



GM³

a mining and metals company

Lighting and Visual Amenity Management Plan

Role	Position
Document Owner	Superintendent Environment
Document Approver	Superintendent Environment

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Document Revisions

Revision	Description of Changes	Date
1.0	Original Document	November 2004
2.0	Three yearly review as required by Development Consent	October 2006
3.0	Review as required by the revised Development Consent (issued 8 December 2008)	April 2009
4.0	Three yearly review of Management Plan as required by the Development Consent. Minor changes to Roles and Responsibilities section.	March 2012
5.0	The following changes have been made: • Updated roles and responsibilities • Reference to parent company changed • Review as required by Development Consent	Jan 2018
6.0	Updated roles and responsibilities • Reference to parent company changed • Review as required by Development Consent	August 2018
7.0	Update to new format and general update. Changed name to Lighting and Visual Amenity Management Plan.	May 2021
8.0	General update including findings from Light Spill Assessment. Inclusion of Cordeaux Colliery.	March 2023
8.1	Update of website link.	15 May 2023
9.0	Administrative changes. Update references from South32 to GM ³ , update of links. Remove South32 logos. General update.	December 2024

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1 Introduction

Dendrobium Mine is an underground mine which commenced construction in January 2002 following approval from the Minister of the then Department of Urban Affairs and Planning on 20 November 2001. Longwall mining commenced at Dendrobium in April 2005. The mine is owned and operated by Dendrobium Coal Pty Ltd, a subsidiary of Illawarra Coal Holdings Pty Ltd (ICHPL), which is a wholly owned subsidiary of Gear M Illawarra Met Coal Pty Ltd. The mine operates on a continuous basis, 24 hours a day and 7 days a week.

The mining operations are located immediately adjacent to Mount Kembla, approximately 8 km west of Wollongong, NSW, on the Illawarra escarpment (refer to Plan 1). Mt Kembla village, located within 500 m of the Pit Top site, has close historical links with coal mining.

Dendrobium produces predominately metallurgical coal from the Wongawilli Seam (Areas 1, 2, 3) and is approved to produce up to 5.2 million tonnes of run of mine (RoM) coal per annum. The BlueScope Steel Port Kembla Steel Works (PKSW) is a major customer. In addition to Australian based customers, coal is exported via the Port Kembla Coal Terminal (PKCT) to international customers.

Approval for mining in Areas 1, 2 and 3 was granted under DA 60-03-2001, as modified (the Consent).

Cordeaux Colliery is owned and operated by Endeavour Coal Pty Ltd, a subsidiary of ICHPL. Coal production ceased at the site in March 2001 and recovery of longwall mining equipment was completed on 12 April 2001. Following cessation of mining, the Colliery was placed on care and maintenance, on which it remains. The Cordeaux Colliery Pit Top functions as office space and a storage facility for various departments. The Pit Top is also used as a base for exploration activity across the Dendrobium and Appin mining leases and exploration tenements, and for access into the WaterNSW Catchment Special Area (Special Area).

Dendrobium Mine, Cordeaux Colliery and Appin Mine (and associated facilities) are collectively operated by GM³.

This Lighting and Visual Amenity Management Plan (LMP) has been prepared to detail the relevant visual amenity and lighting compliance procedures and controls relating to the mining operations and associated activities. This LMP has been prepared to satisfy Condition 29 of Schedule 4 of the Consent for the Lighting Management Plan.

1.1 Objectives

The objectives of the LMP are to:

- outline processes to comply with the conditions of the Consent with regards to lighting and visual amenity; and
- identify control measures to avoid adverse visual amenity and lighting impacts on the local community.

1.2 Scope

The scope of the LMP is all existing and future activities related to Dendrobium Mine¹ including operations and construction at:

- Dendrobium Pit Top - consists of administration buildings, workshop, machinery and equipment storage areas, personnel and materials access to the

¹ For the purposes of this management plan, Dendrobium Mine refers to all sites included in the scope except where specifically listed in the document.

underground workings via the Dendrobium Tunnel, sediment pond and water treatment facility.

