

Project Approval

Section 75J of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning and Infrastructure, the Planning Assessment Commission of NSW approves the project application referred to in schedule 1, subject to the conditions in schedules 2 to 5.

These conditions are required to:

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



Dr Neil Shepherd AM
Member of the Commission



Mr David Johnson
Member of the Commission

Sydney

23 October 2012

SCHEDULE 1

Application Number:	10_0138
Proponent:	Aston Coal 2 Pty Limited
Approval Authority:	Minister for Planning and Infrastructure
Land:	See Appendix 1
Project:	Maules Creek Coal Project

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DEFINITIONS

Annual review	The review required by condition 4 of schedule 5
ARTC	Australian Rail Track Corporation
BCA	Building Code of Australia
Biodiversity offset strategy	The conservation and enhancement strategy described in the EA, required by condition 44/45 of schedule 3 of this consent and depicted conceptually in the figures in Appendix 7
Blast misfire	The failure of one or more holes in a blast pattern to initiate
Boggabri rail spur line	The railway line between the Narrabri-Werris Creek railway line and the Boggabri coal mine, as depicted in Figures 1 and 3 in Appendix 2
CCC	Community Consultative Committee
CHPP	Coal handling and preparation plant
Conditions of this approval	Conditions contained in schedules 1 to 5 inclusive
Construction	The construction works for the project as described in the EA. Construction work does not include surveys, acquisitions, fencing, investigative drilling or excavation, minor clearing, minor access roads, minor adjustments to services/utilities, works which allow isolation of the site so that access for construction can be provided (including service relocations) and establishing temporary facilities for construction (including for example an office and amenities compounds, temporary water and communications, construction compounds, materials storage compounds, maintenance workshops, testing laboratory or material stockpile areas).
Council	Narrabri Shire Council
CPI	Australian Bureau of Statistics Consumer Price Index (General)
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Infrastructure
DIDO	Drive in drive out
Director-General	Director-General of the Department, or delegate
DPI	Department of Primary Industries
DRE	Division of Resources and Energy (within the Department of Trade and Investment, Regional Infrastructure and Services)
EA	Environmental Assessment titled <i>Maules Creek Coal Project Environmental Assessment</i> dated July 2011 (5 volumes), including the Response to Submissions
EEC	Endangered ecological community, as defined under the <i>Threatened Species Conservation Act 1995</i>
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 6pm to 10pm
Executive Director Mineral Resources	The Executive Director of Mineral Resources within DRE, or equivalent position
Feasible	Feasible relates to engineering considerations and what is practical to build or carry out
FIFO	Fly in fly out
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>
Incident	A set of circumstances that: <ul style="list-style-type: none"> causes or threatens to cause material harm to the environment; and/or breaches or exceeds the limits or performance measures/criteria in this approval
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in schedules 3 and 4 of this approval 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 approval
Leard Forest mining precinct	The area incorporating the existing and proposed coal mining operations centred around Leard Community Conservation Area (CCA) 4, including the Maules Creek Coal Mine, Boggabri Coal Mine and Tarrawonga Coal Mine
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Maules Creek rail spur line	The railway line from the Boggabri rail spur line to the Maules Creek coal mine as depicted in Figures 1 and 3 in Appendix 2

Mine Water	Water that accumulates within, or drains from, active mining areas, coal reject emplacement areas, tailings dams and infrastructure areas, synonymous with dirty water
Mining operations	Includes the removal of overburden and extraction, processing, handling, storage and transportation of coal on site and on the rail spur line (including both the Boggabri and Maules Creek rail spur lines)
Minister	Minister for Planning and Infrastructure, or delegate
Minor	Not very large, important or serious
Mitigation	Activities associated with reducing the impacts of the project
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NOW	NSW Office of Water within the Department of Primary Industries
OEH	Office of Environment and Heritage within the Department of Premier and Cabinet
Operational Noise	Operational noise includes noise from the mining operations and the use of private roads and rail spurs
PAC	Planning Assessment Commission
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned land	Land that is not owned by a public agency or a mining company (or its subsidiary)
Project	The development as described in the EA
Proponent	Aston Coal 2 Pty Limited, or any person who seeks to carry out the development approved under this approval
Public infrastructure	Linear and related infrastructure 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
Rehabilitation	The restoration of land disturbed by the project to a good condition and for the purpose of establishing a safe, stable and non-polluting environment
Response to submissions	The Proponent's responses to issues raised in submissions titled <i>Maules Creek Coal Project Response to Submissions</i> dated December 2011 (2 volumes), and <i>Maules Creek Coal Project Response to Subsidiary Submissions</i> dated March 2012
RFS	Rural Fire Service
RMS	Roads and Maritime Services
ROM coal	Run-of-mine coal
SEWPaC	Commonwealth Department of Sustainability, Environment, Water, Populations and Communities.
Site	The land described in Appendix 1
Statement of commitments	The Proponent's commitments in Appendix 5
TSC Act	<i>Threatened Species Conservation Act 1995</i>
VPA	Voluntary Planning Agreement

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

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

TERMS OF APPROVAL

2. The Proponent shall carry out the project generally in accordance with the:
 - (a) EA;
 - (b) statement of commitments; and
 - (c) conditions of this approval.

Notes:

- The general layout of the project is shown in Appendix 2; and
- The statement of commitments is reproduced in Appendix 5.

3. If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.
4. The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of:
 - (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this approval; and
 - (b) the implementation of any actions or measures contained in these documents.

LIMITS ON APPROVAL

Mining Operations

5. The Proponent may carry out mining operations on the site until the end of December 2034.

Note: Under this approval, the Proponent is required to rehabilitate the site and carry out additional undertakings to the satisfaction of both the Director-General and the Executive Director Mineral Resources. Consequently, this approval will continue to apply in all other respects - other than the right to conduct mining operations - until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.

Coal Extraction

6. The Proponent shall not extract more than 13 million tonnes of ROM coal from the site in any calendar year.

Vegetated Buffer Corridor

7. The Proponent shall not clear native vegetation from any land within 250 metres of the adjoining Boggabri Coal Mine mining lease boundary, unless:
 - (a) the Proponent has provided an alternative area of equal or better habitat value for the purpose of providing a fully effective east-west movement corridor for native fauna;
 - (b) the alternative area is capable of delivering this outcome before clearing commences within 250 m of the lease boundary;
 - (c) the alternative area is under tenure arrangements that ensure its maintenance for biodiversity purposes in perpetuity, or there is an enforceable commitment to deliver this outcome; and
 - (d) the alternative area has been endorsed by the OEH and subsequently approved by the Director-General.

Notes:

- The alternative area may be provided by way of offset or by way of suitable rehabilitated land within the Boggabri Coal Project site or the Maules Creek Coal Project site.
- The alternative area may be provided by the Proponent or the Proponent in conjunction with the Proponent of the Boggabri Coal Project.

Coal Transport

8. The Proponent shall only transport coal from the site by rail.

Note: All coal is to be transported from site via the Maules Creek rail spur line, and the shared portion of the Boggabri Coal rail spur line. The separate rail crossing over the Namoi River, as mentioned in at least one part of the EA, does not form part of the project and is not approved under this project approval.

9. The Proponent shall not:
- (a) transport more than 12.4 million tonnes of product coal from the site in any calendar year; and
 - (b) dispatch more than 7 laden trains from the site in a day when averaged over a calendar year; or
 - (c) dispatch more than 10 laden trains from the site in a day.

Note: For the purposes of this condition, a day refers to the 24 hours from midnight to midnight the next day.

SURRENDER OF EXISTING DEVELOPMENT CONSENT

10. By the end of 2013, or as otherwise agreed by the Director-General, the Proponent shall surrender the existing development consent (ie. DA85/1819) for mining on the site in accordance with Section 104A of the EP&A Act.

Prior to the surrender of this development consent, the conditions of this approval shall prevail to the extent of any inconsistency with the conditions of the development consent.

STRUCTURAL ADEQUACY

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

Notes:

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

12. The Proponent shall ensure that the Maules Creek rail spur line and ancillary infrastructure are designed and constructed in accordance with the relevant requirements of the current ARTC infrastructure standards, or as otherwise approved by the Director-General.

DEMOLITION

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

PROTECTION OF PUBLIC INFRASTRUCTURE

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

OPERATION OF PLANT AND EQUIPMENT

15. The Proponent shall ensure that all the plant and equipment used on site, or to transport coal from the site, is:
- (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

STAGED SUBMISSION OF STRATEGIES, PLANS AND PROGRAMS

16. With the approval of the Director-General, the Proponent may submit any strategy, plan or program required by this consent on a progressive basis.

Notes:

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

COMMUNITY ENHANCEMENT

17. By the end of March 2013, unless the Director-General agrees otherwise, the Proponent shall enter into a planning agreement with Council in accordance with:
- (a) Division 6 of Part 4 of the EP&A Act; and
 - (b) the terms of the Proponent's offer in Appendix 3.

SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

ACQUISITION ON REQUEST

1. Upon receiving a written request for acquisition from the owner(s) of the land listed in Table 1, the Proponent shall acquire the land in accordance with the procedures in conditions 8-9 of schedule 4.

Table 1: Land subject to acquisition upon request

Acquisition Basis	Land
Noise & Air	110-114
Noise	61-66, 108-109, 117-120, 123-124, 125-131, 132-140, 141-148, 149-155, 236, 256-263
Air	279-280

However, this condition does not apply if the Proponent has an agreement with the owner(s) of the relevant properties to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.

Notes:

1. To interpret the locations referred to in Table 1 see the applicable figure(s) in Appendix 4.
2. The Proponent is only required to acquire property 279-280 if the owner of the land no longer has acquisition rights under any planning approval for the Boggabri mine and/or Tarrawonga mine.
3. For the purposes of acquisition under this condition, parcels of land that are in close proximity and operated as a single agricultural enterprise should be included as part of the land to be acquired. Where the Proponent and the owner(s) cannot agree on whether non-contiguous parcels of land should be included, either party may refer the matter to the Director-General for resolution. The Director-General's decision as to the lands to be included for acquisition under the procedures in conditions 8 and 9 of Schedule 4 shall be final.

NOISE AND VIBRATION

Noise Affected Residences

2. For privately-owned residences within the project's 35dB(A) noise impact contour (see Table 2 and Appendix 4A) the owner(s) can make a written request to the Proponent for one of the following:
 - (a) mitigation (such as double glazing, insulation and air conditioning) at the residence in consultation with the owner(s). These measures must be reasonable and feasible and directed towards reducing the noise impacts of the project on the residence. If within 3 months of receiving this request from the owner(s), the Proponent and owner(s) cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution; or
 - (b) acquisition of the residence and land in accordance with the procedures in conditions 8-9 of Schedule 4.

Table 2: Residences subject to acquisition or noise mitigation on request

Residences
61, 108, 118, 120, 126, 134, 236, 256 and 259

Upon receiving a written request from the owner(s), the Proponent must undertake whichever option has been requested by the owner(s).

However, this condition does not apply if the Proponent has an agreement with the owner(s) of the relevant residence to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.

Notes:

1. To interpret the locations referred to in Table 2 see the applicable figure(s) in Appendix 4.
2. For the purposes of this condition a privately-owned residence is defined as a residence not owned by a mining company that: is regularly occupied; or is an existing residence that is not regularly occupied but for which a valid development consent exists; or is a proposed residence for which a development application has been lodged with the relevant authority prior to the date of this approval.
3. For the purposes of acquisition under this condition, parcels of land that are in close proximity and operated as a single agricultural enterprise should be included as part of the land to be acquired. Where the Proponent and the owner(s) cannot agree on whether non-contiguous parcels of land should be included, either party may refer the matter to the Director-General for resolution. The Director-General's decision as to the lands to be included for acquisition under the procedures in conditions 8 and 9 of Schedule 4 shall be final.

Maximum predicted noise levels

3. Where the owner(s) of a residence included in Table 2 of this schedule have opted for either an agreement to generate higher noise levels or noise mitigation under condition 2, and the owner(s) have reason to believe that the noise impacts at the residence are more than 3 dB(A) above the predicted noise levels for that residence (see Table 3), the owner(s) can request an independent noise impact assessment for the residence. The request shall be made in writing to the Director-General. If the Director-General considers that a noise impact assessment is warranted, then the Proponent shall commission the assessment.

If the noise impact assessment determines that the noise generated by the project causes sustained exceedances, or is likely to cause sustained exceedances, of the predicted noise levels by more than 3 dB(A), the owner(s) may require the Proponent to acquire the residence and land in accordance with the procedures in conditions 8-9 of Schedule 4.

Table 3: Maximum Predicted Noise Levels

Location Property/ID	Day (L_{Aeq} (15 min))	Evening (L_{Aeq} (15 min))	Night (L_{Aeq} (15 min))	Night (L_{A1} (1 min))
61	35	43	43	53
108, 120	35	39	39	45
118	40	44	44	45
126	45	48	48	53
134, 236	35	36	36	45
256	35	40	40	50
259	35	39	39	49

Notes:

- To interpret the locations referred to in Table 3, see the applicable figure in Appendix 4
- The noise assessment must be undertaken by a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General and include either:
 - sufficient monitoring at the affected residence to allow for assessment of the impacts under a range of meteorological conditions (including adverse conditions) likely to be experienced at the residence; or
 - sufficient monitoring to allow reliable prediction of the likely impacts under the range of meteorological conditions (including adverse conditions) likely to be experienced at the residence.
- Monitoring should be conducted in accordance with the requirements of the NSW Industrial Noise Policy.
- Where predictions of likely impacts is to be used, either in substitution for, or in conjunction with, direct measurement of noise impacts at the residence, it must be based on sufficient monitoring data to provide a reliable estimate of the impacts (including under adverse meteorological conditions) and be derived using standard noise modelling techniques accepted by the EPA.
- The Proponent shall ensure that the requested noise impact assessment is submitted to the Director-General within 3 months of the Director-General's decision that the assessment was warranted. The Proponent shall also provide a copy of the assessment to the owner(s) of the residence at the same time it is submitted to the Director-General.
- Note 3 to condition 1 of this Schedule applies to acquisition under this condition.

Construction Noise and Vibration Criteria – Maules Creek and Boggabri Shared Rail Spur Lines

4. During the hours of:
- 7 am to 6 pm Monday to Fridays, inclusive;
 - 8 am to 1 pm on Saturdays; and
 - at no time on Sundays or public holidays,
- noise from activities associated with the construction and/or upgrade of the Maules Creek rail spur line and shared section of the Boggabri rail spur line shall meet the criteria in Table 4.

Table 4: Rail spur line construction noise criteria dB(A)

Location Property/ID	Construction Noise Criteria
	Day dB(A) $L_{Aeq}(15 \text{ min})$
256	50
259	45
All other privately-owned residences	40

Note: To interpret the locations referred to in Table 4, see the applicable figure in Appendix 4.

5. Vibration from activities associated with the construction and/or upgrade of the Maules Creek rail spur line and shared section of the Boggabri rail spur line shall comply with the following:
 - (a) for structural damage, the vibration limits set out in the German Standard *DIN 4150-3: Structural Vibration - effects of vibration on structures*; and
 - (b) for human exposure, the acceptable vibration values set out in the *Environmental Noise Management Assessing Vibration: A Technical Guideline* (Department of Environment and Conservation, 2006).
6. If the Proponent proposes to undertake any construction works associated with the Maules Creek rail spur line (and shared section of the Boggabri rail spur line) outside the hours specified above, then the Proponent must prepare and implement an Out of Hours Work protocol for these works to the satisfaction of the Director-General. This protocol must be prepared in consultation with the EPA and the residents who would be affected by the noise generated by these works, and be consistent with the requirements of the *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009). The Proponent shall not carry out any out of hours construction works before this protocol has been approved by the Director-General.

Note: For areas where construction noise from the Maules Creek rail spur line and shared section of the Boggabri rail spur line is predicted to be at or below 35 dB(A) and/ or below operational noise criteria at sensitive receptors, this is likely to provide sufficient justification for the need to operate outside of recommended standard hours as specified in the ICNG.

Noise Criteria

7. Except for the noise affected land in Table 1, the Proponent shall ensure that operational noise generated by the project does not exceed the criteria in Table 5.

Table 5: Noise criteria dB(A)

Land	Day/Evening/Night <i>L_{Aeq}(15 min)</i>	Night <i>L_{A1}(1 min)</i>
All privately-owned residences	35	45

Note:

- Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.
- Operational noise includes noise from the mining operations and the use of private roads and rail spurs.

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

Noise Acquisition Requirements - Residences

8. If the owner(s) of a privately-owned residence, which is not within the project's 35 dB(A) noise impact contour (see condition 2, Table 2 and Appendix 4A), have reason to believe that operational noise from the project is causing the criteria in Table 5 to be exceeded at the residence, the owner(s) can request an independent noise impact assessment for the residence. The request shall be made in writing to the Director-General. If the Director-General considers that a noise impact assessment is warranted, then the Proponent shall commission the assessment.

If the noise impact assessment determines that the noise generated by the project causes sustained exceedances, or is likely to cause sustained exceedances, of the criteria in Table 5, the owner(s) can make a written request to the Proponent for one of the following:

- (a) mitigation (such as double glazing, insulation and air conditioning) at the residence in consultation with the owner(s). These measures must be reasonable and feasible and directed towards reducing the noise impacts of the project on the residence. If within 3 months of receiving this request from the owner(s), the Proponent and owner(s) cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution; or
- (b) acquisition of the residence and land in accordance with the procedures in conditions 8-9 of Schedule 4.

Upon receiving a written request from the owner(s), the Proponent must undertake whichever option has been requested by the owner(s).

However, this condition does not apply if the Proponent has an agreement with the owner(s) of the relevant residence to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.

Notes:

1. For the purposes of this condition a privately-owned residence is defined as a residence not owned by a mining company that: is regularly occupied; or is an existing residence that is not regularly occupied but for which a valid

development consent exists; or is a proposed residence for which a development application has been lodged with the relevant authority prior to the date of this approval.

2. For the purposes of acquisition under this condition, parcels of land that are in close proximity and operated as a single agricultural enterprise should be included as part of the land to be acquired. Where the Proponent and the owner(s) cannot agree on whether non-contiguous parcels of land should be included, either party may refer the matter to the Director-General for resolution. The Director-General's decision as to the lands to be included for acquisition under the procedures in conditions 8 and 9 of Schedule 4 shall be final.
3. Notes 2,3,4 and 5 of condition 3 apply to this condition.

Noise Acquisition Requirements - Land

9. If the owner(s) of land containing a privately owned residence, which is not listed in Table 1, have reason to believe that operational noise from the project is causing noise levels to exceed 40 dB(A) $L_{Aeq(15\text{ min})}$ over more than 25% of that land, the owner(s) can request an independent noise impact assessment for the land. The request shall be made in writing to the Director-General. If the Director-General considers that a noise impact assessment is warranted, then the Proponent shall commission the assessment.

If the noise impact assessment determines that the noise generated by the project causes sustained exceedances, or is likely to cause sustained exceedances, of the 40 dBA criteria, the owner(s) can make a written request to the Proponent for acquisition of the residence and land in accordance with the procedures in conditions 8-9 of Schedule 4.

Upon receiving a written request from the owner(s), the Proponent must purchase the residence and land in accordance with the procedures in conditions 8-9 of Schedule 4.

However, this condition does not apply if the Proponent has an agreement with the owner(s) of the relevant residence to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.

Notes:

1. For the purposes of this condition a privately-owned residence is defined as a residence not owned by a mining company that: is regularly occupied; or is an existing residence that is not regularly occupied but for which a valid development consent exists; or is a proposed residence for which a development application has been lodged with the relevant authority prior to the date of this approval.
2. For the purposes of acquisition under this condition, parcels of land that are in close proximity and operated as a single agricultural enterprise should be included as part of the land to be acquired. Where the Proponent and the owner(s) cannot agree on whether non-contiguous parcels of land should be included, either party may refer the matter to the Director-General for resolution. The Director-General's decision as to the lands to be included for acquisition under the procedures in conditions 8 and 9 of Schedule 4 shall be final.
3. Notes 2,3,4 and 5 of condition 3 apply to this condition.

Cumulative Noise Criteria

10. Except for the land listed in Table 1, the Proponent shall ensure that the operational noise generated by the project combined with the noise generated by other mines does not exceed the criteria in Table 6 at any residence on privately-owned land.

Table 6: Cumulative noise criteria dB(A) L_{Aeq} (period)

Land	Day/Evening/Night L_{Aeq} (period)
All privately-owned land	40

Notes:

- Cumulative noise is to be measured in accordance with the relevant requirements, and exemptions (including certain meteorological conditions), of the NSW Industrial Noise Policy.
- Operational noise includes noise from the mining operations and the use of private roads and rail spurs.

Cumulative Noise Acquisition Requirements

11. If the owner(s) of a privately-owned residence, which is not listed in Table 1, reasonably believes that the noise limits in Table 6 are being exceeded at the residence and that the exceedance is caused by operational noise from the project and one or more other mines (including use of private roads or rail spurs), the owner(s) can request an independent noise impact assessment for the residence. The request shall be made in writing to the Director-General. If the Director-General considers that a noise impact assessment is warranted, then the Proponent shall commission the assessment.

Where the noise impact assessment determines that the cumulative noise generated by the project combined with the noise from the other mine(s) causes, or is likely to cause, sustained exceedances of the criteria in Table 6, then the owner(s) can make a written request to the Proponent for one of the following:

- (a) mitigation (such as double glazing, insulation and air conditioning) at the residence in consultation with the owner(s). These measures must be reasonable and feasible and directed towards reducing the noise impacts of the project on the residence. If within 3 months of receiving this request from

the owner(s), the Proponent and owner(s) cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution; or

- (b) acquisition of the residence and land in accordance with the procedures in conditions 8-9 of Schedule 4.

