

# **Orora Paper Mill - Botany**

## **Statement of Environmental Effects – B7 Reel Store Demolition & Extension of Noise Barrier**

**Client:**  
Orora Limited

**Date:**  
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**Final**

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# 1 Introduction

## 1.1 Purpose of this document

This Statement of Environmental Effects (SEE) is submitted to support an application to modify Development Consent issued under MP 05\_0120 for the construction and operation of a new paper mill at 1891 Botany Road, Matraville (the site).

The application is made pursuant to Section 4.55(1A) of the *Environmental Planning and Assessment Act, 1979* (EP&A Act) and is submitted to the Department of Planning and Environment (DPE) on behalf of Orora Limited (Orora) – The Applicant

The modification seeks approval for:

- » The staged demolition of the B7 Reel Store Building and two smaller adjoining buildings
- » The staged extension of the existing noise barrier along the north-eastern boundary
- » Deletion of Condition 13C(a) which reads as follows;

*13C. Prior to the commencement of operations, the Proponent shall ensure that all of the following noise mitigation controls are implemented:*

- a) retention and redesign of the B7 reel store to provide acoustic shielding;*

There is minimal environmental impact arising from this modification as justified in this report and the development consent as modified will relate to substantially the same development as the development for which consent was originally granted.

The SEE has been prepared in accordance with the requirements of the EP&A Act, Division 12 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Reg) as well as the requirements of the DPE and is to be read in conjunction with the following supporting plans and documentation:

**Table 1 Accompanying plans and documents**

Name/Reference	Author	Date
Detail Plan Ref: S23958 - Existing Noise Barrier	Orora	29 May 2018
Detail Plan Ref: S23959 Rev A – Stage 1 Noise Barrier Extension	Orora	29 May 2018
Detail Plan Ref: S23960 Rev A – Stage 2 Noise Barrier Extension	Orora	29 May 2018
Detail Plan Ref: S23961 – B7 Boundary Noise Barrier Demo Program B7 Building & Reel Store Hidden	Orora	29 March 2018
00A – S15733 – B7 Reel Store Floor Plan & Elevation Demolition and Installation	Orora	01/09
Technical Note – Measured Noise Levels – Orora Quarterly Monitoring	Hutchison Weller	19 March 2018
B7 Reel Store – Noise Management Strategy	Hutchison Weller	3 April 2018
Technical Note – Description of Noise Impacts	Hutchison Weller	9 April 2018
Orora Noise Barrier Consultation Report	Elton Consulting	20 April 2018

## 2 Background

### 2.1 Historical operations

The Applicant has operated a paper mill at Botany Road, Matraville since circa 1902 when the Federal Paper Mills Company constructed and commissioned their No. 1 machine (B1). In the 1960s, two paper machines housed in buildings B7 and B8 began operation. These used wastepaper as source material to produce brown paper for boxes, cardboard and similar types of packaging.

The site contained a large waste paper storage area in the centre of the site, numerous tanks for fibre and water storage, a wastewater treatment plant, a substation and boiler house, chemical and engineering stores and an administration office and car parking. Vehicular access to the site was originally provided from McCauley Street and Botany Road.

In the early 2000s, the Proponent identified that the operational lives of the B7 and B8 machines were coming to an end and planned for a new paper machine for a new paper machine - the B9 paper machine. This informed the project application MP 05\_0120.

B7 and B8 paper machines ceased operation in July 2012, with the B9 paper mill being commissioned in late 2012.

The new B9 Paper Mill approved under 05\_0120 on 20 July 2007 has been built and commenced full production in early 2013 (discussed in more detail below).

### 2.2 Development history

On the 20 July 2007, Orora (formerly AMCOR Packaging) obtained project approval by the Minister under Part 3A of the E&A Act (Application No. MP 05\_120). The application approved the construction and operation a new Paper Mill (B9) at the site. The B9 Paper Mill has been built and has been operational since in early 2013. The B9 Paper Mill replaced two older paper machines (B7 and B8) which were in two large brick buildings along the northern boundary of the site (**Figure 1**). As discussed above, these paper machines were no longer operational and have been decommissioned.

