Appendix L

Pre-construction air quality monitoring plan (6 March 2013)

CHC HSEC PLAN 001 – COBBORA COAL PROJECT
PRE CONSTRUCTION AIR QUALITY MONITORING PLAN

Introduction

This Plan provides detail on a real time particulate monitoring system currently being developed by Cobbora Holding Company Pty Limited (CHC) to assist future mining operations in the control of dust emissions and minimisation of impacts on the surrounding environment and receptors.

Background

The Air Quality and Greenhouse Gas Assessment (Environ 2012) undertaken as part of the Project Environmental Assessment identified dust emissions sources from operation the Project and predicted potential impacts at sensitive receptors.

The assessment included predictive modelling of dust impacts for total suspended particulates (TSP) and particulates of diameter less than 10 microns and less than 2.5 microns (PM_{10} and $PM_{2.5}$) and dust deposition. Particles in the PM_{10} and $PM_{2.5}$ size fractions were identified as having the highest potential for exceedance throughout the operating life time of the Project. These smaller fraction PM_{10} and $PM_{2.5}$ particles are also of concern for human health as they can travel into the deepest parts of the respiratory system.

To enable proactive management of particulate matter emissions and to minimise impacts on local air quality, CHC have committed to "a predictive air quality management system using real time continuous air quality monitoring and meteorological forecasts".

Real time monitoring component will target PM_{10} and $PM_{2.5}$ particle fractions with primary reference made to the PM_{10} fraction. Monitoring and control of the PM_{10} size fraction has the benefit of also controlling the smaller $PM_{2.5}$ component of particulate emissions.

Investigations

Initial monitoring areas were identified by Environ (letter to NSW EPA dated 30 October 2012) with reference to the location of receptors, prevailing wind conditions and the results of the air quality assessment. Six potential monitoring areas were identified to the south, west, north-west, north, east and south-east of the mining areas.

Following these initial investigations, CHC undertook desk based and in field checks to identify monitoring sites which would fulfil the following criteria:

- availability of power supply and communications
- locations meeting the requirements of *AS/NZS 3580.1.1:2007 Methods for sampling and analysis of ambient air – Guide to the siting of air monitoring equipment*
- locations suitability for wind direction monitoring as per *AS/NZS 3580.14:2011 Meteorological monitoring for ambient air quality monitoring applications*
- distance from extraneous dust sources.

Locations were selected which best met air sampling and wind monitoring requirements, and where power and communications are available. The selected monitoring locations are listed in Table 1.

Table 1: Real time monitoring locations

Monitoring Location	Direction	Description	Coordinates (approximate)
1	South	Former A. Dorman property near homestead	709209E, 6434961N
2	West	Former B. Lincoln property near shearers cottage	704108E, 6440269N
3	North West	O'Leary property near homestead	702108E, 6444222N
4	North	Former Inder property near homestead	713116E, 6449609N
5	East	Near Woollandra homestead	719298E, 6443038N
6	South East	Former Gabriel/Creshem property, near homestead	717501E, 6433828N

Note: Preliminary monitoring locations are shown as shaded

Three monitoring sites will be established as preliminary monitoring stations in the first quarter of 2013 at the following locations:

- Location 2, downwind of northern mine area during dominant easterly winds
- Location 4, background monitoring towards Cobbora village
- Location 5, upwind during dominant easterly winds.

The three initial monitoring locations have been confirmed with power supply and monitor flow obstruction investigations completed.

The remaining future monitoring locations (1, 3 and 6) may require adjustment depending on power installation requirements. These will be finalised for operation prior to commencement of mining.

Proposed Instrumentation

Real time measurement of PM_{10} and $PM_{2.5}$ is possible by a number of methods including light scattering, direct mass measurement and beta particle absorption. Direct mass measurement by tapered element oscillating microbalance (TEOM) and beta attenuation method (BAM) are the two methods which are recognised as suitable for compliance monitoring in NSW.

Monitoring of PM_{10} particulate fractions at the six locations listed would be via either TEOM or BAM sampling methods. At the initial three sampling locations (2, 4 and 5) monitoring will be undertaken by dual flow TEOM for both PM_{10} and $PM_{2.5}$ size fractions.

Measurement of both PM_{10} and $PM_{2.5}$ at each of the initial three monitoring locations would establish a data set of ambient PM_{10} and $PM_{2.5}$ concentrations including upwind background data and allowing correlation of size fractions.

Monitoring undertaken by TEOM will use instrumentation conforming to the performance requirements of *AS 3580.9.8: 2008* for TEOM PM_{10} sampling and draft standard *AS/NZS 3580.9.13* for TEOM $PM_{2.5}$ sampling.