- Kemira Valley Coal Loading Facility (KVCLF) – receives coal from underground via the Kemira Valley Tunnel. Run of Mine (RoM) coal is transported from underground to KVCLF via an extensive coal clearance system. The coal is then fed into a rill tower and deposited onto a 140,000-tonne stockpile from which it is loaded into trains via an enclosed rail-loading chute. Sediment ponds are in place.
- Dendrobium Coal Preparation Plant (DCPP) – located within the PKSW, the DCPP receives and washes RoM coal from the underground operations.
- Kemira Valley Rail Line (KVRL) – used to transport the coal from KVCLF to the DCPP.
- Ventilation Shaft (VS) 1 - located within the Special Area administered by WaterNSW, operates as a downcast shaft (i.e. drawing fresh air into the underground workings). VS1 is located on land owned by ICHPL.
- VS2 and VS3 – located within the Special Area and within Mining Lease (ML) 1566. VS2 operates as an additional downcast shaft whilst VS3 operates as an upcast shaft (i.e. drawing air out of the underground workings). The site includes gas drainage infrastructure for Area 3C and future mining domains.
- Cordeaux Pit Top - located within the Special Area and consists of administration buildings, workshop, machinery and equipment storage areas, personnel and materials access to the underground workings via a shaft (no longer utilised), ventilation fans, coal storage bins, exploration core shed, sediment pond and stabilisation lagoons. Corrimal #3 shaft is located approximately 3.5 km from the pit top. Cordeaux Pit Top and Corrimal #3 shaft are on care and maintenance.

Refer to Plan 1 for locations of the above.

1.3 Environmental Management System

ICHPL has a comprehensive Environmental Management System (EMS) in place to minimise the impact of its operations on the local environment and community. The LMP is a component of the EMS which is certified to ISO 14001.

1.4 Consultation

Consultation with external stakeholders is not required for the LMP. Any comments received from regulatory agencies will be incorporated into the LMP as required.

2 Roles and Responsibilities

Roles and responsibilities associated with environmental management at Dendrobium Mine are defined in the Environmental Management Strategy. Table 1 outlines the roles and responsibilities associated with the implementation and periodic review of the LMP.

Table 1: Roles and Responsibilities

Role	Responsibilities
Superintendent Environment	Implement and periodically review the LMP.
Specialist Environment	Advise, coach and mentor ICHPL operations with respect to meeting the standards and requirements of the LMP. Monitor and review compliance against these requirements.
General Manager Dendrobium Mine General Manager Development	Provide the necessary resources and systems to ensure that requirements of the LMP are met.
Corporate Affairs Team	Meet the commitments contained within this management plan for community and stakeholder engagement.
Site Engineering and Technical Staff	Lighting system design, selection, installation and maintenance.
Superintendent Logistics	Manage lighting issues relating to the loading of coal at KVCLF and on the KVRL.

3 Legislation and Planning

3.1 Consent Conditions

Potential lighting and visual amenity impacts associated with Dendrobium Mine were addressed during the preparation of the Dendrobium Project EIS 2001 and the Gas Management Infrastructure Modification Report (MOD 9). The EIS and MOD 9 application was assessed and approved under the *Environmental Planning and Assessment Act 1979 (EP&A Act)* and associated Regulations.

ICHPL will carry out the development generally in accordance with all of the necessary approvals, licences and other information described in Condition 2 of Schedule 2.

All activities carried out at Dendrobium Mine will be undertaken in accordance with the conditions of Consent (Condition 2A of Schedule 2).

In accordance with Condition 4 of Schedule 2, ICHPL will comply with any reasonable and feasible requirements of the Secretary arising from the Department's assessment of:

- a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with the conditions of the Consent;
- b) any reviews, reports or audits undertaken or commissioned by the Department regarding compliance with the conditions of the Consent; and
- c) the implementation of any actions or measures contained in these documents.

