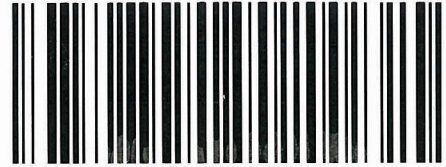
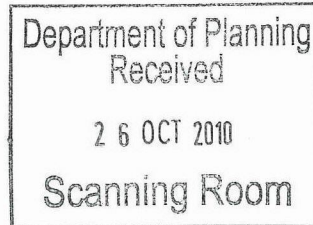


Our reference: DOC10/46301(302240A1/02)
Contact: Nazrul Chowdhury, (02) 9995 6862



PCU015929

Mr Howard Reed
Manager Mining Projects
Department of Planning
GPO Box 39
SYDNEY NSW 2001
Attn: Mr Kane Winwood



Dear Mr Reed

Re: Modification to Holcim Regional Distribution Centre, Rooty Hill (05 0051 Mod 1)

I refer to your letter regarding the above modified proposal received by the Department of Environment, Climate Change and Water (DECCW) on 12 October 2010. In the letter you have requested DECCW's comment and recommended conditions of approval for this modified proposal.

In this regard, I would like to refer to our earlier letters dated 14 December 2005 (ref: SRF14557/302240A1) and 2 March 2006 (ref: SRF14957/302240A1/02) (copies attached) where we provided our comments and recommended conditions of approval for the original proposal at that time submitted by Rinker Australia Pty Ltd (Readymix). After reviewing the new modified proposal we are convinced that no further comments or recommended conditions would be added to those already provided for the original proposal. However, DECCW is concerned that there will be the loss of another 0.02 ha of Cumberland Plain Woodland Critically Endangered Ecological Community. Notwithstanding, DECCW understands that these additional impacts will be offset in line with the offsets required as part of the original project approval, ie, the implementation of a compensatory habitat package in consultation with DECCW, that may include either provision of land at a ratio of 3:1, or equivalent financial contribution to environmental works in the local area, or another form of compensatory habitat agreed to by DECCW.

Further, due to the recent amendment of Schedule 1 of the Protection of the Environment Operations Act 1979 (POEO Act), the applicant may not require to apply for an environment protection licence (EPL) under the POEO Act if the proposal is granted, as the only activity on the site that requires an EPL, ie, concrete batching plant, has been taken off the Schedule. DECCW will still be the appropriate regulatory authority (ARA) for the site under the POEO Act if the proposal is implemented and will regulate the site under the Act.

Should you have any further queries regarding the letter, please contact **Nazrul Chowdhury** on **(02) 9995 6862**.

Yours sincerely

22 Oct '10

KIERAN HORKAN
Unit Head Sydney Industry
Environment Protection and Regulation

"The Department of Environment and Climate Change is now known as the Department of Environment, Climate Change and Water"

PO Box 668 Parramatta NSW 2124
Level 7, 79 George Street Parramatta NSW
Tel: (02) 9995 5000 Fax: (02) 9995 6900
ABN 30 841 387 271
www.environment.nsw.gov.au

Department of **Environment and Climate Change** NSW





Department of
Environment and Conservation (NSW)

Your reference : S02/02765
Our reference : SRF14957/302240A1/02
Contact : Nazrul Chowdhury; (02) 9995 6862

FILE

Metro Branch

Mr Scott Jeffries
Manager – Critical Infrastructure and Special Projects
Office of Sustainable Development Assessments and Approvals
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Attn: Ms Ann-Maree Carruthers

Dear Mr Jeffries

**Re: Proposed Regional Distribution Centre, Kellogg Road, Rooty Hill – Blacktown LGA –
Rinker Australia Pty Ltd**

I refer to your letter received by the Department of Environment and Conservation (DEC)¹ on 22 February 2006, regarding the above proposal. In the letter you have requested DEC's action including amendment of its conditions of approval, if required, based on the issues raised in the submissions for the proposal and Rinker Australia's subsequent response to those submissions.

The DEC has reviewed Rinker Australia's response to DEC's submissions on various environmental issues and approval conditions (provided in a letter to Department of Planning (DoP) on 14 December 2005 (ref:SRF14557/302240A1)).

Please find DEC's explanations on the concerns raised by Rinker Australia regarding determination of noise limits for the proposed development provided in "Attachment - A".

Regarding consultation with Aboriginal Communities, DEC advises that Rinker Australia needs further consultation with the Deerubbin Local Aboriginal Land Council (DLALC) and if necessary with the DEC. Further, the Darug Tribal Aboriginal Corporation (DTAC) have recommended that they monitor initial earthworks. While the DEC cannot regulate this request Rinker Australia should consult directly with DTAC.

The DEC rejects the idea of enhancement of *G. juniperina ssp* species through propagation of tubestock obtained at site, however the DEC agrees that a 20m buffer zone be established around juniperina site (stated on page 9 second dot point of the Revised Statement of Comments (Appendix E)).

Further, the DEC would like to add the following additional condition on dust management at the site:

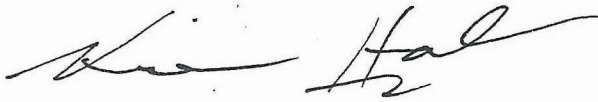
- D8.** All dust control systems serving crushing, grinding, separating or materials handling activities must be designed and operated to comply with a solid particles emission

¹Please note that, although the Environment Protection Authority (EPA) is now a part of the Department of Environment and Conservation (DEC), certain statutory functions and powers continue to be exercised in the name of the EPA.

limit of 20mg/m³ as required by Part 4 of the Protection of the Environment (Clean Air) Regulation 2002.

Should you require any further explanation on any of the above issues please contact Nazrul Chowdhury on (02) 9995 6862.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Kieran Horkan', with a stylized flourish at the end.