The future monitoring locations would likely include PM_{10} sampling by TEOM, however if BAM monitors are selected for these locations, instrumentation meeting *AS3580.9.11:2008* will be selected.

A summary of the proposed background monitoring is provided in Table 2

Table 2: Preliminary monitoring locations

Monitoring Location	Description	Instrumentation	Performance Standard
2	Downwind during dominant easterly winds	Dual flow PM_{10} and $PM_{2.5}$ TEOM 1405 DF	AS 3580.9.8: 2008 Draft AS/NZS 3580.9.13
4	Towards Cobbora village		
5	Upwind during dominant easterly winds		

Attachment A depicts the proposed monitoring locations and receptors identified in the Air Quality and Greenhouse Gas Assessment (Environ 2012).

Reporting

Monitoring data will be logged at each of the monitoring locations and also transmitted to a central logging location. Logged data will be compared to pre set trigger levels which will prompt email and phone messages notifying site management of the trigger.

References

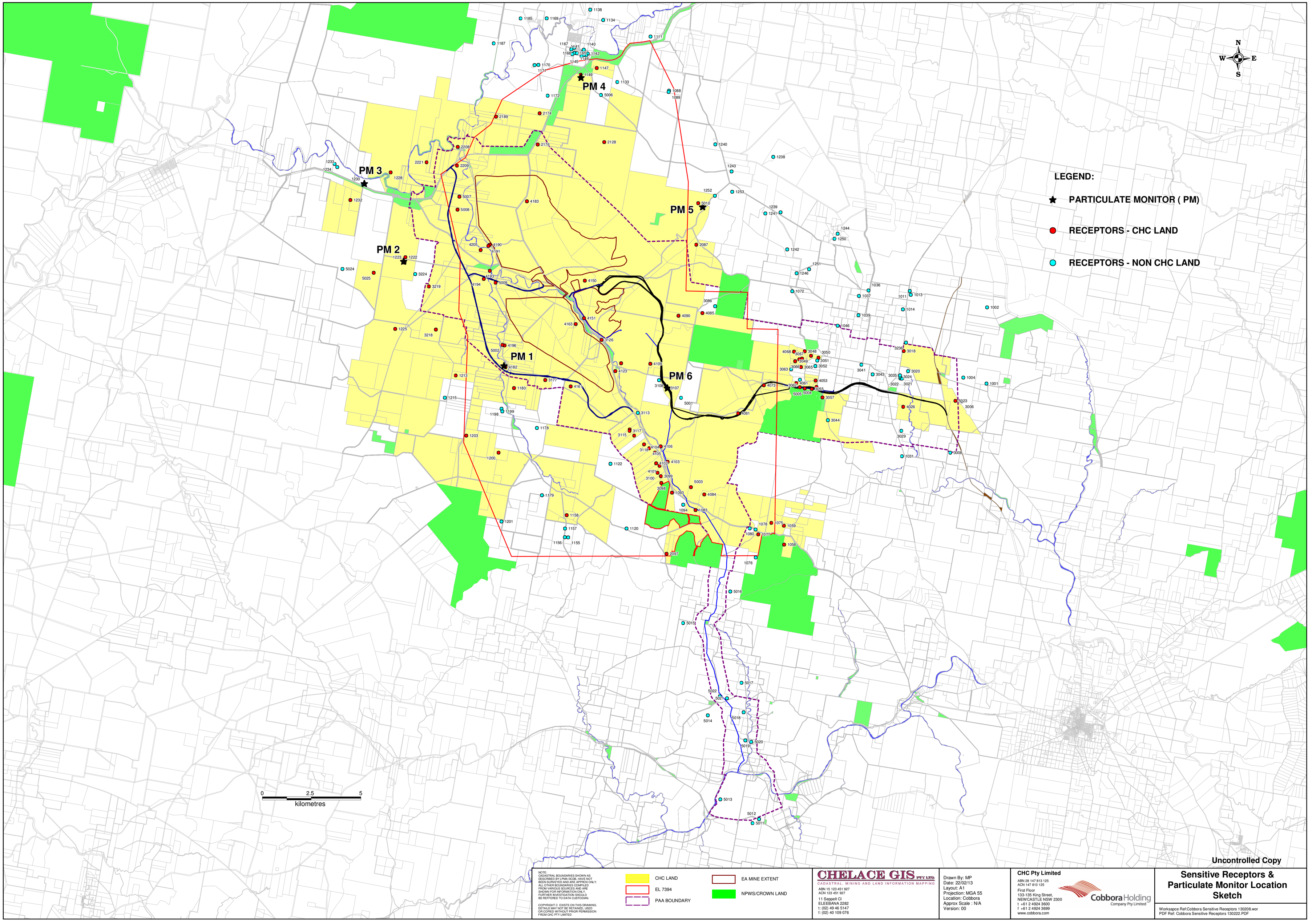
AS/NZS 3580.1.1:2007 Methods for sampling and analysis of ambient air Part 1.1: Guide to siting monitoring equipment

