

11. The Applicant shall:
   (a) make the following information publicly available on its website:
      - the EIS;
      - all current statutory approvals for the development;
      - approved strategies, plans or programs required under the conditions of this consent;
      - a comprehensive summary of the monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent;
      - a complaints register, which is to be updated on a monthly basis;
      - minutes of CCC meetings;
      - the last five annual reviews;
      - any independent environmental audit, and the Applicant's response to the recommendations in any audit;
      - any other matter required by the Secretary; and
   (b) keep this information up to date,

   to the satisfaction of the Secretary.

APPENDIX 1
SCHEDULE OF LAND

Tenure Type	Lot Number	Deposited Plan Number
Freehold	59	979859
Freehold	1	241780
Freehold	74	979859
Freehold	2	241780
Freehold	1	997092
Freehold	1	531023
Freehold	20	1164626
Freehold	71	979859
Freehold	58	979859
Freehold	56A	979859
Freehold	56B	979859
Freehold	56C	979859
Freehold	56D	979859
Freehold	56E	979859
Freehold	1	861278
Freehold	57	979859
Freehold	72	979859
Freehold	54	979859
Freehold	B	116316
Freehold	75	979859
Freehold	3	1062249
Freehold	73	979859
Freehold	1	194827
Freehold	52	979859
Freehold	70	979859
Freehold	293	137520
Freehold	69	979859
Freehold	11	1139127
Freehold	12	1139127
Freehold	1	194827
Freehold	4	1062249
Freehold	A	116326
Freehold	66	1008585
Freehold	1	116325
Freehold	79	979859
Freehold	772	826955
Freehold	1	778861
Freehold	2	778861
Freehold	64	979859
Freehold	Part of 45	979859
Freehold	Part of 8	1139127
Freehold	Part of 9	1139127
Freehold	Part of 10	1139127
Freehold	Part of 63	1093998
Freehold	Part of 62	1093998
Freehold (Private subdivision road reserves or owned by Gloucester Shire Council)	Road located within and between the above parcels of land	N/A