Upon receiving a written request from the owner(s), the Proponent must undertake whichever option has been requested by the owner(s).

However, this condition does not apply if the Proponent has an agreement with the owner(s) of the relevant residence to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.

The Proponent may seek to recover an equitable share of the costs incurred from the other mines contributing to the cumulative impact. Unless otherwise agreed between the mines, the proportional contributions should be based on expert analysis of the monitoring results to assess relative contribution to the impact. In the event of a dispute between the mines the Proponent, or one of the contributing mines, may submit the matter to the Director-General for resolution. The Director-General's decision shall be final.

Notes:

1. *For the purposes of this condition a privately-owned residence is defined as a residence not owned by a mining company that: is regularly occupied; or is an existing residence that is not regularly occupied but for which a valid development consent exists; or is a proposed residence for which a development application has been lodged with the relevant authority prior to the date of this approval.*
2. *For the purposes of acquisition under this condition, parcels of land that are in close proximity and operated as a single agricultural enterprise should be included as part of the land to be acquired. Where the Proponent and the owner(s) cannot agree on whether non-contiguous parcels of land should be included, either party may refer the matter to the Director-General for resolution. The Director-General's decision as to the lands to be included for acquisition under the procedures in conditions 8 and 9 of Schedule 4 shall be final.*
3. *Notes 2,3,4 and 5 of condition 3 apply to this condition.*
4. *The noise impact assessment shall include assessment of the relative contribution of the mines to the impact at the residence.*

Attenuation of Plant

12. The Proponent shall:

- (a) ensure that:
- all mining trucks and water carts used on the site are commissioned as noise suppressed (or attenuated) units;
 - ensure that all equipment and noise control measures deliver sound power levels that are equal to or better than the sound power levels identified in the EA, and correspond to best practice or the application of the best available technology economically achievable;
 - where reasonable and feasible, improvements are made to existing noise suppression equipment as better technologies become available; and
- (b) monitor and report on the implementation of these requirements annually on its website.

13. The Proponent shall:

- (a) conduct an annual testing program of the attenuated plant on site to ensure that the attenuation remains effective;
- (b) restore the effectiveness of any attenuation if it is found to be defective; and
- (c) report on the results of any testing and/or attenuation work annually on its website.

Maules Creek Rail Spur Line – Noise impacts

14. The Proponent shall:

- (a) commission suitably qualified and experienced person/s to review the design of the Maules Creek rail spur line, and determine whether it incorporates all reasonable and feasible noise mitigation measures, including suitable measures to minimise low frequency noise;
- (b) implement the recommendations of this acoustic review;
- (c) undertake commissioning trials of the spur line to determine the optimal train speed to minimise noise impacts; and
- (d) following commissioning of the spur line, undertake targeted noise monitoring to determine the accuracy of predicted acoustic impacts and effectiveness of any noise reduction measures, including monitoring during adverse inversion conditions, to the satisfaction the Director-General.

Operating Conditions

15. The Proponent shall:

- (a) implement best management practice to minimise the construction, operational, low frequency, road and rail traffic noise of the project;
- (b) operate a comprehensive noise management system on site that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of

- mining operations and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this approval;
- (c) maintain the effectiveness of noise suppression equipment on plant at all times and ensure defective plant is not used operationally until fully repaired;
- (d) ensure that noise attenuated plant is deployed preferentially in locations relevant to sensitive receivers;
- (e) minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply;
- (f) ensure that the Maules Creek rail spur line is only accessed by locomotives that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL (No. 3142);
- (g) use its best endeavours to ensure that the rolling stock supplied by service providers on the rail spur line is designed, constructed and maintained to minimise noise;
- (h) ensure any new rail rolling stock manufactured specifically for the project is designed, constructed and maintained to minimise noise; and
- (i) co-ordinate the noise management on site with the noise management at other mines within the Leard Forest Mining Precinct to minimise the cumulative noise impacts of these mines, to the satisfaction of the Director-General.

Noise Management Plan

16. The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director-General. This plan must:
 - (a) be prepared in consultation with the EPA, and submitted to the Director-General for approval prior to the commencement of construction;
 - (b) describe the measures that would be implemented to ensure:
 - best management practice is being employed;
 - the noise impacts of the project are minimised during meteorological conditions when the noise limits in this approval do not apply; and
 - compliance with the relevant conditions of this approval;
 - (c) describe the proposed noise management system in detail;
 - (d) include a risk/response matrix to codify mine operational responses to varying levels of risk resulting from weather conditions and specific mining activities;
 - (e) include commitments to provide summary reports and specific briefings at CCC meetings on issues arising from noise monitoring;
 - (f) include a monitoring program that:
 - uses a combination of real time and supplementary attended monitoring to evaluate the performance of the project;
 - adequately supports the proactive and reactive noise management system on site;
 - includes a protocol for determining exceedances of the relevant conditions of this approval;
 - includes monitoring of inversion strength at an appropriate sampling rate to determine compliance with noise limits;
 - evaluates and reports on the effectiveness of the noise management system on site; and
 - provides for the annual validation of the noise model for the project; and
 - (g) includes a Leard Forest Mining Precinct Noise Management Strategy that has been prepared in consultation with the other coal mines in the Precinct to minimise the cumulative noise impacts of all the mines within the precinct, and includes:
 - a description of the measures that would be implemented to ensure that the noise management of the mines is properly co-ordinated to ensure compliance with the relevant noise criteria;
 - a suitable monitoring network for the precinct;
 - protocols for data sharing; and
 - procedures for identifying and apportioning the source/s and contribution/s to cumulative noise impacts for the operating mines and other sources, using the noise and meteorological monitoring network and appropriate investigative tools.

Note: The Leard Forest Mining Precinct Noise Management Strategy can be developed in stages and will need to be subject to ongoing review dependent upon the determination and commencement of other mining projects in the area.

Noise Measurement

17. Where conditions in this approval refer to measurement of noise within the context of the NSW Industrial Noise Policy the inversion class to be applied to the project is Class G.

However, the Proponent may undertake an investigation to determine whether a proposal for change in this classification could be considered for approval by the Director-General. Any such investigation must be conducted in consultation with the EPA and be conducted by a suitably qualified person whose appointment has been endorsed by the EPA and approved by the Director-General. The report and recommendation must be submitted to the EPA for endorsement prior to submission to the Director-General. If the Director-General is satisfied that the recommendation is reasonable, then the Director-General may amend the inversion class applying to the project under this approval.

BLASTING

Blasting Criteria

18. The Proponent shall ensure that the blasting on the site does not cause exceedances of the criteria in Table 7.

Table 7: Blasting criteria

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

However, these criteria do not apply if the Proponent has a written agreement with the relevant owner or infrastructure provider/owner, and the Proponent has advised the Department in writing of the terms of this agreement.

Blasting Hours

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

Blasting Frequency

20. The Proponent may carry out a maximum of:
- 1 blast a day; unless an additional blast is required following a blast misfire; and
 - 4 blasts a week, averaged over a calendar year; for the project.

This condition does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately-owned land, or to blasts required to ensure the safety of the mine or its workers.

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

Property Inspections

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

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

Property Investigations

22. If the owner of any privately-owned land claims that the buildings and/or structures on his/her land have been damaged as a result of blasting on site, then within 2 months of receiving this claim in writing from the landowner the Proponent shall:

- (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to investigate the claim; and
- (b) give the landowner a copy of the property investigation report.

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

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

Operating Conditions

23. During mining operations on site, the Proponent shall:
 - (a) implement best management practice to:
 - protect the safety of people and livestock in the surrounding area;
 - protect public or private infrastructure/property in the surrounding area from any damage; and
 - minimise the dust and fume emissions of any blasting; and
 - minimise blasting impacts on heritage items in the vicinity of the site;
 - (b) co-ordinate the timing of blasting on site with the timing of blasting at other mines within the Leard Forest Mining Precinct to minimise the cumulative blasting impacts of these mines; and
 - (c) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the Director-General.
24. The Proponent shall not undertake blasting on-site within 500 metres of:
 - (a) any public road without the approval of Council; or
 - (b) any land outside the site that is not owned by the Proponent, unless:
 - the Proponent has a written agreement with the relevant landowner to allow blasting to be carried out closer to the land, and the Proponent has advised the Department in writing of the terms of this agreement, or
 - the Proponent has:
 - demonstrated to the satisfaction of the Director-General that the blasting can be carried out closer to the land without compromising the safety of the people or livestock on the land, or damaging the buildings and/or structures on the land; and
 - updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land.

Blast Management Plan

25. The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Director-General. This plan must:
 - (a) be submitted to the Director-General for approval prior to undertaking any blasting activities on the site;
 - (b) be prepared in consultation with the EPA and interested members of the local community potentially affected by blasting operations;
 - (c) propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site;
 - (d) describe the measures that would be implemented to ensure:
 - best management practice is being employed; and
 - compliance with the relevant conditions of this approval;
 - (e) include a road closure management plan for blasting within 500 metres of a public road, that has been prepared in consultation with Council;
 - (f) include a specific blast fume management protocol to demonstrate how emissions will be minimised including risk management strategies if blast fumes are generated;
 - (g) include a monitoring program for evaluating the performance of the project including:
 - compliance with the applicable criteria; and
 - minimising fume emissions from the site; and
 - (h) include a Leard Forest Mining Precinct Blast Management Strategy that has been prepared in consultation with the other mines within the Leard Forest Mining Precinct to minimise the cumulative blasting impacts of all the mines within the precinct.

Note: The Leard Forest Mining Precinct Blast Management Strategy can be developed in stages and will need to be subject to ongoing review dependent upon the determination of and commencement of other mining projects in the area.

AIR QUALITY & GREENHOUSE GAS

Odour

26. Unless otherwise authorised by an EPL, the Proponent shall ensure that no offensive odours are emitted from the site, as defined under the POEO Act.

Greenhouse Gas Emissions

27. The Proponent shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the Director-General.

Additional Air Quality Mitigation Upon Request

28. Upon receiving a written request from the owner(s) of any residence on the land listed in Table 1 (on the basis of air quality) or the land listed in Table 8, the Proponent shall implement additional air quality mitigation measures (such as air filters, a first flush roof water drainage system and/or air conditioning) at the residence in consultation with the owner. These measures must be reasonable and feasible and directed towards reducing the air quality impacts of the project on the residence.

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

Table 8: Land subject to additional air quality mitigation measures upon request

Mitigation Basis	Land
Air	108-109, 115-116, 121-122

Note: To interpret the locations referred to in Table 8, see the applicable figure(s) in Appendix 4.

Air Quality Criteria

29. Except for the air quality affected land in Table 1, the Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not cause exceedances of the criteria listed in Table 9, Table 10 and Table 11 at any residence-on privately-owned land or on more than 25 percent of any privately-owned land.

Table 9: Long-term criteria for particulate matter

Pollutant	Averaging Period	^d Criterion
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³

Table 10: Short-term criteria for particulate matter

Pollutant	Averaging Period	^d Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³

Table 11: Long-term criteria for deposited dust

Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level
^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month

Notes to Table 9, Table 10 and Table 11:

^a Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to all other sources);

^b Incremental impact (ie incremental increase in concentrations due to the project on its own);

^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 Director-General.

'reasonable and feasible avoidance and mitigation measures' includes, but is not limited to, the operational requirements in condition 33 and the requirements in conditions 33 and 34 to develop and implement a real-time air quality management system that ensures effective operational responses to the risks of exceedance of the criteria.

Mine-Specific Air Quality Criteria

30. The Proponent shall ensure that except for the air quality affected land in Table 1 (and subject to note 1 below for properties listed in Table 8), particulate matter emissions generated by the project do not exceed the criteria listed in Table 12 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 12: Short-term criteria for particulate matter

Pollutant	Averaging Period	Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	50 µg/m ³

Notes:

- The properties listed in Table 8 are each predicted to be impacted by an exceedance of the criteria in Table 12 on one occasion in one modelled year. For each of these properties a maximum of 5 exceedances of the criteria in Table 12 is allowed over the period covered by this approval. These allowed exceedances are limited to the project-specific emission predictions for each property and to a single exceedance for each property in any one year.
- As provided by the EP&A Act, the criterion in Table 12 (and the exceptions in note 1) may be amended to a more stringent criterion in an EPL, after the first review of the EPL under section 78 of the POEO Act.

Mine-owned Land

31. The Proponent shall ensure that particulate matter emissions generated by the project do not exceed the criteria listed in Table 9, Table 10 and Table 11 at any occupied residence on any mine-owned land (including land owned by adjacent mines) unless:
- the tenant and landowner has been notified of health risks in accordance with the notification requirements under schedule 4 of this approval;
 - the tenant on project owned land can terminate their tenancy agreement without penalty, subject to giving reasonable notice, and the Proponent uses its best endeavours to provide assistance with relocation and sourcing of alternative accommodation;
 - air mitigation measures such as air filters, a first flush roof water drainage system and/or air conditioning) are installed at the residence, if requested by the tenant and landowner (where owned by another mine other than the Proponent);
 - particulate matter air quality monitoring is undertaken to inform the tenant and landowner of potential health risks; and
 - monitoring data is presented to the tenant in an appropriate format, for a medical practitioner to assist the tenant in making an informed decision on the health risks associated with occupying the property,
- to the satisfaction of the Director-General.

Air Quality Acquisition Criteria

32. If particulate matter emissions generated by the project exceed the criteria, or contribute to an exceedance of the relevant cumulative criteria, in Table 13, Table 14 or Table 15, at any residence on privately-owned land or on more than 25 percent of any privately-owned land, then upon receiving a written request for acquisition from the landowner the Proponent shall acquire the land in accordance with the procedures in conditions 8-9 of schedule 4.

Table 13: Long-term land acquisition criteria for particulate matter

Pollutant	Averaging period	^d Criterion
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³

Table 14: Short-term land acquisition criteria for particulate matter

Pollutant	Averaging period	^d Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 150 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	24 hour	^b 50 µg/m ³

Table 15: Long-term land acquisition criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month

Notes to Table 13, Table 14 and Table 15:

^a Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to all other sources);

^b Incremental impact (ie incremental increase in concentrations due to the project on its own);

^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 Director-General.

Operating Conditions

33. The Proponent shall:
- implement best management practice to minimise the off-site odour, fume and dust emissions of the project, including best practice coal loading and profiling and other measures to minimise dust emissions from coal transportation by rail;
 - operate a comprehensive air quality management system on site that uses a combination of predictive meteorological forecasting, predictive and real time air dispersion modelling and real-time air quality monitoring data to guide the day to day planning of mining operations and implementation of both proactive and reactive air quality mitigation measures (such as relocate, modify and/or suspend operations) to ensure compliance with the relevant conditions of this approval;
 - manage PM_{2.5} levels in accordance with any requirements of an EPL;
 - minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see note d in condition 29);
 - minimise any visible off-site air pollution;
 - minimise the surface disturbance of the site generated by the project; and
 - co-ordinate the air quality management on site with the air quality management at other mines within the Leard Forest Mining Precinct to minimise the cumulative air quality impacts of the mines, to the satisfaction of the Director-General.

Air Quality and Greenhouse Gas Management Plan

34. The Proponent shall prepare and implement an Air Quality and Greenhouse Gas Management Plan for the project to the satisfaction of the Director-General. This plan must:
- be prepared in consultation with the EPA, and be submitted to the Director-General for approval prior to the commencement of construction;
 - describe the measures that would be implemented to ensure:
 - best management practice is being employed;
 - the air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events; and
 - compliance with the relevant conditions of this consent.
 - describe the proposed air quality management system;
 - include a risk/response matrix to codify mine operational responses to varying levels of risk resulting from weather conditions and specific mining activities;
 - include commitments to provide summary reports and specific briefings at CCC meetings on issues arising from air quality monitoring;
 - include an air quality monitoring program that:
 - uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the project;
 - adequately supports the proactive and reactive air quality management system;
 - includes PM_{2.5} monitoring;
 - includes monitoring of occupied project-related residences and residences on air quality-affected land listed in Table 1 and Table 8, subject to the agreement of the tenant and/or landowner;
 - evaluates and reports on the effectiveness of the air quality management system;
 - includes sufficient random audit of operational responses to the real time air quality management system to determine the ongoing effectiveness of these responses in maintaining the project within the relevant criteria in this Schedule and the requirements of conditions 29 and 30 above; and
 - includes a protocol for determining any exceedances of the relevant conditions in this approval; and

- (g) includes a Leard Forest Mining Precinct Air Quality Management Strategy that has been prepared in consultation with other coal mines in the Precinct to minimise the cumulative air quality impacts of all mines within the Precinct, that includes:
- systems and processes to ensure that all mines are managed to achieve their air quality criteria;
 - a shared environmental monitoring network and data sharing protocol;
 - control monitoring site(s) to provide real time data on background air quality levels (ie not influenced by mining from the Leard Forest Mining Precinct and representative of regional air quality);
 - a shared predictive and real time air dispersion model covering the Leard Forest Mining Precinct to be used for assessment of cumulative impacts, optimising location of the shared real time monitoring network, validation of air predictions and optimising mitigation measures; and
 - procedures for identifying and apportioning the source/s and contribution/s to cumulative air impacts for both mines and other sources, using the air quality and meteorological monitoring network and appropriate investigative tools such as modelling of post incident plume dispersion, dual synchronised monitors and chemical methods of source apportionment (where possible).

Notes:

- *The requirement for regionally based control sites can be further reviewed if a regional air monitoring network is implemented and operated by the EPA as recommended in the draft Strategic Regional Land Use Plan for New England North West.*
- *The Leard Forest Mining Precinct Air Quality Management Strategy can be developed in stages and will need to be subject to ongoing review dependent upon the determination of and commencement of other mining projects in the area.*
- *The management plan should be consistent with the EPA's guidance on Best Management Practice reporting and Reactive Particulate Management Strategies.*

METEOROLOGICAL MONITORING

35. For the life of the project, the Proponent shall ensure that there is a meteorological station in the vicinity of the site that:
- (a) complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and
 - (b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the *NSW Industrial Noise Policy*, unless a suitable alternative is approved by the Director-General following consultation with the EPA.

SOIL AND WATER

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

Water Supply

36. The Proponent shall ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of mining operations on site, to match its available water supply to the satisfaction of the Director-General.

Compensatory Water Supply

37. The Proponent shall provide a compensatory water supply to any landowner of privately-owned land whose water supply is adversely and directly impacted (other than an impact that is negligible) as a result of the project, in consultation with NOW, and to the satisfaction of the Director-General.

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

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

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

Surface Water Discharges

38. The Proponent shall ensure that any surface water discharges of mine water from the site:
- (a) are of equal or better quality than the receiving waters; and

- (b) comply with the discharge limits (both volume and quality) set for the project in any EPL.

Note: The project is based on a zero discharge basis for mine water in all modelled meteorological events, however the Department acknowledges that discharge of treated water may be required to be undertaken following very extraordinary events outside modelled data, if approved under an EPL.

Operating Conditions

39. The Proponent shall:

- (a) develop a detailed soil management protocol that identifies procedures for:
 - comprehensive soil surveys prior to soil stripping;
 - assessment of top-soil and sub-soil suitability for mine rehabilitation; and
 - annual soil balances to manage soil handling including direct resspreading and stockpiling;
- (b) maximise the salvage of suitable top-soils and sub-soils and biodiversity habitat components such as bush rocks, tree hollows and fallen timber for rehabilitation of disturbed areas within the site and for enhancement of biodiversity offset areas;
- (c) ensure that coal reject or any potentially acid forming interburden materials are not emplaced at elevations within the pit shell or out of pit emplacement areas where they may promote acid or sulphate species generation and migration beyond the pit shell or out of pit emplacement areas;
- (d) ensure that no water can drain from an out of pit emplacement area to any watercourse or to any land beyond the lease boundary; and
- (e) ensure that the coal barrier between the final void and any future surrounding mining operations minimises exchange of any contained groundwaters in the pit shell.

Water Management Plan

40. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must be prepared in consultation with OEH, NOW and Namoi CMA, by suitably qualified and experienced person/s whose appointment has been approved by the Director-General, and be submitted to the Director-General for approval prior to the commencement of construction.

