

11 September 2015

DETERMINATION REPORT
Resource Recovery Facility, Moorebank (05-0157)

1. Background

The project site is located on a former landfill facility in Moorebank, within the Liverpool local government area. It is approximately 4 kilometres southeast of Liverpool CBD and occupies approximately 20.5 hectares of land. Access to the site currently is via an 850 metre long unsurfaced access route off Newbridge Road. Additional vehicular access to the site is available from Brickmakers Drive, via a right-of-way over Council and other privately-owned land. The easement for the right-of-way is not yet registered on the title of land, however it was approved by the Land and Environment Court in August 2013.

The site is adjoined by the Georges River and its riparian areas to the immediate east and west. Further to the west is Georges Fair, a recently developed residential estate on the location of a former quarry. The completion of all dwellings in this estate is expected by 2016, with the nearest residence then to be located approximately 280 metres from the subject site. The New Brighton Golf Course is located directly to the south.

To the north of the site is a sand and gravel facility operated by Benedicts Industry. The southern portion of the Benedicts land directly adjoins the subject site and was previously granted consent for use as a marina. This decision was however overturned by the Land and Environment Court in a Class 4 appeal, based on the absence of contamination reports. The Department of Planning and Environment (the Department) has advised that an updated development application for a marina on the Benedict's site is expected to be lodged in the near future.

The previous use of the site for landfill, as well as its being bounded by the river, riparian areas and the golf course on three sides, with industrial uses currently to the north, results in the site being largely isolated. Limited accessibility compounds this isolation. On-site remediation has rendered the site suitable only for commercial or industrial uses.

The current application before the Commission for Moorebank Recyclers Pty Ltd (the Proponent) was lodged in January 2006. The application has however been subject to numerous delays including as a result of issues being identified by the Department in 2006 regarding proposed access arrangements off Newbridge Road. The Secretary then required the Proponent to obtain legal access via the future Brickmakers Drive. Negotiations with Liverpool Council and a neighbouring landowner regarding this access were settled by the Land and Environment Court in June 2013.

The Preferred Project Report was submitted to the Department in August 2013, with a final report addressing the Department's concerns submitted in April 2014.

2. Project description

The Proponent is seeking approval to construct and operate a materials recycling facility on the site. The facility would process up to 500,000 tonnes per year of masonry construction and demolition waste such as sand, bricks, asphalt and concrete for re-use in the construction industry.

The proposal was declared a Major Project under the now repealed Part 3A of the *Environmental Planning and Assessment Act 1979* in December 2005 because it is a resource recovery facility that handles more than 75,000 tonnes of waste per year.

The following amendments were made to the original proposal in the Preferred Project Report, responding to issues raised during the public exhibition of the proposal from 28 February 2013 to 5 April 2013:

- revisions to the site access arrangements from Brickmakers Drive, to accommodate the right of way granted by the Land and Environment Court in August 2013;
- changes to the perimeter bunds to provide additional visual and noise protection for the project; and
- reductions to the raw material stockpile height from 10 metres to 7 metres, to reduce the visual impacts of the project.

Following the Preferred Project Report, the Proponent submitted a noise addendum report in April 2014. This report included a proposal for noise barriers on the private haul route, to provide additional noise mitigation to the future residents of Georges Fair.

3. Delegation to the Commission

On 1 May 2015, the Department referred the application to the Planning Assessment Commission (the Commission) for determination under the Ministerial delegation of 14 September 2011, as more than 25 objections had been received to the proposal (including an objection from Liverpool Council).

Ms Lynelle Briggs AO, Chair of the Commission, nominated Mr Garry West, Ms Abigail Goldberg and herself to constitute the Commission to determine the application.

4. Secretary's Environmental Assessment Report

The proposal, as amended, has been assessed by the Department in the Secretary's Environmental Assessment Report. The key issues considered in the report were:

- access and traffic;
- noise;
- air quality;
- flooding; and
- visual amenity.

Other issues assessed by the Department included surface water, contamination and groundwater, biodiversity, property values, sewerage, Aboriginal heritage, streetscape, developer contributions, socio-economic impacts and geotechnical issues.

The Department concluded that the project has significant benefits, and that its impacts and land use conflicts can be managed to an acceptable degree. Approval was recommended subject to strict conditions. These conditions include:

- ongoing management of traffic impacts, including the preparation of traffic management plans and a prohibition on the use of Maddecks Avenue and Governor Macquarie Drive as haul routes;
- limits on noise emissions and a range of noise mitigating measures, including physical barriers, the preparation of a noise management plan and ongoing noise monitoring;
- limits on air emissions and a range of air impact mitigating measures, such as site stabilisation and water sprays on the exposed soil and process operations, the preparation of an air quality management plan and ongoing air quality monitoring;
- impact mitigation measures relating to flooding offsets, stormwater, biodiversity offsets, visual amenity, landscaping, landfill cap management, sewerage management and Aboriginal heritage management; and
- periodic environmental reviews and independent audits of the project every three years.

5. Commission meetings and site visits

Meeting with Liverpool City Council

On 1 June 2015, the Commission met with senior officers from Liverpool Council. Council staff presented their justification for opposing the proposed development, including inconsistencies with the current strategic intentions for the area. Concerns were also raised regarding access to the site, traffic, flooding, waste water and air quality. A more detailed record of this meeting is attached as **Appendix 1**.

Following the public meeting, additional written comments were received by the Commission from Liverpool Council.

Site visit and meeting with the Proponent

On 1 June 2015, the Commission met with representatives of the Proponent at the project site in Moorebank. A record of this site visit is attached as **Appendix 2**.

Public meeting

On 1 June 2015, the Commission held a public meeting at the Bankstown Golf Club in Milperra. 35 registered speakers presented at the meeting (a list of speakers is included at **Appendix 3**). All spoke against the proposal. The Commission acknowledges the matters raised at this meeting, and was concerned that many of those presenting appeared to have purchased properties without full knowledge of the zoning and permissible land uses on the site. However, the responsibility for due diligence in this situation rests with the purchasers themselves.

A list of the issues raised at the public meeting and a summary of comments is provided in **Appendix 4** of this Report.

Meeting with the Department

On 2 June 2014, the Commission met with representatives from the Department. The Department provided an overview of, and background to, the project and the Commission outlined the main issues raised at the public meeting. Additional information on and clarification of these issues was requested from the Department, with a response subsequently received on 20 July 2015 (see **Appendix 5** for meeting notes and the Department's response).

Additional inspections

On 12 June 2015, the Commission visited the locations of two existing resource recovery facilities at Camellia and Wetherill Park. The facilities were observed from public land surrounding the sites.

Meeting with Roads and Maritime Services

On 21 August 2015, the Commission met with representatives from the Roads and Maritime Services to discuss traffic concerns relating to the intersection of the proposed new link road with Brickmakers Drive. The discussion was largely around options for traffic management at this intersection. A record of the meeting is attached as **Appendix 6**.

6. Commission's consideration

On the basis of the information available to the Commission, the following matters have been considered of key concern:

Permissibility of land use

A number of speakers at the public meeting raised concerns regarding the permissibility of the proposed use, as well as the potential land use conflict between the proposed use and the surrounding residential area (particularly the Georges Fair estate to the west of the site which is nearing completion).

The Commission notes that under *Liverpool Local Environmental Plan 2008* (LEP 2008) the site is zoned EN2 *Environment conservation*. Under Clause 11 of Schedule 1 of the LEP a resource recovery facility is permitted with consent on the site, as long as consent is granted prior to 1 September 2018. There is no restriction on how long the use can operate once consent is granted. The access handle to the site is zoned SP2 *Infrastructure* (drainage) and the right of way access is zoned partly R3 *Medium residential* and partly E2 *Environment conservation*. Roads are permissible with consent within these zones.

Since gazettal of the *Liverpool LEP 2008*, Council has changed its vision for the area from employment-based uses, to residential and recreational land. In its submission to the Commission, Council explains that the proposed development is in its view incompatible with the existing and future land use pattern in the vicinity of the site.

The Commission understands that the current land use permissibility is a key consideration and notes that the land use is consistent with the State's strategic and statutory context, including the NSW 2021 and *A Plan for Growing Sydney*. The Commission has also taken note of the isolation of the site, and the constraints on its use resulting from this as well as its previous use for landfill.

The Commission's view is that the proposed development is permissible under the *Liverpool LEP 2008*, and congruent with the strategic and statutory context, and can therefore be supported, subject to acceptable impacts on the community and local area. These impacts are considered below.

Road access and traffic

Council's representatives and speakers at the public meeting expressed concerns regarding the access route via Brickmakers Drive.

The Commission acknowledges and shares concerns regarding traffic at this proposed intersection. The Commission understands that access to the site is challenging, and the proposed intersection location has specific challenges, such as sight distance which is hindered by both vegetation along the roadside and the bend in the road. Other possible locations for site access would however also have challenges, including the need to clear substantial amounts of riparian vegetation.

The 5 tonne limit on Brickmakers Drive adds to the challenge of locating an entrance. The Commission notes Liverpool Council's decision to impose this limit, which prevents vehicles exiting the site from turning left on to Brickmakers Drive.

The Commission notes that the Proponent also raised concerns with sight distance at the proposed intersection with Brickmakers Drive, and was prepared to pay for the installation of traffic signals at the intersection. This would provide time for laden trucks turning right out of the site adequate time to make the turn. Roads and Maritime Services however state that forecast traffic volumes along Brickmakers Drive do not warrant the installation of traffic signals.

Roads and Maritime Services nevertheless outlined other intersection options, such as the installation of a roundabout. Roads and Maritime Services advised the Commission that this would be the safest and most appropriate way to control traffic at the Brickmakers Drive intersection. The Commission accepts the Roads and Maritime Services advice, and has included a condition (Condition C21 Schedule C) that a roundabout or suitable alternative treatment be designed and constructed at the intersection in accordance with AS 2890.1 – 2004 and AS 2890.2 – 2002. The design of the intersection treatment is to be undertaken in consultation with the Proponent, Liverpool City Council and Roads and Maritime Services. In addition to this, the Commission also considers that the intersection control treatment options shall consider the grade, alignment and level of the bridge and associated ramps, which provides access to the site and the adjoining property, operated by Benedicts Industry. The Commission notes that there may need to be some adjustment to the noise barriers that are to be installed to accommodate the intersection control, and subsequently has amended Condition C14 Schedule C. The design of the roundabout or suitable alternative treatment shall be based on the most recent traffic data, and shall ensure that traffic slows and adequate sight distances are able to be met.

Air quality and health concerns

Concern was raised at the public meeting regarding the accuracy of air quality data provided by the proponent and the risk of silicosis to the community and the potential for waste arriving on site to be contaminated with asbestos.

The Commission notes that the Environmental Protection Authority (EPA) has reviewed the proposal and not raised any issue with the Proponent's air quality assessment. Having received further clarification from the Department, the Commission understands that the predicted impacts are within the maximum applicable criteria for particulate matter up to 10 micrometres in size; as well as the maximum criteria for total suspended solids and dust deposition. While NSW does not specifically regulate silica emissions, the projected impacts would be below the Victorian maximum criteria for respirable crystalline silica for particulate matter 2.5 micrometres in size.

The Proponent drew to the attention of the Commission the Work Cover Guide, Management of asbestos in recycled construction and demolition waste, and its compliance in its auditable procedure to screen incoming waste loads.

The Commission is satisfied that a comprehensive analysis of the air quality impacts associated with the proposal has been undertaken by the Department. The recommended conditions of consent relating to air quality control provide appropriate emissions limits and require suitable management practices.

Noise impacts

The potential noise impact of the development is an issue that was raised in the written submissions and at the public meeting. The Secretary's Environmental Assessment Report

explains that the proposed development would comply with the relevant noise criteria, with the exception of truck noise impacts on residential receivers in the vicinity of the private haul road to Brickmakers Drive. These receivers may experience a minor exceedance of 1dBA during day time adverse meteorology.

At the public meeting and in a written submission, EMM (an environmental and planning consultancy) raised issues with the Department's noise assessment. The primary concerns were:

- the assessment criteria were too high (with the consequence being that the predicted noise impacts from the project were non-complying); and
- additional noise mitigation was necessary to ensure the project complies with the lower criteria.

Following the public meeting, the Commission requested that the Department reconsider the potential noise impact of the project and the EMM submission in particular. In summary, the following response to this request was provided to the Commission:

- the Department has considered the changing land uses in the area and has consequently been highly conservative in its approach to calculating noise assessment criteria for the project.
- the Department has calculated variable intrusive criteria, which are lower than other criteria than could be applied under the Industrial Noise Policy.
- the Department's in-house noise expert reviewed EMM's submission and advised that the recommended noise mitigation measures are based on an incorrect assessment of non-compliance with noise criteria.
- the Department consulted with the Manager of the EPA'S Noise Assessment Unit. In summary, the EPA does not agree with the findings of the EMM report, and notes that EMM's opinion does not reference empirical data, calculations or theoretical reasoning.
- given that neither the Department's noise expert nor the EPA agree with EMM's lower noise criteria, the Department does not accept that additional noise mitigation is necessary.

Based on the above advice received from the Department and EPA, the Commission considers that the noise impacts of the proposed development are acceptable, subject to the conditions recommended by the Department.

The Department's advice, as well as an accompanying letter from the EPA, is provided at **Appendix 5**.

Flooding

Council raised concern in relation to the proposed pump-out of sewage on flood prone land. Council's view is that the site should be connected to a reticulated sewer. The Department has advised however that once the bulk earthworks for the site are completed, the site will be at or slightly above the level of 1:100 year flood and no longer flood prone.

The Commission accepts the Department's advice and recognises, moreover, that the proposed use would have limited requirement for staff amenities. Therefore, additional sewage infrastructure is considered unnecessary.

Other issues

A number of other matters were raised in written submissions and by speakers at the public meeting. These are addressed below:

Issues	Commission's response
Onsite parking is insufficient.	The provision of 16 on-site parking spaces for 25 employees exceeds Council's requirement for one space per two employees and is considered acceptable.
Visual impacts are excessive.	The Commission notes that it is proposed to increase the western bund from 4m to 6m and the northern bund from 4m to 8m to provide additional visual shielding of the project. There is moreover dense vegetation to the west of the site, which together with the bund will provide adequate screening for Georges Fair. Views from the south are obscured by the New Brighton Golf Course.
Sale process of the site	This matter is not a relevant consideration for the Commission in its merit-based assessment of the application.
Stockpile height discrepancy	The Department has clarified the Commission's concern regarding discrepancies in stockpile height. The Secretary's Environmental Assessment Report referring to height above ground level, while the recommended conditions refer to height above the Australian Height Datum (AHD). The Commission notes that height above AHD is more precise for future compliance monitoring
Construction vehicles access from Newbridge Road	The Commission has been advised by the RMS and Department that turning left from the middle lane is a lawful manoeuvre. Construction vehicles would only use the driveway off Newbridge Road while the new access from Brickmakers Drive is being constructed.
Alternative sites for the project	Council has identified a number of 'alternative sites' for the project, however the Commission notes that these are all under private ownership and in some cases closer to private residences than the subject site in Moorebank. The Commission is moreover required to undertake an assessment of the current application in hand, taking into account existing zoning of the site and neighbouring locations.


7. Commission's Determination

The Commission has carefully considered the proposal, as well as the Secretary's Environmental Assessment Report and recommended conditions of consent, and supplementary information provided by the Department subsequent to the public meeting. All written and verbal submissions have been considered along with other information available to the Commission.

Taking this into account, the Commission considers the project to be supportable as the land use is consistent with the *Liverpool LEP 2008* and other NSW government strategic and statutory planning documents. Having regard to the relevant issues, the Commission finds

that the environmental and amenity impacts can be adequately mitigated or managed by stringent conditions of consent.

The Commission has therefore determined to approve the project, subject to the conditions recommended by the Department, the condition C14 as amended and supplementary condition C21 regarding the construction of a roundabout or suitable alternative treatment at the intersection of the link road and Brickmakers Drive.



Lynelle Briggs AO
Commission Chair



Abigail Goldberg
Commission Member



Garry West
Commission Member

MEETING NOTE

This meeting is part of the Determination process.		
Meeting note taken by Tatjana Djuric-Simovic	Date: Monday, 1 June 2015	Time: 11:10am
Project: Materials Recycling Facility at Moorebank		
Meeting place: Council's office at 33 Moore Street, Liverpool		
Attendees: PAC Members: Ms Lynelle Briggs AO, Ms Abigail Goldberg, & Mr Garry West PAC Secretariat: Tatjana Djuric-Simovic & Kate Wedgwood Liverpool City Council: Carl Wulff (CEO), Toni Averay (Director, Growth and Planning); Taylar Vernon (Senior Development Planner, Development Assessment), Bruce Macnee (Manager, Strategic Planning), Ash Chand (Executive Planner, Strategic Planning), Murray Wilson (Senior Strategic Planner, Strategic Planning), Maruf Hossain (Team Leader, Drainage and Floodplain), Lina Kakish (Manager, Development Assessment), Charles Wiafe (Service Manager, Traffic and Transport), Anthea Hall (Manager, Marketing and Communications), Jan McCreddie (City Architect, Strategic Planning), Ian Lacy (Legal Services Coordinator, Governance and Legal Services) and Rajendra Autar (Director, Infrastructure and Environment).		
The purpose of the meeting is to discuss Council's view of the Secretary's Report and other issues raised in Council's past submissions to the Department.		
Council raised the following issues: <u>Strategic planning</u> <ul style="list-style-type: none"> The area alongside the Georges River is undergoing regeneration. Changes are occurring from industrial into residential uses, with the intention of reactivating and revitalising the riparian corridor. While permitted by the current zoning, the proposed development is at the 'wrong' site and incompatible with current strategic thinking for Moorebank. Council is willing to work with the Proponent to find alternative site for the relocation of the facility. <u>Residential amenity</u> <ul style="list-style-type: none"> Noise, odour and dust impacts have not been adequately addressed in the Proponent's application. The Proponent has not adequately considered the issue of trucks accelerating. <u>Road Access</u> <ul style="list-style-type: none"> Council raised concerns regarding the proposed access to the development as Brickmakers Drive is already congested and would be rated F if the proposal is approved. Brickmakers Drive is primarily for residential use with roundabouts and a 5 tonne limit for general traffic. The Proponent should have updated the traffic report dated 2008. Predicted number of vehicles will cause problems in peak hours. Residents oppose trucks going through local, residential streets. Truck movements during the construction phase will cause congestion at Newbridge intersection where there are already long queues. The access to Brickmakers Drive is too close to Newbridge to be signalised. The proposed location of the access road is prone to flooding. <u>Environmental protection</u> <ul style="list-style-type: none"> Council does not support onsite sewage treatment. Bankstown Council believes the proposal to be located too close to the river. There is a risk that contaminated demolition waste materials will be discharged into the river. 		

- Council would like to see supplementary visual montage material to be assured that the bunds will provide proper screening. While rezoning has not proceeded, the potential future marina and residential area to the north should be protected from noise.

Documents tabled at meeting: Liverpool and Bankstown Councils' written submissions.

Outcomes/Agreed Actions: Council to provide further information on the proposed use of land to the west of the subject site and on already approved development application for landfill at the site.

Meeting closed at 12:20pm

Appendix 2

MEETING NOTE

This meeting is part of the Determination process.		
Meeting note taken by Tatjana Djuric-Simovic	Date: Monday, 1 June 2015	Time: 1:15pm
Project: Materials Recycling Facility at Moorebank		
Meeting place: The project site at Moorebank		
Attendees: PAC Members: Ms Lynelle Briggs AO, Ms Abigail Goldberg & Mr Garry West PAC Secretariat: Tatjana Djuric-Simovic & Kate Wedgwood The Proponent: Brent Lawson (Concrete Recyclers), Anthony Males (Concrete Recyclers), Neil Kennan (Nexus) and Mikie Ritchie (MRA Consulting Group)		
The purpose of the meeting is to visit the project site and receive comments from the Proponent on the Secretary's report.		
<ul style="list-style-type: none"> • The Commission visited several positions on the site to appraise the potential visual and other impact of proposed development. • The Proponent briefly described the history of the site and strategic planning framework, including traffic. The Proponent noted that access to the site has always been an issue. • The Proponent commented that the flood study was undertaken in 2006 and assessed the site as having 10ml impact, but Council requested nil impact. • The Proponent claimed the strategic importance and location of the development as being only one of a dozen similar facilities in the metropolitan region for demolition waste recycling. • The Proponent confirmed that the traffic study was updated in the Preferred Project Report. • The Proponent noted that the earth bunds are based on flood levels and no water will leave the site. The Proponent claims that onsite sewage treatment will be acceptable as not much sewage will be generated at the site. • The Proponent confirmed that no mixed waste including putrescible items or contaminants such as asbestos will be processed at this location, but only aggregate stream such as concrete or bricks. 		
Documents provided at the site visit/meeting: Nil.		
Outcomes/Agreed Actions: The Proponent to provide the PAC with the protocol they follow to ensure asbestos is not received at a recycling facility.		
Meeting closed at 2:15pm		

Appendix 3

List of Speakers

PLANNING ASSESSMENT COMMISSION MEETING MATERIALS RECYCLING FACILITY, MOOREBANK

Date: Monday 1 June 2015, 3pm onwards

Place: Bankstown Golf Club, 70 Ashford Avenue, Milperra

Speakers:

- | | |
|--|---|
| 1. Liverpool Council, Ned Mannoun - Mayor | 19. Randhir Singh |
| 2. Melanie Gibbons MP | 20. Parthasarathi Guha |
| 3. Mark Sawyer | 21. Bin Zhu |
| 4. Moorebank Residents Action Group, Fiona Macnaught, President | 22. Sue Dwyer |
| 5. Denise Pianta | 23. Tim Horder |
| 6. Residents Against Intermodal Development Moorebank, John Anderson, Chairman | 24. Benedict Industries & EMGA Mitchell McLennan, Paul Mitchell & Najah Ishac |
| 7. Rebekah Foxe | 25. Ashton Main |
| 8. Craig Kelly MP, Federal Member for Hughes | 26. Richard Main |
| 9. Victor Tan | 27. Helen Birrell |
| 10. Annette Mulliner | 28. Michelle Wilson |
| 11. Troy Trgetaric | 29. Mark Sutton |
| 12. Maxine Trgetaric | 30. John Borello |
| 13. Katherine Hammill | 31. Jeff Russell |
| 14. John Blakeney | 32. Ron Sewall |
| 15. Gregory Willmott | 33. Mark Grabe |
| 16. Anthony Iacovella | 34. Robert Lukunic |
| 17. Ernest Dupere | 35. Bankstown Council, Naji Peter Najjar - Councillor |
| 18. Wayne Mamo | |

Appendix 4

Key Issues Raised at the Public Meeting

The key issues raised by the speakers and their summarised comments are as follows:

- Strategic planning framework: A number of speakers claimed that the character of the area has been transformed during the last decade, since the then quarry and industrial area was rezoned for residential use. New residents in the area were not aware of the proposed Materials Recycling Facility.

Some of the speakers expressed their support for recycling in general, but not in their neighbourhood. Residents expressed their support for the residential/marina development proposed at the Benedict Industries site, north of the subject site.

Council has invested in river revitalisation and would like to develop the riparian corridor including an accessible, recreational boardwalk along the Georges River. The owner of the currently operational recycling facility adjacent to the site suggested that it was time to transform the industrial land into residential and recreational uses.

Many speakers claimed that the enabling, sunset clause in the Council's LEP suggested that resource recovery facility was supposed to be permissible for a limited time only, until 2018.

It was suggested that there should be a cumulative impact study of roads to include the impact of approved concept plan for the SIMTA Intermodal facility and the other intermodal facility proposed for the area.

- Traffic impact was of major concern, in particular the access to Brickmakers Drive and the intersection of Brickmakers Drive and Newbridge Road. It was suggested that traffic congestion is already evident and that the existing road capacity cannot support the proposed development. Some of the speakers raised concerns regarding the traffic impact on the nearby local school during pick up/drop off times,

One speaker suggested that the Traffic Impact Assessment is biased, based on flawed premises and designed to downplay the hazard of trucks movement.

A speaker questioned whether the proposed restriction to use Governor Macquarie Drive can be imposed in reality.

- Air quality and health concerns: The issues of dust, odour and air pollution were raised. Some of the speakers questioned the ability of the compliance regime to prevent asbestos being brought to the site and the proper control of watering the material to minimise dust emissions.

Many speakers expressed their concerns that their health would be detrimentally affected by the proposed development, and that particulate matter PM 2.5 was not mentioned nor modelled in the Secretary's Report. It was called for testing of particulate matter at the already operational recycling facility at Camellia.

The air quality assessment report provided by the Proponent was questioned. It was suggested that the methods used to assess air pollution caused by proposed development were not approved by the NSW Environmental Protection Authority. One speaker suggested that emission pollutant from diesel trucks has not been taken into consideration.

A Councillor from Bankstown Council raised concerns of air pollution (asbestos, silica, and dust) being carried by wind across the river to Bankstown local government area.

- Noise impact and health concerns: It was suggested that the noise assessment is inadequate and outdated and does not consider new receivers in the area. The proposed hours of operation are unacceptable. Many speakers were sceptical towards compliance and monitoring regimes set out in the proposed conditions of the development consent. The exceedance of the noise levels was of concern.

One speaker raised an issue of the noise created by the regular use of street sweepers.

A consultant, who spoke on behalf of adjacent landowners/businesses, claimed that the noise criteria provided in the Proponent's noise assessments was based on flawed background noise levels. The Proponent's predicted noise levels at the existing Georges Fair residential development will exceed the noise criterion of 39dB by up to 14dB. The consultant also claimed that on certain locations, the background noise is 13dB lower than what was stated in the Secretary's Assessment Report.

- Visual and landscape adverse impacts were of major concern. The effectiveness of vegetation screen plantings and monitoring of the maximum height for stock piles were questioned. The photographs in the Secretary's Assessment Report were said to be misleading.
- Waterways and flooding: Many speakers expressed concern that pollutants may enter Georges River or may end up in residents' water tanks. One speaker raised the issue of flooding and potential hazard of stockpiles ending in the river which would be carried downstream and detrimentally affect many more residents.

Council assessed this area as a high flood risk zone and is concerned by storm water run-off.

- Compliance management: Comments were made that it would be impossible to guarantee that processed waste would not contain asbestos, trucks would use only preferred routes or that the permissible noise would not be exceeded. The risk of landfill methane gas was raised by one speaker.
- Political environment and the planning system: Some of the speakers claimed that the Proponent donated to the Australian Labour Party in return for an enabling clause in the Liverpool Local Environmental Plan 2008 and declaring the project major State development. The independent status of the Commission was questioned and the issue of conflict of interest was raised.

It was suggested that the assessment system was flawed and undemocratic considering that the Department recommended approval after receiving more than 1000 objections. It was said that the Secretary's Report is amateurish, relying on studies commissioned by the Proponent only, without independent assessment. Director General Requirements for this proposal were issued in 2008 and since then the planning policies have been changed.

- Property values: It was suggested that the properties in Georges Fair would be devalued if this project is approved.

Many speakers claimed that they were unaware when buying their houses that land across the road could be developed for a resource recycling facility.

Appendix 5

MEETING NOTE

This meeting is part of the Determination process.		
Meeting note taken by Tatjana Djuric-Simovic	Date: Tuesday, 2 June 2015	Time: 9:30am
Project: Resource Recovery Facility at Moorebank		
Meeting place: PAC's Office		
Attendees: PAC Members: Ms Lynelle Briggs AO & Mr Garry West PAC Secretariat: Tatjana Djuric-Simovic & Kate Wedgewood The Department: Chris Richie, Dan Keary and Pamela Morales		
The purpose of the meeting was to discuss the proposal and the issues raised at the public meeting.		
<ul style="list-style-type: none"> - The Chair briefly outlined the issues raised at the meeting with Liverpool Council and the public meeting. The area changing character, from industrial to residential, was discussed. - The Department provided some historical background to the project and reasons why the application for a recycling facility at the subject land has been delayed for many years. - The road access from Brickmakers Drive was discussed as well as likely future development at the current Benedict's Industry site. - The Commission asked for clarification of the methodology for measuring background noise and limit exceedance by 14 dB that was questioned by EMM Consultancy. The Secretary's Report identified only one residential receiver location with a minor non-compliance of 1dBA. - The Department's team confirmed that the volume of the truck traffic during construction phase was not specified. The issue of the access from Newbridge Road was discussed. - The option to reduce the permissible amount of waste to be processed was discussed. - The Commission advised that Liverpool Council was committed to find an alternative site in discussion with the Applicant. 		
Documents provided at the meeting: Nil.		
Outcomes/Agreed Actions: The Department to provide full site history and further clarification on the issues of on-site sewage treatment and already approved development application for landfill/earthworks. The Department will also comment on the submission received from the EMM Consultancy dealing with the traffic and noise.		
Meeting closed at 10:15am		

Correspondence from the Department of Planning and Environment
20 July 2015

ADDITIONAL INFORMATION

Materials Recycling Facility, Moorebank (05-0157)

1. INTRODUCTION

This report provides information responding to requests from the Planning Assessment Commission (PAC) following its consideration of the Department's assessment report and its public meeting in relation to the Moorebank Materials Recycling Facility.

2. SUMMARY OF THE DEPARTMENT'S ASSESSMENT

The project application seeks approval for a building materials recycling facility, which would recycle up to 500,000 tonnes of building waste per year for re-use in the construction industry, on the site of a former landfill in the suburb of Moorebank.

The over-riding concern in 1,351 public objections to the project is that an industrial facility is incompatible with the newly establishing residential and recreational character of the area because of its potential traffic, noise, visual and air quality impacts.

The Department's assessment of the project recognised the potential for land-use conflicts with existing and planned land uses in the surrounding area. The assessment accounted for residential and recreational land uses that presently do not exist, but are planned by way of land use zones in the *Liverpool Local Environmental Plan 2008* (LEP 2008). The Department's assessment of these impacts to future uses, which concluded that all relevant amenity and environmental criteria could be met, was supported by the Environment Protection Authority and Roads and Maritime Services.

The Department's assessment also recognised that the project is consistent with the NSW Government's *Waste Avoidance and Resource Recovery Strategy 2014-2021*, which aims to improve resource recovery in all waste sectors, including construction and demolition waste. The project represents 7% of the State's 2010-11 recovery performance in the construction and demolition waste sector.

The Department's assessment noted that the proposal was a permissible land use under LEP 2008 and identified as an appropriate land use in Council's 2002 structure plan for the area. The assessment also concluded that the proposal met all relevant amenity and environmental criteria for both existing and planned future uses nearby, and would have significant benefits, particularly for the construction industry.

3. CONSIDERATION OF MATTERS RAISED BY THE PAC

The Department received a number of requests for additional information from the PAC following its public meeting on 1 June 2015. In the Department's briefing on 2 June 2015, the PAC requested the Department to provide additional information on :

- the potential land use conflicts resulting from the pattern of land use zones and strategic planning in the area.
- the extended delay between submission of the application in 2006 and the Department's referral to the PAC in 2015; and
- planning, noise and traffic issues raised in a submission prepared by EMM and tabled at the PAC's public meeting (see **Tag A**);

The PAC also raised a range of project and site specific issues in a number of emails to the Department following the public meeting.

3.1 Land use conflicts and the changing character of the area

During the PAC's public meeting, the community raised issues about the suitability of the site for the project given much of the planned residential development in Georges Fair has occurred since the project application was lodged, and that the strategic planning for the area is focused on residential, recreational and environmental conservation uses. In some submissions from the community, the 1 September 2018 repeal date for the enabling clause applying to the site in Schedule 1 of LEP 2008 (which makes the proposal permissible with consent) was considered to indicate that the proposal should only be a temporary use.

The enabling clause for the site does not include provisions which limit the maximum duration of the proposed use. For comparison, the clause at Item 1 of Schedule 1 specifies a period of 3 years for industrial development of certain rural land at Bringelly. However, there are no such specifications in the enabling clause for the proposed facility. If approved before 1 September 2018, the facility could operate for the duration of its natural economic life. This is the basis of the Department's assessment of the project.

The Department's assessment included consideration of impacts from the project to land uses that are indicated by the pattern of land use zones in the area. For the project site itself, while zoned E2 Environmental Conservation, the former landfill does not have strong ecological, scientific, cultural or aesthetic values. The ability to restore such values to the site would be highly constrained by the need to maintain the landfill cap.

3.2 Delays in the assessment of the project application

The assessment of the project application was delayed primarily as a result of the Proponent's negotiations with Liverpool City Council and a neighbouring landowner regarding legal access to the project site.