APPENDIX 2
DEVELOPMENT SITE

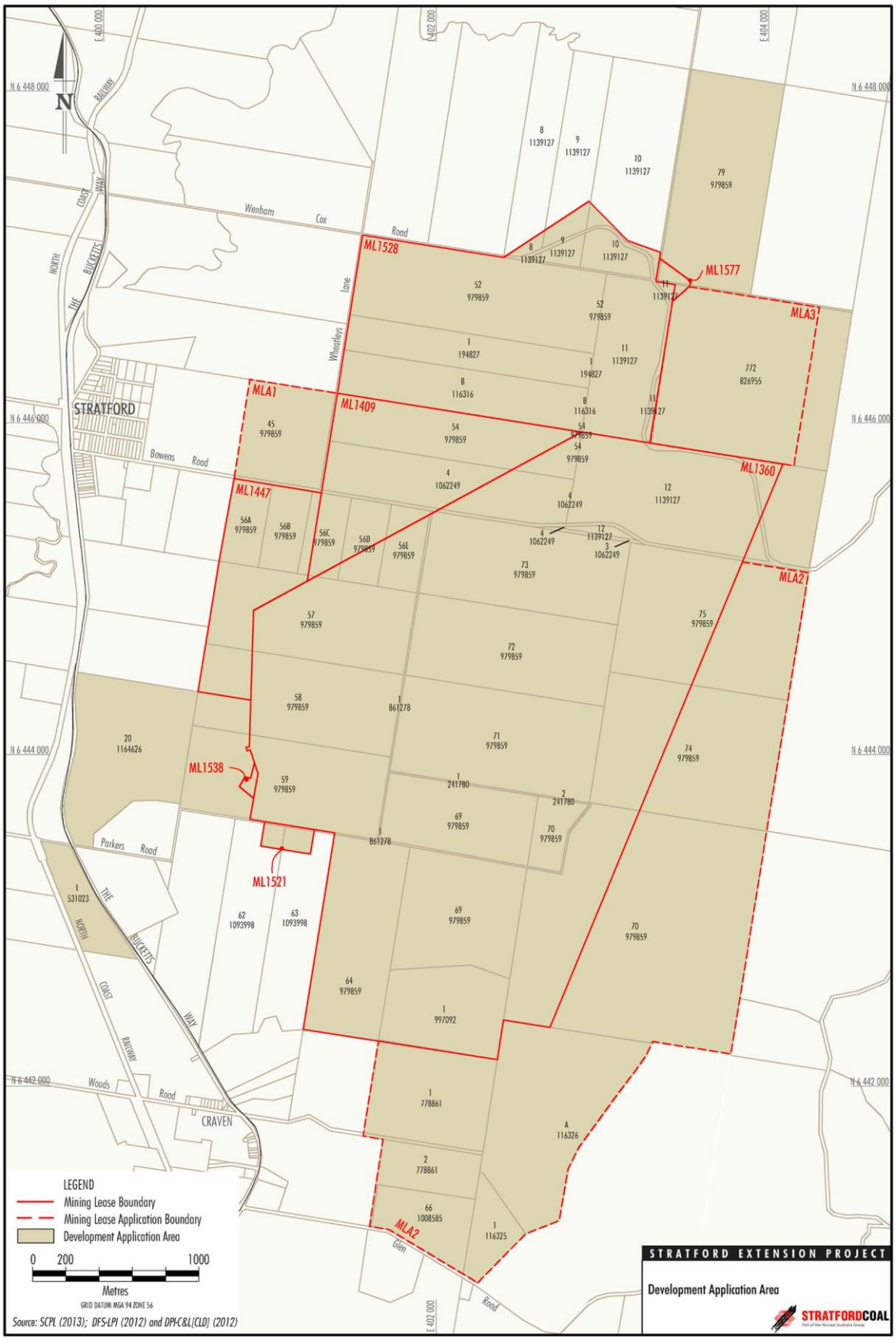


Figure 1: *Stratford Extension Project – Development Site*

APPENDIX 3
DEVELOPMENT LAYOUT

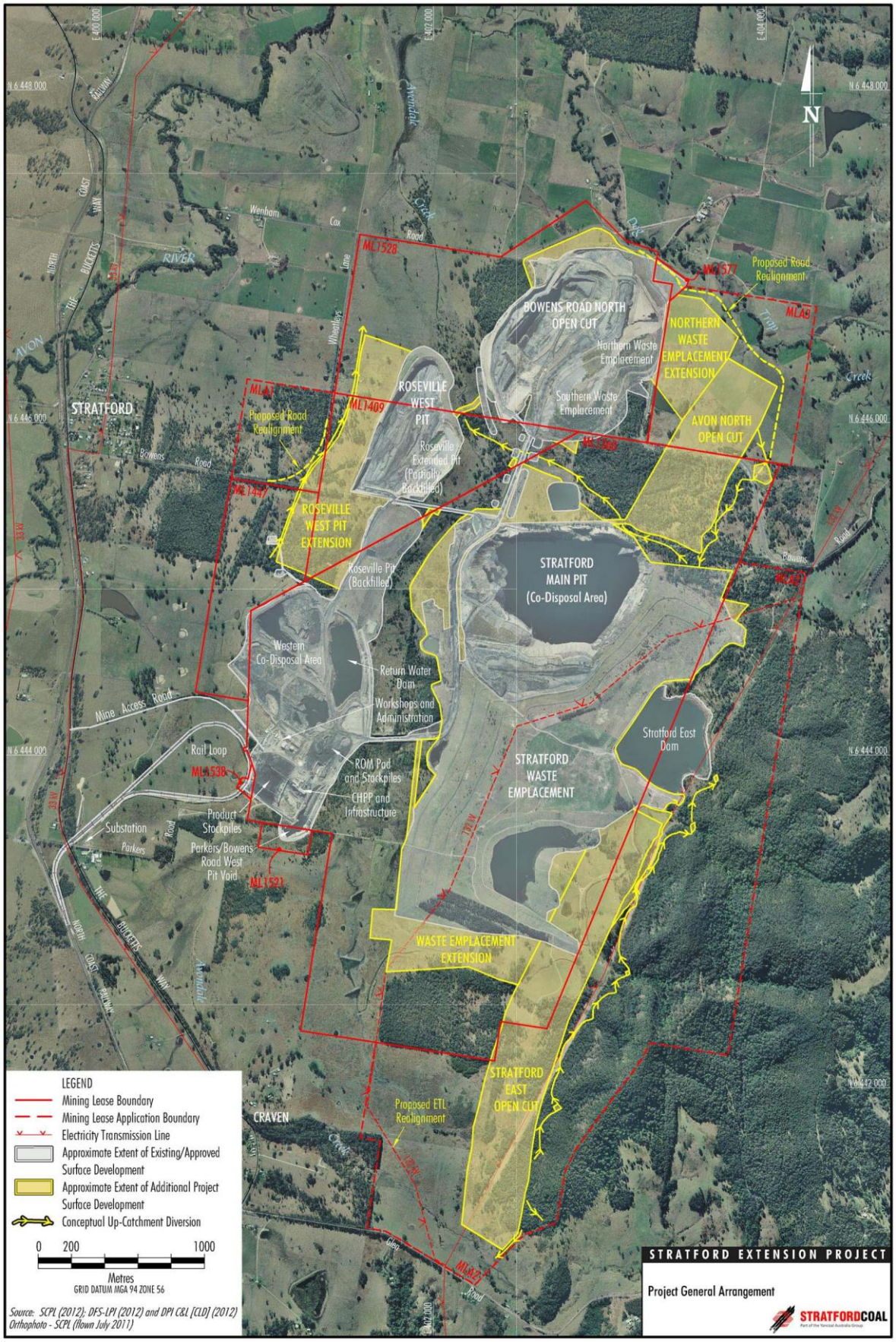


Figure 1: *General layout of the Stratford Extension Project*

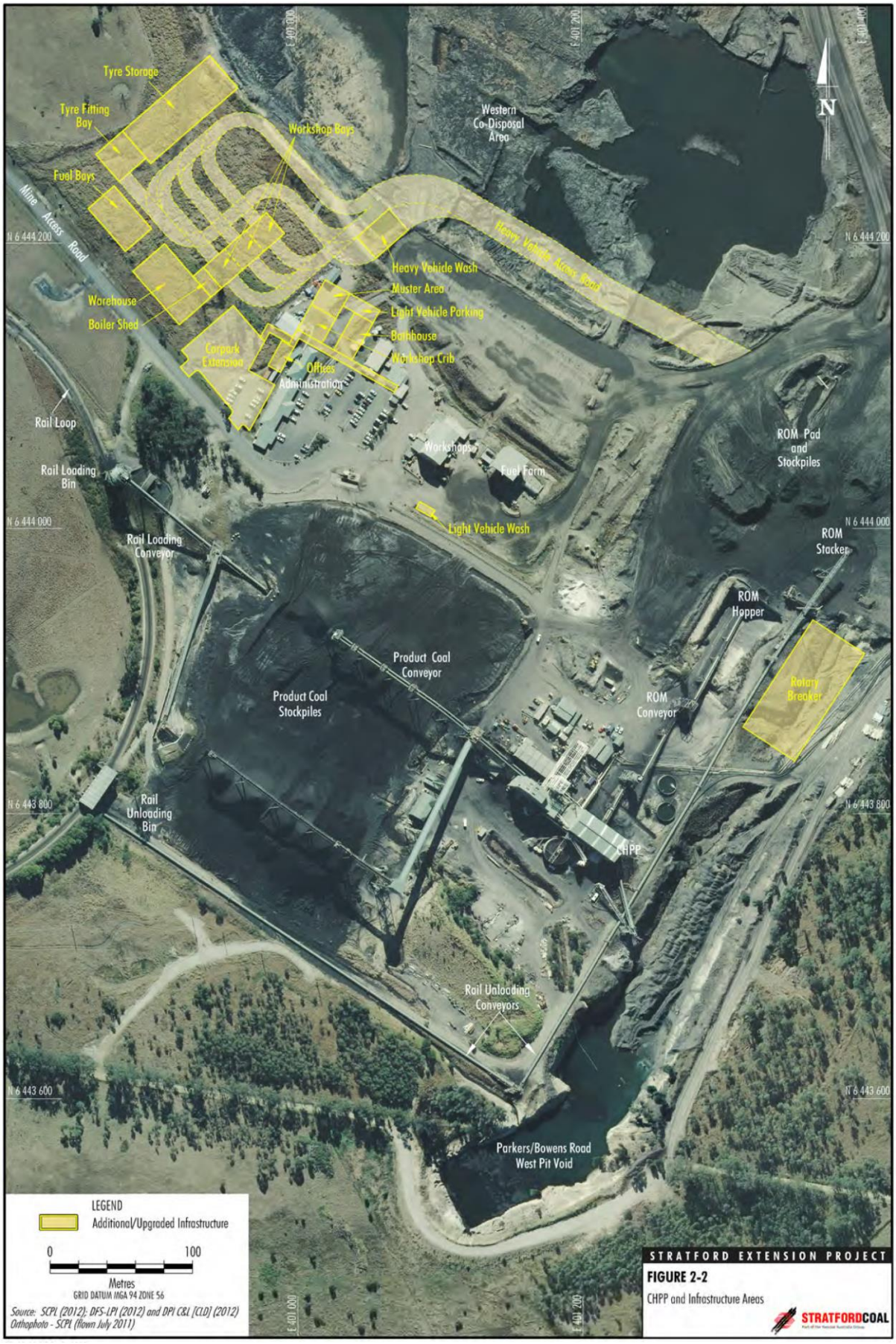


Figure 2: *General layout of infrastructure areas*

APPENDIX 4
MAINTENANCE AND RESEALING CONTRIBUTIONS FOR THE BUCKETTS WAY

The Applicant shall pay GSC and GLC annual contributions towards the maintenance and resealing of The Bucketts Way in accordance with the formulae in this appendix, with the first annual payment payable within 12 months of the date of commencement of mining operations under this consent, and additional payments on each following anniversary of the first payment, until the cessation of mining operations on the site under this consent. Each payment is to be calculated as follows:

Gloucester Shire Council:

The payment for the 19.25 km section of The Bucketts Way from the shire boundary with GLC to the town of Gloucester is based on total road maintenance contributions to GLC in the Duralie Coal Mine project approval converted to a per kilometre rate for this 19.25 km section.

The Duralie approval provides for a payment of $64,626.74 (in 2014) for the impacts of mine-generated heavy vehicle traffic over the 55 km length of The Bucketts Way within Great Lakes Shire. For 2014, this equates to a contribution of $1,175.03 / km.