AS 3580.14-2011 Methods for sampling and analysis of ambient air Part 1.1: Meteorological monitoring for ambient air quality monitoring applications

AS 3580.9.8-2008 Methods for sampling and analysis of ambient air Method 9.8 Determination of suspended particulate matter–PM_{10} continuous direct mass method using a tapered element oscillating microbalance analyser

Environ 2012, Air quality and greenhouse gas assessment for the proposed Cobbora coal project

Attachment A – Monitor and Receptor Locations



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Drawn By: MP
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Layout: A1
Projection: MGA 55
Location: Cobbora
Approx Scale : N/A
Version: 00

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Sensitive Receptors & Particulate Monitor Location Sketch

Worksapce Ref:Cobbora Sensitive Receptors 130208.wor
PDF Ref: Cobbora Sensitive Receptors 130222.PDF

Appendix M

Offsite rail noise impacts (6 March 2013)

Memorandum

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6 March 2013

To Stephen O'Donoghue
From Philip Towler

Subject Cobbora Coal Project - offsite rail noise

Dear Stephen,

1 Introduction

The Cobbora Coal Project Environmental Assessment (EA), September 2012, includes an assessment of noise levels from the transport of coal on the existing rail network between the junction of the Cobbora rail spur and Dunedoo–Gulgong railway; and Muswellbrook (see EA Appendix N, sections 4.7 and 4.8). This considers the noise levels at individual residences between the rail spur and Ulan mine rail loop. It also provides the noise levels between Ulan and Muswellbrook at a series of distances from the track.

The Cobbora Coal Project Preferred Project Report and Response to Submissions (PPR&RTS), February 2013, extended this assessment to Antiene where trains carry coal from the Project will comprise about 10% of the total coal trains (see PPR&RTS Section 15.2.6).

The Department of Planning and Infrastructure has requested that information be provided regarding the number of residences potentially impacted by rail noise between Ulan and Antiene.

2 Method

Impacts to residences were determined as follows:

1. A corridor either side of the track between Ulan and Antiene was defined based on the maximum distance where noise criteria may be exceeded. This was 140 m either side of the track between Ulan and Muswellbrook (see Tables 3.2 and 3.3) as reported in the EA; and 300 m either side of the track between Muswellbrook and Antiene (see Table 3.4) extended from the distance as reported in the PPR&RTS.

2. All significant structures within this corridor were identified using 2008 to 2013 aerial imagery.

3. Buildings were marked as a residence, non-residence or indeterminate structure.

4. The distance of each structure from the track was calculated and each structure was assigned to the next closest distance band.

5. The numbers of residences and indeterminate structures that are predicted to experience noise levels exceeding criteria were determined.

EA Appendix N, Section 4.7 considers two coal train scenarios: maximum train movements and planned movements. The latter is more likely for the Project based on the current availability of railway paths. In each case the total number of daily movements is 10 (ie five trains). However, the offsite rail calculations presented here are based on the more conservative maximum train movements scenario. The noise criteria used the Interim Guideline for Assessment of Noise from Rail Infrastructure Projects (IGANRIP) and Environment Protection Licence (EPL) 3142 as described in EA Appendix N Section 2.9.

As for the EA and PPR&RTS, the rail line has been divided into the following sections (see Figure 2.1):

- Cobbora rail spur to Ulan mine rail loop (part of the Dunedoo–Gulgong line);
- Ulan mine rail loop to Bengalla (the Bylong–Mangoola line);
- Bengalla to Muswellbrook; and
- Muswellbrook to Antiene.