The matter was finally settled with the Land and Environment Court making an order under Section 88K of the *Conveyancing Act 1919* on 27 June 2013 that Council provide owner's consent to the lodgement of the project application, and subsequently grant the Proponent a legal right of way from Brickmakers Drive to the existing driveway to the project site.

Despite the original project application being lodged in January 2006, the Proponent was unable to finalise a Preferred Project Report until August 2013.

2006 to 2008 – Roads and Maritime Service deny access to Newbridge Road

During the Department's Planning Focus Meeting for the project in February 2006, Roads and Maritime Services identified issues with the existing driveway from the project site to Newbridge Road. Essentially, the driveway was too close to Governor Macquarie Drive and Roads and Maritime Services indicated it would not support new access for the project.

At the time, the land that became Georges Fair and Brickmakers Drive was under Boral's ownership and in the planning phase for redevelopment. The planning for the site included a link road between Nuwarra Road and Newbridge Road, which later became Brickmakers Drive. The plan also included an access point off Brickmakers Drive to land to the east (i.e. Benedict's quarry), which was planned for residential and recreational uses.

This access point presented an opportunity as an alternate access to the project site. Consequently, the Department issued Secretary's Environmental Assessment Requirements for the project in August 2006 and these requirements required the Proponent to obtain and present evidence of legal access via this access point.

By late 2008, the access point was in Council's ownership (except for the part that traversed the Proponent's access driveway) and in early 2009, Council provided its landowner's consent to the Project Application (See **Tag B**).

2008 to 2013 – proceedings in the Supreme Court to secure right of way

However, it is understood that reciprocal access agreements between Council, the Proponent and Benedict subsequently broke down. The first of a number of Court proceedings about access commenced in the Supreme Court in 2008.

In three judgments between 2008 and 2012, Benedict secured a legal right of way over the Proponent's driveway for the construction of a road bridge from the access point to its land east of Brickmakers Drive.

However, in these proceedings, the Proponent contended that Benedict's road bridge design would inhibit access to the site of the proposed materials recycling facility (inhibiting the Proponent's legal access to the project site). During the proceedings the design of the road bridge changed, resulting in the need to use additional adjoining land owned by Council.

In the intervening time, Council sought to reverse its earlier landowner's consent to use the access point in the project application. By resolution dated 15 June 2011, Council stated that approval would not be given for legal access to Brickmakers Drive for the project.

Consequently, following the Court's judgment in 2012, the Proponent commenced further proceedings to secure the necessary owner's consent and right of way from Council to construct the revised access design. Biscoe J delivered judgment on 27 June 2013 granting the Proponent the right of way.

2013 to Present – The Proponent submits a Preferred Project Report

Upon obtaining a court order for legal access to the site, the Proponent was able to submit a Preferred Project Report (PPR) for the project application to the Department in August 2013. The PPR was publicly exhibited in October and November of 2013.

The exhibition of the PPR revealed issues with part of the Proponent's noise impact assessment. As explained in the Department's assessment report, neither the Department or the Environment Protection Authority (EPA) were satisfied with the Proponent's approach to noise assessment as it did not adequately take into account the future residential development of Georges Fair and surrounding land.

The Department sought additional information from the Proponent on this matter and the Proponent provided additional reports with the final report being submitted in 9 April 2014. Following this submission, the Department and the EPA remained dissatisfied with the Proponent's assessment and spent time reconciling the Proponent's technical data with the requirements of the Industrial Noise Policy as part of its ongoing assessment.

In the intervening time, the Sydney West Joint Regional Planning Panel (JRPP) approved an application for a marina on land adjoining the Project site. The Department sought further information from the Proponent to address cumulative impacts from the marina and the project, particularly in relation to noise and traffic issues. The Proponent provided this report 20 October 2014.

The Department's normal major project assessment time frames sustained considerable delays as a result of ongoing issues regarding access to the site, and the need to ensure the assessment of the project adequately reflected the configuration of the land uses planned for the surrounding area.

Despite these delays, the Department has ensured that its assessment and recommendations are based on relevant contemporary information in the PPR and subsequent reports submitted by the Proponent in the 18 months prior to the matter being referred to the PAC.

3.3 Issues raised in the EMM submission to the PAC (planning, noise, traffic)

EMM tabled a submission to the PAC at the public meeting. The submission raised three main topics of concern relating to planning, noise, and traffic impacts (see **Tag B**).

3.3.1 Planning matters raised in the EMM submission

The submission identified a number of policies that have been introduced since the project application was lodged. Each of these policies were either considered in the Department's report or not relevant to the proposal, as outlined below:

- the NSW Government's Metropolitan Strategy (A Plan for Growing Sydney) is discussed in Section 3.2 of the Department's report;
- the Road Noise Policy (2011) is assessed in Section 5.2;
- the Interim Construction Noise Guidelines (2009) is assessed in Section 5.2;
- Applying SEPP 33 – Hazardous and Offensive industry is assessed in Appendix G;
- the lower Georges River catchment is not part of the declared Sydney drinking water catchment in *State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011*. The Georges River is tidal for several kilometres upstream of the site (to the Liverpool Weir);
- *State Environmental Planning Policy (State and Regional Development) 2011* does not apply to transitional Part 3A projects; and
- the issues relevant to the Georges River Coastal Zone Management Plan (2013) are discussed in Sections 5.4 and 5.6. These issues include impacts to water quality, water quality monitoring, erosion, sedimentation and flooding.

3.3.2 Noise impact matters raised in the EMM submission

The submission raised two main issues with the Department's noise assessment. These issues were that the assessment criteria were too high and therefore the predicted noise impacts were non-complying, and that additional noise mitigation was necessary to ensure the project complies with lower assessment criteria.

The calculation of noise criteria

The Department has been highly conservative in its approach to calculating noise assessment criteria for the project. The Industrial Noise Policy (INP) sets out two types of noise assessment criteria, as follows:

- fixed amenity criteria, which are the maximum cumulative noise limits for all industrial development in an area, and
- variable intrusive criteria, which apply to individual industries in order to ensure no single industry reaches or exceeds the amenity criteria.

In all cases, the amenity criteria are maximum noise limits for all industry, while the intrusive criteria are a mechanism to ensure individual industries do not contribute disproportionately to the noise environment, relative to other industries.

In the present circumstance, with only one industry permissible and proposed in proximity to Georges Fair, it is arguable that amenity criteria should be the maximum limiting criteria for the project. According to the INP, this is 60 dB(A) for daytime operations.

However, in considering the changing land uses in the area, and reflecting on the extensive community interest in noise and other amenity impacts, the Department had taken a conservative approach and calculated intrusive assessment criteria to assess the project.

Unlike the fixed amenity criteria, intrusive noise criteria are variable and based on background noise measurements at potentially affected receivers. In this case, the Department calculated a range of assessment criteria for different receivers between 48 and 52 dB(A), which are all well below the amenity criterion of 60 dB(A).

Issue: The EMM submission to the PAC claimed that noise criteria should be calculated against background noise measurements that have been taken from locations that are shielded from traffic noise. As a result, EMM contends that the noise criteria for the project calculated by the Department were too high, with the consequence that the predicted noise impacts from the project are non-complying.

The Department's in-house noise expert has reviewed EMM's submission in close consultation with the Manager of the EPA's Noise Assessment Unit and both strongly refute the statements made by EMM (see EPA advice at **Tag C**).

In response to the EMM submission, the EPA states that:

- *the EPA does not agree that the INP requires that background noise measurements must be made in shielded locations;*
- *the EPA was unable to find a requirement in the INP to place noise monitors in the quietest part of a site;*
- *EMM's opinion is not explained by reference to empirical data, calculations or theoretical reasoning, such as would be reasonably expected given that its opinion appears to directly contradict its statement that shielded locations are quieter; and*
- *EMM appears to have made two mutually exclusive assertions that a backyard is a shielded location but also that noise will be the same at the front and rear of a residence.*

The Department's in-house noise expert notes the following relevant passages from the INP concerning the locations at which noise measurements should be made:

- *[background noise] is to be assessed at the most-affected point on or within the residential property boundary or, if that is more than 30 m from the residence, at the most-affected point within 30 m of the residence (INP page 14);*
- *locations that are most affected (or that will be most affected) by noise from the source under consideration. In determining these locations, the following need to be considered: existing background levels, noise source location/s, distance from source/s (or proposed source/s) to receiver, and any shielding (for example, building, barrier) between source and receiver. Often several locations will be affected by noise from the development. In these cases, locations that can be considered representative of the various affected areas should be monitored (INP page 24); and*
- *be careful to choose sites that are truly representative of the noise environment at the noise-sensitive receivers, for example, do not choose positions screened from dominant background noise sources such as road traffic if sensitive receivers are not screened from such sources [emphasis added]. Locate the microphone 1.2 to 1.5 m above the ground and, where practicable, at least 3 to 5 m from walls, buildings and other reflecting surfaces. Data loggers should be sited as far away from trees as practicable to avoid noise produced by wind blowing through foliage (INP page 68).*

The Department's in-house noise expert also noted that the background noise measurements taken by Wilkinson Murray and used in the Department's assessment were not unexpected for Brickmakers Drive. Australian Standard AS 1055.2 – *Acoustics – Description and Measurement of Environmental Noise* gives guidance on expected background noise levels and it indicates that "areas with medium density transportation or some commerce or industry" are likely to have a background noise level of 50 dB(A).

The degree of noise mitigation that is necessary

Having attempted to establish lower noise assessment criteria for the project by way of incorrect acoustic methodology, the EMM submission states that more extensive noise mitigation is necessary to ensure the impacts from the project comply with the lower criteria.

Issue: The EMM submission states that the noise impacts from the proposed Material Recycling Facility to future residences [on Tanlane/Benedict land], particularly from trucks on the access road, will not satisfy noise criteria without the installation of noise barriers and enclosure of the access ramps. In addition, Council is preparing a zoning proposal to permit residential dwellings on the site of the marina, and noise impacts on these future uses should also be considered.

As set out above, the Department's in-house noise expert and the EPA's Noise Assessment Unit do not agree with EMM's lower noise criteria and, therefore, the Department does not accept that additional noise mitigation as suggested by EMM, is necessary.

Noise mitigation for Tanlane/Benedict land

The Department's assessment report assessed the potential noise impacts to the future residential development on Tanlane/Benedict land east of Brickmakers Drive. The report concluded that such noise impacts could be improved to around 51 dB(A) with the erection of a three metre high acoustic barrier on the western boundary of the residential zone. The resulting impact would be comparable to the impacts within Georges Fair, which were found to be acceptable and well within the amenity criterion of 60 dB(A).

However, the Department did not recommend that the Proponent be responsible for the barrier because the land is presently used for industrial purposes and there is no application or approval for residential subdivision. The Department's position corresponds with the EPA's advice on the matter dated 16 May 2015, which is reproduced below:

"Neither Liverpool Council or Department of Planning have not (sic) confirmed that consent for residential development of Tanlane [/Benedict] could include requirements for noise mitigation measures to ensure an acceptable noise amenity for future residents. However, we consider that measures are available and could reasonably be incorporated in any consent [for the residential development]. We reiterate our previous advice that it would be unreasonable for EPA to not support the proposed facility because residential development of Tanlane [/Benedict] is not guaranteed or may not occur for some time and, in addition because there are measures that can be incorporated within any future residential development. We have therefore considered the Tanlane [/Benedict] area as an existing industrial use and not considered it as a noise sensitive receiver."

In line with the EPA's advice, the Department concluded that the barrier would be a minor additional work, which could be carried out by the developer of the Tanlane/Benedict land when carrying out the remediation, earthwork, roadwork, drainage and other infrastructure necessary for the residential subdivision of that land.

In addition, suitable noise mitigation is a requirement for the residential development of the Tanlane/Benedict land, as set out in Section 3.8 of Part 2.10 of *Liverpool Development Control Plan 2008 – Development in Moorebank East*, which is reproduced below:

"Developments in areas adversely impacted upon by traffic related noises must incorporate the appropriate noise and vibration mitigation measures into the design in

terms of the site layout, building materials and design, orientation of the buildings and location of sleeping and recreation areas.”

Noise mitigation for residences on the marina land

The marina site is zoned RE2 – Private Recreation under *Liverpool Local Environmental Plan 2008*. Residential development is prohibited in the zone. There have been no previous residential proposals for the land and the Department only became aware of a possible rezoning proposal for the land upon receiving EMM’s submission to the PAC. The Department has not received a Gateway proposal for such development from Council.

The Department notes that any residential rezoning proposal for the marina site would need to address the high flooding hazard that exists on the land as well as potential fuel storage hazards, noise and air quality impacts of the proposed marina. It would be unreasonable to assess the project’s impacts against currently prohibited and uncertain land uses on the marina site.

In summary, EMM’s recommended noise mitigation measures are based on incorrect assessment of non-compliance with noise criteria. Furthermore, as explained above, noise impacts to future uses on the Tanlane land have been assessed by the Department and found to be acceptable, while impacts to future residences on the marina site would be unreasonable to assess because residences are currently prohibited on the land and the outcome of any planning process to make them permissible is uncertain.

3.3.3 Traffic impact assessment matters raised in the EMM submission

The EMM submission stated that the layout of the access from Brickmakers Road must be identical to the layout approved in the Court proceedings that permitted the applicant legal access to the site. The Department confirms that the access construction plans in the recommendation are consistent with the Court’s judgment.

The EMM submission also states that in the absence of traffic signals (at the new Brickmakers Drive intersection), each outbound truck will be subject to an average delay of six minutes during the morning peak hour before they can turn right onto Brickmakers Drive. EMM state that while the Proponent may argue that this is only a problem for trucks using the recycling facility, there will be risks and impacts to the community.

The Proponent had volunteered to install traffic signals at the Brickmakers Drive intersection. However, the Department did not include a condition in the recommendation for the installation of such signals. The Department’s position was based on advice from the RMS, which is reproduced in part below:

“the proposed intersection would operate efficiently under priority control [i.e stop sign] and there are no known safety issues at this location. Therefore, based on the information provided, Roads and Maritime does not support the provision of traffic control signals to service the combined developments [ie marina and recycling facility].

The Department’s assessment concluded that while traffic lights will be necessary for the intersection in the future, their need does not arise for the marina and the project together. The traffic lights would only become necessary with the residential development of the Tanlane/Benedict land to the north of the marina site.

3.4 Other issues raised by the PAC

The PAC raised several other issues in a number of emails to the Department. These issues include earthworks and contamination, visual impacts, landscaping, air quality, parking and

construction access. The Department has described and provided comments on these issues below.

3.4.1 Bulk earthworks and removing spoil from the southern part of the site

The PAC raised concerns about the removal of spoil from the southern part of the site as such earthworks may disturb the landfill cap and in-situ waste.

The bulk earthworks for the site have been approved by Council and will occur according to the Council's consent conditions (see **Tag D**). The earthworks in Area 2 are also required to offset the flood storage impacts of the access construction to Brickmakers Drive. The perimeter mounds would be comprised of material either exempt from or permitted by the Environmental Protection Licence. The Council consent includes a number of relevant conditions dealing with:

- drainage, erosion and sediment control including a prohibition on sediment deposition into any water body, wetland, bushland or environmentally significant land;
- engineering plan certification for all physical works;
- covering of any uncovered waste and the capping of any waste to be left in-situ;
- assessment of groundwater and soil contamination before work begins; and
- criteria for the use of fill material on the site.

3.4.2 Air quality and silicosis

The PAC raised concerns about the accuracy of air quality data provided in the Proponent's Environmental Assessment and the risks of silicosis to the community.

The Department's assessment report provides a comprehensive analysis of air quality impacts, including an appraisal of respirable crystalline silica. In summary, the predicted air impacts are well within maximum criteria for PM₁₀, total suspended solids and dust deposition. The EPA did not raise any issue with the rigour of the air quality assessment presented in the Proponent's Environmental Assessment for the project.

While NSW does not specifically regulate silica emissions, the Department's assessment concluded that air quality impacts would be well below the Victorian maximum criteria for respirable crystalline silica in the PM_{2.5} range. The proposal includes a range of air quality control measures and the Department's recommendation includes conditions of approval specifying emissions limits and air quality management.

3.4.3 Visual impacts

The PAC raised concerns about the visual impacts of the project and suggested that the western and southern amenity bunds could be increased in height. The PAC also raised concerns about the difficulties often encountered when landscaping earthen amenity bunds and the need to protect parts of the Castlereagh Ironbark Forest Endangered Ecological Community in the southern portion of the site.

Amenity bunds

The Department's assessment found that the project site is generally well concealed from view and the visual impacts are likely to be minimal. Increasing the height of the amenity bunds would be unlikely to improve or change the visual impacts of the development. There is between 250 m and 420 m of dense vegetation to the west of the site, which conceal it from Georges Fair. Views of the site from the south are also obscured. The following is a relevant extract from the Proponent's visual impact assessment of the project from the New Brighton Golf Course to the South:

"There are limited and heavily screened views into the south of the subject site from the New Brighton Golf course and no significant views from along the river's edge

within Riverlands Golf course and adjacent land to the north, on the east side of Georges River.”

Figure 1 below shows a photo in the direction of the site from the golf course.



Figure 1 - View of the project site from the southwest boundary of New Brighton Golf Course.

Landscaping and Endangered Ecological Community

The Department's recommendation included approval conditions for both a Landscape Management Plan (LMP) and a Biodiversity Management Plan (BMP). The LMP is explicitly required to include measures to stabilise the perimeter mounds with vegetation while the BMP explicitly requires measures to fence off the area of Ironbark Open Forest near the south west site boundary and other general measures to minimise impacts on flora and fauna during construction.

All approval conditions, including those for landscaping and biodiversity management are auditable through the annual environmental reviews and tri-ennial independent audits that will be required for the facility. Any ongoing issues with landscaping would be captured by the audits in particular allowing the Department to take enforcement action.

3.4.4 Measurement of stockpile height

The PAC raised issues about the maximum stockpile heights in the Department's report and recommended conditions. Specifically, in condition B7 table 1 says that the heights are 12.5m (waste) and 9.5m (product). However, the Department's report says that the raw material stockpiles are up to 7m high and finished product stockpiles up to 4m high.

The Department's report describes height of the stockpiles above ground level, whereas the recommended approval conditions specify height of the stockpiles above Australian Height Datum (AHD). The ground level of the site will be 5.5m AHD, the stockpiles will be 4m and 7m high above the ground level, meaning the stockpiles will have a height above AHD of

9.5m and 12.5m, respectively. Height above ground level is easier to understand descriptively, while height above AHD is more precise for future compliance monitoring.

3.4.5 Construction vehicles access the site from Newbridge Road

The PAC raised concerns about construction vehicles turning left from the middle lane in Newbridge Road to access the site as it is a busy road.

The left turn from the middle lane of Newbridge Road is a lawful turning manoeuvre. The RMS provides advice about the road rule that permits the turn, as follows:

“All vehicles accessing the site should comply with the rule 28 (2) of Road Rules 2008. In other words, the vehicle, together with any load or projection longer than 7.5 metres should approach and enter the intersection from the marked lane next to the left land and/or instead of the left turn lane...”

Construction vehicles would only use the Newbridge Road driveway while the new access is constructed to Brickmakers Drive. Subsequent construction vehicles would use the new access. The recommended approval conditions require the Proponent to prepare a Construction Traffic Management Plan in consultation with Council and RMS. The plan must specify traffic control. Traffic control options for the Newbridge Road turn may include restricted hours and/or traffic controllers. Traffic control must be carried out by accredited RMS approved traffic controllers.

The Department considers that the short term disruption to normal traffic flow would be similar to other construction or road work sites and appropriately managed under the Construction Traffic Management Plan.

3.4.6 Provisions for car parking on site

The PAC raised concerns about whether there was sufficient parking on the site. The Preferred Project Report specifies 16 car parking spaces for 25 on-site employees, which slightly exceeds Council's requirement for 1 space per 2 employees. The recommended approval conditions require parking areas to be constructed and maintained in accordance with AS 2890. The parking area design will need to be specified in the Operational Traffic Management Plan.

3.4.7 On-site sewage management on flood prone land

The PAC raised concerns that the Council's issues about having sewage pump-out on flood prone land have not been resolved and that the site should connect to reticulated sewer.

Once the bulk earthworks for the site are completed under the Council's consent, the site will be at or slightly above the level of 1:100 year flood and no longer flood prone. As the site remains quite low, any connection to Sydney Water's sewerage network would likely require a holding tank and a rising main. As the site is above the 1:100 year flood level, and has quite limited sewage requirements (i.e staff amenities), the Department does not consider the additional infrastructure to be necessary.

3.4.8 Brickmakers Drive 5-tonne load limit

The PAC raised concerns that the 5 tonne load limit in Brickmakers Drive did not appear to be understood by the community. The load limit applies only to through traffic and does not apply to any vehicle with an origin or destination on Brickmakers Drive (see copy of Council notice in **Tag E**). Therefore, the limit does not apply to heavy vehicles travelling to and from the project site.

The Department notes that the project's haul route does not include any part of Brickmakers Drive south of the site access. The new intersection design restricts access and egress from

or to a southerly direction along Brickmakers Drive. This limitation on the haul route will need to be specified in the Operational Traffic Management Plan.

3.4.9 Approval conditions for the right of way

The PAC suggested that a condition of approval may be necessary to ensure the right of way access to Brickmakers Drive is enacted for the project. The Department's assessment report states that a condition is not necessary. The access must be constructed first according to the conditions, which will by default require registration of the right of way.

3.4.10 Sale process for the site

The PAC raised concerns about the sale process for the site, and political donations. However, neither the sale of the land nor political donations have been considered by the Department in assessing the merits of the proposal as they are beyond the scope of the assessment process under the *Environmental Planning and Assessment Act 1979*.

4. COUNCIL'S ALTERNATIVES FOR THE PROJECT AND THE SITE

During the PAC's public meeting Council stated that it had identified a number of alternate sites for the project, and a number of potential alternate land uses for the project site. The Department followed-up with a detailed telephone discussion with Council officers and asked Council to provide maps identifying the sites (see **Tag F**).

4.1.1 Alternate sites for the project

Council has identified a number of (mostly) vacant sites zoned IN3 Heavy Industry in Prestons, which it says are more suitable for the project. While the proposed facility would be permissible with consent on these lots, they are currently in private ownership. The Proponent would need purchased one or more of the lots and submitted a further development application.

In the case of some lots, the ability to secure development consent could be uncertain because residences in Prestons are closer than the current project is to residences in Georges Fair (see **Figures 2 and 3**). In any case, an approval authority must assess the merits of the project application that is before it and it is not open to the Department to identify alternate sites for a project application.



Figure 2 – Distance to receivers, Prestons

Figure 3 – Distance to receivers, Georges Fair

4.1.2 Alternate development options for the project site


Council also stated that it would be willing to consider a proposal for a residential or hotel towers on the project site. However, such uses are currently prohibited on the site and would require a planning proposal and rezoning so that they would be permissible.

The Department notes that a planning proposal for residential or hotel development of the project site would need to address contamination and flooding issues. The existing landfill would need to be remediated to a residential standard, and certified for residential use by an independent accredited site auditor. Such remediation is likely to involve the removal of all landfilled waste, which the Department notes may intensify the site's flooding risk and raise potential conflicts with the NSW Government's Floodplain Development Manual.

Notwithstanding, as in the case of alternate sites above, an approval authority must consider the merits of the project application that is before it and it is not open to the Department to assess alternate (and currently prohibited) uses for the site. The Department's assessment noted that the existing landfill on the site is both compatible with the proposed recycling facility (as indicated by the existing Site Audit Statement) and provides protection from flooding in the Georges River.

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Submission to Planning Assessment Commission Materials Recycling Facility, Moorebank

PAC No D356/15

DP&E Development Application No 05-0157

Prepared for Benedict Industries Pty Ltd, Boral Bricks Pty Limited and Investa Land Pty Limited | May 2015



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Prepared for Benedict Industries Pty Ltd, Boral Bricks Pty Limited and Investa Land Pty
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Submission to Planning Assessment Commission

Final

Report J14149RP2 | Prepared for Benedict Industries Pty Ltd, Boral Bricks Pty Limited and Investa Land Pty Limited | 29 May 2015

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Date 29 May 2015

This report has been prepared in accordance with the brief provided by the client and has relied upon the information collected at the time and under the conditions specified in the report. All findings, conclusions or recommendations contained in the report are based on the aforementioned circumstances. The report is for the use of the client and no responsibility will be taken for its use by other parties. The client may, at its discretion, use the report to inform regulators and the public.

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Document Control

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1 Summary

1.1 Introduction

Moorebank Recyclers Pty Ltd seeks approval (DP&E Development Application No 05-0157) to construct and operate a materials recycling facility in Moorebank and the NSW Planning Assessment Commission (PAC) is currently determining the proposal (PAC No D356/15).

This submission was prepared by EMGA Mitchell McLennan Pty Ltd (EMM) on behalf of Benedict Industries Pty Ltd, Boral Bricks Pty Ltd and Investa Land Pty Ltd. It considers the planning context of the proposal, the noise impacts and required traffic management measures.

1.2 Planning

EMM's Paul Mitchell, OAM, reviewed the planning context for the proposed material recycling facility. He contends that:

- The application is very dated and the proposed use is no longer suited to the present and planned uses in the surrounding area.
- The Director-General's Environmental Assessment Requirements issued in July 2008 are outdated and do not reflect current government policy and land use.
- The proposed use was only ever envisaged as temporary and interim. It is entirely at odds with the E2 Environmental Conservation zoning and was only made permissible by an enabling clause for the subject site, which permits the proposed use with consent, and lapses on 1 September 2018. The use may have been appropriate in 2005 when the clause was implemented but it is not acceptable ten years later given existing land uses and planned future uses.
- The environmental assessment (EA) and preferred project report (PPR) prepared for the application are inadequate and are not a suitable basis for determination.

1.3 Noise

EMM's Najah Ishac, reviewed the noise assessments for the proposed material recycling facility. His main findings are:

- The information provided in the noise assessments for the proposal are based on background noise levels, many of which are out of date, collected from the wrong locations or based on an extrapolation of measured noise levels using methods that are not supported by the Department of Planning and the Environment (DP&E) or the Environment Protection Authority (EPA).
- The noise criteria provided in the proponent's noise assessments and relied upon in the Secretary's Assessment Report are based on these flawed background noise levels.
- Residential noise criteria should be applied for the planned residences on the northern portion of Benedict Industries site and for the proposed Georges Cove marina site.

- In the absence of substantial noise mitigation measures, the proponent's predicted noise levels at the existing Georges Fair residential locations will exceed the appropriately determined $L_{Aeq,15min}$ noise criterion of 39 dB by up to 14 dB.
- The following noise mitigation measures would be required if there is a chance for appropriately determined noise criteria to be achieved (shown in Figure 1.1 and Figure 3.3):
 - enclosing the ramps on the Brickmakers Drive and access road (link road) intersection to reduce noise levels at residences on the northern portion of Benedict Industries site and future Georges Fair residences;
 - installation of a 6-m high acoustic barrier immediately adjacent to (within the road corridor), and on both sides of, the access road. This barrier would need to extend from the enclosed outbound ramp of the intersection to the southern extent of the northern portion of Benedict Industries site to reduce noise levels at residences on this site and at Georges Fair;
 - installation of an acoustic enclosure extending from the northern extent of the Georges Cove Marina site to its southern extent to reduce noise levels at apartments in the marina site; and
 - fully enclose major noise emitting activities at the proposed material recycling facility, consistent with contemporary waste recycling centres located in suburban areas.

1.4 Traffic

EMM's Dr Tim Brooker reviewed the traffic assessment for the proposed material recycling facility. His main findings are:

While the proponent has offered to install traffic signals on the Brickmakers Drive and access road (link road) intersection, the Secretary's Assessment Report does not recommend the installation of traffic signals here and does not address the long delays for right-turning trucks from a non-signalised intersection.

It is predicted that outbound trucks from the proposed materials recycling facility would have to wait an average of more than six minutes in the morning peak hour before they can turn right from the access road onto Brickmakers Drive. These long waits will encourage truck drivers to take risks when turning and there will be a much higher risk of collisions between trucks and cars for a non-signalised intersection than for a signalised intersection. Therefore, the installation of traffic signals should be a condition of approval if the Materials recycling facility is approved.

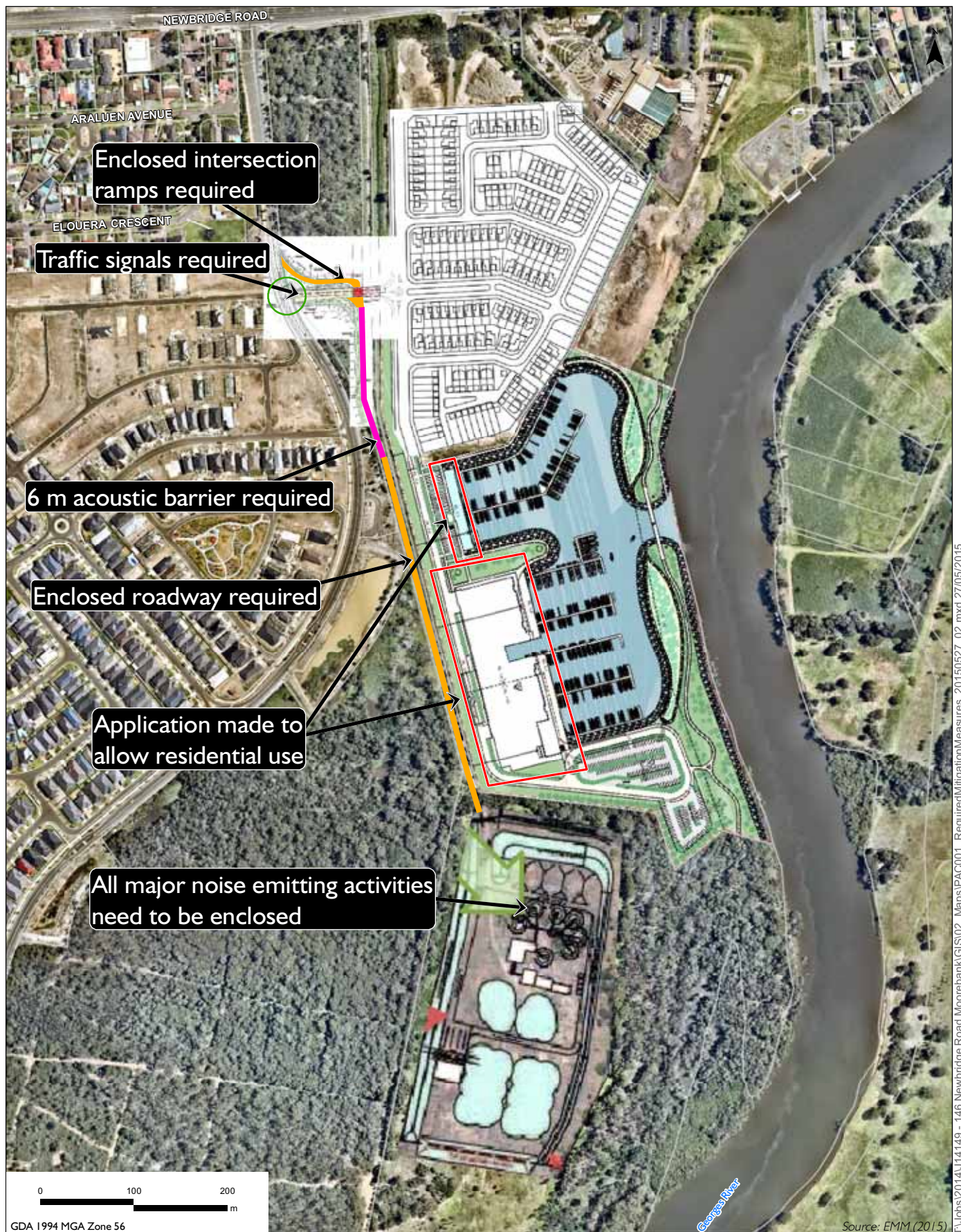
1.5 Conclusion

Since the proposed Materials recycling facility was conceived, the area around the proposed facility has changed significantly, including the construction of most of the 960 planned residences in the Georges Fair development in an area that was a quarry. Further residential developments and the Georges Cove Marina will continue the transformation of the area.

The impacts on the community, notably noise and traffic, from the proposed materials recycling facility would be directly counter to this transformation.

The proposed materials recycling facility should not be approved.

If it is approved, the PAC should impose stringent approval conditions requiring that mitigation measures are installed to allow the ongoing appropriate development of the surrounding area.