Applying this rate within Gloucester Shire, the contribution base (2014 dollars) is:

19.25 km x $1,175.03 = $22,619.32.

The dollar values in this formula are subject to annual indexation in accordance with the CPI.

Great Lakes Council:

As GLC receives contributions to the upkeep of The Bucketts Way that is based on existing heavy vehicle traffic related to the Duralie Coal mine, GLC sought a contribution for road impacts based on the increase in heavy vehicle traffic caused by the Stratford Extension Project (6 additional truck movements within a total of 36 predicted truck movements generated from both Stratford and Duralie mines).

The contribution base (2014 dollars) is $64,626.74 x 6 /36 = $10,771.12

The dollar values in this formula are subject to annual indexation in accordance with the CPI.

APPENDIX 5
LAND OWNERSHIP

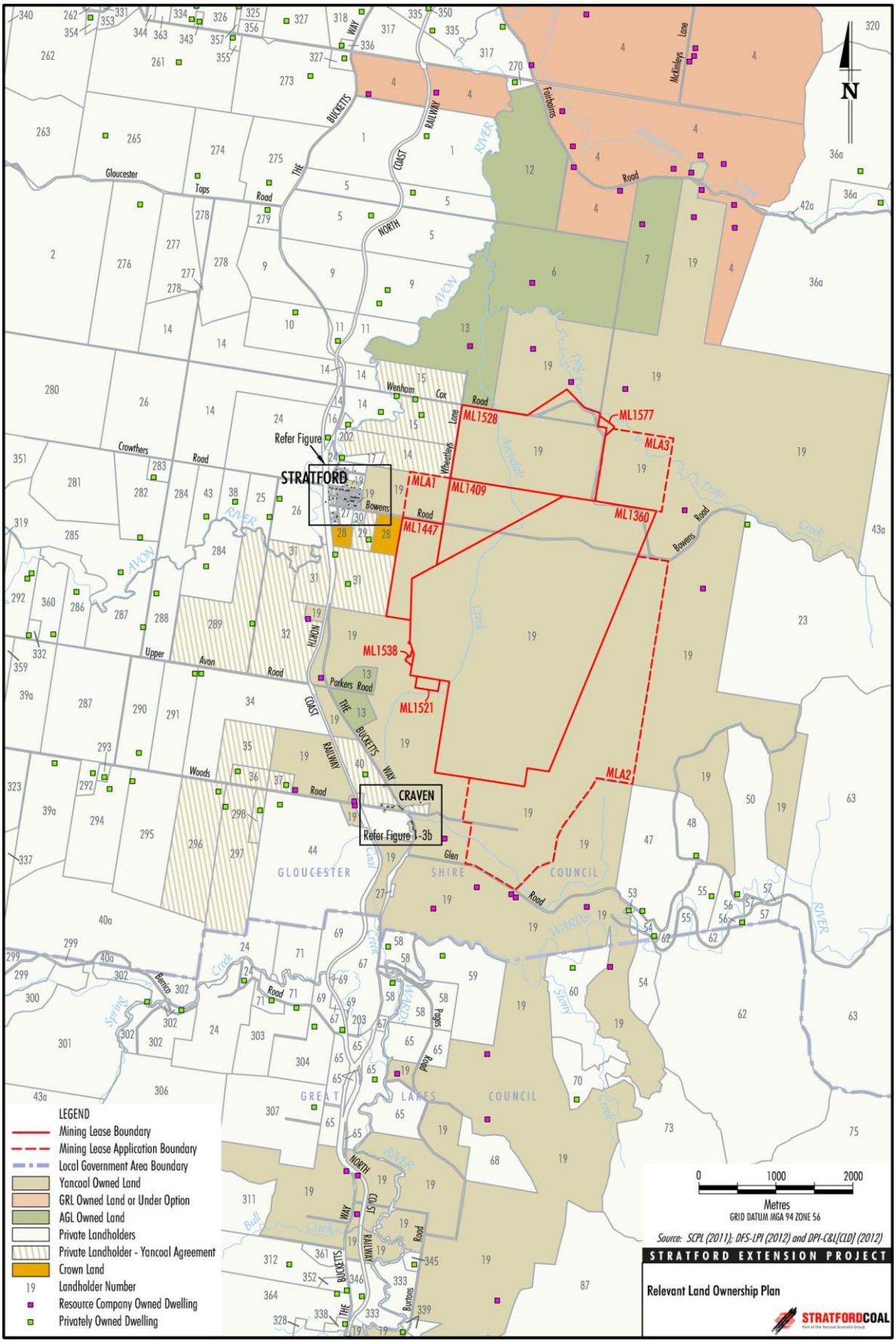


Figure 1a: *Land ownership for Stratford Extension Project and surrounds*



Figure 1b: *Land ownership for Stratford and Craven village areas*



Figure 1c: *Property owners for Figures 1a and 1b*

APPENDIX 6
NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

1. The noise criteria in Table 4 in Schedule 3 are to apply to a receiver under all meteorological conditions except under:
   (a) wind speeds greater than 3 m/s at 10 m above ground level; or
   (b) temperature inversion conditions between 1.5°C and 3°C/100 m and wind speed greater than 2 m/s at 10 m above ground level; or
   (c) temperature inversion conditions greater than 3°C/100 m.

