

# Notice of Modification

## Section 75W of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning, the Independent Planning Commission of NSW modifies the development consent referred to in Schedule 1, subject to the conditions in Schedule 2.



Andrew Hutton (Chair)  
Member of the Commission



Prof Alice Clark  
Member of the Commission

Sydney, 15 October 2018

---

### SCHEDULE 1

The development consent for underground coal mining at the Tahmoor North Coal Mine (DA 67/98), granted by the Minister for Urban Affairs and Planning on 25 February 1999.

---

### SCHEDULE 2

1. In the definitions in Schedule 2, delete the definitions for “Department”, “Director-General”, “DRE”, “EA”, “EIS”, “Feasible”, “Material harm to the environment”, “Minister”, “MSB”, “NOW” and “Reasonable costs”, and insert the following in alphabetical order:

|               |   |
|---------------|---|
| ARTC          | Australian Rail Track Corporation   |
| Department    | Department of Planning and Environment  |
| Dol           | Department of Industry – Lands and Water Division   |
| DRG           | Division of Resources and Geoscience, within the Department   |
| EA (MOD 2)    | Modification application dated 21 December 2010 to modify development consent DA 67/98 and accompanying Environmental Assessment titled <i>Redbank Tunnel Subsidence Management – Modification of Project Approval – Environmental Assessment</i> , dated September 2011 and prepared by GHD, including the associated Submissions Report             |
| EA (MOD 3)    | Modification application dated 18 September 2012 to modify development consent DA 67/98 and accompanying Environmental Assessment titled <i>Redbank Tunnel Rail Deviation – Subdivision of Land</i> , dated September 2012 and prepared by Cardno, including the associated Submissions Response letter dated 12 November 2012 and prepared by Cardno |
| EA (MOD 4)    | Modification application dated 26 October 2017 to modify development consent DA 67/98, and accompanying Environmental Assessment titled <i>Environmental Assessment – Tahmoor Underground Modification 4</i> , dated October 2017, and Response to Submissions dated 18 December 2017   |
| EIS           | DA 67/98 and accompanying Environmental Impact Statement titled <i>Tahmoor North Underground Mine</i> , dated March 1998 and prepared for Austral Coal by Olsen Environmental Consulting Pty Ltd  |
| EP&A Act      | <i>Environmental Planning and Assessment Act 1979</i>   |
| Feasible      | Means what is possible and practical in the circumstances   |
| Material Harm | Is harm that: <ul style="list-style-type: none"><li>• involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial, or</li></ul>   |

- results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment)

This definition excludes "harm" that is authorised under either this consent or any other statutory approval'

Minister  
Modification 4

NSW Minister for Planning, or delegate  
The modification to the development as described in EA (MOD 4)

NPWS  
OEH  
Reasonable costs

National Parks and Wildlife Service  
Office of Environment and Heritage  
The costs agreed between the Department and the Applicant for obtaining independent experts to review the adequacy of any aspects of an Extraction Plan

Resources Regulator  
SA NSW  
Secretary  
SEE (MOD 1)

NSW Resources Regulator  
Subsidence Advisory NSW  
Planning Secretary under the EP&A Act, or nominee  
Modification application dated 19 May 2006 to modify development consent DA 67-5-2006 and accompanying document titled *Tahmoor Colliery Proposed Consent Modification – Statement of Environmental Effects*, dated May 2006 and prepared by Centennial Coal and the letter from Ms Donna Dryden representing Centennial Coal, dated 19 July 2006 and headed *Tahmoor Colliery – Proposed Modification to Development Consent (DA 67/98)*

2. In the definition for "Annual Review", delete the reference to the number "43" and replace with the number "45".
3. In the definition for "Statement of Commitments, delete the reference to number "1" and replace with the number "3".
4. Delete all references to "Director-General" and replace with "Secretary".
5. Delete all references to "shall" and replace with "must", except in condition 2(i) of Schedule 2.
6. Delete all references to "DRE" and replace with "DRG".
7. Delete all references to "MSB" and "Mine Subsidence Board", and replace with "SA NSW".
8. Delete all references to "NOW" and replace with "DoI".
9. Delete conditions 1 and 1A of Schedule 2, and replace with:
  1. The Applicant must carry out the development generally in accordance with the:
    - (i) EIS, SEE (MOD 1), EA (MOD 2), EA (MOD 3) and EA (MOD 4); and
    - (ii) Statement of Commitments.