2 Planning points of contention

2.1 Points of contention

- A The application is very dated and the proposed use is no longer suited to the present and planned uses in the surrounding area.
- B The Director-General's Environmental Assessment Requirements issued in July 2008 are outdated and do not reflect current government policy and land use.
- C The proposed use was only ever envisaged as temporary and interim. It is entirely at odds with the E2 Environmental Conservation zoning and was only made permissible by an enabling clause for the subject site, which permits the proposed use with consent, and lapses on 1 September 2018. The use may have been appropriate in 2005 when the clause was implemented but it is not acceptable ten years later given existing land uses and planned future uses.
- D The environmental assessment (EA) and preferred project report (PPR) prepared for the application are inadequate and are not a suitable basis for determination.

2.2 Site suitability

A The application is very dated and the proposed use is no longer suited to the present and planned uses in the surrounding area

The Secretary's assessment report has failed to give due consideration to the suitability of the proposed Material Recycling Facility from a land use point of view. It is acknowledged that 10 to 15 years ago the site was relatively isolated from surrounding sensitive uses, with adjoining properties conducting similar industrial and extractive operations. However, land uses surrounding the site have significantly changed and development consent has been granted for a number of residential and related land uses, such as George's Fair to the north-west, the residential site in the northern portion of Benedict Industries site and Georges Cove Marina directly adjoining the Material Recycling Facility site to the north and adjoining the Material Recycling Facility access road to the east.

In addition to this, an application seeking an amendment to the Liverpool LEP to permit residential development under Schedule 1 – Additional Permitted Uses on the Tanlane Pty Ltd land (managed by Benedict Industries and within the George's Cove Marina) is currently being assessed by Liverpool City Council. The assessment officer has advised in writing that he will recommend to the Department of Planning and Environment (DP&E) that the proposal be supported. Further, a new development application (DA) for the George's Cove Marina and related facilities is being lodged in the near future. This will address the absence of a preliminary investigation contamination report in the original application. It is noted that the original marina DA received favourable consideration from Council and was approved by the Sydney West Joint Regional Planning Panel (JRPP).

Given the increasing residential development in the locality, it is important to highlight that there is significant community opposition to the proposal. Residents in the new residential areas are concerned about the impact of the proposal on their amenity and enjoyment of the area. The DP&E's assessment report has failed to take into proper account the extent of proposed and approved residential development surrounding the site. This includes the likely impacts of the proposal on residential amenity such as noise (see Section 3 below) and traffic (see Section 4 below).

The EA, PPR and DP&E also fails to consider the Liverpool Development Control Plan 2008 Part 2.10 Development in Moorebank East which identifies the Tanlane/Benedict Industries land to the north of the site for residential and business uses with possible public recreation along the foreshore.

2.3 Current government policy

B The Director-General's Environmental Assessment Requirements issued in July 2008 are outdated and do not reflect current government policy and land use

The DGRs issued for the proposal in July 2008 require the EA to include:

- Consideration of any relevant statutory provisions.

The DGRs also require that the EA takes into account a number of relevant State government technical and policy guidelines (provided in a list and attached to the DGR's). **There are a number of new policies that have been published since the application was submitted and have therefore not been considered in the assessment of the proposal.**

These include:

- George's River Coastal Zone Management Plan (GRCZMP) 2013;
- **NSW Government's Metropolitan Strategy – South-West Sub-region, Strategic Direction D – Housing Sydney's Population;**
- **Sydney Drinking Water SEPP – 2011;**
- **State and Regional Development SEPP 2011;**
- **DECCW (2011) Road Noise Policy;**
- **DECCW (2009) Interim Construction Noise Guidelines; and**
- **Applying SEPP 33 – Hazardous and offensive industry.**

2.4 Conflict with current zoning

C The proposed use was only ever envisaged as temporary and interim. It is entirely at odds with the E2 Environmental Conservation zoning and was only made permissible by an enabling clause for the subject site

In September 2005, amendment 76 to the Liverpool Local Environmental Plan (LLEP) 1997 was gazetted which established an enabling clause over the subject site, which permitted a "materials recycling yard" with development consent. In August 2008, the LLEP 2008 for the whole local government area was gazetted. The new LLEP included the enabling clause with a further restriction requiring that the clause be repealed on 1 September 2018.

As the DP&E assessment report states, any approval granted to the project before 1 September 2018 will enable the use to continue into the future, but if the project is not approved by that time, it will become a prohibited use. This highlights the fact that the LLEP considered the proposed use to be ultimately not in keeping with the changing nature of the Moorebank area. At the time, the clause was introduced, George's Fair was developing and reinforcing the emerging residential character in this locality. The use may have been appropriate in 2005 when the clause was enacted but it is not acceptable ten years later given the now existing land uses and planned future.

The use is contradictory to the E2 Environmental Conservation zoning. The DP&E LEP practice note on 'Environment Protection Zones' (30 April 2009) states that:

E2 Environmental Conservation

This zone is for areas with high ecological, scientific, cultural or aesthetic values outside national parks and nature reserves. The zone provides the highest level of protection, management and restoration for such lands whilst allowing uses compatible with those values.

Clearly, the proposed recycling facility is not in keeping with the objectives of the E2 zoning. Given that there has been a deliberate move away from industrial land uses with the development of George's Fair, development consent having been granted for the George's Cove Marina, residential zoning of the northern portion of the Benedict property and the gazettal of the Moorebank East DCP 2008.

Further evidence of the site being unsuitable for the proposed use is that the Liverpool City Council in May 2013 adopted a recommendation to initiate an amendment to the Liverpool LEP 2008 to rezone the subject property from E2 to RE2 – Private Recreation. The report states that:

Over the past 7 years there has been a significant change in the nature of land use within the Moorebank East precinct. Once characterised by predominantly industrial land, the precinct is now dominated by land zoned for residential development, public and private open space and environmental conservation.

The report concludes by stating that the rezoning would:

result in a more appropriate zoning for the site and facilitate development which will enhance the recreational and environmental value of the Moorebank East Precinct.

The recommendation was to delete item 11 of Schedule 1 – Additional Permitted Uses from the LLEP. This confirms that the use, which was thought to be appropriate on a short term basis until 2018 is in fact now entirely unsuitable with the rapidly emerging residential and open space character of the locality. The report acknowledges that the proposed facility:

would be likely to result in land use conflict with neighbouring residential and open space development.

2.5 Inadequacy of environmental assessment

D The environmental assessment and preferred project report prepared for the application are inadequate and are not a suitable basis for determination

The DGRs issued for the proposal in July 2008 required that the EA include:

A conclusion justifying the project, taking into consideration the environmental impacts of the proposal, the suitability of the site, and the costs and benefits of the proposal.

As explained elsewhere in this submission, the EA does not accurately assess noise and traffic impacts. Nor does it consider the 'suitability of the site' in light of the present and emerging character of its surrounds as reflected in now current planning instruments. Given these inadequacies, the EA does not provide an accurate assessment of the costs and benefits of the proposal.

Overall, the EA is fundamentally flawed in at least four key aspects and therefore does not provide a sound basis for a properly informed determination to be made.

The issues associated with traffic and noise impacts are addressed in the sections that follow.

3 Acoustics

EMM's Principle Acoustic Engineer, Najah Ishac, has reviewed Section 5.2 of the Secretary's Environmental Assessment Report regarding the assessment of noise for the proposed materials recycling facility, as well as associated noise assessment documents. Mr Ishac has substantial recent experience with the acoustic environment in the local area having visited the site and having prepared EMM's 2013 submission to DP&E regarding the Moorebank Recycling Facility.

Mr Ishac's comments on a number of concerns regarding the proponent's noise assessments prepared by Wilkinson Murray and, as a consequence, the information presented in the Secretary's Environmental Assessment Report are provided below for the PAC's consideration. The following noise issues are addressed in this submission:

- the adequacy of previous noise assessment information provided by EMM regarding the materials recycling facility;
- the measurement and use of background noise by the proponent;
- the calculation of noise criteria, particularly with consideration of future residential development;
- the predicted noise levels; and
- the adequacy of the proposed noise mitigation measures.

3.1 Previous noise assessment by EMM

EMM prepared the *Moorebank Recycling Facility Noise* report (11 November 2013) submitted to DP&E during the assessment of the Moorebank Recycling Facility (EMM 2013). The Secretary's Assessment Report refers to the EMM (2013) prediction that noise criteria will be exceeded by up to 9dB, but states (page 27):

...EMGA does not explain how it arrived at such a varied result. The submission states that the different result cannot be explained and as such the Department is unable to support its findings.

EMM (2013) provides a comprehensive review and noise modelling results of the proposed recycling facility. Noise levels are predicted to exceed criteria at proposed Georges Fair residences adjacent Brickmakers Drive by up to 9 dB (location GF_01). The EMM barrier versus no barrier result is unchanged at this receiver as it is almost directly opposite the bridge crossing and hence the barrier does not provide any shielding to this property from the closest trucking operations on the ramps. Our results are higher than those presented by Renzo Tonin's barrier option (ie 43 dB and 48dB for ground and first floor levels respectively). Wilkinson Murray do not provide a prediction at this location, instead providing a prediction at a potentially less impacted location (4N) of $L_{Aeq,15minute}$ 54 dB which compares to EMM's prediction of 57 dB, and in both cases above Wilkinson Murray's derived criterion of 49 dB. These are the differences EMM stated could not be explained and this is because the details of modelling inputs from others' models are not provided and EMM have not been able to interrogate.

Notwithstanding, the predicted noise levels by Wilkinson Murray will be relied upon and assumed to be an accurate representation of future noise emission from the proposal in the assessment herein.

3.2 Background noise levels

Selecting appropriate noise monitoring locations and adopting appropriately representative baseline noise levels for assessment locations is of critical importance in predicting the acoustic impacts of a proposed development. The background noise monitoring completed by the proponent's acoustic consultant, Wilkinson Murray, between 2007 and 2013 and by EMM in 2015 is summarised below along with the derivation of rating background levels (RBLs).

3.2.1 Monitoring locations

The proponent's monitoring or assessment locations are shown in Figure 3.1. Those shown in red are longer term unattended monitoring locations, while blue locations were adopted for assessment by the proponent.

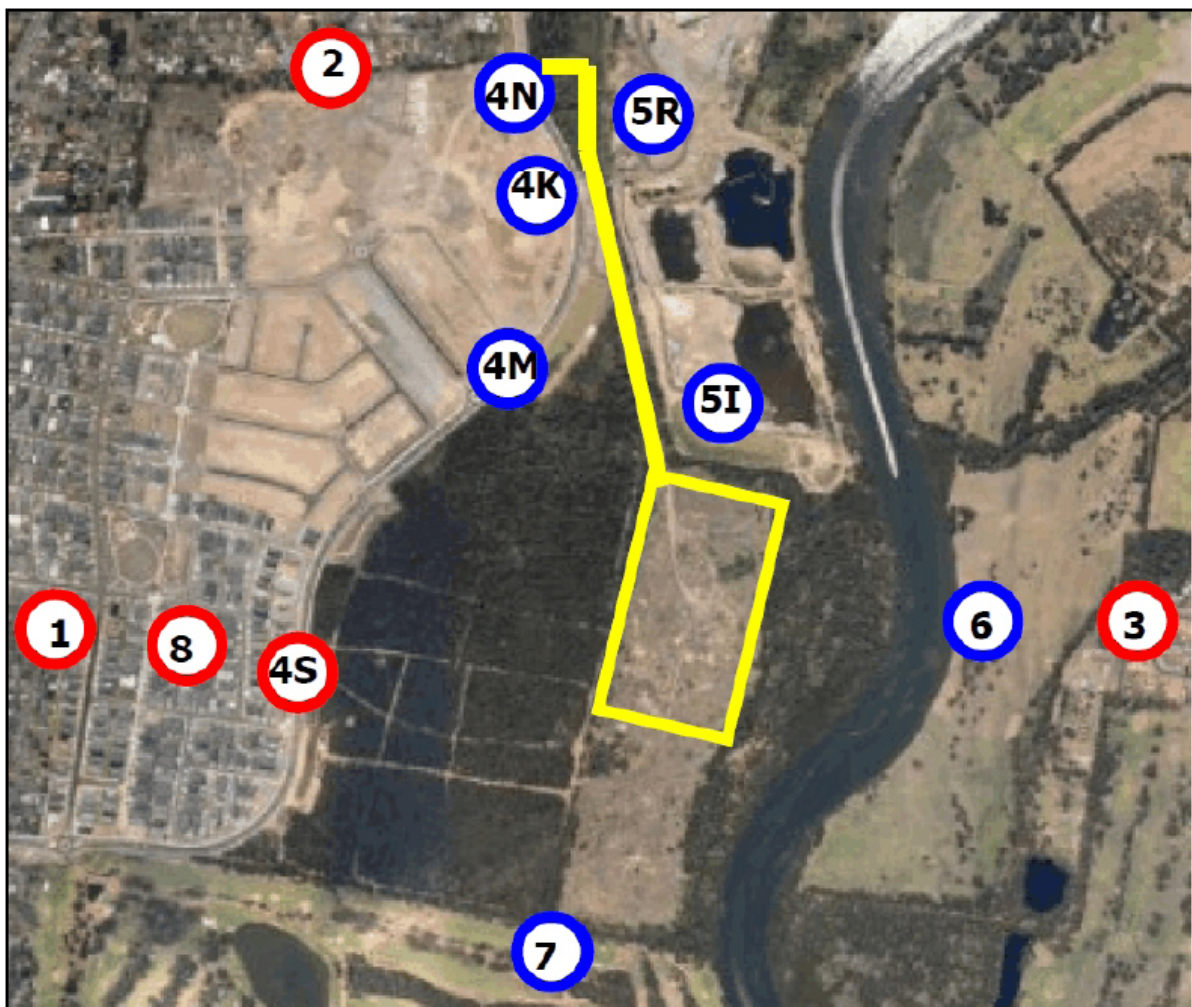


Figure 3.1 Unattended noise monitoring locations (red) and prediction locations (blue)

Source: Preferred project report noise assessment (Wilkinson Murray 2013) Figure 3-1.

3.2.2 Measured background noise levels

i Wilkinson Murray measurements

Background noise data were collected by Wilkinson Murray on the following occasions:

- March 2007 at three locations (37 Malinya Crescent [location 1], 26 Elouera Crescent [location 2], and 41 Martin Crescent [location 3]). It is noted that 'location 1' as labelled in the proponent's figure above is incorrectly displayed and is in fact two blocks east of where it is displayed;
- May 2013 at a further three locations (16 Bushview Lane [location 4S], 81 Bradbury Street [location 8], and 28 Elouera Crescent [location 2], Moorebank); and
- October 2013 at a further single sampling location (12 Bushview Lane [location 4S], Moorebank).

With the exception of Location 4S, the background noise levels measured by Wilkinson Murray (and hence the derived criteria - see Section 3.3) are representative of residences set back from Brickmakers Drive (ie locations 1, 2, 3 and 8). These are potentially the most impacted locations as they will experience relatively lower background noise in the absence of the proposed development. However, the proponent assesses noise for unshielded locations along Brickmakers Drive and did this by estimating future daytime background noise levels from estimated future traffic volumes for these unshielded locations (refer to EIS noise assessment Table 3.2 and 3.3 and its footnote).

The Industrial Noise Policy (INP) requires that noise monitors are placed within 30 m of a residence in the quietest part of the site. This is typically the backyard. Therefore, background noise measurements must consider shielded locations with correspondingly low background noise. However, these shielded locations (backyards) were not assessed by Wilkinson Murray.

ii EMM measurements

Given concerns regarding the changing noise environment, EMM undertook background noise monitoring in May 2015.

Unattended monitoring was undertaken at the following locations (refer to Figure 3.2):

- 10 Bushview Lane, Georges Fair (next door to the proponent's previous monitoring location number 12 Bushview Lane and therefore representative of location 4S); and
- 41 Martin Crescent, Milperra (location 3).

The monitors were placed in the backyard being typically the quietest area as required by the INP (ie the potentially most impacted location on or within 30 m of a dwelling).

A series of attended monitoring and observations were also conducted at various locations to establish relationships between, for example, back yard and front yard conditions for properties fronting Brickmakers Drive.

Attended monitoring at most of the monitoring locations was also used to update background noise levels by synchronised correlation between unattended long term monitoring and the attended 15-minute monitoring. This method provides a relationship between background noise levels at multiple locations and avoids the need to deploy a multitude of unattended devices for seven days or more. It is also a practical method when locations are difficult to access (eg residents not home or access not possible). The noise monitoring data are provided in Appendix A.

The monitoring data was collected and analysed in accordance with the INP, including calibration requirements.

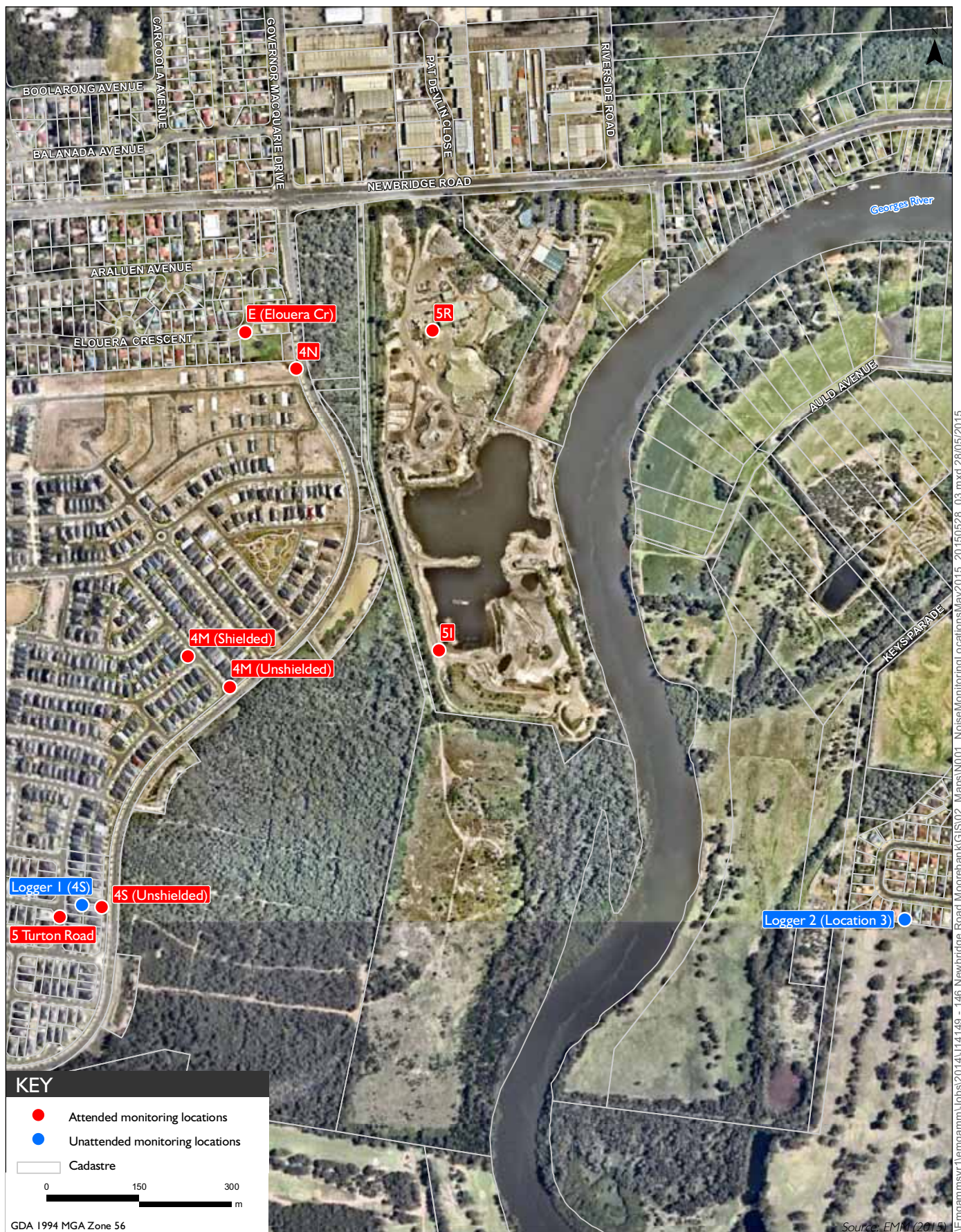
The EMM logger data for 20 to 27 May 2015 (refer to Appendix A Table A.1 for daily data and charts) shows the following daytime background levels (ignoring the quieter Sunday data and INP weather exclusion rules for now until more data is collected):

- Location 4S - Georges Fair- 34 dB(A);
- Location 3 - Milperra - 39 dB(A) (ignoring Sunday made no difference).

The INP weather exclusion rules that will be applied once at least seven full days of data are available will reduce the above levels further.

The EMM attended monitoring data was correlated with the unattended data and shows the following (refer to Appendix A Table A.2 of attended monitoring data correlated in sync with unattended data):

- Georges Fair locations - shielded versus unshielded locations are 13 dB to 25 dB apart depending on their relative exposure to local noise sources. The 20 May 2015 attended and unattended data at 4S for example shows a 13 dB difference between the front and rear yard of that property;
- Benedict northern land - background noise levels for unshielded areas are comparable to that at Elouera Cr; shielded areas will be afforded significantly lower background noise as evident by the data at Georges Fair;
- Benedict marina area- background noise levels for unshielded areas are comparable to that at Elouera Cr; shielded areas will be afforded significantly lower background noise as evident by the data at Georges Fair; and
- Milperra - background noise (39 dB) is not immaterially different from that adopted by the proponent (43 dB).



Noise monitoring locations - May 2015
 Planning Assessment Commission Submission
 Materials Recycling Facility, Moorebank
 Figure 3.2

3.2.3 Final representative background noise levels

A summary of Wilkinson Murray and EMM background noise monitoring data is presented in Table 3.1. EMM noise measurements at the same or similar locations to Wilkinson Murray are grouped together for comparison. Locations are numbered according to the Secretary's Assessment Report. EMM's 'Final Representative Value' for background noise in Table 3.1 is based on the latest 2015 monitoring data and therefore should be the adopted values for setting noise criteria by the regulatory authority. It is EMM's opinion through experience that noise from the subject site will be the same at the front and rear of the residences fronting Brickmakers Drive and therefore adopting the established background noise levels will provide the appropriate impact assessment in accordance with the INP.

Table 3.1 Measured and estimated background noise levels

Location	Date of monitoring	Daytime rating background noise level, dB(A)			Source
		Measured	Estimated	Final representative value	
Georges Fair residences					
4S - 10 Bushview Ln	20/5/15 - 27/5/15		-	34	EMM
4S - Georges Fair				47	SAR
4S- 12 Bushview Ln	10/10/13 - 21/10/13	Not provided	47 (from future traffic)		SAR Appendix E
4S - 16 Bushview Ln	1/5/13 to 9/5/13	47	48 (from future traffic)		PPR
			51 (from future traffic)		EA
8 – Bradbury				37	SAR
8 – 81 Bradbury St	1/5/13 to 9/5/13	36	37 (from future traffic)		PPR
4N				34 (based on 4S measured)	EMM
				47 (based on 4S measured)	SAR
		-	49 (from future traffic)		SAR Appendix E
		-	48 (from future traffic)		PPR
		-	51 (from future traffic)		EA
4K				34 (based on 4S measured)	EMM
				47 (based on 4S measured)	SAR
		-	49 (from future traffic)		SAR Appendix E
		-	48 (from future traffic)		Proponent PPR

Table 3.1 Measured and estimated background noise levels

Location	Date of monitoring	Daytime rating background noise level, dB(A)			Source
		Measured	Estimated	Final representative value	
4L				34 (based on 4S measured)	EMM
		-		47 (based on 4S measured)	SAR
			47 (from future traffic)		SAR Appendix E
4M				34 (based on 4S measured)	EMM
				47 (based on 4S measured)	SAR
			47 (from future traffic)		SAR Appendix E
			48 (from future traffic)		PPR
			51 (from future traffic)		EA
Future residences					
5R - Benedict				43 (Based on Elouera Cr)	EMM
				70-75 (industrial)	SAR
			46 (from future traffic)		PPR
			48 (from future traffic)		EA
Marina residences				34 (based on 4S measured)	EMM
				70-75 (industrial)	SAR
Moorebank					
1 - 37 Malinya Cr				44	SAR
	20/2/07 to 5/3/07	44			EA
2 – 26 Elouera Cr				43	SAR
	20/2/07 to 5/3/07	43			EA
2 - 28 Elouera Cr				43	SAR
	1/5/13 to 9/5/13	42			PPR
E – 37 Elouera Cr				43	SAR
	7/6/10 to 17/6/10	43			PB noise assessment

Table 3.1 Measured and estimated background noise levels

Location	Date of monitoring	Daytime rating background noise level, dB(A)			Source
		Measured	Estimated	Final representative value	
Milperra					
3- 41 Martin Cr	20/5/15 - 27/5/15		-	39	EMM
				43	SAR
3 - 41 Martin Cr	20/2/07 to 5/3/07	43			EA

EA: Environmental assessment, noise impact assessment (Wilkinson Murray 2012).

EMM: Noise measurements by EMM in May 2015.

PB noise assessment: Noise Impact Assessment - Georges Cove Marina (Parsons Brinckerhoff 2010).

PPR: Preferred project report, noise impact assessment (Wilkinson Murray 2013).

SAR: Secretary's Assessment Report (DP&E 2015).

SAR Secretary's Assessment Report Appendix E: Moorebank Recycling Facility - Noise and Traffic Review (Wilkinson Murray 2014).

The EMM monitoring data summarised in Table 3.1 is consistent with daytime RBL values measured in Bradbury Street Georges Fair by Wilkinson Murray (36 dB(A)). These values are typical of suburban Sydney. However, the RBL values purported by the proponent and adopted in the Secretary's Assessment Report are considerably higher and variable (47 dB to 51 dB) for the same location without explanation, and therefore cast doubt as to their validity.

3.2.4 Estimated background noise levels

The EA noise assessment (Wilkinson Murray 2012) estimated future daytime background noise levels from estimated future traffic volumes at locations not shielded from traffic noise from Brickmakers Drive (Wilkinson Murray (2012) Tables 3.2 and 3.3 and footnotes). This approach to background noise level estimation was also used in the PPR noise assessment (Wilkinson Murray 2013) even where monitoring data were available. The daytime RBLs estimated by Wilkinson Murray are summarised in Table 3.1.

The Secretary's Assessment Report states (page 25):

...neither the Department nor the EPA were fully satisfied with this approach. The INP is a comprehensive method, which uses actual noise data. By using data estimates and predictions, the Department believes that the Proponent's method may not match the rigour of the INP...

The Secretary's Assessment Report goes on to provide two main reasons why the method is not supported because it:

- is not site specific as it relied on city-wide traffic averages to estimate traffic growth, which may not actually be realised in Brickmakers Drive; and
- is not fully reliable as it relied on a small number of 15-minute road noise samples to estimate a background level rather than 7-days' worth of background noise measurements.

The estimation techniques used by Wilkinson Murray are not valid as it is clear that Brickmakers Drive is not the only determining factor in background noise levels as demonstrated by data collected at various setbacks from this road as explained later.

The INP requires that measurements are taken at the quietest position within a residence (ie the rear of residences fronting Brickmakers Drive). However, Wilkinson Murray deployed monitors “fronting Brickmakers Drive” (Table 3.3 in Wilkinson Murray (2013) and Table 2 in Wilkinson Murray (2014) - in each case it is stated that RBL values apply to “residences not shielded by Brickmakers Drive”).

Background noise is typically defined by general ‘hum’ from distant sources (typically major roads or industry). This is observed in the noise levels measured by the proponent (summarised in Table 3.1). For example, the same background noise level (43 dB(A)) was measured at 26 and 37 Elouera Crescent even though 26 Elouera Crescent is about 300 m from Brickmakers Drive and 37 Elouera Crescent is about 120 m from Brickmakers Drive.

Further, the assumption that background noise will increase over time due to future increases in Brickmakers Drive traffic is not justified. Refer to Table 3.1 where 28 Elouera Crescent background noise was measured to be 42 dB(A) in 2013 while in 2007 levels at its immediate neighbour number 26 was 43 dB(A), ie over time the background noise was relatively unchanged.

Adopting actual background noise measurements from a nearby similar location is common good practice and is recommended and adopted in the Secretary’s Assessment Report (page 25 and 26).

3.2.5 Changes to background noise

Background noise data were collected by Wilkinson Murray in March 2007, May 2013 and October 2013 (see Section 3.2.2). The majority of baseline noise monitoring used by Wilkinson Murray pre-dates the 5-tonne load limit on Brickmakers Drive enacted in August/September 2013, and even in October 2013 this load limit may not have been fully adhered to.

Further, development of the northern part of the Georges Fair residential estate adjacent to Brickmakers Drive had not started in May 2013.

Therefore, EMM’s noise monitoring from 20 to 27 May 2015 provides contemporary RBLs against which the noise levels from the proposed Moorebank Recycling Facility should be assessed.

3.3 Noise criteria

The applicable intrusive criteria derived in accordance with the INP, using the measured RBLs determined from May 2015 monitoring and the SAR approach (ie page 26 the SAR adopts receiver 4S as representative of receivers 4K, 4L, 4M and 4N) are as follows ($L_{Aeq,15\text{minute}}$):

- 1. Malinya - 49 dB.
- 2. Elouera - 48 dB.
- 3. Martin - 44 dB.
- Georges Fair 4K, 4L, 4M, 4N, 4S - 39 dB.
- 8. Georges Fair Bradbury - 42 dB.

- 5R - Benedict - 48 dB.
- 5I - Future marina - 39 dB.

At location 4K to 4S (Georges Fair), the above criteria are significantly more stringent (13 dB) than those provided in Table 2 of the Secretary's Assessment Report (52 dB(A)), being the difference between a front and rear yard assessment. It is important to note that noise from the proposed recycling facility will be similar in the front and rear yard of Georges Fair residences given the point source nature of the site at distances of receivers, unlike the line source nature of the road traffic on Brickmakers Drive.

This lower RBL is likely to be due to a combination of factors including the introduction and enforcement of the 5-tonne load limit on Brickmakers Drive, appropriate placement of noise loggers in the rear of residences and because extrapolated background noise levels have not been used.

Background noise levels provided to DP&E and used in the Secretary's Assessment Report are outdated and are based on incorrectly located noise monitors. Hence, they provide inappropriate estimates of background noise. The significant consequence is that the criteria derived from background levels result in underestimation of potential impacts. The PAC therefore cannot make an informed conclusion regarding the noise impacts of the proposed development on the basis of information provided to DP&E by the proponent.

Implications of the correctly derived criteria are addressed at specific receivers in the following sections.

3.4 Predicted noise levels

Table 4.1 in EMM (2013) compares the Wilkinson Murray (2013) noise predictions to noise predictions made by EMM and by Renzo Tonin (from Renzo Tonin's Land and Environment Court statement of evidence in proceedings No. 30141 of 2013, 14 May 2013).

The noise level ($L_{Aeq,15\text{minute}}$) at 4N (GF01) within Georges Fair and at 5R (T-14) within the area of planned residences on northern portion of Benedict Industries site was predicted by EMM (2013) to be 58 dB(A), ie up to 9 dB above the proponent's criterion. EMM's predictions are based on a detailed three-dimensional noise model developed for the site and surrounds, and which adopted all inputs (eg emission data and location of sources) as described in the EIS and PPR documents. Although EMM's predictions do not align with those of the proponent, as described earlier, we will assume the proponent's predictions to be an accurate representation in the assessment of impacts that follow.

3.4.1 Existing Georges Fair residences

The $L_{Aeq,15\text{minute}}$ noise levels at existing Georges Fair residences predicted by Wilkinson Murray (2014) based on 10 truck movements per 15 minutes are provided in Table 3.2. As shown in Table 3.2, exceedances (shown red and bold) are predicted at all Georges Fair residences (9 dB to 14 dB).

Table 3.2 Predicted noise levels at existing Georges Fair residences

Location	Predicted noise level ($L_{Aeq,15min}$, dB)		Noise criteria ($L_{Aeq,15min}$, dB) based on RBLs from May 2015 background measurements
	neutral weather conditions ¹	adverse weather conditions ¹	
4K	52	53	39
4L	51	52	39
4M	48	51	39
4N	50	52	39
4S	44	48	39

Notes: 1. replicated in Table 2 of the Secretary's Assessment Report.