Determination of Meteorological Conditions

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions shall be that recorded by the meteorological station required under condition 25 of Schedule 3.

Compliance Monitoring

3. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this consent.

4. This monitoring must be carried out at least 12 times in each calendar year (ie at least once in every calendar month), unless the Secretary directs otherwise.

5. Unless the Secretary agrees otherwise, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (as amended from time to time), in particular the requirements relating to:
   (a) monitoring locations for the collection of representative noise data;
   (b) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment;
   (c) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration; and
   (d) the use of an appropriate modifying factor for low frequency noise to be applied during compliance testing at any individual residence if low frequency noise is present (in accordance with the INP) and before comparison with the specified noise levels in the consent.

APPENDIX 7
ABORIGINAL CULTURAL HERITAGE SITES

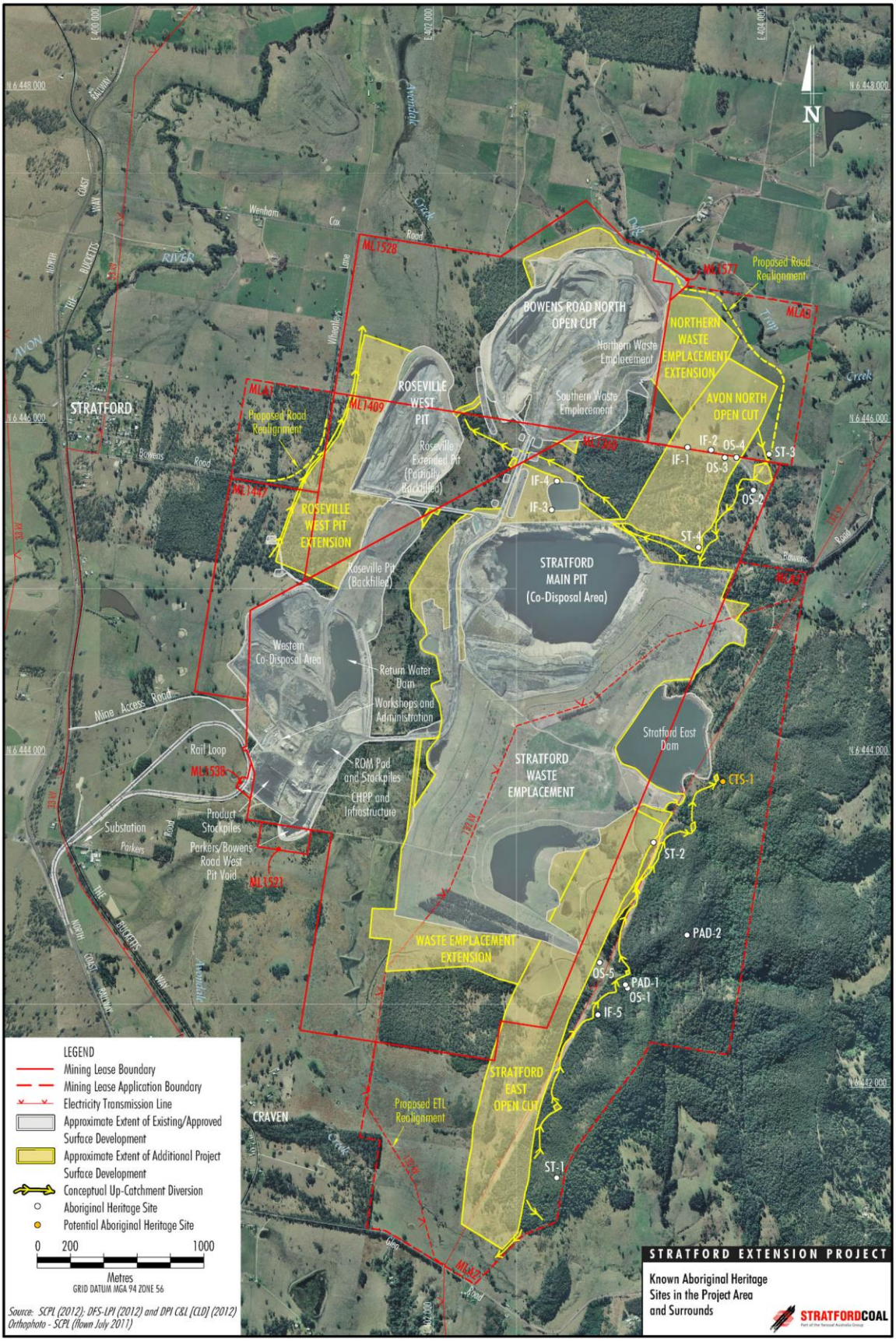


Figure 1: *Location of Aboriginal cultural heritage sites*

APPENDIX 8
STRATFORD BIODIVERSITY OFFSET AREAS

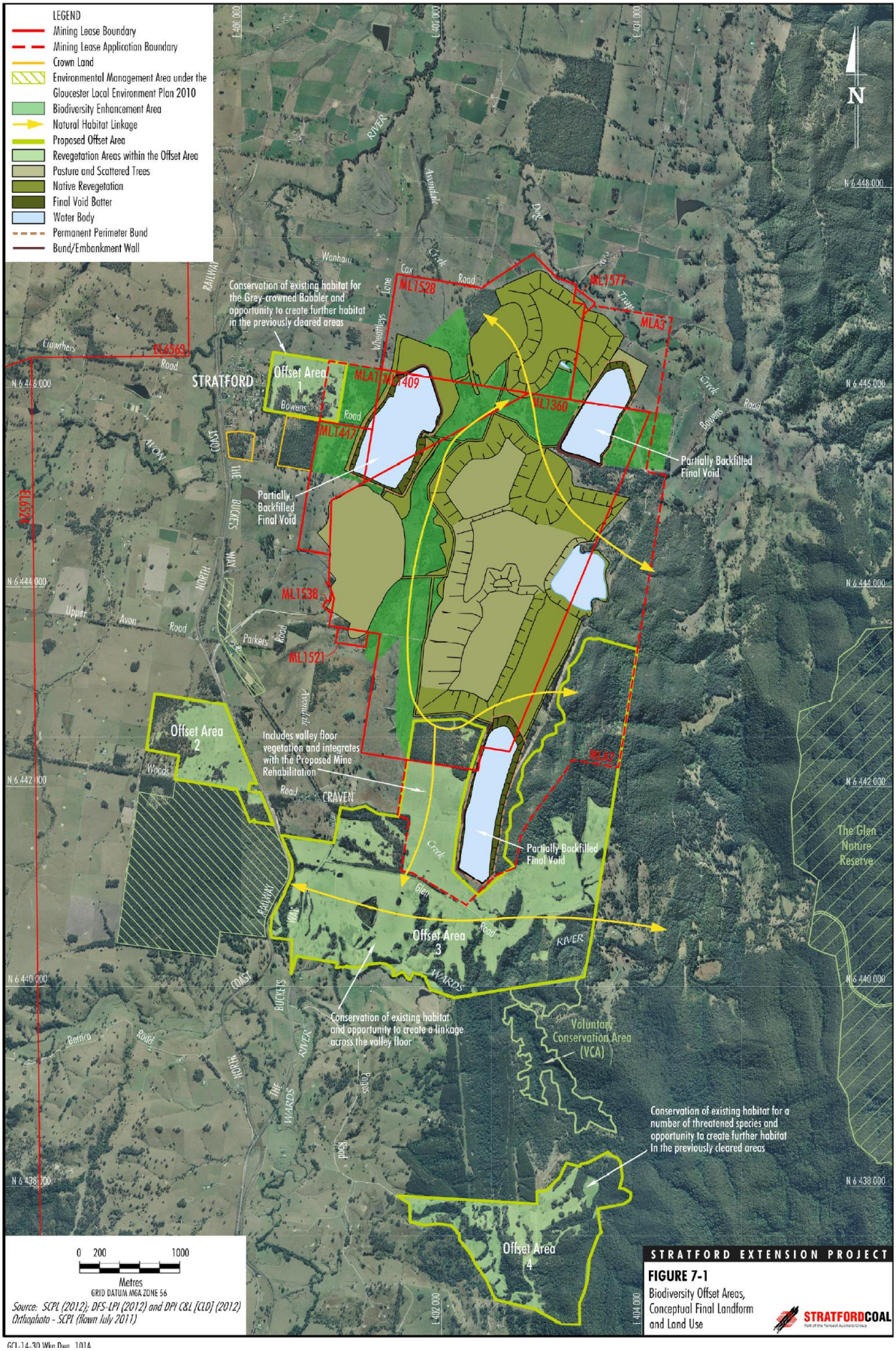


Figure 1: *Location of Stratford Biodiversity Offset Areas*

BOWENS ROAD NORTH OFFSET AREA

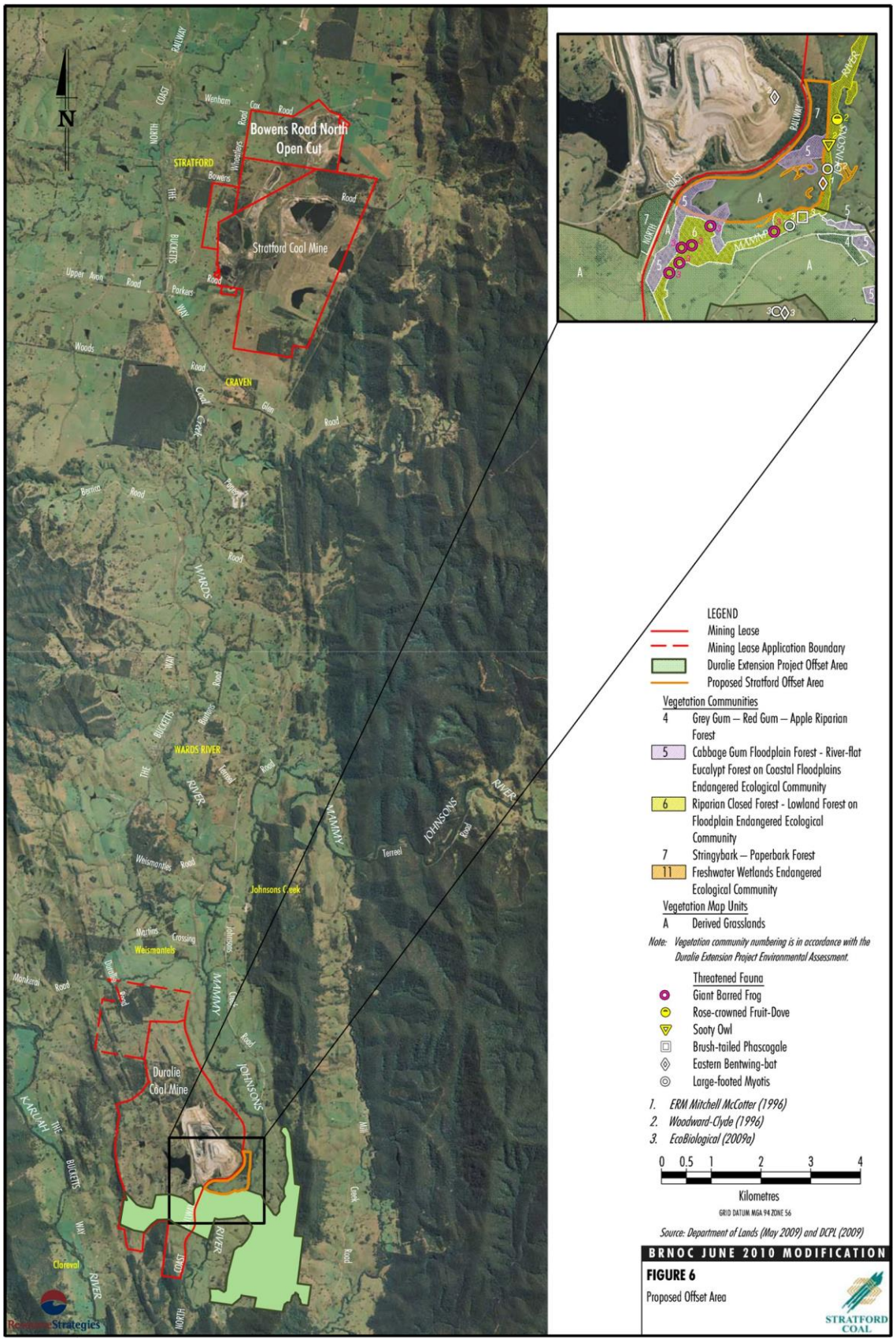


Figure 2: *Location of Bowens Road North Open Cut Offset Area (near Duralie mine)*

APPENDIX 9
STATEMENT OF COMMITMENTS

AGL Energy Limited (AGL)'s approved Gloucester Gas Project overlays and is adjacent to Stratford Coal Pty Ltd (SCPL)'s existing Stratford Mining Complex and proposed Stratford Extension Project. SCPL and AGL are in the process of negotiating terms of a cooperation agreement which would describe the manner in which these projects interact. SCPL's statement of commitments (SOC) in relation to the interaction of the Stratford Extension Project and Gloucester Gas Project are described hereunder.

