

Development Consent

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

As delegate of the Minister for Planning, the Planning Assessment Commission of New South Wales (the Commission) approves the development application referred to in Schedule 1, subject to the conditions in Schedules 2 to 6.

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

Member of the Commission

Sydney

2015

SCHEDULE 1

Application Number:

SSD-5144

Applicant:

Centennial Mandalong Pty Limited

Consent Authority:

Minister for Planning

Land:

See Appendix 1

Development:

Mandalong Southern Extension Project

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Blue Type represents

Orange Type represents

Green Type represents

Red Type represents

Purple Type represents

Navy Blue Type represents

Olive Type represents

Yellow Type in grey background represents

Pink Type represents

Maroon type represents

June 2016 modification

September 2016 modification

November 2016 modification

March 2017 modification

August 2017 modification

April 2019 modification

July 2019 modification

January 2020 modification

April 2021 modification

February 2022 modification

DEFINITIONS

Adaptive management	Adaptive management includes monitoring subsidence effects and impacts and, based on the results, modifying the mine plan (including potentially modifying mining height, longwall width or any other element of the mine plan) as mining proceeds to ensure that the effects, impacts and/or associated environmental consequences remain within the predicted and/or designated ranges and in compliance with the conditions of this consent
Annual review	The review of operations required by Condition 12 of Schedule 6
Approved mine plan	The approved mine plan for the development, as shown in Figure 2 of Appendix 2
Applicant	Centennial Mandalong Pty Limited, or any other person or persons who rely on this consent to carry out the development that is subject to this consent
ARI	Average recurrence interval
BC Act	<i>Biodiversity Conservation Act 2016</i>
BCA	Building Code of Australia
BCD	Biodiversity Conservation Division within the Department
Built features	Includes any building or work erected or constructed on land, including dwellings, outbuildings and infrastructure such as any formed road, street, path, walk, or driveway and any pipeline, water, sewer, telephone, gas or other service main
CCC	Community Consultative Committee
CES	Cooranbong Entry Site, as shown in Figure 6 of Appendix 2
Conditions of this consent	Conditions contained in Schedules 2 to 6 inclusive
Construction activities	Construction activities at the MSSS, TL24 relocation area , MMAS and the expansion of the Borehole Dam at the CES as described in the EIS, together with the construction of gas engines as described in EA (MOD 4)
CPI	Consumer Price Index, as published by the Australian Bureau of Statistics
Day	The period from 7.00 am to 6.00 pm on Monday to Saturday, and 8.00 am to 6.00 pm on Sundays and Public Holidays
Department	Department of Planning and Environment
DES	Delta Entry Site
Development	The development described in the EIS and EA MOD 4, as subsequently modified
DPI Fisheries	Department of Primary Industries - Fisheries
DPE Water	Water Division within the Department
EA (MOD 4)	The modification application DA 97/800 - MOD 4 and accompanying Environmental Assessment entitled <i>Mandalong Mine Modification to Development Consent Environmental Assessment</i> , dated September 2008
EEC	Endangered ecological community, as defined under the BC Act
EIS	Environmental Impact Statement titled <i>Mandalong Southern Extension Project Environmental Impact Statement</i> , dated September 2013; associated response to issues raised in submissions, titled <i>Mandalong Southern Extension Project Response to Submissions</i> , dated March 2014; and additional information regarding residual concerns, titled <i>Mandalong Southern Extension Project Response to RTS submissions</i> , dated July 2014
Environmental consequences	The environmental consequences of subsidence impacts, including: damage to built features; loss of surface water flows to the subsurface; loss of standing pools; slope changes to streams; adverse water quality impacts; development of iron bacterial mats; rock falls; landslides; damage to Aboriginal heritage sites; impacts on aquatic ecology; and ponding.
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6.00 pm to 10.00 pm
Exploration activities	Prospecting operations, as defined under the <i>Mining Act 1992</i>

Feasible	Feasible relates to engineering considerations and what is practical to build or to implement
First workings	Development of main headings, longwall gate roads, related cut throughs and the like
Ha	Hectare
Heritage NSW	Heritage NSW within Department of Premier and Cabinet
Heritage item	An item as defined under the <i>Heritage Act 1977</i> and/or an Aboriginal object or Aboriginal place as defined under the <i>National Parks and Wildlife Act 1974</i>
HLLS	Hunter Local Land Services
Incident	An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance
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 5 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
LMCC	Lake Macquarie City Council
Mandalong Coal Delivery System	The underground conveyor which delivers coal from the project's underground workings to the Wyee Coal Unloader, as regulated under DA 35-4-2004
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Mining operations	Includes the extraction, processing, handling, storage and transportation of coal carried out on the site
Minister	Minister for Planning, or delegate
Minor	Not very large, important or serious
Mitigation	Activities associated with reducing the impacts of the development prior to or during those impacts occurring
MMAS	Mandalong Mine Access Site, as shown in Figure 4 of Appendix 2
Modification 7	The modification to the development, as described in SEE (Mod 7)
Modification 8	The modification to the development, as described in SEE (Mod 8)
Modification 9	The modification to the development as described in MR (Mod 9)
Modification 10	The modification to the development as described in MR (Mod 10)
MR (Mod 9)	Modification Report titled 'Mandalong Mine – Modification Report for modification to development consent SSD-5144', dated 14 May 2020, prepared by EMM Consulting, 'Submissions Report – SSD-5144 Modification 9 Mandalong Mine', dated August 2020, prepared by Centennial Coal, letter titled 'Centennial Mandalong SSD-5144 Modification 9 AHIMS Sites', dated 14 October 2020, 'Revised Mandalong Modification 9 Aboriginal cultural heritage sites inventory' and accompanying figure 'PC 7443 R4', dated 22 October 2020, letter titled 'Property MS0127 Flood Assessment (2 nd Order Stream)', dated 23 February 2021, letter titled 'Impact Assessment for three Grinding Groove Sites identified following the EIS Report for the Mandalong Southern Extension Project (approved LW32-37) – Addendum to the Proposed LW30 – 33 Modification (Mod 9) Application', dated 25 March 2021, prepared by Ditton Geotechnical Services and letter titled 'RE: Centennial Mandalong SSD-5144 Mod 9 ROM Tonnes', prepared by Centennial, dated 1 April 2021
MR (Mod 10)	The Modification Report titled 'Mandalong Mine – Modification report for modification to development consent SSD-5144', dated October 2021, prepared by EMM Consulting, 'Mandalong Southern Extension Project MOD 10 Submissions Report', dated December 2021, prepared by Centennial
MSSS	Mandalong South Surface Site, as shown in Figure 5 of Appendix 2
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10.00 pm to 8.00 am on Sundays and Public Holidays
Non-compliance	An occurrence, set of circumstances or development that is a breach of this consent
POEO Act	Protection of the Environment Operations Act 1997
Privately-owned land	Land that is not owned by a public agency, or a mining 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, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Reasonable Costs	The costs agreed between the Department and the Applicant for obtaining independent experts to review the adequacy of any aspects of an Extraction Plan
Registered Aboriginal Parties	Aboriginal community stakeholders listed in Table 1 of Appendix 6
Rehabilitation	The restoration of land disturbed by the development to a good condition to ensure it is safe, stable and non-polluting
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
RR	NSW Resources Regulator
Safe, serviceable & repairable	Safe means no danger to users who are present, serviceable means available for its intended use, and repairable means damaged components can be repaired economically
SANSW	Subsidence Advisory NSW
Second workings	Extraction of coal from longwall panels, mini-wall panels or pillar extraction
Secretary	Planning Secretary under the EP&A Act, or nominee
SEE (Mod 1)	Statement of Environmental Effects titled, 'Mandalong Mine Transmission Line TL24 Relocation Project' dated March 2016 and prepared by Centennial Coal Company Limited, and the Response to Submissions document dated May 2016
SEE (Mod 2)	Statement of Environmental Effects titled 'Mandalong Mine Longwall 22 & 23 First Workings Modification' dated August 2016 and prepared by Centennial Coal Company Limited
SEE (Mod 3)	Statement of Environmental Effects titled 'Mandalong Mine State Significant Development 5144 – Modification 3' dated September 2016 and prepared by Centennial Coal Company Limited
SEE (Mod 4)	Statement of Environmental Effects titled 'Mandalong Mine State Significant Development 5144 – Modification 4' dated November 2016 and prepared by Centennial Coal Company Limited
SEE (Mod 5)	Statement of Environmental Effects titled 'Mandalong Mine State Significant Development 5144 – Modification 5' dated May 2017 and prepared by GHD Pty Ltd, including the Response to Submissions document dated 19 June 2017 and additional information dated 14 July 2017 and 18 July 2017 prepared by Centennial Coal Company Ltd
SEE (Mod 6)	Statement of Environmental Effects titled 'Mandalong Mine: Mandalong South Surface Site Water Management' dated October 2018 and prepared by Centennial Mandalong Pty Ltd, including the Response to Submissions document dated 1 March 2019 prepared by Centennial Mandalong Pty Ltd
SEE (Mod 7)	Statement of Environmental Effects titled 'Mandalong 33 kV power line' dated February 2019 and prepared by Centennial Mandalong Pty Ltd
SEE (Mod 8)	Statement of Environmental Effects titled 'Mandalong Mine Modification to SSD-5144 Statement of Environmental Effects' dated April 2019 and prepared by EMM Consulting, including the Response to Submissions document dated 23 August 2019 prepared by Centennial Mandalong Pty Ltd
Site	All land to which the development application applies, including the longwall mining domains and the surface facilities sites, as listed in Appendix 1 and shown in Appendix 2
Statement of commitments	The Applicant's commitments, as set out in the EIS, and shown in Appendix 8
Steep slopes	An area of land having a gradient greater than 1 in 3 (33% or 18.3°)
Subsidence	The totality of subsidence effects, subsidence impacts and environmental consequences of subsidence impacts

Subsidence effects	Deformation of the ground mass due to mining, including all mining-induced ground movements, such as vertical and horizontal displacement, tilt, strain and curvature
Subsidence impacts	Physical changes to the ground and its surface caused by subsidence effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure, upsidence and surface depressions or troughs
Surface facilities sites	The MMAS, the CES and the MSSS, as shown in the relevant Figures in Appendix 2
TL24 relocation area	Transmission Line 24, as shown in Figure 7 of Appendix 2

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance measures and criteria established under this consent, **the Applicant must** 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 must** carry out the development:
 - (a) generally in accordance with the EA (MOD 4);
 - (b) generally in accordance with the EIS, SEE (Mod 1), SEE (Mod 2), SEE (Mod 3), SEE (Mod 4), SEE (Mod 5), SEE (Mod 6), SEE (Mod 7), SEE (Mod 8), MR (Mod 9) and MR (Mod 10);
 - (c) generally in accordance with the Development Layout;
 - (d) in accordance with the Statement of Commitments; and
 - (e) in accordance with the conditions of this consent.

Note: The Development Layout is shown in Appendix 2.

3. If there is any inconsistency between the documents identified in condition 2(a) and (b), the more recent document shall prevail to the extent of the inconsistency. The conditions of this consent shall prevail to the extent of any inconsistency with the documents identified in condition 2(a) and (b) or the Statement of Commitments.
4. The Applicant must 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 (including any stages of these documents);
 - (b) any reviews, reports or audits commissioned by the Department regarding compliance with this consent; and
 - (c) 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 2040.

Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of either the Secretary or RR. 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.

6. The Applicant may only carry out **second workings** within the area covered by the approved mine plan.

Coal Extraction and Delivery

7. In any calendar year, **the Applicant must** not:
 - (a) extract more than 6.5 million tonnes of ROM coal from the site;
 - (b) deliver more than 6 million tonnes of ROM coal to the CES; and/or
 - (c) deliver more than 6 million tonnes of ROM coal to the Mandalong Coal Delivery System.

Hours of Operation

8. **The Applicant must** comply with the operating hours in Table 1.

Table 1: Operating hours

Activity	Operating Hours
Mining operations, maintenance activities and shaft construction	24 hours a day, 7 days per week

Construction activities (except construction)	shaft	7.00 am to 6.00 pm on Monday to Friday, and 8.00 am to 1.00 pm on Saturday, with no construction activities on Sunday or on public holidays, except where carried out underground
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Note: This condition does not apply in the event of a direction from police or other relevant authority for safety or emergency reasons regarding works which may need to be undertaken to avoid loss of life, property loss and/or to prevent environmental harm.

STRUCTURAL ADEQUACY

9. **The Applicant must** ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures that are part of the development, are constructed in accordance with:
- the relevant requirements of the BCA; and
 - any additional requirements of the **SANSW**, where the building or structure is located on land within a declared Mine Subsidence District.

Notes:

- *Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.*
- *Part 8 of the EP&A Regulation sets out the requirements for the certification of the development.*
- *Under Section 15 of the Mine Subsidence Compensation Act 1961, the Applicant is required to obtain the **SANSW's** approval before subdivision or constructing any improvements in a Mine Subsidence District.*

DEMOLITION

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

OPERATION OF PLANT AND EQUIPMENT

11. **The Applicant must** ensure that all plant and equipment used at the site is:
- maintained in a proper and efficient condition; and
 - operated in a proper and efficient manner.

COMMENCEMENT OF DEVELOPMENT UNDER THIS CONSENT

12. **The Applicant:**
- must** notify the Secretary in writing of the proposed date of commencement of development under this consent; and
 - may only commence development under this consent once the Secretary has agreed in writing that all prerequisites to the commencement of that development have been met.

SURRENDER OF EXISTING DEVELOPMENT CONSENT

13. By 30 April 2017, or as otherwise agreed by the Secretary, **the Applicant must** surrender the development consent DA 97/800 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 or approval should not be understood as implying that works legally constructed under a valid consent or approval can no longer be legally maintained or used.

SCHEDULE 3 ENVIRONMENTAL CONDITIONS – GENERAL

NOISE

Construction Noise

1. **The Applicant must** ensure that the noise generated by construction activities (excluding shaft construction), including activities undertaken for Modification 7, is managed in accordance with the requirements of the *Interim Construction Noise Guideline* (DECC, 2009), as may be updated from time to time.

Operational Noise Criteria

2. **The Applicant must** ensure that the operational noise generated by the development (including maintenance activities, shaft construction and exploration drilling) does not exceed the criteria in Table 2 at any residence on privately-owned land.

Table 2: Operational Noise Criteria

Receiver	Noise Limit (dB(A))			
	Day ($L_{Aeq}(15\text{ min})$)	Evening ($L_{Aeq}(15\text{ min})$)	Night ($L_{Aeq}(15\text{ min})$)	Night ($L_{A1}(1\text{ min})$)
R2	40	40	40	52
R3	42	42	42	52
R4	39	39	39	52
R5	41	41	41	61
R6	40	40	40	61
R7 & R8	43	43	43	61
R9	42	42	42	61
R10	39	39	39	61
All other residences on privately-owned land	35	35	35	45

Note: The receiver locations in Table 2 are shown in Figure 1 of Appendix 4.

Noise generated by the development is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the *NSW Industrial Noise Policy*. Appendix 3 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 an agreement with the relevant landowner to exceed the noise criteria in Table 2, and the Applicant has advised the Department in writing of the terms of this agreement.

Operating Conditions

3. **The Applicant must:**
 - (a) implement best management practice to minimise the construction, operational and road noise of the development;
 - (b) use its best endeavours to facilitate the connection to, and use of, a permanent electricity source to undertake ventilation shaft sinking activities at the MSSS;
 - (c) operate an on-site noise management system that uses a combination of predictions, forecasting, and attended and unattended monitoring of all noise associated with the development, to ensure compliance with the relevant conditions of this consent, including noise during construction and operations;
 - (d) minimise the noise impacts of the development during meteorological conditions under which the noise limits in this consent do not apply (see Appendix 3); and
 - (e) regularly assess noise monitoring data to determine whether the development is complying with the relevant conditions of consent,

to the satisfaction of the Secretary.

Noise Management Plan

4. **The Applicant must** prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:

- (a) be prepared in consultation with the EPA, by suitably qualified and experienced persons whose appointment has been approved by the Secretary;
- (b) be submitted to the Secretary for approval prior to the commencement of construction of the MSSS, or by 31 March 2016, whichever is sooner;
- (c) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions of this consent, including management of out-of-hours noise associated with shaft construction;
- (d) describe the proposed noise management system in detail;
- (e) include a monitoring program that evaluates and reports on:
 - the effectiveness of the noise management system;
 - compliance against the noise criteria in this consent; and
 - compliance against the noise operating conditions in condition 3 above;
- (f) defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents; and
- (g) outlines procedures to manage responses to any complaints or issues raised by the owners of affected residences.

The Applicant must implement the approved management plan as approved from time to time by the Secretary.

BLASTING

Blasting Restriction

5. The Applicant must carry out blasting on the surface of the site only between 9.00 am and 5.00 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.

Operating Conditions

6. The Applicant must implement best blasting management practice to:
 - (a) protect the safety of people in the surrounding area;
 - (b) protect public infrastructure and private property in the surrounding area from any damage; and
 - (c) minimise the dust and fume emissions of any blasting,
 to the satisfaction of the Secretary.

AIR QUALITY & GREENHOUSE GAS

Odour

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

Air Quality Criteria

8. The Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the particulate matter emissions generated by the development do not cause exceedances of the criteria in Table 3 at any residence on privately-owned land.

Table 3: Air quality criteria

Pollutant	Averaging Period	Criterion	
Particulate matter < 10 µm (PM ₁₀)	Annual	a,d 25 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 3:

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.

^e "Reasonable and feasible avoidance and mitigation measures" includes, but is not limited to, the operational requirements in conditions 9 and 10 to develop and implement an air quality management system that ensures operational responses to the risks of exceedance of the criteria.

Operating Conditions

9. The Applicant must:

- (a) implement best practice air quality management at the site to minimise the
 - off-site odour, fume and dust emissions of the development; and
 - release of greenhouse gas emissions from the development;
- (b) minimise any visible off-site air pollution generated by the development;
- (c) minimise the surface disturbance of the site;
- (d) operate a comprehensive air quality management system to ensure compliance with the relevant conditions of this consent;
- (e) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note *d* to Table 3),
to the satisfaction of the Secretary.

Air Quality & Greenhouse Gas Management Plan

10. The Applicant must prepare an Air Quality & Greenhouse Gas Management Plan for the development, to the satisfaction of the Secretary. This plan must:

- (a) be prepared in consultation with EPA, by suitably qualified and experienced persons whose appointment has been approved by the Secretary;
- (b) be submitted to the Secretary for approval prior to the commencement of construction of the MSSS, or by 31 March 2016, whichever is sooner;
- (c) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this consent;
- (d) describe the on-site air quality management system; and
- (e) include an air quality monitoring program that:
 - adequately supports the air quality management system;
 - evaluates and reports on:
 - compliance with the air quality criteria;
 - the effectiveness of the air quality management system; and
 - compliance against the air quality operating conditions in condition 9 above; 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.

The Applicant must implement the approved management plan as approved from time to time by the Secretary.

METEOROLOGICAL MONITORING

11. During the life of the development, the Applicant must ensure that there is a suitable meteorological station operating 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
- (b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the *NSW Industrial Noise Policy*.

WATER

Water Supply

12. The Applicant must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of mining operations 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.

Water Pollution

13. Unless an EPL authorises otherwise, [the Applicant must](#) comply with Section 120 of the POEO Act.
14. [The Applicant must](#) implement all reasonable and feasible measures to reduce water pollution associated with the discharge of [surface water](#) or mine-water (particularly salinity and dissolved or suspended metals associated with groundwater pumped from underground mine workings) required to comply with any EPL applying to the development.

Mine-Water Discharges Management Plan

15. [The Applicant must](#) prepare a Mine-Water Discharges Management Plan for the development to the satisfaction of the Secretary. This plan must:
 - (a) be prepared by suitably qualified and experienced persons whose appointment has been approved by the Secretary;
 - (b) be submitted to the Secretary for approval by 30 June 2016 unless otherwise agreed by the Secretary;
 - (c) describe the measures that would be implemented to ensure compliance with conditions 13 and 14 and relevant performance measures in Table 4;
 - (d) include targets, developed in co-operation with the EPA, to reduce acute and chronic toxicity from mine-water discharges from the CES to achieve the in-stream water quality and aquatic ecology objectives and criteria required by condition 16 below;
 - (e) include measures, developed in co-operation with the EPA to be implemented over 2-year, 10-year and life-of-project timeframes to reduce the salinity and metals toxicity in mine-water discharged from the CES to achieve these targets; and
 - (f) take into account relevant requirements of the Water Management Plan required by condition 17 below.

[The Applicant must implement the approved management plan as approved from time to time by the Secretary.](#)

Water Management Performance Measures

16. [The Applicant must](#) comply with the performance measures in Table 4, to the satisfaction of the Secretary.

Table 4: Water Management Performance Measures

Feature	Performance Measure
Potable Water	<ul style="list-style-type: none"> Minimise the use of potable water from the public supply for purposes where non-potable water is acceptable.
MMAS MSSS	<ul style="list-style-type: none"> Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction</i> including <i>Volume 1, Volume 2A – Installation of Services</i> and <i>Volume 2C – Unsealed Roads</i>. Design, install and maintain any infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land</i> (DPI 2007), or the latest version. Design, install and maintain creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Friendly Waterway Crossings</i> (DPI Fisheries 2003) and <i>Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings</i> (DPI Fisheries 2003), or the latest versions.
Sediment Dams	<ul style="list-style-type: none"> Maintain dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E Mines and Quarries</i>.
Clean water diversions	<ul style="list-style-type: none"> Design, install and maintain new clean water diversion structures to convey the 100 year ARI flood. Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site.
Mine water storages	<ul style="list-style-type: none"> Design, install and maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site.
Aquatic and riparian ecosystems (including affected sections of unnamed watercourses receiving discharges from the CES, Muddy Creek and Muddy Lake)	<ul style="list-style-type: none"> Maintain or improve baseline channel stability Develop site-specific in-stream water quality and aquatic ecology (macroinvertebrate health and ecotoxicity assessment) objectives and criteria in consultation with the EPA and in accordance with any EPL applying to the CES.

Chemical and hydrocarbon storage	<ul style="list-style-type: none"> • Chemical and hydrocarbon products to be stored in banded areas in accordance with the relevant Australian Standards.
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Water Management Plan

17. [The Applicant must](#) prepare a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with [DPE Water](#) and the EPA, by suitably qualified and experienced persons whose appointment has been approved by the Secretary;
 - be submitted to the Secretary for approval prior to commencement of construction of the MSSS, or by 31 March 2016, whichever is sooner;
 - include detailed performance criteria and describes measures to ensure that the Applicant complies with the Water Management Performance Measures in Table 4;
 - include the following, in addition to the standard requirements for management plans (see condition 2 of Schedule 6):
 - [a Site Water Balance](#), that includes details of:
 - 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 of the development; and
 - investigates and implements all reasonable and feasible measures to minimise potable water use and to recycle water;
 - [a Surface Water Management Plan](#), that includes:
 - detailed baseline data on water flows and quality in the watercourses that could be affected by the development;
 - a detailed description of the development's water management systems, including the:
 - clean water diversion systems;
 - erosion and sediment controls;
 - [measures applying reasonable endeavours to reuse water held in the MSSS Sediment Dam, such as through the use of irrigation and/or evaporation, prior to discharge under condition 17A of this Schedule](#); and
 - minewater management systems;
 - detailed performance criteria, including trigger levels, for investigating any potentially adverse impacts associated with:
 - the water management systems;
 - downstream surface water quality;
 - downstream watercourse channel stability;
 - stream and riparian vegetation health; and
 - downstream flooding impacts;
 - a program to monitor and report on:
 - the effectiveness of the water management systems;
 - surface water flows and water quality, and the condition of stream and riparian vegetation in the watercourses on site and downstream of the site;
 - macroinvertebrate health and ecotoxicity parameters downstream of mine-water discharges; and
 - downstream flooding impacts;
 - reporting procedures for the results of the monitoring program; and
 - a plan to respond to any exceedances of the performance criteria, and mitigate any adverse surface water impacts of the development.

[The Applicant must implement the approved management plan as approved from time to time by the Secretary.](#)

Temporary Discharge of Water at MSSS

- 17A. [The Applicant may discharge collected surface water from the MSSS Sediment Dam via Licenced Discharge Point LDP004 \(EPL 365\) until 30 June 2021. Any such discharge must be in accordance with conditions 14 and 17 of this Schedule.](#)

BIODIVERSITY

Land Management Strategy

18. By 30 December 2016, the Applicant must finalise and implement a Land Management Strategy, to compensate for the clearing of 15.6 hectares of *Coastal Foothills Spotted Gum – Ironbark Forest*. The Land Management Strategy must:
- (a) be finalised in consultation with BCD;
 - (b) define conservation areas, habitat restoration areas and riparian protection areas within the parcels of land shown in red outline in Figures 1 and 2 of Appendix 7;
 - (c) make arrangements to manage, protect and provide long-term security for the Land Management Strategy areas;
- to the satisfaction of the Secretary.

Biodiversity Management Plan

19. The Applicant must prepare a Biodiversity Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with BCD and HLLS, and submitted to the Secretary for approval by 31 December 2016;
 - (b) describe the short-term, medium-term, and long-term measures that would be implemented to manage remnant vegetation and habitat at the site;
 - (c) describe how the biodiversity management would be integrated with similar measures within other management plans, including the Rehabilitation Strategy referred to in condition 33 and the Rehabilitation Management Plan referred to in condition 33A;
 - (d) include a detailed description of the measures that would be implemented over the next 3 years (to be updated for each 3-year period following initial preparation of the plan) to:
 - enhance the quality of existing vegetation and fauna habitat;
 - minimise the impacts to fauna, including undertaking pre-clearance surveys;
 - replace cleared hollow-bearing trees with appropriate nest boxes at a ratio of at least 2:1;
 - manage salinity;
 - control erosion, weeds, feral pests and unauthorised access; and
 - manage bushfire risk; and
 - (e) include a program to monitor and report on these measures, and progress against the performance and completion criteria required under the conditions of this consent and identify improvements that could be implemented to improve biodiversity outcomes.

The Applicant must implement the approved management plan as approved from time to time by the Secretary.

Conservation Bond

20. Within 6 months of the approval of the Biodiversity Management Plan, unless the Secretary agrees otherwise, the Applicant must lodge a Conservation Bond with the Department, to ensure that the Land Management Strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan.

The sum of the bond must be determined by:

- (a) calculating the full cost of implementing the Land Management Strategy (other than land acquisition costs); and
- (b) employing a suitably qualified quantity surveyor to verify the calculated costs.

The Secretary will release the bond if the Land Management Strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan. If the Land Management 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 Land Management Strategy, such as provision of capital and management funding as agreed by BCD as part of a Biobanking Agreement or transfer to the conservation reserve estate can be used to reduce the liability of the Conservation Bond.
- The sum of the bond may be reviewed in conjunction with any revision to the Biodiversity Management Plan.