7 Mar '06

KIERAN HORKAN
Head Sydney Industry
Environment Protection and Regulation Division

Att

ATTACHMENT - A

Explanation on Noise Comments and Amendment to Noise Condition N4

DEC has focused on assessing the comments made by Rinker Australia on the recommended conditions. Rinker Australia appears to have two principal areas on concern, those being;

- The recommendation of noise limits based on the noise levels the proponent said they can achieve (ie the predicted levels); and,
- The meteorological conditions under which the noise levels apply.

The following text outlines the basis for using the predicted level to inform license/approval noise limits (not just for this project).

"Determining Noise Limits for Licence Conditions

Where the proponent predicts that noise levels from the industrial development would be below the project-specific noise levels, then the noise limits on the licence/consent conditions should reflect the noise levels that the proponent states would be achieved (i.e. the predicted noise levels. A minimum intrusive criterion of 35 dB(A) still applies). This is for a number of reasons:

- *To ensure that the best-management practices (BMP) and best available technology (BATEA) that has been described in the noise impact assessment report are actually adopted by the proponent. This continues the DEC's encouragement of BMP and BATEA in industry; and*
- *To ensure that the level of achievable performance presented by the proponent to the public, though public documentation such as Environmental Impact Statements, is achieved*
- *To optimise the opportunity for further industrial development in the area without an unacceptable degradation of the acoustic amenity of the area*
- *To fulfill a general aim of the environmental assessment process to minimise environmental impacts.*

It should be noted that noise limits would apply to the contributed noise levels from only the premises or site of concern. In setting noise limits, judgement needs to be made as to whether the predicted noise levels warrant noise limits on the licence/consent. Where the predicted noise levels from the premises of concern are well below the project specific noise levels, there may be no need for noise limit conditions.

Any tolerances to the predicted noise levels should be addressed in the proponent's assessment of impacts so that the predicted noise levels can be applied in conditions".

It should further be noted that the proponent has indicated in the EA that;

"Since the operational scenarios modelled are likely to represent an acoustically worst-case scenario, actual operational noise levels from the proposed distribution centre are likely to be less than those predicted. Hence, the predicted noise levels provided here can be achieved".

Original concerns were also raised regarding the sound power levels used to model rail locomotives. The latest NIA contains supporting information for the levels and approach taken. The conclusions in the Heggies Australia NIA for rail operations on the premises are;

"... it is Heggies' opinion that the modelled rail operations represent an acoustically worst-case scenario".

Hence DEC considers the use of the predicted levels to inform license limits appropriate.

NOTE: The Rinker document; 'Responses to issues raised in submissions to the EAR' (February 2006) responds to the issue that the Statement of Commitments does not include a commitment to achieve nominated noise levels, that; 'Rinker will operate to achieve the Project Specific Noise Levels' (PSNL). The recommended noise limits are informed by the proponents predicted noise levels and hence the Statement of Commitments is still lacking a commitment to achieve the predicted levels, which Rinker have indicated in the NIA can be achieved.

*** The following text outlines the basis for requiring that noise limits apply for wind speeds up to 3m/s.**

The meteorological assessment contained in the NIA has generally indicated that where a wind has been determined to be a significant feature of the area, that the majority of those winds occur in the 0.5-2m/s range. On this basis the NIA predicted noise levels for the identified significant wind directions, but used 2m/s for modelling purposes rather than the INP default 3m/s. The INP indicates that; "Where there is 30% or more occurrence of wind speeds below 3m/s (source to receiver component), then use the highest wind speed (below 3m/s) instead of the default". This is the part of the INP that the proponent has relied upon in using 2m/s for prediction purposes.

On this basis (and the fact that the noise limits have been derived from predicted levels rather than PSNL), it is reasonable that the recommended license/approval condition N4 be amended to indicate that the noise limits apply for wind speeds up to 2m/s in lieu of the 3m/s currently stated.



Department of
Environment and Conservation (NSW)

Your reference : S02/02765
Our reference : SRF14557/302240A1
Contact : Nazrul Chowdhury; (02) 9995 6862

Metro Branch

FILE

Mr Scott Jeffries
Manager, Manufacturing and Rural Industries
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Dear Mr Jeffries

**Re: Major Projects Application - Proposed Regional Distribution Centre, Kellogg Road,
Rooty Hill – Blacktown Local Government Area – Rinker Australia Pty Ltd (Readymix)**

I refer to your letter and attached environment assessment report (EAR) and accompanying information received by the Department of Environment and Conservation (DEC)¹ on 15 November 2005, regarding the above proposal which is classified as a Major Project under *State Environment Planning Policy (Major Projects) 2005* and to be assessed and determined by the Minister for Planning under *Part 3A of the Environment Planning and Assessment Act 1979 (EP&A Act)*.

The DEC has reviewed the EAR and the accompanying information and attached its comments on the proposal along with recommended approval conditions, which will be required for an environment protection licence (EPL) under the Protection of the Environment Operations Act 1997 (POEO Act), in Attachments - A and B, respectively. The DEC's comments and approval conditions are exclusively based on the information provided to the DEC without any site visits or ground-truthing undertaken. In summary, the DEC's comments are on an assessment of the following environmental issues addressed in the EAR.

- Noise;
- Air quality;
- Aboriginal heritage; and
- Flora & Fauna.

Should the proposal be granted, the applicant will be required to apply for an EPL to the DEC to operate the site under the POEO Act. Please find attached in Attachment - B, the recommended approval conditions for such licence.

If you have any further queries regarding any issues in this letter, please contact Nazrul Chowdhury on (02) 9995 6862.