Appendix 1 outlines the visual amenity and lighting management requirements of the Consent and cross references where the requirements have been addressed within the LMP.

3.2 Wollongong City Council Consent

Cordeaux Colliery currently operates under Development Consent D74/134, issued by Wollongong City Council.²

3.3 Environment Protection Licence Requirements

Environment Protection Licence (EPL) 3241 applies to Dendrobium Mine and associated activities and EPL 611 applies to Cordeaux Colliery and associated activities. A copy of these licences can be accessed at the EPA website: [here](#).

3.4 Mining Leases

Dendrobium Mine operates in accordance with the following mining leases:

- Consolidated Coal Lease (CCL) 768.
- Mining Lease (ML) 1510 (covers the KVCLF).
- ML 1566 (covers VS2 and 3).

3.5 Relevant Legislation

Key regulatory and LMP obligations applicable to Dendrobium Mine are managed via an obligations management database. The obligations are allocated to responsible personnel. This process is detailed in the Environmental Compliance/Conformance Assessment and Reporting Procedure.

Legislation that may be applicable to lighting and visual amenity includes but is not limited to:

- *Protection of the Environment Operations Act 1997*;
- *EP&A Act*;
- *Mining Regulation 2016*; and
- *Local Government Act 1993*.

Lighting which materially affects the reasonable comfort and convenience of a section of the public is classed as public nuisance under section 125 of the *Local Government Act*. Under this Act, a council may abate a public nuisance or order a person responsible for a public nuisance to abate it.

3.6 Guidelines and Standards

This LMP has been developed to be consistent with the principles of the following:

- ISO 14001:2015 Environmental Management Systems; and
- GM³ Sustainability Policy.

Other relevant guidelines for visual amenity and lighting management include:

- AS/NZS 1158.0:2005 Lighting for Roads and Public Spaces; and
- AS/NZS 4282:2019 Control of Obtrusive Effects of Outdoor Lighting.

² Options to incorporate Cordeaux Colliery in the Dendrobium Consent are currently being investigated.

AS/NZS 1158.0:2005 sets out definitions and lighting categories applicable to roads and outdoor public areas, and for the movement of vehicles and pedestrians. It also serves as a general introduction to other Standards in the AS/NZS 1158 series, which refer to the performance and installation design requirements for roads and thoroughfares.

AS 4282:2019 sets out guidelines for the control of the obtrusive effects of outdoor lighting and gives recommended limits for the relevant lighting parameters to contain these effects within tolerable levels. This standard also refers to the potential effects of lighting systems on nearby residents, and users of adjacent roads and transport signalling systems, and on astronomical observations. It does not apply to road lighting; internally illuminated advertising signs; brightly-lit surfaces (e.g. floodlit buildings and advertising signs); lighting systems installed for the purposes of television broadcasting; or lighting systems that are of a cyclic or flashing nature.

4 Lighting and Visual Amenity Management and Mitigation

4.1 Potential Visual Amenity and Lighting Impacts – General

Lighting associated with surface operations is mostly fixed lighting for safety, security and operational purposes. Potential lighting impacts from visual stray light are associated with flood lighting of key operational areas such as Pit Top yard and the KVCLF. General lighting is provided strategically around main buildings, structures, amenities, key workplaces and processes.

Lighting is kept to the minimum but at a level sufficient to maintain a safe working environment. Although some lighting and the luminescence from particular areas is evident at night, the control measures are designed to prevent direct adverse amenity impacts on the community.

4.1.1 Dendrobium Pit Top Surface

Lighting is placed along the portal road, general yard working area (traffic area), parking areas, walkways and at the entrance to the mine site to provide safe working conditions and for site security purposes.

Some lights at the Pit Top remain on during the night for operational and safety reasons.

Sections of carpark lighting are installed on timers to turn on around shift change times only, when the carpark would most likely be used.

The administration and operations buildings at the Pit Top have been established since the 1940s. There has been significant regrowth of vegetation to provide screening since construction.