In addition to the standard requirements for management plans (see condition 3 of schedule 5), this plan must include:

- (a) a Site Water Balance, that:
 - includes details of:
 - sources and security of water supply, including contingency for future reporting periods;
 - water use on site;
 - water management on site;
 - any off-site water discharges;
 - reporting procedures, including the preparation of a site water balance for each calendar year;
 - a program to validate the surface water model, including monitoring discharge volumes from the site and comparison of monitoring results with modelled predictions; and
 - describes the measures that would be implemented to minimise clean water use on site;
- (b) a Surface Water Management Plan, which includes:
 - detailed baseline data on surface water flows and quality in the water-bodies that could potentially be affected by the project;
 - detailed baseline data on hydrology across the downstream drainage system of the Namoi River floodplain from the mine site to the Namoi River;
 - a detailed description of the water management system on site, including the:
 - clean water diversion systems;
 - erosion and sediment controls (dirty water system);
 - mine water management systems;
 - discharge limits in accordance with EPL requirements;
 - water storages;
 - mine access road and Maules Creek rail spur line;
 - detailed plans, including design objectives and performance criteria for:
 - design and management of final voids;
 - design and management for the emplacement of reject materials, sodic and dispersible soils and acid or sulphate generating materials;
 - design and management for construction and operation of the rail spur line and mine access road;
 - reinstatement of drainage lines on the rehabilitated areas of the site; and
 - control of any potential water pollution from the rehabilitated areas of the site;
 - performance criteria for the following, including trigger levels for investigating any potentially adverse impacts associated with the project:
 - the water management system;

- downstream surface water quality;
- downstream flooding impacts, including flood impacts due to the construction and operation of the rail spur line and mine access road, and flooding along Back Creek; and
- stream and riparian vegetation health, including the Namoi River;
- a program to monitor:
 - the effectiveness of the water management system; and
 - surface water flows and quality in the watercourses that could be affected by the project;
 - downstream flooding impacts; and
- reporting procedures for the results of the monitoring program;
- a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the project; and
- (c) a Groundwater Management Plan, which includes:
 - detailed baseline data of groundwater levels, yield and quality in the region, and privately-owned groundwater bores including a detailed survey/schedule of groundwater dependent ecosystems (including stygo-fauna and Melaleuca riparian forest communities), that could be affected by the project;
 - the monitoring and testing requirements specified in the PAC recommendations for groundwater management as set out in Appendix 6;
 - detailed plans, including design objectives and performance criteria, for the design and management of:
 - the proposed final void; and
 - coal reject and potential acid forming material emplacement;
 - groundwater assessment criteria including trigger levels for investigating any potentially adverse groundwater impacts;
 - a program to monitor and assess:
 - groundwater inflows to the open cut mining operations;
 - the seepage/leachate from water storages, emplacements, backfilled voids and the final void;
 - interconnectivity between the alluvial and bedrock aquifers;
 - background changes in groundwater yield/quality against mine-induced changes;
 - the impacts of the project on:
 - regional and local (including alluvial) aquifers;
 - groundwater supply of potentially affected landowners;
 - groundwater dependent ecosystems (including potential impacts on stygo-fauna and Melaleuca riparian forest communities) and riparian vegetation;
 - a program to validate the groundwater model for the project, including an independent review of the model every 3 years, and comparison of monitoring results with modelled predictions; and
 - a plan to respond to any exceedances of the performance criteria; and
- (d) a Leard Forest Mining Precinct Water Management Strategy that has been prepared in consultation with other mines within the Precinct to:
 - minimise the cumulative water quality impacts of the mines;
 - review opportunities for water sharing/water transfers between mines;
 - co-ordinate water quality monitoring programs as far as practicable;
 - undertake joint investigations/studies in relation to complaints/exceedances of trigger levels where cumulative impacts are considered likely; and
 - co-ordinate modelling programs for validation, re-calibration and re-running of the groundwater and surface water models using approved mine operation plans.

Note: The Leard Forest Mining Precinct Water Management Strategy can be developed in stages and will need to be subject to ongoing review dependent upon the determination of and commencement of other mining projects in the area.

BIODIVERSITY

Leard Forest Mining Precinct Regional Biodiversity Strategy

41. The Proponent shall commission and fund the preparation of a Leard Forest Mining Precinct Regional Biodiversity Strategy, jointly with all other coal mines within the Precinct. The Strategy shall be co-ordinated through the Department (refer condition 42 below) and be prepared by suitably qualified, experienced and independent person/s whose appointment has been endorsed by OEH and subsequently approved by the Director-General, in the following stages:

Stage 1 – Scoping Stage

A scoping report for development of the Strategy must be submitted, by the end of January 2013, for endorsement by OEH and subsequent approval by the Director-General. The Director-General may extend this period with the agreement of OEH. The scoping report must:

- (a) include terms of reference, scope and objectives for the Strategy, including recommendations for the

- Strategy's geographic extent;
- (b) identify the ongoing functions and members of the working group (see condition 42 below);
 - (c) include a project management plan of the Strategy, with a time schedule, indicative dates for working group meetings, review and milestones for completion;
 - (d) include a funding program for the development of the Strategy, including provision of adequate resources for the participation of working group members; and
 - (e) include a consultation/communications program for the Strategy.

Note: The broad terms of reference must be guided by the Planning Assessment Commission (PAC) merit reviews for the Boggabri Coal Mine (February 2012) and Maules Creek Coal Mine (March 2012) – Recommendation 1 for the development of a regional biodiversity strategy.

Stage 2 – Strategy Development

The Strategy must be developed in accordance with the approved Scoping Stage report and be submitted, by the end of January 2014, for endorsement by OEH and subsequent approval by the Director-General. The Director-General may extend this period with agreement of OEH.

Stage 3 – Strategy Review

The Strategy must be reviewed by the end of December 2018, following completion of audits of the rehabilitation and Biodiversity Offset Areas required to be undertaken under approvals for coal mines within the Precinct. The review shall be conducted by suitably qualified, experienced and independent person/s whose appointment has been endorsed by OEH and subsequently approved by the Director-General. Any modifications to the Strategy arising from the review must be endorsed by OEH prior to approval by the Director-General.

42. The Strategy shall be prepared in collaboration with a working group containing (subject to the outcomes of the Stage 1 – Scoping Stage) representatives of the Department, OEH, DRE, Namoi CMA, Council and SEWPaC and the other Leard Forest Mining Precinct mines; which shall be chaired by a suitably qualified, experienced and independent person whose appointment has been approved by the Director-General.
43. The cost of preparing the Strategy, including the independent chairperson and a co-ordinator to be employed by the Department shall be shared equitably between the coal mines in the Leard Forest Mining Precinct on the basis of the approved clearing of remnant vegetation (including native grassland) by the mines, based on the following arrangements:
 - (a) Stage 1 is to be initially funded by Boggabri Coal, with appropriate compensation from the Proponent made following the determination of the Maules Creek Coal and Tarrawonga Coal Projects and as per approved funding arrangements finalised under the Stage 1 Scoping Report;
 - (b) Stage 2 is to be funded by all Leard Forest Mining Precinct mines based on the arrangements approved under the Stage 1 Scoping Report; and
 - (c) Stage 3 is to be funded by all Leard Forest Mining Precinct mines based on recommendations in the approved Stage 2 Leard Forest Mining Precinct Regional Biodiversity Strategy.

Note: Based on predicted clearing of native vegetation provided in the EA documents for the three projects within the Leard Forest Mining Precinct, the proposed funding split would equate to total contributions of 36% from Boggabri (clearing of 1,385 ha), 54% from Maules Creek (clearing of 2,078ha) and 10% from Tarrawonga (clearing of 397 ha). This funding arrangement may change depending upon the determination outcomes of individual projects and can be further refined in the Stage 1 Scoping Stage.

Biodiversity Offset Strategy

44. The Proponent shall implement the biodiversity offset strategy described in the EA, summarised in Table 16 and shown conceptually in Appendix 7, to the satisfaction of the Director-General.

Table 16: Summary of the Biodiversity Offset Strategy

Area	Offset Type	Minimum Size (hectares)
Northern Offset Area currently owned or under option by Proponent	<p>Existing native woodland / forest of 4,286 ha to be protected and enhanced.</p> <p>Additional native vegetation to be established with the restoration of at least 1,470 ha of derived native grassland including 1,396 ha of derived native grassland Box Gum Woodland EEC as listed under the TSC Act.</p> <p>Additional targeted restoration of up to 58 ha of low diversity derived native grassland, pasture improved and cultivated land to provide buffer to offset and connectivity between remnant vegetation.</p> <p><i>Note: the final area of restoration of low diversity derived native grassland, pasture improved and cultivated land is subject to completion of the revised offset strategy required in condition 45.</i></p>	5,756

Area	Offset Type	Minimum Size (hectares)
Eastern Offset Area currently owned or under option by Proponent	<p>Existing native woodland / forest of 190 ha to be protected and enhanced.</p> <p>Additional targeted restoration of up to 319 ha of adjacent low diversity derived native grassland, pasture improved and cultivated land to provide buffer to offset and connectivity between remnant vegetation.</p> <p><i>Note: the final area of restoration of low diversity derived native grassland, pasture improved and cultivated land is subject to completion of the revised offset strategy required in condition 45.</i></p>	190
Western Offset Area including 50% Joint Venture property currently owned or under option by Proponent	<p>Existing native woodland / forest of 891 ha to be protected and enhanced.</p> <p>Additional native vegetation to be established with the restoration of at least 148 ha of derived native grassland including 90 ha of derived native grassland Box Gum Woodland EEC as listed under the TSC Act and existing 7ha of Belah Woodland on property 'Velyama' to be enhanced with restoration of at least 5ha of surrounding derived native grassland to Belah Woodland.</p> <p>Additional targeted restoration of up to 368 ha of adjacent low diversity derived native grassland, pasture improved and cultivated land to provide buffer to offset and connectivity between remnant vegetation.</p> <p><i>Note: the final area of restoration of low diversity derived native grassland, pasture improved and cultivated land is subject to completion of the revised offset strategy required in condition 45.</i></p>	1,039
Eastern Offset Area identified in the zone of affectation	<p>Existing native woodland / forest of 336 ha to be protected and enhanced.</p> <p>Additional targeted restoration of 768 ha of adjacent low diversity derived native grassland, pasture improved and cultivated land to provide buffer to offset and connectivity between remnant vegetation.</p> <p><i>Note: the final area of restoration of low diversity derived native grassland, pasture improved and cultivated land is subject to completion of the revised offset strategy required in condition 45.</i></p>	336
Western Offset Area identified in the zone of affectation	<p>Existing native woodland / forest of 343 ha to be protected and enhanced.</p> <p>Additional targeted restoration of 156 ha of adjacent low diversity derived native grassland, pasture improved and cultivated land to provide buffer to offset and connectivity between remnant vegetation.</p> <p><i>Note: the final area of restoration of low diversity derived native grassland, pasture improved and cultivated land is subject to completion of the revised offset strategy required in condition 45.</i></p>	343
Additional offset areas required to be included by the Proponent –	<p>Additional remnant native vegetation of moderate to good condition native forest / woodland and derived native grassland to provide habitat for impacted threatened species, targeting EEC or highly cleared vegetation communities impacted by the project.</p> <p><i>Note: Location and type of offset subject to final approval as part of revised Biodiversity Strategy to be prepared by Proponent under condition 45.</i></p>	1,000

Area	Offset Type	Minimum Size (hectares)
Rehabilitation Area.	Except for the area of the minimised final void, pre-mining native vegetation communities to be re-established (including 544 ha of Box Gum Woodland EEC) for a biodiversity conservation land use objective, with the area subject to finalisation of the rehabilitation management plan as required under this approval. <i>Note: the final mix and area of native vegetation communities is subject to the approved Biodiversity Management Plan.</i>	2,078 (less the area of the minimised void approved under the closure plan required under this approval)

Revised Biodiversity Offset Strategy

45. The Proponent shall prepare and implement a revised biodiversity offset strategy for the identified offset areas in Table 16 to the satisfaction of the Director-General. The revised Strategy must:
- not reduce the size or quality of the proposed offset areas;
 - be consistent (as far as is possible) with the recommendations and objectives of the Leard Forest Mining Precinct Regional Biodiversity Strategy;
 - be prepared in consultation with OEH, Namoi CMA, CCC, DPI Catchments and Lands and SEWPaC;
 - identify the additional low diversity derived native grassland, cultivated land and pasture improved land to be included in the offset to provide a buffer and connectivity between core remnant habitat;
 - identify the additional offset land within the zone of affectation in the Eastern and Western offset areas that has been secured by the Proponent and where properties have not been secured identify substitute areas that would provide an equivalent increase in biodiversity values;
 - avoid inclusion of any strategic agricultural land (as defined in the final *New England North West Strategic Regional Land Use Plan*) in the offset areas, unless it is demonstrated that the inclusion would not have any adverse impacts on agricultural production;
 - identify a minimum additional 1,000 ha of offset area targeting habitat for threatened species affected by the project which includes restoration of habitat to provide an improvement in biodiversity values; and
 - be submitted to the Director-General for approval within 30 months of the date of this approval, or within 6 months of the approval of Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy (whichever is sooner) for endorsement by OEH and subsequent approval by the Director-General.

Agricultural Production in Offset Areas

46. Offset areas are to be managed primarily for the purposes of compensating for biodiversity impacts of the project, and improving regional biodiversity outcomes. However, to the extent that limited agricultural production on the lots purchased for offsets is compatible with these objectives, the Biodiversity Management Plan and other conditions of this approval, the Proponent shall:
- include in the Biodiversity Management Plan (see condition 52 below) an agricultural suitability assessment of surplus land on the offset properties, in particular for proposed corridor enhancement zones; and
 - maintain the agricultural productivity of the surplus areas.

Vegetated Corridor between Boggabri and Maules Creek Coal Projects

47. For the vegetated buffer corridor required to be retained and protected under condition 7 of schedule 2 of this approval, the Proponent shall:
- use its best endeavours to work cooperatively with the Proponent of the Boggabri Coal Project to enhance the functioning of the area as a biodiversity corridor; and
 - include in the Biodiversity Management Plan (see condition 52 below) the details as to how impacts on the corridor are to be minimised, to the satisfaction of the Director-General.

Threatened Species

48. For the White Box – Yellow Box – Blakely's Red Gum Grassy Woodland Endangered Ecological Community the Proponent shall:
- ensure that the Biodiversity Offset Strategy and site Rehabilitation Strategy is focused on protection rehabilitation, re-establishment and long-term maintenance of viable stands of this community;
 - investigate in consultation with OEH and the Namoi CMA, all factors likely to enhance or impede the effective long term restoration of degraded remnants of this EEC in offset areas or regeneration of this EEC on disturbed areas (both offset areas and the site);
 - within 24 months of the date of this approval (and if possible in conjunction with Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy), submit a report of this investigation

- and provide an implementation plan to maximise the prospects for rehabilitation and regeneration of this EEC on the offset areas and the site, for approval by the Director-General; and
- (d) incorporate the approved implementation plan into the revised Biodiversity Management Plan, required under condition 52.

49. For all threatened species on site, the Proponent shall ensure that the Biodiversity Offset Strategy and Rehabilitation Strategy are focused on protection, rehabilitation and long-term maintenance of viable stands of suitable habitat for these species.

Note: the threatened fauna species on site include: Regent Honeyeater, Fork Tailed Swift, White Throated Needletail, Rainbow Bee-eater, Satin Flycatcher, Speckled Warbler, Swift Parrot, Brown Treecreeper, Diamond Firetail, Grey-crowned Babbler, Hooded Robin, Little Lorikeet, Varied Sittella, White-browed Woodswallow, Black Chinned Honeyeater, Painted Honeyeater, Little Eagle, Spotted Harrier, Black Necked Stork, Square Tailed Kite, Turquoise Parrot, Barking Owl, Masked Owl, Eastern False Pipistrelle, Greater Long-eared Bat, Yellow-bellied Sheath Tail Bat, Eastern Cave Bat, Eastern Bent-wing Bat, Little Pied Bat and Koala.

50. The Proponent shall:

- (a) investigate, in consultation with OEH and the Namoi CMA, all factors likely to enhance or impede the effective long term provision of suitable habitat(s) for the following species: Regent Honeyeater, Speckled Warbler, Brown Treecreeper, Diamond Firetail, Grey-crowned Babbler, Hooded Robin, Little Lorikeet, Varied Sittella, Black Chinned Honeyeater, Painted Honeyeater, Little Eagle, Spotted Harrier, Turquoise Parrot, Barking Owl, Masked Owl, Eastern False Pipistrelle, Greater Long-eared Bat, Yellow-bellied Sheath Tail Bat and Little Pied Bat;
- (b) within 24 months of the date of this approval (and if possible, in conjunction with Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy), submit a report of this investigation and provide an implementation plan to ensure delivery of suitable areas of viable habitat for the species included in (a) above, for approval by the Director-General; and
- (c) incorporate the approved implementation plan into the revised Biodiversity Management Plan, required under condition 52.

Note: the species listed in (a) are those identified in the Director-General's Assessment Report as likely to be significantly impacted by the project.

Aquatic habitat

51. Prior to the design and construction of the permanent Namoi water pipeline and pump station, the Proponent must consult with DPI Fisheries regarding the general operation and design of the pump station and screens to minimise entrainment of fish. The Proponent must implement all reasonable and feasible recommendations from DPI Fisheries to the satisfaction of the Director-General.

Biodiversity Management Plan

52. The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with OEH, SEWPaC, CCC, and the Namoi CMA, and be submitted to the Director-General for approval prior to commencement of construction;
 - (b) describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site;
 - (c) describe the short, medium, and long term measures that would be implemented to:
 - manage the remnant vegetation and habitat on the site and in the offset area/s (if and when applicable); and
 - implement the biodiversity offset strategy (if and when applicable), including detailed performance and completion criteria;
 - (d) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);
 - (e) include a detailed description of the measures that would be implemented including the procedures to be implemented for:
 - enhancing the quality of existing vegetation and fauna habitat;
 - restoring native vegetation and fauna habitat on the biodiversity areas and rehabilitation area through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features;
 - maximising the salvage of resources within the approved disturbance area – including vegetative, top and sub-soils and cultural heritage resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area;
 - collecting and propagating seed;
 - minimising the impacts on fauna on site, including undertaking pre-clearance surveys;
 - improving the connectivity and corridor function of the offset areas to provide an east/west corridor to the Namoi River and demonstrating that this corridor is enhanced and maintained;
 - managing any potential conflicts between the proposed restoration works in the biodiversity

- areas and any Aboriginal heritage values (both cultural and archaeological);
 - managing salinity;
 - controlling weeds and feral pests;
 - controlling erosion;
 - managing grazing and agriculture on site, including detailed assessment of the suitability of grazing for conservation management outcomes;
 - controlling access; and
 - bushfire management;
- (f) include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;
- (g) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and
- (h) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

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

53. The Proponent shall revise the Biodiversity Management Plan within 30 months of the date of this approval or within 6 months after the completion of Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy, whichever is sooner. The revised plan must:
- (a) be prepared in consultation with OEH, SEWPaC, Forests NSW, DPI Catchments and Lands, the CCC and the Namoi CMA;
 - (b) demonstrate consistency with the findings of Leard Forest Mining Precinct Regional Biodiversity Strategy; and
 - (c) include any implementation plans arising from the studies required under conditions 48 and 50 of this approval,
- to the satisfaction of the Director-General.

Long Term Security of Offset

54. The Proponent shall make suitable arrangements to provide appropriate long-term security for the offset areas:
- (a) for the offsets in Table 16 that are not subject to final approval as part of the revised Biodiversity Offset Strategy, the long-term security shall be provided by way of:
 - the Proponent entering into a conservation agreement or agreements pursuant to section 69B of the *National Parks and Wildlife Act 1974*, recording the obligations assumed by the Proponent under the conditions of this approval in relation to these offset areas, and registering the agreement(s) pursuant to section 69F of the *National Parks and Wildlife Act 1974*; or
 - a tenure of higher conservation status such as a National Park, or Nature Reserve, under the *National Parks and Wildlife Act 1974*,

The conservation agreement(s) must be registered by December 2014 unless agreed otherwise by the Director-General after consultation with OEH. The conservation agreements must remain in force in perpetuity;
 - (b) within 12 months of the approval of Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy, unless otherwise agreed by the Director-General, for the offsets in Table 16 identified as subject to final approval as part of the revised Biodiversity Offset Strategy; and
 - (c) by the end of December 2034, unless otherwise agreed by the Director-General, for the Rehabilitation Area identified in Table 16,
- to the satisfaction of the Director-General.

Conservation Bond

55. Within 36 months of the date of this approval, or within 6 months of the approval of the revised Biodiversity Management Plan required under condition 52 above (whichever is sooner), the Proponent shall lodge a Conservation and Biodiversity Bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan. The sum of the bond shall be determined by:
- (a) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and
 - (b) employing a suitably qualified quantity surveyor to verify the calculated costs
- to the satisfaction of the Director-General.

If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Director-General, the Director-General will release the bond.

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

With the agreement of the Director-General, this bond may be combined with rehabilitation security deposit administered by DRE.

Note: Alternative funding arrangements for long term management of the Biodiversity Offset Strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate can be used to reduce the liability of the conservation and biodiversity bond.

Biodiversity Audit

56. By the end of December 2017 and then every 5 years, unless the Director-General agrees otherwise, the Proponent shall commission suitably qualified, experienced and independent person/s, whose appointment has been approved by the Director-General, to undertake an audit of the revegetation of the rehabilitation area, management and restoration within the Biodiversity Offset Strategy areas to the satisfaction of the Director-General. This audit must:
- (a) include consultation with OEH, Namoi CMA, DPI Catchments and Lands, SEWPaC, CCC and DRE;
 - (b) assess the performance of the revegetation in the rehabilitation area completed to date against the completion criteria in the Rehabilitation Management Plan;
 - (c) assess the performance of management and restoration in the off-site Biodiversity Offset Strategy areas completed to date against the completion criteria in the Biodiversity Management Plan;
 - (d) identify any measures that should be implemented to improve the performance of rehabilitation, management and restoration within the rehabilitation and biodiversity offset areas; and
 - (e) if the completion criteria have not been met, or are not adequately trending towards being met, determine the likely ecological value of the rehabilitation and restoration once completed, and recommend additional measures to augment the Biodiversity Offset Strategy to ensure that it adequately offsets the project's impacts on biodiversity.

If the audit recommends the implementation of additional measures to augment the Biodiversity Offset Strategy in accordance with (e) above, then within 6 months of the completion of the audit the Proponent shall revise the Biodiversity Offset Strategy, in consultation with the Department, OEH and SEWPaC, and to the satisfaction of the Director-General.

HERITAGE

Aboriginal Heritage Conservation Strategy

57. The Proponent shall prepare and implement an Aboriginal Heritage Conservation Strategy for the project and the Biodiversity Offset Strategy areas to the satisfaction of the Director-General. This Strategy must enhance and conserve the Aboriginal cultural heritage values (both cultural and archaeological) and provide for their long-term protection and management. The Strategy must:
- (a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Director-General;
 - (b) be prepared in consultation with OEH, the local Aboriginal community and other mines within the Leard Forest Mining Precinct, and submitted to the Director-General for approval within 18 months from the date of project approval;
 - (c) identify the Aboriginal cultural heritage values of the Biodiversity Offset Strategy areas;
 - (d) identify areas of high Aboriginal cultural heritage significance within both the site and the Leard Forest Mining Precinct;
 - (e) identify a range of options for enhancing and conserving Aboriginal cultural heritage values, with specific consideration of the potential for the long-term protection and management of significant sites within either the site, the Biodiversity Offset Strategy areas or other lands within the Leard Forest Mining Precinct identified as having high cultural heritage significance to the Aboriginal community; and
 - (f) consider cumulative impacts and potential for developing joint initiatives with other mines within the Leard Forest Mining Precinct for enhancing and conserving Aboriginal cultural heritage values.