Yours sincerely

14 Dec '05

KIERAN HORKAN
A/Manager Sydney Industry
Environment Protection and Regulation Division

Att

¹Please note that the Department of Environment and Conservation (DEC) exercises certain statutory functions in the name of the Environment Protection Authority (EPA).

Attachment - A

Noise

A summary of the key findings of DEC's review of the noise impact assessment (NIA) for the proposed Readymix Regional Distribution Centre (RDC) is outlined below.

The review is based on;

- The Noise Impact Assessment (NIA) prepared by Richard Heggie & Associates (Report No. 30-1202-R2, Revision 3) as contained within the "Environmental Assessment Report – Proposed Regional Distribution Centre, Rooty Hill", prepared by National Environmental Consulting Services dated October 2005.

No public submissions were considered in DEC's assessment.

1. Identification of noise sensitive receivers

The NIA has assessed noise emissions from the proposal to the following sensitive receiver locations;

- Residences in Station Street Rooty Hill
- Residences in Crawford Street Doonside
- Residences in Mavis Street Rooty Hill (Sleep disturbance assessment only)
- Nurragingy Reserve
- Colebee Centre
- Blacktown Olympic Venue

DEC's review was based exclusively on the information provided on noise assessment for the above residential locations as identified in the NIA. DEC has not visited the site and surrounds, nor undertaken any "groundtruthing".

2. Ambient Noise Monitoring

Ambient noise monitoring has been undertaken at two (2) locations. The locations are identified in the NIA as follows;

Location 1: 54 Station Street Rooty Hill

Location 2: 11 Crawford Road Doonside

The rating background noise level (RBL), the measured ambient L_{Aeq} noise level and the estimated L_{Aeq} from industry has been derived from unattended measurements using noise data loggers and attended measurements for each assessment period at each assessment location.

Table 1 below provides a summary of the ambient noise levels presented in the NIA.

Table 1: Summary of ambient noise levels – dB(A)

Location	Period	RBL, dB(A)	Measured $L_{Aeq(Period)}$, dB(A)	Estimated $L_{Aeq, Industry}$, dB(A)
54 Station St	Morning shoulder	42*	61	44
	Day	47	60	<54
	Evening	43	57	48
	Night	38	55	44
11 Crawford Rd	Morning shoulder	39*	54	<39
	Day	40	57	<54
	Evening	40	60	<44

	Night	38	49	<39
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* The RBL for the morning shoulder period has been revised from that presented in the first EAR to reflect the midpoint of the two adjoining assessment periods as recommended in the Industrial Noise Policy (INP)

DEC generally accepts the ambient noise measurements as suitable for deriving Project Specific Noise Levels (PSNL) in accordance with the INP however some areas of concern are discussed below under 'Project assessment criteria'.

3. Project assessment criteria

3.1 Operational Project Specific Noise Levels

The NIA presents intrusive and amenity criteria derived from the ambient noise monitoring results and the requirements of the INP. Table 2 below presents the intrusive and amenity criteria presented in the NIA. In cases where DEC does not agree with the criteria, the levels have been "struck through", DEC's levels presented, and an explanatory note provided.

Table 2: Project Specific Noise Levels

Location	Assessment Period	RBL	Intrusive Criteria	Amenity Criteria	PSNL
Station Street	M. Shoulder	42	47	52 39 ¹	39*
	Day	47	52	60	52
	Evening	43	48	46	46*
	Night	38	43	45 39 ²	39*
Crawford Road	M. Shoulder	39	44	52 45 ¹	44
	Day	40	45	60	45
	Evening	40	45	50	45
	Night	38	43	45	43
Nurragingy Reserve	When in use				50dB(A) 55dB(A) max
Colebee Centre	When in use				50dB(A) 55dB(A) max
Blacktown Olympic Venue	When in use				55dB(A) 60dB(A) max

* PSNL based on amenity criteria

1. The amenity criteria presented in the NIA is based on an ANL based on the mid point value between the daytime and night time acceptable noise level (ANL). This approach is not recommended in the INP. DEC has calculated the amenity criteria on the basis of the night time ANL and the existing industry noise level reported in the NIA for the morning shoulder period.

2. The amenity criteria presented in the NIA is based on the high traffic noise principal in the INP, however the NIA has adopted the traffic ANL (ie existing $L_{Aeq,traffic} - 10dB$) as the amenity criteria. The traffic ANL needs to be modified using Table 2.2 in the INP and the existing industrial noise for the night period. The DEC recommended ANL reflects this.

DEC does not accept all the PSNL presented in the NIA. DEC's recommended PSNL are presented above in Table 2. DEC's assessment of the proposal will be based on the DEC derived PSNL as presented.

3.2 Sleep Disturbance Assessment Criteria

The NIA presents sleep disturbance assessment criteria on the basis of the current DEC screening criteria for sleep disturbance, which is that the $L_{A1, (1 \text{ minute})}$ level should not exceed the Rating Background Level (RBL) for the night-time period by more than 15dB(A).

The latest NIA (ie the NIA contained in the environment assessment report (EAR) placed on public exhibition) has adopted a sleep disturbance criteria for the morning shoulder period based on the lowest recorded $L_{A90,15\text{minute}}$ level recorded during the morning shoulder period. This approach is

conservative and far more appropriate than what was originally proposed, which was an RBL based on the $L_{A90,15\text{minute}}$ values recorded for the morning shoulder period. DEC considers that such a data set is too small to apply the RBL approach.

Table 2 below presents the sleep disturbance assessment criteria presented in the NIA.

Table 2: Sleep disturbance assessment criteria

Location	Assessment Period	Sleep Disturbance Goal ($L_{A1,1\text{minute}}$ dB(A))
Station Street	Morning Shoulder	55 ¹
	Night time	53
Crawford Road	Morning Shoulder	58 ¹
	Night time	53

1. The morning shoulder sleep disturbance criteria are based on the lowest $L_{A90,15\text{min}}$ level recorded at each assessment location during the morning shoulder period plus 15dB(A).