4.1.2 KVCLF

The key lighting features at the KVCLF include the coal stockpile and perimeter lighting including the immediate rail line approach for the facility.

The elevated conveyor gantry has fixed lighting which remains off at night unless required for safety and security purposes.

4.1.3 KVRL

Direct impacts on residents from the headlight beams of the coal hauling locomotives on the KVRL are limited by the nature of the rail corridor topography and the natural vegetation screening.

4.1.4 DCP

The DCP is located in the PKSW and is largely indistinguishable from other equipment and infrastructure in this significant industrial complex.

Visual amenity or lighting impacts are unlikely due to the location of the DCP.

4.1.5 VS1

There is no lighting at VS1.

4.1.6 VS2/3

Permanent lighting at VS2/3 is limited to safety and emergency lighting.

Visual amenity or lighting impacts are unlikely due to the remote location of these facilities, however impacts will need to be considered during planning and construction of any new ventilation shafts in the Special Area (particularly from the curtilage of Cordeaux Dam).

Potential incremental impacts of night-lighting and flaring associated with gas drainage infrastructure (MOD 9) are expected to be minimal given the distance of flaring activities from potential viewers, intervening topography and native vegetation at other surface facilities.

4.1.7 Cordeaux Colliery

Lighting is placed in the general yard working area, parking areas and at the entrance to the mine site to provide safe working conditions and for site security purposes.

Some lights at the site remain on during the night for operational and safety reasons.

There are no residences in the vicinity of the Pit Top. The site is adjacent to Picton Road, and there is vegetation screening between the site and the road.

4.1.8 Atmospheric Conditions

Night sky luminescence from particular areas may be increased as a consequence of particular atmospheric conditions (fog, low cloud etc). These effects should be limited through the implementation of the various management strategies adopted.

4.2 Visual Amenity and Lighting Management Measures

The general strategies adopted to achieve the objectives include:

- select paint colours and specifications for buildings, structures, facilities or works to blend as much as possible with the surrounding landscape;
- minimise light emissions, light pollution and total nighttime glow from the mine, associated sites and activities through the use of appropriate control measures, design and technical solutions;

- maintain lighting facilities and apparatus in good order through a routine maintenance and inspection regime;
- maintain lighting levels and lighting fixtures sufficient to provide the necessary security and safe working environment without adversely affecting community amenity;
- minimise the adverse visual impact of stationary lighting intensity through the appropriate selection and positioning of lighting fittings;
- utilise sensor lighting or timers where appropriate;
- select light emitting diode (LED) or solar lighting for energy savings where possible;
- establish vegetation screens and consider topographic positioning where appropriate;
- prevent mine vehicle headlights and train headlights from directly shining into residential dwellings through strategic screening; and
- respond promptly and courteously to any lighting issues raised by the community.

Specific visual amenity and lighting management measures applied at the Dendrobium operations are detailed in Table 2, Table 3, Table 4, Table 5 and Table 6.

Table 2: Visual Amenity and Lighting Controls – Dendrobium Pit Top

Area and/or Source	Management Measure/Control
Pit Top entry	Lighting directed down Height of poles kept to a minimum Shrouding installed on lights Vegetation screening along Cordeaux Road
Portal Road	Lighting directed down Height of poles kept to a minimum Shrouding installed on lights Topographic screening on western side Vegetation screening
Car Parks	Lighting directed down Height of poles kept to a minimum Shrouding installed on lights Topographic and vegetation screening Timers

Table 3: Visual Amenity and Lighting Controls – KVCLF

Area and/or Source	Management Measure/Control
Stockpile	Lighting directed down Shrouding installed on lights Topographic and vegetation screening
Conveyors	Lighting directed away from residences and roads Shrouding installed on lights

Kemira Portal/Coal Sizer	Lighting directed down Height of lighting minimised Shrouding installed on lights Topographic and vegetation screening
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Table 4: Visual Amenity and Lighting Controls – KVRL

Area and/or Source	Management Measure/Control
Trains	Topographic and vegetation screening Operational management by drivers if required