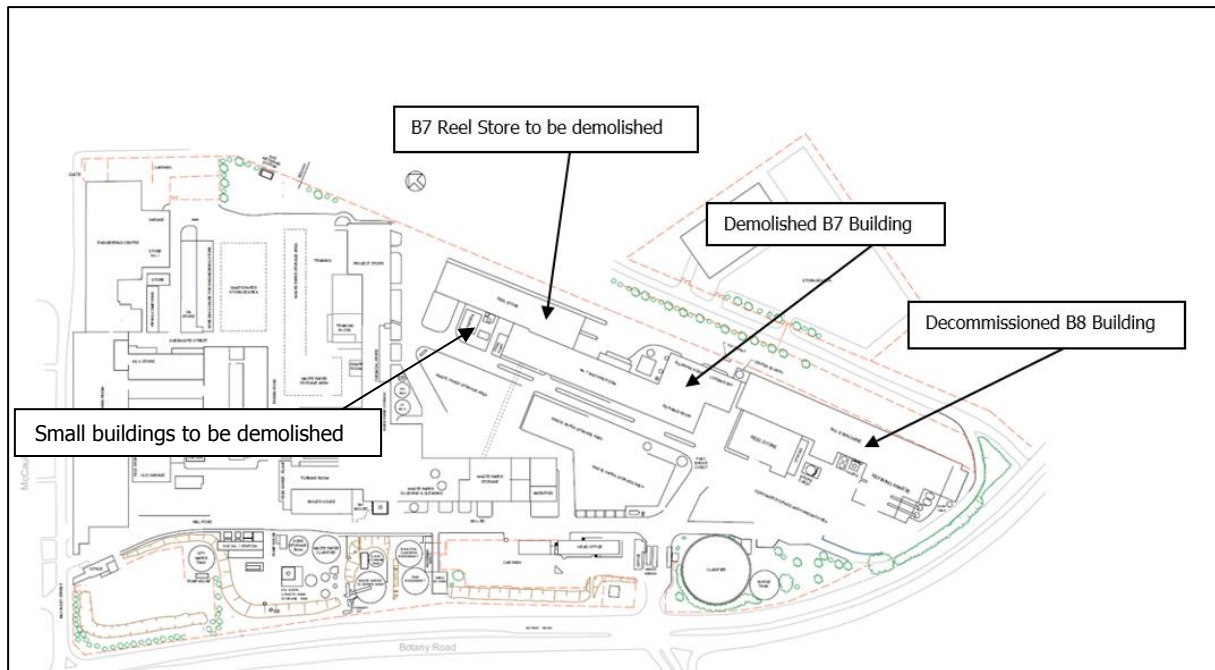
Sale of the paper machines was attempted however because of their age and the costs of dismantling and transporting the machine to overseas buyers, their sale was not financially viable.

Apart from the major service decommissioning, no further work has been undertaken on removal of the B8 Building or associated infrastructure.

The B7 building has been demolished as approved under MOD 5 (discussed in Table 2 below). Subsequently, the B7 Reel Store Building, being ancillary to the former B7 building is now redundant, thus it's demolition is sought under the subject application.

A summary of the relevant development history pertaining to the site is provided in Table 2 below, with a more detailed description of the relevant applications being Mod 2 and Mod 5 provided thereon;

**Figure 1 Original site Layout**



Source: Orora Limited

**Table 2 Relevant development history of the site**

Date	Application No.	Application Description	Outcome
20 Jul 2007	05_0120	Construction of a new paper mill at Amcor's Matraville Plan (Project B9)	Approved
25 Jul 2008	MOD 1	Modification of the project approval for additional demolition of redundant buildings on the western side of the site	Approved
12 Jul 2010	MOD 2	Changes to site layout and subdivision of lan at the Amcor Paper Mill	Approved
11 Dec 2012	MOD 3	Modify MCoA 20A and 20B to allow operations of the New Paper Mill to commence before road upgrade works are complete. Temporary traffic arrangements would be implemented to minimise impacts	Approved
28 Feb 2013	MOD 4	Approval to continue operating New Paper Mill and use of B-Doubles before McCauley St upgrade works have been finished	Approved
25 Sep 2015	MOD 5	Demolition of B7 Building, amendment to subdivision plan and relocation of an existing site access from McCauley Street 30m south	Approved
20 Sep 2016	MOD 6	Papermill Wastewater Treatment Plant upgrade	Approved
25 Nov 2016	MOD 7	Increase annual paper production from 383,763 tonnes to 425,000	Approved