Biodiversity Offset Credits Required

- 20A. Within 12 months of the commencement of construction activities for Modification 7, unless otherwise agreed by the Secretary, the Applicant must retire biodiversity credits as set out in Table 5 below. Retirement of these credits must be carried out in accordance with the NSW Biodiversity Offsets Policy for Major Projects (OEH, 2014), to the satisfaction of BCD.

Table 5: Biodiversity credit requirements

Credit Type	Credits Required
Ecosystem Credits	
PCT 1568 – Blackbutt – Turpentine – Sydney Blue Gum mesic tall open forest	1
PCT 1573 – Sydney Blue Gum – Lilly Pilly mesic tall open forest	9
PCT 1588 – Grey Ironbark - Broad-leaved Mahogany – Forest Red Gum shrubby open forest	147
PCT 1619 – Smooth-barked Apple – Red Bloodwood – Brown Stringybark – Hairpin Banksia heathy open forest	36
PCT 1638 – Smooth-barked Apple – Red Bloodwood – Scribbly Gum grass – shrub woodland	4
Species Credits	
Glossy-Black Cockatoo (<i>Calyptorhynchus lathami</i>)	229
Green-Thighed Frog (<i>Litoria brevipalmata</i>)	9

20B. Within 12 months of the commencement of construction activities for Modification 8, unless otherwise agreed by the Secretary, the Applicant must retire four (4) PCT 1649 – *Smooth-barked Apple – Red Mahogany – Melaleuca sieberi* heathy swamp woodland of the coastal lowlands biodiversity credits. Retirement of these credits must be carried out in accordance with the NSW Biodiversity Offset Scheme, to the satisfaction of the BCD.

HERITAGE

Archaeological Surveys

21. **The Applicant must:**
- engage a suitably qualified archaeologist, whose appointment has been approved by the Secretary, to undertake sub-surface archaeological testing in areas A, B and C within the MSSS as shown on Figure 2 of Appendix 6;
 - undertake the surveys prior to the commencement of construction of the MSSS, in consultation with **Heritage NSW** and Registered Aboriginal Parties;
 - provide the results of these surveys to the Department, **Heritage NSW** and the Registered Aboriginal Parties;
 - analyse the significance of any heritage sites/items identified during the surveys; and
 - detail appropriate measures to avoid, minimise and/or mitigate impacts to these sites/items in the Heritage Management Plan required under **condition 22** below for surface disturbance impacts, and under condition 6(l) of Schedule 4 for subsidence impacts,
- to the satisfaction of the Secretary.

Heritage Management Plan

22. **The Applicant must** prepare a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with **Heritage NSW** and Registered Aboriginal Parties;
 - be submitted to the Secretary for approval, prior to commencement of construction of the MSSS, or by 31 March 2016, whichever is sooner; and
 - include:
 - a description of the measures that would be implemented to:
 - protect, monitor and/or manage Aboriginal Cultural Heritage sites/items (including any proposed archaeological investigations and/or salvage measures);
 - manage the discovery of previously unidentified Aboriginal items;
 - maintaining and managing reasonable access for Aboriginal stakeholders to heritage items on the Applicant's land;

- ongoing consultation with Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage;
- a short-term and long-term strategy for the storage of any Aboriginal Cultural Heritage items salvaged on site; and
- a protocol for the management of impacts to Historic Heritage sites/items, including previously unidentified sites/items, including archival recording where impacts to Historic Heritage sites/items cannot be avoided.

The Applicant must implement the approved management plan as approved from time to time by the Secretary.

Note: This plan can be incorporated with any Heritage Management Plan for Centennial's other mines and/or mine infrastructure on the Central Coast/Lake Macquarie areas.

TRAFFIC AND TRANSPORT

Mandalong South Surface Site

23. The Applicant must, at its own cost, prior to construction of the MSSS access road:
 - (a) construct, a BAR/CHL intersection off Mandalong Road to provide safe access to the MSSS, in accordance with *Guide to Road Design* (Austroads 2009); and
 - (b) install appropriate advance warning signs on both approaches to the intersection, to the satisfaction of LMCC.
24. The Applicant must design and construct the MSSS access road to:
 - (a) avoid impacting *Melaleuca Biconvexa* trees; and
 - (b) not cause greater than minor increases to existing flood impacts at properties adjoining the access road.
25. Prior to the commencement of construction of the MSSS, and again within 3 months of the completion of construction, the Applicant must commission a suitably qualified independent expert, whose appointment has been approved by the Secretary, to undertake a pavement condition report for the section of Mandalong Road that will be used by construction traffic associated with the project. This report must:
 - (a) be submitted to the Secretary for approval;
 - (b) include a review of the pavement condition of the road identifying any deficiencies;
 - (c) recommend appropriate pavement repairs taking into consideration the axle loads and quantity of construction traffic associated with the project; and
 - (d) ensure the recommended repairs are in accordance with the *Guide to Road Design* (Austroads).
26. Within 3 months of the submission of the pavement condition reports required under condition 25, unless otherwise agreed or required by the Secretary, the Applicant must, in consultation with Council, and to the satisfaction of the Secretary, repair damaged sections of Mandalong Road in accordance with the recommendations of the pavement condition reports.

Construction Traffic Management Plan

27. The Applicant must prepare a Construction Traffic Management Plan for the construction of the MSSS, to the satisfaction of the Secretary. This plan must:
 - (a) be prepared in consultation with LMCC and any Mandalong residents likely to be affected by construction traffic;
 - (b) be approved by the Secretary prior to the commencement of construction of the MSSS; and
 - (c) include a drivers' code of conduct for the construction of the MSSS;
 - (d) detail the measures that would be applied to:
 - limit the noise and dust impacts of construction traffic;
 - monitor and repair any damage to the section of Mandalong Road that will be used by construction traffic associated with the project; and
 - avoid and/or limit potential road safety and amenity conflicts between construction traffic and other road users (including pedestrians, cyclists and horse riders) on Mandalong Road, including:
 - hours during which heavy vehicle movements will be avoided (including during school bus hours) and/or minimised; and
 - other measures (such as voluntary speed limits, avoidance of convoying, separation distances, and driver safety signage) to avoid and/or limit such impacts.

The Applicant must implement the approved management plan as approved from time to time by the Secretary.

- 27A. The Applicant must prepare a Construction Traffic Management Plan for management of construction activities for Modification 7, to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with LMCC and residents likely to be affected by construction traffic;
 - (b) be approved by the Secretary prior to the commencement of construction activities associated with Modification 7;
 - (c) include details of all transport routes and traffic types to be used by construction-related traffic;
 - (d) include details of the measures to be implemented to minimise traffic safety issues and disruption to local road users during construction activities, including:
 - (i) employee / contractor parking;
 - (ii) notifying the local community about construction-related traffic impacts;
 - (iii) responding to any emergency repair requirements or maintenance during construction activities; and
 - (iv) a traffic management system for managing over-dimensional vehicles; and
 - (e) include a drivers' code of conduct that addresses:
 - (i) travelling speeds; and
 - (ii) procedures to ensure that drivers implement safe driving practices.

The Applicant must implement the management plan as approved by the Secretary.

- 27B. The Applicant must prepare a Construction Traffic Management Plan for management of construction activities for Modification 8, to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with RMS and LMCC;
 - (b) be approved by the Secretary prior to the commencement of construction activities associated with Modification 8;
 - (c) include details of all transport routes and traffic types to be used by construction-related traffic;
 - (d) include details of the measures to be implemented to minimise traffic safety issues and disruption to local road users during construction activities, including:
 - (i) employee / contractor parking;
 - (ii) notifying the local community about construction-related traffic impacts;
 - (iii) responding to any emergency repair requirements or maintenance during construction activities; and
 - (iv) a traffic management system for managing over-dimensional vehicles; and
 - (e) include a drivers' code of conduct that addresses:
 - (i) travelling speeds; and
 - (ii) procedures to ensure that drivers implement safe driving practices.

The Applicant must implement the management plan as approved by the Secretary.

- 27C. The Applicant must ensure that the car park approved under Modification 8 is constructed in accordance with Australian Standard AS 2890.

VISUAL

Visual Amenity and Lighting

28. The Applicant must:
- a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development;
 - b) take all practicable measures to further reduce visual impacts from the development, including:
 - screen planting along Mandalong Road on the approaches to the MSSS (insofar as this does not affect sightlines for traffic using the MSSS intersection);
 - other appropriate visual impact mitigation measures for residences with direct views of the MSSS (such as landscaping treatments or vegetation screens); and
 - c) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting*; and
 - d) take all practical measures to shield views of mining operations from users of public roads and privately-owned residences,
- to the satisfaction of the Secretary.

- 28A. The Applicant must implement all reasonable and feasible measures to minimise the visual impacts of the car park approved under Modification 8. No visual screening measures are permitted on LMCC-owned or managed land without the written permission of LMCC.

WASTE

29. The Applicant must

- (a) minimise and monitor the waste generated by the development;
- (b) ensure that the waste generated by the development is appropriately stored, handled and disposed of;
- (c) manage on-site sewage treatment and disposal in accordance with the requirements of LMCC and EPA; and
- (d) report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary.

BUSHFIRE MANAGEMENT

30. The Applicant must:

- (a) ensure appropriate Asset Protection Zones are maintained at the surface facilities sites, to the satisfaction of LMCC;
- (b) ensure that the surface facilities sites are suitably equipped to respond to fires; and
- (c) assist the Rural Fire Service and emergency services as much as possible if there is a fire in the vicinity of the site.

REHABILITATION

Rehabilitation Objectives

31. The Applicant must rehabilitate the site in accordance with the conditions imposed on the mining lease(s) associated with the development under the *Mining Act 1992*. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EIS and comply with the objectives in Table 5.

Table 5: Rehabilitation Objectives

Feature	Objective
Mine site (as a whole)	<ul style="list-style-type: none"> Safe, stable & non-polluting
Surface infrastructure	<ul style="list-style-type: none"> To be decommissioned and removed, unless RR agrees otherwise. MMAS and MSSS sites to be made safe, and hydraulically and geotechnically stable. MMAS site to be appropriately prepared for industrial land-use where SP1 zoning applies, while ecological values to be maintained and enhanced where E2 zoning applies MSSS site to be revegetated with suitable local native plant species, and to a landform consistent with the surrounding environment.
Revegetated final landforms	<ul style="list-style-type: none"> Stable and sustain the intended land use Consistent with surrounding topography to minimise visual impacts Incorporate relief patterns and design principles consistent with natural drainage
Native flora and fauna	<ul style="list-style-type: none"> Flora species used in rehabilitation selected to re-establish and complement local and regional biodiversity Rehabilitated areas contribute to achieving self-sustaining biodiversity habitats
All watercourses subject to mine-water discharges and/or subsidence impacts	<ul style="list-style-type: none"> Hydraulically and geomorphologically stable, with aquatic ecology and riparian vegetation that is the same, or better than prior to mining
Steep slopes	<ul style="list-style-type: none"> No additional risk to public safety compared to prior to mining
Built features damaged by mining operations	<ul style="list-style-type: none"> Repair to pre-mining condition or equivalent unless the: <ul style="list-style-type: none"> owner agrees otherwise; or damage is fully restored, repaired or compensated for under the <i>Mine Subsidence Compensation Act 1961</i>
Community	<ul style="list-style-type: none"> Ensure public safety. Minimise the adverse socio-economic effects of mine closure.

Note: These rehabilitation objectives apply to all subsidence impacts and environmental consequences caused by all underground mining of the development and to all surface infrastructure components of the development.

Progressive Rehabilitation

32. The Applicant must rehabilitate the site progressively, that is, as soon as is practicable following disturbance.

Rehabilitation Strategy

33. The Applicant must prepare a Rehabilitation Strategy for the development, to the satisfaction of the Secretary.
This strategy must:
- (a) be prepared by a suitably qualified and experienced person(s) whose appointment has been endorsed by the Secretary;
 - (b) be prepared in consultation with RR, BCD, DPE Water, LMCC and the CCC;
 - (c) be submitted to the Secretary for approval by 31 August 2022, or as otherwise agreed by the Secretary;
 - (d) build upon the Rehabilitation Objectives in Table 5, describe the overall rehabilitation outcomes for the site, and address all aspects of rehabilitation including mine closure, final landform, post-mining land use/s and water management.
 - (e) align with the strategic rehabilitation and mine closure objectives and address the principles of the *Strategic Framework for Mine Closure* (ANZMEC and MCA, 2000), or its latest version;
 - (f) describe how the rehabilitation measures would be integrated with the measures in the Biodiversity Management Plan required under condition 19;
 - (g) describe how rehabilitation will be integrated with the mine planning process, including a plan to address premature or temporary mine closure;
 - (h) include details of:
 - target vegetation communities and species to be established within the proposed revegetation areas, including habitat for threatened fauna; and
 - the design of the surface water drainage network on the final landform; and
 - (i) investigate opportunities to refine and improve the final landform over time;
 - (j) include a post-mining land use strategy to investigate and facilitate post-mining beneficial land uses for the site, that:
 - align with regional and local strategic land use planning objectives and outcomes;
 - support a sustainable future for the local community;
 - utilise existing mining infrastructure, where practicable; and
 - avoid disturbing self-sustaining native ecosystems, where practicable;
 - (k) include a stakeholder engagement plan to guide rehabilitation and mine closure planning processes and outcomes;
 - (l) investigate ways to minimise adverse socio-economic effects associated with rehabilitation and mine closure; and
 - (m) include a program to report on the outcomes of the investigations required under this condition and review and update this strategy at least every five years.

The Applicant must implement the approved Rehabilitation Strategy as approved from time to time by the Secretary.

Note: The Rehabilitation Strategy must address all land impacted by the mine, whether prior to or following the date of this consent.

Rehabilitation Management Plan

- 33A. The Applicant must prepare a Rehabilitation Management Plan for the development, in accordance with the conditions imposed on the mining lease(s) associated with the Mandalong Mine under the *Mining Act 1992*.

The Applicant must implement the Rehabilitation Management Plan.

SURFACE INFRASTRUCTURE MANAGEMENT

Gas Drainage

34. The Applicant must ensure that all gas drainage pipelines (other than connection points, monitoring points, dewatering facilities, regulation points or isolation points) between gas drainage plants are buried, unless otherwise agreed with the relevant landowner, or unless burial is inappropriate for safety or other reasons, to the satisfaction of the Secretary.

Surface Infrastructure Management Plans

35. The Applicant must prepare a Gas Drainage Management Plan, a Service Boreholes Management Plan and a PED Communications Management Plan in respect of construction and use of future surface gas drainage

and management infrastructure, future service boreholes and future PED communications infrastructure, respectively, to the satisfaction of the Secretary. Each of these plans must be submitted to the Secretary for approval prior to the construction of the relevant infrastructure and must include the Applicant's commitments regarding:

- (a) community consultation;
- (b) landholder agreements;
- (c) assessment of noise, air quality, traffic, biodiversity, heritage, public safety and other impacts in accordance with approved methods;
- (d) avoidance of significant impacts and minimisation of impacts generally;
- (e) beneficial re-use or flaring of drained hydrocarbon gases, wherever practicable (in the case of the Gas Drainage Management Plan);
- (f) achievement of applicable standards and goals;
- (g) mitigation and/or compensation for significant noise, air quality and visual impacts; and
- (h) rehabilitation of disturbed sites.

The Applicant must implement the approved management plan as approved from time to time by the Secretary.

Exploration Activities Management Plan

36. The Applicant must prepare an Exploration Activities 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 approved by the Secretary;
- (b) be prepared in consultation with RR;
- (c) be submitted to the Secretary for approval within 6 months of the date of this consent or prior to carrying out exploration activities causing surface disturbance (whichever is the earlier), unless the Secretary agrees otherwise;
- (d) include a description of the measures that would be implemented for:
 - managing exploration activities;
 - consulting with and compensating affected landowners;
 - avoiding threatened species, populations or their habitats and EECs;
 - minimising clearance and disturbance of native vegetation;
 - minimising erosion and sedimentation;
 - assessing and managing bushfire risk in accordance with the provisions of *Planning for Bushfire Protection* (NSW Rural Fire Service, 2019), or its latest version;
 - achieving applicable standards and goals; and
 - rehabilitating disturbed areas.

The Applicant must implement the approved management plan as approved from time to time by the Secretary.

SCHEDULE 4 ENVIRONMENTAL CONDITIONS – UNDERGROUND MINING

SUBSIDENCE

Performance Measures – Natural and Heritage Features

1. The Applicant must ensure that the development complies with the performance measures in Table 6, to the satisfaction of the Secretary.

Table 6: Subsidence Impact Performance Measures

Watercourses	
3 rd Order and above streams	<ul style="list-style-type: none"> No connective cracking between the surface, or the base of the alluvium, and the underground workings.
Groundwater-dependent Ecosystems	<ul style="list-style-type: none"> No subsidence impact or environmental consequence greater than minor.
1 st and 2 nd Order streams	<ul style="list-style-type: none"> No subsidence impact or environmental consequences greater than predicted in the documents listed in condition 2(b) of Schedule 2. No connective cracking between the surface and the underground workings.
Aquatic and riparian ecosystems, including affected sections of Morans Creek, Wyee Creek, Tobins Creek and Mannering Creek	<ul style="list-style-type: none"> Maintain or improve baseline channel stability. Develop site-specific in-stream water quality objectives in accordance with ANZECC 2000 and <i>Using the ANZECC Guidelines and Water Quality Objectives in NSW</i> procedures (DECC 2006), or their latest versions.
Land	
Steep slopes and rock outcrops	<ul style="list-style-type: none"> No subsidence impact or environmental consequence greater than predicted in the documents listed in condition 2(b) of Schedule 2.
Agriculture	<ul style="list-style-type: none"> No loss of agricultural productivity greater than minor.
Biodiversity	
Threatened species, threatened populations and endangered ecological communities	<ul style="list-style-type: none"> Negligible environmental consequences.
Heritage sites	
Stone Arrangement RPS TBM 32	<ul style="list-style-type: none"> Negligible subsidence impacts or environmental consequences
All other Aboriginal Cultural Heritage sites/items at the site	<ul style="list-style-type: none"> No subsidence impact or environmental consequence greater than predicted in the documents listed in condition 2(b) of Schedule 2.
Mine workings	
First workings under an approved Extraction Plan beneath any feature where performance measures in this table require negligible subsidence impacts or negligible environmental consequences	<ul style="list-style-type: none"> To remain long-term stable and non-subsiding.
Second workings	<ul style="list-style-type: none"> To be carried out only within the approved mine plan, in accordance only with an approved Extraction Plan.

Notes:

- Classification of streams in accordance with Strahler stream order system.
- Detailed performance indicators (including impact assessment criteria) for each of these performance measures will be detailed in the various management plans that are required under this consent.
- Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter.

2. The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the performance measures in Table 6. Any exceedance of these 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, notwithstanding actions taken pursuant to condition 3 below. Where any exceedance of these 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 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.

Offsets

3. If the Applicant exceeds the performance measures in Table 6 and the Secretary determines that:
 - (a) it is not reasonable or feasible to remediate the impact or environmental consequences; or
 - (b) remediation measures implemented by the Applicant have failed to satisfactorily remediate the impact or environmental consequence,
 then the Applicant must provide a suitable offset to compensate for the impact or environmental consequence, to the satisfaction of the Secretary.

Note: An offset required under this condition must be proportionate with the significance of the impact or environmental consequence.

Performance Measures – Built Features

4. The Applicant must ensure that the development does not cause any exceedances of the performance measures in Table 7, to the satisfaction of the Secretary.

Table 7: Subsidence Impact Performance Measures

Table 1: Subsidence Impact Performance Measures	
Key Public Infrastructure	
M1 Motorway	Always safe and serviceable.
Main Northern Railway	
330 kV power supply infrastructure	
	Damage that does not affect safety or serviceability must be fully repairable, and must be fully repaired.
Other Built Infrastructure	
Power lines and power poles	Always safe.
Telecommunications infrastructure	Serviceability should be maintained wherever practicable.
Privately-owned residences	
Local Roads	Loss of serviceability must be fully compensated.
Other built features and improvements, (including access roads, farm dams, swimming pools, tracks and fences)	Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.
Public Safety	
Public Safety	Negligible additional risk.

Notes:

- Key public infrastructure is shown in Figure 2 of Appendix 2 and in Figure 1 of Appendix 5
- Other built infrastructure is shown in Figure 1 of Appendix 5.
- The Applicant will be required to define more detailed performance indicators for each of these performance measures in the Built Features Management Plan, Property Subsidence Management Plans and Public Safety Management Plan (see condition 6 below).
- Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter.
- Requirements regarding safety or serviceability do not preclude preventative or mitigatory actions being taken prior to or during mining in order to achieve or maintain these outcomes.
- Requirements under this condition may be met by measures undertaken in accordance with the Mine Subsidence Compensation Act 1961.

5. Any dispute between the Applicant and the owner of any built feature over the interpretation, application or implementation of the performance measures in Table 7 is to be settled by the Secretary, following consultation with RR. Any decision by the Secretary shall be final and not subject to further dispute resolution under this consent.

Extraction Plan

6. **The Applicant must** prepare an Extraction Plan for all second workings on site, to the satisfaction of the Secretary. Each Extraction Plan must:
- (a) be prepared by suitably qualified and experienced persons whose appointment has been approved by the Secretary;
 - (b) be approved by the Secretary before the Applicant carries out any of the second workings covered by the plan;
 - (c) include detailed plans of existing and proposed first and second workings and any associated surface development;
 - (d) include detailed performance indicators for each of the performance measures in Tables 6 and 7;
 - (e) provide revised predictions of the potential subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since the commencement date of this consent;
 - (f) describe the measures that would be implemented to ensure compliance with the performance measures in Tables 6 and 7, and manage or remediate any impacts and/or environmental consequences;
 - (g) include a Built Features Management Plan, which has been prepared in consultation with **RR** and the owners of affected built features, to manage the potential subsidence impacts and/or environmental consequences of the proposed second workings, and which:
 - addresses in appropriate detail all items of key public infrastructure (with particular consideration to tension/angle/suspension towers on transmission lines), and other public infrastructure;
 - has been prepared following appropriate consultation with the owner/s of potentially affected feature/s;
 - recommends appropriate remedial measures and includes commitments to mitigate, repair, replace or compensate all predicted impacts on potentially affected built features in a timely manner; and
 - in the case of all key public infrastructure, and other public infrastructure except roads, trails and associated structures, reports external auditing for compliance with ISO 31000 (or alternative standard agreed with the infrastructure owner), and provides for annual auditing of compliance and effectiveness during extraction which may impact the infrastructure;
 - (h) include a Property Subsidence Management Plan for each privately-owned property affected by the proposed second workings, prepared in consultation with the landowner, which includes:
 - a detailed structural inspection of residences and all other structures on the property;
 - a detailed subsidence impact assessment for the property, including (where relevant):
 - a flood impact assessment, including a prediction of the minimum freeboard of the residence in a 1 in 100 year ARI flood event, and, where this prediction shows the minimum freeboard at the residence to be less than 0.5 m in a 1 in 100 year ARI flood event:
 - recommends such works to raise, remediate or relocate the residence and/or provide suitable access to the property, prior to undermining the residence; or
 - where these works are unable to be undertaken, offers to acquire the whole of the property, or such part of the property requested by the landowner where subdivision is approved, in accordance with conditions 3 and 4 of Schedule 5;
 - slope stability assessments at the properties shown in Figure 2 of Appendix 5, or at any other property as nominated by the Secretary, which must:
 - be undertaken at least 12 months prior to undermining the property;
 - be undertaken in consultation with **RR**, by a suitably qualified geotechnical expert;
 - recommend measures to manage and/or mitigate the risks and impacts associated with slope instability and rock roll-out at the residence, and the risk to the safety of persons; and
 - include a timeframe for the implementation of the recommended measures;
 - soil erosion assessment, which recommends measures to avoid, mitigate and otherwise respond to increased soil erosion (including tunnel erosion) impacts; and
 - appropriate measures, commitments and timeframes to mitigate, repair, replace or otherwise compensate the impacts to the property;
 - (i) include a Water Management Plan, which has been prepared in consultation with EPA and **DPE Water**, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on watercourses and aquifers, including:
 - detailed baseline data on groundwater levels, yield and quality in the region, and in privately-owned groundwater bores that could be affected by the second workings;
 - surface water and groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse impacts on water resources or water quality;

- a program to monitor and report on stream morphology and stream flows, and assessment of any changes resulting from subsidence impacts, including scouring and ponding;
 - a program to monitor flooding (including updated flood modelling); with recommendations to minimise, manage and mitigate (whether prospectively or retrospectively) flood impacts on residences, private properties, roads, other infrastructure and other built features;
 - a groundwater monitoring program which:
 - includes a comprehensive monitoring bore network, ensuring all bore casings are above ground level and are purged before sampling;
 - samples on a monthly basis for the first two years of the development, and quarterly thereafter, unless directed by the Secretary;
 - monitors and reports on:
 - groundwater inflows to the mine;
 - background changes in groundwater yield/quality against mine-induced changes; and
 - impacts to:
 - regional and local (including alluvial) aquifers;
 - groundwater supply to private bores; and
 - groundwater dependent ecosystems and riparian vegetation;
 - a program to validate the groundwater model for the development, and compare monitoring results with modelled predictions; and
 - a plan to respond to any exceedances of the groundwater assessment criteria;
- (j) include a Biodiversity Management Plan, which has been prepared in consultation with [BCD](#), which establishes baseline data for existing habitat, including water table depth, vegetation condition, stream morphology and threatened species habitat, and provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on aquatic and terrestrial flora and fauna, with a specific focus on threatened species, populations and their habitats; endangered ecological communities; and water dependent ecosystems;
- (k) include a Land Management Plan, which has been prepared in consultation with any affected public authorities, to manage the potential impacts and/or environmental consequences of the proposed second workings on land in general;
- (l) include a Heritage Management Plan, which has been prepared in consultation with [Heritage NSW and Registered Aboriginal Parties](#), to manage the potential environmental consequences of the proposed second workings on both Aboriginal and non-Aboriginal heritage items, and reflects the requirements of [condition 22](#) of Schedule 3;
- (m) include a Public Safety Management Plan, which has been prepared in consultation with [RR](#), to ensure that the proposed second workings do not impact on public safety;
- (n) include a Subsidence Monitoring Program, which has been prepared in consultation with [RR](#) to:
- provide data to assist with the management of the risks associated with conventional and non-conventional subsidence;
 - validate the subsidence predictions;
 - analyse the relationship between the predicted and resulting subsidence effects and predicted and resulting impacts under the plan and any ensuing environmental consequences; and
 - inform the Contingency Plan and adaptive management process;
- (o) Trigger Action Response Plans addressing all features in Tables 6 and 7, which contain:
- appropriate triggers to warn of the development of an increasing risk of exceedance of any performance measure;
 - specific actions to respond to high risk exceedance of any performance measure to ensure that the measure is not exceeded; and
 - an assessment of remediation measures that may be required if exceedances occur and the capacity to implement the measures;
- (p) include a Contingency Plan that expressly provides for;
- adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Tables 6 and 7, or where any such exceedance appears likely; and
 - an assessment of the remediation measures that may be required if exceedances occur and the capacity to implement the measures;
- (q) proposes appropriate revisions to the Rehabilitation Management Plan required under [condition 33A](#) of Schedule 3; and
- (r) include a program to collect sufficient baseline data for future Extraction Plans.