Table 5: Visual Amenity and Lighting Controls – Ventilation Shafts

Area and/or Source	Management Measure/Control
Ventilation Shafts	Lighting directed down Height of lighting minimised Shrouding installed on lights Topographic and vegetation screening Use of appropriate paint colours Enclosed flares

Table 6: Visual Amenity and Lighting Controls – Cordeaux Colliery

Area and/or Source	Management Measure/Control
Cordeaux Colliery	Lighting directed down Height of lighting minimised Shrouding installed on lights Topographic and vegetation screening (surrounded by bushland) Use of appropriate paint colours No night-time activities undertaken on site (during normal operating conditions) Timers

5 Visual Amenity and Lighting Monitoring Program

Visual amenity and lighting related issues associated with the Dendrobium operations will continue to be closely monitored to ensure that they are managed to an acceptable level. The ways in which visual amenity and lighting related issues are monitored at Dendrobium include:

- a) inspections;
- b) lighting surveys and assessments; and
- c) community call line.

5.1 Inspections

Inspections of lighting are undertaken as required under the site maintenance program. If controls are missing or inadequate, they will be repaired or replaced as required.

5.2 Lighting Surveys and Assessments

Lighting surveys and assessments may be undertaken in response to community complaints or on a periodic basis to confirm compliance with the Consent and conformance to the relevant Australian Standards.

A lighting survey was conducted in FY22 at Dendrobium and the KVCLF to verify compliance with Condition 29 of Schedule 4 of the Consent. Results received show that lighting at Dendrobium and the KVCLF meet the requirements for Australian Standard AS 4282:2019 – Control of Obtrusive Effects and Outdoor Lighting.

5.3 Community Call Line

Visual amenity and lighting issues related to the Dendrobium Mine and Cordeaux Colliery operations can be identified by members of the local community. The community call line (see Section 6.1) allows the local community to provide feedback on these issues to ICHPL. Enquiries and complaints received via the community call line will be followed up by the appropriate GM³ personnel.

5.4 Adaptive Management

Where any non-conformance or non-compliance has been identified, ICHPL will take all reasonable and feasible steps to ensure the non-compliance ceases and does not recur and consider all reasonable and feasible options for remediation (where relevant).

Complaints and outcomes from visual inspections will be reviewed to identify continual improvement opportunities. Improvement opportunities may also be identified during internal and external audits. These improvement opportunities will be discussed with relevant site personnel and raised through senior leadership team meetings as appropriate and will be documented in the Environment Improvement Plan or actions assigned in G360.

6 Complaints and Non-compliance Management

6.1 Complaints and Dispute Resolution

ICHPL has a 24-hour, free community call line (1800 102 210) and email address (community@gm-3.com.au) which is displayed at ICHPL Projects and Mine Sites, and included in newsletters, letters and other correspondence. The call line is for all complaints and general enquiries regarding environmental or community issues associated with ICHPL operations.

Community complaints and enquiries may also be received in person by any employee of ICHPL, with details to be immediately shared with the Corporate Affairs Team for investigation. All visual amenity and lighting complaints received in relation to Dendrobium Mine will be managed in accordance with the Community Complaints Procedure.

Upon receipt of a community complaint, preliminary investigations will commence as soon as practicable to determine the likely cause of the complaint. The complainant will receive an acknowledgement of their complaint within 24 hours of its submission. A

follow up response will be provided as soon as practicable after a detailed investigation has been completed.

Where visual amenity or lighting related issues are raised by an affected landowner or community member and the affected landowner or community member requests feedback in relation the issue raised, the landowner or community member will be provided with the investigation results and proposed course of corrective action.

A summary of all complaints received during the reporting year will be provided as part of the Annual Review. A log of complaints is also maintained on the GM³ website at: [link](#).