*Note: The Statement of Commitments is reproduced in Appendix 3.*
  - 1A. The Applicant must carry out the development in accordance with the conditions of this consent.
  - 1B. The conditions of this consent and directions of the Secretary prevail to the extent of any inconsistency, ambiguity or conflict between them and a document listed in condition 1 of Schedule 2. In the event of an inconsistency, ambiguity or conflict between any of the documents listed in condition 1 of Schedule 2, the most recent document prevails to the extent of the inconsistency, ambiguity or conflict.
10. Delete condition 4 of Schedule 2 and replace with:
  4. The approval for mining is for a period of 21 years from the date of granting of a mining lease pursuant to this consent.
  - 4A. Consistent with the requirements in this consent, the Secretary may make written directions to the Applicant in relation to:

- (i) the content of any strategy, study, system, plan, program, review, audit, notification, report or correspondence submitted under or otherwise made in relation to this consent, including those that are required to be, and have been, approved by the Secretary; and
  - (ii) the implementation of any actions or measures contained in any such document referred to in condition 4A(i).
11. In condition 11 of Schedule 2:
- (a) after “Subsidence Management Plan” insert “for longwalls up to and including Longwall 32”;
  - (b) delete “and” at the end of paragraph (ii); and
  - (c) delete the full stop at the end of paragraph (c) and insert the following:
    - (iv) high frequency monitoring, along with detailed structural sensitivity analyses, for Picton High School during second workings in Longwall 32; and
    - (v) undertake additional flood modelling for events up to and including the Probable Maximum Flood, prior to undertaking second workings in Longwall 32.
12. In condition 12 of Schedule 2, delete “The” and insert “For longwalls up to and including Longwall 32, the”.
13. In condition 13 of Schedule 2, delete “If” and insert “For longwalls up to and including Longwall 32, if”.
14. After condition 13 of Schedule 2, insert the following:

**SUBSIDENCE**

**Performance Measures – Natural and Heritage Features etc.**

- 13A. The Applicant must ensure that extraction of Longwall 33 and subsequent longwalls does not cause any exceedances of the performance measures in Table 1.

**Table 1: Subsidence impact performance measures – natural and heritage features etc**

| <b>Feature</b>   | <b>Performance Measures</b>  |
|--|--|
| <i>Biodiversity</i>  |  |
| Threatened species, threatened populations, or endangered ecological communities | <ul style="list-style-type: none"> <li>• Negligible environmental consequences</li> </ul>  |
| <i>Heritage sites</i>  |  |
| Heritage sites   | <ul style="list-style-type: none"> <li>• Negligible subsidence impacts or environmental consequences</li> <li>• Negligible loss of heritage value</li> </ul> |
| Other Aboriginal and heritage sites  | <ul style="list-style-type: none"> <li>• Negligible subsidence impacts or environmental consequences</li> </ul>  |
| <i>Mine workings</i>   |  |
| First workings   | <ul style="list-style-type: none"> <li>• To remain long term stable and non-subsiding</li> </ul>   |
| Second workings  | <ul style="list-style-type: none"> <li>• To be carried out only within the approved mine plan, in accordance with an approved Extraction Plan</li> </ul>     |

**Note:** The Applicant will be required to define more detailed performance indicators (including impact assessment criteria) for each of these performance measures in the various management plans that are required under this consent.