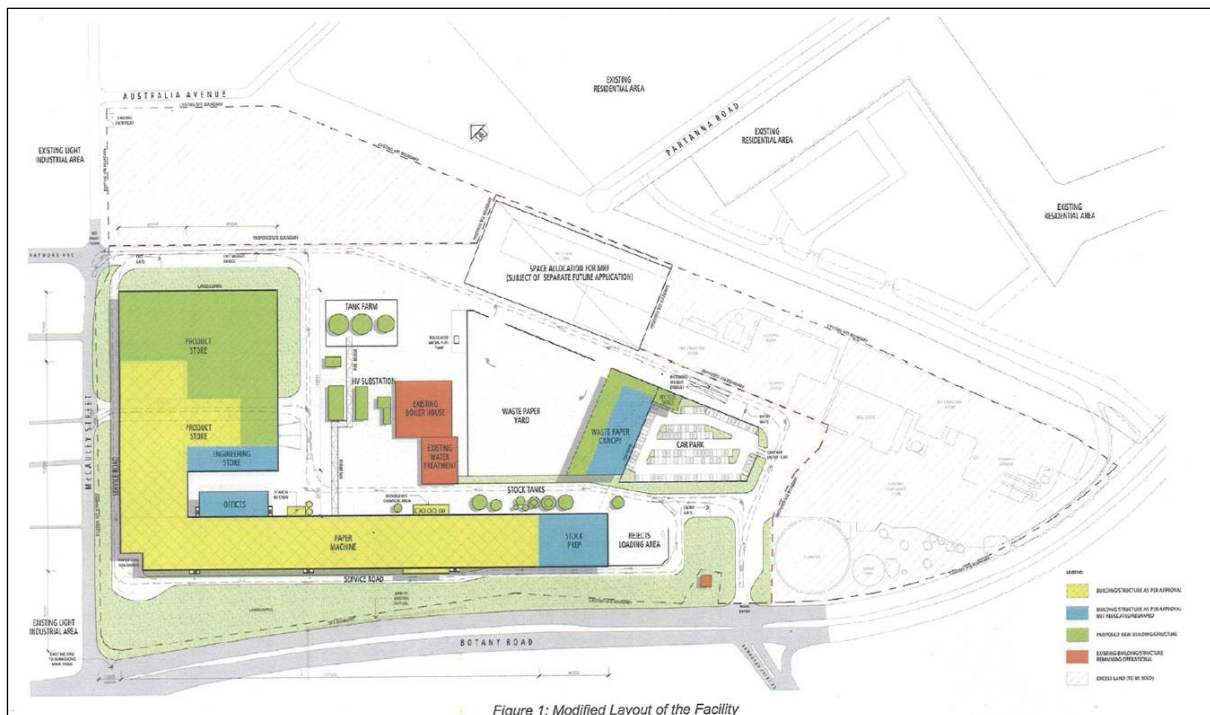
## 2.2.1 Modification 2 – Changes to site layout and subdivision of the land

Modification 2 (MOD 2) sought approval for site layout changes and subdivision into three lots as well as relocation of the engineering store vehicle access along McCauley Street to opposite Raymond Avenue (**Figure 2**). The application also entailed construction of a 5m high noise barrier along the northern side boundary and a 7m high noise barrier around the waste paper storage yard to attenuate noise impacts from the project. This modification was approved by the Minister under the transitional mechanism of Section 75W, since been repealed.

In the assessment of MOD 2, it was considered that the proposed modifications to the site layout would increase operational noise limits for the new paper mill and subsequently impact on the operator's ability to meet operational noise limits associated with the original project approval. Subsequently, noise mitigation conditions of consent were adopted which included retention and redesign of the of the B7 Reel Store for operational noise attenuation to surrounding residential properties (Condition 13C(a) which is now sought to be deleted under the subject modification.

The McCauley Street precinct and the Hanger land in the north east corner of the site have since been subdivided and sold with McCauley Street industrial precinct now fully developed. The Hanger Land site has been approved for industrial subdivision. The land on which the B7 and B8 buildings is located and all land to the south towards Botany Road, at this stage, has been retained by Orora for future development of Orora facilities and to support the operation of the B9 paper mill.

**Figure 2 Modification to site layout of approved paper mill**



Source: Watson Young Architects / Interiors, November 2011



## 2.2.2 Modification 5 - Demolition of B7 Building

A fire in the former B7 Mill building occurred in December 2012 which resulted in the building becoming structurally unsound and requiring demolition. Demolition was approved under modification 5 on the 25th September 2015 (**Table 2**).

Conditions of consent (10B and 10C) required a noise barrier be constructed to mitigate operational noise to sensitive receivers within 9 months of demolition being completed. This was required as operational noise was effectively buffered by the B7 building. Orora has completed demolition of the B7 building. To offset the loss of the noise screening afforded by this building, a 146.4 metre-long, 12m high container noise barrier has been installed along the most affected boundary.

A review of noise monitoring data at the noise sensitive receivers (residential properties) most likely to be affected by the loss of the B7 building has been completed which confirms the noise wall is effective in Orora's continuing compliance with noise limits in its Environment Protection Licence (EPL). Refer to Technical Note dated 19 March 2018 in **Appendix C** for overview of the noise monitoring after the construction of the existing noise barrier.