Notes: Known Aboriginal sites are shown on the plans in Appendix 8.

Heritage Management Plan

58. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Director-General;
 - (b) be prepared in consultation with the OEH, Namoi CMA and the local Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);

- (c) be submitted to the Director-General for approval prior to any development that may impact heritage items, unless the Director-General agrees otherwise;
- (d) include the following for the management of Aboriginal heritage:
 - a detailed plan for the implementation of the approved Aboriginal Heritage Conservation Strategy;
 - a detailed archaeological salvage program for Aboriginal sites/objects within the approved disturbance area, including methodology and procedures/protocols for:
 - sub-surface testing;
 - staged salvage, based on anticipated mine planning;
 - if relevant, historic heritage salvage at the Lawler's Waterhole site;
 - pre-disturbance monitoring;
 - site assessment and reporting;
 - research objectives to inform knowledge of Aboriginal occupation;
 - protection, storage and management of salvaged Aboriginal objects;
 - addressing relevant statutory requirements under the *National Parks and Wildlife Act 1974*; and
 - long term protection of salvaged Aboriginal objects;
 - a description of the measures that would be implemented for:
 - protecting, monitoring and managing Aboriginal sites on the site which are outside of the approved disturbance area;
 - maintaining and managing reasonable access for Aboriginal stakeholders to heritage items on the site and within the Biodiversity Offset Strategy areas;
 - managing the discovery of any human remains or previously unidentified Aboriginal objects on site, including (in the case of human remains) stop work provisions and notification protocols;
 - ongoing consultation of the local Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage both on-site and within any Aboriginal heritage conservation areas;
 - ensuring any workers on site receive suitable heritage inductions prior to carrying out any activities which may disturb Aboriginal sites, and that suitable records are kept of these inductions;
 - a strategy for the storage and management of any heritage items salvaged on site, both during the project and long term;
- (e) include the following for the management of historic heritage:
 - a detailed plan of management measures for maintaining or enhancing the heritage values of heritage items on project-related land which are outside of the approved disturbance area;
 - a description of the measures that would be implemented for:
 - managing the discovery of human remains or previously unidentified heritage items on site; and
 - ensuring workers on site receive suitable heritage inductions prior to carrying out any development on site, and that suitable records are kept of these inductions.

Note: The Department acknowledges that the initial Heritage Management Plan may not include a detailed plan for the implementation of the Aboriginal Heritage Conservation Strategy. If this occurs, the Proponent will be required to update the plan as soon as practicable following the Director-General's approval of the Aboriginal Heritage Conservation Strategy.

TRANSPORT

Road Upgrade and Maintenance

Note: Under the Roads Act 1993, the Proponent may require separate approvals from RMS, NSW Forests and/or Council as the appropriate roads authorities prior to construction of, closure of or conducting mining operations within public roads.

59. The Proponent shall construct, operate and maintain the rail bridge over the Kamilaroi Highway for the shared section of the Boggabri rail spur line to the satisfaction of RMS, and shall make all necessary contributions to the costs associated with construction, maintenance and decommissioning of this bridge to the satisfaction of the Director-General.

Note: all costs should be shared on an equitable basis with the proponent of the Boggabri Coal Project.

60. The Proponent shall meet RMS's requirements for road intersection upgrades for all State roads used by the project, including upgrading the intersection of Manilla Road and the Kamilaroi Highway to provide a channelised right turn in accordance with Austroads guidelines.

Note: Any upgrades should be undertaken on an equitable basis with the proponent of the Boggabri Coal Project.

61. The Proponent shall upgrade and seal the unsealed section of Manilla Road between its intersections with the Tarrawonga Coal mine access road and Barbers Lagoon Road, to the satisfaction of RMS.

62. The Proponent shall ensure that there is no substantial access of heavy vehicles for construction activity to the site prior to the upgrade referred to in condition 61 above, to the satisfaction of the Director-General. However, the Director-General may approve heavy vehicle access to the site prior to or during this upgrade, subject to the Proponent demonstrating that dust impacts can be minimised in accordance with an approved Traffic Management Plan.

Shuttle Bus System for Construction and Mine Workers

63. The Proponent shall ensure that construction and operational employees are predominantly transported to the site by shuttle bus, consistent with the assumptions used in the traffic study undertaken for the EA.

Note: The EA assumed that 90% of construction employees and 90% of operational workers based on peak travel movements would be transported to the site by shuttle bus from Boggabri township. However, the shuttle bus service could also operate from Gunnedah and Narrabri.

Traffic Management Plan

64. The Proponent shall prepare and implement a Traffic Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with the RMS, Council and Gunnedah Council;
 - (b) be submitted to the Director-General for approval prior to the commencement of construction;
 - (c) propose an appropriate program and schedule for works required under conditions 59 - 61 above; and
 - (d) include:
 - a code of conduct for drivers of heavy vehicles;
 - nominated heavy vehicle access routes for construction and operational stages, including details on volumes and nature of heavy, over size and/or over mass vehicles;
 - measures to minimise traffic impacts at school bus pick up and drop off times;
 - consideration of measures to minimise dust from unsealed roads that may be used for access to the mine site;
 - proposed program for implementing the findings of the road safety audit identified in the EA; and
 - a monitoring program to audit vehicle movements against predictions in the EA.

Monitoring of Coal Transport

65. The Proponent shall:
- (a) keep records of the:
 - amount of coal transported from the site (on a monthly basis); and
 - date and time of each train movement generated by the project; and
 - (b) make these records available on its website at the end of each calendar year.

Rail Transport

66. Within 12 months of the completion of the Gunnedah Traffic Study, the Proponent shall:
- (a) liaise with Gunnedah Shire Council regarding the study recommendations, including mitigating impacts of coal transportation by rail on road safety and congestion in the Gunnedah LGA due to closures of rail level crossings; and
 - (b) provide a report of the outcomes of this liaison and identify reasonable and feasible proposals recommended by the Proponent and/or the Gunnedah Shire Council towards implementing the Study's recommendations, to the satisfaction of the Director-General.

Note: Any contribution by the Proponent should be on an equitable basis with other coal project rail users.

VISUAL

Operating Conditions

67. The Proponent shall:
- (a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the project;
 - (b) ensure no outdoor lights shine above the horizontal;
 - (c) wherever possible, ensure that mobile equipment is appropriately designed and/or retrofitted to prevent light being directed above the horizontal;
 - (d) ensure that all external lighting associated with the project complies with *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting* or its latest version;
 - (e) provide for the establishment of trees and shrubs and/or the construction of mounding or bunding:
 - along the access road to the mine site;
 - along the Maules Creek rail spur line;

- around the water storage dams; and
 - at other areas identified as necessary for the maintenance of satisfactory visual amenity;
- (f) ensure that the visual appearance of all buildings, structures, facilities or works (including paint colours and specifications) is aimed at blending as far as possible with the surrounding landscape, to the satisfaction of the Director-General.

Additional Visual Impact Mitigation

68. Upon receiving a written request from the owner of any residence on privately-owned land which has, or would have, significant direct views of the mining operations and infrastructure on site during the project, the Proponent shall implement additional visual impact mitigation measures (such as landscaping treatments or vegetation screens) to reduce the visibility of these mining operations and infrastructure from the residences on their properties.

These mitigation measures must be reasonable and feasible, and must be implemented within a reasonable timeframe.

If the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution.

Notes:

- *The additional visual impact mitigation measures must be aimed at reducing the visibility of the mining operations on site from significantly affected residences, and do not require measures to reduce the visibility of the mining operations from other locations on the affected properties.*
- *The additional visual impact mitigation measures do not necessarily have to include the implementation of measures on the affected property itself (i.e. the additional measures could involve the implementation of measures outside the affected property boundary that provide an effective reduction in visual impacts).*
- *Except in exceptional circumstances, the Director-General will not require additional visual impact mitigation to be undertaken for residences that are more than 7.5 kilometres from the mining operations.*

BUSHFIRE MANAGEMENT

69. The Proponent shall:
- ensure that the project is suitably equipped to respond to any fires on site; and
 - assist the Rural Fire Service, NSW Forests, emergency services and National Parks and Wildlife Services as much as possible if there is a fire in the surrounding area.

WASTE

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

REHABILITATION

Rehabilitation Objectives

71. The Proponent shall rehabilitate the site to the satisfaction of the Executive Director Mineral Resources. This rehabilitation must be generally consistent with the proposed Rehabilitation Strategy described in the EA and comply with the objectives in Table 17.

Table 17: Rehabilitation Objectives

Feature	Objective
Mine site	Safe, stable and non-polluting
	Constructed landforms drain to the natural environment.
Final void	Minimise the size and depth of the final void as far as is reasonable and feasible
	Minimise the drainage catchment of the final void as far as is reasonable and feasible
Surface infrastructure	To be decommissioned and removed, unless the Executive Director Mineral Resources agrees otherwise.
All land, other than the final void	Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of:

Feature	Objective
	<ul style="list-style-type: none"> • local native plant species; and • a landform consistent with the surrounding environment, in accordance with the Revised Biodiversity Offset Strategy (see condition 45) and Biodiversity Management Plan (see condition 53).
Community	<p>Ensure public safety</p> <p>Minimise the adverse socio-economic effects associated with mine closure</p>

Note: Appropriate non-native sterile plants may be used for stabilisation and dust suppression purposes on a temporary basis, if required.

Progressive Rehabilitation

72. The Proponent shall rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies shall be employed when areas prone to dust generation cannot yet be permanently rehabilitated.

Note: It is accepted that some parts of the site that are progressively rehabilitated may be subject to further disturbance at some later stage of the development.

Rehabilitation Management Plan

73. The Proponent shall prepare and implement a Rehabilitation Management Plan to the satisfaction of the Executive Director Mineral Resources. This plan must:
- be prepared in consultation with the Department, Forests NSW, NOW, OEH, Namoi CMA and Council;
 - be submitted to the Executive Director Mineral Resources within 6 months from the date of this approval;
 - be prepared in accordance with any relevant DRE guideline;
 - describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity management plan;
 - include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);
 - describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, and address all aspects of rehabilitation including mine closure, final landform, and final land use;
 - include interim rehabilitation where necessary to minimise the area exposed for dust generation;
 - include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and
 - build to the maximum extent practicable on the other management plans required under this approval.

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

Final Void Design and Closure

74. The Proponent shall prepare and implement an updated Final Void and Mine Closure Plan (as a component of the overall Rehabilitation Management Plan required under condition 73 of schedule 3) to the satisfaction of the Executive Director Mineral Resources, following consultation with the Director-General. A draft plan must be prepared and submitted to the Executive Director Mineral Resources by the end of December 2020, and a final plan must be prepared and submitted to the Executive Director Mineral Resources by the end of December 2026. Each version of the plan must:
- be subject to independent review and verification by suitably qualified, experienced and independent person/s (including a groundwater expert) whose appointment has been approved by the Director-General;
 - identify and consider:
 - options for continued mining beyond current project life;
 - interactions with the final landform of adjoining mines (including any direct or indirect interaction between final voids);
 - opportunities for integrated mine planning with adjoining mines to minimise environmental impacts of the mines' final landforms;
 - all reasonable and feasible landform options for the final void (including filling);
 - predicted stability of the proposed landforms; and

- predicted hydrochemistry and hydrogeology (including long-term groundwater recovery and void groundwater quality);
- (c) include a detailed proposed landform design; and
- (d) demonstrate that the proposed final landform:
 - satisfies the relevant objectives in Table 17;
 - minimises the extent of any resulting pit lake;
 - avoids salt scalding;
 - maximises the capacity of emplaced spoil to drain to the natural environment; and
 - ensures that drained waters do not adversely affect the downstream environment.

SOCIAL

Agricultural Property on Project Owned Land

75. The Proponent shall use its best endeavours to ensure that the agricultural productivity of land that is project related (including remaining agricultural land on properties forming the biodiversity offset area) is maintained or enhanced.

Note: This does not include land where disturbance is permitted under the conditions of this approval, or land that forms part of the biodiversity offset area. However, the additional low diversity derived native grassland, cultivated land and pasture improved land that forms part of the Biodiversity Offset Area for corridor enhancement will need to be further assessed for agricultural suitability and management may include both agricultural and conservation outcomes identified as part of an approved biodiversity management plan.

Agricultural Production on land acquired due to impacts on residential receivers

76. The Proponent shall ensure that any properties primarily used for agricultural production that are acquired by the Proponent due to impacts on residential receivers continue to be operated and maintained for sustainable agricultural production, unless they have been incorporated into an approved biodiversity offset area. This condition ceases to have effect if the Proponent disposes of the property.

Construction Workforce Accommodation

77. Prior to construction activities commencing, the Proponent shall prepare and implement a Construction Workforce Accommodation Plan, in consultation with Council, and to the satisfaction of the Director-General. The plan must:
- (a) provide details of the construction workforce numbers throughout all stages of construction including local vs. non-local hiring; and
 - (b) demonstrate that the construction workforce can be suitably housed in approved accommodation facilities.

Social Impact Management Plan

78. The Proponent shall prepare and implement a Social Impact Management Plan for the project to the satisfaction of the Director-General to manage the potential impacts of the project. This plan must:
- (a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Director-General;
 - (b) be prepared in consultation with Council, Gunnedah Shire Council, the CCC, Aboriginal stakeholders and other relevant Government agencies and service providers, other mine operators in the Leard Forest Mining Precinct and submitted to the Director-General for approval within 12 months of project approval;
 - (c) take into consideration relevant actions related to social impacts identified in the Strategic Regional Land Use Plan for New England North West;
 - (d) identify the social impacts resulting from the various stages of the project (including construction, operational and decommissioning stages) in both the local and regional context, including but not limited to:
 - soft infrastructure such as housing, medical, education, childcare and emergency services;
 - hard infrastructure such as local and regional roads and rail;
 - economic/business development;
 - workforce demand/supply factors, such as training needs; and
 - labour availability impacts on other sectors, such as agricultural enterprises;
 - (e) identify proposed initiatives for promoting workforce opportunities for residing in the area/region as opposed to FIFO/DIDO;
 - (f) include a management and mitigation program to minimise and/or mitigate social impacts which at a minimum incorporates the socio-economic mitigation initiatives identified in the EA, and
 - (g) include a monitoring program, incorporating key performance indicators and a review and reporting protocol, including reporting in the annual review.

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS/TENANTS

1. Within 3 months of the date of this approval, the Proponent shall:
 - (a) notify in writing the owners of:
 - the land listed in Table 1 of schedule 3 that they have the right to require the Proponent to acquire their land at any stage during the project;
 - any residence on the land listed in Table 1 and 2 of schedule 3 that they have the right to request the Proponent to ask for additional noise and/or air quality mitigation measures to be installed at their residence at any stage during the project; and
 - any privately-owned land within 2 kilometres of the approved open cut mining pit/s that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated;
 - (b) notify the tenants of any mine-owned land of their rights under this approval; and
 - (c) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the EA identify that dust emissions generated by the project are likely to be greater than the relevant air quality criteria in schedule 3 at any time during the life of the project.
2. Prior to entering into any tenancy agreement for any land owned by the Proponent that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Table 1 that is subsequently purchased by the Proponent, the Proponent shall:
 - (a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time);
 - (b) advise the prospective tenants of the rights they would have under this approval; and
 - (c) request the prospective tenants consult their medical practitioner to discuss the air quality monitoring data and predictions and health impacts arising from this information, to the satisfaction of the Director-General.
3. As soon as practicable after obtaining monitoring results showing:
 - (a) an exceedance of the relevant criteria in schedule 3, the Proponent shall notify the affected landowner in writing of the exceedance, and provide regular monitoring results to each of these parties until the project is complying with the relevant criteria again; and
 - (b) an exceedance of the relevant air quality criteria schedule 3, the Proponent shall send to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land) a copy of:
 - the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and
 - the monitoring data, in an appropriate format so that a medical practitioner can assist the resident in making an informed decision on the health risks associated with occupation of the property.

INDEPENDENT REVIEW

Landowners

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

If the Director-General is satisfied that an independent review is warranted, then within 2 months of the Director-General's decision, the Proponent shall:

- (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Director-General, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring to determine whether the project is complying with the relevant impact assessment criteria in schedule 3; and
 - if the project is not complying with these criteria then:
 - i. determine if the more than one mine is responsible for the exceedance, and if so the relative share of each mine towards the impact on the land;
 - ii. identify the measures that could be implemented to ensure compliance with the relevant criteria; and
 - (b) give the Director-General and landowner a copy of the independent review.
5. If the independent review determines that the project is complying with the relevant criteria in schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.

If the independent review determines that the project is not complying with the relevant criteria, and that the project is primarily responsible for this non-compliance, then the Proponent shall:

- (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until the project complies with the relevant criteria; or
- (b) secure a written agreement with the landowner to allow exceedances of the relevant criteria, to the satisfaction of the Director-General.

If the independent review determines that the project is not complying with the relevant acquisition criteria, and that the project is primarily responsible for this non-compliance, then upon receiving a written request from the landowner, the Proponent shall acquire all or part of the landowner's land in accordance with the procedures in condition 8-9 below.

6. If the independent review determines that the relevant criteria are being exceeded, but that more than one mine is responsible for this exceedance, then together with the relevant mine/s the Proponent shall:
 - (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until there is compliance with the relevant criteria; or
 - (b) secure a written agreement with the landowner and other relevant mine/s to allow exceedances of the relevant impact assessment criteria, to the satisfaction of the Director-General.

If the independent review determines that the project is not complying with the relevant acquisition criteria in schedule 3, but that more than one mine is responsible for this non-compliance, then upon receiving a written request from the landowner, the Proponent shall acquire all or part of the landowner's land on as equitable a basis as possible with the relevant mine/s, in accordance with the procedures in conditions 8-9 below.

Biodiversity & Heritage

7. If a person has good reason to believe the Proponent is not implementing the biodiversity and/or heritage conditions in schedule 3 satisfactorily, then he/she may ask the Director-General in writing for an independent review of the matter.

If the Director-General is satisfied that an independent review is warranted, then within 2 months of the Director-General's decision, the Proponent shall:

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to:
 - consult with the person and/or any relevant agencies;
 - investigate the person's complaints/claims;
 - review the environmental performance of the Proponent;
 - determine whether the Proponent's performance is satisfactory or not; and if necessary
 - recommend measures to improve the Proponent's performance; and
- (b) give the Director-General and complainant a copy of the independent review.

LAND ACQUISITION

8. Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:
 - (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the 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, but excluding any improvements that have resulted from the implementation of the additional mitigation measures required under condition 2 of schedule 3;
 - (b) the reasonable costs associated with:
 - relocating within the Tamworth, Narrabri, Gunnedah or Moree local government area, or to any other local government area determined by the Director-General; 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 Proponent 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 Director-General for resolution.

Upon receiving such a request, the Director-General shall 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 Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.

However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Director-General 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 Director-General 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 Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the Director-General's determination.

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

9. The Proponent shall pay all reasonable costs associated with the land acquisition process described in condition 8 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.

**SCHEDULE 5
ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING**

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. The strategy must:
 - (a) be submitted to the Director-General for approval prior to the commencement of construction;
 - (b) provide the strategic framework for environmental management of the project;
 - (c) identify the statutory approvals that apply to the project;
 - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;
 - (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 project;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the project;
 - respond to any non-compliance;
 - respond to emergencies; and
 - (f) include:
 - copies of any strategies, plans and programs approved under the conditions of this consent; and
 - a clear plan depicting all the monitoring to be carried out in relation to the project.

Adaptive Management

2. The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval 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 Proponent must at the earliest opportunity:

- (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;
- (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other courses of action; and
- (c) implement remediation measures as directed by the Director-General, to the satisfaction of the Director-General.

Management Plan Requirements

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

Annual Review

4. By the end of March each year, the Proponent shall review the environmental performance of the project for the previous calendar year to the satisfaction of the Director-General. 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 project over the past year, which includes a comparison of these results against the:
 - relevant statutory requirements, limits or performance measures/criteria;
 - monitoring results of previous years; and
 - relevant predictions in the EA;
 - (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
 - (d) identify any trends in the monitoring data over the life of the project;
 - (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
 - (f) describe what measures will be implemented over the next year to improve the environmental performance of the project.

Revision of Strategies, Plans and Programs

5. Within 3 months of the submission of an:
 - (a) annual review under condition 4 above;
 - (b) incident report under condition 8 below;
 - (c) audit under condition 10 below; or
 - (d) any modification to the conditions of this approval,the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.

Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.

Management of Cumulative Impacts

6. In conjunction with the owners of the nearby mines in the Leard Forest Mining Precinct, the Proponent shall use its best endeavours to minimise the cumulative impacts of the project on the surrounding area to the satisfaction of the Director-General.

Community Consultative Committee

7. The Proponent shall establish and operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Director-General. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version), and be operating within 6 months of the date of this approval.

The CCC must include at least one member representing the Maules Creek community, one member from Aboriginal stakeholder groups, and seek to include some joint membership with CCCs for other operating coal mines within the Leard Forest Mining Precinct, unless otherwise agreed by the Director-General.