- 13B. Measurement and monitoring of compliance with performance measures and performance indicators in this consent is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans and monitoring programs. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter.

**Additional Offsets**

- 13C. If the Applicant exceeds the performance measures in Table 1 and the Secretary determines that:
- (i) it is not reasonable or feasible to remediate the subsidence impact or environmental consequence; or

(ii) remediation measures implemented by the Applicant have failed to satisfactorily remediate the subsidence impact or environmental consequence, then the Applicant must provide a suitable offset to compensate for the subsidence impact or environmental consequence, to the satisfaction of the Secretary.

13D. The offset must give priority to like-for-like physical environmental offsets, but may also consider payment into any NSW Offset Fund established by OEH, or funding or implementation of supplementary measures such as:

- (i) actions outlined in threatened species recovery programs;
- (ii) actions that contribute to threat abatement programs;
- (iii) biodiversity research and survey programs; and/or
- (iv) rehabilitating degraded habitat.

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

**Performance Measures – Built Features**

13E. The Applicant must ensure that extraction of Longwall 33 and subsequent longwalls does not cause any exceedances of the performance measures in Table 2.

**Table 2: Subsidence impact performance measures – built features**

| <b>Feature</b>   | <b>Performance Measures</b>  |
|--|--|
| <i>Key Public Infrastructure</i>   |  |
| <ul style="list-style-type: none"> <li>• Main Southern Railway;</li> <li>• Picton Mittagong Loop Line; and</li> <li>• Electricity transmission lines and towers.</li> </ul>  | <ul style="list-style-type: none"> <li>• Always safe and serviceable.</li> <li>• Damage that does not affect safety or serviceability must be fully repairable, and must be fully repaired.</li> </ul> |
| <i>Other Infrastructure</i>  |  |
| <ul style="list-style-type: none"> <li>• Electricity distribution lines, poles and associated towers;</li> <li>• Unsealed roads and road culverts, fire trails, fences and other built features; and</li> <li>• Other public infrastructure</li> </ul> | <ul style="list-style-type: none"> <li>• Always safe.</li> <li>• Serviceability should be maintained wherever practicable.</li> <li>• Loss of serviceability must be fully compensated.</li> </ul>     |
| <ul style="list-style-type: none"> <li>• Privately-owned residences</li> </ul>   |  |
| <ul style="list-style-type: none"> <li>• Other privately-owned built features and improvements, including farm dams, swimming pools, tennis courts, roads, tracks and fences</li> </ul>  | <ul style="list-style-type: none"> <li>• Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.</li> </ul>   |
| <i>Public safety</i>   |  |
| <ul style="list-style-type: none"> <li>• Public Safety</li> </ul>  | <ul style="list-style-type: none"> <li>• Negligible additional risk.</li> </ul>  |

**Notes**

- The Applicant will be required to define more detailed performance measures in the Built Features Management Plans or Public Safety Management Plan.
- Requirements regarding safety or serviceability do not prevent preventative or mitigatory actions being taken prior to or during mining in order to achieve or maintain these outcomes.
- Requirements under this condition may be met by measures undertaken in accordance with the Coal Mine Subsidence Compensation Act 2017.

13F. Any dispute between the Applicant and the owner of any built feature over the interpretation, application or implementation of the performance measures in Table 2 is to be settled by the Secretary, following consultation with the Resources Regulator. Any decision by the Secretary shall be final.

**First Workings**

13G. The Applicant may carry out first workings within the underground mining area approved mine plan, other than in accordance with an approved Extraction Plan, provided that the Resources Regulator is satisfied that the first workings are designed to remain stable and non-subsiding in the long -term, except insofar as they may be impacted by approved second workings.