6.2 Events, Non-Compliance, Corrective Action and Preventative Action

Events, non-compliances, corrective actions and preventative actions are managed in accordance with the Reporting and Investigation Standard and Environmental Compliance/Conformance Assessment and Reporting Procedure. These procedures, which relate to all ICHPL operations, detail the processes to be utilised with respect to event and hazard reporting, investigation and corrective action identification. The key elements of the process include:

- identification of events, non-conformances and/or non-compliances;
- recording of the event, non-conformance and/or non-compliance in the event management system (G360);
- investigation/evaluation of the event, non-conformance and/or non-compliance to determine specific corrective and preventative actions;
- assigning corrective and preventative actions to responsible persons in G360; and
- review of corrective actions to verify the status and effectiveness of the actions.

7 Reporting and Review

In accordance with Condition 8 of Schedule 8, any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the *EP&A Act*.

This includes conditions in respect of incident notification, reporting and response, noncompliance notification, compliance report and independent audit.

7.1 Annual Review

ICHPL will report on the performance of the LMP in the Annual Review.

The Annual Review is prepared in accordance with Condition 5 of Schedule 8 of the Consent and is submitted to relevant agencies in September each year. Annual Reviews are made available to the general public via the GM³ website.

The Annual Review will include:

- complaints and management/mitigation measures undertaken; and
- a review of the performance of management/mitigation measures and the monitoring program as applicable.

7.2 Review of LMP

In accordance with Condition 2A of Schedule 8 of the Consent, the LMP will be reviewed, and if necessary revised, within three months, of:

- a) the submission of an incident report;
- b) the submission of an Annual Review;
- c) the submission of an Independent Environmental Audit (IEA) report; or
- d) the approval of any modification of the conditions of Consent (unless the conditions require otherwise).

Outcomes from each review will be documented in the Management Plan Review Log. The LMP will only be revised where a material change to site operations or environmental management has occurred, or in accordance with the review period on the LMP. Administrative or descriptive changes do not constitute a material change.

Where a review triggers a revision of the LMP, the LMP will be revised³.

7.3 Audits

7.3.1 IEA

In accordance with Condition 6 of Schedule 8 of the Consent, an IEA shall be commissioned every three years, that will include a review of the LMP. The report is required to be submitted to the Secretary within three (3) months of commencing⁴ the audit, in accordance with Condition 7 of Schedule 8.

IEAs have been conducted every three (3) years since 2008, with the last IEA being conducted in 2023 and the next IEA to be conducted in 2026. Recommendations from the IEA will be incorporated into the LMP where appropriate.

7.3.2 ISO 14001

As part of the ISO 14001 certification, ICHPL maintains an environmental auditing and governance program across all of its operational sites. The program, which includes the use of competent internal and accredited external auditors, is an integral part of maintaining certification under the ISO 14001 standard.

External surveillance audits are undertaken on an annual basis, with recertification audits undertaken every three (3) years.

Internal Governance Reviews of the LMP are nominally undertaken on a three (3) yearly basis.

³ There is no specific requirement in the Consent to seek approval of the LMP from the Planning Secretary and will only be submitted to the Department if requested.

⁴ The date of commencing the IEA is defined as the first day of the site inspection.

8 Summary of Commitments

Commitment	Section in LMP
ICHPL will provide personnel and resources to implement the LMP.	Section 2
ICHPL will comply with the conditions of the Consent and relevant legislation.	Section 3
ICHPL will implement reasonable and feasible management strategies and mitigation measures to minimise impact on the community from lighting and improve visual amenity.	Section 4
ICHPL will maintain existing mitigation controls to minimise impact on the community.	Section 4
ICHPL will undertake inspections to check the effectiveness of existing controls.	Section 5.1
ICHPL will undertake lighting surveys and assessments as required.	Section 5.2
ICHPL will maintain a community call line.	Section 5.3
ICHPL will report and investigate complaints and non-compliances as required, and identify and implement corrective actions.	Section 6
ICHPL will undertake reporting as required.	Section 7.1
ICHPL will review the LMP and undertake consultation with relevant stakeholders as required.	Section 7.2
ICHPL will undertake audits as required.	Section 7.3