3 Results

3.1 Cobbora rail spur to Ulan mine rail loop

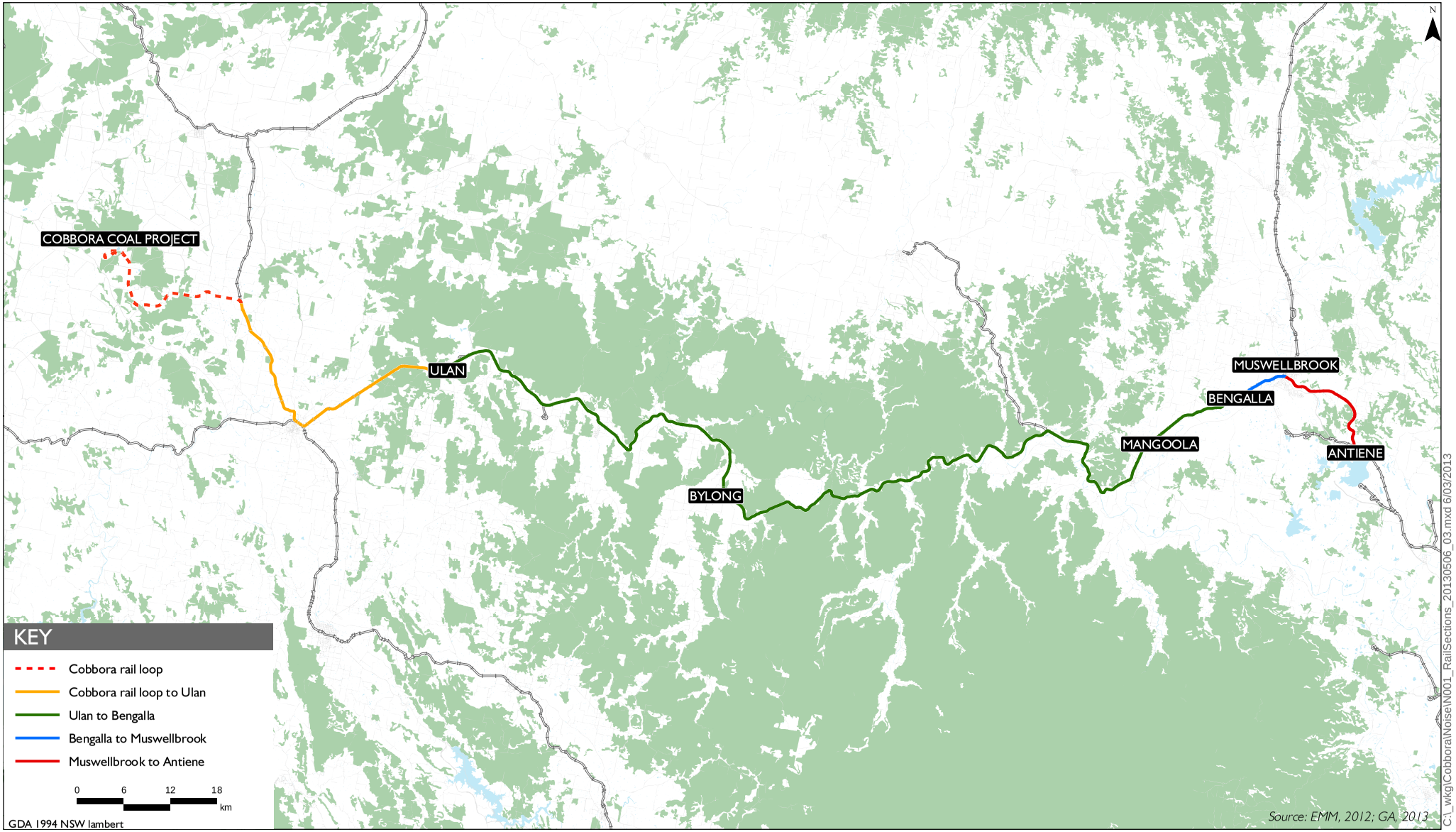
The only coal trains operating between the Cobbora rail spur to Ulan mine rail loop will be carrying coal from the Project or returning empty. The predicted noise levels at each residence between the Cobbora rail spur to Ulan mine rail loop are provided in EA Appendix N Table 4.19.

3.2 Ulan mine rail loop to Antiene

The numbers of structures adjacent to the rail line between Ulan mine rail loop and Antiene are provided in Table 3.1.

Table 3.1 Number of structures adjacent to rail line

Distance(m)	Ulan mine rail loop to Bengalla			Bengalla to Muswellbrook			Muswellbrook to Anteine		
	Residence	Indeter-minate	Non-residence	Residence	Indeterminate	Non-residence	Residence	Indeter-minate	Non-residence
15	0	0	6	0	0	0	0	4	10
20	0	0	0	0	0	1	-	-	-
25	0	0	2	0	0	0	1	3	6
40	5	0	7	0	0	1	3	4	4
50	8	1	4	1	0	0	1	1	1
80	17	6	9	2	2	3	23	5	6
100	21	2	4	1	1	2	6	3	5
140	52	5	19	7	1	6	15	5	9
160	-	-	-	-	-	-	12	0	4
200	-	-	-	-	-	-	18	3	9
300	-	-	-	-	-	-	78	10	30
Total	**103**	**14**	**51**	**11**	**4**	**13**	**157**	**38**	**84**



Rail sections

Cobbora Coal Project

Figure 1.1

Figure 1 Rail sections

The predicted noise levels at the selected distances from the track are provided in:

- Table 3.2: Ulan mine rail loop to Bengalla (Bylong–Mangoola line)
- Table 3.3: Bengalla to Muswellbrook
- Table 3.4: Muswellbrook to Antiene

The numbers of residences/indeterminate structures where noise levels are predicted to exceed criteria are also provided.