This is considered significantly above the PSNL and planning approvals in NSW would impose an acquisition requirement on a proponent if the application was a mining, petroleum or extractive industry subject to the state significant development provisions (as per the *Voluntary Land Acquisition and Mitigation Policy* (VLAMP) (NSW Government 2014)). Notwithstanding the strict applicability of the VLAMP to the subject recycling facility, it is EMM's experience that the EPA would only licence noise limits to within 5 dB of PSNL and only then if all reasonable and feasible noise mitigation is adopted.

The predicted noise levels from the proposed materials recycling facility (Wilkinson Murray 2014, Appendix E Secretary's Assessment Report) (albeit some of these predictions are lower than EMM (2014) noise predictions) would exceed noise criteria by up to 14 dB at existing Georges Fair residences in the absence of extensive noise mitigation measures.

3.5 Planned residences on northern portion of Benedict Industries site

The EA noise assessment (Wilkinson Murray 2012) acknowledges the planned residences on the northern portion of Benedict Industries site in the same manner it acknowledges the development now known as Georges Fair. Further, the EA and PPR noise assessments acknowledge the 2008 DCP plan and potential for residential land use.

The Section 2.2.2 of the INP clearly defines receiver types for noise assessment purposes and states:

The primary means for identifying the type of receiver is how the receiver area is zoned in the relevant planning instrument. The standard terminology used in planning instruments is usually limited to rural, rural residential and residential in respect of areas where dwellings would normally be located.

Other features of a locality that should also be considered include:

- predominant land use, including the proportion of the different land uses within the potentially noise-affected zone
- strategic planning objectives or plans to rezone (for example, as included in REPs, SEPs, Urban Development Program)

EPA's submission (2 May 2013) following the public exhibition of the Material Recycling Facility EA states:

The EPA usually assesses noise impacts at existing noise-sensitive receivers, or locations where a development approval has been granted but building has not commenced, or where a development application has been lodged but not yet determined. Where residences do not currently exist but might conceivably in the future it would be unreasonable for EPA to assign conditions or limits on industry for something that may or may not occur and for which the timing cannot be specified. Exceptions to this approach may occur where for example an area has been identified in planning documents for future residential land release.

The last sentence above is critical for the planned residences on northern portion of Benedict Industries site and on the marina site is highly applicable.

The EA noise assessment includes assessment of a receptor in the northern portion of Benedict Industries site (location 5R) as representative of a residential assessment location. In doing so, Wilkinson Murray adopts a RBL (L_{A90}) of 48 dB based on predicted future traffic on Brickmakers Drive (950 vehicles per hour). This RBL is not based on measurements at this or another similar location which would be the normal practice as stated in the Secretary's Assessment Report (page 25) (see Section 3.2.4 above). It is stated that this background level is for locations not shielded from Brickmakers Drive. Therefore future residences that will be shielded from Brickmakers Drive will have lower background noise levels and therefore lower applicable criteria. However, future residences that are shielded from Brickmakers Drive may not be shielded from the proposed recycling facility's access road and hence noise impacts will be greater for these residences.

As noted in Section 3.2.4, EMM's monitoring data show differences of at least 13 dB between the shielded and unshielded locations.

An intrusive criterion ($L_{Aeq,15\text{minute}}$ background plus 5 dB) of 53 dB was adopted in the PPR at 5R based on an estimated RBL of 48 dB. The PPR predicts a $L_{Aeq,15\text{minute}}$ noise level of up to 58 dB at this location (Secretary's Assessment Report Table 2). The appropriate $L_{Aeq,15\text{minute}}$ criterion for this location is 48 dB as described earlier in Section 3.3 and therefore highlights an even greater exceedance of criteria of 10 dB.

Therefore, noise levels from the proposed Material Recycling Facility would significantly exceed the criterion at residences in the southern part of the northern portion of Benedict Industries site.

The planned residential uses of the Benedict Industries' land cannot be ignored given the information presented since 2008.

In summary, the noise impacts from the proposed Material Recycling Facility to future residences, particularly from trucks on the access road, will not satisfy noise criteria without installation of road-side noise barriers and enclosure of the ramps on the access road and Brickmakers Drive intersection (see Figure 1.1) to effectively control truck noise based on the proponent's noise assessment. This barrier would need to be next to the access road and would need to be 6 m high as discussed in Section 3.7.

3.6 Planned marina precinct

Liverpool Council DCP 2008 Part 2.10, *Development in Moorebank East*, identifies residential uses on the proposed Marina development immediately north of the proposed materials recycling facility. There is a current application to Council to define residential areas within the proposed marina complex (see Section 2.4). The residences will be apartments positioned above the Maritime Building within the marina development. The apartments would overlook the proposed Material Recycling Facility and the access road to the facility. The earthen bund on the north of the recycling facility and the barrier along the access road would not acoustically shield the apartments. As for the northern portion of Benedict Industries site, planned future residences in the marina site cannot be ignored in the noise assessments.

The predicted $L_{Aeq,15\text{minute}}$ noise levels for the marina (51) are 57 dB to 58 dB (adjusted based on different metrics ("15 minute" versus "period" metric) from the Secretary's Assessment Report Table 2 that provides 55 dB to 56 dB $L_{Aeq,period}$). The most relevant noise criterion for this location, given its future residential use (as opposed to a less stringent commercial receiver criterion), is 39 dB. This corresponds to the criterion derived for shielded residences of Georges Fair. This noise criterion would be exceeded by 19 dB. Only very extensive mitigation measures could reduce noise levels from the proposed Material Recycling Facility to meet the applicable criterion at the marina.

The only feasible mitigation measure would be to fully enclose the site access road in the vicinity of the marina land and to fully enclose all noise generating activities within the Material Recycling Facility (see Figure 1.1).

3.7 Noise mitigation

3.7.1 Noise predictions by Dr Renzo Tonin

In Dr Tonin's statement of evidence regarding access road traffic noise predictions (see Section 3.4), he provided two noise treatment options to allow noise criterion to be achieved at residences of Georges Fair and on the northern portion of Benedict Industries site:

- Option 1 - barrier:
 - 6 m high absorptive noise barriers on both sides of the access road;
 - 5 m high absorptive noise barrier on both sides of the intersection ramps; and
 - 3.5 m barrier on the Benedict boundary south of the bridge.
- Option 2 - tunnel:
 - 6 m high absorptive noise barriers on both sides of the access road;
 - enclose both ramps (applying absorptive treatment within the enclosure); and
 - a 2.4m barrier in the Benedict boundary south of the bridge.

Dr Tonin shows that with such mitigation options, noise levels at Georges Fair residences are expected to be up to 2 dB (tunnel option) and 3 dB (barrier option) above noise criteria (refer to Table 11 and Table 13 of Dr Tonin's statement of evidence). Dr Tonin's conclusion demonstrates that very extensive engineering works would be required if noise criteria are to be achieved.

3.7.2 Road-side acoustic barriers

Given the 9 dB to 19 dB noise exceedances described earlier, and given that these exceedances account for the boundary bunding of the process area of the site to shield off site assessment locations, EMM is of a similar view to that of Dr Tonin that additional significant mitigation is required to meet appropriate criteria. However, the basis upon which Dr Tonin derives his impact assessment are criteria (ie 47 dB) that are more generous than those derived through monitoring by EMM (eg 39 dB for existing Georges Fair residences). It follows that the mitigation recommended by Dr Tonin will not alone be adequate to meet appropriately derived criteria from monitoring (EMM's). For these reasons, mitigation adopted by Dr Tonin will be a minimum but additional measures will also be needed.

These are described in the following sections as they apply to each assessment area.

3.7.3 Mitigating impacts at residences on northern portion of Benedict Industries site

Acoustic barriers are best placed at the source, in this case immediately beside the access road. Barriers need to be considerably higher if they are constructed away from the noise source, particularly if they are also distant from the receiver. The planned residences in the immediate south of the northern portion of Benedict Industries site will be protected to a greater degree than residences further from an acoustic barrier as they will be in the immediate or 'shadow zone' of the acoustic barrier.

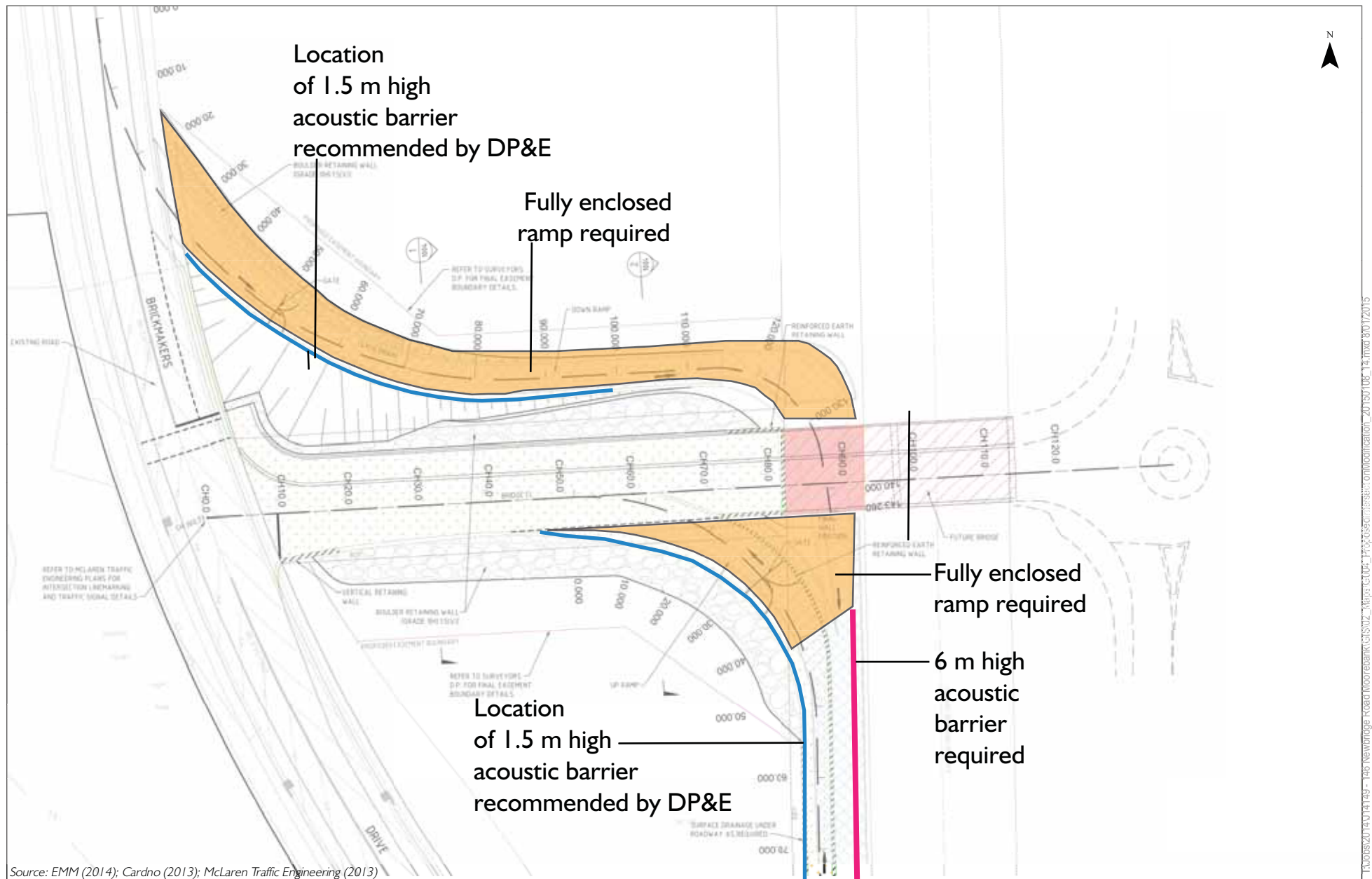
A 10 dB exceedance is highlighted for these residences (see Section 3.5) due to the access road and ramps to/from Brickmakers Drive. Such an exceedance is significant and for this reason, a combined barrier and enclosure of ramps as described by Dr Tonin is recommended ie 6 m high acoustic barrier on the east of the access road and enclosing of the ramps.

3.7.4 Mitigating impacts at residences on marina site

A noise barrier will not benefit the potential residences atop the proposed Marina. The predicted exceedances of 19 dB are beyond the possible benefits of a road side or site boundary noise barrier. Typically, enclosing a noise source would achieve a 20 dB loss in energy and therefore enclosing the access road and main noise sources at the proposed recycling site will be required to achieve appropriate noise criteria.

3.7.5 Responsibility for construction and maintenance of acoustic barriers

The capital cost and up keep of such extensive acoustic barriers is high. It should be and is borne by the proponent generating the noise and not those impacted, in EMM's experience.



3.8 Recommendations

EMM has reviewed the draft conditions of approval (Appendix A of the Secretary's Assessment Report). Based on the above findings, EMM recommends the following changes or additions to the noise-related conditions.

Noise Criteria

Condition C11. The Proponent shall ensure that noise generated by the operation of the project does not exceed the noise criteria in Table 6.

Table 6: Operational noise criteria (dB(A))

Location	Daytime criteria (L _{Aeq,15 min} dB)
1 (Malinya Crescent)	49
2 (Elouera Crescent)	48
3 (Martin, Milperra)	44
4K, 4L, 4M, 4N, 4S (Georges Fair)	39
Benedict future residences	48
Marina future residences	39

Notes: 1. To interpret the location referred to in Table 6, see the figure in Appendix C; and
2. Noise generated by the project is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

Noise Mitigation

Condition C13: The Proponent shall:

- a) operate the project so that noise impacts are minimised during all meteorological conditions; and
- b) implement all reasonable and feasible measures to minimise noise impacts including, but not limited to:
 - modified operation during adverse meteorology;
 - hydraulic dipper door snubbers on tip trucks;
 - wide band reversing alarms (or another suitable alternative) on trucks and other mobile plant;
 - erection of a 6 m high absorptive acoustic barrier along both sides of the access road, enclose both ramps with absorptive treatment within the enclosure;
 - enclose the access road adjacent the proposed marina complex residential zone; and
 - enclose all noise producing plant and activities of the recycling facility in a purpose built building consistent with contemporary waste recycling centres located in suburban areas.

Noise Barriers

Condition C14: The Proponent shall install the noise barriers shown in the noise barrier plan (see Appendix D) to the satisfaction of the Secretary prior to the commencement of operation.

Note: Appendix D is to be updated to reflect the above barrier and enclosure detail (refer to Figure 1.1 and Figure 3.3).

4 Traffic

4.1 New site access junction with Brickmakers Drive

EMM's Senior Traffic Engineer, Dr Tim Brooker, has reviewed the Secretary's Environmental Assessment Report and associated environmental assessment documents. Dr Brooker is familiar with roads and traffic conditions in the local area having visited the site during the preparation of traffic assessments for the Georges Cove Marina (2015, unpublished) and Georges Cove residential estate (2015, unpublished).

Dr Brooker's comments on the materials recycling facility traffic assessment, specifically on the proposed new site access junction intersection (the Brickmakers Drive and link road intersection) design are provided below for the PAC's consideration.

4.2 Secretary's Environmental Assessment Report

Section 5.1 of the Secretary's Environmental Assessment Report states the following as relevant to the discussion below:

The projects peak hourly traffic would generate a maximum of approximately 38 truck movements between 8am and 9am and approximately 21 truck movements between 4pm and 5pm.

and

The Proponent's intersection modelling shows that, with trucks entering Brickmakers Drive under stop sign control, the site access would operate at Level of Service (LoS) "A" during the 8am to 9am period and LoS "B" during the 4pm to 5pm period. Both A and B ratings are an acceptable level of service under Austroads "Guide to Traffic Management".

and

The Proponent offered to install traffic signals in any case. The Proponent's traffic engineer argued in the addendum that there is inadequate sight distance to ensure drivers can observe an appropriate gap in traffic before entering Brickmakers Drive. However, the RMS advised that there is insufficient evidence that signals are warranted at this location and did not support the installation of signals. Consequently, based on RMS advice, the Department has not recommended that signals be installed for this project.

4.3 Intersection design

The NSW Land and Environment Court approved an intersection design prepared by Cardno (2013) for the Brickmakers Drive and link road intersection (NSW LEC 30141, 2013). This plan to comply with the Court's approval is attached (Plan A). The proposed link road and its intersection with Brickmakers Road must be physically identical to that approved by the NSW Land and Environment Court (ie the layout prepared by Cardno).

4.4 Intersection capacity

EMM has assessed the traffic capacity (recycling facility traffic only) of the Brickmakers Drive and link road intersection for the morning and afternoon peak hours using SIDRA.

4.4.1 Intersection with proposed stop sign

The proposed recycling centre traffic will be primarily trucks. Based on the peak hour traffic movements quoted above, there will be 19 trucks per hour travelling into the site and 19 trucks per hour travelling out of the site during the morning peak hour and 10 to 11 trucks per hour travelling in each direction during the afternoon peak hour. There will also be some car traffic (typically 2 to 5 vehicles per hour) using the intersection during the assessed peak periods from the site employee and visitor access.

Inbound trucks will bypass the main Brickmakers Drive and link road intersection via a slip road to the underpass. However, outbound trucks will make a right turn from the link road onto Brickmakers Drive from a stop sign on the link road.

The SIDRA intersection analysis results agree with the finding that the intersection will operate at an overall Level of Service A as stated in the Secretary's Environmental Assessment Report (SIDRA results attached). However, the Secretary's report omits that the traffic on the link road will operate at level of service F, which is unacceptable. The average delays for outbound trucks turning right onto Brickmakers Drive will be:

- 385 seconds per vehicle in the morning traffic peak hour; and
- 227 seconds per vehicle in the afternoon traffic peak hour.

In the absence of traffic signals, each outbound truck will be subject to an average delay of six minutes (during the morning peak hour) before they can turn right onto Brickmakers Drive. While the proponent may argue that this is only a problem for trucks using the Recycling Facility, there will be risks and impacts to the community as:

- truck drivers will take risks when turning right on Brickmakers Drive rather than wait five minutes before they can turn;
- there will be an increased risk of accidents on Brickmakers Drive as trucks pull out into traffic flow gaps that are too small; and
- a truck queue will form at the intersection, increasing truck noise emissions in the area.

4.4.2 Signalised intersection

The provision of traffic signal at the intersection will substantially reduce delays for outbound traffic and the overall intersection level of service will be 'A' providing acceptable intersection safety and reducing, but not eliminating truck queuing at the intersection (SIDRA results attached). The average delays for outbound trucks would be:

- 67 seconds per vehicle in the morning traffic peak hour; and
- 71 seconds per vehicle in the afternoon traffic peak hour.

These delays are much shorter than for a stop sign controlled intersection. More importantly from the community perspective, there would only be a low risk that trucks would undertake unsafe turns with the traffic signals installed.

The proponent previously offered to install traffic signals. If the project is approved, installation of traffic signals at the Brickmakers Drive and link road intersection by the proponent should be an approval condition.

4.4.3 Cumulative impacts

As described above, a signalised intersection is required for the safe operation of the Recycling Facility alone. Traffic signals will be advantageous or required for the other proposed developments using the link road and will be required to manage the cumulative impacts if more than one of the proposed developments proceeds. Therefore, the Moorebank Recycling Facility proponent should be required to contribute to the cost of the traffic signals regardless of the order in which the developments are constructed.

4.4.4 Roads and Maritime Services

We do not agree with Roads and Maritime Services' position that there is insufficient evidence that traffic signals are required given the risks that right turning trucks will present traffic on Brickmakers Drive.

In order to address potential Roads and Maritime Services' concerns in relation to ongoing funding requirement for the future maintenance of the traffic signals, the proponent could provide a one off contribution or annual contributions to meet ongoing traffic signal maintenance costs.

4.4.5 Recommendations

In summary, it is recommended that the following conditions should be applied if the project is approved:

- **C20a. The Proponent shall construct the Brickmakers Drive and link road intersection in accordance with the design approved by the NSW Land and Environment Court (NSW LEC 30141, 2013) as shown in Plan A.**
- **C20b. The Proponent shall install traffic signals on the Brickmakers Drive and link road intersection prior to operations commencing.**
- **C20c. The Proponent shall pay for the construction of the intersection slip lanes.**
- **C20d. If the Brickmakers Drive and link road intersection is constructed without the slip lanes to serve another development prior to its construction by the proponent, the Proponent shall reimburse the party that constructed the intersection half of the construction costs of the intersection (excluding the slip lanes).**
- **C20e. If the Brickmakers Drive and link road intersection is constructed to serve another development prior to its construction by the Proponent and then requires modification to allow its safe use by the Proponent, the Proponent shall pay for these modifications.**
- **C20f. The proponent shall pay a contribution agreed with Roads and Maritime Services for the ongoing maintenance of the traffic signals at the Brickmakers Drive and link road intersection.**

Appendix A

EMM noise monitoring results (May 2015)

Table A.1 EMM unattended noise measurements

Date	ABL Day	
	Location 4S (Georges Fair)	Location 3 (Milperra)
Wednesday, 20-05-15	-	-
Thursday, 21-05-15	36	39
Friday, 22-05-15	40	44
Saturday, 23-05-15	33	39
Sunday, 24-05-15	27 (ignored)	35 (ignored)
Monday, 25-05-15	31	39
Tuesday, 26-05-15	34	37
Wednesday, 27-05-15	-	-
RBL	34	39

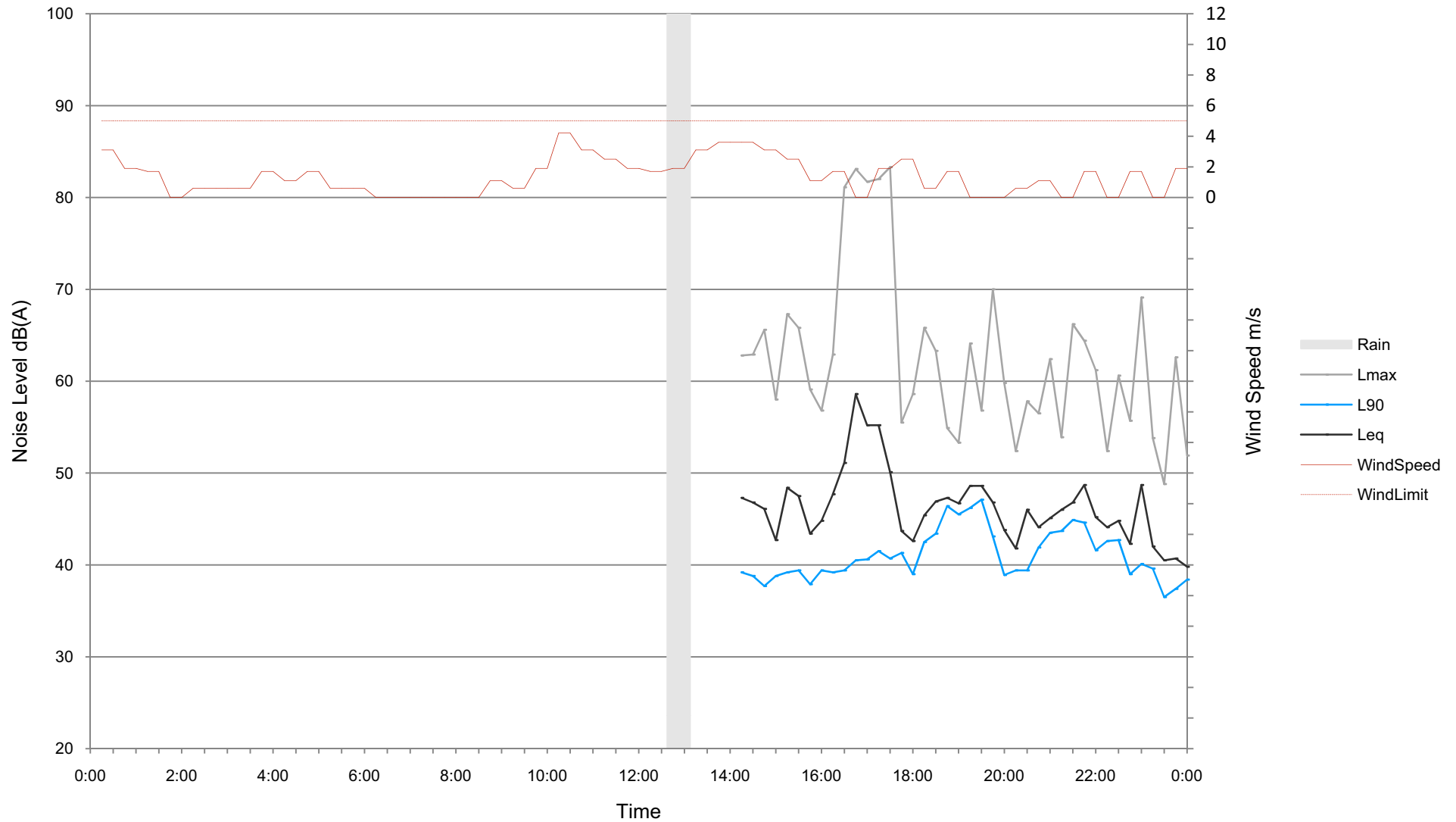
Notes: 1. An Acoustic Research laboratory (ARL) 316 noise logger was used for unattended noise monitoring at both locations.

Table A.2 EMM attended 15-minute noise measurements compared to unattended data

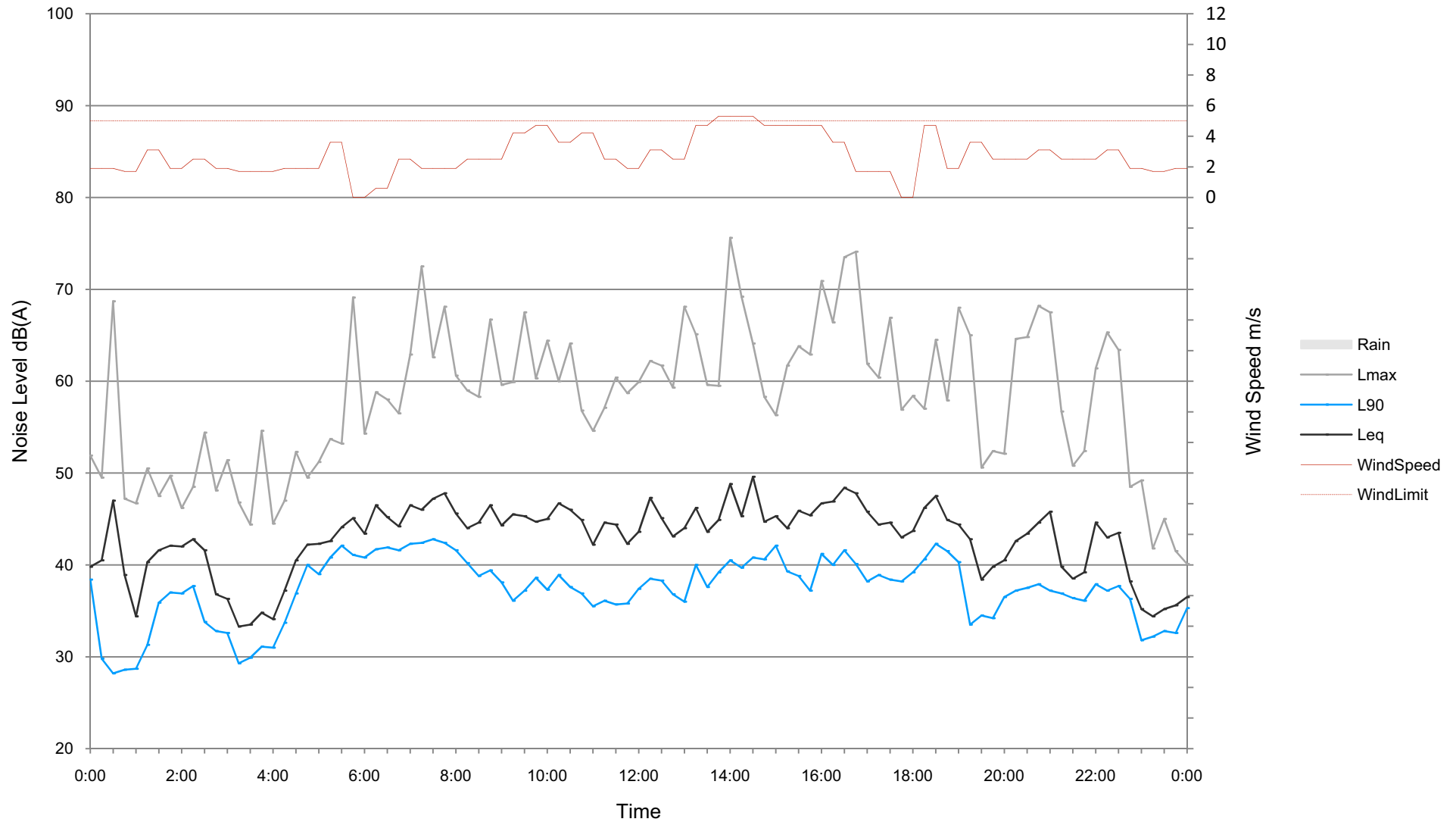
Location	Start time	Noise measurement, dB		Comment
		L _{Aeq}	L _{A90}	
20 May 2015				
4S (unshielded)	14:00	62	52	EMM Logger at 4S
EMM Logger at 4S		47	39	
4S (shielded, 5 Turton Rd)	14:30	49	38	EMM Logger at 4S
EMM Logger at 4S		46	38	
27-May-15				
4M (unshielded)	14:45	67	53	Brickmakers drive dominant. Slight construction noise in background.
EMM Logger at 4S		53	35	
4M (partly shielded)	16:45	51	41	Brickmakers drive dominant
EMM Logger at 4S		43	34	
E (rear of 41 Elouera Cr)	15:15	54	47	Brickmakers drive dominant. Birds and minimal noise from Newbridge Road
EMM Logger at 4S		39	35	
4N (unshielded)	15:30	71	59	Brickmakers drive dominant. Birds and minimal noise from Newbridge Road
EMM Logger at 4S		40	34	
5R (unshielded)	16:00	53	46	Brickmakers drive dominant. Slight aircraft movement above site (flight training). Slight contribution from Newbridge Road
EMM Logger at 4S		47	35	
5I (unshielded)	16:15	51	48	Brickmakers drive dominant. Slight aircraft movement above site (flight training). Slight contribution from Newbridge Road
EMM Logger at 4S		39	33	
EMM Logger at 3		52	42	

Notes: 1. Weather conditions during monitoring was fine with no rain and relatively low wind speeds (2.5 m/s to 3.1 m/s from Bankstown airport BoM weather station at 10 m above ground).
2. SVAN 979 type 1 analyser was used for attended noise measurements and was calibrated before and after readings.