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval; and*
- *In accordance with the Department's guideline, the CCC should be comprised on an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.*

REPORTING

Incident Reporting

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

Regular Reporting

9. The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.

AUDITING

Independent Environmental Audit

10. By the end of June 2015 and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
 - (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the project and assess whether it is complying with the requirements in this approval, and any other relevant approvals, relevant EPL/s and/or Mining Lease (including any assessment, plan or program required under these approvals);
 - (d) assess whether the Proponent is implementing best noise, blasting and air quality management practice;
 - (e) investigate and report on the measures taken to minimise the noise and air quality impacts of the project during meteorological conditions and/or extraordinary events when the relevant noise and air quality limits in this approval do not apply, including:
 - the effectiveness of these measures in maintaining impacts within the relevant criteria in this approval and/or the limits in the relevant EPL; and
 - any additional measures available to mitigate impacts under such conditions;
 - (f) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and
 - (g) recommend measures or actions to improve the environmental performance of the project and/or any strategy, plan or program required under these approvals.

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

11. Within 3 months of commissioning this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

12. The Proponent shall:
 - (a) within 3 months of the date of this approval, make the following information publicly available on its website:
 - the EA;
 - all current statutory approvals for the project;
 - approved strategies, plans and programs required under the conditions of this consent;
 - a comprehensive summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this consent;
 - a complaints register, which is to be updated on a monthly basis;
 - minutes of CCC meetings;
 - the last five annual reviews;
 - any independent environmental audit, and the Proponent's response to the recommendations in any audit;
 - any other matter required by the Director-General; and
 - (b) keep this information up to date, to the satisfaction of the Director-General.

Online Communication of Onsite Activities and Monitoring of Noise and Air Quality

13. The Proponent shall, within 3 months of the date of this approval:
 - (a) make the following information for the project publicly available on its website, on a daily basis and in a clearly understandable form:
 - daily weather forecasts for the coming week;
 - proposed operational responses to these weather forecasts;
 - real-time noise and air quality monitoring data (subject to any necessary caveats); and
 - any operational responses that were taken in response to the noise and air quality monitoring data, and

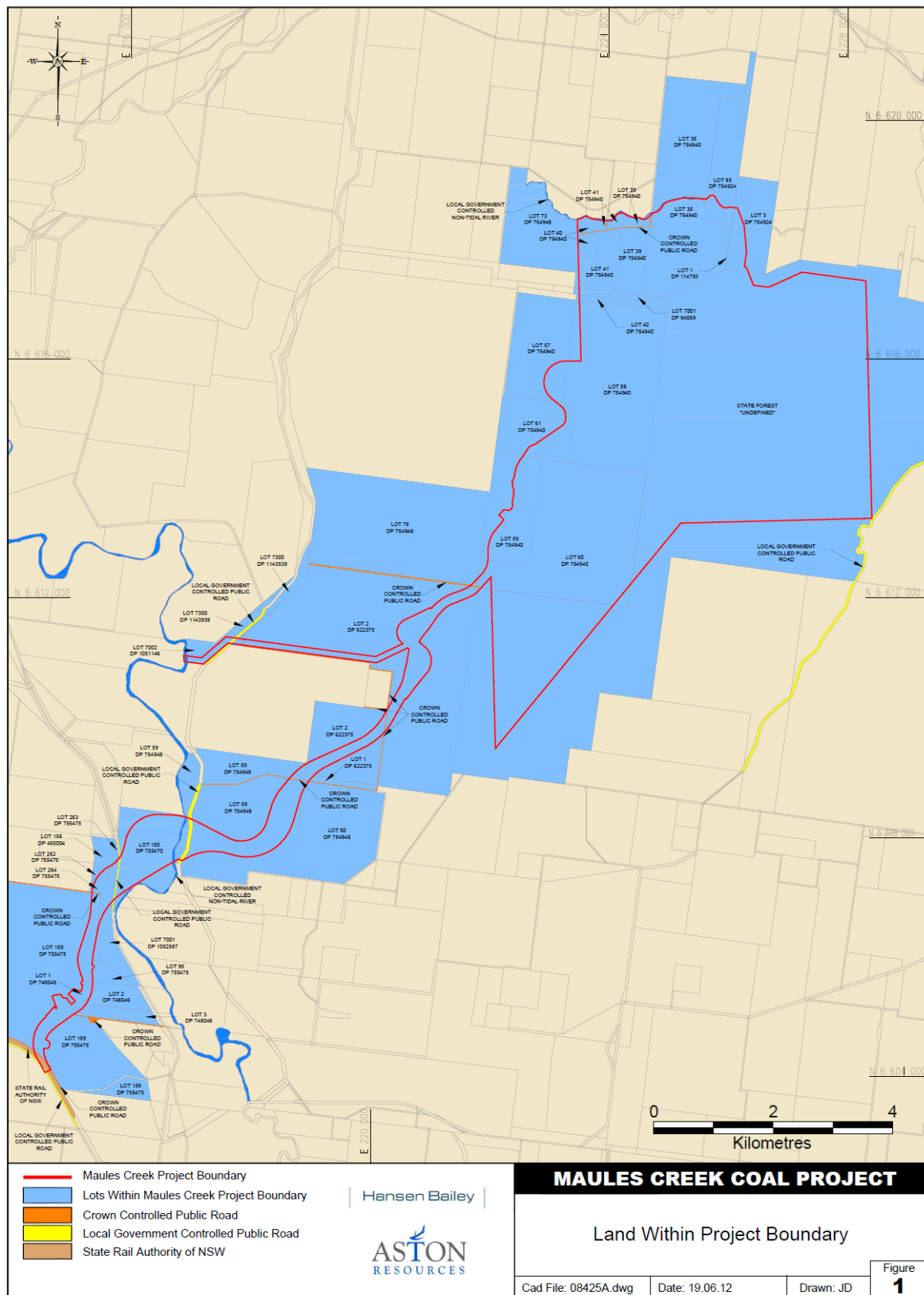
(b) make provision on its website for the provision of on-line and/or email comments by members of the community regarding this information, to the satisfaction of the Director-General.

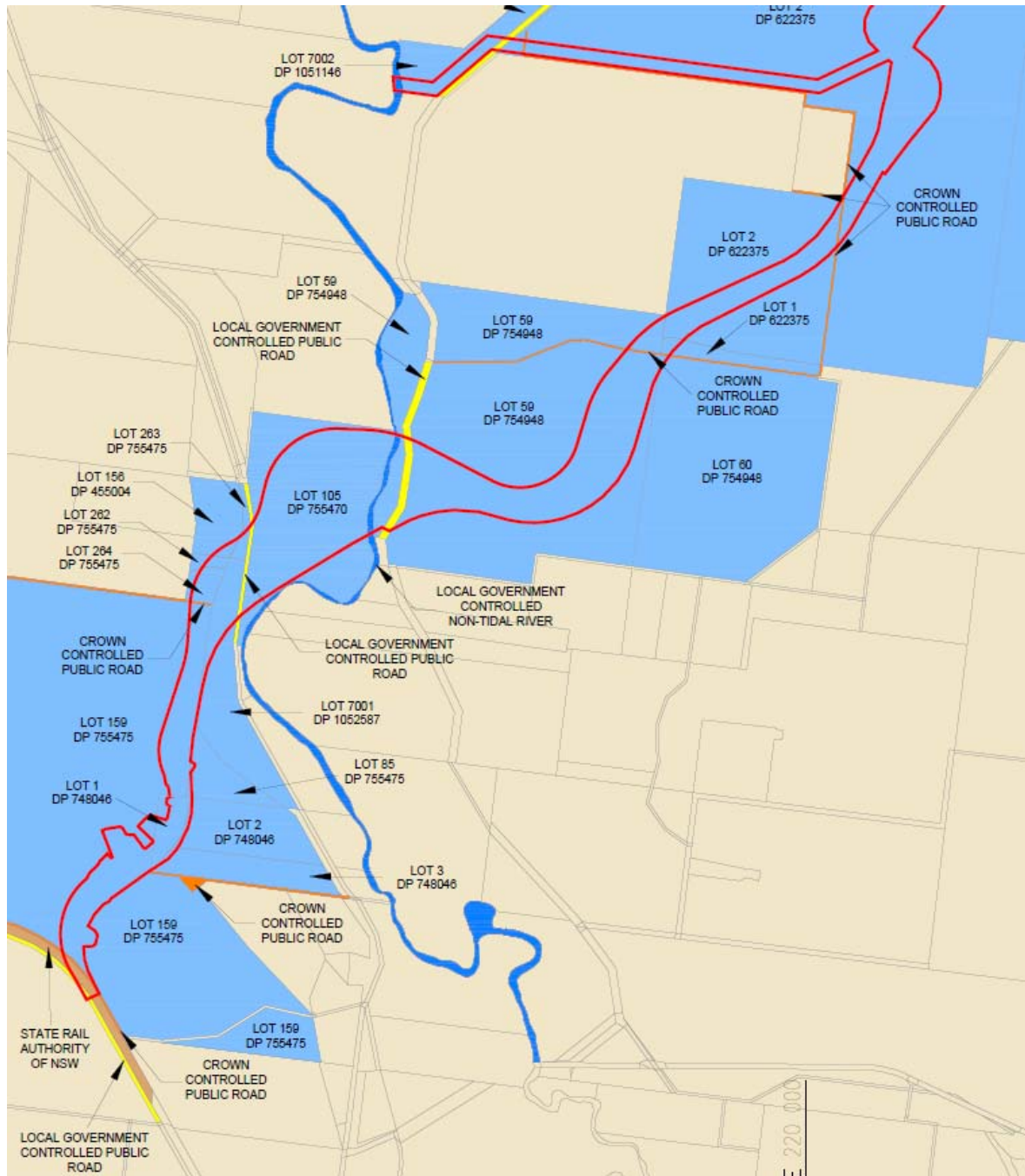
**APPENDIX 1
SCHEDULE OF LAND**

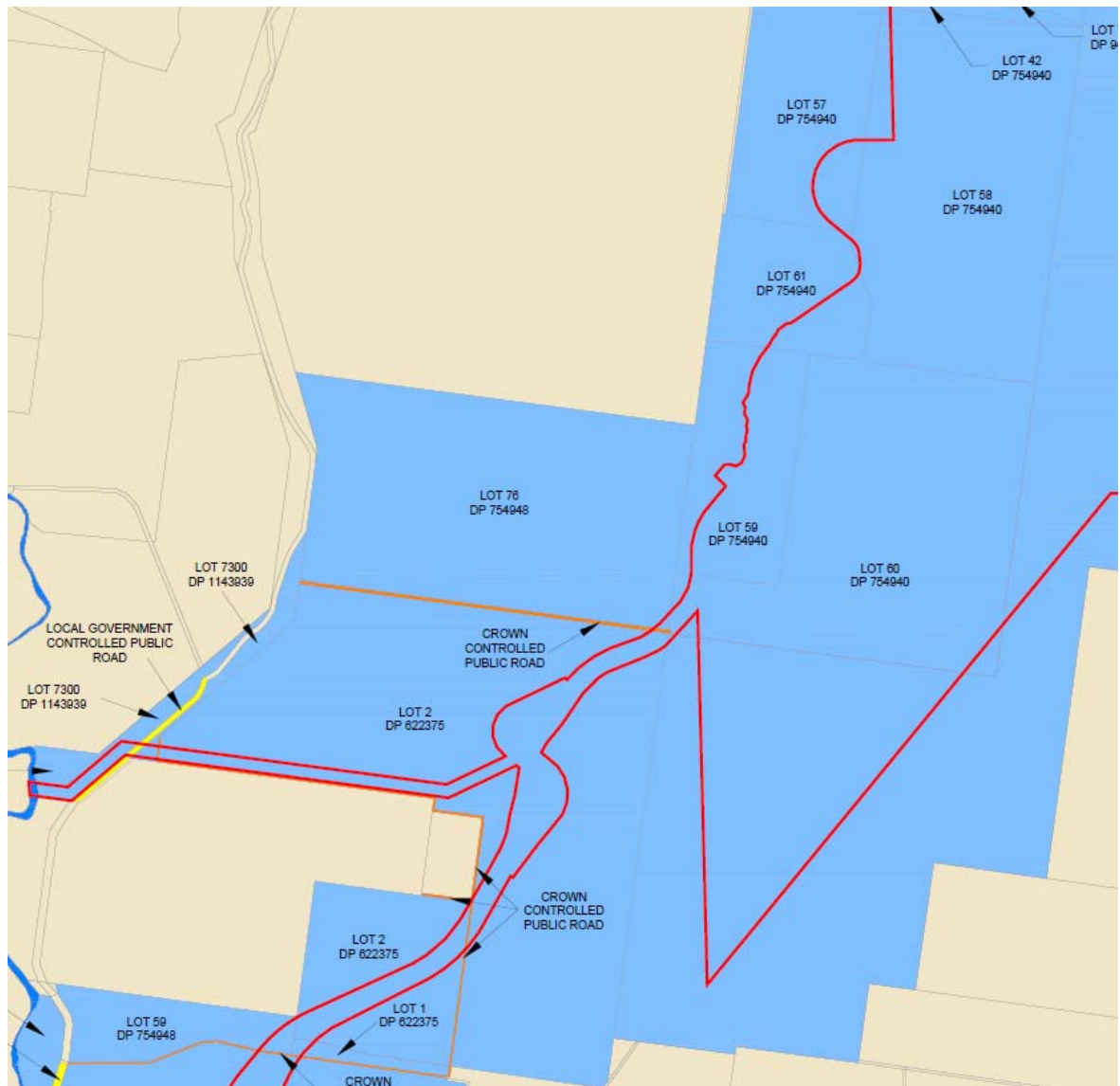
Lot	DP	Lot	DP
7001	94069	76	754948
156	455004	105	755470
1	622375	85	755475
2	622375	159	755475
1	748046	262	755475
2	748046	263	755475
3	748046	264	755475
3	754924	7002	1051146
65	754924	7001	1052587
57	754940	7300	1143939
58	754940	1	114793
59	754940	Werris Creek Mungindi Railway	
60	754940	Kamilaroi Highway	
61	754940	Namoi River	
39	754940	Therribri Road	
40	754940	NSW State Forest	
41	754940	Undefined Road 1	
42	754940	Undefined Road 2	
35	754940	Undefined Road 3	
59	754948	Undefined Road 4	
60	754948	Undefined Road 5	
73	754948	Undefined Road 6	

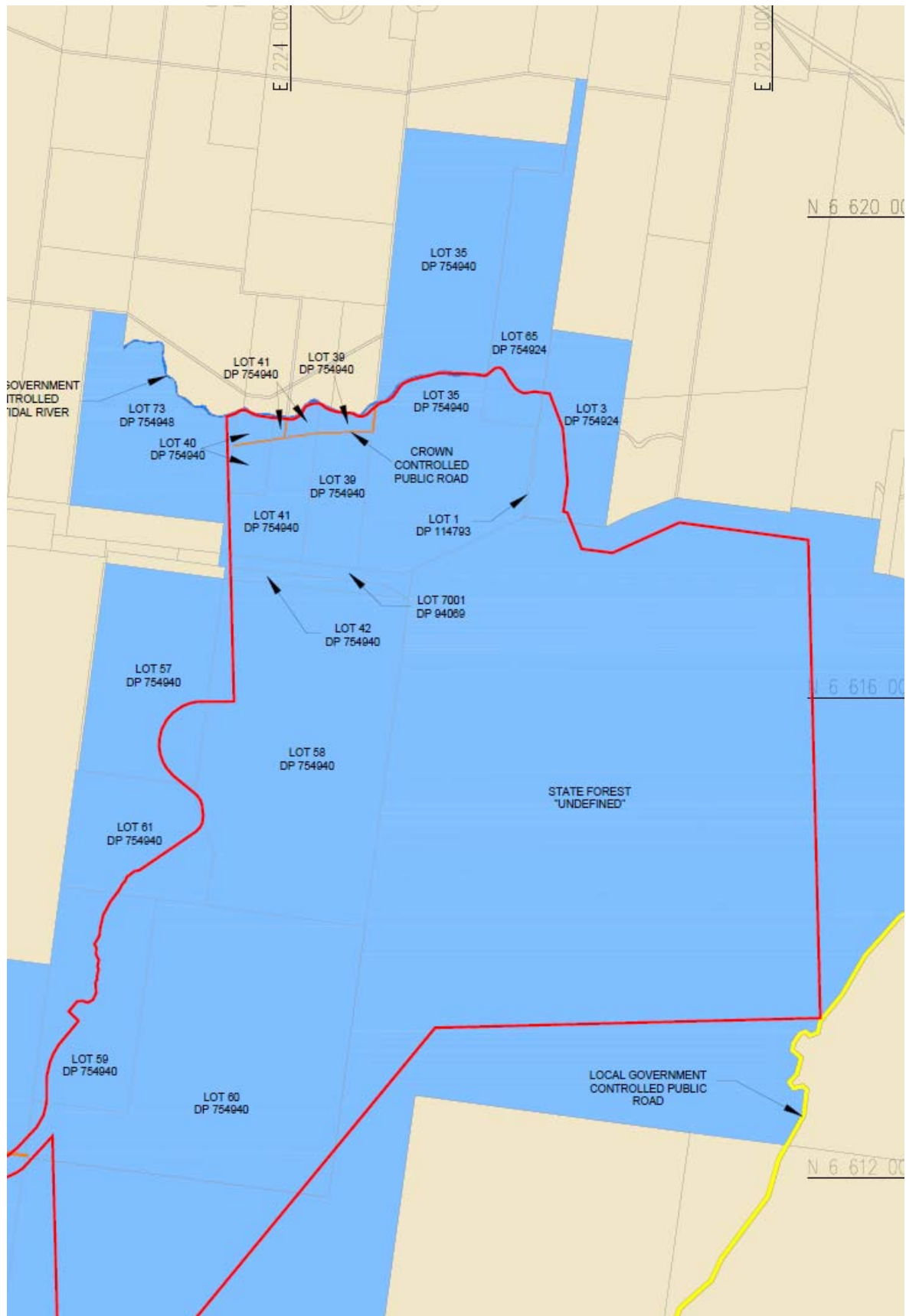
Notes:

1. The cadastral information for the lands to which the Project Application applies was sourced from the NSW LPI records database in June 2010.