Table 3.2 Existing and potential noise increases relating to additional maximum train movements, Ulan mine rail loop to Bengalla (Bylong–Mangoola line)

Distance (m)	Contracted trains, excluding Cobbora (2021)[2]			All contracted trains, including Cobbora[3]		
	Day, L_{eq} (15-hour)	Night, L_{eq} (9-hour)	L_{max}	Day, L_{eq} (15-hour)	Night, L_{eq} (9-hour)	L_{max}
	Noise level, dB(A)					
15	66	66	88	68	68	88
20	65	65	86	67	67	86
25	64	64	84	66	66	84
40	62	62	80	64	64	80
50	61	61	78	63	63	78
80	59	59	74	61	61	74
100	58	58	72	60	60	72
140	57	57	69	58	59	69
IGANRIP or EPL3142 Trigger	**65**	**60**	**85**	**65**	**60**	**85**
	Residences/indeterminate structures					
15	0/0	0/0	0/0	0/0	0/0	0/0
20	-	0/0	0/0	0/0	0/0	0/0
25	-	0/0	-	0/0	0/0	-
40	-	5/0	-	-	5/0	-
50	-	8/1	-	-	7/1	-
80	-	-	-	-	13/5	-
100	-	-	-	-	-	-
140	-	-	-	-	-	-
Total with criteria exceeded	**0/0**	**13/1**	**0/0**	**0/0**	**25/6**	**0/0**

Notes: *1. Source: EA Appendix N Table 4.14.*

2. Based on 2021 data for 18 non-CHC contracted movements during the day and 11 non CHC contracted movements during the night.

3. Based on hypothetical eight maximum CHC movements during the day and six maximum CHC movements during the night.

4. Based on 26 total movements during the day and 17 total movements during the night (ie contracted trains + CHC trains).

Criteria exceedences are shaded.

Table 3.3 Existing and potential noise increases relating to additional maximum train movements, Bengalla to Muswellbrook

Distance (m)	Contracted trains, excluding Cobbora (2021)[2]			All contracted trains, including Cobbora[3]		
	Day, L_{eq} (15-hour)	Night, L_{eq} (9-hour)	L_{max}	Day, L_{eq} (15-hour)	Night, L_{eq} (9-hour)	L_{max}
	Noise level, dB(A)					
15	68	68	88	69	69	88
20	67	67	86	68	68	86
25	66	66	84	67	67	84
40	64	64	80	65	65	80
50	63	63	78	64	64	78
80	61	61	74	62	62	74
100	60	60	72	61	61	72
140	59	59	69	60	60	69
IGANRIP or EPL3142 Trigger	**65**	**60**	**85**	**65**	**60**	**85**
	Residences/indeterminate structures					
15	0/0	0/0	0/0	0/0	0/0	0/0
20	0/0	0/0	0/0	0/0	0/0	0/0
25	0/0	0/0	-	0/0	0/0	-
40	-	0/0	-	-	0/0	-
50	-	1/0	-	-	1/0	-
80	-	2/2	-	-	2/2	-
100	-	-	-	-	1/1	-
140	-	-	-	-	-	-
Total with criteria exceeded	**0/0**	**3/2**	**0/0**	**0/0**	**4/3**	**0/0**

Notes: *1. Source: EA Appendix N Table 4.17.*

2. Based on 2021 data for 29 contracted non CHC movements during the day and 18 contracted non CHC movements during the night.

3. Based on hypothetical eight maximum CHC movements during the day and six maximum CHC movements during the night.

4. Based on 37 total movements during the day and 24 total movements during the night (ie contracted trains + CHC trains).

Criteria exceedences are shaded.