[The Applicant must implement the approved Extraction Plan as approved from time to time by the Secretary.](#)

Notes:

- *This condition does not apply to mining operations covered by an approved Subsidence Management Plan in place at the date of commencement of this consent.*

- *In accordance with condition 5 of Schedule 6, the preparation and implementation of Extraction Plans may be staged, with each plan covering a defined area of underground workings. In addition, these plans are only required to contain management plans that are relevant to the specific underground workings that are being carried out.*

- 6A. The Applicant must commission an independent expert whose appointment has been endorsed by the Secretary, to carry out a review of the groundwater model for the development. This review must include a:
- review of all available monitoring data;
 - comparison of predicted and actual groundwater impacts; and
 - review of the effectiveness of the groundwater model.

The review must be undertaken and reported to the satisfaction of the Secretary. The report must be submitted to the Secretary and DPE Water prior to the approval of any Extraction Plan relating to Longwalls 24 and/or 24A.

7. The Applicant must ensure that the management plans required under conditions 6(g)-(q) above include:
- an assessment of the potential environmental consequences of the Extraction Plan, incorporating any relevant information that has been obtained since the date of commencement of this consent; and
 - a detailed description of the measures that would be implemented to remediate predicted impacts.

Archaeological Surveys

8. The Applicant must:
- use its best endeavours to undertake archaeological surveys of privately-owned land which was not surveyed in the documents listed in condition 2(b) of Schedule 2, prior to subsidence impacts occurring on that land;
 - analyse the significance of any heritage sites/items identified during the surveys; and
 - include appropriate measures to avoid, minimise and/or mitigate impacts to the identified sites/items in the Heritage Management Plan required under condition 6(l) above,
- to the satisfaction of the Secretary.

Grinding Groove Trial Mitigation

9. Prior to the extraction of Longwall 25, the Applicant must undertake trial mitigation works at grinding groove sites RPS DF04 and RPS PS11, in consultation with Forestry Corporation of NSW, Heritage NSW and Registered Aboriginal Parties, and to the satisfaction of the Secretary.
10. The Applicant must:
- monitor the effectiveness of the trial mitigation works during and following the extraction of Longwall 25;
 - provide a report on the monitoring to the Secretary, Heritage NSW and Registered Aboriginal Parties; and
 - use the report to inform the impact avoidance, management and mitigation strategies in future Extraction Plans covering other grinding groove sites,
- to the satisfaction of the Secretary.

Rock Shelter Monitoring

11. The Applicant must implement a monitoring program of subsidence effects at rock shelter sites 45-3-1228 and 45-3-1233 in the Extraction Plan for Longwalls 30-33 or, if access to these sites is not granted by the landowner, other rock shelter sites as agreed to in writing with the Secretary. This monitoring must be:
- undertaken by a suitably qualified archaeologist, whose appointment has been approved by the Secretary,
 - undertaken in consultation with Heritage NSW and Registered Aboriginal Parties; and
 - used to inform impact management of rock shelter sites under future Extraction Plans required under this consent,
- to the satisfaction of the Secretary.

First Workings

12. The Applicant may carry out first workings on site, other than in accordance with an approved Extraction Plan, provided that RR is satisfied that the first workings are designed to remain stable and non-subsiding, except insofar as they may be impacted by approved second workings.

Payment of Reasonable Costs

13. The Applicant must pay all reasonable costs:
- (a) incurred by the Department to engage suitably qualified, experienced and independent experts to review the adequacy of any aspect of an Extraction Plan; and
 - (b) to the owner of privately-owned land subject to a Property Subsidence Management Plan under condition 6(h) above, to obtain legal and/or other advice on the Property Subsidence Management Plan.
-

SCHEDULE 5 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. As soon as practicable after obtaining monitoring results showing:
 - (a) an exceedance of any relevant criteria in Schedule 3, **the Applicant must** 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 any relevant air quality criteria in Schedule 3, **the Applicant must** 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

2. If an owner of privately-owned land considers the development to be exceeding the relevant 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 must**:

- (a) commission a suitably qualified, experienced and independent person, 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 criteria in Schedule 3; and
 - if the development is not complying with these criteria, identify and implement measures to ensure compliance with the relevant criteria; and
- (b) give the Secretary and landowner a copy of the independent review.

LAND ACQUISITION

3. Within 3 months of receiving a written request from a landowner with acquisition rights, **the Applicant must** 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 project, 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;
 - (b) the reasonable costs associated with:
 - relocating within the Lake Macquarie City Council or **Central Coast** Council local government areas, 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 must** 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 must** 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.

4. **The Applicant must** pay all reasonable costs associated with the land acquisition process described in condition 3 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.
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SCHEDULE 6 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. **The Applicant must** prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:
 - (a) be submitted to the Secretary for approval prior to the commencement of construction of the MSSS, or by 31 March 2016, whichever is sooner;
 - (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 development;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the development;
 - respond to any non-compliance; and
 - 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 required to be carried out under the conditions of this consent.

The Applicant must implement the approved strategy as approved from time to time by the Secretary.

Management Plan Requirements

2. **The Applicant must** 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; and
 - 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; and
 - effectiveness of any management measures;
 - (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;
 - (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.

Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.

Application of Existing Management Plans

3. Prior to the approval of management plans under this consent, **the Applicant must** manage development undertaken pursuant to this consent in accordance with any equivalent or similar management plan/s required under development consent DA 97/800.

Relationships between Management Plans

4. The Water, Biodiversity and Heritage Management Plans required by **conditions 17, 19 and 22** of Schedule 3, respectively, are to be prepared in respect of all parts of the development that are not covered by an Extraction Plan or Subsidence Management Plan. In particular, the Water, Biodiversity and Heritage Management Plans should address all areas subject to existing or proposed surface disturbance associated with the development.

Staged Submission of Strategies, Plans or Programs

5. With the approval of the Secretary, the Applicant may submit any strategies, plans or programs required by this consent on a progressive basis.

Note: If the submission of any strategy, plan or program is to be staged, then the Applicant must ensure that existing 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.

Consolidation of Strategies, Plans or Programs

6. With the approval of the Secretary, the Applicant may incorporate any strategies, plans or programs required by this consent (except those required under condition 6 of Schedule 4) with the strategies, plans and programs required for Centennial's mining operations within the general vicinity of the development.

Revision of Strategies, Plans and Programs

7. Within 3 months of:
 - (a) the submission of an incident report under condition 10 below;
 - (b) the submission of an annual review under condition 12 below;
 - (c) the submission of an audit report under condition 13 below; or
 - (d) **the approval of a modification to this consent,****the Applicant must** review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Secretary.

Within 4 weeks of conducting any such review, the Applicant must advise the Secretary of the outcomes of the review, and provide any revised documents to the Secretary for review and approval.

Note: This condition ensures that strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.

Adaptive Management

8. The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedules 3 and 4. 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 reoccur;
 - (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.

Community Consultative Committee

9. The Applicant must establish a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. This CCC must be operated in general accordance with the **Community**

Consultative Committee (CCC) Guidelines for State Significant Projects (Department of Planning, 2016) 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.*
- *In accordance with the Guidelines, the CCC must include an independent chair and appropriate representation from the Applicant, Council, recognised environmental groups and the local community.*
- *This condition may be satisfied by a CCC for the Mandalong Mine already in place as at the date of this consent, and the Secretary will accept continued representation from existing CCC members.*
- *The requirement for this CCC may be fulfilled by a regional CCC for Centennial's mines and mine infrastructure in the Central Coast/Lake Macquarie areas.*

REPORTING

Incident Reporting

10. The Applicant must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing via the Major Projects Website and identify the development (including the development application number and name) and set out the location and nature of the incident. Within 7 days of the date of the incident, the Applicant must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

Non-Compliance Notification

- 10A. Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing via the Major Projects Website and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

Note: A non-compliance which has been notified as an incident does not also need to be notified as a non-compliance.

Regular Reporting

11. The Applicant must regularly report 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.

ANNUAL REVIEW

12. By the end of March each year, or as otherwise agreed by the Secretary, the Applicant must submit a report to the Department reviewing the environmental performance of the development to the satisfaction of the Secretary. This review must:
 - (a) 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;
 - (b) include a comprehensive review of the monitoring results and complaints records of the development over the past calendar year, which includes a comparison of these results against the:
 - (i) relevant statutory requirements, limits or performance measures/criteria;
 - (ii) requirements of any plan or program required under this consent;
 - (iii) monitoring results of previous years; and
 - (iv) relevant predictions in the documents identified in condition 2(a) and (b) of Schedule 2;
 - (c) identify any non-compliance over the past calendar 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 current calendar year to improve the environmental performance of the development.

INDEPENDENT ENVIRONMENTAL AUDIT

13. By 31 March 2016, and every 3 years thereafter, unless the Secretary directs otherwise, **the Applicant must commission, commence** 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 relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
 - (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;
 - (e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals; **and**
 - (f) **be conducted and reported to the satisfaction of the Secretary.**
- Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.*
14. Within **12 weeks of commencing** this audit, or as otherwise agreed by the Secretary, **the Applicant must** submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, **and a timetable for the implementation of any measures proposed to address the recommendations.**

ACCESS TO INFORMATION

15. Within 3 months of the date of this consent, **the Applicant must:**
- (a) make copies of the following publicly available on its website:
 - (i) the documents referred to in condition 2(a) and (b) of Schedule 2;
 - (ii) all current statutory approvals for the development;
 - (iii) all approved strategies, plans and programs required under the conditions of this consent;
 - (iv) a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
 - (v) a complaints register, updated monthly;
 - (vi) minutes of CCC meetings for the last 2 years;
 - (vii) the annual reviews of the development;
 - (viii) any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit;
 - (ix) 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

Lot	Sch	DP
68		755271
172		755271
21		248498
11		872456
82		755238
201		855397
16		248498
200		855397
5		247539
18		248498
226		755271
14		248498
192		755238
1		822126
502		730395
3		552101
1		552101
2		552101
501		730395
4		253901
21		631659
2		253901
A		389823
2		620993
186		755271
902		541065
902		542306
2		862597
2		1001669
43		755238
2		1154049
122		1140714
195		755238
6		111906
10		650915
107		755238
118		755238
29		755238
60		9632
116		755238
1		552883
3		261460
5		755238
861		835160
4		957458
903		542306
52		755238
18		813385
180		755238
12		582283
90		755238
93		9632
41		1037312
25		755238
1		834388
114		755238
31		826779
1		392111
42		1037312
41		755238
181		859434
54		755238
5		8926
2		851648
12		869483
1062		878387

Lot	Sch	DP
1		823774
21		812406
2		504749
6		261460
14		813385
47		755238
13		813385
51		851636
27		829792
580		733227
731		719040
30		826779
132		755238
1		840145
2		840145
11		869483
1002		819530
302		878333
5		568228
1		1001669
1		862597
49		815727
7		800491
10		800491
36		755238
4		7917
1001		819530
7		8926
92		661018
8		7917
2		7917
5		253901
121		1140714
112		1113510
111		1113510
2		834388
33		610386
1		357347
61		858044
2		132398
142		1052663
8	13	13447
23	6	13447
1	12	13447
5	12	13447
11	12	13447
9	12	13447
10	12	13447
300		832473
7	12	13447
12	12	13447
8	12	13447
		76485
20		1064820
355		755242
		83865
		81673
		81078
71		1112050
70		1112050
661		1115844
2		1017178
7079		1073310
24		1064820
28		1064820
2		854428

Lot	Sch	DP
5		10720
162		848737
7023		1068373
7025		1030778
141		1052663
101		828713
524		771299
		70240
3		10720
212		1012916
209		1012916
11		46770
8		46770
543		727762
91		857037
203		1012916
207		1012916
5		324031
214		1012916
202		1012916
1		560664
7003		1030927
545		727762
544		727762
216		1012916
		70849
208		1012916
222		1012916
125		882928
215		1012916
7		46770
12		46770
218		1012916
4		46770
210		1012916
2		46770
127		882928
307		1006483
53		867406
308		1006483
24		13318
17		13318
15		13318
19		13318
15	13	13447
7024		1068372
		71661
13	23	758707
18		13318
20		13318
		68621
22		13318
324		1006483
312		1006483
315		1006483
22		8009
3		13318
54		9632
11		261891
10		261891
1		555891
2		10720
4		262159
100		715718
1		1088606
115		882928

Lot	Sch	DP
		76102
10		1088606
11		1088606
6		775655
15		262159
2		262159
122		882928
107		882928
9		262159
106		882928
11		777034
2		557230
403		1001919
1034		1049569
9		13318
5		748323
323		1006483
322		1006483
404		1001919
405		1001919
7		262159
13		262159
5		262160
84		9632
46		9632
83		9632
34		9632
36		9632
30		664329
8		262159
10		775655
7		775655
2		1099987
1		1099987
17		236664
14		236664
24		21403
7		21403
34		21403
4		21403
8		21403
16		21403
26		21403
2		21403
1		120999
25		21403
10		21403
33		21403
32		585407
39		21403
29		21403
28		21403
44		21403
11		21403
35		21403
36		21403
13		21403
30		21403
15		236664
18		236664
4		236664
40		21403
32		21403
7		236664
11		571835
42		21403

Lot	Sch	DP
31		585407
23		21403
3		21403
31		21403
38		21403
3		236664
1		555211
22		21403
F		21403
12		21403
14		21403
6		236664
1		661791
37		21403
15		21403
20		236664
5		21403
1		236664
41		21403
1		21403
E		21403
B		21403
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8		585401
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7		585400
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5		585400
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15		585403
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18		585403
16		585403
51		25812
1		309399
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192		592808
5		958953
2		505715

Lot	Sch	DP
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191		592808
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11		236664
33		585407
4		585399
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		66365
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7036		93590
100		624192
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2		1002965
7		17737
2		17737
4		208441
6		17737
26		508705
27		508705
7039		93587
101		624192
3		208441
3		17737
28		508705
5		17737
3		1014877
35		9632
4		17737
7		1014877
33		9632
3		1002965
7047		93594
152		755242
7042		93588
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75		755242
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12		31746
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C		369364
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8		31746
21		1069976
161		872445
163		755242
4		1045010
13		31746
143		755242

Lot	Sch	DP
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83		755242
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85		755242
146		755242
60		755242
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141		755242
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21	2	758707
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13	43	758707
9	21	758707
3		1045010
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2		21373
272		1006208
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58		755242
160		755242
161		755242
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14		31746
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12	2	758707
1	5	758707
3	31	758707
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4	31	758707
16		11249
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A		103559
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7	23	758707
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Lot	Sch	DP
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11	43	758707
9	18	758707
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164		1169663
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153		755242
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B		369364
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123		866321
559		1025295
9		215590
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2	10	758707
12	9	758707
10		8009

Lot	Sch	DP
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14	43	758707
18	20	758707
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3	20	758707
15	21	758707
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29		11249
10	3	758707
14	26	758707
5	9	758707
8		22944
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5		22034
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25		11249
8	33	758707
2		22034
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3		8009
11	9	758707
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17	3	758707
2	33	758707
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15		8009
7		8009
101		872891

Lot	Sch	DP
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7325		1141789
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43		1094102
7056		1124688
469		755242
7032		93586
178		755242
46		1183213
166		1182991
165		1182991
126		1171789
125		1171789
122		1171789
107		1171789
104		1171789
118		1171789
119		1171789
120		1171789
121		1171789
101		1171789
1		1164463
3		1164463
1		1163044
134		1150713
136		1150713
131		1150713
7327		1141932
		79692
181		1097047
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102		869330
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86		755242
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124		755242
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11	15	758707
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8	14	758707
4	10	758707
1	24	758707
7	24	758707
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533		720684
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Lot	Sch	DP
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4		1053723
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11	12	758707
4	14	758707
10	24	758707
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13	24	758707
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14	10	758707
7	14	758707
4		221493
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3	24	758707
20	24	758707
10	10	758707
11		262205
11	10	758707
1	25	758707
B		432124
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1		921363
16	24	758707
15	15	758707
163		872460
8	10	758707
7	11	758707
7	12	758707
12		594056
176		755242
3	15	758707
2		1053723
17	24	758707
530		704462
28		854657
341		1048875
201		536216
342		1048875
381		864650
569		1040179
21		866905
64		854657
564		1040179
63		555770
60		854657
962		1006265
90		650040
117		1000690
85		1006474
732		857114
566		1040179
39		854657
6		21063
7043		93598
35		854657
17		854657
13		854657
		53836
31		854657
151		1044544
87		1006474
411		1044138

Lot	Sch	DP
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123		558570
46		854657
562		1040179
68		854657
91		1006474
71		854657
5		854657
565		1040179
731		857114
79		854657
124		558570
7052		1055701
4		21063
20		854657
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343		755242
127		755242
7069		1021263
72		1044657
3		514880
6		264590
1		246326
4		246326
27		854657
4		854657
192		719818
40		854657
92		755242
87		755242
72		854657
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14		594056
461		755242
478		755242
101		862162
32		854657
101		869330
460		755242
343		567025
111		792868
70		854657
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43		854657
2		514880
2		563829
131		801632
4		264590
7		854657
74		854657
125		755242
504		755242
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1		21063
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142		610758
102		706551
2		21063
402		632295
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47		854657
25		854657
22		854657
78		854657
408		755242
13	27	758707
18	15	758707

Lot	Sch	DP
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15	11	758707
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28	45	1996
19	14	758707
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9	10	7495
15	7	1996
36	43	1996
17	20	7495
6	32	1996
2	41	1996
25	17	1996
5	42	1996
2	9	7495
26		854657
6	14	7495
11	49	1996
48		854657
221		877678
41		854657
171		633298
1		582295
10		854657
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26	48	1996
7	14	1996
8	41	1996
21	33	1996
8	23	1996
28	11	1996
30	42	1996
4	43	1996
22	46	1996
30	39	1996
22	31	1996
3	44	1996
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6	49	1996
4	20	7495
2	3	7495
10	13	7495
401		632295
10	22	1996
13	49	1996
18	11	1996
14	27	7495
2	6	7495
9	35	1996
13	3	7495
4	3	7495
21	17	1996
3	25	7495
27	41	1996
3	16	1996
6	9	7495
1	41	1996
12	17	1996
10	43	1996
101		884142

Lot	Sch	DP
17	23	1996
46		571738
4	49	1996
42	43	1996
20	31	1996
11	42	1996
302		1043732
21	48	1996
2	5	7495
23	49	1996
2		1033665
21	41	1996
12	29	7495
38	30	1996
5	18	7495
39	43	1996
24	48	1996
1	42	1996
6	24	7495
9	48	1996
3	7	7495
14	12	1996
6	20	7495
4	2	7495
11	39	1996
10	45	1996
5	9	7495
5	40	1996
20	48	1996
5	12	1996
4	12	1996
102		884142
18	45	1996
3	33	1996
6	15	7495
8	28	7495
5		24502
14	14	7495
5	5	7495
23	47	1996
8	14	7495
1	4	7495
16	22	1996
14	33	1996
6	43	1996
32	43	1996
1	14	7495
3	3	7495
9	42	1996
14	22	1996
18	32	1996
10	27	7495
19	32	1996
11	48	1996
15	48	1996
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12	1	1996
12	22	1996
1	5	7495
9	47	1996
11	16	1996
1		514880
10	29	7495
25	36	1996
15		854657
171		569306
14		854657
172		569306
2		568690

Lot	Sch	DP
69		854657
63		854657
101		706551
82		566373
2		1045978
9	19	7495
200		875138
1	34	1996
9	20	7495
8	16	1996
7	27	7495
201		875138
16	30	1996
3	41	1996
1	8	1996
36	30	1996
34	40	1996
5	14	7495
7	30	1996
5	1	1996
3	32	1996
2	17	1996
10	46	1996
29	17	1996
1	7	7495
5	20	7495
7	5	7495
13	33	1996
18	39	1996
22	48	1996
2		516048
9	15	7495
3	43	1996
19	28	7495
39	3	1996
10	49	1996
5	49	1996
10	39	1996
7	18	7495
5	24	7495
23	46	1996
10	26	7495
3	1	1996
6	12	7495
35	30	1996
8		24502
11	19	7495
271		731388
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12	45	1996
29	39	1996
25	11	1996
18	47	1996
7	22	1996
45	30	1996
13	30	1996
5	15	7495
20	30	1996
10	25	7495
82		559739
10	31	7495
13	48	1996
23	30	1996
13	32	1996
21	30	1996
11	25	7495
21	31	1996
13	27	7495
42	30	1996

Lot	Sch	DP
8	46	1996
38	27	1996
9	45	1996
6	16	1996
9	22	1996
9	41	1996
3	5	7495
7	28	7495
42		1061369
7		24502
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12	7	1996
4	47	1996
13	39	1996
21	16	1996
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14	20	7495
22	43	1996
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12	3	7495
6	5	7495
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26	42	1996
13	1	1996
12	15	7495
2	1	1996
25	42	1996
31	46	1996
9	23	1996
15	11	1996
6	39	1996
13	16	1996
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151		574245
16	48	1996
50		854657
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2	33	1996
15	41	1996
19	29	7495
33	30	1996
13	15	7495
202		549422
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341		567025
62		854657
32		1035689
2		525617
21		854657
64		555770
67		854657
17	2	1996
9	25	7495
1	43	1996
14	49	1996

Lot	Sch	DP
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7	8	1996
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16	49	1996
24	49	1996
4	13	7495
20	49	1996
8	27	7495
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2	25	7495
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10	23	1996
17	43	1996
3	39	1996
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15	31	7495
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12	20	7495
14	32	1996
13	47	1996
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5	14	1996
19	41	1996
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14	31	7495
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13	29	7495
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25	46	1996
11	26	7495
34	30	1996
15	24	7495
7	39	1996
11	10	7495
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11	30	1996
4	19	7495
9	31	7495
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16	47	1996
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12	42	1996
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18	20	7495
5	25	7495
8	12	1996
26	32	1996
23	48	1996
14	29	7495
19	31	1996
13	17	1996
3	28	7495
101		831082
9	26	7495

Lot	Sch	DP
550		729024
8	15	7495
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102		546936
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32	30	1996
33	43	1996
2	4	7495
301		1007084
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25	43	1996
6	12	1996
7	21	7495
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10	32	1996
3	14	1996
14	15	7495
14	48	1996
5	33	1996
20	41	1996
1	25	7495
7	16	1996
26	30	1996
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5	27	7495
19	11	1996
27	30	1996
22	49	1996
32	17	1996
3	20	7495
3	10	7495
4	14	7495
7070		1021262
12	25	7495
10	10	7495
1	17	1996
28	48	1996
121		1093163
52		1092257
340		755242
341		755242
459		755242
115		1094421
11	27	7495
100		1088623
102		1182075
131		1171789
110		1171789
109		1171789
113		1171789
115		1171789
132		1171789
412		1149105
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11		1145045
11		1140859
14		1140859
7301		1141022
51		1123011
7308		1138891
102		1129336
101		1129336
1011		1128828
44		1125666
46		1125666
47		1125666
1		1107398

Lot	Sch	DP
32		1104806
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102		1075098
143		15150
772		566928
111		15150
91		4800
126		15150
106		15150
34		790154
2		608315
125		15150
78		4800
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101		15150
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138		15150
48		7744
122		15150
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16		722264
6	29	7495
1	3	7495
4	9	7495
7	15	7495
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8	43	1996
31	43	1996
9	30	1996
7	33	1996
3	14	7495
1	U	6747
30	30	1996
5	30	1996
871		792373
22	39	1996
6	18	7495
100		880216
31	42	1996
6	42	1996
16	7	1996
8	45	1996
90		872723
27	48	1996
6	30	1996
200		1039941
3	C	16511
15	33	1996
7	35	1996
5	8	1996
10	42	1996
21	36	1996
2		615504
12	31	7495
16	29	7495
78		778375
1	D	16511
1		303221
8	C	16511
1	31	7495
102		831082
6	25	7495
1	36	1996
2	43	1996
19	17	1996
802		878765
10	19	7495
2	D	16511
17	S	6747

Lot	Sch	DP
15	A	7766
8	D	16511
7	C	16511
9	C	16511
15	16	1996
8	29	7495
18	29	7495
3	D	16511
151		15150
12	S	6747
134		15150
124		15150
150		15150
16	A	7766
761		553373
70		4800
79		778375
874		792373
8	B	7766
149		15150
16		6325
6		7744
2		7744
1	4	2799
26	3	2799
31	1	2799
1		505054
61		19828
9		7744
12		7744
28	3	2799
11		793589
2		573133
151		844839
30	1	2799
1		816174
10		7744
391		556611
66		12993
27		262501
5		7744
16	1	2799
2		564573
16	3	2799
22		548495
42		7744
27	3	2799
5		6325
2		585399
2		555883
25		12993
11	4	2799
93		19828
49		7744
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2		801501
2		816174
51		612189
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10	4	2799
45		7744
50		7744
3		865799
1		7744
10	1	2799
2		505054
68		12993
1		456508

Lot	Sch	DP
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411		520793
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1		365231
2		732167
84		19828
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168		15150
11	B	7766
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762		553373
123		15150
1		235035
4		865799
133		15150
1		46724
114		15150
1		780248
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7005		1032132
144		15150
1		555883
89		4800
65		4800
751		563578
421		556602
135		15150
120		15150
22		585404
71		4800
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155		15150
5	B	7766
116		15150
3	B	7766
103		15150
B		358934
3		235035
11		803750
102		15150
130		15150
8A	A	7766
79		4800
7A	A	7766
6	B	7766
11		839702
6	A	7766
100		862723
154		15150
153		15150
872		792373
13	S	6747
4	B	7766
6A	A	7766
7	D	16511
13	A	7766
5	D	16511
210		883447
3		712811
15	S	6747
4	D	16511
202		619145
3	3	2799
16	2	2799
5	3	2799
431		604046

Lot	Sch	DP
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26		12993
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34		4800
102		19828
68		19828
35	1	2799
28		585406
95		19828
80		19828
9		6325
12		793589
51		615359
12	1	2799
65		19828
24	1	2799
412		520793
90		19828
14	1	2799
3	4	2799
19		585404
76		19828
69		12993
67		12993
A		363123
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23		6325
33	1	2799
69		19828
85		19828
13		6325
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3		585399
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13		793589
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21	1	2799
11	3	2799
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12	4	2799
83		19828
18		6325
70		794193
89		19828
15		793589
25	3	2799
77		19828
1		573133
24		6325
81		19828
3		755242
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17		6325
82		19828
3		6325
118		521713
63		19828
31		790154
210		545241
41		575937