APPENDIX 2 PROJECT LAYOUT PLAN

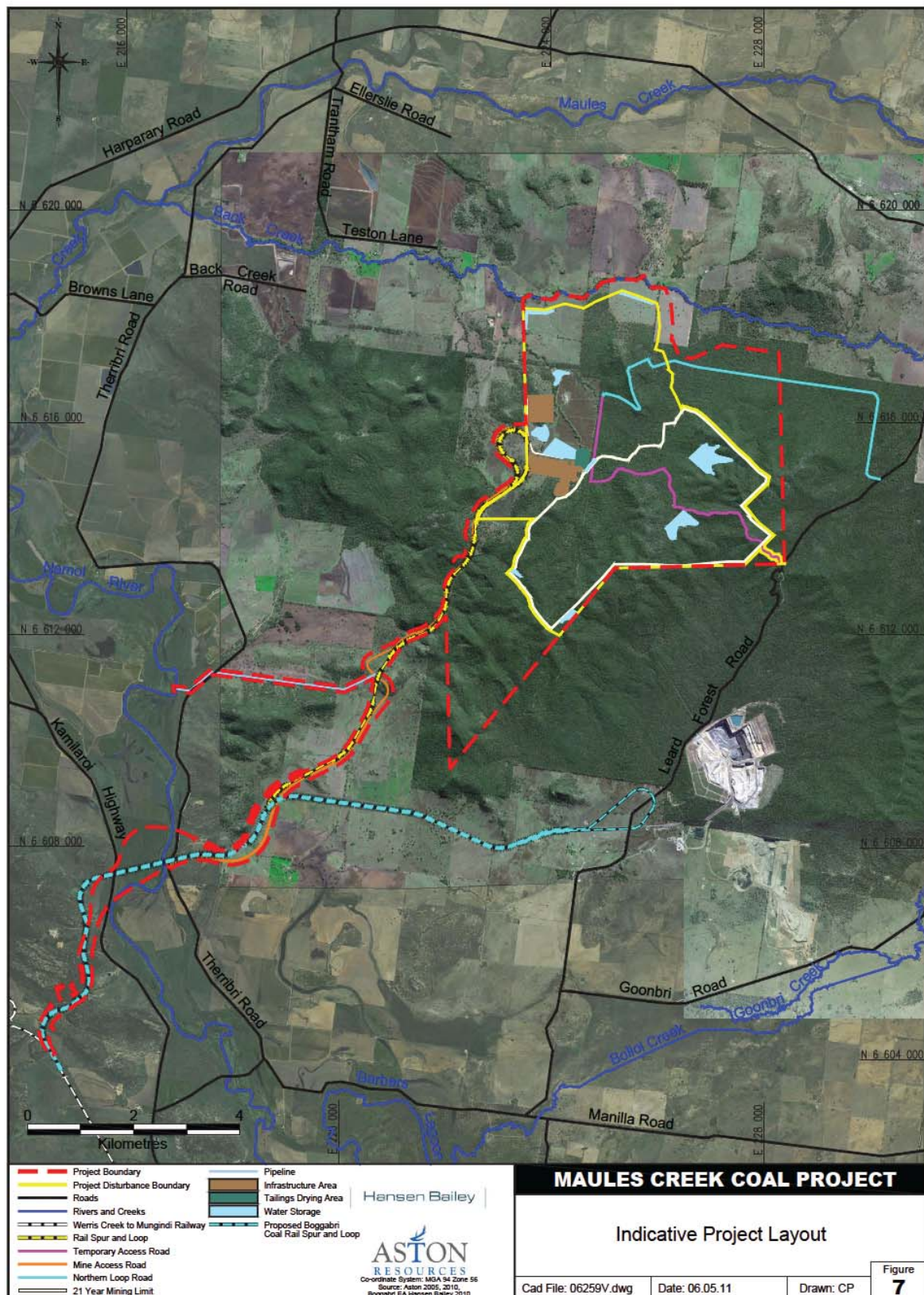


Figure 1: Mine Site Location

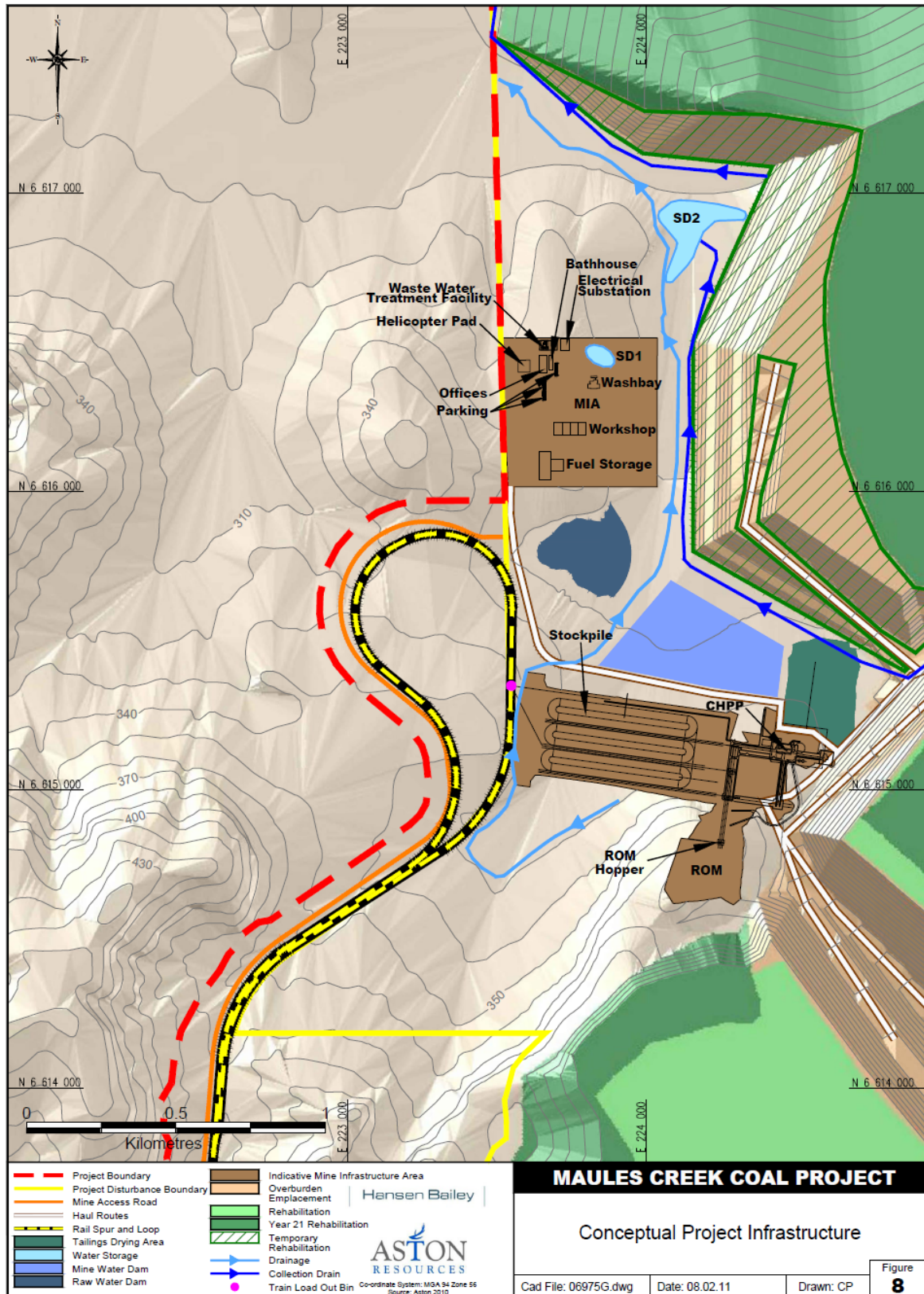


Figure 2: Infrastructure Area

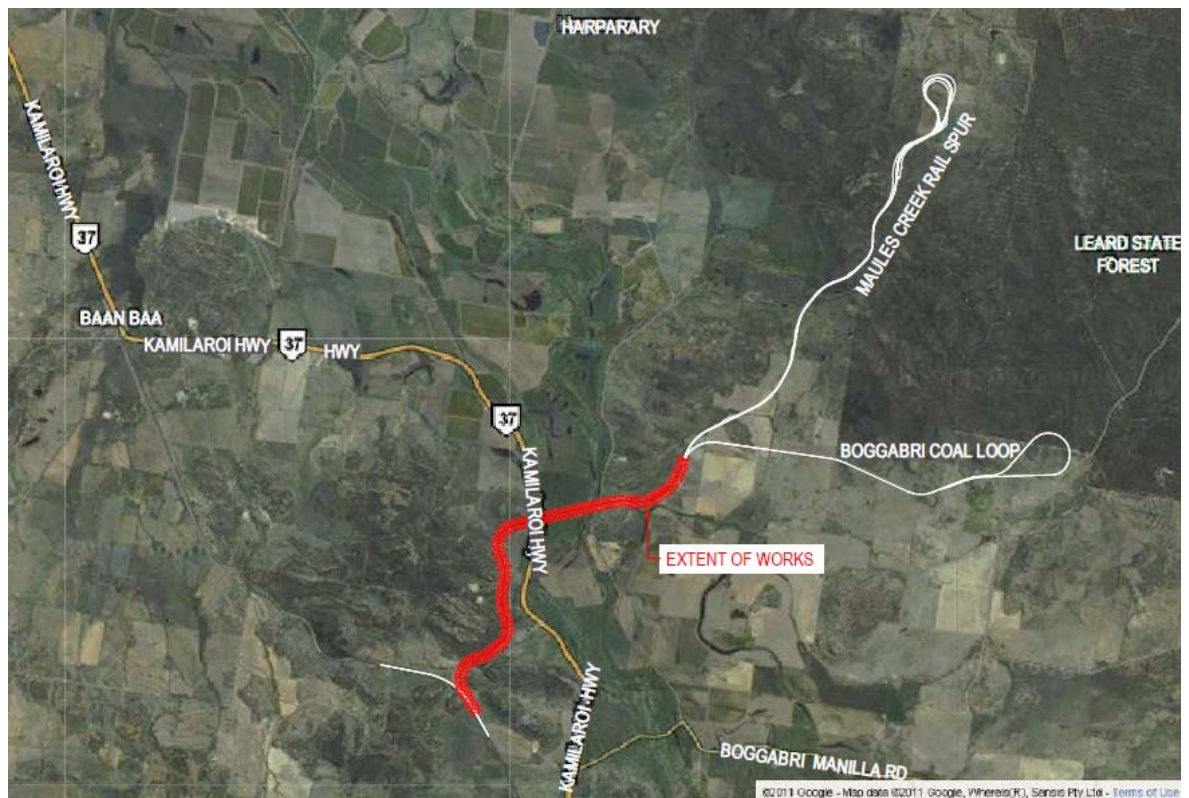


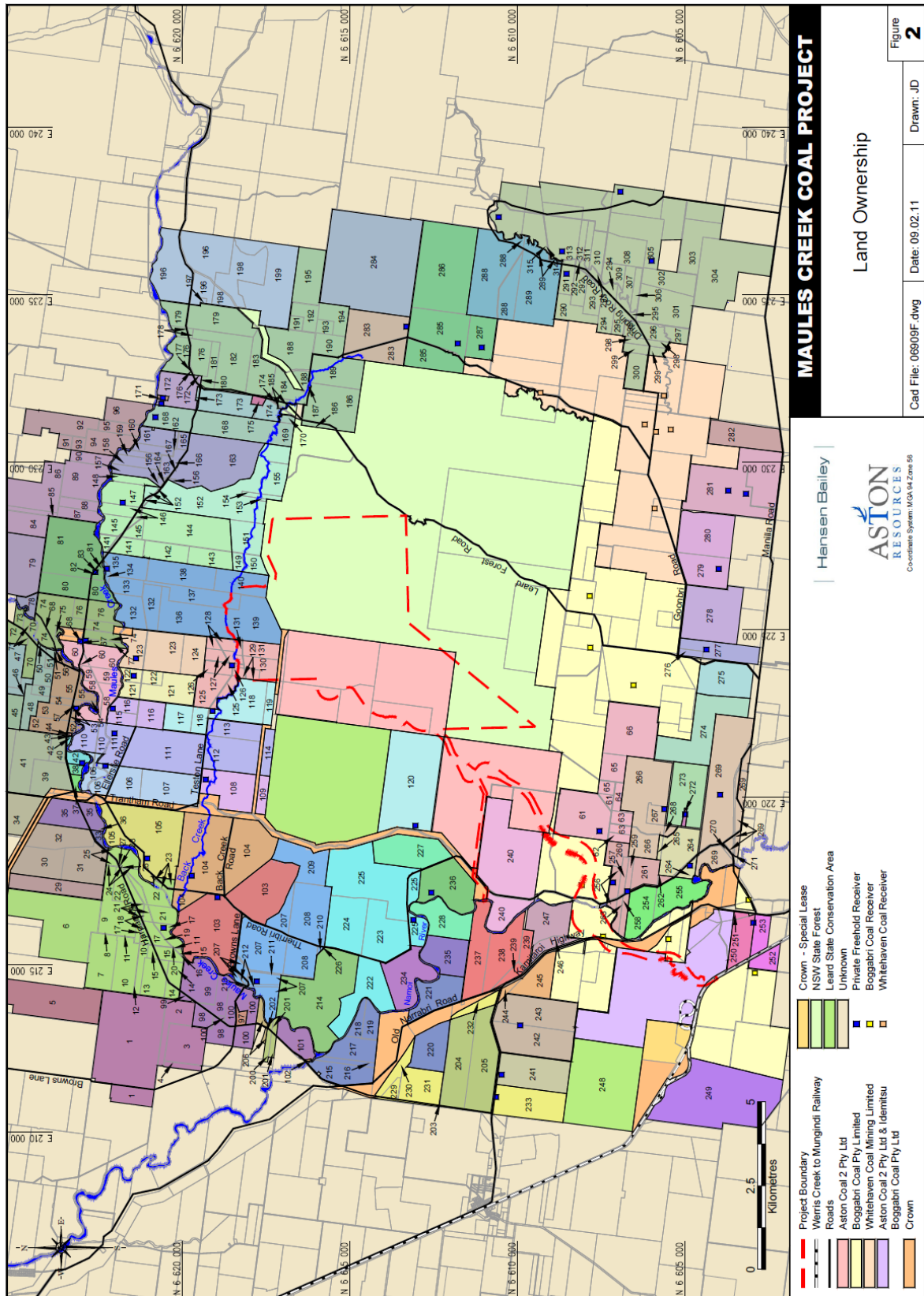
Figure 3: Maules Creek Coal Mine Rail Spur Line connecting into the shared spur line (in red) and Boggabri Coal Mine Rail Spur Line.

APPENDIX 3 GENERAL TERMS OF PLANNING AGREEMENT

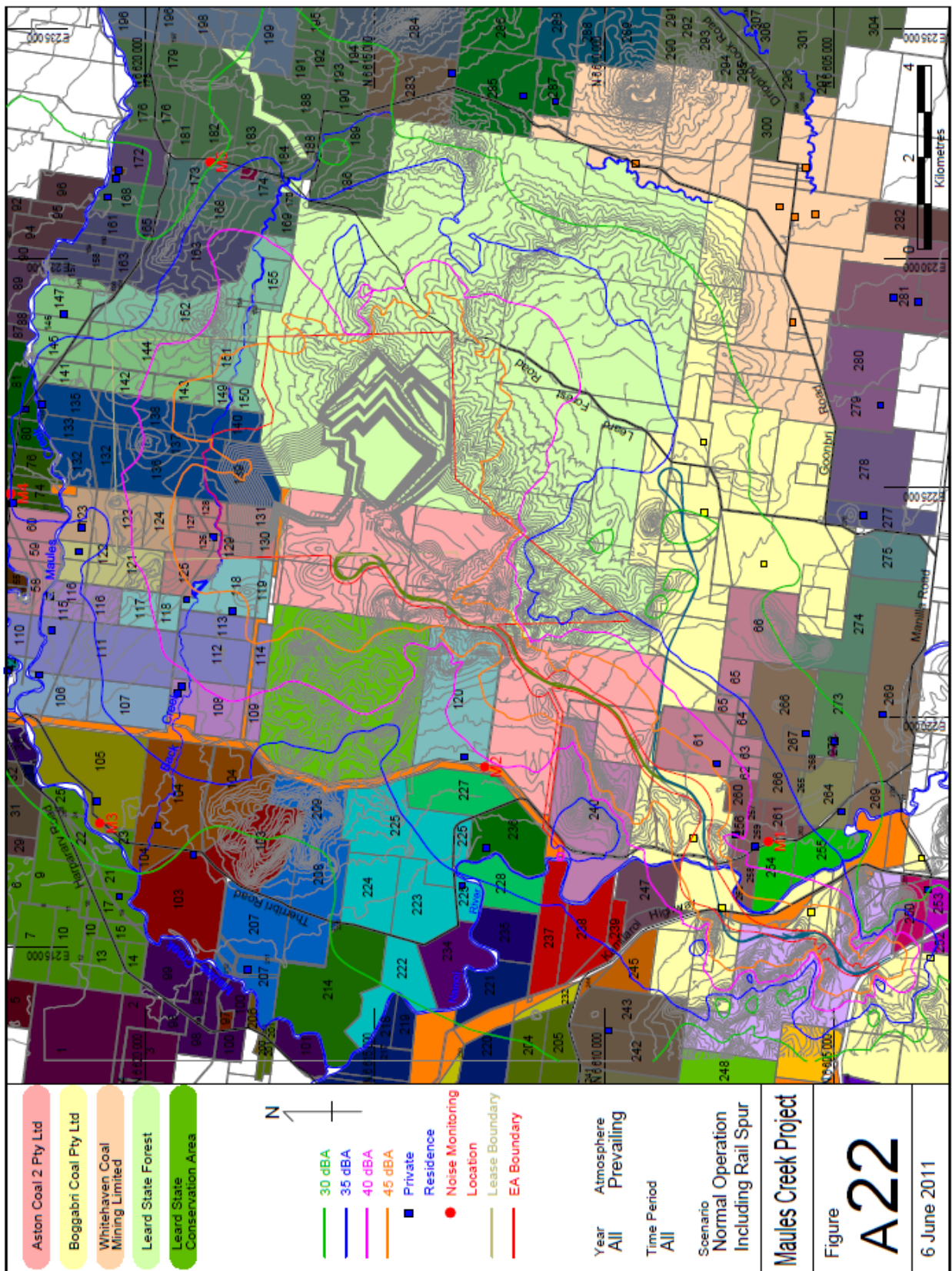
AMOUNT	TIMELINE FOR PAYMENT	DESCRIPTION
\$6,000,000	<p>\$3,000,00 3 months after receipt of all necessary approvals to commence construction of the mine. \$1,500,000 12 months after the first payment \$1,500,000 24 months after the first payment</p> <p>*Note: Maules Creek Coal will commit funds out of the first \$3,000,000 to the upgrade of Therribri Road.</p>	Funds to be utilised on the upgrade of infrastructure and road including Therribri Road and Tarrorio Bridge.
\$5,000,000	<p>\$1,000,000 3 months after receipt of all necessary approvals to commence construction of the mine. Each 12 months thereafter \$1,000,000</p>	Funds to be utilised on the upgrade of the Narrabri Airport.
\$800,000	To be distributed in consultation with Narrabri Shire Council (NSC) and the Boggabri Community. The funds will be where possible equally distributed over a 3 year period commencing 3 months after receipt of all necessary approvals to commence construction of the mine.	Funds to be utilised on various projects within the township of Boggabri and its surrounds.
\$275,000	To be distributed in consultation with Narrabri Shire Council (NSC) and the Maules Creek Community. The funds will be where possible equally distributed over a 3 year period commencing 3 months after receipt of all necessary approvals to commence construction of the mine..	Funds to be contributed to the Maules Creek Community.
\$1,250,000	<p>\$250,000 3 months after receipt of all necessary approvals to commence construction of the mine. \$500,000 12 Months after the first payment \$500,000 24 Months after the first payment</p>	Funds to be utilised on CBD upgrades in the Narrabri Shire
\$100,000	At Aston's discretion.	<p>Funds to be held in trust for "Environment" projects and to be administered by the Community Consultative Committee (CCC)</p> <p>The aim is to set up a "pool of funds" with all current and future mines being compelled to contribute \$100,000 as a once only upfront fee to commence the fund.</p> <p>The Council through gaining a Consumer Price Index (CPI) increase on the tonnes produced will allocate 1.5% of the increase each and every year to supplement the fund.</p> <p>The Council and MCC will work through the CCC to administer the funds with the criteria to support a grant application to be completed by the 30th June 2013. The first round of applications will be called in the financial year 2013/14.</p>
\$0.075 per saleable tonne + CPI		The cents per saleable tonne to mirror the calculation per saleable tonne paid to the NSW State Government and payable monthly.

		<p>The cents per saleable tonne to commence from the start of production and to be utilised on infrastructure projects (including environmental) at Council's discretion.</p> <p>The Consumer Price Index is to be calculated as follows:</p> <p>Price Indexes published by the Australian Bureau of Statistics (ABS)</p> <p>CPI to be based upon the weighted average of eight capital cities for the previous 12 months and to commence from the start of production.</p> <p>The first review to be undertaken and applied in the first instance and based on the prior 12 months CPI.</p>
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APPENDIX 4: LAND OWNERSHIP



APPENDIX 4A: 35 dB(A) noise contour marked in blue



**APPENDIX 5
STATEMENT OF COMMITMENTS**

**MAULES CREEK COAL PROJECT
CONSOLIDATED STATEMENT OF COMMITMENTS**

In addition to conditions of Project Approval, Maules Creek Coal commits to the operational controls outlined in the Environmental Assessment (EA) for all activities associated with the Project. The below consolidated Statement of Commitments (SoC) summarises the major aspects of the Project as described throughout the EA dated July 2011, the Response to Submissions Report dated December 2011 and the Response to Subsidiary Submissions Report dated March 2012 and summarises the key proposed management and mitigation measures.

The aim of this SoC is to ensure that any potential environmental impacts resulting from the Project are minimised and managed by implementing relevant environmental management, mitigation and monitoring strategies.

Ref	Commitment	Section
Mining Operations		
1.	Maules Creek Coal will extract coal at a rate of up to 13 Mtpa for 21 years, generally in accordance with this EA.	Section 3 of the Maules Creek Coal Project EA
2.	Maules Creek Coal will seek the appropriate licences and approvals as relevant to the Project and listed in Table 9 .	Section 4.8 of the Maules Creek Coal Project EA
3.	Maules Creek Coal shall surrender its existing development consent DA 85/1819 following the grant of the Project Approval.	Section 4 of the Maules Creek Coal Project EA
Environmental Management		
4.	<p>The proponent will develop a staged EMS in consultation with relevant regulators (and the Aboriginal community where relevant) to the approval of DP&I which shall comprise:</p> <ul style="list-style-type: none"> • Environmental Management Strategy; • Environmental Monitoring Program (incorporating air quality, noise, blasting, ecology, Aboriginal heritage, surface water and groundwater); • Construction Management Plan; • Air Quality Management Plan; • Noise Management Plan; • Flora and Fauna Management Plan (including Land Disturbance Protocol); • Biodiversity Offsets Management Plan; • Rehabilitation Management Plan; • Aboriginal Archaeology and Cultural Heritage Management Plan; • Water Management Plan (including groundwater and surface water); • Traffic and Transport Management Plan; • Bushfire Management Plan; and • Hazardous Materials Management Plan. 	Section 7 of the Maules Creek Coal Project EA
5.	Maules Creek Coal will continue to consult with the Namoi CMA in relation to the preparation and implementation of the environmental management plans for the Project.	Section 4.4.2 of the Response to Submissions Report
Air Quality		
6.	Maules Creek Coal will utilise leading practice technologies and initiatives as required to seek to achieve the air quality outcomes described in this EA.	Section 7.1.4 of the Maules Creek Coal Project EA
7.	Maules Creek Coal will undertake regular monitoring of greenhouse gas emissions and energy	Section 7.2.4 of the

Ref	Commitment	Section
	efficiency initiatives to ensure that Scope 1 greenhouse gas emissions per tonne of product coal are kept to the minimum practicable level.	Maules Creek Coal Project EA
8.	Maules Creek Coal will install a real time air quality monitoring network in consultation with OEH. Consultation will also occur with Boggabri and Tarrawonga Coal Mines in an attempt to develop an holistic network for the region.	Section 7.1.4 of the Maules Creek Coal Project EA
9.	Maules Creek Coal will install a real time meteorological monitoring system with predictive air quality modelling software capabilities at locations selected in consultation with OEH. Consultation will also occur with Boggabri and Tarrawonga Coal Mines in an attempt to develop an holistic network for the region. The monitoring component of this system will include a PM _{2.5} monitor at a location representative of the receivers located within the Maules Creek Community.	
Noise and Blasting		
10.	Maules Creek Coal will implement the necessary noise control and management measures as required to seek to ensure that the EA predicted noise levels at private receivers as listed in Table 23 are not exceeded.	Section 7.3.4 of the Maules Creek Coal Project EA
11.	Maules Creek Coal will install a real time noise monitoring system at locations selected in consultation with OEH. Consultation will also occur with Boggabri and Tarrawonga Coal Mines in an attempt to develop an holistic network for the region.	Section 7.3.4 of the Maules Creek Coal Project EA

Visual		
12.	Should a landholder within 7.5 km of the active mining area consider they are experiencing high visual impact as a result of the Project, Maules Creek Coal will carry out a specific visual assessment from the residence and develop any management and mitigation measures required in consultation with the landholder and DP&I.	Section 7.5.4 of the Maules Creek Coal Project EA
13.	Night time operations will be undertaken behind barriers, particularly in exposed areas to reduce direct night lighting impacts to neighbouring receivers.	
14.	Infrastructure lighting will consist of horizontal lights with hoods and louvers in elevated and exposed areas utilising low brightness lights to the level necessary for operational and safety requirements to minimise adverse night lighting impacts.	
Ecology		
15.	Maules Creek Coal will design and construct the CHPP, MIA and water storages within the Project Disturbance Boundary to minimise impacts upon CEEC within the constraints of cost effective engineering practicality.	Section 7.6.4 of the Maules Creek Coal Project EA
16.	Maules Creek Coal will progressively rehabilitate mined areas with a focus on the reestablishment of existing forest and woodland communities.	
17.	Maules Creek Coal will establish the Biodiversity Offset Strategy as described in this EA to initially maintain and ultimately improve the ecological values of the Bioregion.	Section 7.7 of the Maules Creek Coal Project EA
Aboriginal Archaeology and Cultural Heritage		
18.	The salvage and the protection of all known Aboriginal objects within the Project Boundary will be managed in accordance with an Aboriginal Archaeology and Cultural Heritage Management Plan to be developed in consultation with the local Aboriginal community and OEH.	Section 7.8.3 of the Maules Creek Coal Project EA
19.	Maules Creek Coal will consult with Boggabri Coal Mine and contribute to the establishment and ongoing funding of a keeping place for the purpose of housing salvaged Aboriginal artefacts from the local area.	
20.	Maules Creek Coal will provide the opportunity for one representative of the Aboriginal community to be a member of the Maules Creek CCC.	