Table 3.4 Existing and potential noise increases relating to additional maximum train movements, Muswellbrook to Anteine

Distance (m)	Contracted trains, excluding Cobbora (2021)[2]			All contracted trains, including Cobbora[3]		
	Day, L_{eq} (15-hour)	Night, L_{eq} (9-hour)	L_{max}	Day, L_{eq} (15-hour)	Night, L_{eq} (9-hour)	L_{max}
	Noise level, dB(A)					
15	72	72	89	73	73	89
25	70	70	84	71	71	84
40	68	68	80	69	69	80
50	67	67	78	68	68	78
80	65	65	74	66	66	74
100	64	64	72	65	65	72
140[4]	63	63	69	63	63	69
160	61	61	68	62	62	68
200	59	59	66	60	60	66
300	59	59	63	59	59	63
IGANRIP or EPL3142 Trigger	**65**	**60**	**85**	**65**	**60**	**85**
	Residences/indeterminate structures					
15	0/4	0/4	0/4	0/4	0/4	0/4
25	1/3	1/3	-	1/3	1/3	-
40	3/4	3/4	-	3/4	3/4	-
50	1/1	1/1	-	1/1	1/1	-
80	23/5	23/5	-	23/5	23/5	-
100	-	6/3	-	-	6/3	-
140	-	15/5	-	-	15/5	-
160	-	12/0	-	-	12/0	-
200	-	-	-	-	-	-
300	-	-	-	-	-	-
Total with criteria exceeded	**28/17**	**61/25**	**0/4**	**28/17**	**61/25**	**0/4**

Notes: *1. Source: PPR&RTS Table 15.12.*

2. Based on 2021 data for 71.6 contracted (ie excluding CHC) movements during the day and 43 contracted movements during the night.

3. Based on hypothetical eight maximum CHC movements during the day and six maximum CHC movements during the night.

4. The values provided in PPR&RTS Table 15.12 for a distance of 140 m have been corrected.

Criteria exceedences are shaded.

4 Summary

All coal trains using the Dunedoo–Gulgong line between Cobbora rail spur and Ulan mine rail loop will be carrying coal from the Project and therefore rail noise levels experienced at adjacent residences will be as a result of the Project, with the exception of noise from less than about two freight train movements per day currently occurring on this line.

Based on maximum train movements, trains from the Project will result in the night ($L_{eq(9\text{-}hour)}$) noise criterion being exceeded at 10 residences between Cobbora rail spur and the Ulan mine rail loop (EA Appendix N Section 4.8).

Train movements between Ulan mine rail loop and Antiene will comprise of trains from the Project and those from other mines with the portion of Cobbora trains decreasing from Ulan to Antiene.

Trains from the Project will increase the number of residences experiencing noise levels exceeding the night ($L_{eq(9\text{-}hour)}$) noise criterion from 13 residences and one indeterminate structure (based on contracted train numbers excluding Cobbora trains) to 25 residences and six indeterminate structures (based on contracted train numbers including Cobbora trains) between Ulan mine rail loop and Bengalla (Table 3.2). The day ($L_{eq(15\text{-}hour)}$) and L_{max} criteria are not predicted to be exceeded at any residences between the Ulan mine rail loop and Bengalla.

There are few residences adjacent to the line between Bengalla and Muswellbrook. Trains from the Project will increase the number of residences experiencing noise levels exceeding the night ($L_{eq(9\text{-}hour)}$) noise criterion from three residences (and two indeterminate structures) to four residences (and three indeterminate structures) along this section (Table 3.3). The day, ($L_{eq(15\text{-}hour)}$) and L_{max} criteria are not predicted to be exceeded at any residences along this section.

There are many residences adjacent to the line between Muswellbrook and Antiene, including residences in Muswellbrook. The noise levels from contracted trains (excluding trains from the Project) will result in 61 residences (and 25 indeterminate structures) experiencing noise levels exceeding the night ($L_{eq(9\text{-}hour)}$) noise criterion along this section (Table 3.4). Some of these will also experience noise levels exceeding the day ($L_{eq(15\text{-}hour)}$), night ($L_{eq(9\text{-}hour)}$) and L_{max} criteria. Trains from the Project are relatively diluted in this section and will not increase the number of residences experiencing noise levels exceeding the day ($L_{eq(15\text{-}hour)}$), night ($L_{eq(9\text{-}hour)}$) or L_{max} criteria noise criteria along this section.

Appendix N

B OOP E waste rock emplacement of height change on noise levels (6 March 2013)

Memorandum

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6 March 2013

To Philip Towler
From Oliver Muller

Subject B OOP E waste rock emplacement impact of height change on noise levels

Dear Phil,

EMGA Mitchell McLennan (EMM) Pty Limited has prepared this memorandum to provide comment in response to the Department of Planning and Infrastructure (DP&I) recent questions regarding the proposed Cobbora Coal Project (the Project).

Recent changes to the Project include a height increase of mining area B out-of-pit east waste rock emplacement of (B OOP E)) by 20m. The DP&I have asked for confirmation that noise levels provided in Chapter 16, Appendix N of the Environmental Assessment would not change as a result of the dump height increase.