Lot	Sch	DP
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11		828895
2		624849
167		15150
2		777422
27		585406
10		17011
211		545241
447		755242
27		456275
46		4800
31		4800
2		629227
283		563610
47		4800
116		659006
12		828895
2		853595
27		4800
7008		1030354
1		178951
23		4800
351		554283
42		612282
24		4800
1		555953
A		103242
1		621697
1		654586
1		17011
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33		790154
60		16770
40		6961
67		9149
26		585405
107		9149
71		9149
70		9149
24		12993
101		9149
61		12993
46		12993
1		310026
441		517403
31		12993
39		16770
54		9149
2		538275
99		9149
52		16770
115		9149
83		9149
1		524410
49		9149
A		103687
38		6961
14		259424
2		524410
66		9149
74		9149
90		9149
32		12993
64		9149
43		9149
37		16770
114		9149
17		12993
112		9149

Lot	Sch	DP
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362		614968
23		16770
64		12993
37		528601
19		16770
27		16770
77		9149
40		16770
75		9149
27		9149
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4		1180679
		79427
11		1114114
7010		1115300
11		1103785
16		793589
14		819512
1		865799
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32		4800
A		447420
8		17011
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1		317437
169		15150
4		4800
2		555953
42		575937
251		1031184
26		456275
7003		1021488
52		615359
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15		653823
2		865799
1032		834199
106		9149
502		589634
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57		9149
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44		9149
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25		585405
77		12993
37		12993
411		777642
9		663685
92		9149
8		16770
24		585405
61		9149
201		563005
94		9149
11		533825
63		9149
55		9149
252		1069932

Lot	Sch	DP
501		589634
56		12993
112		867567
20		12993
46		9149
36		9149
56		9149
95		9149
16		16770
74		12993
101		570320
38		9149
108		9149
30		12993
73		9149
86		9149
31		16770
87		9149
57		16770
23		585405
45		9149
302		563457
5		16770
82		9149
31		563340
36		16770
58		9149
3		734844
22		557595
39		9149
96		9149
113		867567
9		12993
9		16770
121		712787
22		12993
251		1069932
7		16770
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14		12993
412		777642
84		9149
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110		9149
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13		12993
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76		9149
47		9149

Lot	Sch	DP
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113		9149
42		12993
89		9149
37		9149
59		16770
26		16770
49		12993
39		12993
38		16770
28		9149
3		1102901
120		9149
119		9149
345		1134469
11		1098712
171		755218
108		755218
2		1180679
5		1180679
21		264503
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14	A	1014
24		264502
2	B	1014
14	B	1014
169		755218
13	B	1014
11	B	1014
12		264503
10	B	1014
5	B	1014
10		1050120
13	C	1014
10		262501
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2	C	1014
3		785604
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1	A	6747
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16		262501
9	B	1014
8	C	1014
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211		702166
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6	C	1014
3	A	1014
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11		262501
12		262501
7	B	1014
152		755218
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3	A	6747
184		755218
179		755218
14		262501
6	A	1014
6	B	1014
4	A	6747
4	A	1014
12	C	1014
1		831211

Lot	Sch	DP
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151		755218
15	B	1014
15	A	1014
3	B	1014
16	A	1014
70		658756
113		755218
4	F	1021
5	F	1021
8	B	1014
18	A	1014
112		755218
5		755218
1	A	1014
109		866864
221		702167
9	A	1014
3	F	1021
114		755218
150		755218
109		755218
108		866864
1		537355
10		755218
187		755218
173		755218
7	C	1014
13	F	1021
1	F	1021
1	N	1021
14	F	1021
2	F	1021
5	A	1014
6	F	1021
6	N	1021
220		702167
186		755218
110		755218
4	B	1014
6		755218
12	B	1014
2		537355
5	N	1021
7	F	1021
5	A	6747
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4		264501
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6	U	6747
111		755218
16	O	6747
10	A	6747
10		264503
53		755218
116		755218
13		264503
12	U	6747
20		129122
6	A	6747
7	A	6747
11	U	6747
7	U	6747
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25		129122
16	U	6747
14	O	6747
23		264502

Lot	Sch	DP
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23		129122
1		609712
14	E	1014
8	E	1014
2	E	1014
12	E	1014
12	A	1014
7	E	1014
10	A	1014
11	A	1014
11	E	1014
13	A	1014
17		654841
9	E	1014
1	E	1014
2		609712
13	E	1014
10	E	1014
4	E	1014
3	E	1014
7	D	1014
1	D	1014
6	E	1014
13	D	1014
9	D	1014
10	C	1014
5	D	1014
15		129157
3	D	1014
8	D	1014
15	D	1014
11	D	1014
4	D	1014
12	D	1014
14	D	1014
9	C	1014
122		709158
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11	I	1021
25	I	1021
17	I	1021
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13	G	1021
14	G	1021
22	J	1021
23	J	1021
16	G	1021
20	J	1021
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18	J	1021
21	J	1021
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10	L	1021
7	G	1021
9	H	1021
9	F	1021
9	L	1021
11	J	1021
6	G	1021
9	G	1021
2	J	1021
10	J	1021
4	L	1021
11	F	1021

Lot	Sch	DP
22	I	1021
12	I	1021
3	K	1021
18	I	1021
4	H	1021
2	H	1021
12	J	1021
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14	J	1021
15	I	1021
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8	L	1021
7	J	1021
11	C	1014
3	H	1021
2	L	1021
1	I	1021
6	D	1014
6	L	1021
12	F	1021
3	J	1021
15	E	1014
7018		93179
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21	I	1021
14	I	1021
24	I	1021
7	I	1021
6	I	1021
13	I	1021
208		755218
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17	J	1021
2	D	1014
13	J	1021
5	J	1021
11	G	1021
3	L	1021
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12	L	1021
4	G	1021
3	N	1021
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15	L	1021
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8	G	1021
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3	I	1021
4	J	1021
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2	I	1021
29	I	1021
8	J	1021
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1	M	1021
10	D	1014
7	K	1021
8	H	1021
6	H	1021
6	J	1021
8	F	1021
10	G	1021
15	G	1021
13	L	1021

Lot	Sch	DP
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9	J	1021
2	G	1021
1	H	1021
7	H	1021
4	N	1021
16	I	1021
10	F	1021
6	K	1021
15	J	1021
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11	L	1021
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3	G	1021
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5	H	1021
19	J	1021
95		755223
81		755238
51		854475
98		9632
154		755238
722		864902
723		864902
621		711394
102		9632
101		9632
724		864902
725		864902
51		714494
4		755238
105		658253
100		9632
721		864902
33		755238
50		854475
96		9632
18		755238
16		755238
100		755223
1		873022
7		665945
1		919600
113		755238
7001		93610
2		873022
1582		1020097
1042		630642
1		207226
2		711459
134		755223
3		711459
61		629128
661		878061
1		878414
68		755238
1		111906
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652		878062
5		248590
4		878414
660		878061
3		878414
143		755218
21		129122
15		755218
7311		1163329
4		262501
9		262501

Lot	Sch	DP
211		831749
7		262501
B		378498
302		806475
17		1031463
B		319704
1612		587100
16	K	6747
8	L	6747
22	T	6747
9	L	6747
12	L	6747
13	K	6747
5	N	6747
22	N	6747
6	N	6747
2	T	6747
6	L	6747
32	T	6747
5	T	6747
1	T	6747
20	N	6747
4	T	6747
3	T	6747
12		792921
20	T	6747
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31	T	6747
21	N	6747
2	N	6747
18	N	6747
330		710063
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51		1170075
31		1158510
30		1158510
29		1158510
28		1158510
27		1158510
23		1158510
21		1158510
7310		1163329
32		1158510
40		1136903
100		1123220
350		1120370
71		1121465
190		1115299
15		21486
136		776411
21	J	27655
12	J	27655
53		7744
2		256201
11	J	27655
161		1028142
36		862349
156		755218
18		836004
162		1028142
1621		601496
159		15150
12		857352
158		15150
6	J	27655
36		16511
15	N	6747
11	N	6747

Lot	Sch	DP
17	C	16511
1172		876055
3	36	1996
14	J	27655
18	D	16511
97		749085
82		749085
89		749085
2	J	27655
22	V	6747
20	D	16511
93		749085
10	N	6747
18	34	1996
10	D	16511
18	44	1996
13	J	27655
39		707797
8	44	1996
23	V	6747
5	J	27655
8	J	27655
16	J	27655
11	40	1996
17	J	27655
9	J	27655
13	D	16511
15	J	27655
21	V	6747
27		707797
56		737287
46		737287
59		737287
24	V	6747
48		1000757
62		737287
23	D	16511
14	44	1996
13	C	16511
18	M	6747
29	D	16511
18	C	16511
26	D	16511
25	C	16511
37		16511
31	C	16511
10	44	1996
38		16511
29	C	16511
26	C	16511
16	D	16511
10	M	6747
4	36	1996
9	M	6747
31		737287
11	M	6747
17	M	6747
49		737287
13	34	1996
1	J	27655
123		749085
12	D	16511
27	C	16511
135		1012067
8	36	1996
52		737287
12		707797
52		1000757
26	40	1996

Lot	Sch	DP
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104		712898
47		707797
13	44	1996
37		737287
115		749085
129		749085
3		869320
215		713574
201		713574
103		1012067
126		712898
205		713574
47		1000757
185		776411
131		712898
73		1000757
65		1000757
118		1012067
112		712898
2		1068682
74		1000757
34		862349
49		1000757
33		862349
35		1017406
105		1012067
8		809450
121		712898
124		1012067
204		713574
104		1012067
120		712898
1		1039133
117		712898
136		712898
14		836004
138		1012067
210		713574
43		707797
47		737287
16	36	1996
29		707797
29	40	1996
64		1000757
25		707797
2		1033254
14	L	27655
46		707797
84		749085
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32		737287
4	L	27655
8	L	27655
18		707797
22	40	1996
33		707797
24		707797
73		737287
128		749085
10	40	1996
86		749085
61		737287
52		707797
10		707797
5	L	27655
28		737287
35		737287
68		1000757

Lot	Sch	DP
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7	L	27655
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		72319
8	40	1996
24	44	1996
99		749085
72		1000757
108		749085
75		737287
45		707797
20		707797
67		737287
2		545991
111		749085
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65		737287
41		707797
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6	L	27655
63		737287
68		737287
34		707797
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36		737287
1802		859061
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83		749085
21	40	1996
53		737287
131		749085
11	37	1996
25		737287
16	44	1996
51		707797
58		737287
57		737287
11	44	1996
30		707797
5		707797
16	37	1996
27	40	1996
15	L	27655
142		712898
45		1000757
135		712898
85		749085
15	37	1996
132		749085
9		857352
3		836004
26		21486
117		1014052
179		21486
53		21486
197		21486
24		21486
97		21486
22		21486
105		1014052
55		21486
107		21486
176		21486
160		776411
16		21486
104		21486
140		21486

Lot	Sch	DP
9		733537
92		1014052
80		21486
150		776411
81		1014052
76		21486
125		1014052
18		21486
194		21486
42		21486
9		21486
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19		836004
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206		1012069
181		21486
30		21486
185		21486
119		1014052
203		21486
152		776411
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167		776411
102		1014052
15		733537
191		21486
14		857352
158		21486
50		21486
16		733537
154		776411
66		21486
83		21486
57		21486
78		1014052
7		733537
212		1012069
81		21486
198		21486
37		21486
186		21486
171		21486
103		1014052
61		1031962
124		21486
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163		776411
33		21486
247		1012069
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133		712898
59		1000757
213		713574
142		1012067
105		712898
134		1012067

Lot	Sch	DP
221		713574
1270		855250
116		712898
207		713574
32		862349
55		1000757
51		1000757
218		713574
6		857352
107		712898
214		713574
11		857352
128		1012067
4		836004
39		862349
63		1000757
11	36	1996
13		707797
42		707797
252		1054900
42		737287
124		749085
102		749085
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116		1012067
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131		1194754
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82		755242
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208		1192775
209		1192775
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7006		1030795
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504		1190384
503		1190384
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212		1188324
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214		1188324
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573		1184702
132		830729
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400		1204905
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422		1204905
421		1204905
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419		1204905
415		1204905
412		1204905
410		1204905
101		1199161
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101		1183537
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314		1197605
		73547
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175		755271
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347		755242
38		755238
142		755238
3	C	1014
5	K	1021
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8	I	1021
5	I	1021
20	I	1021
2	K	1021
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19	I	1021
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317		1200435
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101		1088623
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Lot	Sch	DP
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77		755242
19	16	758707
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		76806
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322		1200435
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79		755238
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78		755238
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104		1183537
231		1196537
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		90676

Lot	Sch	DP
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407		1204905
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12		1189481
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Lot	Sch	DP
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235		1012069
237		1012069
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233		1012069
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101		1171436
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35		862349
38		862349
87		1014052
184		776411
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221		1012069
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86		21486
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Lot	Sch	DP
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Lot	Sch	DP
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111		21486
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71		21486

Lot	Sch	DP
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113		749085
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98		749085
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17	36	1996
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13	36	1996
49		707797
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80		749085
62		845120
71		737287
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B		384417
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44		707797
126		749085
40		737287
125		749085
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22		707797
17	44	1996
15		707797
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13	37	1996
23	40	1996
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27		737287
3	L	27655
31		707797
14	36	1996
12	40	1996
48		737287
28		707797
7	44	1996
26		707797
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69		737287
77		737287
1		545991
45		737287
122		749085
96		749085
10	L	27655
109		749085
6		707797
76		737287
14	34	1996
88		749085

Lot	Sch	DP
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104		749085
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1	L	27655
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43		737287
66		737287
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120		749085
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11	L	27655
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36		707797
50		737287
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4		285348
11		707797
87		749085
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21		707797
55		737287
7078		1051719
115		1012067
220		713574
137		712898
122		712898
58		1000757
41		862349
7		809450
32		786927
21		836004
129		1012067
127		712898
130		1012067
102		1012067
206		713574
101		712898
202		713574
53		1000757
140		712898
139		712898
211		713574
62		1000757
122		1012067
58		854657
106		1012067
109		712898
155		776411
101		1012067
166		21486
22		836004
25	40	1996
16	40	1996
100		749085
31		862349
9	44	1996
33		737287

Lot	Sch	DP
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203		713574
7	37	1996
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64		737287
130		749085
18	J	27655
2	37	1996
A		384417
101		749085
30	D	16511
54		737287
95		749085
20	C	16511
110		749085
14	C	16511
112		749085
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19	M	6747
26	V	6747
9		707797
28	C	16511
15	D	16511
19	D	16511
15	36	1996
20	M	6747
3	37	1996
1		846040
24	C	16511
23	C	16511
14	N	6747
13	L	27655
12	N	6747
23	44	1996
48		707797
17		707797
4	J	27655
1171		876055
37		707797
17	40	1996
4	37	1996
25	V	6747
35		707797
28	D	16511
27	D	16511
12	M	6747
13	40	1996
94		749085
81		749085
50		707797
13	M	6747
117		749085
15	C	16511
19	C	16511
107		749085
103		749085
114		749085
38		737287
39		737287
19	34	1996
21	44	1996
116		749085
12	37	1996
7	40	1996
25	D	16511
30		737287
3	J	27655
21	M	6747

Lot	Sch	DP
44		737287
9	37	1996
8	M	6747
10	J	27655
10	36	1996
91		749085
19	J	27655
5		285348
18	36	1996
22	44	1996
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145		1012067
222		713574
119		1012067
125		712898
15		857352
117		1012067
46		1000757
B		319453
126		1012067
56		854657
40		862349
115		712898
108		1012067
120		1012067
136		1012067
37		862349
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1091		1101362
		79093
152		1133983
151		1133983
41		1136903
341		1153561
33		1158510
22		1158510
24		1158510
25		1158510
26		1158510
102		1171937
101		1171937
61		1176383
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17	D	16511
9	N	6747
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21	D	16511
30	C	16511
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19	V	6747
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19	N	6747

Lot	Sch	DP
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3	M	6747
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16	L	6747
15	L	6747
14	K	6747
7	L	6747
17	K	6747
6	T	6747
5	L	6747
15	K	6747
18	L	6747
7	N	6747
3	N	6747
14	M	6747
4	L	6747
25	T	6747
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9	J	6747
22	C	16511
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10	J	6747
27	T	6747
A		319453
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A	T	319704
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118		840182
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A		954714
1620		601496
212		831749
A		378498
16		1031463
8		262501
12		773686
301		806475
6		262501
11		773686
18		1099798
1581		1020097
2		248590
1041		630642
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88		755238
117		755238
651		878062
3		248590
4		248590
5		111906
2		111906
61		9632
94		9632
4		111906
95		9632
49		755238
141		755238
3		111906
97		9632
99		9632
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Lot	Sch	DP
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54		12993
4		12993
23		12993
29		16770
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45		12993
14	U	6747
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15	U	6747
47		12993
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33		12993
10		12993
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10	U	6747
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18		12993
85		9149
34		12993
13	U	6747
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65		12993
100		570320
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32		563340
3		524013
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122		712787
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17		16770
5	U	6747
102		9149
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28		12993
28		16770
22		16770
58		16770
1	M	6747
41		12993
24		16770
4		16770
301		563457
36		12993
43		12993
196		755238
25		4800
40		4800
202		563005
5		4800
121		706627
129		755242
2		307645
420		556602
6		17011
13		262501
22		262501
19		262501

Lot	Sch	DP
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86		658254
23		262501
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8	4	2799
7016		1073303
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1		909016
5859		1151652
5860		1151652
1		1160370
1		1159057
1		1079690
51		16770
19		12993
3		12993
1		172621
12		12993
32		790154
2		12993
21		16770
1		441992
1		312843
15		16770
38		12993
29		656680
10		16770
57		12993
72		12993
109		9149
44		16770
103		9149
101		1064538
1		126320
49		16770
1		12993
75		12993
37		6961
50		16770
100		9149
51		9149
2		592090
20		16770
71		533892
6		16770
98		9149
21		557595
44		12993
122		706627
62		12993
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2		734844
442		517403
16		12993
A		445041
5		12993
27		12993
12		16770
151		626867
38		528601
47		16770
11		16770
6		12993
39		6961
25		16770
232		554009
14		16770
13		16770
62		617128

Lot	Sch	DP
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111		9149
3		538275
72		533892
51		755218
124		706627
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B		390945
122		609010
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102		840020
A		356550
131		755242
A		413734
37		4800
123		706627
38		4800
1		781856
2		621697
171		15150
130		755242
432		604046
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86		19828
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32	1	2799
25		6325
4	3	2799
17	4	2799
17	3	2799
252		1031184
91		19828
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170		15150
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7	A	7766
26		4800
152		626867
139		15150
281		563610
2		17011
147		15150
101		840020
84		4800
1		921728
140		15150
127		15150
107		15150
2		4800
66		4800
1		652973
2		349570
7		17011
A		385142
129		15150
146		15150
88		4800
A		390945
1031		834199
41		612282
110		15150

Lot	Sch	DP
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2		781856
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131		15150
67		4800
2		235035
1		942954
8	3	2799
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7		7744
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100		19828
97		19828
201		619145
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22	1	2799
6	3	2799
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1		503611
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29	1	2799
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26		6325
7	4	2799
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19	1	2799
3		7744
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71		794193
28	1	2799
73		19828
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15	4	2799
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62		19828
79		19828
19		6325
75		19828
74		19828
10		862071
18	3	2799
66		19828
2		776368
231		622307

Lot	Sch	DP
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412		628252
1		617884
72		794193
22		6325
19	3	2799
8		6325
232		622307
141		706893
94		19828
1		6325
10		859161
87		19828
C		385142
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46		7744
70		19828
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31		612188
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752		563578
100		803620
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7	B	7766
137		15150
32		16511
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801		878765
77		778375
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2	U	6747
12	C	16511
6	D	16511
14	S	6747
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33		16511
9	D	16511
2	C	16511
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68		4800
44		7744
64		4800
73		4800
12		803750
117		15150
69		4800

Lot	Sch	DP
157		15150
4		7744
222		1066496
72		4800
141		15150
83		4800
128		15150
145		15150
132		15150
52		7744
121		15150
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112		15150
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142		15150
105		15150
35		790154
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3		210785
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11		7744
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113		15150
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25		262501
31		1034933
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2		1091490
122		1103767
121		1103767
31		1104806
2		1107398
102		1117364
42		1125666
43		1125666
45		1125666
1012		1128828
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13		1140859
622		1148233
621		1148233
411		1149105
114		1171789
112		1171789
108		1171789
111		1171789
128		1171789
129		1171789
101		1182075
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409		755242
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60		1112814
14	24	7495
3	45	1996
32	42	1996
42		714085

Lot	Sch	DP
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5	28	7495
15	22	1996
2	10	7495
14	28	7495
7	25	7495
41	30	1996
26	43	1996
1	39	1996
19	45	1996
5	31	7495
6	31	7495
2	28	7495
17	30	1996
8	25	7495
19	39	1996
3	13	7495
7	4	7495
10	24	7495
13	14	7495
2	31	7495
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2		620626
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12	4	7495
12	26	7495
17	31	7495
301		1043732
38	39	1996
32	48	1996
37	3	1996
25	32	1996
2	27	1996
6	10	7495
5	12	7495
18	43	1996
30	17	1996
6	41	1996
1	28	7495
12	28	7495
35	39	1996
22	36	1996
3	11	7495
4	33	1996
17	32	1996
5	21	7495
13	43	1996
21	39	1996
4	30	1996
13	12	1996
22	42	1996
3	23	7495
8	31	7495
15	49	1996
9	46	1996
19	42	1996
25	39	1996
32	40	1996
8	19	7495
2	22	1996
10	16	1996
2	2	1996
1	29	7495
21	43	1996
14	1	1996
2	30	1996
6	47	1996
14	26	7495
22	30	1996

Lot	Sch	DP
7	32	1996
16	16	1996
7	45	1996
2	27	7495
3	31	7495
16	27	7495
8	35	1996
12	30	1996
34	39	1996
5	3	7495
1		516048
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5	10	7495
2	7	7495
2	36	1996
38	3	1996
20	33	1996
7	29	7495
1	48	1996
27	11	1996
7	42	1996
6	3	7495
4	23	7495
10	48	1996
29	48	1996
1	44	1996
24	17	1996
4	1	1996
12	48	1996
12	43	1996
16	2	1996
8	4	7495
31	48	1996
38	43	1996
15	26	7495
29	44	1996
6	19	7495
3	9	7495
15	47	1996
9	43	1996
4	45	1996
18	22	1996
3	42	1996
24	41	1996
14	47	1996
23	42	1996
2		809444
24	30	1996
10	41	1996
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5	34	1996
5	45	1996
77		854657
19		854657
1		875561
36		854657
12		854657
37		854657
30		854657
1		1045978
7068		1021263
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11	1	1996
31	11	1996
16	39	1996
9	27	7495
30	44	1996
7	31	7495

Lot	Sch	DP
31		1035689
26	41	1996
7	10	7495
12	32	1996
22	33	1996
37	27	1996
7	26	7495
4	8	1996
20	42	1996
19	1	1996
15	27	7495
26	39	1996
1	27	7495
24	43	1996
9	24	7495
10	12	1996
7	24	7495
2	8	1996
17	39	1996
18	49	1996
6	27	7495
19	49	1996
11	24	7495
9	12	1996
222		877678
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2	11	7495
40	43	1996
25	41	1996
7	12	1996
19	22	1996
1	16	1996
8	8	1996
4	32	1996
24	46	1996
2		24502
11	22	1996
10	15	7495
12	16	1996
1	49	1996
5	22	1996
7	6	1996
35	43	1996
6	1	1996
11	4	7495
101		546936
11	45	1996
12	49	1996
10	14	7495
5	6	7495
23	17	1996
5	4	7495
4	39	1996
19	43	1996
13	20	7495
2	44	1996
13	28	7495
24	42	1996
20	46	1996
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6	33	1996
30	11	1996
3	2	7495
3	8	1996
20	47	1996
9	4	7495
16	28	7495
7	49	1996

Lot	Sch	DP
20	29	7495
1		1033665
37	39	1996
2	49	1996
15	39	1996
23	41	1996
10	20	7495
24	36	1996
5	29	7495
27	32	1996
2	23	7495
9	14	7495
1	20	7495
6	28	7495
32	11	1996
7	11	7495
28	39	1996
23	11	1996
4	2	1996
1	27	1996
19	36	1996
21	46	1996
1	26	7495
39	30	1996
4	31	7495
27	17	1996
7	19	7495
8	3	7495
30	48	1996
4	28	7495
15	15	7495
2	34	1996
22	41	1996
27	43	1996
1	23	7495
81		559739
23		854657
49		854657
339		755242
3		613987
110		792868
76		854657
8	10	7495
6	45	1996
8	30	1996
2	26	7495
4	24	7495
24	45	1996
3	49	1996
1	47	1996
4	10	7495
1	7	1996
20	16	1996
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2	48	1996
19	16	1996
3	34	1996
28	41	1996
8	13	7495
4	22	1996
27	45	1996
1		566983
7	20	7495
5	39	1996

Lot	Sch	DP
6		24502
11	15	7495
8	26	7495
8	49	1996
2	39	1996
8	47	1996
9	39	1996
10	1	1996
18	31	7495
9	13	7495
26	45	1996
3		24502
25	45	1996
23	36	1996
24	11	1996
62		503169
5	19	7495
19	47	1996
18	17	1996
21		876359
16	33	1996
272		731388
27	39	1996
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8	24	7495
12	14	7495
4		24502
11	29	7495
22	17	1996
12	24	7495
1	15	7495
131		830729
4	4	7495
26	17	1996
111		838655
7	41	1996
9	29	7495
32	46	1996
22	16	1996
20	36	1996
2	32	1996
15	32	1996
17	27	7495
20	32	1996
11	20	7495
19	46	1996
21	49	1996
3	4	7495
3	30	1996
1	32	1996
20	11	1996
20	43	1996
13	22	1996
13	24	7495
16	32	1996
8	20	7495
11	46	1996
21	11	1996
26	11	1996
1	10	7495
18	16	1996
3	29	7495
43		876821
1	22	1996
61		503169
13	10	7495
4	11	7495
14	41	1996
5	43	1996

Lot	Sch	DP
20	39	1996
16	20	7495
31	40	1996
19	27	1996
31	17	1996
24	16	1996
4	5	7495
2	29	7495
22	11	1996
2	12	1996
21	42	1996
30	40	1996
4	34	1996
4	41	1996
12	41	1996
		64003
6	6	1996
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8	39	1996
28	43	1996
25	30	1996
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7	3	7495
2	14	7495
37	43	1996
7	47	1996
17	16	1996
3	2	1996
1	11	7495
2		557434
31	30	1996
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8	5	7495
1	30	1996
3	24	7495
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342		654048
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344		755242
9		854657
38		854657
45		854657
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29		854657
2		508042
41		1061369
14	3	1996
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17	29	7495
4	6	7495
13	42	1996
4	29	7495
13	31	7495
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2	47	1996
11	41	1996
8	42	1996
14	39	1996
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6	14	1996
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36	39	1996
3	22	1996