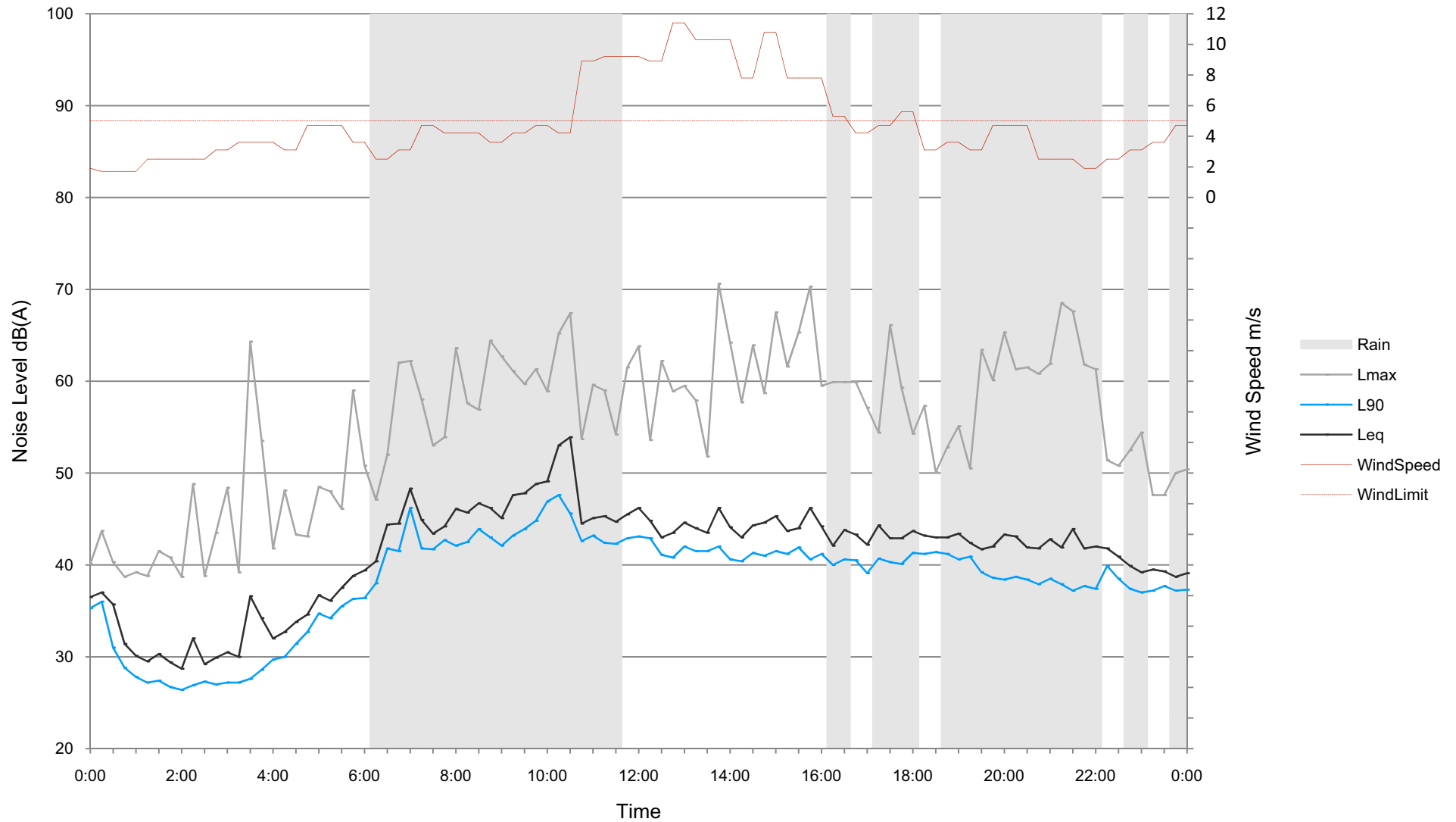
Measured Ambient Noise Levels
10 Bushview Lane
Wednesday, 20-05-15



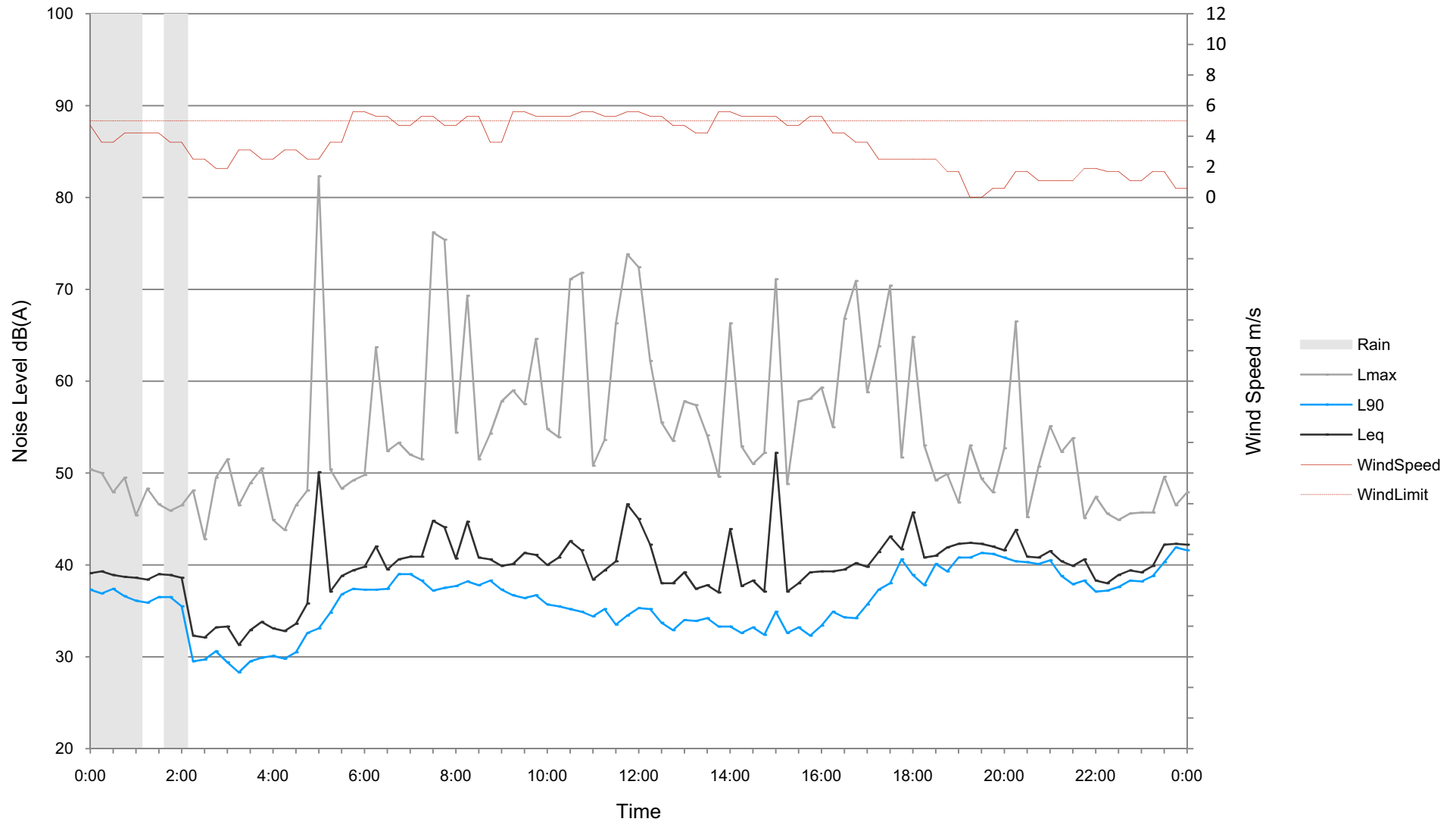
Measured Ambient Noise Levels
10 Bushview Lane
Thursday, 21-05-15



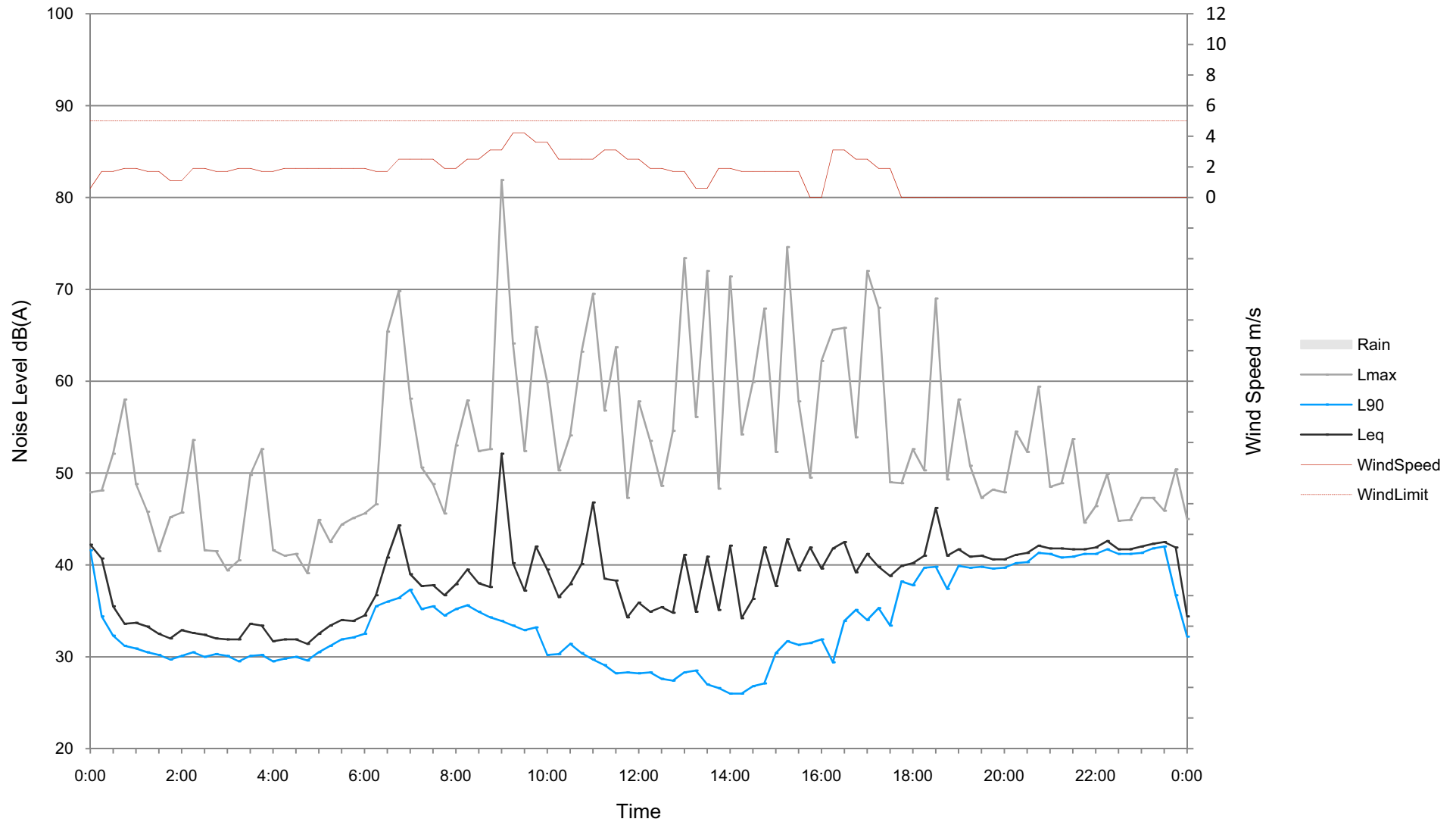
Measured Ambient Noise Levels
10 Bushview Lane
Friday, 22-05-15



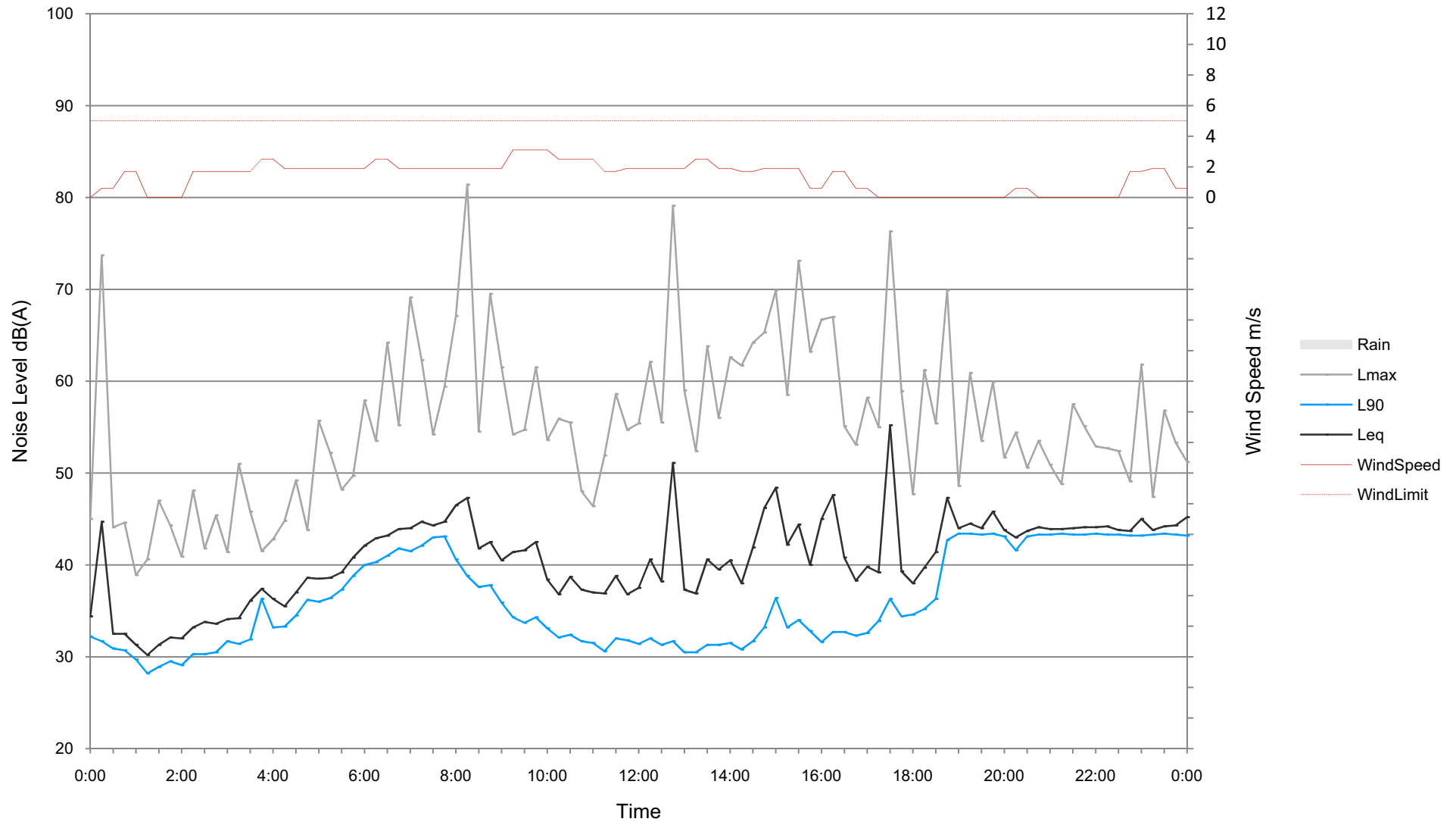
Measured Ambient Noise Levels
10 Bushview Lane
Saturday, 23-05-15



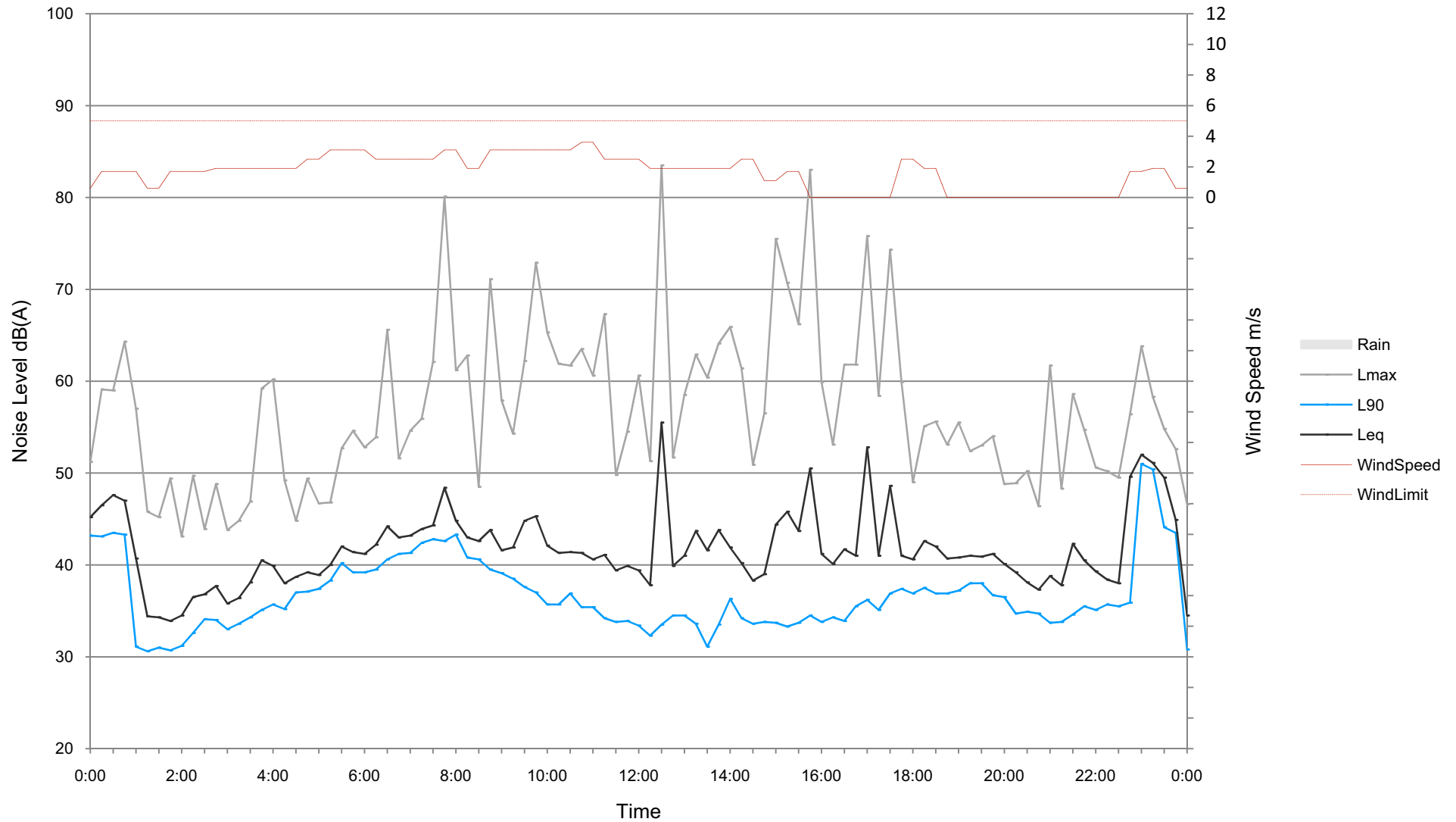
Measured Ambient Noise Levels
10 Bushview Lane
Sunday, 24-05-15



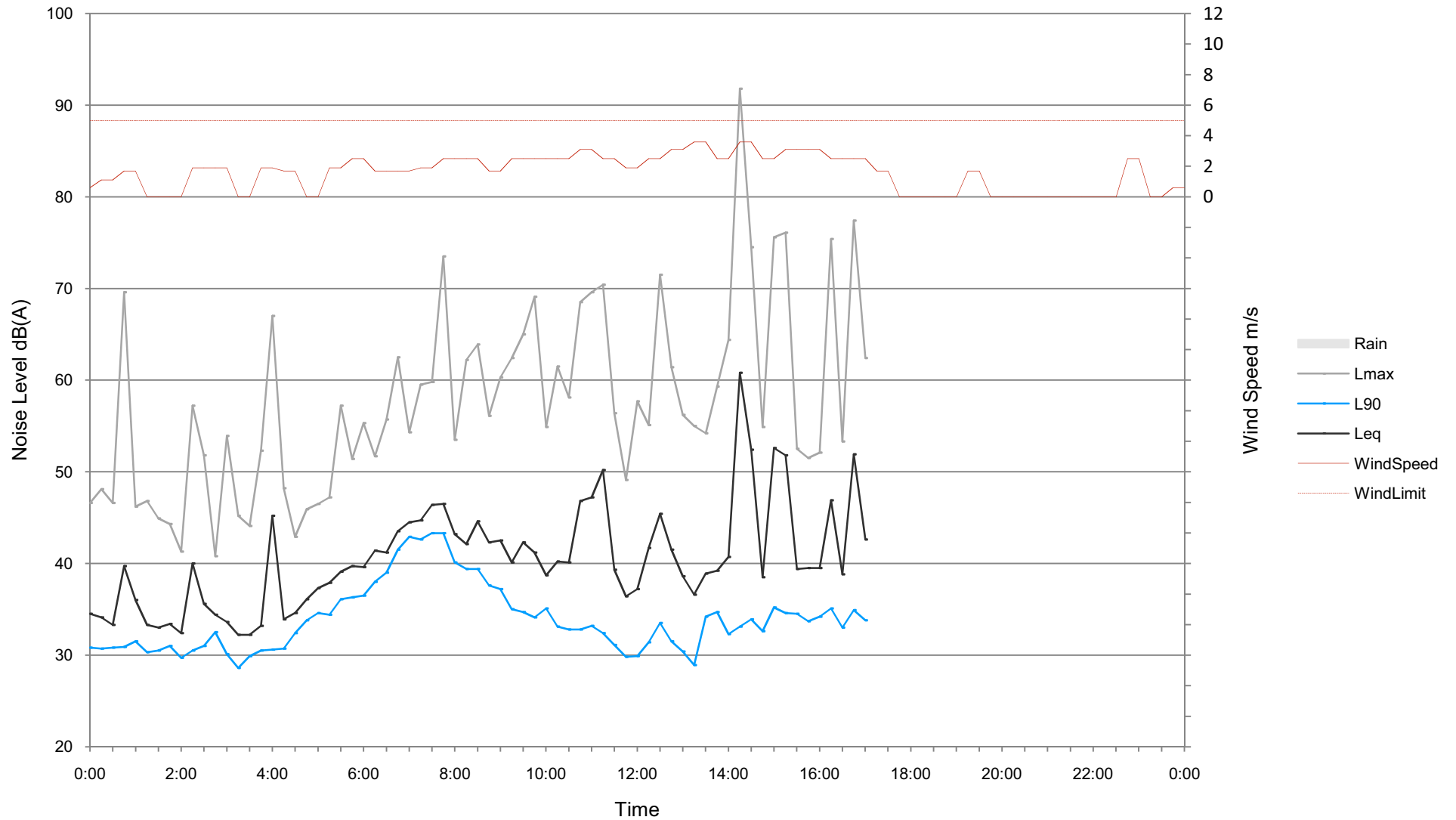
Measured Ambient Noise Levels
10 Bushview Lane
Monday, 25-05-15



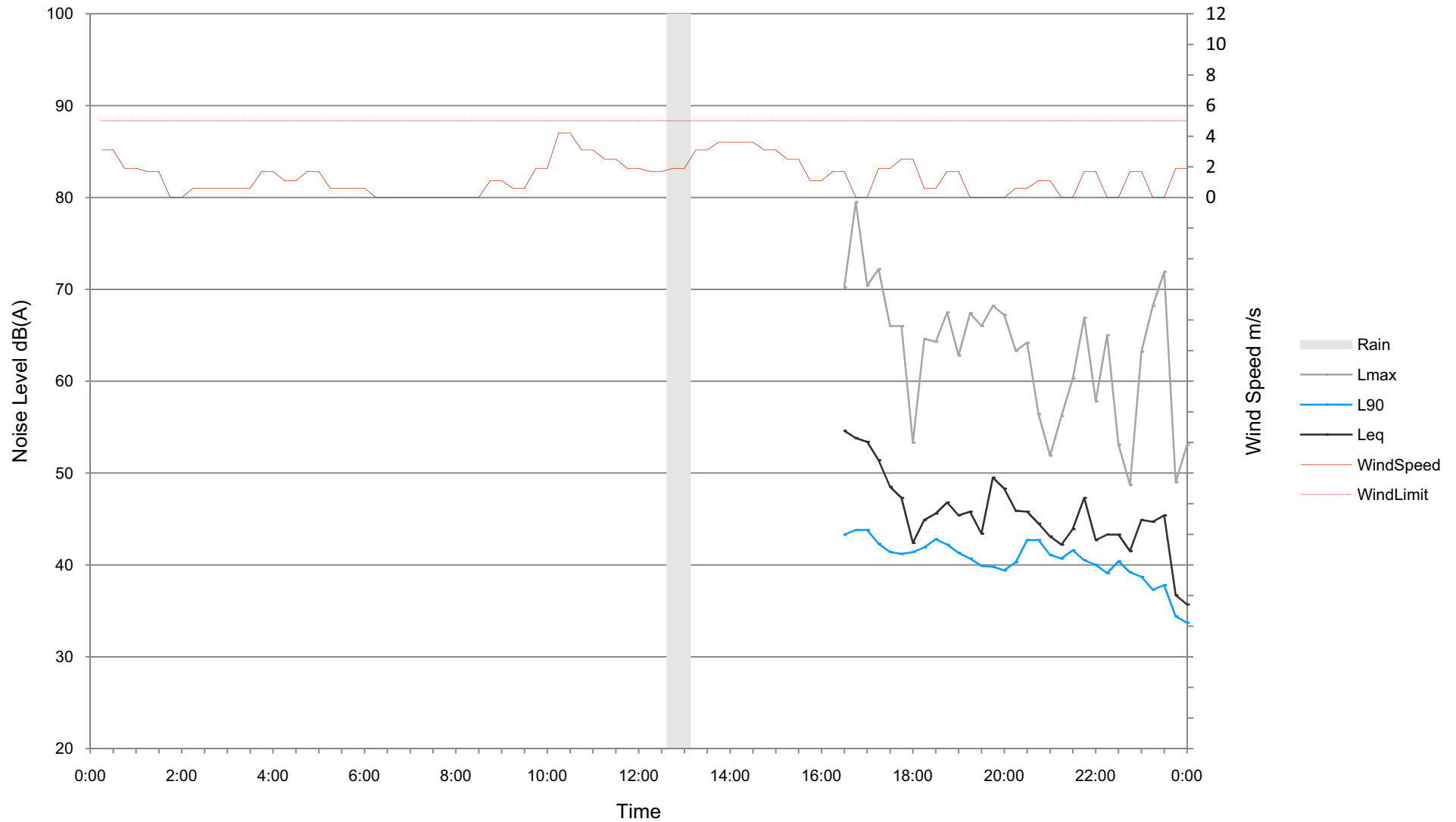
Measured Ambient Noise Levels
10 Bushview Lane
Tuesday, 26-05-15



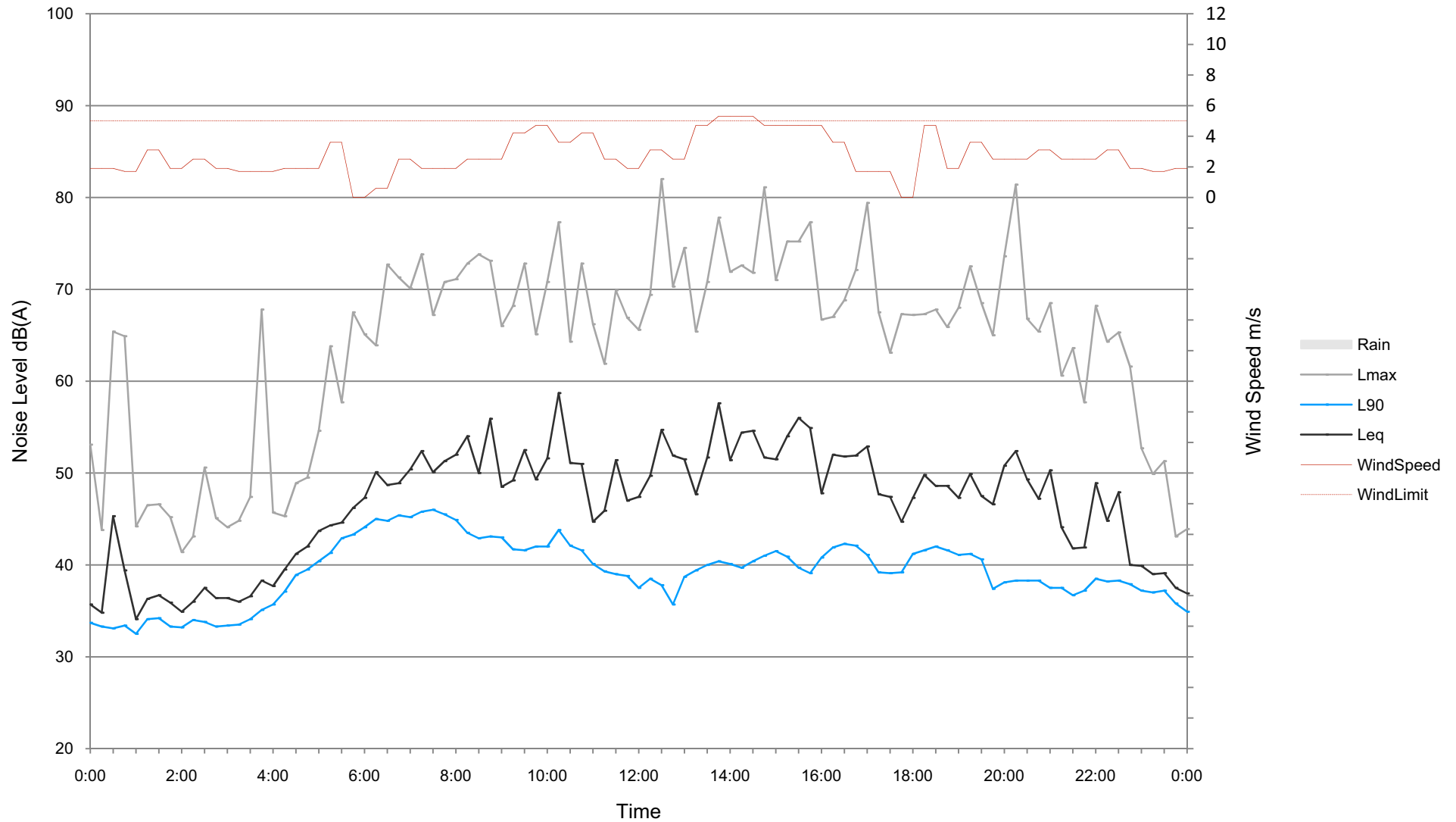
Measured Ambient Noise Levels
10 Bushview Lane
Wednesday, 27-05-15



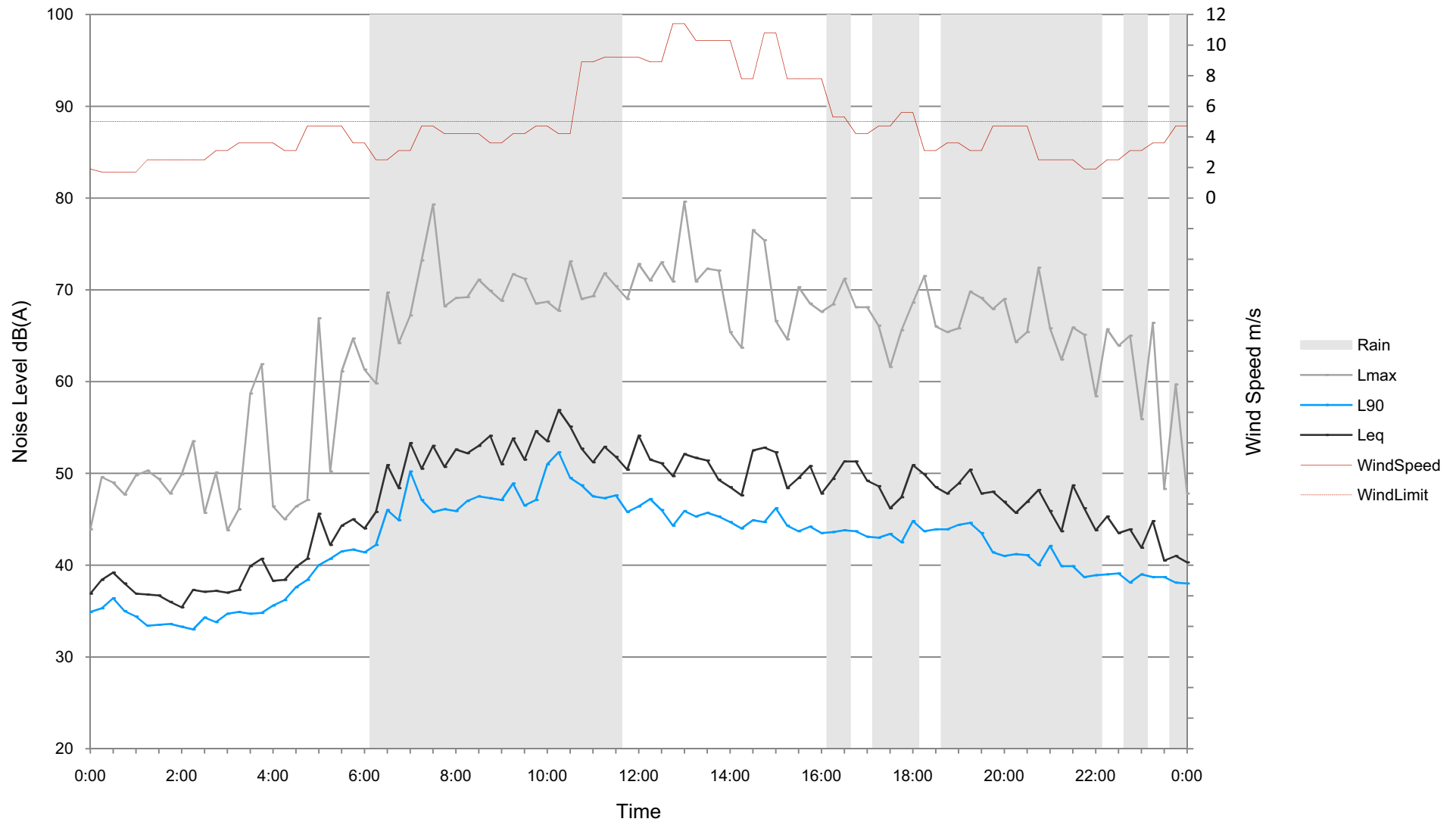
Measured Ambient Noise Levels
41 Martin Crescent
Wednesday, 20-05-15