**Notes:**

- *The intent of this condition is not to require an additional approval for first workings, but to ensure that first workings are built to geotechnical and engineering standards sufficient to ensure long term stability, with negligible resulting direct subsidence impacts.*
- *DRG should be consulted when designing first workings in order to provide comment on matters relating to coal resource recovery.*

### Extraction Plan

- 13H. The Applicant must prepare an Extraction Plan for all second workings in Longwall 33 and subsequent longwalls to the satisfaction of the Secretary. Each Extraction Plan must:
- be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Secretary;
  - be prepared in consultation with DRG, Resources Regulator, OEH, DSC, WaterNSW and DoI;
  - include detailed plans of existing and proposed first and second workings and overlying surface features, including any applicable adaptive management measures;
  - include adequate consideration of mine roof and floor conditions, pillar width to height ratio, final pillar design dimensions and the long-term stability of pillars which has been undertaken in consultation with the Resources Regulator;
  - provide revised predictions of the potential subsidence effects, subsidence impacts and environmental consequences of the proposed mining covered by the Extraction Plan, incorporating any relevant information obtained since this consent;
  - describe in detail the performance indicators to be implemented to ensure compliance with the performance measures in Table 1 and Table 2, and manage or remediate any impacts and/or environmental consequences;
  - include a:
    - Subsidence Monitoring Program** which has been prepared in consultation with the Resources Regulator to:
      - describe the ongoing conventional and non-conventional subsidence monitoring program;
      - provide data to assist with the management of risks associated with conventional and non-conventional subsidence;
      - validate the conventional and non-conventional subsidence predictions;
      - analyse the relationship between the predicted and resulting conventional and non-conventional subsidence effects and predicted and resulting impacts under the plan and any ensuring environmental consequences; and
      - inform the adaptive management process;
    - Built Features Management Plan** which has been prepared in consultation with the Resources Regulator, to manage the potential subsidence impacts of the proposed underground workings on built features, and which:
      - has been prepared in consultation with the owners of potentially affected features;
      - addresses in appropriate detail all items of key public infrastructure (with particular consideration of transmission lines and towers (including angle towers), other public infrastructure and all classes of other built features);
      - recommends appropriate pre-mining mitigation measures to reduce subsidence impacts;
      - recommends appropriate remedial measures and includes commitments to mitigate, repair, replace or compensate predicted impacts on potentially affected built features in a timely manner; and
      - in the case of all key public infrastructure, and other public infrastructure except roads, trails and associated structures, reports external auditing for compliance with ISO 31000 (or alternative standard agreed with the infrastructure owner), and provides for annual auditing of compliance and effectiveness during extraction which may impact the infrastructure;
    - Water Management Plan** which has been prepared in consultation with EPA, DoI, Resources Regulator and WaterNSW, which provides for the management of potential impacts and environmental consequences of the proposed underground workings on watercourses and aquifers, including:
      - detailed baseline data on:
        - surface water flows and quality in watercourses and/or water bodies that could be affected by subsidence; and
        - groundwater levels, yield and quality in the region, including for privately-owned licensed bores;
      - surface and groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse impacts on water resources or water quality;
      - a surface water monitoring program to monitor and report on:

- stream flows and quality;
  - stream and riparian vegetation health; and
  - channel and bank stability;
  - a groundwater monitoring program to monitor and report on:
    - springs, their discharge quantity and quality, as well as associated groundwater dependent ecosystems;
    - groundwater inflows to the underground mining operations;
    - the height of groundwater depressurization;
    - background changes in groundwater yield/quality against mine-induced changes, in particular, on groundwater bore users in the vicinity of the site;
    - permeability, hydraulic gradient, flow direction and connectivity of the deep and shallow groundwater aquifers;
  - a flood management protocol to:
    - identify secondary access routes for those properties that could potentially be adversely impacted by 1% AEP flood events;
    - regularly consult with landowners that would not have either a primary or secondary access route during 1% AEP flood events;
    - provide up-to-date information (including subsidence and flooding predictions) to the State Emergency Service and Council regarding privately-owned residences that could be adversely affected by lack of access during 1% AEP flood events; and
    - work with landowners, State Emergency Service and Council to develop evacuation plans to ensure landowners know what to do in the event of emergency as a result of a 1% AEP flood event;
  - a description of any adaptive management practices implemented to guide future mining activities in the event of greater than predicted impacts on aquatic habitat;
  - a program to validate the surface water and groundwater models for the development, and compare monitoring results with modelled predictions; and
  - a plan to respond to any exceedances of the surface water and groundwater assessment criteria;
- d. **Biodiversity Management Plan** which has been prepared in consultation with OEH, which establishes a baseline data for the existing habitat on the site, including water table depth, vegetation condition, stream morphology and threatened species habitat, and provides for the management of potential impacts and environmental consequences of the proposed second workings on aquatic and terrestrial flora and fauna, with a specific focus on threatened species, populations and their habitats, EECs and groundwater dependent ecosystems;
- e. **Land Management Plan** which has been prepared in consultation with any affected public authorities, which provides for the management of potential impacts and/or environmental consequences of the proposed underground workings on land in general, with a specific focus on cliffs, minor cliffs, rock face features, steep slopes and agricultural enterprises;
- f. **Heritage Management Plan** which has been prepared in consultation with OEH and relevant stakeholders for heritage items which provides for the management of potential environmental consequences of the proposed second workings on heritage items;
- g. **Public Safety Management Plan** which has been prepared in consultation with the Resources Regulator, which ensures public safety and manages access on the site;
- h. **Trigger Action Response Plan/s** addressing all features in Table 1 and Table 2, which contain:
- appropriate triggers to warn of increased risk of exceedance of any performance measure; and
  - specific actions to respond to high risk of exceedance of any performance measure to ensure that the measure is not exceeded;
  - an assessment of remediation measures that may be required if exceedances occur and the capacity to implement the measures; and
  - adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Table 1 or Table 2, or where any such exceedance appears likely; and
- i. **Contingency Plan** that expressly provides for:
- adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Table 1 and Table 2, or where any such exceedance appears likely; and
  - an assessment of remediation measures that may be required if exceedances occur and the capacity to implement those measures; and
  - includes a program to collect sufficient baseline data for future Extraction Plans.

- 13I. The Applicant must not undertake second workings following the extraction of Longwall 32 except in accordance with an Extraction Plan approved by the Secretary and must implement Extraction Plans as approved by the Secretary.

**Notes:**

- The preparation and implementation of Extraction Plans may be staged, with each plan covering a defined area of underground workings. In addition, these plans are only required to contain management plans that are relevant to the specific underground workings that are being carried out.
- The burden of proof that any declines in performance of privately-owned registered bores and wells were not due to mining impacts rests with the Applicant.

**Payment of Reasonable Costs**

- 13J. The Applicant must pay all reasonable costs incurred by the Department to engage a suitably qualified, experienced and independent person/s to review the adequacy of any aspect of an Extraction Plan.

15. In condition 14 of Schedule 2:  
 (a) delete “and implement” after “prepare”; and  
 (b) after “Council.” insert “The Applicant must implement the plan as approved by the Secretary.”.
16. In condition 15(ii) of Schedule 2, after “Subsidence Management Plan”:  
 (a) delete the full stop; and  
 (b) insert “or an application to the Secretary for the approval of an Extraction Plan.”.
17. In condition 16 of Schedule 2, after both references to “DRE” insert “or the Secretary”.
18. In the note to condition 27 of Schedule 2, after “1991” insert “, or its latest version”.
19. In condition 30 of Schedule 2, after “NPWS,” insert “OEH,”.
20. In condition 33 of Schedule 2:  
 (a) delete “and implement” after “prepare”; and  
 (b) after paragraph (d) insert the following:

The Applicant must implement the Noise Management Plan as approved by the Secretary.

21. In condition 35 of Schedule 2:  
 (a) delete “and implement” after “prepare”; and  
 (b) after paragraph (e) insert the following:

The Applicant must implement the Construction Noise Management Plan as approved by the Secretary.