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4	17	1996
31	44	1996
9	1	1996
7	43	1996
3	27	7495
3	17	1996
3	47	1996
2	16	1996
5	41	1996
29	43	1996
4	7	7495
6	22	1996
15	20	7495
41	43	1996
24	47	1996
13	26	7495
18	30	1996
18	27	1996
20	17	1996
6	8	1996
8	22	1996
1	19	7495
11	28	7495
4	42	1996
24	32	1996
23	16	1996
4	12	7495
29	30	1996
7	9	1996
8	48	1996
5	47	1996
28	30	1996
23	43	1996
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671		607532
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81		566373
13		594056
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71		1044657
65		854657
173		700147
92		1043893
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10		264590
11		854657
220		877678
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191		719818
410		1044138
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101		605760
46		738198
151		1018825
461		628774
102		605760
536		723275
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369		1050980
202		536216
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443		790067
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1		854657
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961		1006265
7027		1030779
7		264590
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132		801632
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1	13	758707
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120		853723
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13	12	758707
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19	12	758707
17	10	758707
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3		1053723
19	24	758707
17	12	758707
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11	27	758707
11	24	758707

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19	10	758707
14	24	758707
15	24	758707
15	10	758707
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8	11	758707
9	15	758707
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5	24	758707
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17	14	758707
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8	15	758707
930		790219
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95		665946
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7	10	758707
9	24	758707
12	27	758707
18	14	758707
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6	12	758707
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488		755242
123		755242
11		703269
133		755242
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2		730938
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140		755242
138		755242
126		755242
98		755242
3		21063

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89		658755
2		246326
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567		1040179
563		1040179
7053		1055701
1		923244
1		730938
7044		93598
1		921780
97		755242
71		625580
733		857114
72		1107394
7300		1141580
73		1107394
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124		1171789
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41		1094102
116		1171789
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17		8009
12	43	758707
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12	26	758707
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19	18	758707
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12		11249
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10	43	758707
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16		31746
2		819348
2		831930
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133		1150713
102		1171789
117		1171789
103		1171789
106		1171789
105		1171789
127		1171789
162		1169663
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520		43409
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27		8009
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26		11249
32		8009
3		22034
2		11249
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16	44	758707
18		11249
26		803877
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1		632805
17	2	758707
13	1	758707
9	43	758707
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7		22944
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16	26	758707
12	19	758707
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15	43	758707
11	44	758707
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3	1	758707
7	21	758707
8		22034
4	26	758707
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5	26	758707
2	44	758707
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1		809113
15	3	758707
15	26	758707
102		872891
14		8009
344		865314
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7	18	758707
6	18	758707
6	8	758707
20	2	758707
19	2	758707
4	44	758707
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20		11249
6		11249
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9	9	758707
14	8	758707
2	3	758707
4		21089
10		11249
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23		11249
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2	18	758707
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18	19	758707
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118		587386
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217		818749
5		215590
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518		41966
121		852340
25		508705
15		844164
24		508705
7034		93590

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69		755242
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1		262160
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11		262159
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16		13318
314		1006483
8		13318
3		262159
23		13318
310		1006483
25		13318
12		777034
316		1006483

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124		882928
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		70725
		69494
30		702647
2		555891
		68221
219		1012916
105		882928
3		46770
111		882928
6		262159
14		661114
9		46770
128		882928
201		1012916
10		46770
1		324031
223		1012916
108		882928
221		1012916
109		882928
120		882928
112		882928
37		9632
1		10720
55		9632
211		553196
558		755242
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212		553196
3		555891
4		324031
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		73052
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		81394
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12		1064820
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113		882928
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309		1006483
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555		821108
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559		1075667
52		1017175
327		755242
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63		858044
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6		253901
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301		878333
4		168774
198		727714
16		813385
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1061		878387
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153		755238
62		755238
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1		957458
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11		813385
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19		248498
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89		755238
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91		755238
140		755238
556		729949
158		1012067
44		862349
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45		1159229
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17	13318	33	610386	24	812406	1	1063659
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19	13318	100	715718	12	813385	21	1085068
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901	542306	153	755238	51	867406	100	1214285
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APPENDIX 2: DEVELOPMENT LAYOUT

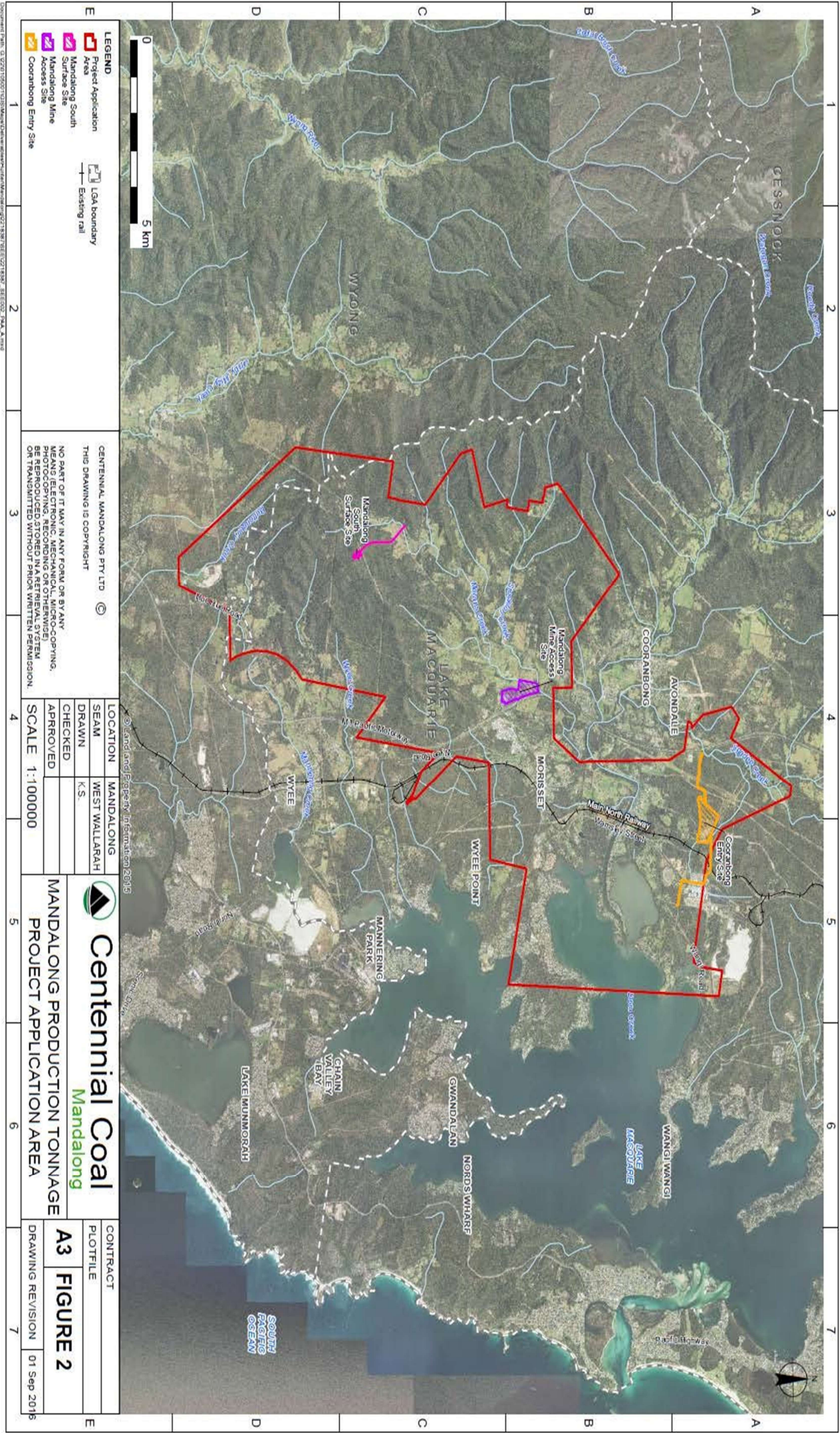
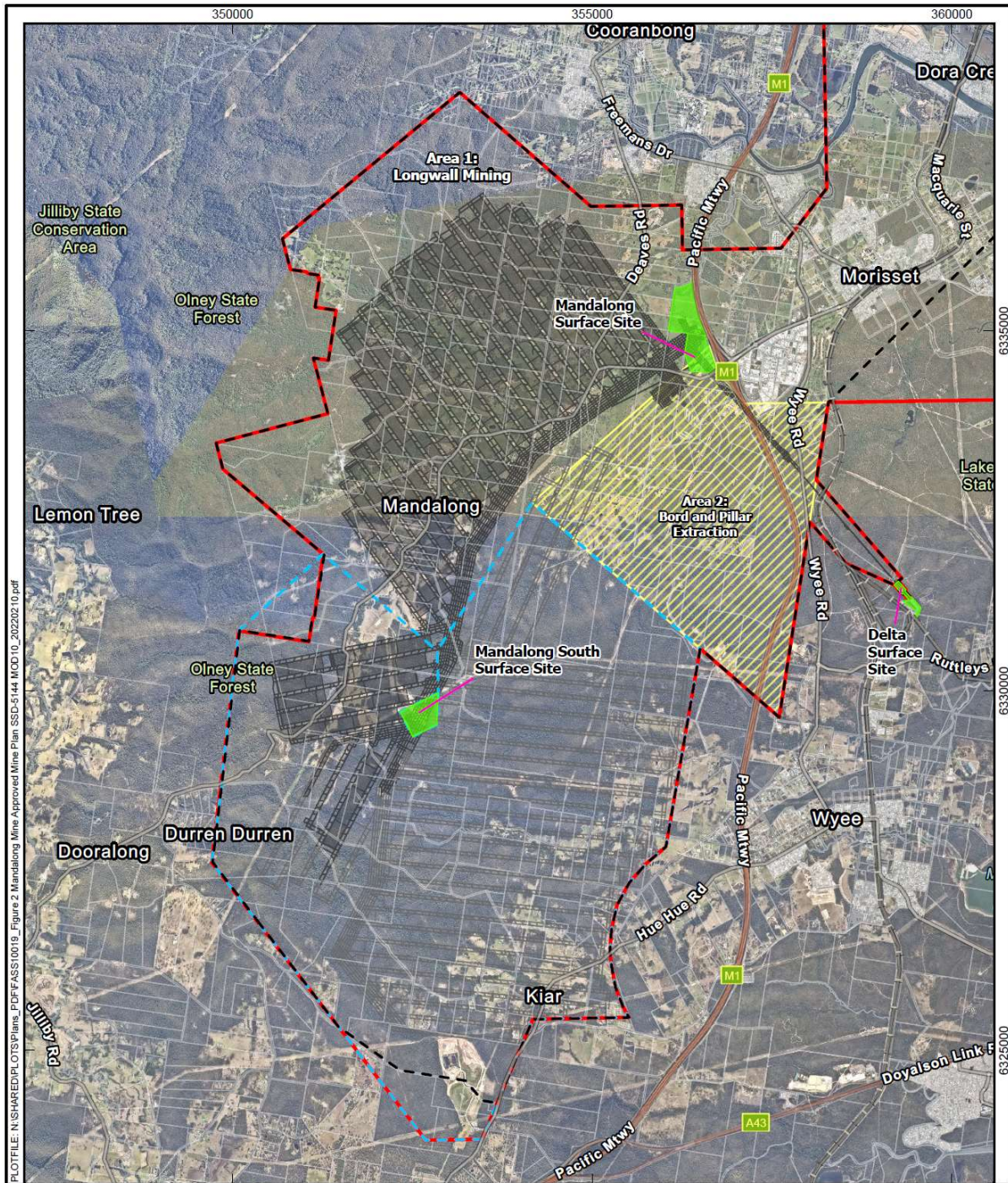
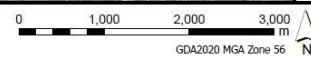


Figure 1: Development Application Area



Esri, HERE, Garmin, METI/NASA, USGS. Imagery referenced from Nearmap dated 1/08/2021.



Legend

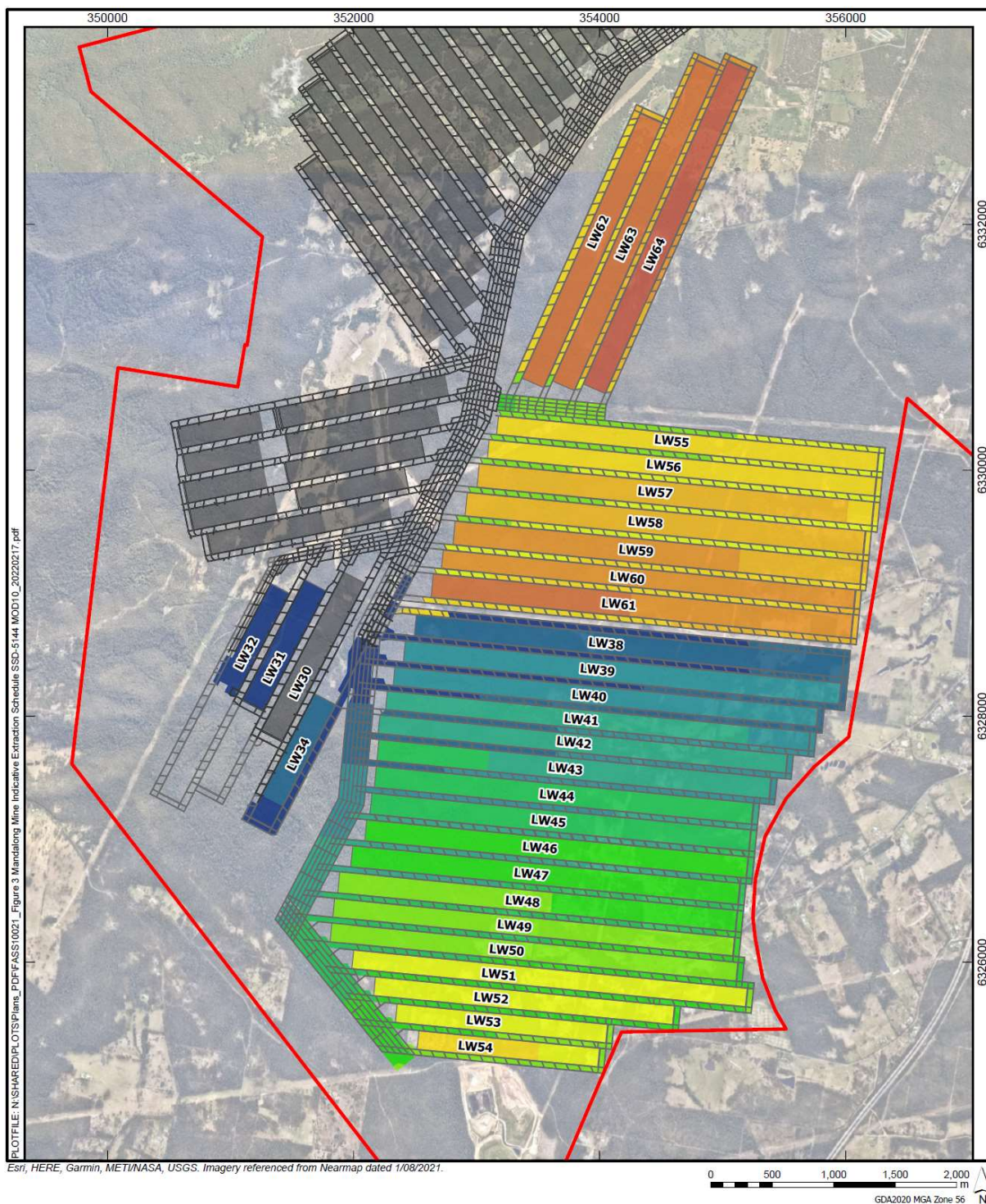
- | | |
|---|--|
| Development Consent Boundary | Railway |
| Mandalong Colliery Holding | Area 2: Bord and Pillar Extraction Area |
| Exploration Licence No.6317 | Mine Workings (Charted: 8/02/2022) |
| Mine Surface Sites | Approved Mine Plan |

Approved Mine Plan
SSD-5144 MOD 10

Figure 2
Appendix 2



Figure 2: Approved Mine Plan



Legend

- Development Consent Boundary
- Mine Workings (Charted: 8/02/2022)
- Approved Mine Plan

Indicative Extraction (Year)

 2022	 2028
 2023	 2029
 2024	 2030
 2025	 2031
 2026	 2032
 2027	 2033
	 2034

Indicative Extraction Schedule
(Not Binding)
SSD-5144 MOD 10

Figure 3
Appendix 2



Figure 3: Centennial's Indicative Extraction Schedule (not binding)

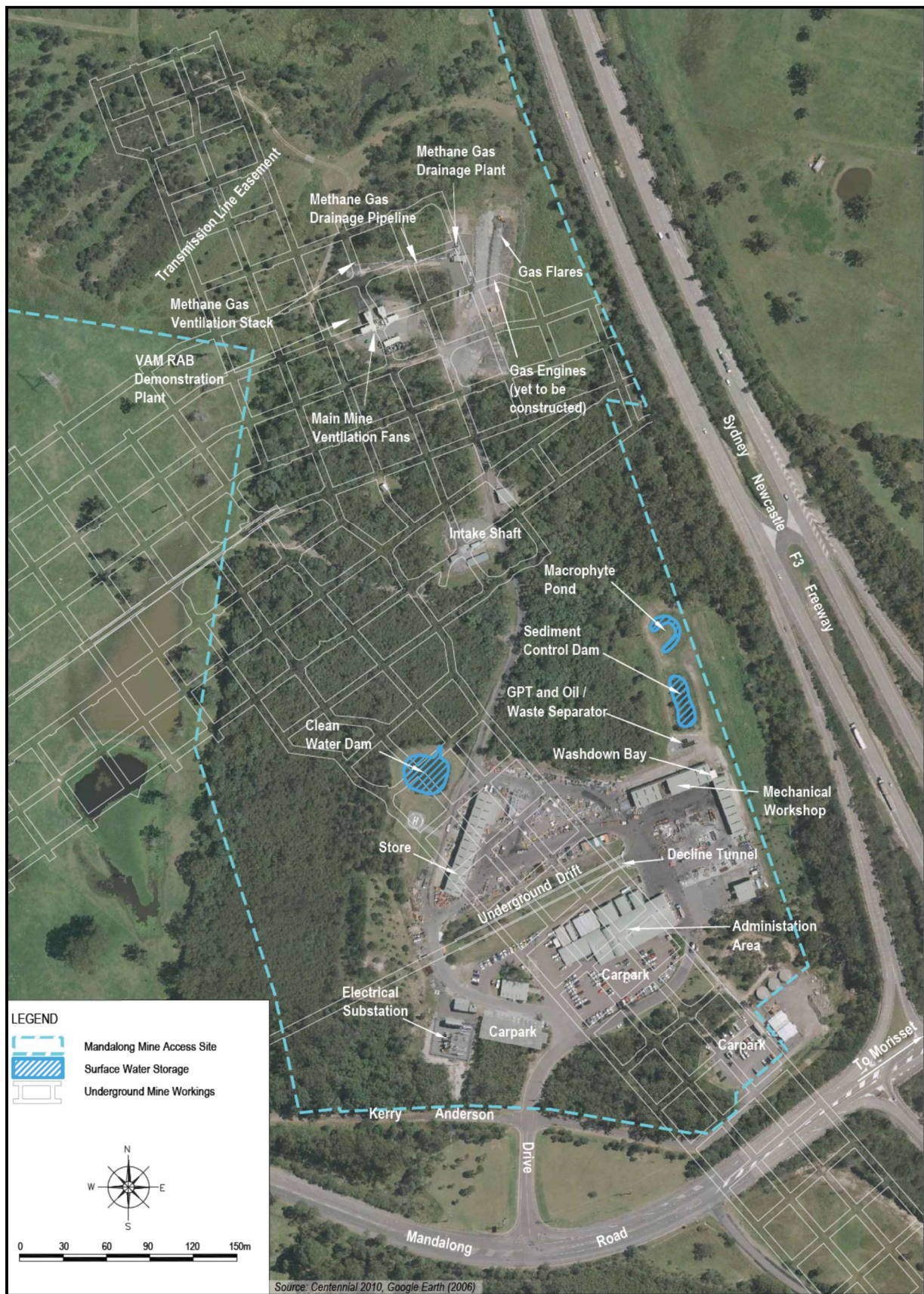
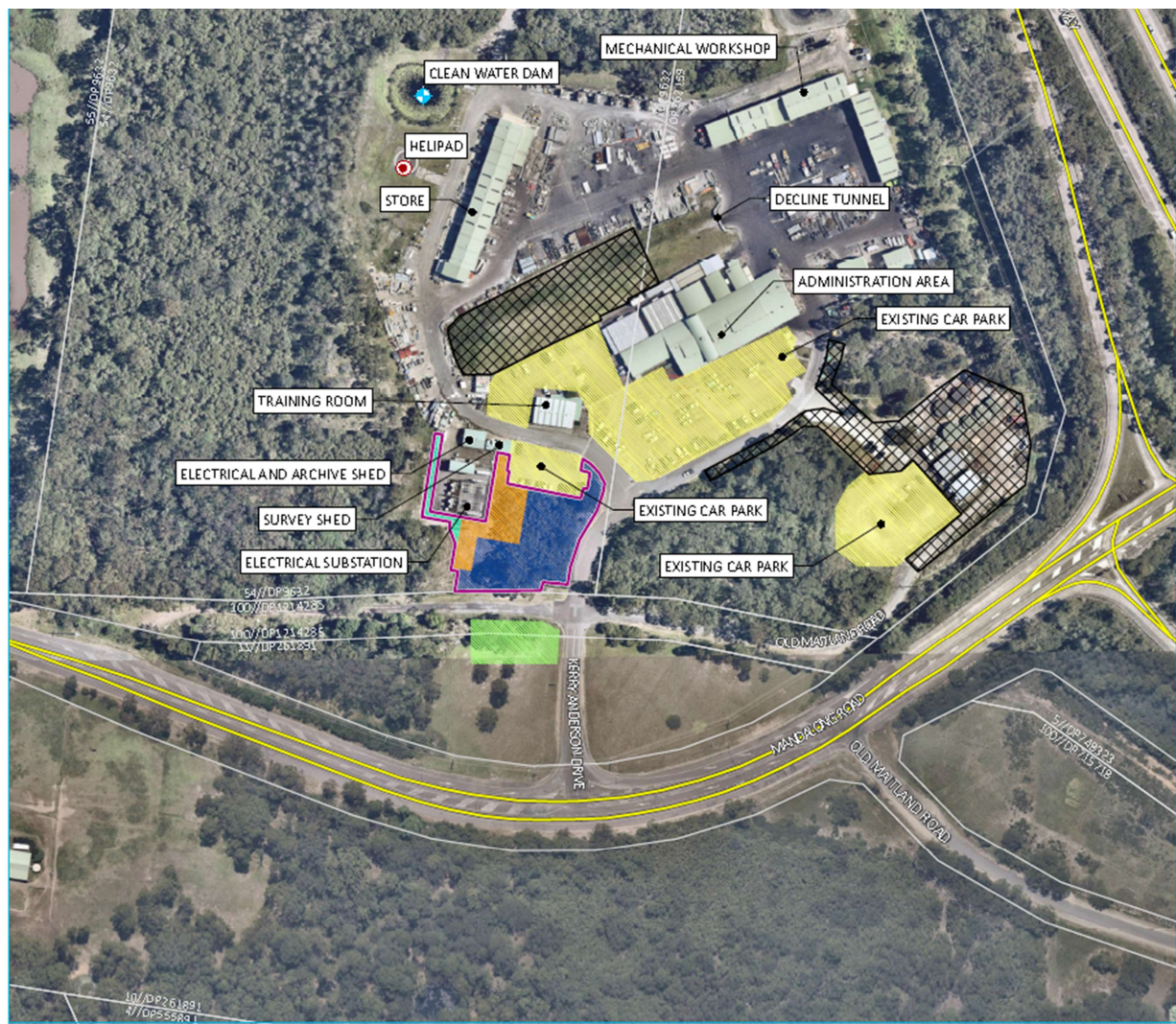


Figure 4: Mandalong Mine Access Site



Source: EMM (2019); Centennial (2019) OFS; (2017); NearMap (2018)

KEY

- Subject land (vegetation clearing required)
- Additional car park
- Substation upgrades
- Services corridor
- New screening vegetation
- ◆ Clean water dam
- Helipad
- Proposed and potential additional carparking and support infrastructure areas (no vegetation clearing required)
- Existing car park
- Main road
- Cadastral boundary