2. DEC notes and accepts that sleep disturbance goals for Station Street can be applied to Mavis Street residences as proposed in the NIA.

3.3 Construction Noise Criteria

Construction noise criteria have been presented on the basis of the guidelines contained in the Environmental Noise Control Manual, Chapter 171.

DEC accepts the construction noise criteria presented in the NIA.

3.4 Road Traffic Noise Criteria

The NIA has correctly identified the applicable criteria to assess off-premises traffic noise impacts as being that contained in the NSW Government's Environmental Criteria for Road Traffic Noise (ECRTN). The criteria adopted in the NIA is 'Land use developments with potential to create additional traffic on existing freeways / arterials (ie the WM7).

DEC accepts the road traffic noise criteria presented in the NIA.

3.5 Rail Traffic Noise Criteria

The NIA has correctly identified the applicable criteria to assess rail noise for traffic on the NSW Rail Network as that contained within the Environmental Noise Control Manual (ENCM) Chapter 163.

The applicable criteria are $L_{Aeq,24\text{hrs}}$ 60dB(A) and L_{Amax} 85dB(A).

DEC accepts the rail traffic noise criteria presented in the NIA.

4. Meteorological Assessment

An assessment of potential noise enhancing weather effects is contained in the NIA. Light winds and temperature inversions have been determined to be significant features of the area in accordance with the provisions of the INP. The noise modelling has considered the identified meteorological effects. It should be noted, that the analysis has determined that where light winds exceed 30%, that they are dominated by winds between 0.5-2m/s. On this basis the modelling of significant light winds has used a wind speed of 2m/s.

5. Predicted noise levels

Noise levels from the proposed operation were predicted using the Environmental Noise Model (ENM) computer model. This model is acceptable for undertaking industrial noise impact assessments in NSW.

5.1 Operational Noise Levels

The noise modelling includes noise contour plots and tabulated predictions to six (6) locations ie Station Street, Crawford Street, Mavis Street, Nurragingy Reserve, Colebee Centre and Blacktown Olympic Venue.

The NIA presents at s2.2 the acoustically significant plant and equipment considered in the noise modelling. Additionally the NIA indicates at s7.1.2 that identified noise management and mitigation measures have been included in the modelling. The modelling results are presented in Tables 18 (without operation of radial stacker) and Table 19 (with operation of radial stacker and without loading of main storage bins). The operation of the radial stacker will only occur when there is a malfunction in the main storage bins that prevents them from being loaded. The operational scenarios considered are presented in s7.1.3. Of note is the fact that the blending plant will not operate during evening and night periods, and that the agitator loading and agitator slumping will have reduced operation (ie one truck in lieu of 2) for the evening and night periods.

Tables 3 and 4 below present predicted RDC noise levels with and without the operation of the radial stacker respectively.

Table 3: Predicted Noise Levels (without radial stacker) – dB(A)

Location	Period	Predicted Noise Levels $L_{Aeq,15minute}$ dB(A)				PSNL
		calm	Inversion	Easterly wind	SSW wind	
Station Street	Morning shoulder	35	39	n/a	34	39
	Day	35	n/a	n/a	n/a	52
	Evening	35	n/a	44	34	46
	Night	35	39	n/a	34	39
Crawford Road	Morning shoulder	34	38	n/a	39	44
	Day	34	n/a	n/a	n/a	45
	Evening	33	n/a	<30	38	45
	Night	33	37	n/a	38	43
Mavis Street	Morning shoulder	30	34	n/a	<30	39
	Day	30	n/a	n/a	n/a	52
	Evening	<30	n/a	35	<30	46
	Night	<30	33	n/a	<30	39
Nurragingy Reserve	Day	49	n/a	n/a	n/a	50
	Evening	49	n/a	45	49	50
Colebee Centre	Day	42	n/a	n/a	n/a	50
	Evening/Night	41	47	36	49	50
Blacktown Olympic Venue	Morning shoulder	51	52	n/a	48	55
	Day	51	n/a	n/a	n/a	55
	Evening/Night	50	52	49	47	55

Table 4: Predicted Noise Levels (with radial stacker) – dB(A)

Location	Period	Predicted Noise Levels $L_{Aeq,15\text{minute}}$ dB(A)				PSNL
		calm	Inversion	Easterly wind	SSW wind	
Station Street	Morning shoulder	35	39	n/a	34	39
	Day	35	n/a	n/a	n/a	52
	Evening	35	n/a	44	34	46
	Night	35	39	n/a	34	39
Crawford Road	Morning shoulder	34	38	n/a	40	44
	Day	34	n/a	n/a	n/a	45
	Evening	33	n/a	<30	39	45
	Night	33	37	n/a	39	43
Mavis Street	Morning shoulder	30	34	n/a	<30	39
	Day	30	n/a	n/a	n/a	52
	Evening	<30	n/a	35	<30	46
	Night	<30	33	n/a	<30	39
Nurragingy Reserve	Day	49	n/a	n/a	n/a	50
	Evening	49	n/a	45	50	50
Colebee Centre	Day	42	n/a	n/a	n/a	50
	Evening/Night	41	47	36	49	50
Blacktown Olympic Venue	Morning shoulder	51	53	n/a	48	55
	Day	51	n/a	n/a	n/a	55
	Evening/Night	51	53	50	48	55

The predicted noise levels do not exceed the PSNL (as modified by DEC) at all assessment locations. However, the predicted levels for the morning shoulder period and night period at Station Street are at the PSNL with no margin for compliance.