SOC1:

SCPL will make every reasonable attempt, and be able to demonstrate its attempts, to enter into a cooperation agreement with the holder(s) of any overlapping petroleum title(s) within the Stratford Extension Project area prior to the grant of **MLA 1** and **MLA 2** as shown on Figure 1. The cooperation agreement will address but not be limited to issues such as:

- access arrangements;
- operation interaction procedures;
- dispute resolution;
- information exchange;
- well location;
- timing of drilling;
- potential resource interaction conflicts; and
- rehabilitation issues.

SOC2:

SCPL will make every reasonable attempt to ensure that the conservation agreements (or other mechanism under which the Stratford Extension Project Biodiversity Offsets are secured) authorise the location and operation of AGL's proposed wells CR24, CR26, CR27 and ST55 within the Stratford Extension Project Biodiversity Offsets properties as shown on Figure 1 (following).

SOC3a:

Upon receiving a written request from the owner of property 44 (Cross/Jane), SCPL will acquire property 44 or enter into a compensation agreement to the satisfaction of the owner, unless the owner of property 44 agrees otherwise. Within 1 month of the date of Development Consent, SCPL will notify the owner of property 44 that they may request SCPL acquire their property.

Should the owner elect to sell property 44, land acquisition will be based on the requirements of Schedule 4, condition 5 of the Development Consent.

Should the owner elect to sell property 44, it will be included in the biodiversity offset for the Project (i.e. it will be secured in perpetuity for conservation purposes).

SOC3b:

At the commencement of evening or night-time mining operations in the Stratford East Open Cut, upon receiving a written request from the owner of property 60 (Greenwood /Healy), SCPL will acquire property 60 or enter into a compensation agreement to the satisfaction of the owner, unless the owner of property 60 agrees otherwise.

At least 1 month prior to the commencement of evening or night-time mining operations in the Stratford East Open Cut, SCPL will notify the owner of property 60 that they may request SCPL acquire their property.

Should the owner elect to sell property 60, land acquisition will be based on the requirements of Schedule 4, Condition 5 of the Development Consent.

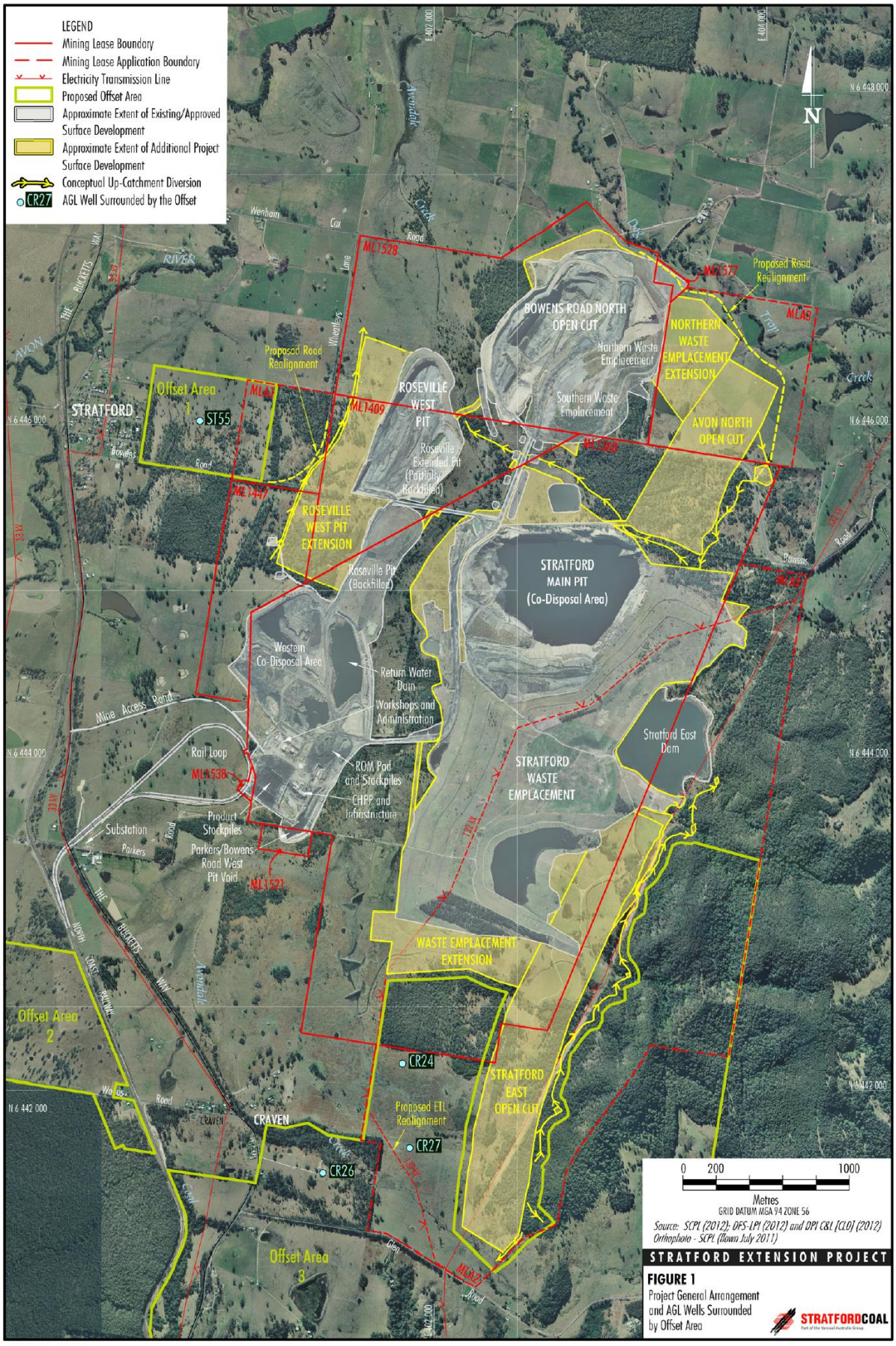


Figure 1: *Project General Arrangement and AGL Wells Surrounded by Offset Area*

ATTACHMENT 2

COMMONWEALTH APPROVAL (EPBC 2011/6176)

Australian Government
Department of Climate Change, Energy, the Environment and Water

EPBC 2011/6176

Thomas Kirkwood
Environment & Community Superintendent
Stratford Coal Pty Ltd
Thomas.Kirkwood@yancoal.com.au

Approval of variation of conditions for Stratford Extension Project, Stratford, New South Wales

Dear Mr Kirkwood

Thank you for your correspondence dated 7 November 2025 to the department requesting the variation of condition 7 attached to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) approval 2011/6176 dated 29 January 2016.