Existing site layout and proposed modification

Mandalong Mine
Mod 8
Statement of environmental effects
Figure 1.3



Figure 4A: Mandalong Mine Access Site Layout Following Modification 8

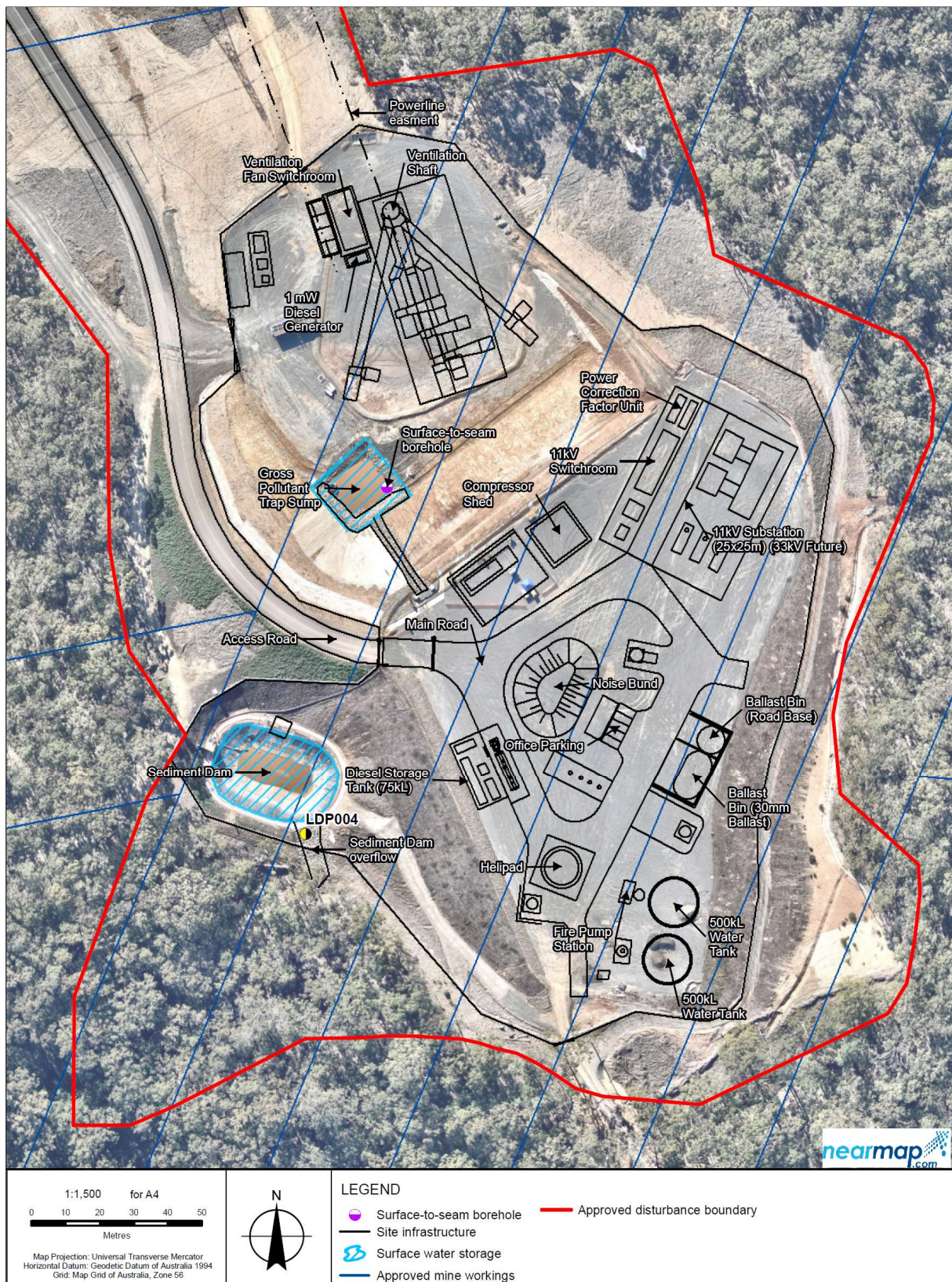


Figure 5: Mandalong South Surface Site



Figure 6: Cooranbong Entry Site

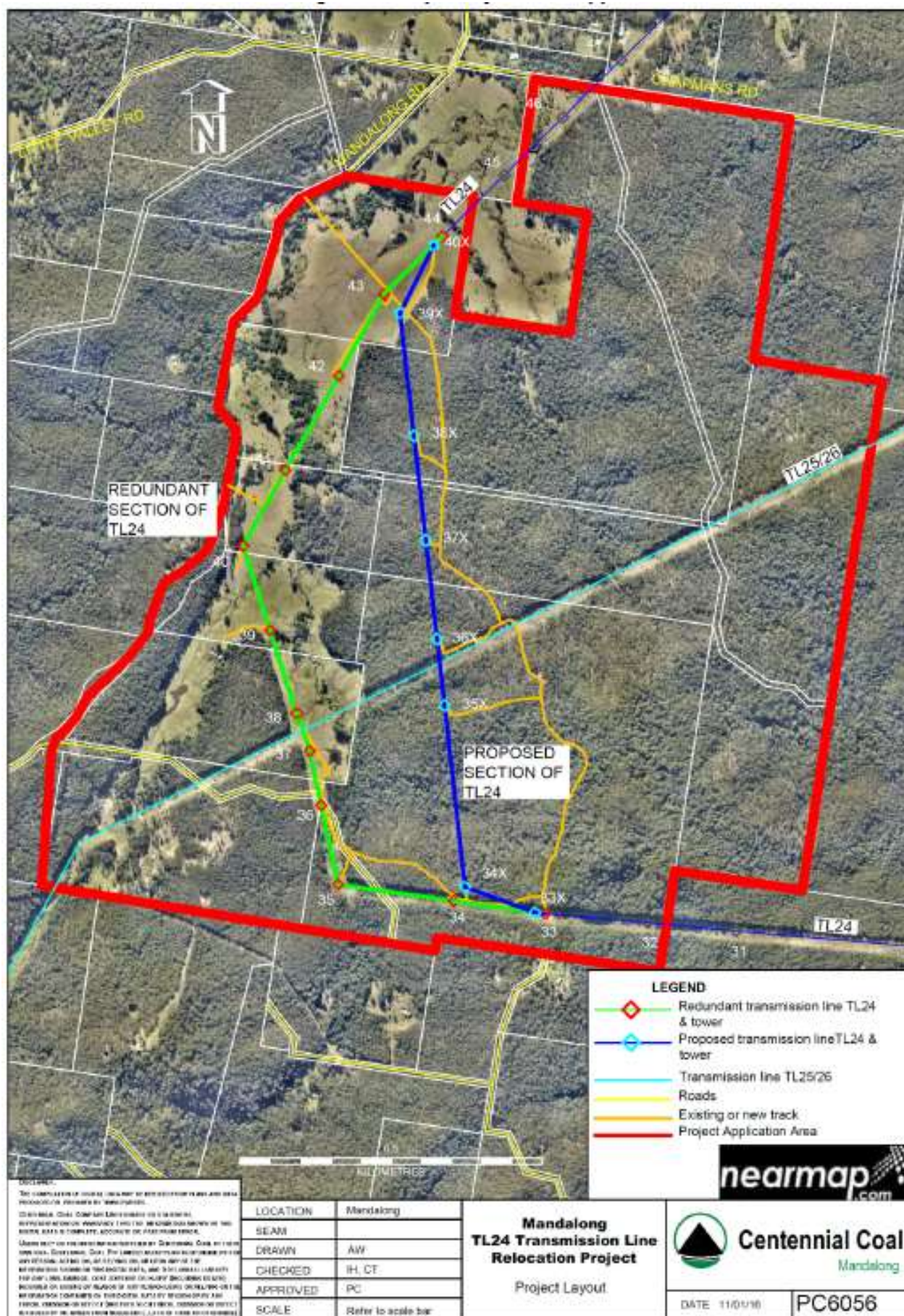


Figure 7: Relocated TL24 Transmission Line

APPENDIX 3: NOISE ASSESSMENT

Applicable Meteorological Conditions

1. The noise criteria in Table 2 of the conditions are to apply under all meteorological conditions except the following:
 - (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/100m and wind speeds greater than 2 m/s at 10 m above ground level; or
 - (c) Temperature inversion conditions greater than 3°C/100m.

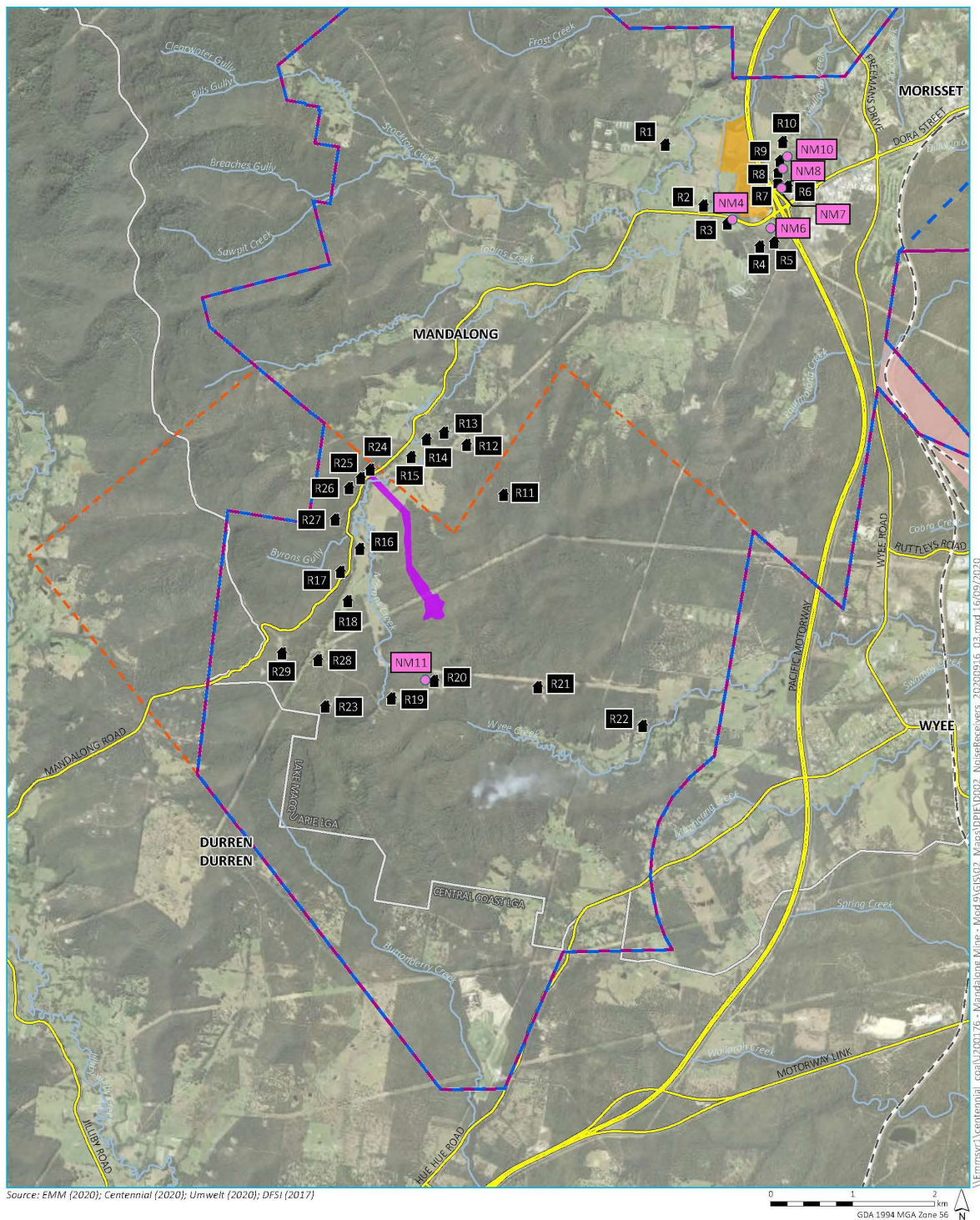
Determination of Meteorological Conditions

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions **must** be that recorded by the meteorological station located **in the vicinity of** the site.

Compliance Monitoring

3. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this consent.
4. 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) meteorological conditions during which collection of noise data is not appropriate;
 - (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
 - (d) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.

APPENDIX 4: NOISE RECEIVER LOCATIONS



KEY

- | | |
|-----------------------------------|---------------------------|
| Development consent boundary | Rail line |
| EL6317 (southern extraction area) | Main road |
| Mandalong south PDC boundary | Named watercourse |
| Delta entry site | Local government area |
| Mandalong mine access site | Sensitive receiver |
| Mandalong South surface site | Noise monitoring location |

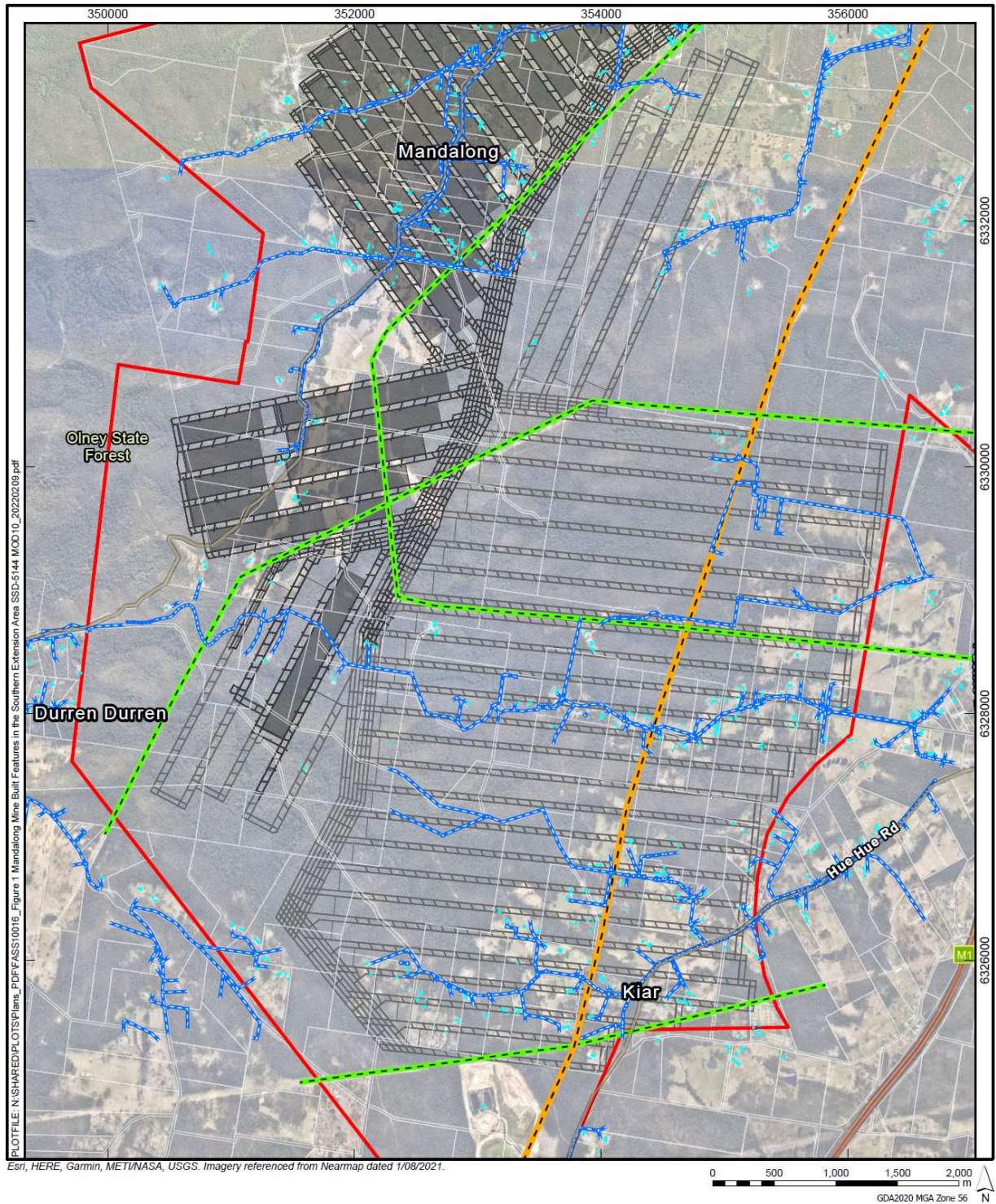
Representative noise receivers

Figure 1
Appendix 4



Figure 1: Representative noise receivers

APPENDIX 5: BUILT FEATURES



Legend

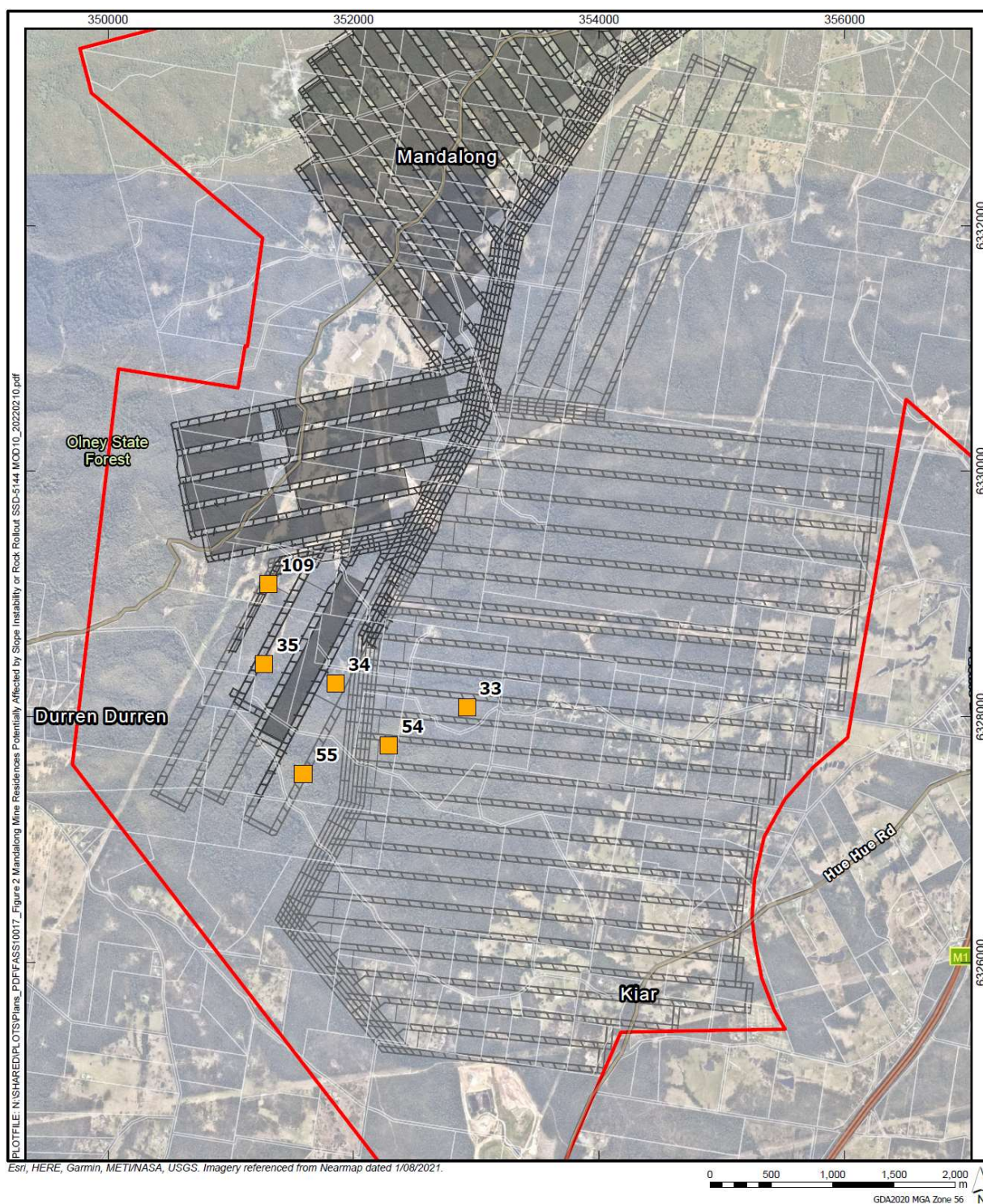
- | | |
|---|--|
| Development Consent Boundary | Powerline Infrastructure |
| Building and Structures | Ausgrid 132 kV |
| Mine Workings (Charted: 8/02/2022) | Transgrid 330 kV |
| Approved Mine Plan | Telstra |

Built Features in the Southern
Extension Area
SSD-5144 MOD 10

Figure 1
Appendix 5



Figure 1: Built features in the Southern Extension Area



Legend

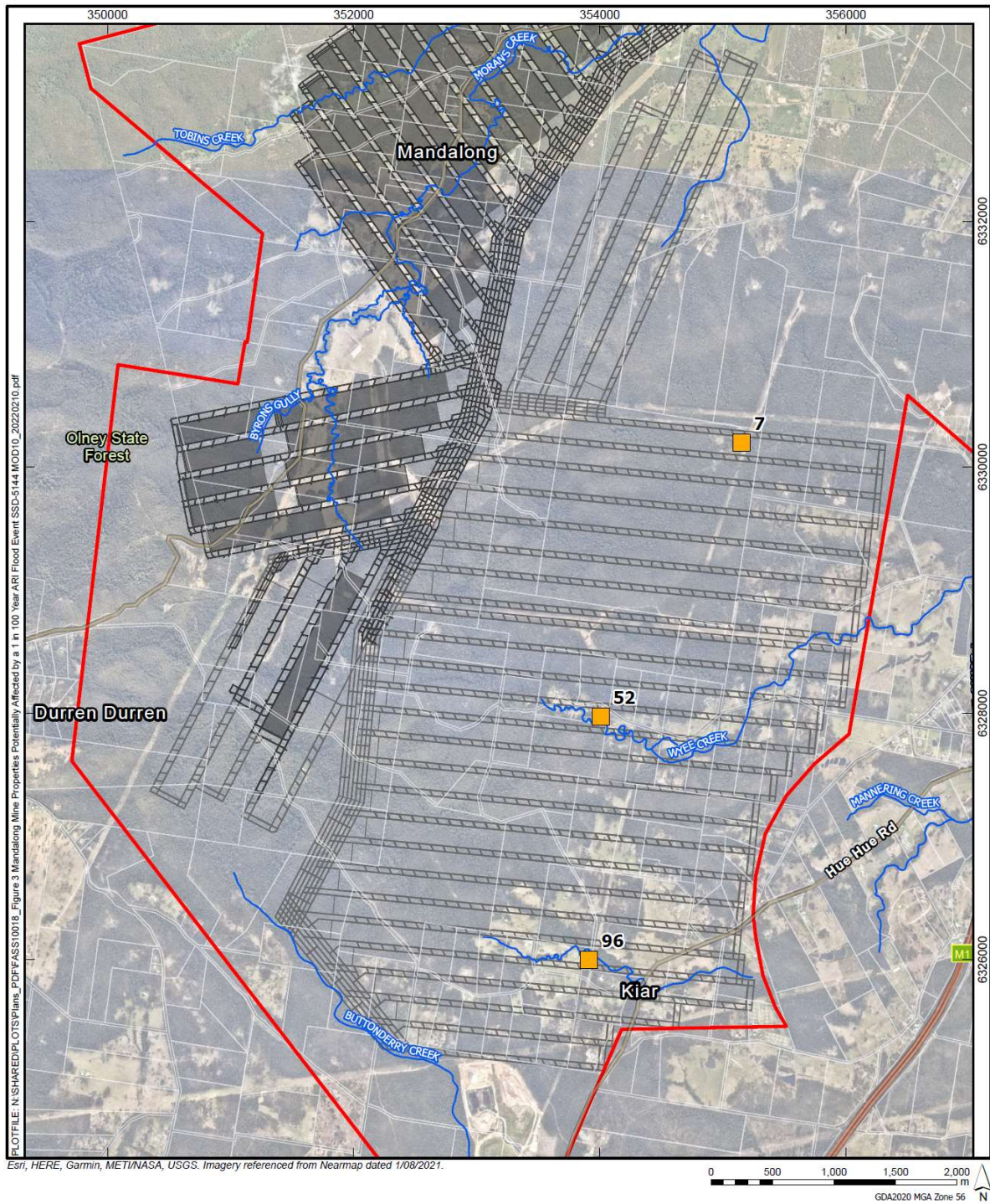
- Development Consent Boundary
- Building/Structure (Including: EIS Reference)
- Mine Workings (Charted: 8/02/2022)
- Approved Mine Plan

Residences Potentially Affected by
Slope Instability or Rock Rollout
SSD-5144 MOD 10

Figure 2
Appendix 5



Figure 2: Residences potentially affected by slope instability or rock rollout



Legend

- Development Consent Boundary
- Building/Structure (Including: EIS Reference)
- ~ Watercourse
- Mine Workings (Charted: 8/02/2022)
- Approved Mine Plan

Properties Potentially Affected by a
1 in 100 Year ARI Flood Event
SSD-5144 MOD 10

Figure 3
Appendix 5



Figure 3: Properties potentially affected by a 1 in 100 year ARI flood event

APPENDIX 6: ABORIGINAL CULTURAL HERITAGE

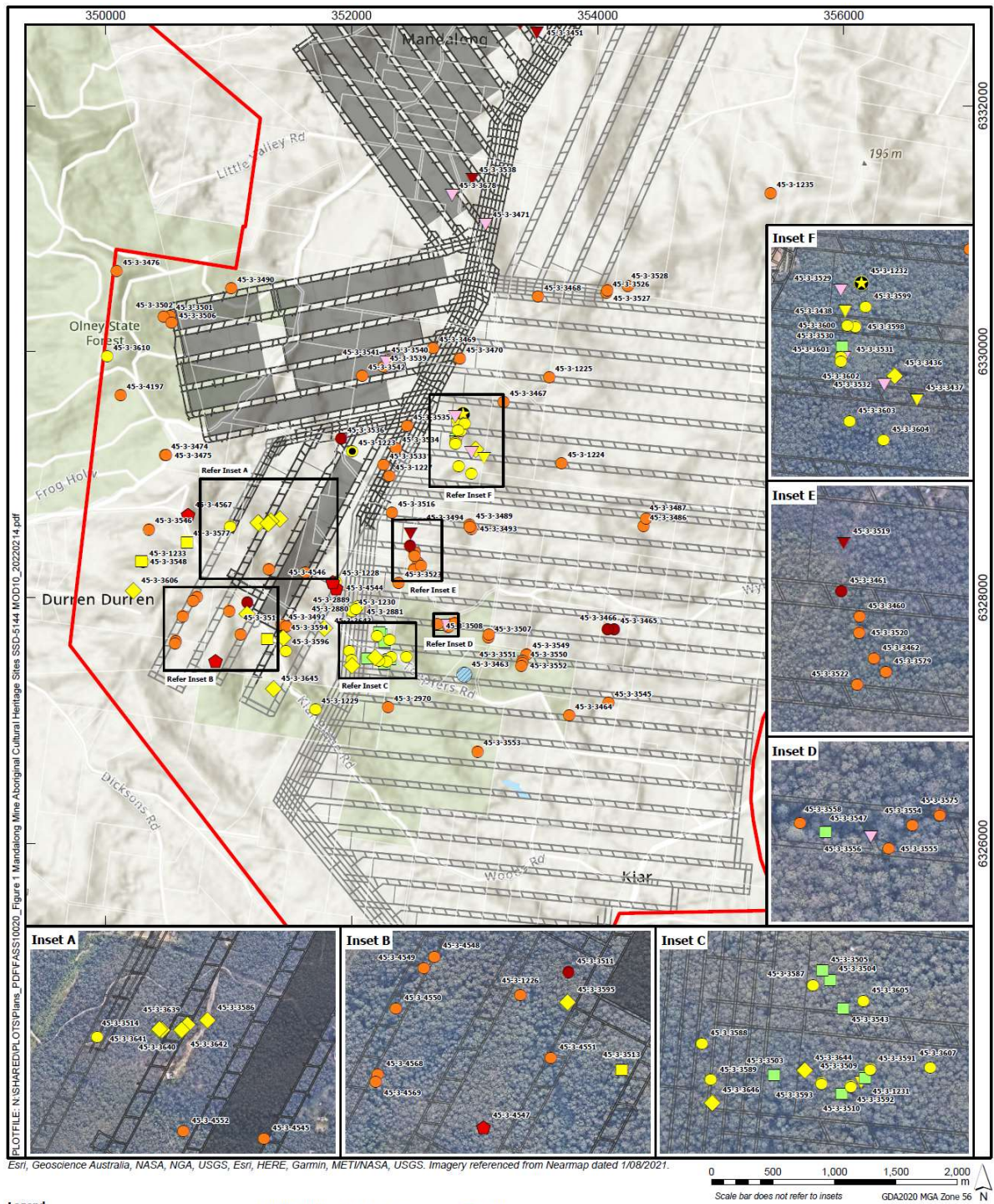


Figure 1: Aboriginal Cultural Heritage Sites

Figure 1
Appendix 6



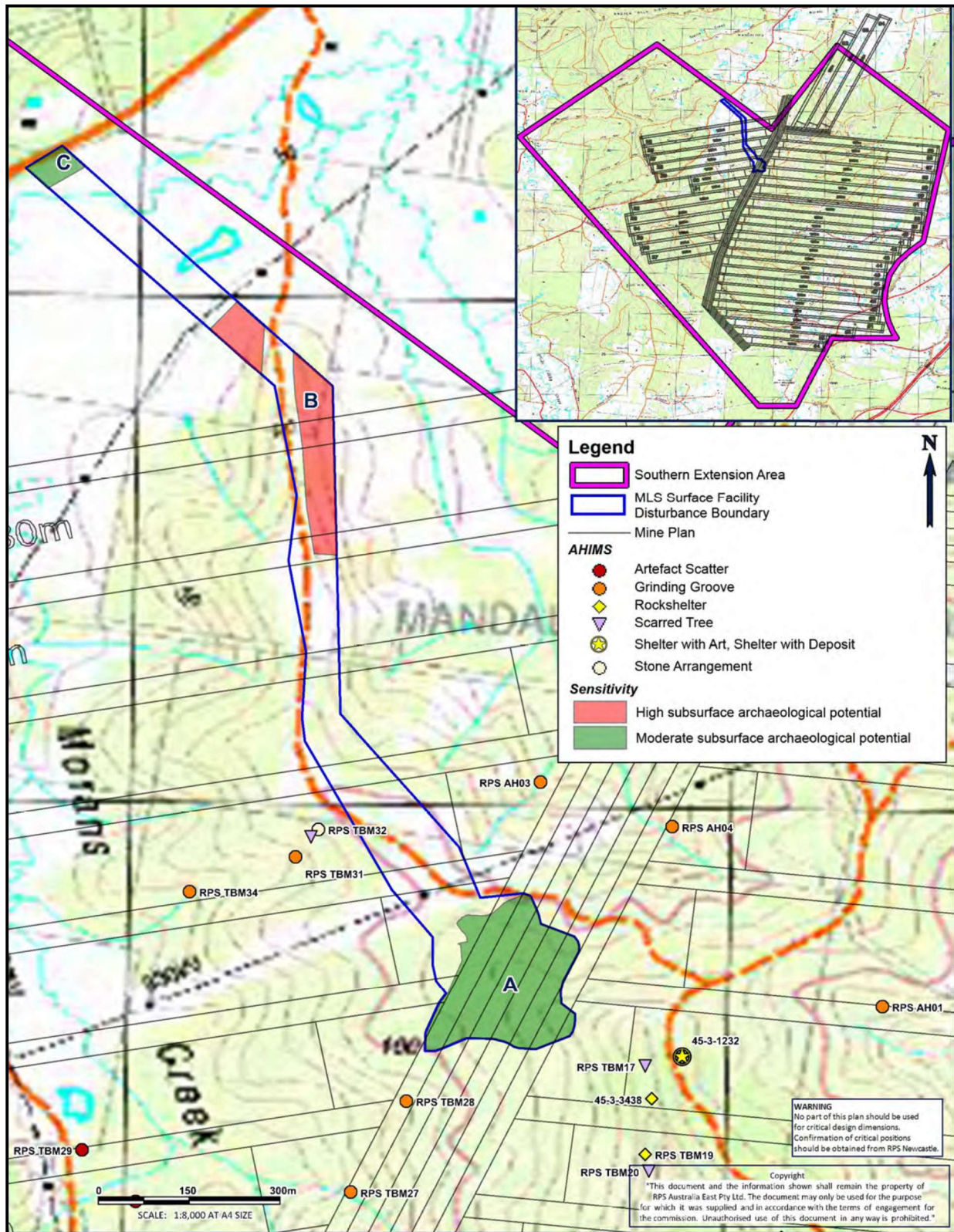


Figure 2: Areas of the MSHA subject to additional archaeological survey

Table 1: Registered Aboriginal Parties

Awakabal Descendants Traditional Owners Aboriginal Corporation
Awakabal Traditional Owners Aboriginal Corporation
Bahtabah Local Aboriginal Land Council
Biraban Local Aboriginal Land Council
Cacatua Culture Consultants
Darkinjung Local Aboriginal Land Council
Guringai Tribal Link
Wonn 1
Yula-Punaal Education and Healing Aboriginal Corporation