Ref	Commitment	Section
21.	Maules Creek Coal will offer training packages to members of the Red Chief Local Aboriginal Lands Council in relation to site recording, artefact recording and basic analysis.	
Non Indigenous Heritage		
22.	Maules Creek Coal will compile an Oral History report for any landowners which are identified to be adversely impacted by the Project and who are acquired in accordance with conditions of Project Approval.	Section 7.9.3 of the Maules Creek Coal Project EA
23.	Maules Creek Coal will ensure that the Heritage items located on its landholdings will be adequately managed and preserved in accordance with the requirements under the Heritage Act.	
Water Resources		
24.	Maules Creek Coal will continue to monitor groundwater ingress and impacts on surrounding privately owned bores. In the unlikely event that it is demonstrated that water levels in existing landholder bores decline as a consequence of the Project, leading to an adverse impact on water supply, the supply will be substituted by Maules Creek Coal in consultation with the landholder either by deepening the bore, construction of a new bore or providing comparable water from an external source.	Section 7.11.4 of the Maules Creek Coal Project EA
25.	Maules Creek Coal will use reasonable endeavours to, in consultation with Boggabri Coal Mine and Tarrawonga Mine, develop a groundwater monitoring network to monitor the predicted groundwater impacts from mining.	
26.	Maules Creek Coal will conduct water quality monitoring of the seepage / runoff from the OEAs.	Section 7.10.4 of the Maules Creek Coal Project EA
27.	Maules Creek Coal will use reasonable endeavours to obtain water access licence allocation to account for the capture and use of water from the various Water Sharing Plans that apply to the Project in accordance with the provisions of the WM Act and its Regulations.	Section 4.7.1 of the Response to Submissions Report
Geochemical		
28.	PAF coal rejects materials and the roof and floor of these PAF coal seams will be co-disposed with overburden in pit or within encapsulated cells within the Northern OEA.	Section 7.12.4 of the Maules Creek Coal Project EA
Traffic		
29.	Reasonable endeavours will be made to ensure that Project related traffic does not utilise the following public roads unless they are travelling to a specific destination along that route (such as residence, monitoring location, near neighbour etc.): Harparary Road from Leard Forest Road to the Kamilaroi Highway; Leard Forest Road between Northern Loop Road and Harparary Road; Therribri Road between the Mine Access Road and Harparary Road and the entire length of Browns Lane.	Section 7.14.4 of the Maules Creek Coal Project EA
30.	Maules Creek Coal will use reasonable endeavours to work with other Gunnedah Basin coal projects and the relevant roads authorities in managing safety issues on the road network related to mining within the Narrabri and Gunnedah LGAs.	Section 7.14.4 of the Maules Creek Coal Project EA & Section 4.13.1 of the Response to Submissions Report

31.	Maules Creek Coal will use reasonable endeavours to work with other Gunnedah Basin coal miners and the ARTC to encourage management strategies to ensure that the rail network can continue to handle the forecast additional rail movements.	Section 7.14.4 of the Maules Creek Coal Project EA
32.	Prior to the construction of the rail spur overpass within the easement of the Kamilaroi Highway, Maules Creek Coal will consult with all relevant regulatory authorities and will	Section 7.14.4 of the Maules Creek Coal

Ref	Commitment	Section
	develop a Construction Management Plan for the works (including traffic control and management) in consultation with the RTA.	Project EA
Community		
33.	Maules Creek Coal will implement the management strategies as described within Section 7.20.9 of this EA, in order to monitor and address the possible impacts of the Project upon the socioeconomic environment.	Section 7.20.9 of the Maules Creek Coal Project EA
34.	Maules Creek Coal offers to enter into an appropriate VPA on terms it will seek to agree with NSC and GSC.	Section 7.20.9 of the Maules Creek Coal Project
35.	Maules Creek Coal will maintain the agricultural productivity of its landholdings that are not utilised for mining or biodiversity offsets.	Section 7.15.4 of the Maules Creek Coal Project EA
Reporting		
36.	Maules Creek Coal will prepare an Annual Review (which summarises monitoring results and reviews performance) and distribute it to the relevant regulatory authorities and the Maules Creek CCC.	Section 5.5 of the Maules Creek Coal Project EA

APPENDIX 6
PLANNING ASSESSMENT COMMISSION – GROUNDWATER

RECOMMENDATIONS FOR GROUNDWATER AND HYDRO-CHEMICAL MONITORING

1. The proposed 17 additional monitoring bores be equipped with water level or pore pressure monitoring transducers installed at vertical separations such that the future impacts of strata depressurisation can be adequately measured and mapped.
2. Core tests to be conducted to assess the distribution and variability of hydraulic conductivities of (unfractured) interburden at sufficient number of bore locations to quantify porous groundwater flow and storage contributions associated with interburden.
3. XRD-XRF analyses to be undertaken on core samples obtained at a sufficient number of bore locations to establish mineralogy of interburden likely to be exposed to pit re-saturation.
4. Hydrochemical modelling to be undertaken in order to determine the long term void water quality. This study should include batch reaction (full saturation) trials on waste interburden (spoils) to confirm hydrochemical modelling outcomes.

APPENDIX 7 BIODIVERSITY OFFSET STRATEGY

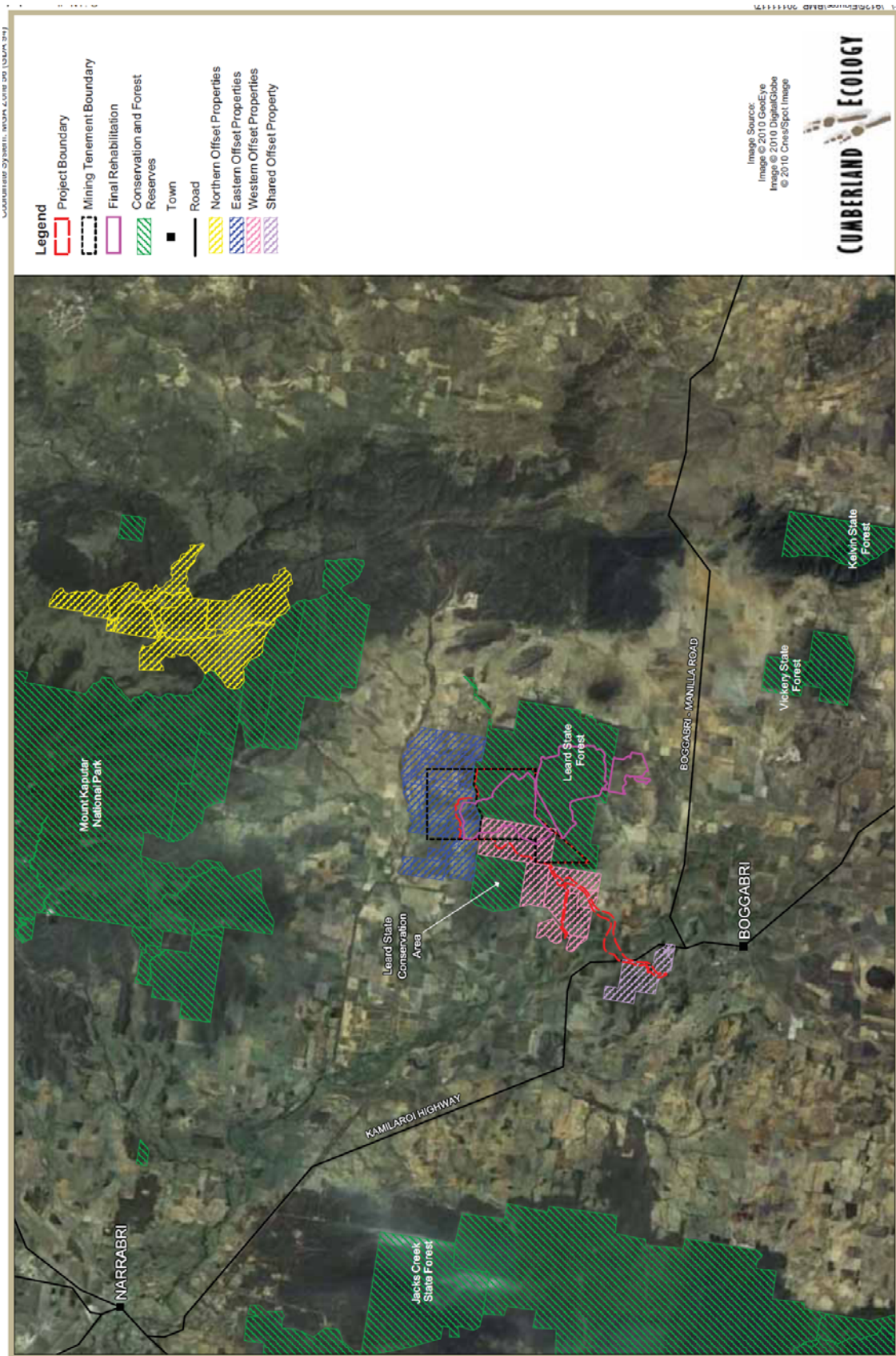


Figure 1: Proposed biodiversity offset strategy properties

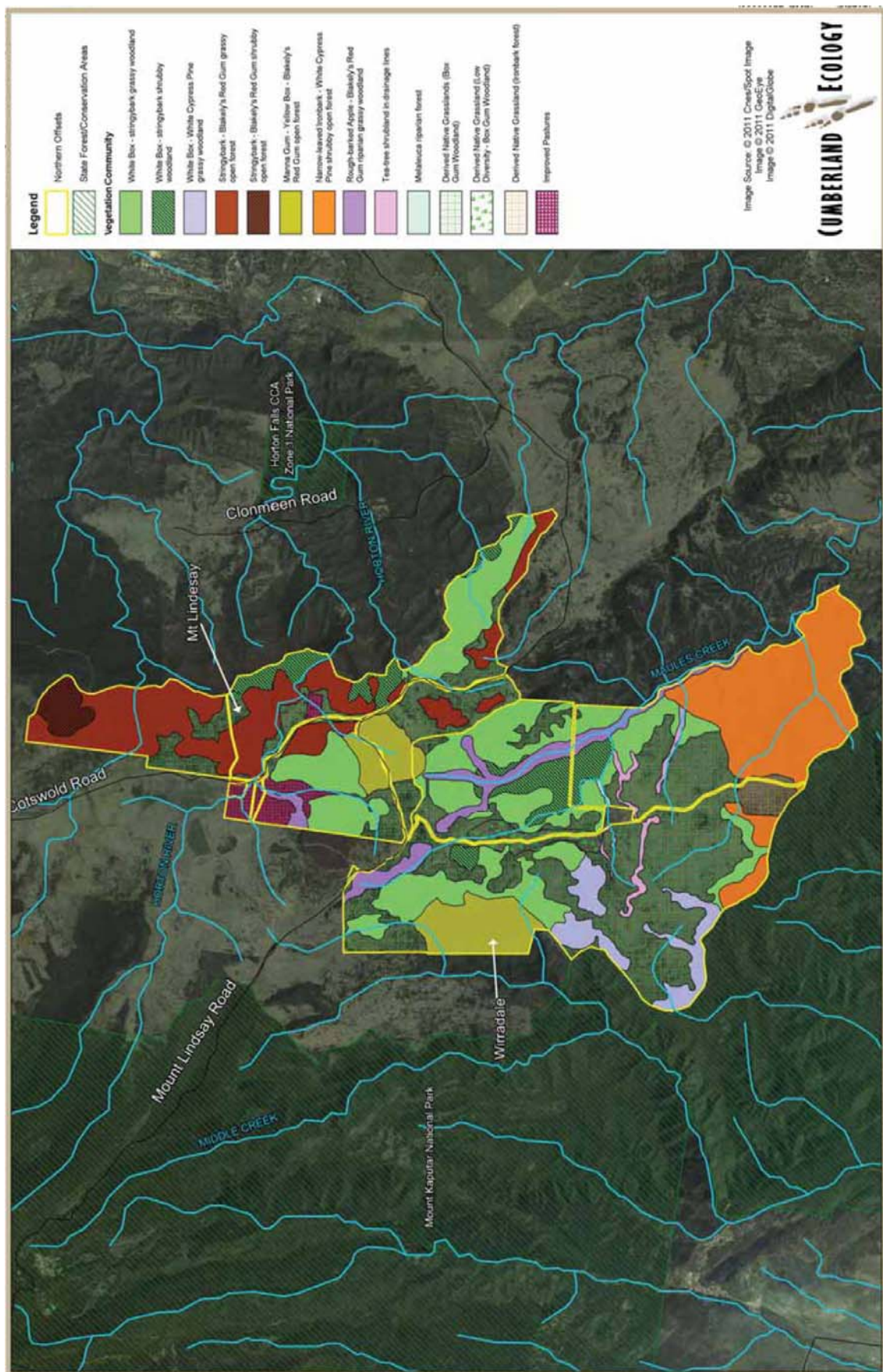
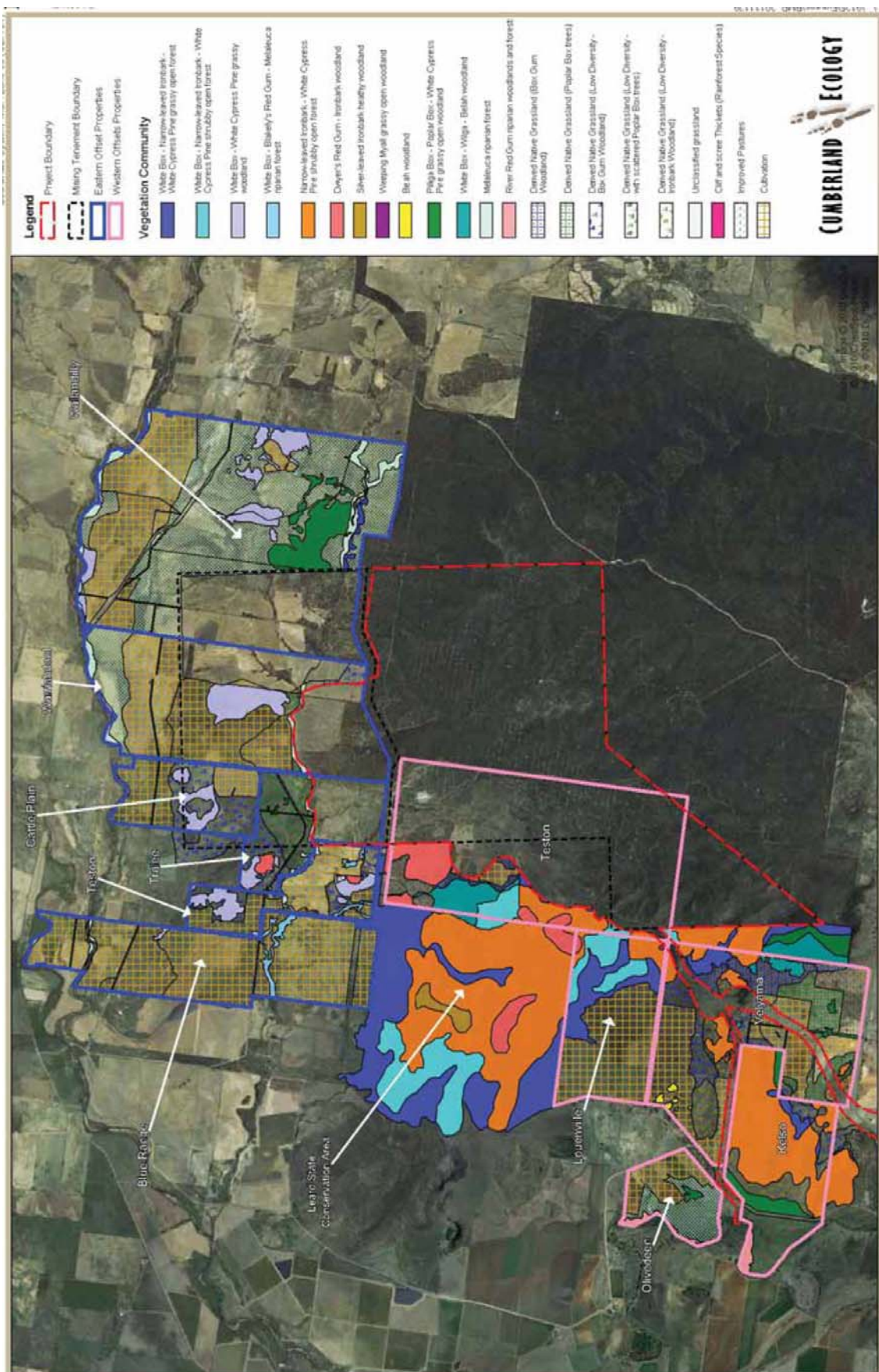