Officers of this department have reviewed the variation request and briefed me. As delegate of the Minister for the Environment and Water, I have varied the conditions attached to EPBC Act approval 2011/6176 under section 143(1)(c) of the EPBC Act to extend the due date for the provision of the Final Water Impact Verification Report by one year and to remove the requirement to consider surrounding developments. The action must now be taken in accordance with the varied conditions specified in the variation notification, which has been attached for your information.

As you are aware, the department has an active monitoring program which includes monitoring inspections, desk top document reviews and audits. Please ensure that you maintain accurate records of all activities associated with, or relevant to, the conditions of approval so that they can be made available to the department on request.

Should you require any further information please contact the Post Approvals Section by email to PostApproval@dcceew.gov.au.

Yours sincerely



Kate Gowland
Branch Head
Environment Assessments (NSW, ACT)

17 March 2026

Australian Government

Department of Climate Change, Energy, the Environment and Water

Variation of conditions attached to approval

Stratford Extension Project, Stratford, New South Wales (EPBC ref 2011/6176)

This decision to vary conditions of approval is made under section 143 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

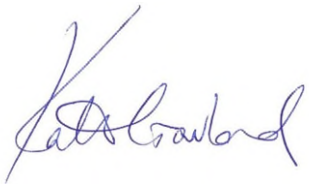
Approved action

approval holder	Stratford Coal Pty Ltd ACN: 064 016 164
approved action	To extend the open cut coal mining and processing activities at the Stratford Mining Complex, located approximately 11 kilometres south of the town of Gloucester in the Gloucester Basin, New South Wales. See EPBC Act referral 2011/6176.
period for which the approval has effect	This approval has effect until 30 November 2030.

Variation

variation of conditions attached to approval	The variation is: Delete condition 7 attached to the approval and substitute with the condition specified in the table below.
date of effect	This variation has effect on the date this instrument is signed.

Person authorised to make decision

name and position	Kate Gowland Branch Head Environment Assessments (NSW, ACT)
signature	
date of decision	17 March 2026

date of decision	conditions attached to approval
Endorsement of conditions on the Development Consent	
Original dated 29/01/2016	1) For the protection of listed threatened species and communities and / or water resources, the person taking the action must implement and comply with Conditions 3 to 33, 36, 39 and 53 to 55 of Schedule 3 to ***the Development Consent***.
Additional conditions for the protection of listed threatened species and communities	
Original dated 29/01/2016	2) Within ten (10) business days of the approval of any biodiversity management plan in accordance with Condition 39 of Schedule 3 to ***the Development Consent***, whether in relation to an impact site, an offset site, or both, the person taking the action must provide ***the Department*** with a copy of the plan. 3) Within ten (10) business days of fulfilment (or partial fulfilment if offset areas are not secured simultaneously) of Condition 36 of Schedule 3 to ***the Development Consent*** (relating to legal security of offset areas), the person taking the action must provide ***the Department*** with documentary evidence of its fulfilment (or partial fulfilment).
Additional conditions for the protection of water resources	
Original dated 29/01/2016	4) Subject to Condition 6, the water management plan required by Condition 32 of Schedule 3 to ***the Development Consent*** must: a) describe and implement a surface water and groundwater monitoring programme consistent with the ***National Water Quality Management Strategy***, with sufficient spatial and temporal coverage, to: i) establish appropriate baseline data, performance measures, assessment criteria and trigger values required by Conditions 31 and 32 of Schedule 3 to ***the Development Consent*** ii) provide for detection of exceedance of trigger values as a result of the action in a manner that is quantifiable and robust (for example by comparison to baseline data and the use of ***control sites***) iii) obtain the additional data needed to validate the ***numerical groundwater model*** consistent with the requirements of Condition 32(c)(iii) of Schedule 3 of the Development Consent, including: • seasonal variations in groundwater levels and surface water-groundwater interaction • strata definition

		This programme must include installation of additional multi-level (nested) monitoring wells between the town of Stratford and the project area b) define and detail a system of ***cascading trigger values*** and corresponding treatments **Note:** ***Cascading trigger values*** must consider the potential for impacts on all relevant water-related assets, including Avondale Creek, Dog Trap Creek, and their tributaries, and private water users to the west of the project area. c) describe how the water management performance measures identified in Table 8 of Condition 31 of Schedule 3 to ***the Development Consent***, and groundwater assessment criteria in Condition 32(c)(iii) of Schedule 3 to ***the Development Consent*** will be achieved d) in addition to the requirements of Condition 32(c)(iv) of Schedule 3 to ***the Development Consent***, prepare a protocol that gives consideration to information products as they arise from the Commonwealth Office of Water Science's Bioregional Assessment for the Gloucester Subregion.
Original dated 29/01/2016	5)	Within ten (10) business days of the approval of any water management plan in accordance with Condition 32 of Schedule 3 to ***the Development Consent***, the person taking the action must provide ***the Department*** with a copy of the plan.
Original dated 29/01/2016	6)	If it is not possible to address Condition 4a) to d) through a water management plan approved in accordance with Condition 32 of Schedule 3 to ***the Development Consent***, those matters must be addressed in a separate management plan and provided to ***the Minister*** for his approval. In that case, the person taking the action must not ***commence the action*** until the plan has been approved in writing by ***the Minister***. The plan, once approved, must be implemented.
As varied on the date this instrument was signed	7)	The person taking the action must prepare and submit to ***the Minister*** for approval a final water impact verification report. The report must: a) demonstrate that the water within the final voids will not be released to surface water or groundwater systems in the long-term b) consider possible worst case scenarios associated with the final voids and outline contingency responses, for example, if monitoring shows a groundwater gradient from the final voids towards the alluvium