To quantify the potential noise level changes associated with the dump height increase, the EMM noise model for Year 2 was modified to incorporate an increase of 20 m to the B OOP E. The predicted noise levels with the 20 m dump height increase are unchanged (ie <1 dB) to the results presented in the EA. This is expected, as the emplacement height adopted in the EA meant sources were in a 'line of site' from receivers to this emplacement. As a result, the noise level increase due to a 20 m height increase is negligible. Hence, the noise impacts will remain as assessed in the EA (Chapter 16 and Appendix N).

We trust this memorandum meets your requirements, please contact the undersigned if you have any further questions.

Yours sincerely

Oliver Muller (MAAS)
Associate, Senior Acoustic Scientist
omuller@emgamm.com
Director review :NI

Appendix O

Implications of changes to the Cobbora Coal Project on the air quality and greenhouse gas assessment (5 March 2013)

5 March 2013

Phil Towler
EMGA Mitchell McLennan
Ground Floor, Suite 1, 20 Chandos St
ST LEONARDS NSW 2065

Dear Phil

RE: Implications of Changes to the Cobbora Coal Project on the Air Quality and Greenhouse Gas Assessment

The design of the proposed Cobbora Coal Project (CCP) has been refined by Cobbora Holding Company (CHC) since the completion of the environmental assessment (EA) in September 2012. These changes are documented within the *Cobbora Coal Project - Preferred Project Report and Response to Submissions* (PPR Report) prepared by EMGA Mitchell McLennan (EMGA) in February 2013.

It is noted that the changes have not significantly altered the layout or footprint of the Project. This letter aims to provide further details on the implications of the proposed changes to the dispersion modelling and subsequent air quality results presented within the Air Quality Impact Assessment (AQIA) conducted by ENVIRON Australia Pty Ltd (ENVIRON), dated 29 August 2012.

A primary change to the Project is associated with the management of tailings from the coal handling and preparation plant (CHPP). Originally, tailings were to be disposed of in one out-of-pit tailings emplacement area (TEA) and two smaller in-pit TEAs. CHC now propose to dispose of tailings in two out-of-pit TEAs located within the existing footprint of waste emplacement area B-OOP E, and a series of smaller TEAs in mining areas A and C.

Waste emplacement and rehabilitation activities will be largely completed at B-OOP E by Year 4 of the proposed mine life, with the bulk of activity in this area to occur between Year 2 and Year 4. Consequently, to investigate the potential implications to air quality emissions, the changes in land area of B-OOP E between the EA and the PPR for Year 2 and Year 4 are presented in **Table 1**.

It can be seen from **Table 1** that the area of the B-OOP E and the adjacent out-of-pit tailing emplacements has increased for the PPR in both Year 2 and Year 4 of the mine plan relative to the EA. Emissions from the active TEAs prior to being capped will be minimal due to the high moisture content of the surface and as such, emissions from the TEAs were not considered within the AQIA for the EA. Consequently, it is considered that the proposed changes to the layout of B-OOP E will not alter the particulate emissions calculated and assessed in the EA.

Table 1: Comparison of B-OOP E Land Area – EA vs PPR – Year 2 and Year 4		
B-OOP E Area	**Total Area (ha)**	
	EA Mine Plan	**PPR Mine Plan**
YEAR 2		
Active Dump	236.0	230.2
Rehabilitated Dump	59.3	61.3
Cleared Area (prior to development)	56.3	27.7
Out-of-pit-tailings emplacement	0.0	111.2
Total	**351.5**	**430.4**
YEAR 4		
Active Dump	0.0	0.0
Rehabilitated Dump	351.5	344.4
Cleared Area (prior to development)	0.0	0.0
Out-of-pit-tailings emplacement	0.0	111.2
Total	**351.5**	**455.6**

In addition to the change in surface area, the peak height of the B-OOP E will increase from 430m to 450m to allow for the development of the TEAs.

To investigate the potential implications of the 20m increase in height of the B-OOP E to predicted ground level concentrations (eg PM_{10} concentrations), a screening modelling exercise was undertaken. The following steps were taken:

- A single volume source was located at the top of B-OOP E;
- An arbitrary emission rate of 1g/s was applied;
- The following model runs were completed:
  - First run: Source base elevation at peak mine plan terrain of 430m for B-OOP E; and
  - Second run: Increased elevation of B-OOP E and source to 450m.
- Concentrations were predicted at the ten closest private receptors to B-OOP E.

The average predicted concentration at each modelled receptor location is presented in **Figure 1**. It is noted that due to the arbitrary unit emission rate applied, the magnitude of the concentrations is irrelevant. Furthermore, as the emission rate is a generic tracer, the concentration is not of a specific pollutant (eg TSP, PM_{10} etc) and is therefore not comparable to a NSW EPA assessment criterion. Rather, the relative difference between the 430m and 450m elevation runs is the focus of **Figure 1**.