Arising from DEC's initial concerns with the PSNL, as originally presented in the NIA, the following text was added to the NIA contained within the EAR on public exhibition;

"Since the operational scenarios modelled are likely to represent an acoustically worst-case scenario, actual operational noise levels from the proposed distribution centre are likely to be less than those predicted. Hence, the predicted noise levels provided here can be achieved".

Concerns were also raised regarding the sound power levels used to model rail locomotives. The latest NIA contains supporting information for the levels and approach taken. The conclusions in the Heggies Australia NIA for rail operations on the premises are;

"... it is Heggies' opinion that the modelled rail operations represent an acoustically worst case scenario".

It should also be noted that whilst the tabulated predictions demonstrate that noise at the Nurragingy Reserve will satisfy the passive recreation criteria, the NIA indicates that some areas of the reserve will experience noise levels, especially under adverse meteorological conditions, above the acceptable level but below the maximum level applicable to a passive recreation area. The NIA indicates that these exceedances may occur for up to 1 hour a day for four months of the year.

Note that the recommended daytime noise limits for Station Street, Crawford Road and Mavis Street residences have been set equivalent to the highest predicted noise levels for other time periods, where these levels do not exceed the daytime PSNL for the relevant location. This is to

avoid setting a more stringent noise limit for the daytime period than for other time periods, which would seem unreasonably stringent. Also to provide for encouragement for the proponent to shift noisy activities from more noise sensitive time periods to the daytime period, where there is capacity in the “noise environment” to do so.

5.2 Sleep Disturbance Assessment

The NIA indicates that the following activities will be modified to reduce the potential for sleep disturbance;

- Storage bins will not be loaded from an empty state.
- Front end loaders will use visual warning in lieu of reversing alarms.
- All conveyor start-up warnings will be visual, not audible.

The NIA has also undertaken a quantitative assessment of site activities that could result in sleep disturbance. The activities considered include; loading into an empty truck, truck reversing alarm, front end loader scraping concrete and rail shunting.

The NIA indicates that the highest L_{Amax} levels will occur at residential areas as a result of rail manoeuvring activities at the extremities of the siding under a temperature inversion. The predicted levels are L_{Amax} 47 dB(A) at Station Street, L_{Amax} 52 dB(A) at Mavis Street and L_{Amax} 50dB(A) at Crawford Street.

The predicted levels satisfy the night time sleep disturbance criteria and hence by default satisfy the morning shoulder period.

5.3 Road Noise Assessment

The NIA has considered the noise impact of traffic generation from the proposal on the WM7 carriageway south of Power Street and the on and off ramp at the intersection of Power Street and the WM7 carriageway. The traffic data used in the assessment is based on the Technical Report No. 8 – Traffic in the EAR and Western Sydney Orbital EIS, 1996.

M7 Carriageway Proper

The assessment of road traffic noise on the WM7 carriageway proper involved superimposing predicted peak hourly movements from the RDC onto average hourly movements on the M7, which were obtained from the EIS for the Western Sydney Orbital (Westlink M7).

Initially it should be noted that Table 24 in the NIA appears to have a transcription error, in that the day time heavy vehicle number is actually the night time heavy vehicle number and visa versa. However, DEC has undertaken a check calculation for the night time period using the ‘UK Department of Transport – Calculation of Road Traffic Noise Model (UKDoT, CORTN), and the predicted increase appears to be in the right order, that is 0.8dB(A). Accordingly, the predicted increase was based on the correct data and not the transcribed error in Table 24. The predicted increase for daytime presented in the NIA is 0.4dB(A).

However, the NIA has relied upon traffic volume/composition predictions contained in the EIS for the Western Sydney Orbital (Table 26.5 – Two-way Traffic Flow on the Proposal – 2016) for the section of roadway between Great Western Highway to Power Street. DEC is aware that traffic data in the Operational Noise Management Sub Plan for the Westlink M7 contains more up to date traffic volume / composition predictions (WM7 – ONMSP, Table 7 Richard Heggie & Associates 10-2644R5R.doc). On the basis of this data, DEC has undertaken check calculations again using CORTN. The check calculations indicate that the predicted increase in traffic noise levels on the

section of the WM7 carriageway between the Great Western Highway interchange to Power Street is in the order of 2.6dB(A).

The design of the WM7 for the main carriageways and ramps adopted the new road criteria in the ECRTN, which is $L_{Aeq,15hr}$ 55dB(A) and $L_{Aeq,9hr}$ 50dB(A). Whereas, the criteria applicable to the RDC is 'land use developments with the potential to create additional traffic on existing freeways / arterials' which is $L_{Aeq,15hr}$ 60dB(A) and $L_{Aeq,9hr}$ 55dB(A). If we assume the design of the WM7 will achieve the new road criteria, for example $L_{Aeq,9hrs}$ 50dB(A), the traffic noise level with the RDC traffic will be in the order of $L_{Aeq,9hr}$ 52.6dB(A) and is therefore likely to satisfy the applicable criteria. It should be noted that the approach of applying an hourly peak flow associated with the RDC to the average hourly night time traffic on the WM7 is a conservative approach given that the bulk of RDC traffic movements will be between 6am to 6pm Monday to Saturday. It should also be noted that the WM7 traffic predictions are based on 2016, which would have factored in organic traffic growth. This organic traffic growth may in fact accommodate the increase from the RDC.

On/ Off Ramps (Woodstock Avenue & Power Street)

The assessment of traffic noise from the WM7 access ramps has considered the ramps at the intersection of Woodstock Avenue and Power Street and the nearest residences to these locations. The assessment approach applied differs from that applied to the M7 carriageway in that the ramps have been modelled using traffic numbers contained in Technical Report No. 8 – Traffic in the EA, specifically Figures 10-13 that show increased movements numbers arising from the RDC based on 2008 data which has been interpolated from 2006 and 2016 data contained in the EIS for the Western Sydney Orbital (Westlink M7). The noise barriers for the M7 ramps have also been considered. The model used has not been stated. The NIA indicates that the predictions are for the AM peak hour (7.30am to 8.30am) and so provide a worst case noise level.