9 Acronyms

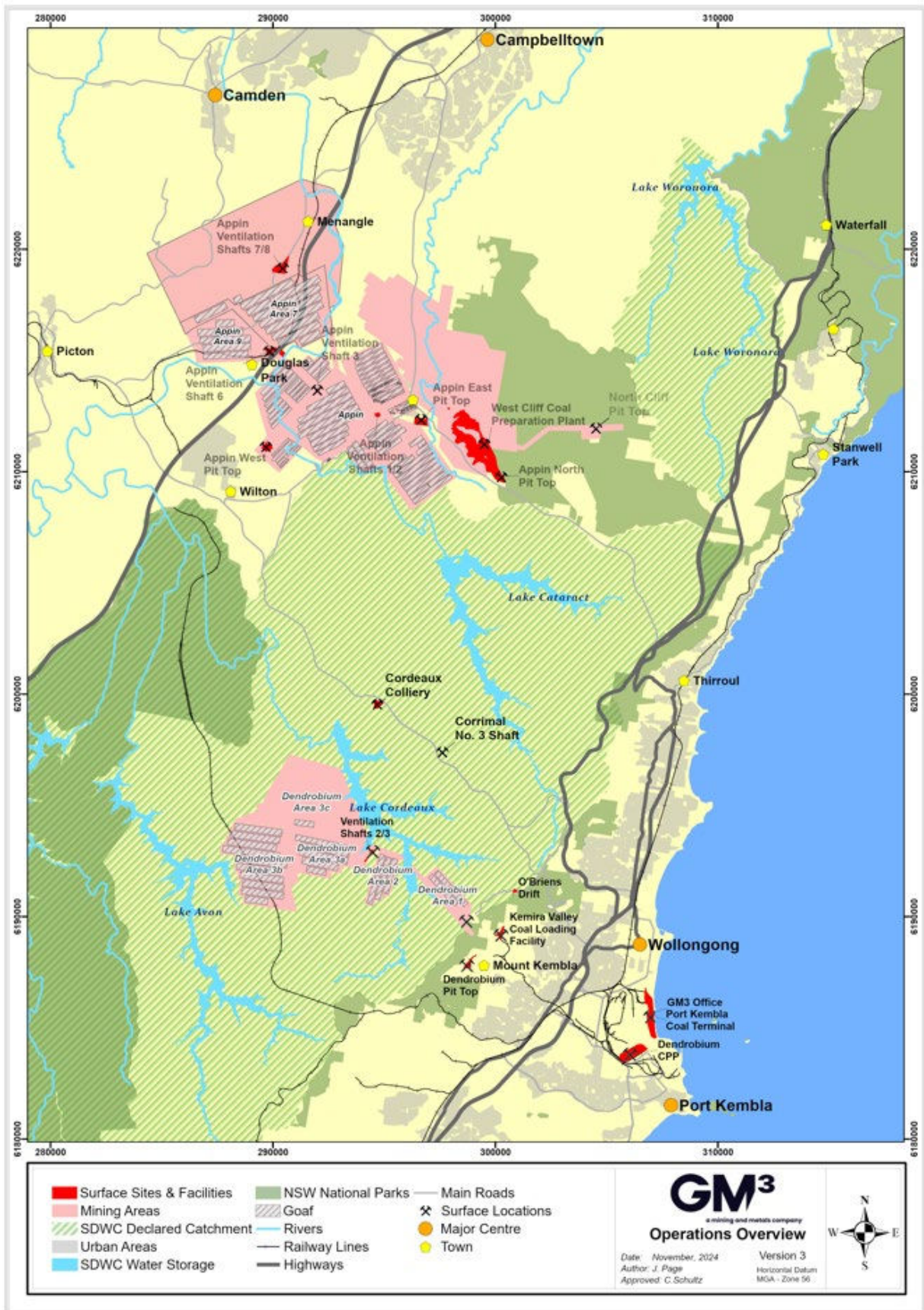
Term	Definition
DCPP	Dendrobium Coal Preparation Plant
Department	Department of Planning, Housing and Infrastructure (DPHI), previously <ul style="list-style-type: none"> • Department of Planning, Industry and Environment • Department of Planning and Environment
EIS	Environmental Impact Statement
EMS	Environmental Management System
<i>EP&A Act</i>	<i>Environmental Planning and Assessment Act</i>
EPL	Environment Protection Licence
G360	ICHPL event reporting system
ICHPL	Illawarra Coal Holdings Pty Ltd
IEA	Independent Environmental Audit
km	kilometre
KVCLF	Kemira Valley Coal Loading Facility
KVRL	Kemira Valley Rail Line
LED	Light emitting diode
LMP	Lighting Management Plan
MSA	Metropolitan Special Area
PKCT	Port Kembla Coal Terminal
PKSW	Port Kembla Steel Works
RoM	Run of Mine
VS	Ventilation Shaft