		c) be based on results of recalibrated groundwater and site water balance modelling as required by Condition 32(c) of Schedule 3 of the ***Development Consent***: i) utilises hydrological and geological data obtained during mining, including validation of the ***hydraulic properties*** of all ***major hydro stratigraphic units***, particularly to the west of the site of the action and representation of surface water-groundwater interactions ii) applies uncertainty analysis that incorporates the potential influence of climate variability d) [Revoked] The report must be provided to ***the Minister*** for approval by 30 November 2026, four (4) years prior to the expiry of this approval. Once approved in writing by ***the Minister***, the plan must be taken into account in planning for the closure of the mine and the long-term management of the final voids.
Administrative conditions		
Original dated 29/01/2016	8)	Within ten (10) business days after the ***commencement of the action***, the person taking the action must advise ***the Department*** in writing of the actual date of ***commencement of the action***.
Original dated 29/01/2016	9)	The person taking the action must maintain accurate records substantiating all activities associated with, or relevant to, these conditions of approval, including measures taken to implement any ***management documents***, and make them available upon request to ***the Department***. Such records may be subject to audit by ***the Department*** or an independent auditor in accordance with section 458 of the ***EPBC Act***, or used to verify compliance with these conditions of approval. Summaries of audits will be posted on the website of ***the Department*** and may also be publicised through the general media.
Original dated 29/01/2016	10)	By 31 March of each year after the ***commencement of the action***, or as agreed with ***the Department***, the person taking the action must publish a report on their website addressing compliance with these conditions of approval during the previous calendar year, including implementation of any ***management documents*** as specified in the conditions. Non-compliance with any of these conditions of approval must be reported to ***the Department*** at the same time as the compliance report is published.
Original dated 29/01/2016	11)	Upon the direction of ***the Minister***, the person taking the action must ensure that an independent audit of compliance with these

	conditions of approval is conducted and a report submitted to ***the Minister***. The independent auditor must be approved by ***the Minister*** prior to the commencement of the audit. Audit criteria must be agreed to by ***the Minister*** and the audit report must address the criteria to the satisfaction of ***the Minister***.
Original dated 29/01/2016	12) The person taking the action may choose to revise a ***management document*** approved by ***the Minister*** under Condition 6 without submitting it for approval under section 143A of the ***EPBC Act***, if the taking of the action in accordance with the revised ***management document*** would not be likely to have a new or increased impact on a matter of national environmental significance. If the person taking the action makes this choice they must: a) notify ***the Department*** in writing that the approved ***management document*** has been revised and provide ***the Department*** with an electronic copy of the revised ***management document*** b) implement the revised ***management document*** from the date that it is submitted to ***the Department***; and c) for the life of this approval, maintain a record of the reasons the approval holder considers that taking the action in accordance with the revised ***management document*** would not be likely to have a new or increased impact on a matter of national environmental significance.
Original dated 29/01/2016	13) The person taking the action may revoke their choice under Condition 12 at any time by notice to ***the Department***. If the person taking the action revokes their choice to implement a revised ***management document*** without approval under section 143A of the ***EPBC Act***, the ***management document*** approved by ***the Minister*** must be implemented.
Original dated 29/01/2016	14) Condition 12 does not apply if the revisions to the approved ***management document*** include changes to environmental offsets provided under the ***management document*** in relation to a matter protected by a controlling provision for the action, unless otherwise agreed in writing by ***the Minister***. This does not otherwise limit the circumstances in which the taking of the action in accordance with a revised ***management document*** would, or would not, be likely to have new or increased impacts.
Original dated 29/01/2016	15) If ***the Minister*** gives a notice to the person taking the action that ***the Minister*** is satisfied that the taking of the action in accordance with the revised ***management document*** would be likely to have a new or increased impact, then:

	a) Condition 12 does not apply, or ceases to apply, in relation to the revised ***management document***; and b) the person taking the action must implement the ***management plan*** approved by ***the Minister***. To avoid any doubt, this condition does not affect any operation of Conditions 12 to 14 in the period before the day the notice is given. At the time of giving the notice ***the Minister*** may also notify that for a specified period of time, Condition 12 does not apply for one or more specified ***management documents*** required under the approval.
Original dated 29/01/2016	16) Conditions 12 to 15 are not intended to limit the operation of section 143A of the ***EPBC Act*** which allows the person taking the action to submit a revised ***management document*** to ***the Minister*** for approval.
Original dated 29/01/2016	17) If, at any time after five (5) years from the date of this approval, ***commencement of the action*** has not occurred, then the person taking the action must not ***commence the action*** without the written agreement of ***the Minister***.
Original dated 29/01/2016	18) Unless otherwise agreed to in writing by ***the Minister***, the person taking the action must publish all ***management documents*** referred to in these conditions of approval on their website. Each ***management document*** must be published on the website within ten (10) business days of being approved by ***the Minister*** or being submitted under Condition 12a).

date of decision	**definitions attached to approval**
Original dated 29/01/2016	***Cascading trigger values*** are graduated values which, if exceeded, lead to mandatory escalating responses (with accompanying reporting to regulators), beginning with investigation, proceeding to treatment, and culminating in cessation of work if treatments are not demonstrably effective.
Original dated 29/01/2016	***Commencement of the action*** (or to ***commence the action***) is the first instance of any activity associated with the action, including earthworks, clearing of vegetation, the excavation of an approved coal pit, or the construction of any approved infrastructure (excluding fencing and signage).

Original dated 29/01/2016	***Control sites*** are sites that are similar in key respects to sites of potential impact, except that they are located outside the zone of potential impact and can therefore be used for comparative purposes.
Original dated 29/01/2016	***The Department*** is the Australian Commonwealth department responsible for administering the ***EPBC Act***.
Original dated 29/01/2016	***The Development Consent*** is the development consent issued by the Government of New South Wales in respect of application SSD-4966, under Section 89E of the *Environmental Planning & Assessment Act 1979* (NSW).
Original dated 29/01/2016	The ***EPBC Act*** is the *Environment Protection and Biodiversity Conservation Act 1999* (Cwth), as amended from time to time.
Original dated 29/01/2016	***Hydraulic properties*** are the factors controlling the movement of water through rock or sediment, including vertical hydraulic conductivity, horizontal hydraulic conductivity and storativity.
Original dated 29/01/2016	A ***hydrostratigraphic unit*** is the part of a body of rock or sediment that forms a distinct hydrologic unit with respect to the flow of groundwater within the ***numerical groundwater model*** domain.
Original dated 29/01/2016	***Management document(s)*** includes any plans, reports or other documents required under the terms of these conditions of approval.
Original dated 29/01/2016	The ***National Water Quality Management Strategy*** is the joint national approach to improving water quality in Australian and New Zealand waterways.
Original dated 29/01/2016	The ***numerical groundwater model*** is the MODFLOW-SURFACT model described in the environmental impact statement prepared under the New South Wales assessment process.
Original dated 29/01/2016	***The Minister*** is the Australian Commonwealth minister responsible for administering the ***EPBC Act***, and includes any relevant delegates.