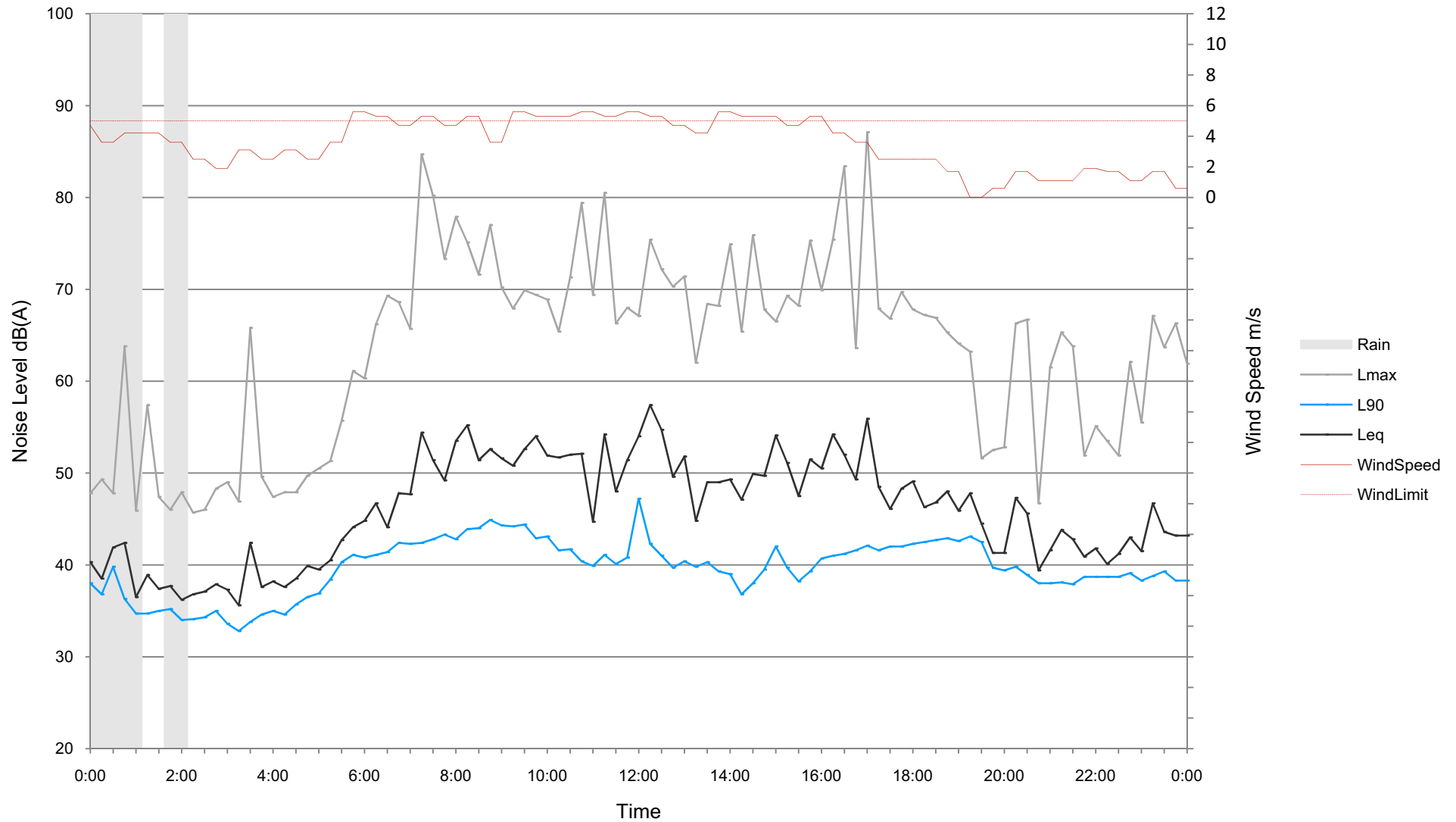
Measured Ambient Noise Levels
41 Martin Crescent
Thursday, 21-05-15



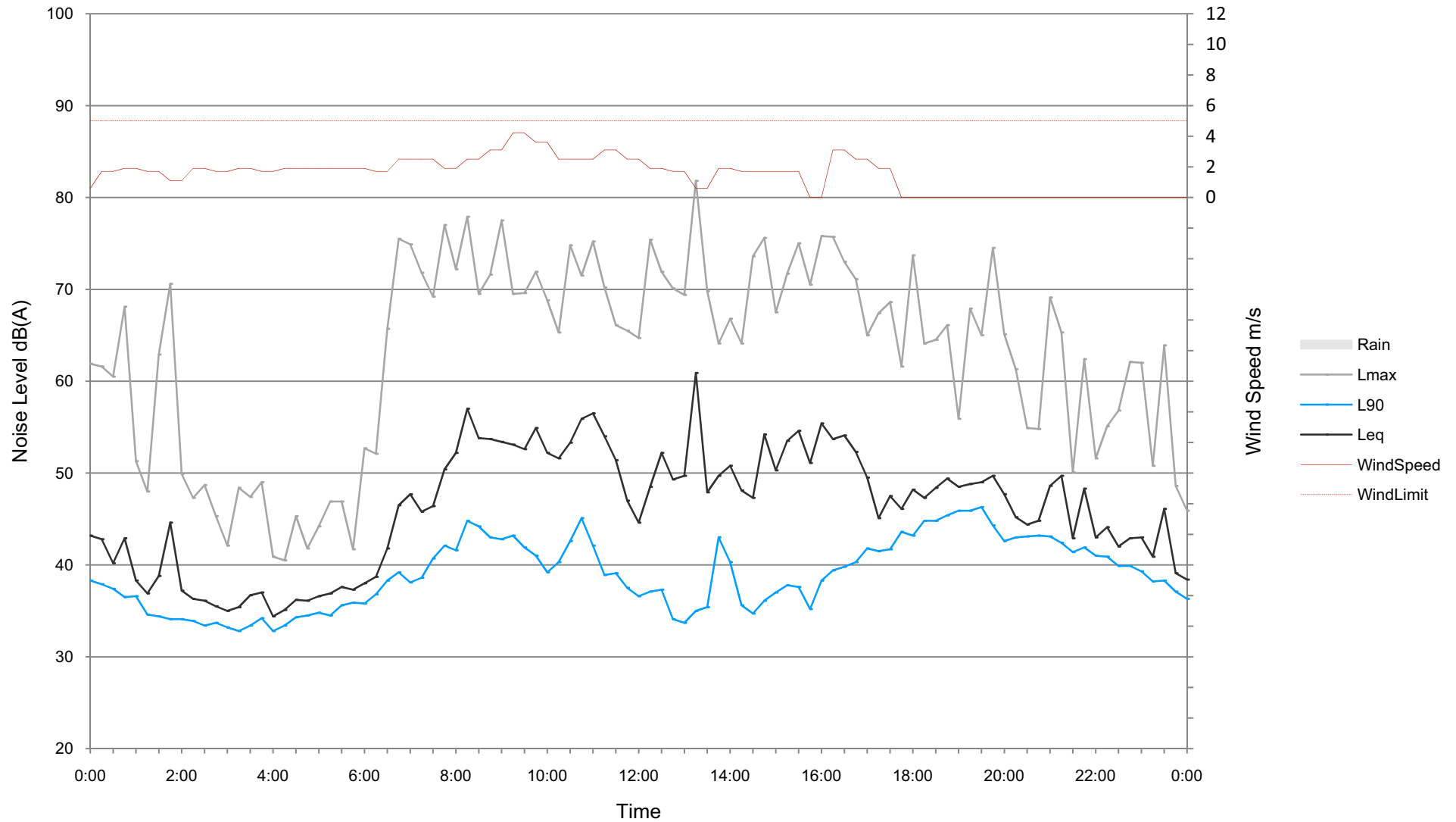
Measured Ambient Noise Levels
41 Martin Crescent
Friday, 22-05-15



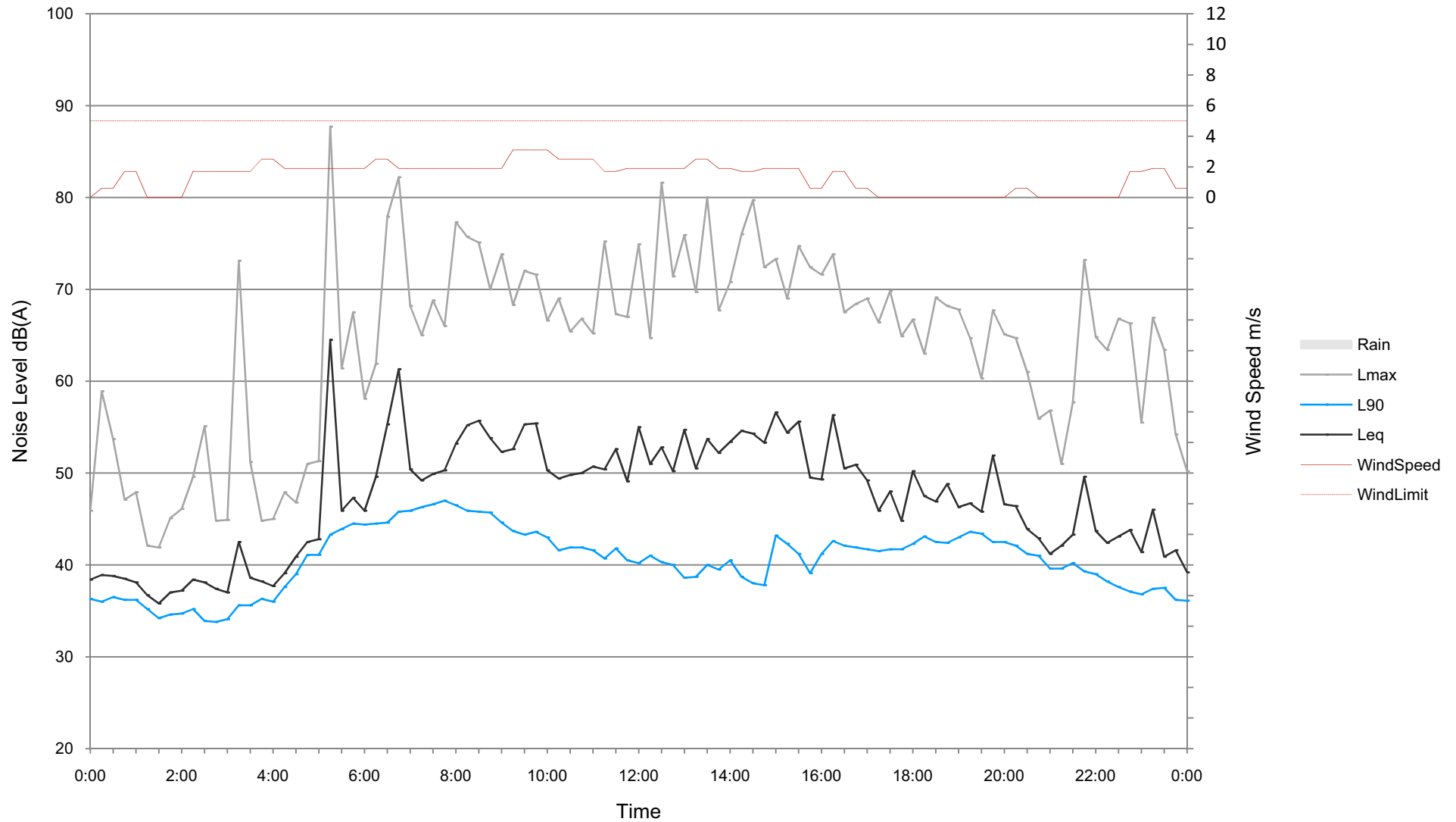
Measured Ambient Noise Levels
41 Martin Crescent
Saturday, 23-05-15



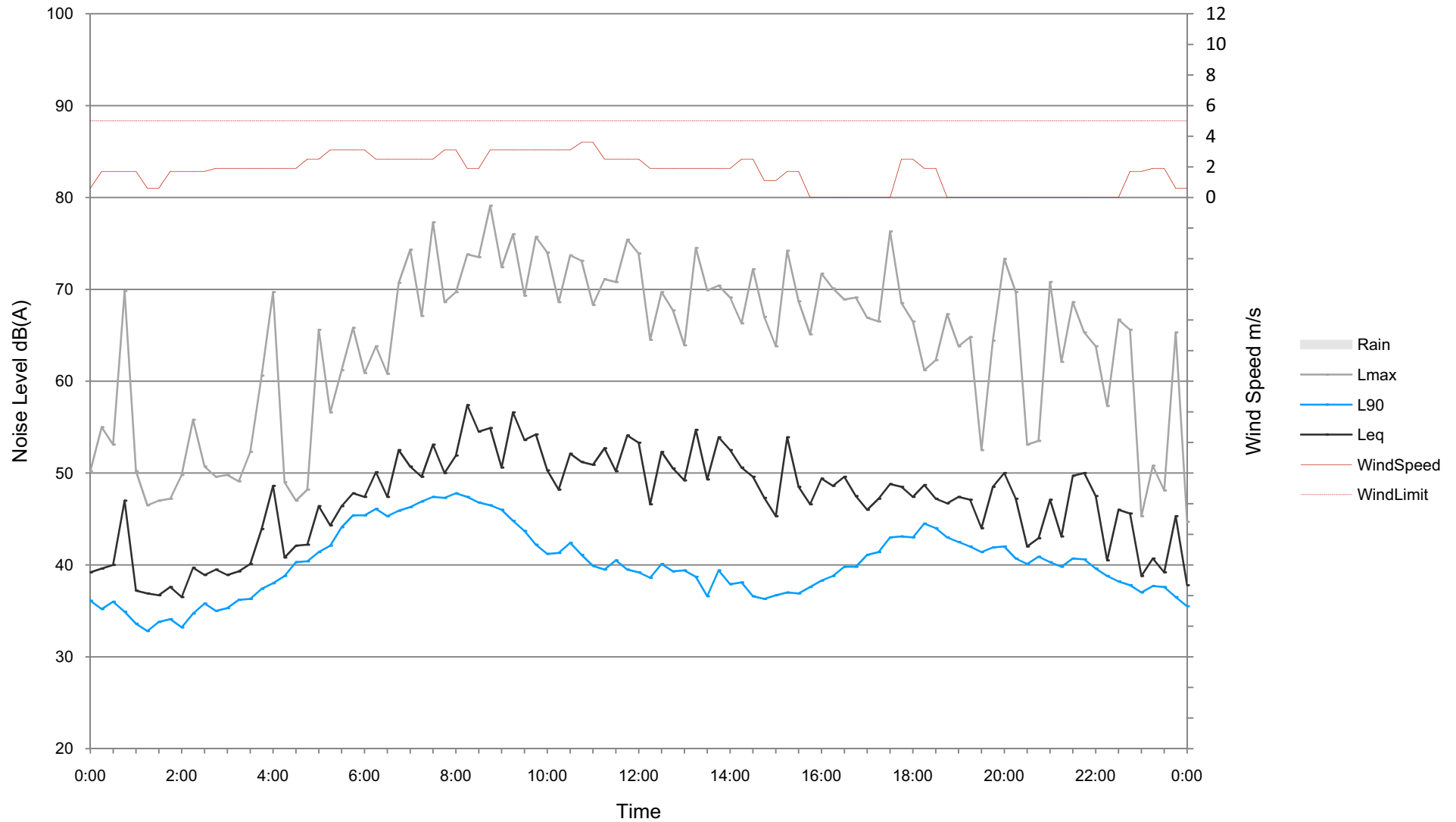
Measured Ambient Noise Levels
41 Martin Crescent
Sunday, 24-05-15



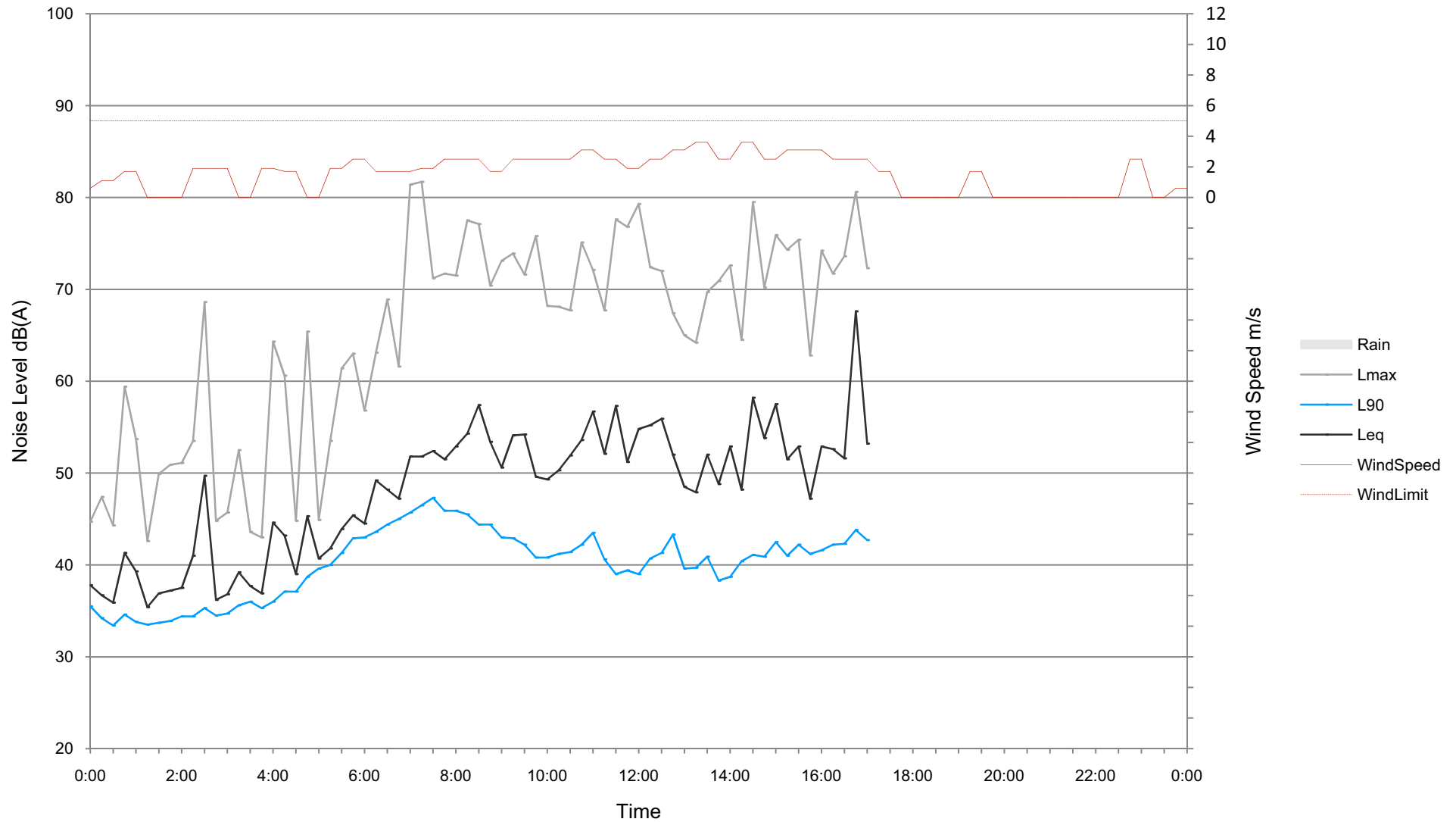
Measured Ambient Noise Levels
41 Martin Crescent
Monday, 25-05-15



Measured Ambient Noise Levels
41 Martin Crescent
Tuesday, 26-05-15

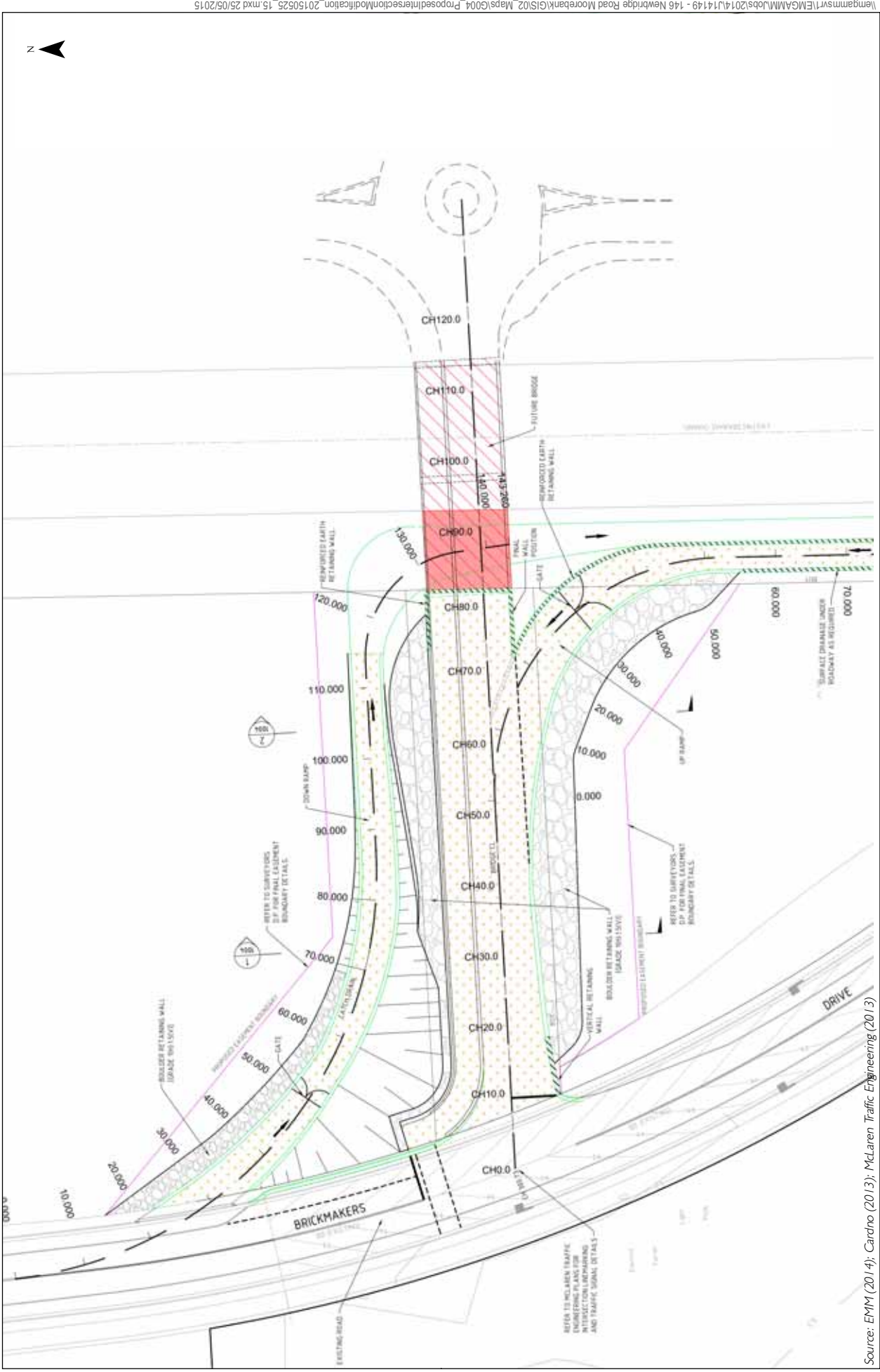


Measured Ambient Noise Levels
41 Martin Crescent
Wednesday, 27-05-15



Appendix B

Plan A: Approved Brickmakers Drive and link road intersection



Source: EMM (2014); Cardno (2013); McLaren Traffic Engineering (2013)



Approved link road and intersection with Brickmakers Drive
Plan A

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Appendix C

SIDRA results

MOVEMENT SUMMARY

Site: Unsignalised Weekday AM
Peak Proposed Development

New T Intersection
Giveway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Brickmakers Drive											
2	T	829	1.0	0.433	1.5	LOS A	4.3	30.2	0.51	0.00	44.2
3	R	5	0.0	0.433	8.1	LOS A	4.3	30.2	0.51	0.84	43.1
Approach		835	1.0	0.433	1.5	NA	4.3	30.2	0.51	0.01	44.2
East: New Link Road											
4	L	2	0.0	1.000 ⁴	382.8	LOS F	4.6	54.4	0.99	1.28	4.9
6	R	22	90.5	1.000 ⁴	385.5	LOS F	4.6	54.4	0.99	1.34	4.9
Approach		24	82.6	1.000	385.3	LOS F	4.6	54.4	0.99	1.34	4.9
North: Brickmakers Drive											
7	L	1	0.0	0.001	6.4	LOS A	0.0	0.0	0.00	0.61	43.3
8	T	205	1.0	0.106	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		206	1.0	0.106	0.0	NA	0.0	0.0	0.00	0.00	50.0
All Vehicles		1065	2.9	1.000	9.9	NA	4.6	54.4	0.42	0.04	38.0

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

⁴ x = 1.00 due to minimum capacity

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SIDRA INTERSECTION 5.1.13.2093

Project: C:\Program Files (x86)\SIDRA SOLUTIONS\SIDRA RESULTS\Moorebank Marina\Brickmakers Drive

Intersection for Recycling Traffic.sip

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SIDRA
INTERSECTION

MOVEMENT SUMMARY

Site: Unsignalised Weekday PM
Peak Proposed Development

New T Intersection
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Brickmakers Drive											
2	T	200	1.1	0.107	6.2	LOS A	1.4	10.2	0.74	0.00	41.6
3	R	2	0.0	0.107	12.8	LOS A	1.4	10.2	0.74	1.00	40.1
Approach		202	1.0	0.107	6.3	NA	1.4	10.2	0.74	0.01	41.5
East: New Link Road											
4	L	5	0.0	0.715	224.7	LOS F	2.5	25.5	0.98	1.17	7.8
6	R	17	68.8	0.715	226.9	LOS F	2.5	25.5	0.98	1.14	7.8
Approach		22	52.4	0.715	226.4	LOS F	2.5	25.5	0.98	1.14	7.8
North: Brickmakers Drive											
7	L	1	0.0	0.001	6.4	LOS A	0.0	0.0	0.00	0.61	43.3
8	T	865	1.0	0.447	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		866	1.0	0.447	0.0	NA	0.0	0.0	0.00	0.00	50.0
All Vehicles		1091	2.0	0.715	5.8	NA	2.5	25.5	0.16	0.03	43.5

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

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SIDRA
INTERSECTION

MOVEMENT SUMMARY

Site: Traffic Signals Weekday AM
Peak Proposed Development

New T Intersection

Signals - Fixed Time Cycle Time = 125 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Brickmakers Drive											
2	T	829	1.0	0.541	4.6	LOS A	17.5	123.7	0.38	0.36	43.9
3	R	5	0.0	0.541	11.3	LOS A	17.5	123.7	0.38	0.97	40.3
Approach		835	1.0	0.541	4.7	LOS A	17.5	123.7	0.38	0.36	43.8
East: New Link Road											
4	L	2	0.0	0.199	64.4	LOS E	1.4	17.0	0.95	0.73	19.5
6	R	22	90.5	0.199	67.2	LOS E	1.4	17.0	0.95	0.73	19.5
Approach		24	82.6	0.199	66.9	LOS E	1.4	17.0	0.95	0.73	19.5
North: Brickmakers Drive											
7	L	1	0.0	0.002	9.0	LOS A	0.0	0.1	0.20	0.61	41.1
8	T	205	1.0	0.132	2.9	LOS A	2.7	19.2	0.24	0.20	46.0
Approach		206	1.0	0.132	2.9	LOS A	2.7	19.2	0.24	0.21	45.9
All Vehicles		1065	2.9	0.541	5.8	LOS A	17.5	123.7	0.37	0.34	43.0

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Pedestrian ped	Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P5	Across N approach	53	56.6	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		53	56.6	LOS E			0.95	0.95

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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SIDRA
INTERSECTION

MOVEMENT SUMMARY

Site: Traffic Signals Weekday PM
Peak Proposed Development

New T Intersection

Signals - Fixed Time Cycle Time = 135 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Brickmakers Drive											
2	T	200	1.1	0.132	2.9	LOS A	2.8	19.6	0.23	0.20	46.0
3	R	2	0.0	0.132	9.6	LOS A	2.8	19.6	0.23	0.96	41.3
Approach		202	1.0	0.132	3.0	LOS A	2.8	19.6	0.23	0.20	45.9
East: New Link Road											
4	L	5	0.0	0.170	69.2	LOS E	1.4	14.1	0.95	0.72	18.7
6	R	17	68.8	0.170	71.3	LOS F	1.4	14.1	0.95	0.72	18.7
Approach		22	52.4	0.170	70.8	LOS F	1.4	14.1	0.95	0.72	18.7
North: Brickmakers Drive											
7	L	1	0.0	0.002	8.8	LOS A	0.0	0.1	0.19	0.61	41.3
8	T	865	1.0	0.548	4.4	LOS A	18.6	131.1	0.36	0.34	44.2
Approach		866	1.0	0.548	4.4	LOS A	18.6	131.1	0.36	0.34	44.2
All Vehicles		1091	2.0	0.548	5.5	LOS A	18.6	131.1	0.35	0.32	43.3

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Pedestrian ped	Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P5	Across N approach	53	61.6	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		53	61.6	LOS F			0.96	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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T 02 4927 0506 F 02 4926 1312

BRISBANE

Suite 1, Level 4, 87 Wickham Terrace
Spring Hill, Queensland, 4000
T 07 3839 1800 F 07 3839 1866



Our Ref: 2007/0314
Your Ref:
Contact: Michael Williams
Tel 9821 9212
Fax 9821 9532
m.williams@liverpool.nsw.gov.au
Date: 22/2009

The Director
Moorebank Recyclers P/L
PO Box 238
RYDALMERE NSW 1701

Dear Sir

RE: Landowners consent – Lots 308 & 309 DP 1118048 - Moorebank

We refer to your letter dated 22/12/2008 and confirm that Council grants consent for the lodgement of the Part 3A Project Application with the Minister for Planning in relation to the abovementioned Land for access purposes to the proposed materials recycling yard.

Yours faithfully,



Michael Williams
Property Manager

Our reference: DOC15/224955

Mr Chris Ritchie
Director
Industry Assessments
Department of Planning and Environment
GPO Box 39
Sydney NSW 2001

EMAIL AND STANDARD POST

Dear Mr Ritchie

**RE: Noise Impact Assessment
Waste Management Facility, Moorebank (MP05_0157)**

The Environment Protection Authority ("EPA") has reviewed the noise impact issues and makes the following comments on the noise component of the EMM report:

1. In Section 3.2.2, i, last paragraph, EMM make the assertions that background noise measurements must be made in shielded locations, and that these are typically backyards. EMM do not state what would be providing the shielding but presumably it would be the residence. One circumstance where EPA has accepted measuring background noise in shielded locations such as backyards has been when there was a noise contribution from existing activities on a premises proposed to be further developed, and the activity could not be turned off (eg the Port Botany expansion). However, EPA does not agree that the Industrial Noise Policy (INP) requires that background noise measurements **must** be made in shielded locations.
2. EMM's justification for measuring in shielded locations is stated as: "The Industrial Noise Policy requires that noise monitors are placed...in the quietest part of the site." This justification is repeated elsewhere in the document (eg. Section 3.2.4). The EPA was unable to find a requirement in the INP to place noise monitors in the quietest part of a site. The INP requires that, in assessing noise levels at residences:
 - a. the noise level is to be assessed at the most affected point on or within the residential property boundary;
 - b. the most affected location(s) are "Locations that experience (or will experience) the greatest noise impact from the noise source under consideration. In determining these locations, one needs to consider existing background levels, exact noise source location(s), distance from source (or proposed source) to receiver, and any shielding between source and receiver". (Definition of Terms, INP page 58).

3. Section 3.2.3 includes the statement that "It is EMM's opinion through experience that noise from the subject site will be the same at the front and rear of the residences fronting Brickmakers Drive...". EMM's opinion is not then explained by reference to empirical data, calculations or theoretical reasoning, such as would be reasonably expected given that this statement appears to directly contradict the statement in Section 3.2.2 that the backyard is a shielded location.

In summary, the EPA's key concerns are:

- two apparently mutually exclusive assertions that: a backyard is a shielded location but also that noise will be the same at the front and rear of a residence;
- the incorrect assertion that the INP requires noise monitors to be placed in the quietest part of a site.