Table 5 below reproduces Table 25 in the NIA, which provides the outputs of the modelling.

Table 5: Road Traffic Noise Predictions – On/Off Ramps – dB(A)

On/Off Ramp – residential locations	Predicted Road Traffic Noise Including RDC Traffic – $L_{Aeq,1hr}$
Power Street Off Ramp / Lambert Avenue	55 dB(A)
Woodstock Avenue On Ramps / Station Street	57dB(A)

The NIA indicates that the predicted worst case $L_{Aeq,1hr}$ road traffic noise level (including RDC traffic) will be less than the $L_{Aeq,15hr}$ since the peak hourly movements will not occur for every hour of the daytime period. Therefore the road traffic noise level for the on/off ramps are concluded to satisfy the criteria of $L_{Aeq,15hr}$ 60dB(A).

The assessment for the ramps has not considered night time movements, however on the basis of limited night time movements and the fact that the worst case situation satisfies the relevant night time criteria of $L_{Aeq,9hr}$ 55dB(A) for the Power Street ramps and only exceeds the criteria by 2dB(A) at the Woodstock Street ramps, it is unlikely that night time movements would result in unacceptable noise levels.

Given that the WM7 has not opened, it should be noted that the road traffic noise assessment has been very conceptual, and no calibration of the models used is yet possible.

5.4 Rail Noise Assessment

The rail noise assessment has considered the potential increase in noise on the Main Western Railway (MWR) line, as a result of the additional freight train traffic associated with the RDC. The assessment has considered an additional four (4) freight trains per day needed to supply the RDC. The predicted existing, and predicted future, $L_{Aeq,24hr}$ dB(A) noise levels have been provided referenced to an offset distance of 50m from the line. The assessment has indicated that increases

in existing noise levels would be minimal (ie $<L_{Aeq,24hr} 0.5dB$). The NIA indicates that the L_{Amax} level will not change. In terms of the L_{Amax} levels, NAU would accept this if the class of locomotive and rolling stock proposed currently uses the MWR. In terms of the predicted increases to $L_{Aeq,24hr}$ levels, whilst DEC is aware that the increase in noise level from the additional trains would generally be the same at other offset distances, the NIA contains no information about the actual or typical offset distances of residences from the MWR.

In this regard the assessment has not provided any information on the number of sensitive receivers currently affected by noise in excess of the criteria, and whether the number of residences impacted by noise in excess of the criteria would increase as a result of the increase in noise levels from the proposal.

It is advised that the predicted increase in rail noise level is of itself insignificant, however the actual impact in terms of whether additional residences will be affected by noise in excess of the criteria cannot be determined on the basis of the information provided.

In order to ensure that L_{Amax} levels do not increase, a mechanism to ensure that the rail service provider used does not use older noisier locomotives/rolling stock is needed. DEC is aware that environment protection licence (EPL) 3142 Condition L6.1 requires Australian Rail Transport Corporation (ARTC) to seek approval before allowing a class or type of locomotive, whether new or existing, that has not previously been operated on the NSW rail network or that has been substantially modified. Approval will be on the basis of the locomotive noise limits in the license.

However, the proponent has the ability to select a rail service provider using modern locomotives and wagons that have lower noise emission characteristics. DEC is aware of some proponents selecting a rail service provider that uses old locomotives, with substantially increased noise emissions, which resulted in noise impacts and complaints. The proponent has an opportunity to be proactive in the selection of the rolling stock servicing the development without placing reliance on the provisions in the ARTC EPL. A suitable condition has been recommended in this regard.

6.0 Construction Noise

The NIA contains a Construction Noise Assessment. The facility is estimated to take 2 years to complete and hence the applicable construction noise goal is for construction periods exceeding 26wks, which is essentially background (RBL) plus 5dB(A).

The predicted noise levels have assumed that all barriers adjacent to the rail siding and along the eastern boundary of the site are in place. Predicted construction noise levels at the residential areas are predicted to satisfy the construction noise goal once the barriers are in place. It is noted that there may be short term exceedance when the barriers are being constructed.

Exceedances of the construction noise goals are predicted for parts of the Nurragingy Reserve. Additionally, the road system in the reserve is proposed to be utilised for construction traffic. Consultation with the owners/managers of the reserve and users should be required prior to construction commencing.

A requirement for a Construction Noise Management Plan has been recommended.

7.0 Statement of Commitments (SoC)

DEC notes the Draft Statement of Commitments at Appendix A to the main EAR and makes the following comments;

- The physical noise mitigation measures and operational practices considered in the noise assessment are noted under s.3 of the SoC.

- The SoC indicates that an Environmental Management Plan (EMP) is proposed with noise considerations including a comprehensive monitoring program.
- The SoC notes at s15.3 that noise monitoring will be conducted to meet DEC requirements. Therefore conditions relating to DEC compliance assessment requirements remain relevant.
- The SoC does not appear to contain a commitment to achieve nominated noise levels. Therefore the noise limit conditions recommended below are relevant.

Air

DEC has reviewed the air quality impact assessment contained in the EAR and has the following comments.

1. Pollutants and Sources

Dust and particulate matter are the critical pollutants from the proposed plant. The air quality impact assessment has been conducted using USEPA and NPI emission factors. The emission factors have been based on the following dust control measures being in place:

- All road surfaces paved;
- Water sprays are be used on stock piles;
- Enclosed storage bins;
- Conveyors, and transfer points will be enclosed.