Figure 2: Vegetation Communities on Northern Offset Properties



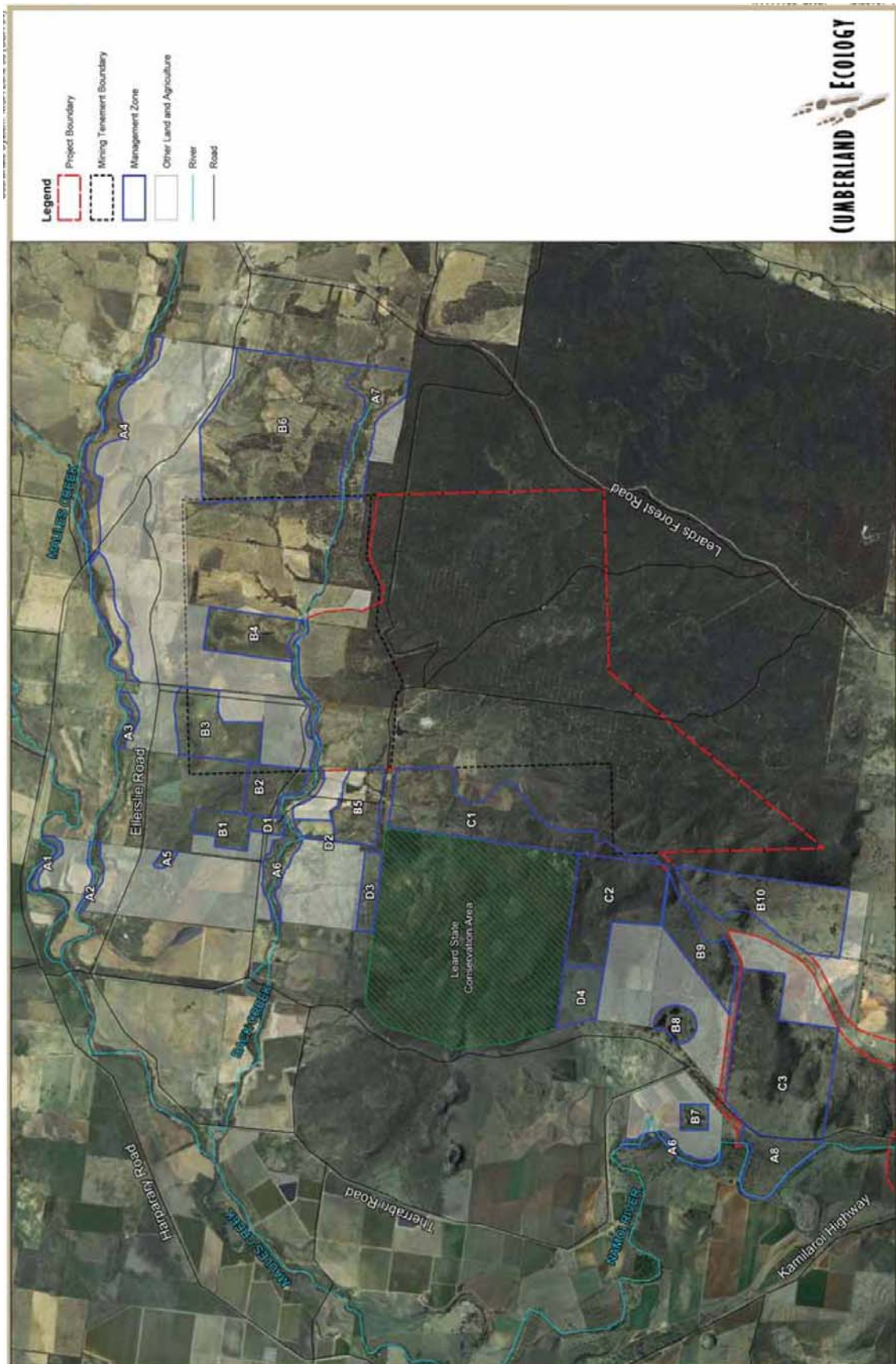


Figure4: Identified Offset Areas within Eastern and Western Offset Properties

Table 1: Summary of Vegetation Communities by Proposed Offset Properties

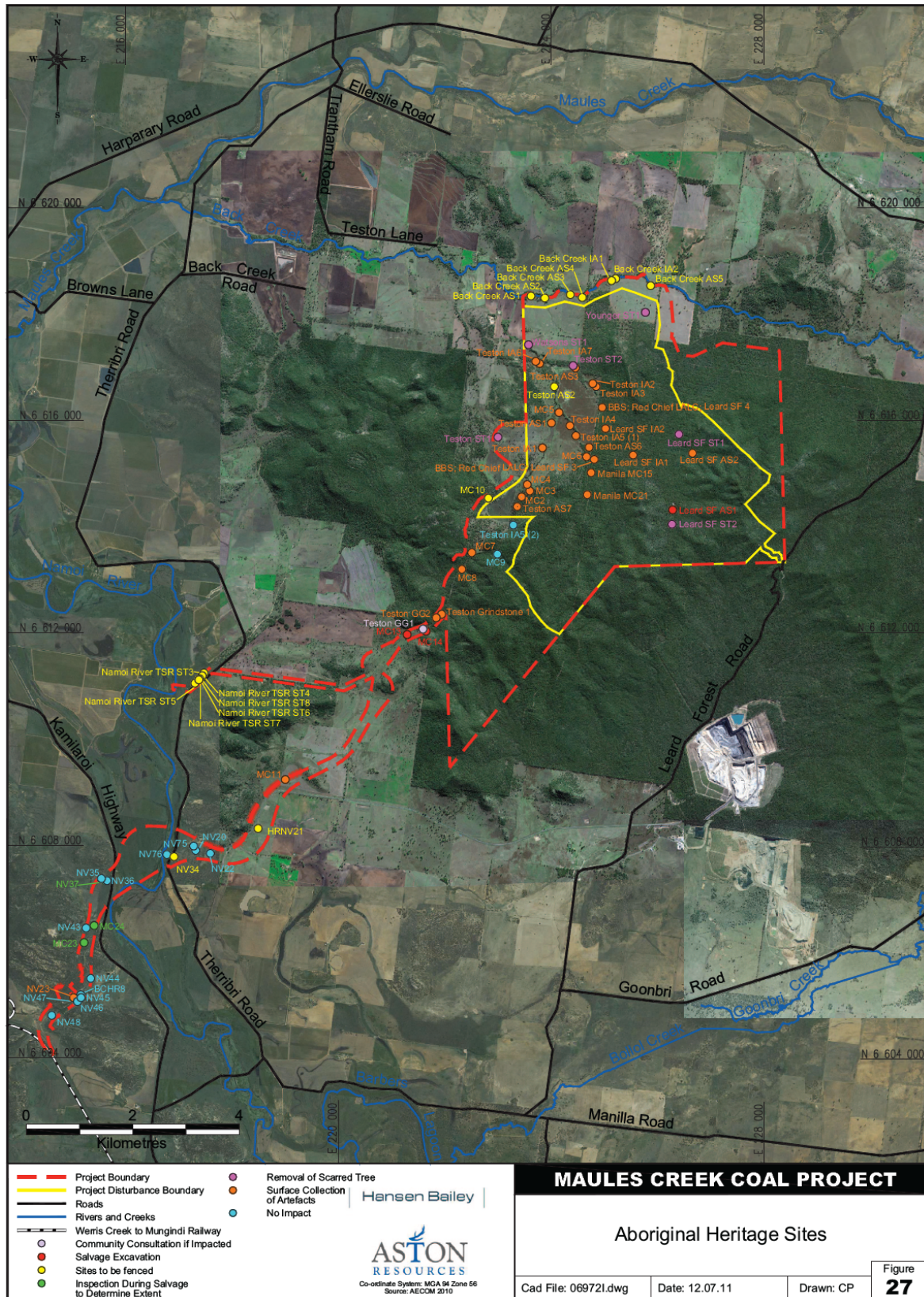
Vegetation Communities	Eastern Properties						Northern Properties		Shared Property	Western Properties						SubTotal (ha)
	Blue Range	Cattle Plain	Teston North	Tralee	Wandallilly	Warriahdool	Mt Lindessay	Wirradale	Shared Offset	Kelso	Louenville	Olivedeen	Teston South	Velyama		
Cliff and scree Thickets (Rainforest Species)											0.53					0.53
Manna Gum - Yellow Box - Blakely's Red Gum open forest							139.68	245.85								385.53
Melaleuca riparian forest	9.04	2.68	6.18	14.63	66.55	35.16		4.61								138.85
Narrow-leaved Ironbark - Brown Bloodwood - White Cypress Pine shrubby open forest													0.00			0.00
Narrow-leaved Ironbark - White Cypress Pine shrubby open forest								853.61		270.42	33.70		416.12	79.36		1653.21
River Red Gum riparian woodlands and forests										11.89		8.30				20.19
Stringybark - Blakely's Red Gum grassy open forest							770.30									770.30
Stringybark - Blakely's Red Gum shrubby open forest							84.94									84.94
White Box - Blakely's Red Gum - Melaleuca riparian forest	19.74		10.23	4.49					11.09				4.82			50.37
White Box - Narrow-leaved Ironbark - White Cypress Pine grassy open forest			0.05	0.01	53.29	58.32				16.49	151.10		185.79	23.23		488.28
White Box - Narrow-leaved Ironbark - White Cypress Pine shrubby open forest						0.75			369.43		0.28		34.93	4.13		409.52
Belah woodland													4.21	6.94		11.15
Dwyer's Red Gum - Ironbark woodland			2.84	8.62								3.09	211.64			226.19
Dwyer's Red Gum woodland									176.73				3.59			180.32
Pilliga Box - Poplar Box - White Cypress Pine grassy open woodland				1.75	161.61	16.05				44.01		4.95		6.50		234.87
Regrowth - White Cypress Pine									10.70							10.70
Rough-barked Apple - Blakely's Red Gum riparian grassy woodland							25.34	223.22								248.56
Silver-leaved ironbark heathy woodland							42.47		69.42							111.89
Weeping Myall grassy open woodland														0.15		0.15
White Box - stringybark grassy woodland							553.72	881.39								1435.11
White Box - stringybark shrubby woodland							139.21	192.30								331.51
White Box - White Cypress Pine grassy woodland	2.26	35.98	48.74	16.96	99.27	91.14		226.75								521.10
White Box - White Cypress Pine grassy woodland (low condition)									72.56							72.56
White Box - Wilga - Belah woodland													85.75	18.26		104.01
Yellow Box - Blakely's Red Gum grassy woodland					0.02											0.02
Total Forest and Woodland	31.04	38.66	68.04	46.46	380.74	243.89	1713.19	2627.73	709.93	342.81	188.70	13.25	946.85	138.57		7489.86
Tea-tree shrubland in drainage lines								69.61								69.61
Total Shrubland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	69.61	0.00	0.00	0.00	0.00	0.00	0.00		69.61
Derived Native Grassland (Box Gum Woodland)							577.56	1406.40					105.90	71.62		2161.48
Derived Native Grassland (Non-threatened)								74.09							94.10	168.19
Total Derived Native Grassland	0.00	0.00	0.00	0.00	0.00	0.00	577.56	1480.49	0.00	0.00	0.00	0.00	105.90	165.72		2329.67
Derived Native Grassland (Low Diversity - Box Gum Woodland)		103.09	51.69	69.48	0.43	74.87		87.94	2.44	22.12			101.41	126.13		639.60
Improved Pastures							131.98						37.14	62.61		231.73
Low Diversity Native/Exotic Grassland and Cultivation	692.05	139.19	170.77	224.18	1471.60	687.11				134.31	270.19	177.90	81.22	426.16		4474.68
Total Other Grassland	692.05	242.28	222.46	293.66	1472.03	761.98	131.98	87.94	2.44	156.43	270.19	177.90	219.77	614.90		5346.01
Total Vegetation in each Property (ha)	723.09	280.94	290.50	340.12	1852.77	1005.87	2422.73	4265.77	712.37	499.24	458.89	191.15	1272.52	919.19		15235.15
Total Box Gum Woodland (remnant vegetation and derived native grassland) (ha)	22.00	35.98	59.02	21.46	152.58	149.46	2066.60	2983.61	11.09	16.49	151.10	0.00	382.26	113.11		6164.76
Total Vegetation to be protected in Conservation Management Zones (ha)	127.42	154.27	204.53	103.17	822.53	202.52	2277.55	3536.06	356.18	499.24	303.62	45.08	302.76	398.77		9333.70
Total Box Gum Woodland (remnant vegetation and derived native grassland) in Conservation Management Zones (ha)	21.65	35.95	57.84	17.19	98.29	64.46	2035.89	2335.79	5.54	16.49	151.04	0.00	82.04	109.40		5031.57
% Total Vegetation to be conserved from each property	17.62	54.91	70.41	30.33	44.39	20.13	94.01	82.89	50.00	100.00	66.16	23.58	23.79	43.38		61.26
% Total Box Gum Woodland (remnant vegetation and derived native grassland) to be conserved from each property (ha)	98.41	99.92	98.00	80.10	64.42	43.13	98.51	78.29	49.95	100.00	99.96	N/A	21.46	96.72		81.62

Vegetation Communities	Eastern Properties						Northern Properties		Shared Property	Western Properties					SubTotal (ha)
	Blue Range	Cattle Plain	Teston North	Tralee	Wallandilly	Warriahdool	Mt Lindesay	Wirradale	Shared Offset	Kelso	Louenville	Oliveleen	Teston South	Velyama	
Cliff and scree Thickets (Rainforest Species)											0.53				0.53
Manna Gum - Yellow Box - Blakely's Red Gum open forest							139.68	245.85							385.53
Melaleuca riparian forest	9.04	2.68	5.47	9.30	56.17	25.19		4.61							112.46
Narrow-leaved Ironbark - White Cypress Pine shrubby open forest								853.37		270.42	33.70		54.18	56.96	1268.63
River Red Gum riparian woodlands and forests										11.89		8.30			20.19
Stringybark - Blakely's Red Gum grassy open forest							770.30								770.30
Stringybark - Blakely's Red Gum shrubby open forest							84.94								84.94
White Box - Blakely's Red Gum - Melaleuca riparian forest	19.39		10.23	0.23					5.54						35.39
White Box - Narrow-leaved Ironbark - White Cypress Pine grassy open forest			0.05	0.00	10.54					16.49	151.04		10.60	21.69	210.41
White Box - Narrow-leaved Ironbark - White Cypress Pine shrubby open forest									184.71		0.28		28.88	0.85	214.72
Belah woodland															6.94
Dwyer's Red Gum - Ironbark woodland			2.84	8.62								3.09	81.46		96.01
Dwyer's Red Gum woodland									88.37						88.37
Pilliga Box - Poplar Box - White Cypress Pine grassy open woodland					112.25					44.01		4.95		3.50	164.71
Regrowth - White Cypress Pine									5.35						5.35
Rough-barked Apple - Blakely's Red Gum riparian grassy woodland							1.91	223.22							225.13
Silver-leaved Ironbark heathy woodland									34.71						34.71
White Box - stringybark grassy woodland							546.69	843.02							1389.71
White Box - stringybark shrubby woodland							139.21	192.30							331.51
White Box - White Cypress Pine grassy woodland	2.26	35.95	47.56	16.96	87.75	64.46		205.02							459.96
White Box - White Cypress Pine grassy woodland (low condition)									36.28						36.28
White Box - Wilga - Belah woodland													52.85	16.09	68.94
Total Forest and Woodland	30.69	38.63	66.15	35.11	266.71	89.65	1682.73	2567.39	354.96	342.81	188.64	13.25	227.97	106.03	6010.72
Tea-tree shrubland in drainage lines								35.96							35.96
Total Shrubland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.96	0.00	0.00	0.00	0.00	0.00	0.00	35.96
Derived Native Grassland (Box Gum Woodland)							577.31	818.68					18.59	71.62	1486.20
Derived Native Grassland (Non-threatened)								73.96							73.96
Total Derived Native Grassland	0.00	0.00	0.00	0.00	0.00	0.00	577.31	892.64	0.00	0.00	0.00	0.00	18.59	129.27	1617.81
Derived Native Grassland (Low Diversity - Box Gum Woodland)		101.59	51.69	38.78				40.07	1.22	22.12					295.83
Improved Pastures							17.51						36.59	19.87	73.97
Low Diversity Native/Exotic Grassland and Cultivation	96.73	14.05	86.69	29.28	555.82	112.87				134.31	114.98	31.83	19.61	103.24	1299.41
Total Other Grassland	96.73	115.64	138.38	68.06	555.82	112.87	17.51	40.07	1.22	156.43	114.98	31.83	56.20	163.47	1669.21
Total Vegetation to be protected in Conservation Management Zones (ha)	127.42	154.27	204.53	103.17	822.53	202.52	2277.55	3536.06	356.18	499.24	303.62	45.08	302.76	398.77	9333.70
Total Box Gum Woodland (remnant vegetation and derived native grassland) in Conservation Management Zones (ha)	21.65	35.95	57.84	17.19	98.29	64.46	2035.89	2335.79	5.54	16.49	151.04	0.00	82.04	109.40	5031.57

Notes:

- Properties Teston North, Tralee, Warriahdool, Louenville, Oliveleen, Teston South, Velyama and Shared (Joint Venture) Property owned or under option by Proponent
- Properties Blue Range, Cattle Plain, Wallandilly and Kelso at the time of the approval were not currently owned or under option by Proponent but within zone of affectation and subject to acquisition rights – if not secured by Proponent additional offset areas will be required as part of development of the Revised Biodiversity Offset Strategy as required under the approval.
- Vegetation communities identified as "Total Other Grassland" require further assessment as part of the revised Biodiversity Offset Strategy to finalise the areas that are incorporated into the biodiversity offset area for corridor enhancement and connectivity in the Eastern and Western Offset areas.

APPENDIX 8 ABORIGINAL HERITAGE SITES



SITE TYPE	SITE NAME	SCIENTIFIC SIGNIFICANCE	PROJECT IMPACT	MANAGEMENT
Artefact Scatter	Leard SF AS1	High	Open Pit	Salvage Excavation
	MC13	High	Rail Spur	Salvage Excavation
	MC14	High	Rail Spur	Salvage Excavation
	Manila MC21	Moderate	Open Pit	Surface Collection of Artefacts
	MC5	Moderate	Overburden Area	Surface Collection of Artefacts
	Leard SF AS2	Low	Open Pit	Surface Collection of Artefacts
	Teston AS3	Low	Overburden Area	Surface Collection of Artefacts
	Teston AS6	Low	Overburden Area	Surface Collection of Artefacts
	Teston AS1	Low	Project Disturbance Boundary	Surface Collection of Artefacts
	NV23	Low	Rail Spur	Surface Collection of Artefacts
	MC11	Low	Rail Spur	Surface Collection of Artefacts
	MC8	Moderate	Rail Spur	Surface Collection of Artefacts
	MC7	Moderate	Rail Spur Option	Surface Collection of Artefacts
	Manila MC15	Moderate	Open Pit	Surface Collection of Artefacts
	Teston AS2	Low	Project Disturbance Boundary	Site to be fenced
	MC10	Low	Rail Spur	Site to be fenced
	HRNV21	Low	Rail Spur Option	Site to be fenced
	Back Creek AS1	Moderate	Not Impacted	Site to be fenced
	Back Creek AS2	Moderate	Not Impacted	Site to be fenced
	Back Creek AS3	High	Not Impacted	Site to be fenced
	Back Creek AS4	Low	Not Impacted	Site to be fenced
	Back Creek AS5	Low	Not Impacted	Site to be fenced
	Back Creek AS6	High	Not Impacted	Site to be fenced
	MC23	Low	Rail Spur	Inspection during salvage to determine extent
	MC24	Low	Rail Spur	Inspection during salvage to determine extent
	MC4	Moderate	Project Disturbance Boundary	Surface Collection of Artefacts
	MC6	Low	Project Disturbance Boundary	Surface Collection of Artefacts
	MC2	Low	Project Disturbance Boundary	Surface Collection of Artefacts
	MC3	Low	Project Disturbance Boundary	Surface Collection of Artefacts
	Teston AS7	Low	Project Disturbance Boundary	Surface Collection of Artefacts
	MC22	Moderate	Not Impacted	No Impact – No Further Requirements
	MC25	High	Not Impacted	No Impact – No Further Requirements
	NV20	Low	Not Impacted	No Impact – No Further Requirements
	NV22	Low	Not Impacted	No Impact – No Further Requirements
	NV43	Low	Not Impacted	No Impact – No Further Requirements
	NV 44	Low	Not Impacted	No Impact – No Further Requirements
	NV45	Low	Not Impacted	No Impact – No Further Requirements
	NV46	Low	Not Impacted	No Impact – No Further Requirements
	NV47	Low	Not Impacted	No Impact – No Further Requirements
	NV48	Low	Not Impacted	No Impact – No Further Requirements
	NV75	Low	Not Impacted	No Impact – No Further Requirements
	Teston AS4	Moderate	Not Impacted	No Impact – No Further Requirements
	Teston AS5	Low	Not Impacted	No Impact – No Further Requirements
	Velyama AS1	Low	Not Impacted	No Impact – No Further Requirements
	Velyama AS2	Low	Not Impacted	No Impact – No Further Requirements
	Velyama AS3	Low	Not Impacted	No Impact – No Further Requirements
	Velyama AS4	Low	Not Impacted	No Impact – No Further Requirements
	Velyama AS5	Low	Not Impacted	No Impact – No Further Requirements

SITE TYPE	SITE NAME	SCIENTIFIC SIGNIFICANCE	PROJECT IMPACT	MANAGEMENT
	Velyama AS6	Low	Not Impacted	No Impact – No Further Requirements
	Velyama AS7	Low	Not Impacted	No Impact – No Further Requirements
	MC12	Moderate	Not Impacted	No Impact – No Further Requirements
	MC9	Low	Not Impacted	No Impact – No Further Requirements
Isolated Artefact	Leard SF IA1	Low	Open Pit	Surface Collection of Artefacts
	Leard SF 4	Low	Overburden Area	Surface Collection of Artefacts
	Leard SF IA2	Low	Overburden Area	Surface Collection of Artefacts
	Teston IA2	Low	Overburden Area	Surface Collection of Artefacts
	Teston IA3	Low	Overburden Area	Surface Collection of Artefacts
	Teston IA4	Low	Overburden Area	Surface Collection of Artefacts
	Teston IA5 (1)	Low	Overburden Area	Surface Collection of Artefacts
	Leard SF 3	Low	Project Disturbance Boundary	Surface Collection of Artefacts
	Teston IA1	Low	Project Disturbance Boundary	Surface Collection of Artefacts
	Teston IA6	Low	Project Disturbance Boundary	Surface Collection of Artefacts
	Teston IA7	Low	Project Disturbance Boundary	Surface Collection of Artefacts
	Back Creek IA1	Low	Not Impacted	Site to be fenced
	Back Creek IA2	Low	Not Impacted	Site to be fenced
	Teston IA5 (2)	Low	Not Impacted	No Impact – No Further Requirements
	Teston IA8	Low	Not Impacted	No Impact – No Further Requirements
	Teston IA9	Low	Not Impacted	No Impact – No Further Requirements
	Velyama IA1	Low	Not Impacted	No Impact – No Further Requirements
	Velyama IA2	Low	Not Impacted	No Impact – No Further Requirements
	Velyama IA3	Low	Not Impacted	No Impact – No Further Requirements
	Velyama IA4	Low	Not Impacted	No Impact – No Further Requirements
	Velyama IA5	Low	Not Impacted	No Impact – No Further Requirements
Scarred Tree	Teston ST2	Moderate	Overburden Area	Removal of Scarred Tree
	Leard SF ST1	High	Open Pit	Removal of Scarred Tree
	Leard SF ST2	Moderate	Open Pit	Removal of Scarred Tree
	Teston ST1	Moderate	Rail Spur	Removal of Scarred Tree
	Younger ST1	Moderate	Overburden Area	Removal of Scarred Tree
	Watsons ST1	Moderate	Project Disturbance Boundary	Removal of Scarred Tree
	NV37	TBD	Rail Spur	Inspection during salvage to determine extent
	NV34	High	Rail Spur Option	Site to be fenced
	Namoi River TSR ST3	High	Water Pipeline	Site to be fenced
	Namoi River TSR ST4	High	Water Pipeline	Site to be fenced
	Namoi River TSR ST5	High	Water Pipeline	Site to be fenced
	Namoi River TSR ST6	High	Water Pipeline	Site to be fenced
	Namoi River TSR ST7	High	Water Pipeline	Site to be fenced
	Namoi River TSR ST8	High	Water Pipeline	Site to be fenced
	NV36	Moderate	Not Impacted	No Impact – No Further Requirements
	Namoi River ST1	High	Not Impacted	No Impact – No Further Requirements
	Namoi River TSR ST1	High	Not Impacted	No Impact – No Further Requirements
	Namoi River TSR ST2	High	Not Impacted	No Impact – No Further Requirements
	Namoi River TSR ST9	High	Not Impacted	No Impact – No Further Requirements
	Velyama ST1	High	Not Impacted	No Impact – No Further Requirements
	NV76	Moderate	Not Impacted	No Impact – No Further Requirements
Grinding Groove	Teston Grindstone 1	High	Rail Spur	Surface Collection of Artefacts
	Teston GG2	High	Rail spur Option	Surface Collection of Artefacts
	Teston GG1	Moderate	Rail spur Option	Community Consultation if Impacted