APPENDIX 7: LAND MANAGEMENT STRATEGY

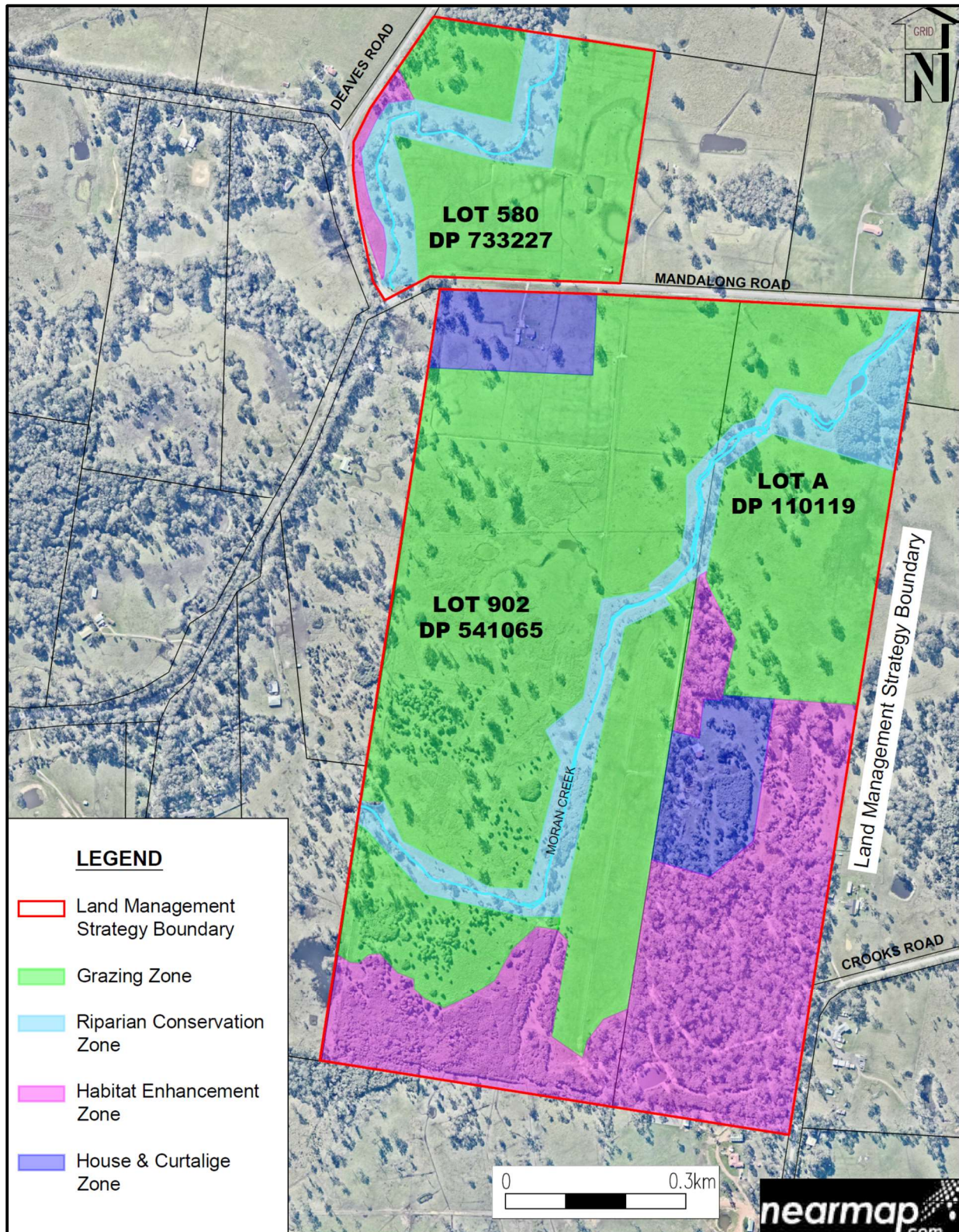


Figure 1: Land Management Strategy

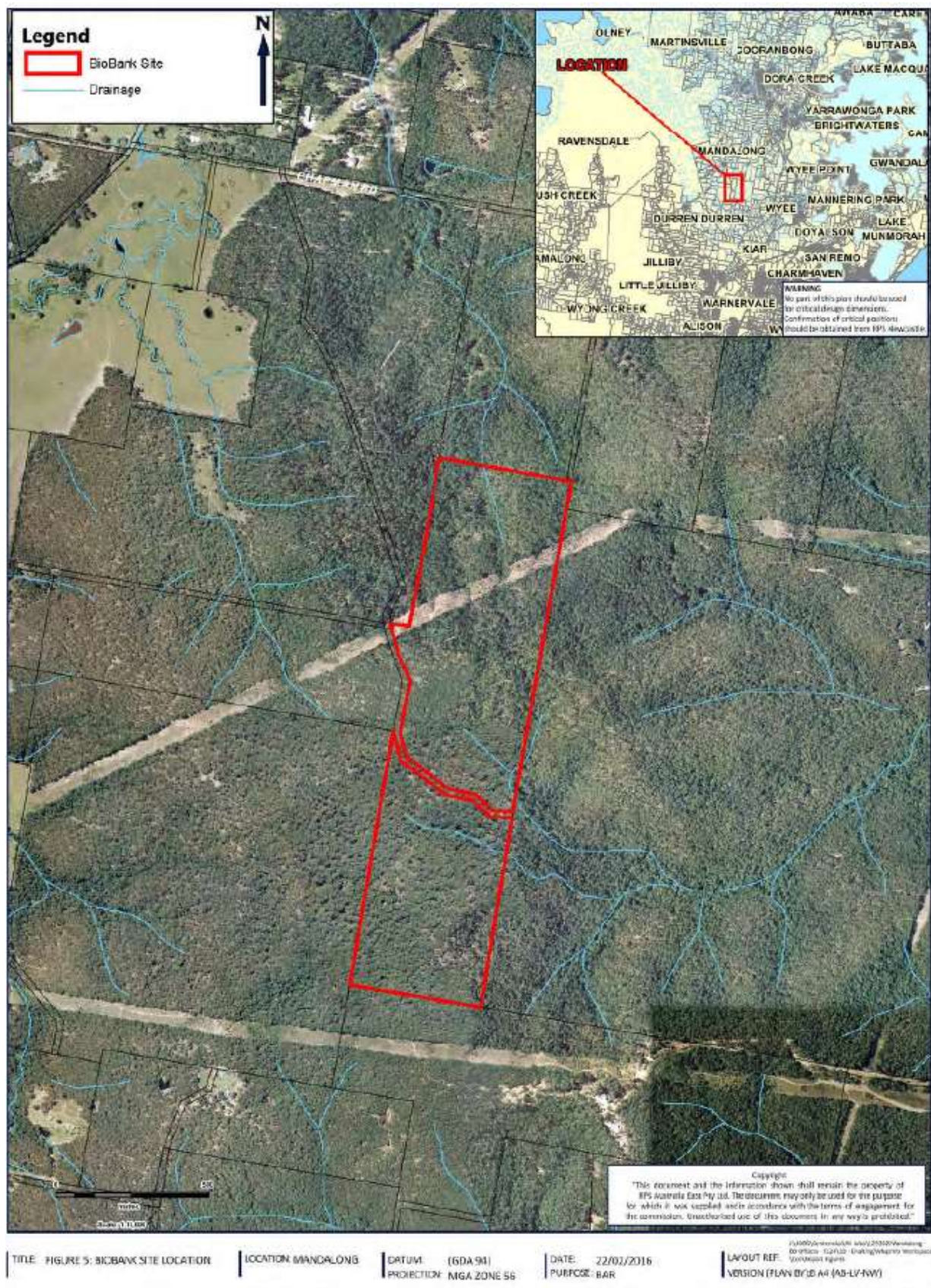


Figure 2: Land Management Strategy

APPENDIX 8: APPLICANT'S STATEMENT OF COMMITMENTS

Desired Outcome	Commitment/Action
Construction Management	
<p>Minimise impacts from construction activities from the Mandalong South Surface Site on the environment and sensitive receivers.</p>	<p>Six months prior to the commencement of construction activities at the Mandalong South Surface Site (MSSS), Centennial Mandalong will develop a Construction Environmental Management Plan for the construction phase of the Mandalong South Surface Site and access road. The Construction Environmental Management Plan will ensure:</p> <ul style="list-style-type: none"> • That vegetation to be removed is clearly marked using temporary fencing (flagging tape or similar) to delineate boundaries and minimise the potential for equipment to accidentally enter areas to be retained. • That vegetation adjacent to the disturbance footprint of the proposed Mandalong South Surface Site and access road is fenced (fauna friendly fencing) prior to construction activities to reduce damage from uncontrolled or accidental access. • That material stockpiles are established within already disturbed areas and not within areas of retained vegetation. • Appropriate topsoil management including: <ul style="list-style-type: none"> – Topsoil will be maintained in a slightly moist condition during stripping, and material will not be stripped in either an excessively dry or wet condition. – Stripping will be timed to take place in unison with any vegetation clearing activity. If planning to mix groundcover/grass with the soil (i.e. not removing groundcover prior to soil stripping), a weed assessment will be undertaken prior to stripping. – Where possible, grading or pushing soil into windrows with graders or dozers for later collection will be undertaken as a preferential less aggressive soil handling systems. – The surface of soil stockpiles will be left coarsely structured (as much as possible) in order to promote infiltration and minimise erosion until vegetation is established, and to prevent anaerobic zones forming. – Topsoil stockpiles will generally be maintained no higher than three metres. – If long-term stockpiling is planned (i.e. greater than three months), the stockpiles will be seeded and fertilised as soon as possible. An annual cover crop species that produces sterile florets or seeds will be sown. A rapid growing and healthy annual pasture sward will provide sufficient competition to minimise the emergence of undesirable weed species. The annual pasture species will not persist in the rehabilitation areas, however will provide sufficient competition for emerging weed species and enhance the desirable micro-organism activity in the soil. – Prior to re-spreading stockpiled topsoil, an assessment of weed infestation on stockpiles will be undertaken to determine if individual stockpiles require herbicide application and / or 'scalping' of weed species prior to topsoil spreading. • That clearing activities are timed, where possible, to avoid removal of hollow-bearing trees during breeding season of threatened species. • That a specialist ecologist is engaged to supervise vegetation clearing and ensure vegetation clearing, particularly the removal of hollow-bearing trees, is undertaken as outlined in this EIS. • Noise impacts are minimised with mitigation measures included in the Noise Management Plan. • Air quality impacts are minimised with mitigation measures included in the Air Quality and Greenhouse Gas Management Plan. • Traffic impacts are minimised by covering loads of bulk material haulage trucks travelling to and from the proposed MSSS and included in the Construction Traffic Management Plan.

Desired Outcome	Commitment/Action
	A copy of the Construction Traffic Management Plan will be provided to Lake Macquarie City Council for review and comment on construction traffic management prior to the commencement of construction activities.
	Rock hammering activities will be undertaken in areas that are away from the majority of residences and limited to between 8.00 am and 4.00 pm Monday to Friday and between 9.00 am and 1.00 pm on Saturdays (no rock hammering on Sundays or public holidays).
	Where necessary, and in consultation with potentially affected residents, temporary noise barriers will be established and maintained.
	To provide acoustic shielding for the shaft sinking activity at the Mandalong South Surface Site, a temporary barrier measuring seven metres high and 20 metres long will be installed at a distance of 20 metres from the drill rig at the intake shaft site (see Figure 54 of the EIS).
	In exceptional circumstances, Centennial Mandalong will include in the Construction Environmental Management Plan the consideration of (a) installing double glazing, (b) subsidising residents to relocate during noisy periods and (c) residents with existing medical conditions.
Exploration Drilling	
Enable Centennial Mandalong to conduct exploration activities in an environmentally responsible manner with due consideration to the community	Due-diligence field inspections and targeted surveys of proposed drill sites and access tracks will be undertaken by a qualified ecologist prior to commencement of works to ensure the potential for localised issues are minimised and, where necessary, appropriately managed.
	Prior to the commencement of works, Centennial Mandalong will ensure that the <i>Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales</i> (DECCW 2010) is followed prior to the commencement of works. Proposed drill sites and access tracks will be inspected according to the protocols in the approved ACHMP.
	Consultation with potentially noise affected landholders will be undertaken in accordance with a Stakeholder Engagement Strategy in which all neighbouring landholders and any residents within 450 metres of a drill rig are notified of the timing, location and anticipated duration of the exploration drilling activities. Where drilling is to be undertaken in close proximity of residents, noise mitigation measures will be implemented.
	Specific bushfire risk treatment actions will be implemented, including: <ul style="list-style-type: none"> On total fire ban days, a structured assessment of the risk of either igniting or becoming impacted by a fire will be completed by all exploration workers prior to commencing work on that day. The findings of the risk assessment will identify the risk of working along with the required additional controls and mitigation actions; Firefighting equipment will be kept on active sites at all times; and Hot work activities will be required to obtain internal work permits. Access provisions to each drill site will be identified prior to commencement of works.
	Upon completion of exploration activities, all boreholes and surface disturbance will be sealed and rehabilitated in accordance with the appropriate guidelines at the time.
Mining Operation	
Continue mining operations of the Mandalong Mine	Centennial Mandalong will continue to extract ROM coal at a rate of up to 6 Mtpa.
	Centennial Mandalong will continue to operate Mandalong Mine 24 hours a day, seven days per week.
Environmental Management and Reporting	
Enable Centennial Mandalong to manage its operations in an environmentally appropriate manner	Centennial Mandalong will review and update the Mandalong Mine Environmental Management Strategy (EMS), including issue-specific environmental management plans and monitoring programs. The review will take into consideration the environmental assessments undertaken as part of this EIS, the commitments made in this EIS and all relevant consent conditions.
	Centennial Mandalong will include a process to review the groundwater, surface water and flood models as part of the Water Management Plan.
	Centennial will consult with NSW Fisheries in the development of the Water Management Plan.

Desired Outcome	Commitment/Action
Enable Centennial Mandalong to meet its statutory reporting obligations	Centennial Mandalong will continue to report environmental monitoring results on Centennial's website in accordance with the POEO Act requirements.
	Each year, Centennial Mandalong will prepare an Annual Review, which will report environmental monitoring results and evaluate performance for the previous 12 month period, to be distributed to the relevant government agencies and the Mandalong Mine Community Consultative Committee.
Subsidence Monitoring and Management	
Manage subsidence associated with coal extraction from Mandalong Mine	Six months prior to the development of longwall 25, Centennial Mandalong will prepare the first Extraction Plan to manage subsidence associated with the proposed mining in the Southern Extension Area.
	As part of the development of each Extraction Plan, Centennial Mandalong will update the Public Safety Management Plan and Built Features Management Plans in consultation with the relevant infrastructure owners.
Soil and Land Capability	
Appropriate management of topsoil during construction activities	Centennial Mandalong will incorporate soil stripping, handling, stockpiling and transportation management activities into the Construction Environmental Management Plan for the Mandalong South Surface Site.
	Centennial Mandalong will ensure that soils in the Wyong Soil Landscape Unit are not disturbed as a result of construction activities so that they do not pose a risk to Acid Sulphate Soil mobilisation.
Managing topsoil resources for future rehabilitation uses	During construction of the Mandalong South Surface Site, Centennial Mandalong will develop and maintain a soil inventory to keep track of topsoil materials available for planned rehabilitation activities.
Groundwater	
Minimise and monitor groundwater impacts on the environment and registered water users	For each Extraction Plan, Centennial Mandalong will include in the Water Management Plan (Condition 6 of Schedule 4) the following: <ul style="list-style-type: none"> Proposed locations of nested monitoring bores at locations where the depth of cover is less than 250 metres. This is primarily throughout the north-eastern extent within the Wyee Creek and Mannering Creek catchments. It is intended to install three monitoring bores (nested) above each of the proposed longwall panels (2 years prior to mining and pending landholder granting access) where the depth of cover is less than 250 metres to monitored groundwater levels, pH and electrical conductivity. Monitoring will continue for a period of 2 years following the completion of mining in the subsequent adjacent panel. Groundwater monitoring bores and/or vibrating wire piezometers within the Southern Extension Area to monitor the height of groundwater depressurisation prior to extraction of longwalls with lower depth of cover. An adaptive management approach will be adopted to ensure that if there is a risk of fracturing extending up to alluvial aquifers (based on monitoring data) actions will be taken to mitigate these impacts. Installation of groundwater monitoring bores within areas of groundwater dependant ecosystems. Monitoring of bore GW078601, which is the only registered water supply bore within the Southern Extension Area, subject to landowner approval.
	Centennial Mandalong will commit to implement "make good provisions" to any water supply work where the drawdown impacts exceed the 2 metre criteria as specified in the NSW Aquifer Interference Policy.
	Each year, Centennial Mandalong will engage a specialist to undertake an analysis of alluvial groundwater levels to identify non-rainfall related trends.
	During construction of the shafts at the Mandalong South Surface Site and where blind boring techniques are employed, Centennial Mandalong will ensure groundwater loss is limited by minimising the construction time and the time that the shafts are unlined.
	Centennial Mandalong will also use non-hazardous polymer drilling muds during boring to reduce the flow of groundwater into the hole.

Desired Outcome	Commitment/Action
Surface Water	
Monitor surface water impacts on the environment	<p>For each Extraction Plan, Centennial Mandalong will include in the Water Management Plan (Condition 6 of Schedule 4) the following:</p> <ul style="list-style-type: none"> Monitoring of the watercourses within the Southern Extension Area to be undermined, particularly in locations identified as potential scouring points, to evaluate watercourse stability. Monitoring will be undertaken before and after undermining of the areas, with additional inspection of these locations following significant rainfall events. Surface water quality monitoring at the same locations within the Southern Extension Area used to gather background information. Continuous stream flow monitoring on Morans Creek, Mannering Creek, and Wyee Creek will be undertaken 2 years prior to mining and for 2 years after the completion of mining the adjacent longwall panel. TARPs for the management of subsidence impacts on watercourses in consultation with relevant government agencies.
Manage impacts to waterways as a result of ongoing operations within the Project Application Area	Centennial Mandalong will undertake any works within watercourses and on the floodplain in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (2012)</i> .
Water Management	
Appropriate management and discharge of mine water at Cooranbong Entry Site	<p>If the quality of mine water collected in the Borehole Dam is not suitable for discharge from the Cooranbong Entry Site, the water will be pumped back underground for recirculation (additional filtration and sediment settlement) through the Cooranbong Colliery goaf storage area before returning to the Borehole Dam.</p> <p>The storage volume of the Borehole Dam at the Cooranbong Entry Site will be increased to increase the settling capacity. In addition baffles will be retrofitted in the Borehole Dam to provide increased residence time and a flocculent will be introduced. Aquatic macroinvertebrate monitoring and sediment sampling will be undertaken every six months (spring and autumn).</p>
Flora and Fauna	
Minimise impacts to ecology within the Southern Extension Area	<p>As part of the detailed design phase for the Mandalong South Surface Site, Centennial Mandalong will ensure that that proposed access road is aligned to minimise disturbance and avoid removal of any <i>M. biconvexa</i> specimens.</p> <p>Centennial Mandalong will implement a vegetation condition monitoring programme 2 years before, during and 2 years after completion of mining in the adjacent longwall panel in sensitive environments (which will include floodplains and groundwater dependant ecosystems).</p> <p>As part of the construction activities at the Mandalong South Surface Site, a wheel wash will be installed to help prevent soil-borne disease (Phytophthora), pathogenic fungus (Myrtle Rust) transmission and weed seed dispersal.</p> <p>Centennial Mandalong will develop a Biodiversity Management Plan that includes:</p> <ul style="list-style-type: none"> Identification of weed management, monitoring and control practices to minimise the spread of exotic species. Incorporation of the existing Wetland Management Plan. Trigger Action Response Plan.
Offset the ecological impacts of the Project	<p>Centennial Mandalong will install nest boxes to compensate for the loss of 9 hollow bearing trees containing 18 habitat hollows as a result of the construction of the MSSS.</p> <ul style="list-style-type: none"> Nest boxes will be installed at a ratio of 1:1 (i.e. one nest box for every habitat hollow removed). A mixture of nest box types are used to compensate for the variety of hollows being removed. Nest box sizes will target microbats, gliders and possums.