The report does not appear to specify whether predicted noise levels were predicted to shielded locations (backyards) or otherwise. The EPA considers that the intent of the INP is for noise levels usually to be predicted for the location where the background noise levels were measured, including site features that affect noise propagation as listed in Chapter 6 of the INP. The circumstance identified in the first point above would be one exception.

If you have any queries relating to this matter please contact Larry Clark on 02 9995 5786.

Yours sincerely



26 JUNE 2015

Chris McElwain
Senior Manager Waste Compliance
Environment Protection Authority



Liverpoolcitycouncil
creating our future together

Our Ref: DA-1417/2005
Contact: Matt Loader
Ph: (02) 9821 8841
Date: 14 May 2008

MOOREBANK RECYCLERS PTY LTD
C/- Brent Lawson
PO BOX 238
RYDALMERE NSW 1701

Dear Brent,

**ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979
NOTICE TO APPLICANT OF EXTENSION TO A DEVELOPMENT CONSENT**

Being the applicant in respect of the Application to extend the Development Consent issued on, 29 June 2006 in respect of Development Application No.DA-1417/2005 and pursuant to Section 95A of the Act, Notice is hereby given of the determination by the Consent Authority of the aforesaid application relating to:

**PROPERTY: LOT 6 NEWBRIDGE ROAD, MOOREBANK NSW 2170
LOT 6 DP 1065574**

The Application has been determined as follows:

The period in which the subject development consent is valid has been extended for a further 12 months, thereby lapsing on 27 June 2009 unless the development the subject of this consent is physically commenced.

Note:

- (1) Section 95A(3) of the Act confers on an applicant who is dissatisfied with the determination of a Consent Authority in respect of an application under Section 95A(1) of the Act, a right of appeal to the Land and Environment Court.
- (1) Please note that the extension granted is the maximum permitted and no further extension will be given.

Should you require any further information, please do not hesitate to contact me on the number at the top of this page.

Yours faithfully


Janine McCarthy

MANAGER STATUTORY PLANNING & COMPLIANCE

j.mccarthy@liverpool.nsw.gov.au

Administration Centre 1 Hoxton Park Road, Liverpool NSW 2170, DX 5030 Liverpool
Customer Service Centre Liverpool City Library, 170 George Street, Liverpool NSW 2170

All correspondence to The General Manager, Locked Bag 7064 Liverpool BC NSW 1871 Call Centre 1300 36 2170
Fax 9821 9333 Email lcc@liverpool.nsw.gov.au Web www.liverpool.nsw.gov.au TTY 9821 8800 ABN 84 181 182 471

Attention: Brent Lawson
Moorebank Recyclers
PO Box 238
RYDALMERE 1701

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

**NOTICE OF DETERMINATION OF
A DEVELOPMENT APPLICATION**

Being the applicant in respect of Development Application No. 1417/05 and pursuant to Section 81 (1) (a) of the Act, Notice is hereby given of the determination by Liverpool Council as Consent Authority of the above described Development Application relating to:

OWNER: **MOOREBANK RECYCLERS – AS ABOVE**

LAND: **(LOT 6, D.P. 1065574) NEWBRIDGE ROAD,
MOOREBANK**

PROPOSED DEVELOPMENT: **BULK EARTHWORKS**

DETERMINATION: **Consent granted subject to conditions described
below**

CONSENT TO OPERATE FROM: **27 JUNE 2006**

CONSENT TO LAPSE ON: **27 JUNE 2008
(unless physically commenced)**

ATTACHMENTS: **Conditions of Approval**

Before commencing the development please read the Development Consent carefully and make sure that you understand all the conditions that have been imposed. Please contact John McKee regarding any enquiry you may have in respect of the following conditions.

CONDITIONS:

The following conditions have been imposed to achieve the objectives of the relevant planning instruments and policies.

A. THE DEVELOPMENT

The following conditions have been imposed to achieve the objectives of the relevant planning instruments and policies.

GENERAL

1. Development must be carried out generally in accordance with Development Application received 24 March 2005 and accompanying plans marked DA1417/05 (Ref: Asher McNeill & Partners Drwg No. 9226 flood 01 Amendment B dated 22 August 2005), except where modified by the undermentioned conditions.
2. The proposed road base depicted on the Asher McNeill and Partners Pty Ltd plan marked Job no. 9226 dated 10th April 2005 shall only be applied to the proposed footprint marked on "Concept Plan" prepared by Asher Consulting Pty Ltd dated 13th December 2005 for the future recycling facility development. The remainder of the site shall be stabilised to Council's satisfaction with appropriate grass.
3. Consent is not granted or implied to approval for any future activities or structures on the property. This is subject to separate approval under the Environmental Planning and Assessment Act 1979.

B. OPERATIONAL MATTERS

These conditions pertain to the use of the site and have been imposed to ensure that the development and its operations do not interfere with the amenity of the surrounding area.

THE ENVIRONMENT

4. The development shall not result in any increase in sediment deposition into any water body, wetland, bushland or Environmentally Significant Land.

VEGETATION MANAGEMENT

The following conditions have been imposed to ensure adequate provision is made for the protection of existing vegetation:

5. The earthworks, must not result in any increase in sediment deposition into adjacent land to the west owned by Boral that is zoned 7(c) Environmental Protection - Conservation, any water body, wetland, bushland or Environmentally Significant Land.
6. The earthworks, must not result in any increase in sediment deposition into 7(a) Environmental Protection – Waterway portion of the property or any water body, wetland, bushland or Environmentally Significant Land.
7. No machinery, materials, goods, rubbish or other matter are to be stored in the adjacent land zoned 7(c) Environment Protection – Conservation or 7(a) Environmentally Protection-Waterway land at any time during or after construction.

8. No tree, with the exception of those indicated on the approved plans of the development, shall be removed, topped, lopped, pruned or damaged without the consent of Council.

C. PRIOR TO THE ISSUE OF A CONSTRUCTION CERTIFICATE

The following conditions in this section of the consent must be complied with or addressed prior to the issue of any Construction Certificate relating to the approved development, whether by Council or an appropriately accredited certifier. In many cases the conditions require certain details to be included with or incorporated in the detailed plans and specifications which accompany the Construction Certificate;

DEVELOPMENT DETAILS

9. Engineering plans will be required defining all physical works necessary on the site and adjacent to it. These plans are to be certified by Council or an accredited certifier.
 - (a) These plans must satisfy the following requirements:
 - i. Council's current Design and Construction specification for subdivisions (as amended), and supplementary code,
 - ii. Council's Trunk Drainage Scheme(s),
 - iii. Council's Development Control Plans,
 - iv. All proposed road and drainage works must adequately match existing infrastructure

VEGETATION MANAGEMENT PLAN

10. A Vegetation Management Plan shall be prepared that details measures to be undertaken for the future management of vegetation upon the portion of the property zoned 7 (c) Environment Protection – Conservation. The Vegetation Management Plan shall be submitted to Council's Manager Sustainable Environment and Health for approval prior to issue of a Construction Certificate.

OWNER'S AGREEMENT

11. An agreement in writing from the adjoining owners stating that approval is given for the disposal of downstream drainage onto their property shall be submitted to Council if applicable. An easement to drain water shall be created by the applicant over the area effected by downstream drainage. All costs associated with value of land and easement created is to be borne by the applicant.

EROSION AND SEDIMENT CONTROL

The following conditions have been imposed to ensure that adequate and safe vehicular and pedestrian access is provided to and from the site, and roads are built to a satisfactory standard.

12. EROSION & SEDIMENT CONTROL – Erosion and sediment control measures shall be designed in accordance with the requirements of the Department of Housing 1998 manual "Managing Urban Stormwater – Soils & Construction" and Council specifications, and to the satisfaction of the Principal Certifying Authority. Approved measures shall be implemented prior to commencement and maintained during construction and until all disturbed areas have been revegetated and established to the satisfaction of the Principal Certifying Authority.

FLOODING

13. There shall be no net loss of floodplain storage volume below the 1% Annual Exceedance Probability (AEP) flood.
14. Cut and fill on the site shall be in accordance with plans prepared by Asher McNeill & Partners Pty Ltd marked "Drawing No: 9226 flood 01, amendment B dated 22 August 2005 and supporting information provided by Evans & Peck dated 2 August 2005.
15. Stockpiling of material is only permitted on the portion of the site identified as Area 1 as marked on plan prepared by Asher McNeil & Partners "Drawing No: 9226flood01", Amendment B dated 22 April 2005.
16. There shall be multiple gaps in the perimeter mound on the southern and eastern boundaries of Area 2 identified on "Drawing No: 9226flood01" such that Area 2 is inundated by the 2% AEP flood. The total length of the gaps shall be no less than 30% of the total length of the southern, western and eastern boundaries of Area 2 identified on plans prepared by Asher McNeil & Partners marked "Drawing No: 9226flood01". Amendment B dated 22nd April 2005. Details shall be submitted to Council's Floodplain Section prior to issue of a Construction Certificate.
17. The applicant shall produce and maintain an appropriate warning system and site Emergency response flood plan. The plan shall ensure the safe, orderly and timely evacuation of persons from the site without the need for rescue by the State emergency Service or other authorised emergency services personnel. Furthermore, the plan shall be consistent with any relevant flood evacuation strategy, Flood Plain adopted by Council or similar plan.
18. The applicant shall provide a sealed access driveway from the development to the public road where the site is to be accessed.

ENVIRONMENT PROTECTION AUTHORITY

19. The waste excavation and waste relocation on site – Any uncovered waste shall be covered daily with a minimum depth of 15 centimetres of Virgin Excavated Natural Material ("VENM"), as per Benchmark Technique 33 in *Environmental Guidelines: Solid Waste Landfills*, to prevent any degradation of local amenity.
20. Upon completion of the excavation and relocation of the waste the waste shall be appropriately capped, as per Benchmark Technique 28 in *Environmental Guidelines: Solid Waste Landfills*.
21. The fill material used in the "Fill" area of the perimeter mound, shown in section 5.3 of the "Environment Management Plan" submitted with the development application, shall be VENM.
22. A detailed groundwater assessment report shall be submitted to Council for approval by the Department of Environment and Conservation prior to issue of a Construction Certificate for the earthworks.

D. PRIOR TO ANY WORK COMMENCING ON THE SITE

The following conditions are to be complied with prior to any work commencing on the site.

CONSTRUCTION CERTIFICATES

23. Any Construction Certificate that may be issued in association with this development consent must ensure that any certified plans and designs are generally consistent (in terms of site layout, site levels, building location, size, external configuration and appearance) with the approved Development Application plans.

NOTIFICATION

24. The applicant shall advise Council of the name, address and contact number of the Accredited Certifier, in accordance with Section 81A (4) of the Act.

SITE FACILITIES

25. The following facilities shall be installed on the site:
- (a) Adequate refuse disposal methods and builders storage facilities. Builders wastes, materials or sheds are not to be placed on any property other than that which this approval relates to.
26. Access to the site is to be provided only via the all-weather driveway on the property and is not to be provided from any other site, or location. (Refer to Council's Sediment & Erosion Control Policy)

ENVIRONMENT

27. That no "offensive noise" as defined under the Protection of the Environment Operations Act 1997, shall be created during earthwork activities associated from the site.
28. That no "water pollution" or "pollution of waters" as defined under the Protection of the Environment Operations Act 1997, shall be created during earthwork activities associated with the site.
29. The applicant and/or builder shall prior too the commencement of work, install, maintain and implement adequate soil and sediment control measures and adopt suitable site practices to ensure that only clean and unpolluted waters are permitted to enter Councils stormwater drainage system during construction/demolition. Measures must include:
- a) Situation fencing:
 - b) Protection of the stormwater & river system; and
 - c) Site entry construction to prevent vehicles that enter and leave the site from tracking loose material onto the adjoining public place.
30. That drains, gutters, roadways and access ways shall be maintained free of sediment and to the satisfactory of Council. Where required gutters and roadways shall be swept regularly to maintain them free from sediment. Matter is not to be washed down into the drainage system.
31. No development shall take place within 40 metres of watercourses.

E. DURING CONSTRUCTION/WORKS

The following conditions are to be complied with whilst works occurring on the site;

LANDFILL

32. Where site filling is necessary, it must be carried out in accordance with Council's Construction Specification (as amended), AS3798 Guidelines for Earthworks for commercial and Residential Development (as amended) and approved drawings by the accredited certifiers or Council. A minimum of 95% standard compaction must be achieved and certified by a suitably qualified geotechnical engineering consultant. Testing is to be in accordance with Council specifications for "Construction of Subdivisional Roads and Drainage Works"
33. Land fill materials must satisfy the following requirements:
- * Be non-putrescible solid waste
 - * Be free of slag, hazardous, contaminated, toxic or radio-active matter
 - * Be free of industrial waste and building debris
34. The earthworks shall be restricted solely to material contained on the subject site. No fill or spoil shall be imported onto the site without separate approval from Council.

HOURS OF OPERATION

35. Construction civil work is only permitted on the site between the hours of 7am to 6pm Monday to Friday and, 8am to 1pm on Saturday. No work will be permitted on Sundays or Public Holidays, unless otherwise approved by Council.

SITE CONTAMINATION

36. All fill introduced to the site must undergo a contaminated site assessment. This assessment may consist of either:
- (a) a full site history of the source of the fill (if known) examining previous land uses or geotechnical reports associated with the source site to determine potential contamination; or
 - (b) a chemical analysis of the fill where the site history or a preliminary contamination assessment indicates potential contamination or contamination of fill material; and
 - (c) must provide Council with copies of validation certificate verifying the material to be used is free of contaminants and fit for purpose re use in residential, commercial or industrial use.
37. Records of the following must be submitted to the principal certifying authority monthly and at the completion of earth works:
- (a) The course (including the address and owner of the source site), nature and quantity of all incoming loads including the date, the name of the carrier, and the vehicle registration;
 - (b) The results of a preliminary contamination assessment carried out on any fill material used in the development.
 - (c) The results of any chemical testing of fill material.

38. The applicant shall undertake a Site Contamination Assessment to confirm the presence of pollutants or other contaminants that represent or potentially represent a direct or indirect threat to public health and safety. The Site Contamination Assessment shall be carried out by a suitably qualified and accredited consultant or Site Auditor as defined under the provision of the Contaminated Land Management Act 1997. The works shall be in conformance to the EPA Guidelines for Consultants Reporting on Contaminated Sites and Australian Standard AS 4482.1 – 1997 Guide to the sampling and investigation of potentially contaminated soil Part 1: Non volatile and semi volatile compounds. The Report detailing the findings of the site assessment and any recommendations including remediation works shall be submitted to The Principal Certifying Authority prior to issue of construction certificate.

AIR QUALITY AND EROSION CONTROL

39. Dust screens are to be erected around the perimeter of the subject land during land clearing, excavation and construction and until such time as the soil is stabilised.
40. Where operations involve excavation, filling or grading of land, or removal of vegetation, including ground cover, dust is to be suppressed by regular watering until such time as the soil is stabilised to prevent airborne dust transport. Where wind velocity exceeds five knots the Principal Certifying Authority may direct that such work is not to proceed.
41. All disturbed areas shall be progressively stabilised and/or revegetated so that no areas remain exposed to potential erosion damage for a period of greater than 14 days.
42. Vehicular access to the site shall be controlled through the installation of wash down bays or shaker ramps to prevent tracking of sediment or dirt onto adjoining roadways. Where any sediment is deposited on adjoining roadways is shall be removed by means other than washing. All material is to be removed as soon as possible and the collected material is to be disposed of in a manner which will prevent its mobilisation.

WATER QUALITY

43. All topsoil, sand, aggregate, spoil or any other material shall be stored clear of any drainage line, easement, water body, stormwater drain, footpath, kerb or road surface and shall have measures in place in accordance with the approved Soil and Water Management Plan and or Erosion and Sediment Control Policy.
44. Sediment and erosion control measures are to be adequately maintained during the works until the establishment of grassing.

POLLUTION CONTROL

45. Waste water from the washing of concrete forms or trucks shall not enter the stormwater drainage system. The ensure that the Protection of the Environment Operations Act is not breached.
46. The developer is to maintain all adjoining public roads to the site in a clean and tidy state, free of excavated "spoil" material. To ensure that the Protection of the Environment Operations Act is not breached.

GENERAL SITE WORKS

47. Care shall be taken by the applicant and the applicant's agents to prevent any damage to adjoining properties. The applicant or the applicant's agents may be liable to pay compensation to any adjoining owner if, due to construction works, damage is caused to such adjoining property.
48. Alterations to the natural surface contours must not impede or divert natural surface water runoff, so as to cause a nuisance to adjoining property owners.

VEGETATION

49. Existing vegetation that is required to be retained as part of the development consent shall be protected for the duration of demolition, earthworks and construction associated with the approved development.
50. Sediment and erosion controls are to be installed in accordance with an approved Soil and Water Management Plan to prevent transport of sediment into the adjacent land to the west owned by Boral that is zoned 7(c) Environment Protection – Conservation or 7(a) Environment Protection-Waterway portion of the property, remaining bushland or watercourses. A plan detailing sediment and erosion controls shall be submitted to Council for approval prior to commencement of works.

HOURS OF OPERATION

51. Construction civil work is only permitted on the site between the hours of 7am to 6pm Monday to Friday and, 8am to 1pm on Saturday. No work will be permitted on Sundays or Public Holidays, unless otherwise approved by Council.

F. PRIOR TO OCCUPATION OF THE PREMISES

The following conditions are to be complied with prior to the occupation of the building;

GENERAL

52. The premises must not be occupied until an occupation certificate is issued by the Principal Certifying Authority (P.C.A.). Copies of all documents relied upon for the issue at the occupation certificate must be attached to the occupation certificate and registered with Council. These documents shall include surveyor reports and compliance certificate.

Note: Does not apply to Class 1 or 10 buildings

CERTIFICATES

53. The P.C.A. shall submit the following compliance certificate to Council together with the required registration fee payment.

1. Compensatory storage works and earthworks.

REHABILITATION OF ENVIRONMENT PROTECTION

54. The rear southern portion of the site that is zoned 7(c) Environment Protection – Conservation and the eastern portion of the site zoned 7(a) Environment Protection – Waterway under Liverpool Local Environmental Plan 1997 shall be rehabilitated to the satisfaction of Council and in accordance with the approved Vegetation Management Plan, (Condition No.10) prior to issue of an Occupation Certificate.

DEDICATION OF ENVIRONMENT PROTECTION LAND

55. The rear southern portion of the site that is zoned 7(c) Environment Protection – Conservation and also the eastern portion of the site zoned 7(a) Environment Protection – Waterway under Liverpool Local Environmental Plan 1997 shall be dedicated to Council at completion of the rehabilitation at no cost to Council. A validation report to the satisfaction of Council shall be submitted to Council prior to dedication. Full costs associated with the dedication, including legal costs, shall be borne by the landowner at no expense to Council.

ADVICE

The following matters are included as advice relative to this application:

- i. If you are dissatisfied with this notice of determination or the conditions contained within this notice of determination, Section 82A of the Environmental Planning and Assessment Act 1979 gives you the right to request a review of the determination within twelve (12) months after the date of the determination.
- ii. If you are dissatisfied with this decision, Section 97 of the Environmental Planning and Assessment Act 1979 gives you the right to appeal to the Land and Environment Court within 12 months after the date on which you receive this notice.
- iii. In accordance with Section 95 of the Act, unless otherwise stated by a condition of this consent, this consent will lapse unless the development is commenced within two (2) years of the date of this notice. The applicant may apply to Council within two (2) years of the date of this notice for an extension of one (1) year.
- iv. The conditions are imposed taking into account the matters for consideration in determining a Development Application under Section 79C of the Environmental Planning and Assessment Act 1979.
- v. Section 125 of the Act provides that any person who contravenes or causes or permits to be contravened the conditions of this consent or the Tree Preservation Order shall be guilty of an offence.
- vi. The production/storage of "Dangerous Goods" in quantities as detailed in the "Dangerous Goods Act" must be approved by the Dangerous Goods Branch of the Work Cover Authority.
- vii. The requirements of all authorities including the Environmental Protection Authority and the Work Cover Authority shall be met in regards to the operation of the building.
- viii. Information regarding the location of underground services may be obtained from Sydney One Call Service (SOCS), telephone (02) 9806 0800, Fax (02) 9806 0777. Inquirers should provide SOCS with the street/road name and number, side of street/road and the nearest cross street/road.



Adam Coburn
MANAGER OF STATUTORY PLANNING
AND COMPLIANCE



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Liverpool City Council News

www.liverpool.nsw.gov.au

Customer Service Centre
Level 2, 33 Moore St, Liverpool NSW 2170
Monday - Friday 8.30am-5pm

E-mail: lcc@liverpool.nsw.gov.au
NRS: 133 677 (for hearing and speech impaired callers only)
Customer Contact Centre: 1300 36 2170

LIVERPOOL CITY COUNCIL
INFORMATION NOTICE
BOARD LOCATIONS

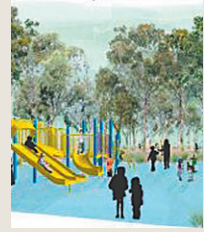
■ **AUSTRAL POST OFFICE**
248 Edmondson Ave,
Austral - 9606 0348

■ **BRINGELLY POST OFFICE**
Cnr Greendale & The Northern Rd,
Bringelly - 4774 8032

■ **KEMPS CREEK POST OFFICE**
Lot 6 Elizabeth Street Dr,
Kemps Creek - 9826 1030

■ **WEST HOXTON POST OFFICE**
208 Fifteenth Ave,
West Hoxton - 9607 9020

WHAT'S ON



▼ MACLEOD PARK COMMUNITY WORKSHOP AND INFORMATION SESSION

Braidwood Drive, Prestons
Saturday 31 August 2013, 11am

Come along to Council's community workshop and information session and view the draft plans for Macleod Park, ask questions and give your feedback. To RSVP, please phone 9821 8809 or visit www.liverpool.nsw.gov.au/macleodpark and click on 'RSVP'



▼ NO FREIGHT TERMINAL PUBLIC RALLY

Sunday 1 September 2013, 12pm
Casula Powerhouse Arts Centre, 1 Powerhouse Road, Casula (Enter via Shepherd Street, Liverpool)

The Federal Government intends to proceed with the proposed Moorebank Freight Terminal, despite local community opposition.

This proposal will destroy our vision for the Casula Parklands because of diesel pollution, noise, increased traffic congestion and two massive spur bridges that will negatively impact on the Casula Powerhouse Arts Centre.

Together, we can get a fair go for South West Sydney. You can also sign the petition at www.liverpool.nsw.gov.au/fairgo

For more information and to sign the petition visit www.liverpool.nsw.gov.au/fairgo



▼ DISABILITY AWARENESS DAY WALK IN MY SHOES

Friday 6 September 2013
Macquarie Mall, Liverpool, 10am - 1pm

There will be an opportunity to talk to young people with disabilities and undertake a mini walking tour to gain a better understanding of the difficulties faced and how you can help change community perceptions. There will be entertainment provided by local disability groups. For more information contact council's community development worker (aged & disability) on 9821 7759 or Northcott Leisure Access on 8778 2309.



▼ LIVERPOOL'S BUSHCARE MAJOR DAY OUT

Sunday 8 September 2013, 12pm to 2pm
Australis Park, Wattle Grove

Come along and help restore bushland by removing weeds and planting native plants to create habitat for native animals in Liverpool. All equipment will be supplied. Please ensure you have closed in shoes, a hat and long-sleeved shirt. A BBQ lunch will be provided for participants to enjoy. For further information phone Council's on 1300 36 2170 or visit www.liverpool.nsw.gov.au

DID YOU KNOW?

There are various donations and grants as well as corporate sponsorship offered by Council during August and September please visit

<http://www.liverpool.nsw.gov.au/community/grants-and-donations> for full details, eligibility and application forms.

COUNCIL MEETING

The next Council meeting will be held on **Wednesday 28 August** at Liverpool City Council Chambers, Francis Greenway Centre, 170 George Street, Liverpool, 6pm.

- City Centre Parking Strategy
- Local Infrastructure Renewal Scheme – Round 2
- Final Progress report of Growing Liverpool 2021 Delivery Program and 2013-13 Operational Plan
- Re-establishment of Alcohol Free Zones
- Constitutional reform of Local Government
- Various IHAP and committee reports

COMMUNITY FORUMS

RURAL: Tuesday, 10 September at Bringelly Community Centre, Greendale Road, Bringelly 6.30pm

URBAN: Tuesday, 17 September at Francis Greenway Centre, 170 George Street, Liverpool, 6.30pm

LAUNCH & OPEN DAY FREE EVENT

People's Shed Social Enterprise Hub & Food4life Market

Saturday 31 August 2013, 10am - 1pm
11 Jersey Street, Busby

- Tour of New Facilities
- Art Workshops and displays
- BBQ Lunch
- Jumping Castle and Face Painting

All welcome. New members can join up on the day! For more information please contact Galavizh on 9821 7776 or Joel on 0435 659 175.



PUBLIC NOTICES

TEMPORARY FULL CLOSURE OF GEORGE STREET BETWEEN MOORE AND SCOTT STREETS, LIVERPOOL Council wishes to advise that the section of George Street between Moore Street and Scott Street, Liverpool will be temporarily fully closed to traffic for a community event (Starry Sari Night) on **31 August 2013 between 11am and midnight.**

Alternate routes are available via Bigge Street and Macquarie Street, Liverpool.

Access to local businesses and emergency service vehicles will be available via George Service Way and Crawford Service Way, Liverpool.

Traffic control measures will be implemented during the temporary road closure and motorists are urged to observe all associated traffic signs, controls and directions.

For more information please phone 1300 36 2170.

BRICKMAKERS DRIVE, MOOREBANK – 5 TONNE LOAD LIMIT In accordance with Section 115 of the Roads Act 1993, notice is hereby given that following concurrence of the Roads and Maritime Services and the NSW Police, Council imposed a five (5) Tonne Load Limit along the full length of Brickmakers Drive, between Newbridge Road and Nuwarra Road, Moorebank commencing 19 August 2013.

The purpose of the load limit restriction is to prevent pavement damage caused by heavy vehicles with a gross weight in excess of five (5) tonnes and to maintain residential amenity.

Heavy vehicles with an origin or destination along Brickmakers Drive are exempt from this restriction. An alternate route is available via Newbridge Road and Nuwarra Road.

For any further information, please contact Charles Wiafe, Manager Traffic and Transport on 9821 9122

PUBLIC EXHIBITION

PUBLIC EXHIBITION OF DRAFT LIVERPOOL LOCAL ENVIRONMENTAL PLAN 2008 (DRAFT AMENDMENT NO. 30) AND DEVELOPMENT APPLICATION DA-1349/2012 FOR 607-611 (LOT 5-7 DP 15667) HUME HIGHWAY, CASULA (*Section 72K of the Environmental Planning and Assessment Act, 1979*) Liverpool City Council is publicly exhibiting an amendment to the Liverpool Local Environmental Plan 2008 (Amendment No. 30) for 607-611

(Lots 5-7 DP 15667) Hume Highway, Casula.

The Planning Proposal (LLEP Amendment No. 30) seeks to rezone the site from B6 – Enterprise Corridor to B2 – Local Centre to permit the future use of the site for the development of a 4300sqm supermarket and associated car parking and loading docks.

In addition a development application (DA-1349/2012) has been submitted proposing the use of the site as a 4300sqm supermarket with 189 parking spaces and two associated loading docks.

DA: DA-1349/2012
Applicant: FABCOT PTY LTD
Property: 607-611 Hume Highway, CASULA NSW 2170 (Lots 5-7 DP15667)

Assessing Officer: Steven Chong

Consent Authority: Liverpool City Council

A copy of Draft Liverpool Local Environmental Plan 2008 (Amendment No. 30), the development application and other relevant information will be on public exhibition from **31 July 2013 to close of business 28 August 2013**. The documents will be available for download from Council's website and may be viewed at the (Council Administration Centre), Level 2, 33 Moore Street, LIVERPOOL NSW 2170 between Monday – Friday, 8.30am to 5pm (Public Holidays excluded).

Written submissions are invited from the public and should be addressed to the Chief Executive Officer and received by the undersigned (**quoting File No RZ-3/2012 for the rezoning and/ or File No DA-1349/2012 for the Development Application**) by close of business 28 August 2013.

The lodging of a(n) submission/comment/objection is voluntary. However, if you choose not to lodge a(n) submission/comment/objection your views will not be taken into account by Council in relation to this matter. Any information that you choose to provide to Council will be used by Council or its agents to process this matter. Once lodged with Council, the information you provide can be accessed by you and may be also available to third parties in accordance with Council's Access to Documents Policy. For further inquiries relating to the rezoning please contact Council's Strategic Planner, Graham Matthews on 9821 9156. Administration Centre, Level 2, 33 Moore Street Farooq Portelli, Chief Executive Officer

David Mooney

From: Toni Averay <T.Averay@liverpool.nsw.gov.au>
Sent: Wednesday, 17 June 2015 1:12 PM
To: Christopher Ritchie; David Mooney
Cc: Sheela Naidu; Bruce Macnee; Ash Chand; Benny Horn; Taylar Vernon
Subject: MOOREBANK RECYCLERS SITE
Attachments: Prestons - investigation sites v2.pdf; Existing Moorebank site.pdf

Hi Chris and David
Just following up on the teleconference discussions from yesterday.

Attached are the maps as promised.

The first set of maps show available heavy industrial sites (IN3) in Prestons. We would suggest the northern sites closest to the M7 would be the most suitable to put maximum distance between the facility and the residential development to the south of Kurrajong Road. This also provides direct access to the M7.

The second set of maps just shows the Moorebank site and constraints. Subject to the outcome of the necessary studies and contamination reports, we believe these constraints could be at least partly addressed through appropriate remediation and filling etc as discussed. The concept of a residential tower or two still seems the best option subject to contamination reports. Perhaps there might be one or two smaller areas of the site more suitable for the necessary works to support towers with the rest of the site left as open space. Flood free access would need to be provided but this will apply to the Marina development next store so there would be an opportunity to link into this access. It really all depends on the outcome of the studies the applicant will need to do. Other commercial options might also be worthy of consideration eg hotel, conference centre, tavern but the site isolation from passing traffic could be an inhibitor.

As discussed, we would be keen to have further discussions with the applicant. The suggested site visit is also welcome. My CEO would also like to attend the site visit but he will be overseas from 19 June to 6 July, so a date after 7 July would be appreciated. I would anticipate there would be about six Council officers in total.

Chris I look forward to getting your full contact details too please!