It can be seen that across the selected private receptor locations, there is no significant difference between the concentrations experienced from emissions released at an elevation of 430m to emissions released at 450m. It is noted that at Receptor 5001 an increase of approximately 15% is predicted for the 450m model run. Following review of the results for Year 2 at receptor 5001 presented in Appendix E of the AQIA, it is not expected that this change will result in exceedances of NSW EPA assessment criteria.

Consequently, it is considered that the increase in height of B-OOP E is unlikely to be a significant factor for air quality emissions generated from this area of the CCP at surrounding private receptors.

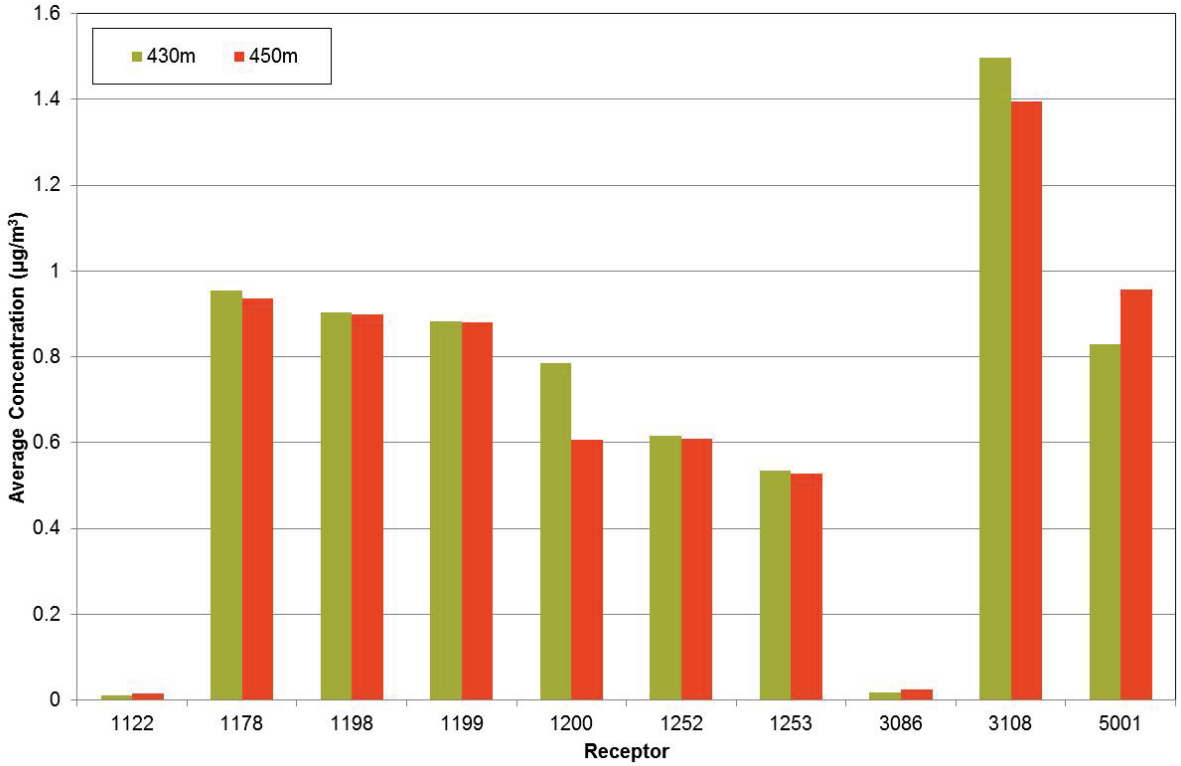

Figure 1: Screening Model Results – Emission Source at 430m vs Emission Source at 450m at B-OOP E

Note: Due to unit emission rate applied, only the difference between the two models at each receptor should be considered.

Finally, it is noted that key emission sources associated with the active B-OOP E are wind erosion, haul truck movements along unsealed roads, waste unloading from haul trucks and bulldozer operations. Due to the rehabilitation of B-OOP E by Year 4, the peak contribution of these emissions to total air quality impacts from the Project will occur in Year 2 of those assessed in the AQIA.

Review of the concentration isopleth plots for Year 2 (Appendix F of AQIA) highlights that the areas of highest predicted concentrations are located over mine area A, mine area B and the CHPP. Concentrations in the vicinity of B-OOP E are lower, indicating that B-OOP E related emission sources are not as significant as other areas of the CCP during Year 2 operations.

On the basis of the above discussion points, it is considered that the variations associated with change in land area and elevation discussed above will have no significant implications for the concentrations predicted in the AQIA.

Yours sincerely
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