Desired Outcome	Commitment/Action
	<ul style="list-style-type: none"> All nest boxes will be rear entry. The majority of nest boxes will be placed at a westerly aspect to maximize chances of colonization. Standard nest box design (i.e. single walled nest boxes) will be used rather than double walled nest boxes as previous monitoring has identified a sharper uptake of animals in single-walled nest boxes.
Aboriginal Heritage	
Monitor, mitigate and manage impacts to Aboriginal heritage sites	Centennial Mandalong will update the Centennial Northern Holding's ACHMP (in consultation with the relevant government agencies and registered Aboriginal parties) to take into consideration the commitments made in the EIS and any relevant consent conditions.
	Immediately prior to and during construction of the Mandalong South Surface Site, Centennial Mandalong will ensure that a combination of silt and protective fencing is installed to ensure that run-off does not impact Aboriginal sites down slope of this area and that Aboriginal sites upslope are not inadvertently impacted by construction activities.
	Centennial Mandalong will develop a cultural heritage awareness component of the induction for contractors involved in the construction activities in consultation with the Aboriginal community.
	Centennial Mandalong will ensure all employees and contractors working within the Southern Extension Area are made aware of their statutory obligations for Aboriginal heritage under the NPW Act 1974 as part of the site induction process.
Offset the Aboriginal heritage impacts of the Project	Within 12 months following development consent, Centennial Mandalong will formalise an agreement to authorise the local Aboriginal community access to suitable areas within its land holdings in the Southern Extension Area that contain Aboriginal cultural heritage sites.
Non-Indigenous Heritage	
Minimise impacts to items of European heritage	Six months prior to the commencement of construction activities associated with the Mandalong South Surface Site, Centennial Mandalong will ensure that the Landing Skid 2 is recorded by a qualified historical archaeologist.
	In the event that any additional non-Indigenous cultural heritage material is identified or uncovered during construction and/or exploration works, Centennial Mandalong will ensure that any surface works in the area ceases and will contact a heritage consultant to assess the condition of the item. Centennial Mandalong will adopt the appropriate mitigation measures, as provided by the heritage consultant, before recommencement of work.
	Centennial Mandalong will ensure that all employees and contractors working within the Southern Extension Area will be made aware of their statutory obligations for non-Indigenous heritage under the <i>NSW Heritage Act 1977</i> as part of the site induction process.
Air Quality	
Monitor air quality impacts	<p>Centennial Mandalong will update the Air Quality and Greenhouse Gas Management Plan to include the following:</p> <ul style="list-style-type: none"> Additional deposited dust gauges around the proposed Mandalong South Surface Site for both the construction and operational phases. A PM10 and PM2.5 monitoring system, which will be used for model verification purposes and particulate management at the Mandalong Mine Access Site. <p>The optimal location for these additional monitoring activities, along with the method and frequency of the monitoring activities, will be determined in consultation with a suitably qualified consultant.</p>
Mitigate air quality impacts	The fan evasée at the Mandalong South Surface Site will be designed and constructed to face away from nearby surrounding residential receivers.
	<p>The proposed MSSS access road will be sealed.</p> <p>All trucks carrying bulk materials (gravel, sand etc.) to the MSSS will have their loads covered.</p>

Desired Outcome	Commitment/Action
Understand the source of particulate matter	Within six months following development consent, Centennial Mandalong will commission additional studies to establish the source of the particulate matter entering the mine and the contribution of this to the total emissions from the ventilation's fans at the Mandalong Mine Access Site. These studies will inform the need for and scope of mitigation measures and management strategies considered necessary to address particulate matter emission from the ventilation fans.
Greenhouse Gas	
Reduce energy and diesel usage	Centennial Mandalong will update the existing Energy Savings Action Plan to include: <ul style="list-style-type: none"> • Use of power factor correction units at the Mandalong South Surface Site, which will improve the efficiency of the electrical power used in the underground workings and hence reduce the overall power consumption. • Underground storage/goaf areas will be used in the management of mine water to enable filtration and sediment settlement prior to the water being pumped to the surface. This will reduce energy losses through the ability to pump cleaner water with the use of high efficiency positive displacement pumps. • Bulk storage tanks/silos and boreholes will be installed at the Mandalong South Surface Site for the delivery of stone dust, concrete and ballast direct to the underground mine workings. This will result in significant diesel fuel savings by avoiding the transport of such materials via the decline tunnel.
Mitigate greenhouse gas emissions from the Project	Centennial Mandalong will progress the construction and commissioning of the gas flares, along with evaluating the electricity potential and capacity of the gas engines, at the Mandalong Mine Access Site to reduce greenhouse gas emissions.
	Centennial Mandalong will continue the trial of the VAM-RAB unit currently being constructed at the Mandalong Mine Access Site in order to determine whether it is a viable strategy for VAM abatement in the future.
	Centennial Mandalong will pay the relevant price per tonne of CO ₂ -e (carbon tax), depending on the year the liability is incurred, or purchase offsets. Where offsets are available and considered cost-effective, Centennial Mandalong will purchase only from registered suppliers under the relevant domestic or international certification scheme (the latter from July 2015 onwards).
Noise	
Monitor noise impacts from the Project	Centennial Mandalong will update the existing Noise Management Plan to include quarterly operator-attended noise monitoring at and around the Mandalong South Surface Site.
Traffic	
Provide suitable and safe vehicle access to the Mandalong South Surface Site from Mandalong Road	As part of the detailed design phase for the Mandalong South Surface Site, Centennial Mandalong will ensure: <ul style="list-style-type: none"> • The access intersection from Mandalong Road to the proposed Mandalong South Surface Site is designed to be constructed as an at-grade (two roadways joining at the same level) BAR/CHL intersection (basic right turn treatment / channelised left turn) providing a left turn turning lane into the site. • The intersection is designed in accordance with Guide to Road Design Part 4A – Design of Unsignalised and Signalised Intersections (Austroads 2009). • That LMCC are consulted regarding the final location of the intersection. Appropriate sight distances along Mandalong Road and appropriate turning templates for heavy vehicles are achieved.
Identify and address any impact on road pavements as a result of construction	Within 3 months of completion of construction activities at the Mandalong South Surface Site, Centennial Mandalong, in consultation with LMCC, will undertake a road dilapidation review to identify areas of road pavement deterioration requiring maintenance treatment that could be directly attributed to the construction activities. These areas will be rehabilitated to Council's satisfaction by Centennial Mandalong.
Visual Amenity	

Desired Outcome	Commitment/Action
Minimising visual impacts from the Mandalong South Surface Site	During construction of the Mandalong South Surface Site, Centennial Mandalong will ensure that, wherever possible, infrastructure items are dark in tone and constructed of non-reflective materials.
	Within six months of construction activities at the Mandalong South Surface Site being completed, Centennial Mandalong will undertake landscape works, including along the proposed MSSS access road, such as shrub and tree planting, to increase the level of existing screening.
Bushfire	
Provide safe egress in the event of a bushfire	During construction of the Mandalong South Surface Site, Centennial Mandalong will establish an alternative egress route from the Mandalong South Surface Site and ensure it has a carrying capacity exceeding 15 tonnes.
Reduce risk of injury to personnel at the Mandalong South Surface Site in the event of a bushfire	<p>Prior to commissioning the operation of the Mandalong South Surface Site, Centennial Mandalong will provide a safe place or fire bunker at the Mandalong South Surface Site to</p> <p>address the potential for an employee/contractor/visitor to be trapped at the surface site and</p> <p>unable to evacuate via the access road or alternate egress route.</p>
Reduce risk to Centennial Mandalong infrastructure and local landholders' properties from bushfire	Within six months following development consent, Centennial Mandalong will review and update the existing Emergency Management System to incorporate the findings and conclusions of the bushfire risk assessment (Ecobiological 2013), the commitments made in the EIS and all relevant consent conditions.
	Subject to approval from the NSW Rural Fire Service, Centennial Mandalong will engage a specialist to undertake mosaic burns of forest vegetation outside of the designated APZ on a cyclic basis to reduce overall fuel loads approaching the APZ.
	<p>Within three months of the completion of construction activities, Centennial Mandalong will establish the following Asset Protection Zones (APZs) in order provide a defendable space around infrastructure and avoiding flame contact and radiant heat exceeding 40 kilowatts per square metre:</p> <p>Mandalong Mine Access Site – an APZ will be established around the gas drainage and ventilation management infrastructure to the following distances - 20 metres to the north, south and west; and 10 metres to the east.</p> <p>Mandalong South Surface Site – an APZ will be established around the infrastructure to the following distances – 45 metres to the north and south; 20 metres to the east; and 30 metres to the west.</p> <p>Fuel reduction will be undertaken within these APZs by regular grass slashing, weed control, reducing tree canopy cover to less than 30 percent, lopping tree branches within three metres of ground fuels, reducing the shrub layer density to less than 20 percent, and removing timber piles and combustible materials.</p>
	Within six months following development consent, Centennial Mandalong will extend the water supply system at the Mandalong Mine Access Site to include reticulated water supply and hydrant access in the area containing the gas drainage and ventilation infrastructure.
	Prior to commissioning the operation of the Mandalong South Surface Site, Centennial Mandalong will ensure the Mandalong South Surface Site has a dedicated water supply of greater than 20,000 litres for bushfire protection. This supply will be connected to a hydrant system or a stand pipe with suitable truck access.
	Centennial Mandalong will ensure buildings that contain combustible infrastructure include ember protection similar to the relevant standards in the <i>Australian Standard AS3959-2009 – Construction of Buildings in Bushfire-Prone Areas</i> . This will generally involve sealing or screening areas with gaps greater than 3 millimetres.
Dangerous Goods	
Provide safe storage, handling and disposal of dangerous goods	Within six months following development consent, Centennial Mandalong will review and update the existing Emergency Management System and Pollution Incident Response Management Plan to incorporate the Project, the commitments made in this EIS and all relevant consent conditions.

Desired Outcome	Commitment/Action
Social	
Continue to engage with stakeholders	Within six months following development consent, Centennial Mandalong will update the existing Stakeholder Engagement Strategy to provide a consistent management framework for the identification and consultation with stakeholders that have an interest in the mine.
Meet Centennial's corporate social responsibility objectives	<p>Centennial Mandalong will allocate \$50,000 annually (from the granting of the consent) until the cessation of mining toward a Mandalong Mine Community Fund. The allocation of these funds to the community will be determined annually by the Mandalong CCC in accordance with a Charter and Application process agreed by the CCC and Company. The Mandalong Mine Community Fund will invest in projects that improve community infrastructure and services and create vibrant neighbourhoods and public space in the communities of Morisset, Mandalong, Dora Creek, Cooranbong and Wyee.</p> <p>Note: Annual payments are subject to the Mandalong Mine operating and any annual payment otherwise due will be reduced proportionally to reflect any period during which the Mandalong Mine is not operating.</p>
Post-Mining Closure and Rehabilitation	
Rehabilitate the mine to an agreed final land use	<p>Within five years of mine closure, Centennial Mandalong will prepare a detailed Mine Closure Management Plan with the aim of creating a land use capability compatible with the pre-mining land use (unless other beneficial uses are pre-determined and agreed). In addition to addressing the removal of surface infrastructure, the Plan will include:</p> <ul style="list-style-type: none"> Rehabilitation of disturbed areas including spreading of stockpiled topsoil accordance with commitments in this EIS, revegetation using locally occurring native plant species, and rehabilitation of disturbed land to a condition that is self-sustaining or where maintenance requirements are consistent with an agreed post-mining land use; and Final rehabilitation success criteria.

MOD 1 – MANDALONG TRANSMISSION LINE TL24 RELOCATION PROJECT

Category	Commitment/Action
General	<p>Prior to commencement of construction activities for the Project, a Construction Environmental Management Plan (CEMP) will be developed. The CEMP will address mitigation and management actions identified for the relevant environmental values.</p> <p>TransGrid's existing Environmental Management System and supporting policies and procedures are in place for the operation and maintenance of TL24.</p>
Ecology	<p>A Flora and Fauna Management Plan will form an Appendix to the CEMP. This plan will include:</p> <ul style="list-style-type: none"> Unnecessary vegetation clearing will be avoided by marking the clearing limit with flagging tape; All contractors will be advised of the designated work area through a site induction process; Vehicles/machinery will use designated access tracks. Speeds will be limited to 40 kilometres per hour to reduce the potential of fauna strike and to reduce dust generation; Measures will be implemented as required to prevent the spread of weeds and potential importation of Phytophthora; Where possible, clearing activities should be timed to avoid removal of hollow-bearing trees during breeding season of threatened species (avoiding winter and spring); and A suitably qualified person is to be present to supervise hollow-bearing tree clearing within the impact area. <p>Lot 152 DP 755238 will be included in the Mandalong Mine Land Management Strategy to offset the impacts of vegetation clearing for the Project.</p>

Category	Commitment/Action
Erosion and Sediment Control	<p>An Erosion and Sediment Control Plan (ESCP) will form an Appendix to the CEMP. The ESCP will identify works as necessary to ensure the required protection is given to downslope lands and waterways. The ESCP will specifically address:</p> <ul style="list-style-type: none"> • Tunnel soil erosion; and • Mitigation and management measures in accordance with Managing Urban Stormwater: Soils and Construction – Vol 1 (Landcom, 2004) – also known as the 'Blue Book'.
Traffic	<p>A Construction Traffic Management Plan will form an Appendix to the CEMP to address the impacts of the construction works on the local road network.</p> <p>Construction traffic will not exceed 79 vtp/h.</p>
Heritage	<p>The CEMP will include the following:</p> <ul style="list-style-type: none"> • 'No go zone' to be established at sites AHIMS#45-3-1227, AHIMS#45-3-3534, AHIMS#45-3-3539, AHIMS#45-3-3541 and AHIMS#45-3-3540 for the duration of the proposed works; • If unrecorded Aboriginal objects are identified in the TL24 Easement during future works, all works in the immediate area must cease and the area should be cordoned off as appropriate with high visibility tape. OEH must be notified via the Enviroline (131 555) so that the site can be adequately assessed and managed; • If skeletal remains are identified all work must cease in the immediate area to prevent any further harm to the remains. Local NSW Police must be contacted immediately. No action is to be undertaken until police provide written notification. If the remains are identified as Aboriginal, the OEH Enviroline (131 555) must be contacted. No work is to continue until OEH provides written notification about the action plan for the management of the skeletal remains and formulated a management plan if required; • If during the course of development works, suspected historic cultural heritage material is uncovered, work should cease in that area immediately. The OEH Enviroline (131 555) should be notified and works only recommence when an approved management strategy has been developed; • L1 landing skid: If it is not possible to avoid harming the skid, it will be archivally recorded by a qualified historical archaeologist prior to dismantling. The archival recording should be in accordance with How to Prepare Archival Records of Heritage Items (NSW Heritage Office) and Photographic Recording of Heritage Items using Digital Film or Capture (NSW Heritage Office 2006); and • L3 landing skid: The area of the skid will be cordoned off to ensure no inadvertent physical impact.
Air Quality	<p>The CEMP will include air quality mitigation and management strategies which will include:</p> <ul style="list-style-type: none"> • Standard work procedures to minimise emissions of particulate matter for example maintaining plant and equipment to ensure optimal operating conditions; and • Utilising water sprays/carts to dampen exposed surfaces and trafficable areas including operations near R16 and R20 due to the close proximity of the tower to the residence.
Noise	<p>The CEMP will include noise mitigation and management strategies which will include:</p> <ul style="list-style-type: none"> • Restrict construction activities to the day-time period as per the NSW Interim Construction Noise Guideline (DECCW, 2009) being Monday to Friday 07:00 to 18:00, Saturday 08:00 to 13:00 and no work on Sundays or public holidays. Exceptions to this include emergency works or delivery of equipment or materials outside of standard hours as requested by police or other authorities for safety reasons. [Noting that there may be a requirement for TransGrid to undertake some stringing or cutting in activities outside of the daytime hours stipulated in the ICNG if any of the required outages on the lines are not possible during normal construction times]; and • All equipment will be inspected and maintained on a regular basis to ensure good working order; and • Community consultation will be undertaken prior to commencement of construction.

Mod 6 – MSSS Discharge

Category	Commitment/Action
Water Quality Monitoring	Establish additional water quality monitoring locations (Sediment Dam and MCUS) and undertake water quality monitoring in accordance with Table 4 of the SEE.
	Implement quarterly water quality and annual aquatic ecology monitoring in Morans Creek upstream and downstream of the confluence of the unnamed creek to assess any downstream impacts due to discharges.
Water Management	Undertake weekly site inspections at MSSS and immediately following 40 mm of rainfall in the preceding 24 hours to inspect the capacity, structural integrity and effectiveness of the Gross Pollutant Trap and Sediment Dam.
	Review and revise where necessary the site's Water Management Plan to reflect the outcomes of the modification.
Surface Water	Undertake six-monthly visual and photographic inspections of the Unnamed Creek on Centennial owned land to assess for evidence of scouring. Implement appropriate mitigation measures should evidence of scouring be detected.
Aboriginal Heritage	Review and revise where necessary the Northern Region Aboriginal Cultural Heritage Management Plan to reflect the outcomes of the modification.
Biodiversity	If a local population of <i>Mixophyes balbus</i> is detected downstream from the MSSS Sediment Dam, hygiene protocols for controlling chytrid fungus would be instigated, including flushing of car tyres with a disinfecting solution.
Biodiversity Offsets	Any identified impacts to threatened flora or fauna will be quantified and offset in accordance with the NSW <i>Biodiversity Offset Policy for Major Projects</i> . Biodiversity monitoring will be undertaken in accordance with Section 4.2 of the Centennial Coal's Northern Region Biodiversity Management Plan (NRBMP) with any biodiversity offsets implemented in accordance with Section 4.6 of the NRBMP.

Mod 7 – Construction of a 33 kV powerline

Aspect	Commitment
Aboriginal Cultural Heritage	<p>The following mitigation measures will be implemented:</p> <ul style="list-style-type: none"> Centennial Mandalong will ensure that its employees and contractors are aware that it is an offence under Section 86 of the NPW Act to harm or desecrate an Aboriginal object unless that harm or desecration is authorised by an approved ACHMP (as applicable to the current Project) and the requirements of that plan have been met in relation to mitigation activities; The CEMP will include all heritage commitments from the Aboriginal Cultural Heritage Assessment Report and will address specific management requirements for the Project; The three newly identified isolated artefacts (Mandalong IF 1-3) located within the existing power line easement (refer Figure 9) will be subject to surface collection in accordance with the methodology provided in the Aboriginal Cultural Heritage and Archaeological Assessment (Umwelt, 2019); For the duration of the Project, temporary protection (in the form of high visibility fencing) will be put in place at grinding groove sites AHIMS 45-3-3470, 45-3-3526 and 45-3-3527 to prevent incidental impacts during Project works; Due to the potential for additional grinding groove sites to be present (but not visible) along minor drainage lines within the Project Area, heavy vehicle movements will be avoided across any areas of sandstone exposure on minor drainage lines; Following the completion of vegetation clearance in the areas of low-moderate archaeological potential (refer Figure 10) an opportunity will be provided for an additional inspection of these areas by an archaeologist and Aboriginal party representatives. Any surface artefacts may be subject to surface collection in accordance with the Aboriginal Cultural Heritage and Archaeological Assessment (Umwelt, 2019). The opportunity will be provided to an archaeologist and the registered Aboriginal parties to monitor removal of topsoil within the area of low-moderate archaeological potential (including that disturbed for excavation of the pole location) and to collect any Aboriginal objects that may be identified; and

	<ul style="list-style-type: none"> In the event that a previously unrecorded Aboriginal object is identified within the Project Area, it will be managed in accordance with the unexpected finds protocol included in the ACHMP.
Noise	<p>To minimise noise emissions from construction works the following reasonable and feasible controls will be implemented:</p> <ul style="list-style-type: none"> Community consultation will be undertaken prior to the commencement of and during construction. All residents who will likely experience noise levels above the noise affected levels for construction work prescribed in the ICNG will be informed of the nature of works to be carried out, the expected noise levels and duration, as well as contact details in the event of a complaint; Construction activities will be restricted to the day period (Monday to Friday 7:00am to 6:00pm, Saturday 8:00am to 1:00pm and no work on Sundays or public holidays). It should be noted that there may be a requirement for certain activities such as stringing or cutting in to occur outside of these hours however Centennial Mandalong will consult as necessary with affected residents; Quietest available equipment will be selected where possible for affected locations and noisy activities should be scheduled for the least noise sensitive time of day; The mulcher will not operate within 100 m of any residence; Clearing crews that include a mulcher will maintain a separation of 900 m when working on the proposed easement north of Schofield Road; All equipment will be inspected and maintained on a regular basis to ensure they are in good working order; Simultaneous operation of plant will be restricted where possible; Operations will be modified in the event of enhancing weather conditions that cause an unacceptable increase in offsite noise levels; The noise mitigation measures will be included in the CEMP developed for the project; and Centennial will consult and undertake ongoing consultation with affected residents to give sufficient notice of any helicopter activity.
Biodiversity	<p>The following mitigation measures will be implemented during construction of the Project to avoid and minimise impacts on native vegetation and habitat. These will be documented in the CEMP for the Project:</p> <ul style="list-style-type: none"> Impacts on Fauna and their Habitat: <ul style="list-style-type: none"> Retain habitat trees and significant tree limbs (where possible); Confirm habitat tree numbers and distribution; Mark habitat trees and estimate height; Identify limbs of habitat value with enough clearance below power lines for retention; and Clearly mark out a buffer area to prevent damage during construction; Install substitute habitat: <ul style="list-style-type: none"> Habitat trees to be impacted by the proposed works are to be quantified and offset adjacent to the site; and Hollow bearing trees are to be replaced by nest boxes at a ratio of at least 1:1; Fauna protection protocols: <ul style="list-style-type: none"> Pre-clearance surveys by qualified ecologist prior to tree removal; and Apply procedures to safely fell habitat trees and release areas for any rescued fauna; Retain other habitat attributes: <ul style="list-style-type: none"> Hollow logs and rock habitat within the clearance areas will be retained and carefully placed into the adjacent bushland; Maintain upper catchment hydrology (maintain ephemerality): <ul style="list-style-type: none"> Erosion and sediment controls will be designed to prevent permanent or semi-permanent ponding of water where possible; <p>Indirect impacts on native vegetation and habitat:</p> <ul style="list-style-type: none"> Protect adjacent habitat or vegetation:

	<ul style="list-style-type: none"> ○ Boundaries for vegetation removal clearly established prior to clearing using tape/rope; ○ All vehicles and equipment accessing site must use established access tracks only; and ○ Restrict load/equipment set down areas to well within the designated impact area; ● Minimise noise and light spill: <ul style="list-style-type: none"> ○ Avoid night work; and ○ Take measures to reduce noise. ● Dust management: <ul style="list-style-type: none"> ○ Visual monitoring of dust generated during earthworks, suspending work if dust is blown into adjacent bushland and use of water carts; ● Weed and pathogen management: <ul style="list-style-type: none"> ○ Good hygiene practices are to be used to reduce the risk of spreading weeds and pathogens, including ensuring that all machinery, materials and personnel are clean of any weed seed to entering the site Priority Weeds listed under Biosecurity Act 2015 to be actively managed on site to limit the spread of weeds into the adjacent forested areas; ○ Weeds removed from the subject site are to be disposed of appropriately at an approved waste facility; ○ Occurrences of pathogens (e.g. Myrtle Rust and Phytophthora) will be reported, treated and monitored; and ○ Quarantine controls will be applied to prevent introduction of Chytrid disease; ● Partitioning off threatened flora species: <ul style="list-style-type: none"> ○ Patches of threatened plants are to be identified and marked out to minimise indirect impacts of clearing/construction activities; and ○ A qualified ecologist is present during initial vegetation removal to identify these environmentally sensitive areas; ● CEMP: <ul style="list-style-type: none"> ○ The Project CEMP will include the safeguards included in the BDAR and detail unexpected threatened species finds procedure and rehabilitation following construction; ● Staff and contractor training and site briefing to educate contractors on biodiversity management measures; <ul style="list-style-type: none"> ○ Contractors are made aware of biodiversity management measures through toolbox talks and review of the CEMP; ● Sediment and erosion controls: <ul style="list-style-type: none"> ○ Erosion and sediment control measures are to be implemented and maintained to reduce sediment moving offsite, and sediment laden water entering any watercourse; ○ Erosion controls are to be regularly inspected for their functionality and maintained if required, especially after rainfall; ○ Excavated material should be stockpiled well away from areas where native vegetation is to be retained and waterways; and ○ Work areas stabilised progressively during works; ● Prevent Water Pollution: <ul style="list-style-type: none"> ○ No release of dirty water into drainage lines/waterways. Water will be released from the easement during construction via sediment controls; ○ All fuel/chemicals are to be stored in either self-bunded containers or in a bunded facility; ○ An emergency spill kit is always to be kept on sites where equipment is being used; ○ An emergency spill response plan will be appended to the CEMP; and ○ Regular inspection of equipment and vehicles for fuel or oil leaks; ● Avoid vehicle strike: <ul style="list-style-type: none"> ○ Vehicles will adhere to a 40 km/hr speed limit on dirt tracks.
Air Quality	To minimise air quality impacts from construction works the following measures will be implemented:

	<ul style="list-style-type: none"> • Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager. The head or regional office contact information would also be displayed; • Develop and implement an Air Quality Management Plan (AQMP), which may include measures to control other emissions, which will be included in the Contractor CEMP; • Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken; • Make the complaints log available for relevant regulators as required; • Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation; • Perform daily inspections to monitor dust and record inspection results; • Carry out regular visual site inspections to monitor compliance with the AQMP and record visual inspection results; • Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged adverse weather conditions; • Cover, seed or fence stockpiles to minimise wind erosion; • Ensure all on-road vehicles comply with relevant vehicle emission standards, where applicable; • Minimise prolonged idling of vehicles; • Minimise the use of diesel or petrol powered equipment by using battery powered equipment where practicable; • Ensure an adequate water supply for the site for effective dust/particulate matter suppression/ mitigation, only using non-potable water, where possible and appropriate; • Minimise drop heights from loading or handling equipment; • Waste materials will be disposed of at an appropriate facility. There will be no burning of waste materials; • Use water-assisted dust sweeper(s) on the access and local roads to remove, as necessary, any material tracked out of the site; • Avoid dry sweeping of large areas; • Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport; • Record all inspections of haul routes and any subsequent actions.
Visual	<p>The visual mitigation measures to be implemented during the construction of the Project will be:</p> <ul style="list-style-type: none"> • Undertaking a review of materials and colour finishes for selected components including the use of non-reflective finishes to structures where possible; • Minimising tree removal where possible; • Avoidance of temporary light spill beyond the construction site where temporary lighting is required; • Progressively rehabilitating any disturbed areas where necessary; • Protecting mature trees alongside transmission line easements where retained; and • These mitigation measures will be captured within the Project's CEMP.
Bushfire	<p>The bushfire mitigation measures to be implemented during the construction of the Project will be:</p> <ul style="list-style-type: none"> • The power line will be constructed in accordance with the Ausgrid vegetation clearance requirements specified in Ausgrid Network Standard NS179 Vegetation Management (with clearance zones of up to 63 m wide) to allow for the safe operation of the line in all meteorological conditions; • All fuels and flammable materials used during construction will be stored appropriately; • All machinery will be maintained to operate in good working order to minimise ignition risks; • Contractor vehicles and machinery will be fitted with fire extinguishers; • Staff will be made aware of their obligations for minimising bushfire risk during construction, e.g. no smoking on site, etc.;

	<ul style="list-style-type: none"> • The recognition of “Very High” (or greater) Fire Danger Rating days should inform people's movements in bushland areas and trigger a requirement to view the “Current Fires and Incidents” page on the RFS website (https://www.rfs.nsw.gov.au/fire-information/fires-near-me); • All contractors working on site will be made aware of the emergency evacuation procedures in the event of a bush fire; and • Bushfire mitigation measures, as well as emergency evacuation procedures will be included in the CEMP.
Surface and Groundwater	<p>The following mitigation measures will be applied:</p> <ul style="list-style-type: none"> • Poles will be installed progressively along the alignment to ensure minimum ground disturbance at any one time; • As there is the potential for erosion and sediment impacts to occur during the construction phase, mitigation and management measures will be implemented as required in accordance with: <ul style="list-style-type: none"> ○ <i>Managing Urban Stormwater: Soils and Construction – Volume 1</i> (Landcom 2004) also known as The Blue Book; and ○ <i>Managing Urban Stormwater: Soils and Construction – Volume 2A Installation of services; and Managing Urban Stormwater: Soils and Construction – Volume 2C Unsealed roads</i>; • Install water crossings enabling works as necessary to assist with construction access within the 4.5 m disturbance width; • All areas temporarily disturbed during construction of the power line will be revegetated as soon as practical following completion of construction; • Control measures will be implemented to manage risks associated with the handling of fuel through providing spill kits in close proximity to major plant items. Any temporary fuel storage will be positioned away from waterways and bunded.
Waste	<p>The following mitigation measures will be implemented to manage waste generated by the Project:</p> <ul style="list-style-type: none"> • Any excess VENM will be transported to the Newstan Colliery reject emplacement areas or Hawkmount Quarry; • With the exception of logs/timber requested by the landholders, any green waste generated during clearing will be mulched, and then either: <ul style="list-style-type: none"> ○ Used on site for sediment and erosion control; ○ Used at the MSSS for sediment and erosion control; ○ Transported to Newstan Colliery for rehabilitation works; or ○ Provided to any of the landholders along the power line easement; • All other wastes generated during construction such as construction materials, paper/cardboard, and domestic waste will be removed from site and disposed of at an appropriately licensed waste facility; and • Opportunities for waste reduction will be identified in accordance with the <i>Waste Avoidance and Recovery Act 2001</i>. This will include, but not be limited to, the segregation of material for reuse, recycling and/or disposal.