22. In condition 37 of Schedule 2:  
 (a) delete “Tables 1, 2 or 3” and insert “Table 3”; and  
 (b) delete Tables 1, 2 and 3, including the headings and notes and replace with:

**Table 3: Air quality criteria**

| Pollutant  | Averaging Period | Criterion  |
|--|------------------|--|
| Particulate matter < 10 µm (PM <sub>10</sub> )   | Annual           | a,c 25 µg/m <sup>3</sup>                                     |
| Particulate matter < 10 µm (PM <sub>10</sub> )   | 24 hour          | b 50 µg/m <sup>3</sup>                                       |
| Particulate matter < 2.5 µm (PM <sub>2.5</sub> ) | Annual           | a,c 8 µg/m <sup>3</sup>                                      |
| Particulate matter < 2.5 µm (PM <sub>2.5</sub> ) | 24 hour          | b 25 µg/m <sup>3</sup>                                       |
| Total suspended particulates (TSP)               | Annual           | a,c 90 µg/m <sup>3</sup>                                     |
| <sup>d</sup> Deposited dust                      | Annual           | b 2 g/m <sup>2</sup> /month      a 4 g/m <sup>2</sup> /month |

**Notes:**

- <sup>a</sup> Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources).  
<sup>b</sup> Incremental impact (i.e. incremental increase in concentrations due to the project on its own).  
<sup>c</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any

other activity agreed by the Secretary.

<sup>d</sup> 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*.

23. In condition 39 of Schedule 2:
- delete “and implement” after “prepare”; and
  - after paragraph (d) insert the following:

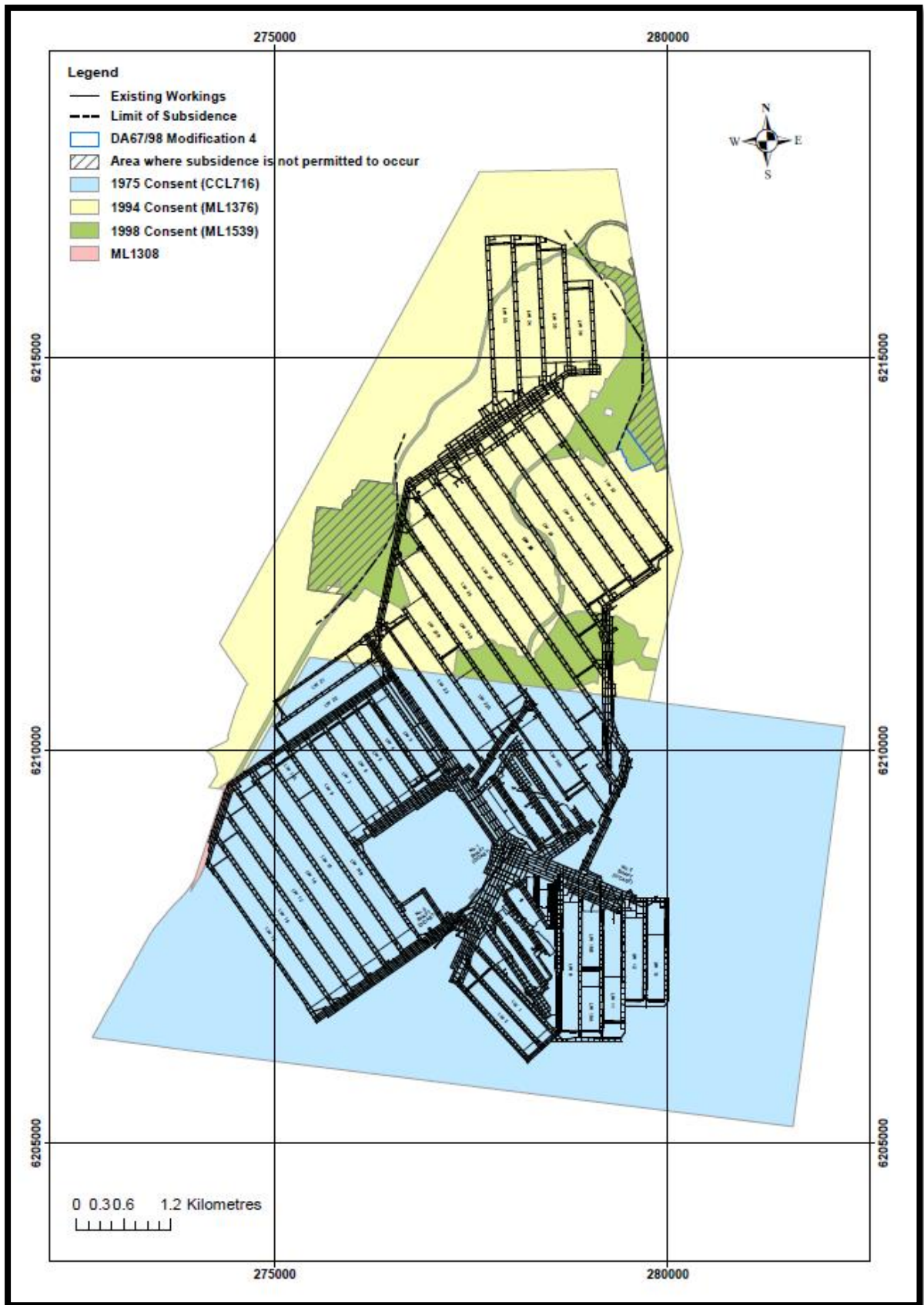
The Applicant must implement the Air Quality and Greenhouse Gas Management Plan as approved by the Secretary.
24. In condition 43 of Schedule 2:
- delete “and implement” after “prepare”;
  - in the fourth bullet point in paragraph (e), after “non-compliance” insert “and any incident”;
  - in the first bullet point in paragraph (f) delete “copies of” and replace with “references to”; and
  - after paragraph (f) insert the following:

The Applicant must implement the Environmental Management Strategy as approved by the Secretary.
25. In condition 44(a) of Schedule 2, delete “detailed” and replace with “a summary of relevant background or”.
26. In condition 45 of Schedule 2:
- delete the three bullet points in paragraph (b) and replace with:
    - relevant statutory requirements, limits or performance measures/criteria;
    - requirements of any plan or program required under this consent;
    - monitoring results of previous years; and
    - relevant predictions in the documents listed in condition 1(i) of Schedule 2;
  - after paragraph (g) insert the following:

Copies of the Annual Review must be submitted to Council and made available to the Community Consultative Committee and any interested person upon request.
27. In condition 47 of Schedule 2, delete “Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version)” and replace with the words “*Department’s Community Consultative Committee Guidelines: State Significant Projects (2016)*”.
28. In condition 50 of Schedule 2:
- delete “the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the Tahmoor Mine” and replace with “unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the Tahmoor Mine”;
  - in paragraph (a), after “be” insert “led and”;
  - in paragraph (b), after “relevant agencies” insert “and the Community Consultative Committee”;
  - in paragraph (d), delete the last reference to “and”; and
  - in paragraph (e), delete the full stop and replace with the following:

; and  
(f) be conducted and reported to the satisfaction of the Secretary.
29. Delete condition 51 of Schedule 2 and replace with:
51. Within three months of commencing an Independent Environmental Audit, or within another timeframe agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary, and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The recommendations must be implemented to the satisfaction of the Secretary.
30. Before Figure 1, insert the heading “Appendix 1 – Development layout and prohibited areas”.
31. Delete Figure 2, and replace with the following:





32. Before Figure 3, insert the heading “Appendix 2 – Structural damage impacts”.

33. Delete the heading “Appendix 1: Statement of Commitments” and insert the heading “Appendix 3 – Statement of Commitments”.