10 References

- Development Consent 60-03-2001, as modified
- Development Consent D74/134
- EPL 3241
- EPL 611
- Handling Community Complaints, Enquiries and Disputes Procedure (IMCP0112)
- Event Investigation Procedure (IMCP0098)
- Environmental Compliance/Conformance Assessment and Reporting Procedure (IMCP0186)
- ISO 14001:2015 Environmental Management Systems Standard
- Reporting and Investigation Standard (IMCSTD0069)
- AS/NZS 4282:2019 – Control of Obtrusive Effects of Outdoor Lighting
- AS/NZS 1158.0:2005 Lighting for Roads and Public Spaces
- SLR Consulting (2022). Dendrobium Coal Mine – Light Spill Assessment

11 Plans

Plan 1: Dendrobium Mine Locality Plan



12 Appendices

Appendix 1: Lighting and Visual Amenity Management

Condition	Requirement	Section
Condition 2A of Schedule 2	The Applicant must carry out the development in accordance with the conditions of this consent.	Section 3.1
Condition 2A of Schedule 2	The Applicant must carry out the development generally in accordance with the development layout shown in Appendix 2.	Section 3.1
Condition 4 of Schedule 2	The Applicant must comply with any reasonable and feasible requirement/s of the Secretary arising from the Department's assessment of: (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with the conditions of this consent; (b) any reviews, reports or audits undertaken or commissioned by the Department regarding compliance with the conditions of this consent; and (c) the implementation of any actions or measures contained in these documents.	Section 3.1
Condition 28 of Schedule 4	Visual Amenity The Applicant must minimise the visual impacts of the surface facilities to the satisfaction of the Secretary.	Section 4
Condition 29 of Schedule 4	Lighting Emissions The Applicant must: (a) ensure that all external lighting associated with the surface facilities complies with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting; (b) take all practicable measures to mitigate off-site lighting impacts from the surface facilities; (c) ensure that light emitted from headlights of locomotives operating on the Kemira Valley rail line are screened from residences; and (d) report on the effectiveness of lighting emission controls in the Annual Review, to the satisfaction of the Secretary.	Section 3.6 Section 4 Section 4 Section 7.1
Condition 2 of Schedule 8	Management Plan Requirements Management plans required under this consent must be prepared in accordance with relevant guidelines, and include: (a) a summary of relevant background or baseline data; (b) details of:	Section 3.1

Condition	Requirement	Section
	(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);	Section 3
	(ii) any relevant limits or performance measures and criteria; and	Section 3
	(iii) 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;	Section 3
	(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;	Section 4
	(d) a program to monitor and report on the:	Section 5
	(i) impacts and environmental performance of the development; and	
	(ii) effectiveness of the management measures set out pursuant to condition 2(c);	
	(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;	Section 5.4
	(f) a program to investigate and implement ways to improve the environmental performance of the development over time;	Section 5.2
	(g) a protocol for managing and reporting any:	
	(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);	Section 6.2
	(ii) complaint;	Section 6.1
	(iii) failure to comply with statutory requirements; and	Section 7.2
	(h) a protocol for periodic review of the plan.	