Regards

Toni Averay | *Director Planning and Growth*
33 Moore Street, Liverpool NSW 2170

Phone: (02) 9821 9396 | **Mobile:** 0448 290 952

Email: T.Averay@liverpool.nsw.gov.au

www.liverpool.nsw.gov.au



<http://www.liverpool.nsw.gov.au/eplanning>



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LIVERPOOL CITY COUNCIL MAP REPORT

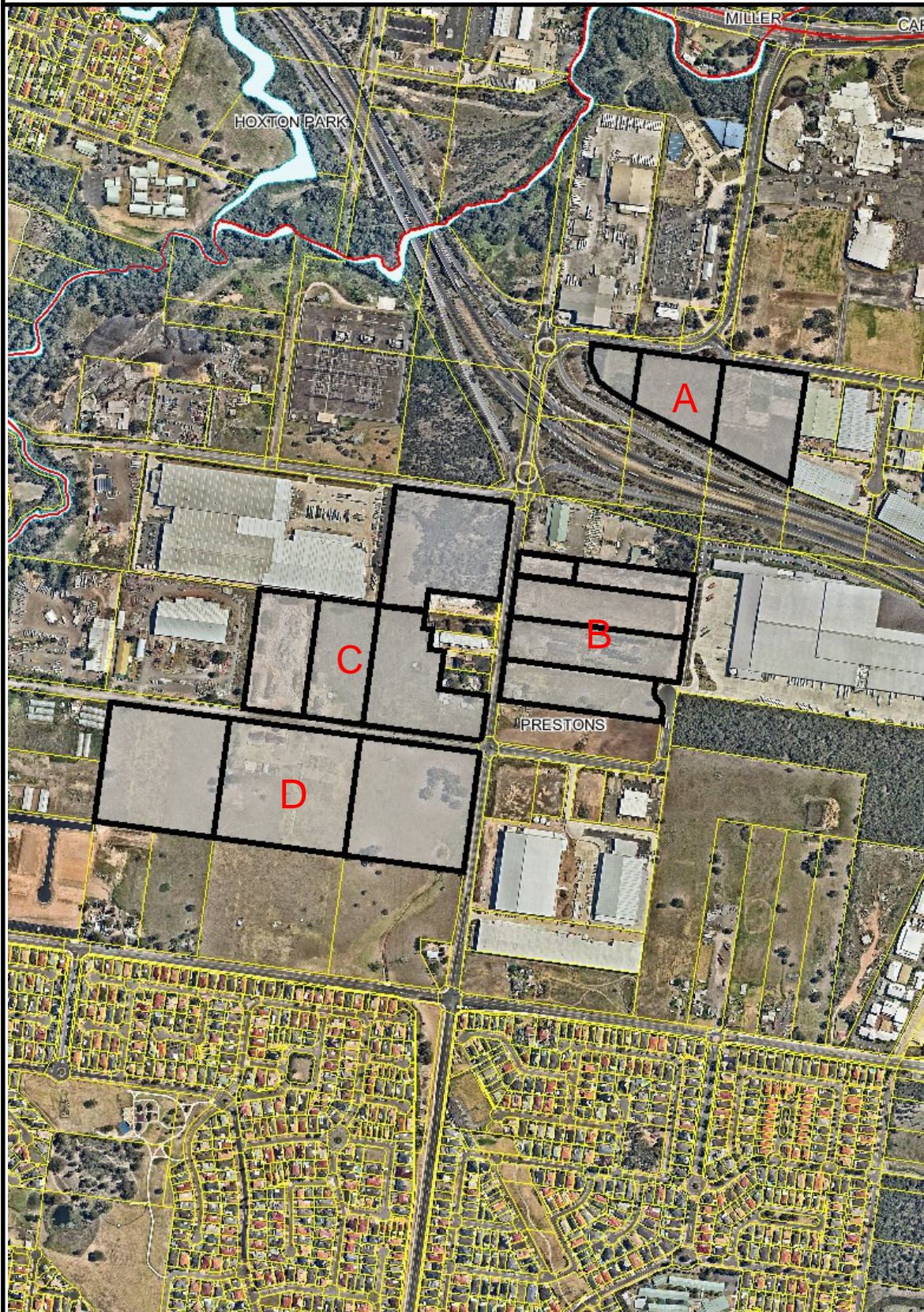
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Prestons Industrial Area – potential sites



LEGEND

- Suburbs
- Waterways
- Yellow Lot Text
- Lot Text
- Lot Boundary Lines

- lease
- LGA
- RDW
- stratum
- USL

Yellow Lot Boundary Lines

- lease
- LGA
- RDW
- stratum
- USL

Yellow Lot Boundaries

- Lot Boundaries
- NearMap January 2015

Investigation sites:

- Site A:
44,530 sqm
3 lots/3 landowners
- Site B:
71,868 sqm
5 lots/4 landowners
- Site C:
104,410 sqm
4 lots/4 landowners
- Site D:
125,500 sqm
3 lots/1 landowner



Scale is 1:10000

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DATE OF ISSUE: Jun 16, 2015

LIVERPOOL CITY COUNCIL MAP REPORT

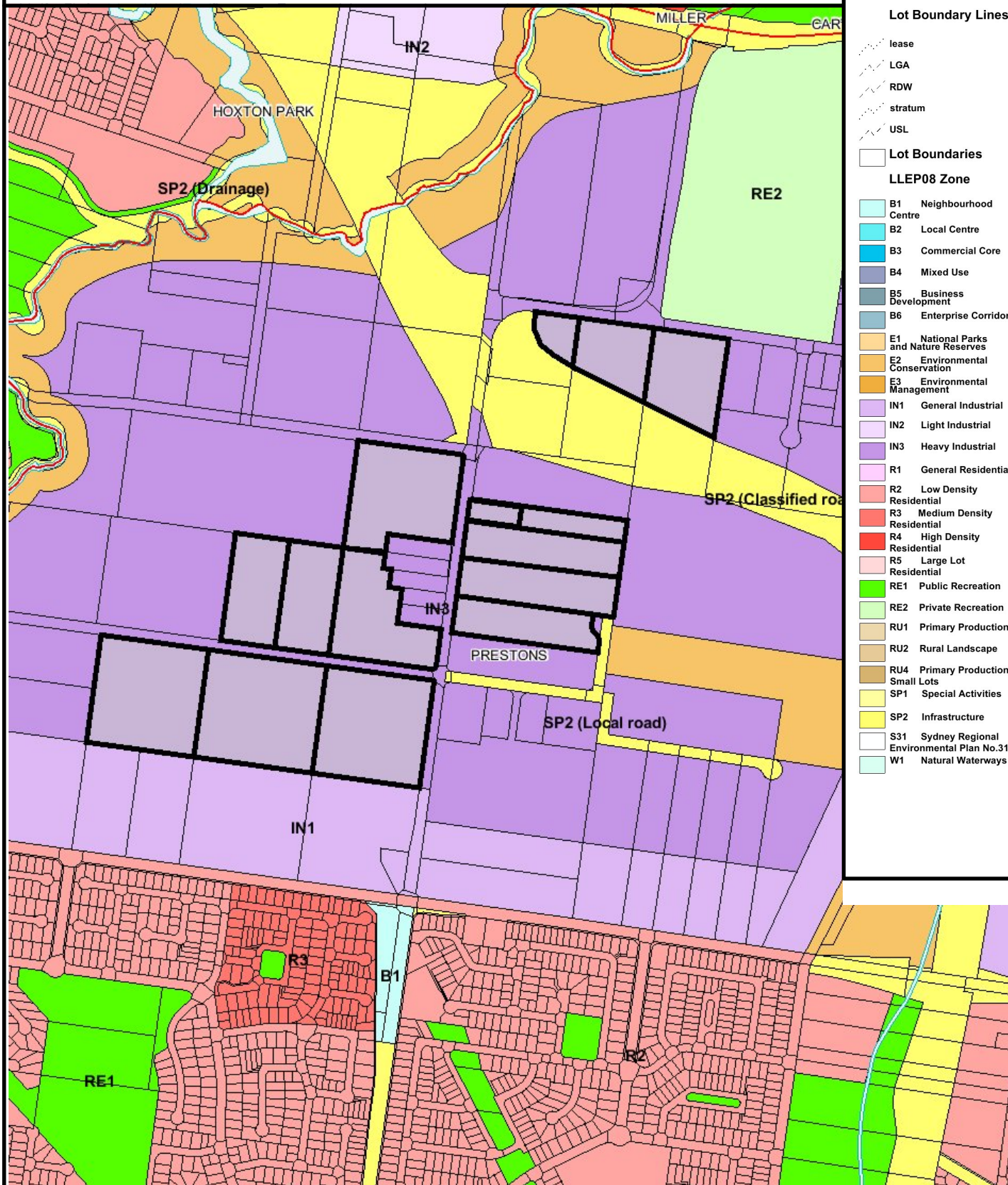
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Prestons Industrial Area – zoning



LEGEND

- Suburbs
- Waterways
- Lot Text**
- Lot Boundary Lines**
 - lease
 - LGA
 - RDW
 - stratum
 - USL
- Lot Boundaries
- LLEP08 Zone**
 - B1 Neighbourhood Centre
 - B2 Local Centre
 - B3 Commercial Core
 - B4 Mixed Use
 - B5 Business Development
 - B6 Enterprise Corridor
 - E1 National Parks and Nature Reserves
 - E2 Environmental Conservation
 - E3 Environmental Management
 - IN1 General Industrial
 - IN2 Light Industrial
 - IN3 Heavy Industrial
 - R1 General Residential
 - R2 Low Density Residential
 - R3 Medium Density Residential
 - R4 High Density Residential
 - R5 Large Lot Residential
 - RE1 Public Recreation
 - RE2 Private Recreation
 - RU1 Primary Production
 - RU2 Rural Landscape
 - RU4 Primary Production Small Lots
 - SP1 Special Activities
 - SP2 Infrastructure
 - S31 Sydney Regional Environmental Plan No.31
 - W1 Natural Waterways



Scale is 1:10000

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LIVERPOOL CITY COUNCIL MAP REPORT

Prestons Industrial Area – flood risk

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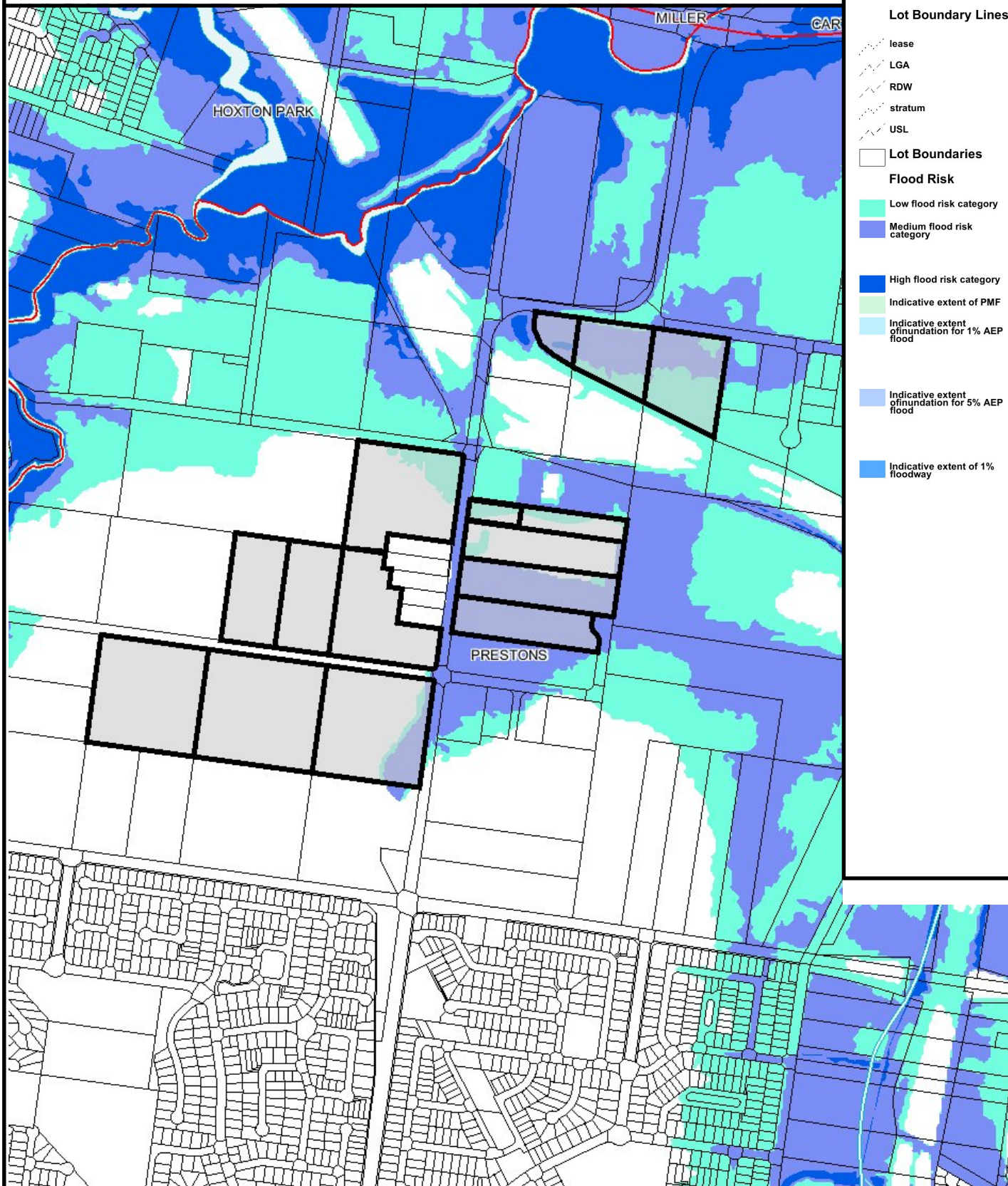
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LEGEND

- Suburbs
- Waterways
- Lot Text**
- Lot Boundary Lines**
 - lease
 - LGA
 - RDW
 - stratum
 - USL
- Lot Boundaries
- Flood Risk**
 - Low flood risk category
 - Medium flood risk category
 - High flood risk category
 - Indicative extent of PMF
 - Indicative extent of inundation for 1% AEP flood
 - Indicative extent of inundation for 5% AEP flood
 - Indicative extent of 1% floodway



Scale is 1:10000

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LIVERPOOL CITY COUNCIL MAP REPORT

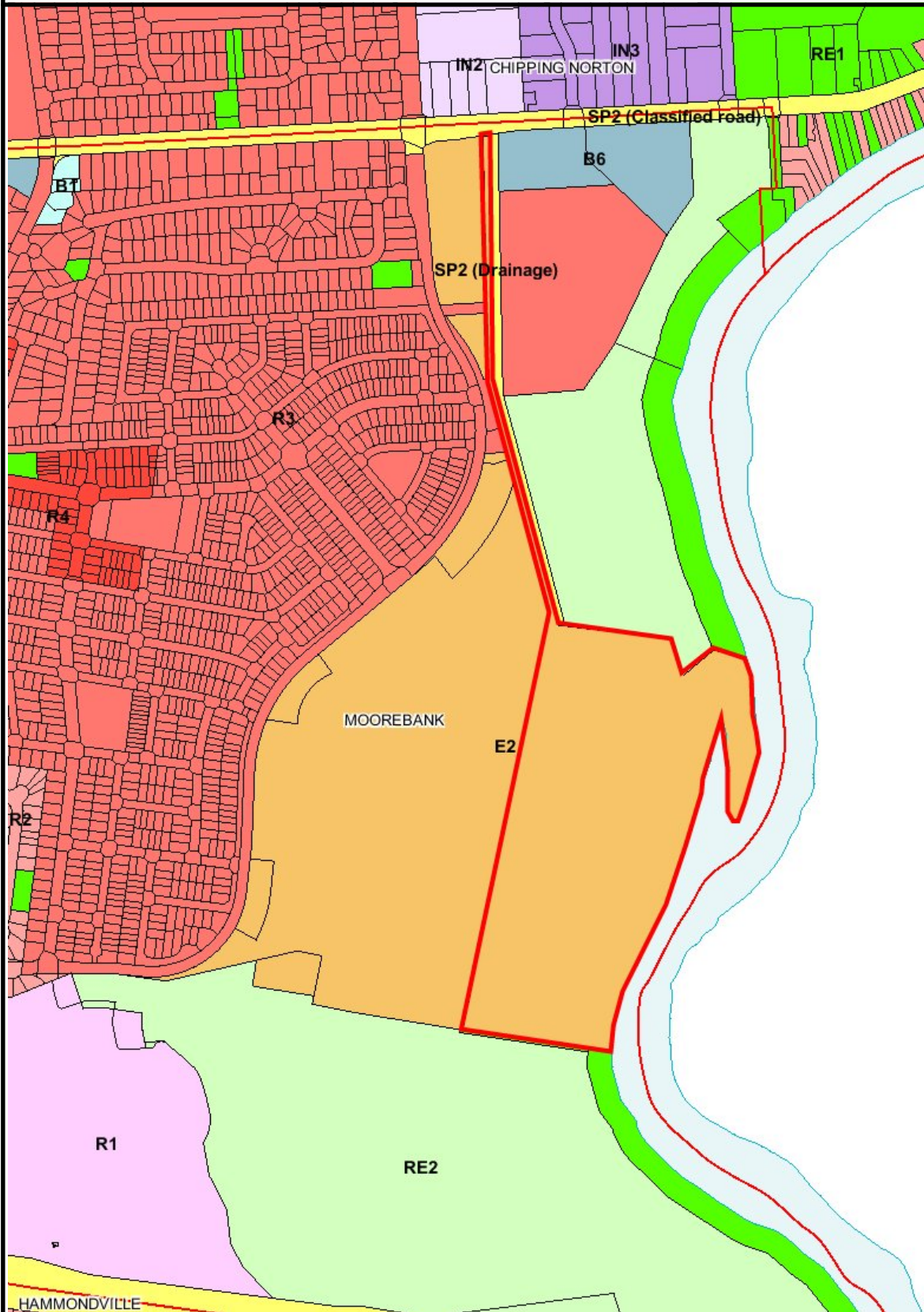
Moorebank site – zoning

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LEGEND

- Suburbs
- Waterways
- Lot Text**
- Lot Boundary Lines**
 - lease
 - LGA
 - RDW
 - stratum
 - USL
- Lot Boundaries
- LLEP08 Zone**
 - B1 Neighbourhood Centre
 - B2 Local Centre
 - B3 Commercial Core
 - B4 Mixed Use
 - B5 Business Development
 - B6 Enterprise Corridor
 - E1 National Parks and Nature Reserves
 - E2 Environmental Conservation
 - E3 Environmental Management
 - IN1 General Industrial
 - IN2 Light Industrial
 - IN3 Heavy Industrial
 - R1 General Residential
 - R2 Low Density Residential
 - R3 Medium Density Residential
 - R4 High Density Residential
 - R5 Large Lot Residential
 - RE1 Public Recreation
 - RE2 Private Recreation
 - RU1 Primary Production
 - RU2 Rural Landscape
 - RU4 Primary Production Small Lots
 - SP1 Special Activities
 - SP2 Infrastructure
 - S31 Sydney Regional Environmental Plan No.31
 - W1 Natural Waterways



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LIVERPOOL CITY COUNCIL MAP REPORT

Moorebank site – flood risk

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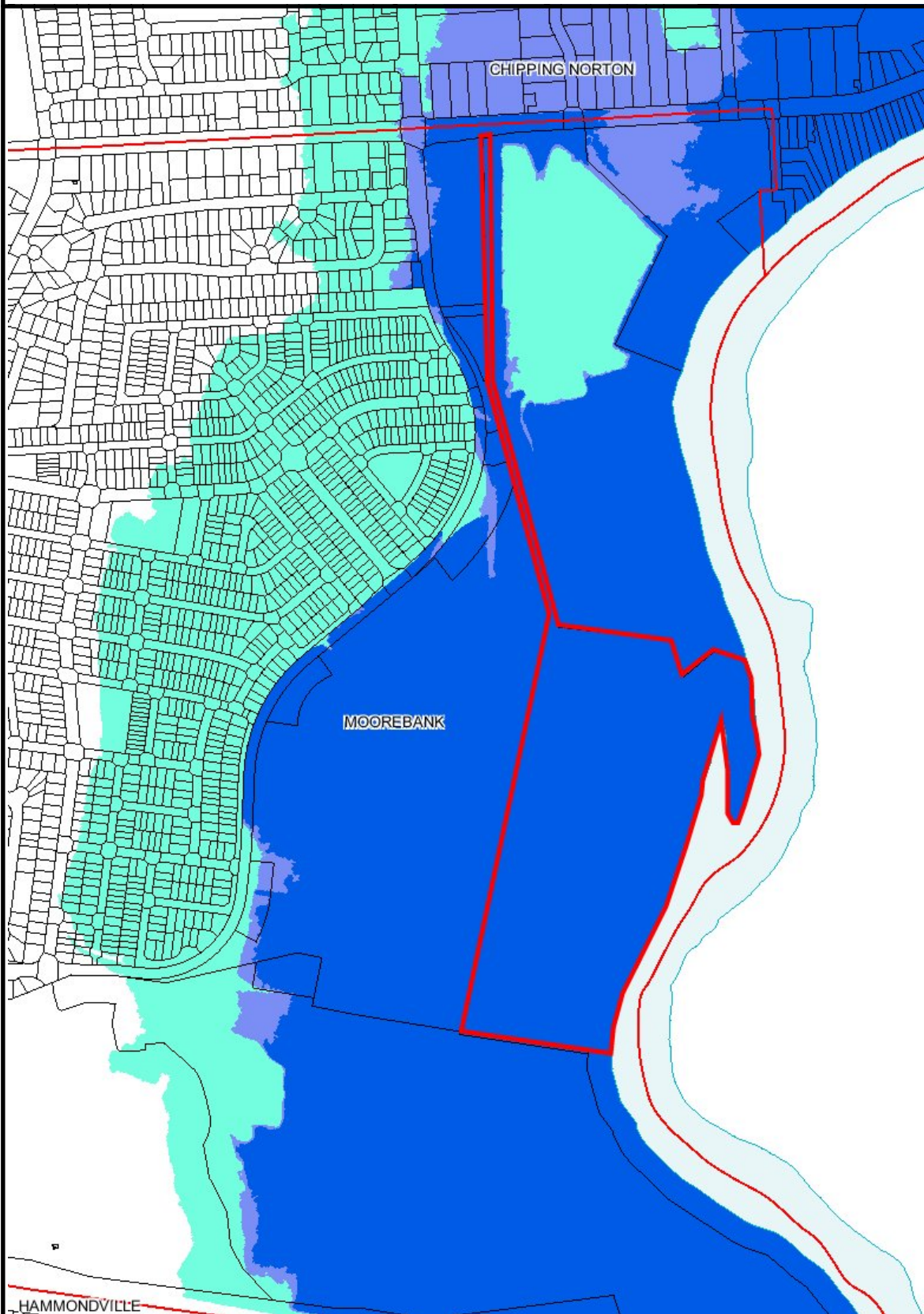
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LEGEND

- Suburbs
- Waterways
- Lot Text**
- Lot Boundary Lines**
 - lease
 - LGA
 - RDW
 - stratum
 - USL
- Lot Boundaries
- Flood Risk**
 - Low flood risk category
 - Medium flood risk category
 - High flood risk category
 - Indicative extent of PMF
 - Indicative extent of inundation for 1% AEP flood
 - Indicative extent of inundation for 5% AEP flood
 - Indicative extent of 1% floodway



Scale is 1:10000

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LIVERPOOL CITY COUNCIL MAP REPORT

Moorebank site – environmentally sensitive land

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LEGEND

- Suburbs
- Waterways
- Lot Text**
- Lot Boundary Lines**
 - lease
 - LGA
 - RDW
 - stratum
 - USL
- Lot Boundaries
- ESL**
 - Environmentally Significant Land
 - SEPP



Scale is 1:10000

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LIVERPOOL CITY COUNCIL MAP REPORT

Moorebank site – building height

DISCLAIMER

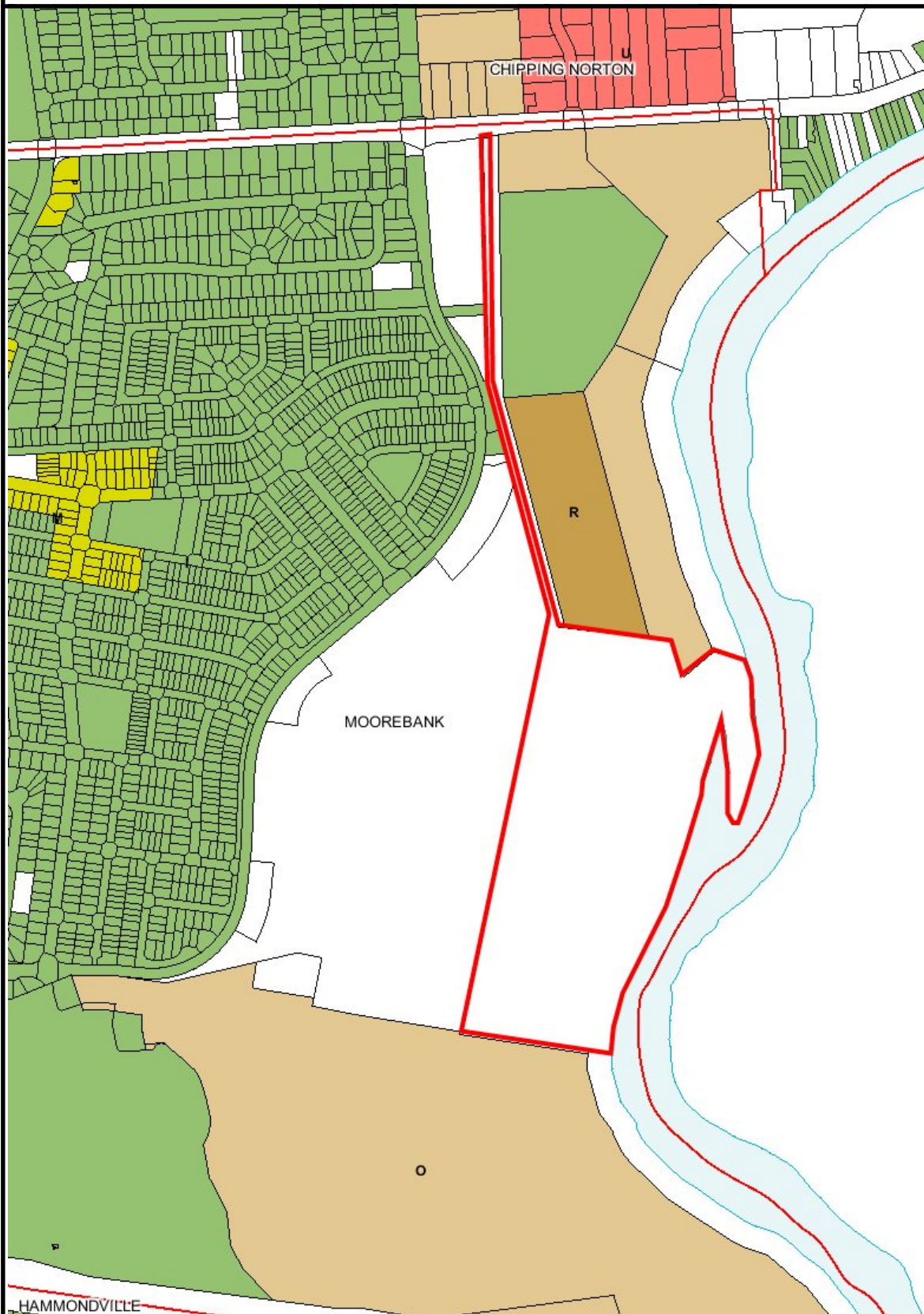
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LEGEND

- Suburbs
- Waterways
- Lot Text**
- Lot Boundary Lines**
- lease
- LGA
- RDW
- stratum
- USL
- Lot Boundaries
- Height of buildings**
- I 8.5m
- M 12m
- O 15m
- P 18m
- R 21m
- S 24m
- T 28m
- U 30m
- V 35m
- X 45m
- AB 80m
- AC 100m



Scale is 1:10000

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LIVERPOOL CITY COUNCIL MAP REPORT

Moorebank site – acid sulphate soils

DISCLAIMER

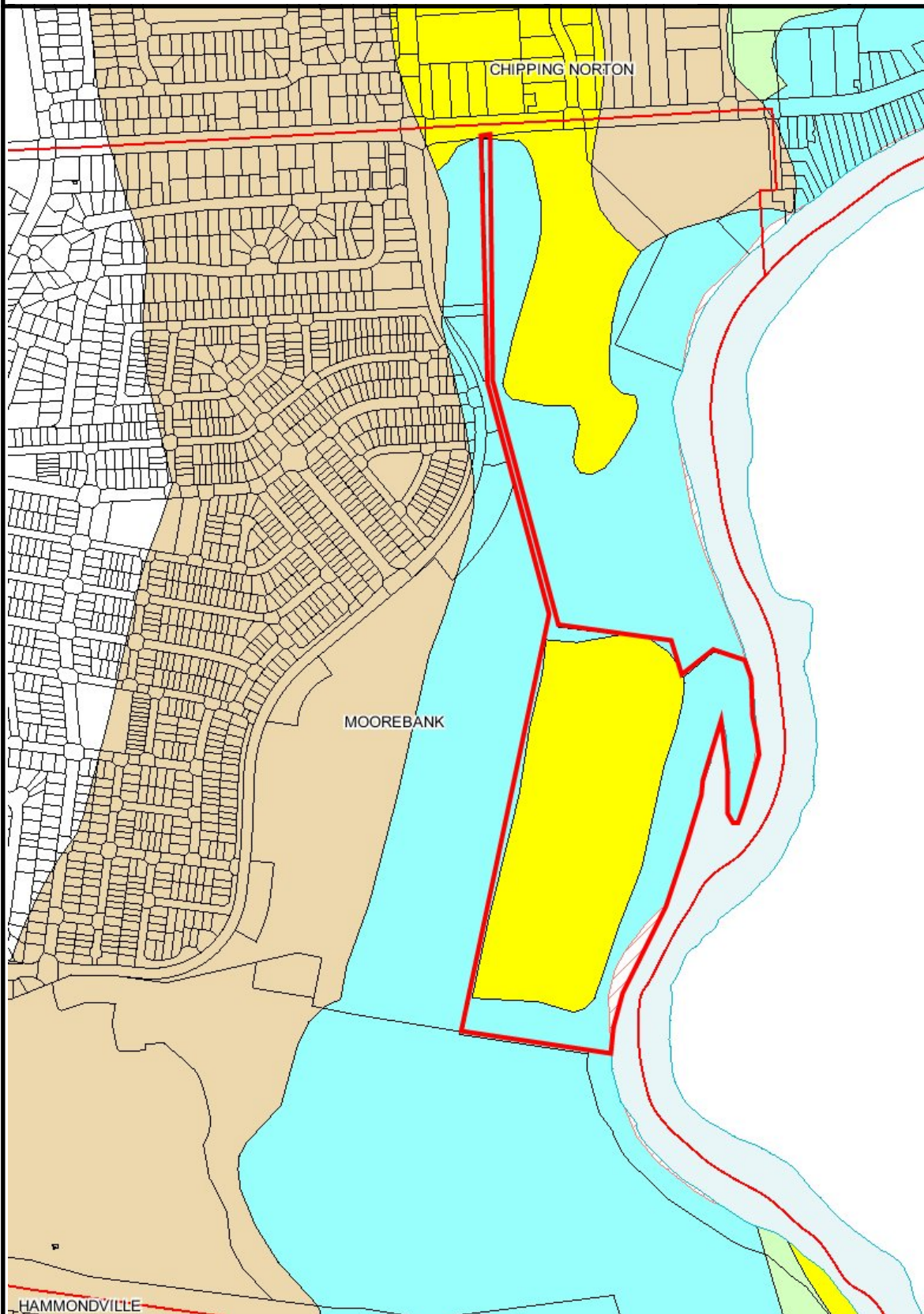
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LEGEND

- Suburbs
- Waterways
- Lot Text**
- Lot Boundary Lines**
 - lease
 - LGA
 - RDW
 - stratum
 - USL
- Lot Boundaries
- Acid Sulphate Soils**
 - Class 1
 - Class 2
 - Class 3
 - Class 4
 - Class 5



Scale is 1:10000

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DATE OF ISSUE: Jun 16, 2015

MEETING NOTE

This meeting is part of the Determination process.		
Meeting note taken by Naomi Cleaves	Date: Friday, 21 August 2015	Time: 9:00am
Project: Materials Recycling Facility at Moorebank		
Meeting place: PAC Office		
Attendees: PAC Members: Ms Lynelle Briggs AO & Ms Abigail Goldberg PAC Secretariat: Naomi Cleaves Roads & Maritime Services: Gordon Trotter (Manager, Land Use Assessment), Hans Pilly Mootanah (Land Use Planner) & Kaye Russell (Network & Safety Officer)		
The purpose of the meeting is to discuss PAC's concerns regarding the safety issue of the intersection with Brickmakers Drive.		
A summary of the key discussion points are provided below. <ul style="list-style-type: none"> • RMS detailed the warrants that are established for the requirement for traffic signals (lights), and other options for intersection controls (i.e. roundabouts). RMS cannot support the installation of traffic signals at the proposed link road and Brickmakers Road intersection, as the traffic data provided does not meet the required warrants. The sight distance issues (due to the bend in the road) mean that approaching vehicles would experience difficulties in seeing the traffic signals, which would create further safety concerns. • Liverpool City Council is the road authority for this road, and not RMS • PAC expressed its concern for safety of pedestrians and other road traffic with trucks turning right onto Brickmakers Drive, particularly during peak times, and in particular the heavy laden trucks • RMS suggested that the safest and most appropriate intersection control mechanism would be a roundabout. The roundabout should be designed and constructed to allow trucks to turn safely into the link from Brickmakers Drive on the northern extent close to Newbridge Road as indicated on the concept plan. The design of a roundabout should accommodate the larger vehicles, so that turning trucks do not have to 'mount' the roundabout, which it is noted is a legal manoeuvre. • To increase the sight distance to the intersection, vegetation clearing along the roadside and restrictions on roadside parking should be considered. The approaches to the intersection should also be considered and included in the design of the intersection. • To reduce the interface between truck and residential traffic the intersection should be a T-intersection, rather than a cross intersection. 		
Documents to be provided: RMS to provide written advice on options for the intersection with Brickmakers Drive.		
Meeting closed at 9:40am		