Concrete batching plant

- Enclosed conveyor belts;
- Cement products would be loaded using dust controls;
- A dry dust collection system would be used to control dust at a point where transit trucks are loaded and this area would be enclosed (three sides).

All of the controls and measures need to be implemented. The majority of the dust emissions are due to vehicle movements and is estimated at 53% of the total TSP, roads need to be paved.

2. Location

The proposed location and the topography of the facility are favourable as the site is surrounded by commercial facilities (steel works) M7 motorway and public reserves.

Dust & Particulate Matter predicted levels

Pollutant	Criteria		Predicted at receptor	Background	Combined
Dust g/m ² /month	2	4 max	0.2	3	3.2
PM ₁₀ Max	50		15	N/A	N/A
PM ₁₀ Annual Average	30		2	17	19
TSP Annual	90		5	45	50
PM ₁₀ 24 Cumulative	50		Highest at R5 52	48	52

3. Cumulative Impacts

The background PM₁₀ levels cause the exceedence in the cumulative impact. St Marys and Blacktown NSW DEC sites exceeded the PM₁₀, 24-hour goal on several occasions.

4. Dust impact on reserves

The potential for dust impacts on the Nurragingy Reserve when combined with the estimated background of 3 are on the border of the criteria of 4 g/m²/month. The area where there is the potential for impacts is close to the boundary of the facility and the natural border of the creek.

The potential dust impacts on the Aquilina reserve (soft ball venue) are low when combined with the background is estimated at 3.2 g/m²/month.

5. Dust controls need to be in place

The proposed dust control measures must be built and put into place.

Aboriginal Heritage

1. Aboriginal cultural assessment

The Readymix site is within the boundaries of three Aboriginal groups, the Deerubbin Local Aboriginal Land Council (DLALC), the Darug Tribal Aboriginal Corporation (DTAC) and the Darug Custodian Aboriginal Corporation (DCAC).

The Cultural Heritage report by Navin Officer Heritage Consultants Pty Ltd, which is included as an Appendix in the EAR, states that the DTAC and DCAC were involved in a cultural heritage assessment of the proposed development on 31 March 2005. There is, however, no written advice from DTAC and DCAC following their participation in the cultural heritage assessment. Furthermore, there is no documentation of the DLALC participating in a cultural heritage assessment over the proposed development or any written correspondence from them.

In order to adequately complete the Aboriginal cultural assessment it will be required to provide:

1. Written statements from the DTAC and DCAC based on their participation in the Cultural Heritage Assessment in March 2005; and,
2. A written statement from the DLALC following consultation with the group regarding the proposed development.

DEC's Interim Community Consultation Requirements can be downloaded from DEC website at http://www.nationalparks.nsw.gov.au/npws.nsf/Content/aboriginal_consultation_interim_guidelines.

2. Archaeological assessment

An archaeological survey of the proposed development area was undertaken by Navin Officer Heritage Consultants Pty Ltd in March 2005. No Aboriginal archaeological sites or areas of potential archaeological deposit were identified in the area. No further archaeological assessment is required.

If any Aboriginal relics are identified during earthworks for construction, work should cease immediately and the DEC contacted for further advice. This requirement should be incorporated into the Environmental Management Plan for the Readymix operation.

Flora and Fauna

Table 1 of the FFA lists the flora species that potentially occur in the study area, stating that there is no potential habitat for *Pimelea spicata* in the study area as this species is found in Grey Box Ironbark Woodland, and there are no Ironbarks on site. However, the lack of Ironbarks at a site does not preclude the existence of Grey Box Ironbark Woodland. In addition, the community once known as Grey Box Ironbark Woodland is now known as Cumberland Plain Woodland, which the FFA states is on site. Furthermore, the primary vegetation community in which *P. spicata* occurs is

Cumberland Plain Woodland, as stated in the draft Recovery Plan for the species (DEC 2004). It is noted that no targeted surveys for *P. spicata* have been undertaken on site. Targeted surveys should be undertaken using the random meander method, to establish whether the species occurs on site. Given the cryptic nature of the species, survey effort should consist of at least one hour per hectare of suitable habitat, at a time when other known populations nearby are known to be flowering. If a population of *P. spicata* is found in the area to be impacted, the proposal should be modified to avoid or reduce these impacts where possible. If this is not possible, as a last resort, a suitable package of compensatory measures should be proposed.

The DEC is currently preparing a Recovery Plan for the Endangered Ecological Communities (EECs) of the Cumberland Plain. As part of the recovery planning process, the DEC has mapped vegetation communities on the Cumberland Plain and undertaken a conservation significance assessment (CSA). Information on the vegetation mapping and CSA, including the guidelines and rule sets used for this assessment is now available on CD. See website www.nationalparks.nsw.gov.au for further information.

The CSA has identified that the site supports 'Core Habitat', 'Support to Core' and 'Other Remnant Vegetation'. The DEC estimates that the proposal will lead to the loss of approximately 0.6 hectares of Core Habitat, 0.25 ha of Support to Core and 0.7 hectares of Other Remnant Vegetation.

Until the Recovery Plan is prepared, the DEC's desired outcome for areas identified, as 'Core Habitat' and 'Support to Core' is 'no net loss of EECs'. This outcome may be achieved through off-setting (e.g. compensatory habitat) and/or rehabilitation/revegetation. If any direct or indirect losses of EECs are proposed, the SIS must demonstrate how 'no net loss' will be achieved. Trade-offs could include the purchase and/or restoration of areas off-site, which contain significant vegetation, at an appropriate off-set ratio (eg for every 1 ha of land impacted, 3 ha of land must be purchased or restored). It is noted that the proposal does not include any trade-offs for the loss of remnant vegetation, except for some revegetation of cleared areas outside the development footprint (p26). However, there are no details provided on the area to be revegetated or the vegetation community that will be recreated.

The DEC supports the mitigation measures listed on p26 of the FFA and recommends that they are included as conditions of consent, and suggests the following points are included:

- in regard to the recommendation that cleared areas outside the development footprint are to be revegetated, the DEC suggests that this revegetation occurs in accordance with the document "Recovering Bushland on the Cumberland Plain" (DEC 2005). This should include an assessment of the natural regeneration potential prior to revegetation, and the use of local seed stock in any revegetation.*
- in regard to the Vegetation Management Plan, the DEC recommends that this is implemented for at least five years and includes specific measures for the management of the remnants of Cumberland Plain Woodland and River-flat Eucalypt Forest on site.*

Attachment – B

Recommended approval conditions:

Noise

- N1.** Noise from the premises must not exceed the sound pressure level (noise) limits presented in the Table below. Note the limits represent the sound pressure level (noise) contribution, at the nominated receiver locations in the table.

Noise Limits (dB(A))

Noise Assessment Location	Morning Shoulder	Day	Evening	Night	
	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{A1} (1 minute)
Any residence in Station Street	39	44	44	39	53
Any residence in Crawford Road	40	40	39	39	53
Any residence in Mavis Street	35	35	35	35	53
Nurragingy Reserve*	When in use – L _{Aeq} 50 dB(A)				
Colebee Centre*	When in use – L _{Aeq} 50 dB(A)				
Blacktown Olympic Centre*	When in use – L _{Aeq} 55 dB(A)				

* For guidance in the selection of an assessment location, reference should be made to the NSW Industrial Noise Policy

- N2.** For the purpose of Condition N1:

- Morning shoulder period is a subset of the night period between 6am to 7am Monday to Saturday and 6am to 8am Sundays and Public Holidays. During this period the shoulder limits apply.
- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays,
- Evening is defined as the period from 6pm to 10pm
- Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays

- N3.** Noise from the premises is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the noise level limits in Condition N1 unless otherwise stated.

Noise from the premises is to be measured at 1m from the dwelling façade to determine compliance with the L_{A1} (1 minute) noise level in N1.

Where it can be demonstrated that direct measurement of noise from the premises is impractical, the DEC may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy.

The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.

- N4.** The noise emission limits identifies in condition N1 apply under meteorological conditions of:
- Wind speed up to 3m/s at 10 metres above ground level; or
 - Temperature inversion conditions of up to 3°C/100m and wind speed up to 2m/s at 10 metres above the ground.
- N5.** All construction work at the premises must be conducted between 7am and 6pm Monday to Friday and between 8am and 1pm Saturdays and at no time on Sundays and public holidays, unless inaudible at any residential premises.
- N6.** The proponent must prepare and implement a Construction Noise Management Plan (CNMP), prior to commencement of construction activities, that includes but is not necessarily limited to;
- (a) identification of each work area, site compound and access route (both private and public),
 - (b) identification of the specific activities that will be carried out and associated noise sources at each work area, site compound and access route,
 - (c) identification of all potentially affected sensitive receivers,
 - (d) the construction noise and vibration objectives identified in the EAR for construction periods greater than 26wks,
 - (e) assessment of potential noise and vibration from the proposed construction methods (including noise from construction traffic) against the objectives identified in the EAR for construction periods greater than 26wks,
 - (f) where the objectives are predicted to be exceeded an analysis of feasible and reasonable noise mitigation measures that can be implemented to reduce construction noise impacts,
 - (g) description of management methods and procedures and specific noise mitigation treatments that will be implemented to control noise and vibration during construction, including the early erection of operational noise control barriers,
 - (h) procedures for notifying residents of construction activities that are likely to effect their noise and vibration amenity,
 - (i) measures to receive, record and respond to complaints,
 - (j) measures to monitor and report against noise performance.
- N7.** A noise compliance assessment shall be undertaken within three months of commencement of operations at the premises. The assessment shall be prepared by a suitably qualified and experienced acoustical practitioner and shall assess compliance with noise limits presented in N1.
- N8.** A Train Noise Management Plan be developed and implemented by the proponent to ensure that feasible and reasonable noise management strategies for train movements associated with the facility are identified and applied, that include but are not necessarily limited to the following:
1. clauses in contracts with rail service provider(s) that require:
 - a) best noise practice in the selection, provision, and maintenance of locomotives and rolling stock
 - b) specific procedures for drivers for minimizing rail traffic noise impacts
 - c) driver training to ensure that noisy practices are not unnecessarily used near sensitive receivers
 - d) adherence of drivers and staff of the rail service provider to the reasonable directions of the proponent for minimizing noise, and effective disciplinary actions for breaches of the procedures.
 2. movement scheduling where practicable to reduce impacts during sensitive times,

3. a system of audited management practices that identifies non-conformances, initiates and monitors corrective and preventative action (including disciplinary action for breaches of noise minimization procedures) and assesses the implementation and improvement of the Train Noise Management Plan.

Dust

- D1.** The premises must be maintained in a condition, which minimises or prevents the emission of dust from the premises.
- D2.** All road surfaces within the premises must be paved.
- D3.** All conveyors and transfer points must be enclosed and have dust control measures installed. A dry-dust collection system must be used to control dust at a point where transit trucks are loaded and this area must be enclosed on three sides.
- D4.** All transfer, load-out and un-loading points must be enclosed and will include dust control equipment, including concrete mixing and rail transfer. Cement products must be loaded to silos pneumatically. All dust collection systems must be designed, built and operated to meet the particulate matter discharge limit of 20 mg/m³.
- D5.** All storage bins must be enclosed.
- D6.** Appropriate water spray systems must be installed on stockpiles.
- D7.** All paved areas must be swept as required by a permanently stationed street sweeper to minimise dust.