## 2.3 Regulatory Approvals

Other existing regulatory approvals which require consideration due to the proposed demolition and associated works include:

- » **Environment Protection Licence (EPL)** under the *Protection of the Environment and Operations Act 1997* (POEO Act) – based on our recent consultation with the Environmental Protection Authority (EPA), it is understood that no changes to the EPL would be required as result of the subject proposal.
- » **Water Management Licence for groundwater extraction** under the *Water Management Act 2000* – Orora has a Water Access Licence (WAL) for extraction of groundwater from the Snape Park borefield to service Mill 9. No changes are proposed to the volumes of groundwater extracted. Furthermore, there will be no impact to groundwater sources as the building slabs will remain in situ and all exposed areas sealed immediately.
- » **Trade waste discharge licence** under the *Sydney Water Act 1994* – The volume of wastewater discharged in the sewer network would not increase as result of the proposed works. Wastewater volumes will continue to comply with the trade waste agreement limits.
- » **Storage of dangerous goods** – Orora currently holds various licenses for the storage of dangerous goods on the site in relation to it's operations as a paper mill. These will not be modified as result of the subject proposal.

## 2.4 Need and justification

Orora proposes to safely demolish and remove the B7 Reel Store building and ancillary structures including two smaller ancillary buildings adjacent. The B7 Reel Store building is an industrial structure, previously used for storage and/or manufacturing purposes, over 50 years old and no longer utilised for the current paper mill use. The building is not built to current safety standards and retention of the obsolete and deteriorating building would significantly impact Orora's operations on site. The two immediately adjacent smaller buildings are a demountable and smaller brick building also not currently used or fit for purpose for the ongoing operations of the paper mill. The B7 Reel Store's demolition and smaller adjacent buildings will enable better use of the area and improve access and manoeuvrability for operational vehicles.

In a similar approach to prevent adverse impacts on its neighbours from operational noise, Orora proposes to continue the 146.4 metre-long, 12-metre-tall barrier, installing an additional 98m, in two stages. This will result in a container barrier 244 metres in length along the north-eastern boundary.

The extension of the noise barrier is instrumental in buffering operational noise currently afforded by the current B7 Reel Store Building.

### 2.4.1 Short term noise barrier solution

When considering solutions to the potential increase in noise, consideration has been given to the feasibility of the solution as well as its reasonableness. Feasibility relates to whether a solution is technically achievable and is practical given project constraints such as safety and maintenance requirements. Reasonable measures can be selected from those that are feasible and involves making a judgement on whether the overall noise benefits outweigh the overall adverse social, economic and environmental effects, including the cost of the measure.

Having considered treatment of noise at the source, the proposed solution would involve noise path control, and would involve adopting measures which block the transmission of noise.

Consistent with the barrier constructed adjacent to the B7 building, the infrastructure solution has been divided into a short-term and long-term timeframe for two main reasons;

**1. Practicability.** Orora is considering its optimum use for the space currently occupied by the B7 and B7 Reel Store building. As discussed below, this may involve construction of a new building, a wall or another solution. Until the B7 Reel Store building and smaller adjoining buildings are removed completely, development of the space cannot commence. It may also be necessary to determine the future use of the 'Hangar Land' (1897-1901 & 1901R Botany Road, Matraville) to the south-east which was subdivided under the MOD 2 approval (**Table 2**) and subsequently sold for future industrial development. Therefore, a temporary solution is necessary to immediately ameliorate noise until a long-term infrastructure solution has been developed.

**2. Cost.** Installation of a substantial structure for a short-term solution is not likely to be cost effective. The solution should be relatively cost effective for materials, installation and maintenance.

The proposed short-term infrastructure solution is construction of a temporary barrier utilizing shipping containers. The container barrier can be stacked several units high over a desired length to provide sufficient noise reductions.

Also consistent with the existing noise barrier, similar modelling has been performed to assess the noise reduction potential of the container barrier both within the site and externally. The model includes the removal of the B5 and B7 Buildings, the recently completed and commissioned Water Treatment Plant (WTP) and the light industrial complex to the north of the site (McCauley Street Precinct). Nine sensitive receiver locations were selected to represent the areas that may be impacted by the works (**Figure 11**).

Once Stage 2 of the 12m high (stacked 4 container units high) barrier is completed, it is expected to reduce LAeq, 15 minute noise levels at the closest compliance point (R4 - Partanna Avenue) to 40.6 dB(A). This is below the noise limit established under the EPL. As established by the Noise Management Strategy (NMS) dated 13 February 2017 provided for the existing noise barrier, this is a similar result to installing an 8-metre-high barrier along the boundary. Contours demonstrating predicted change in noise levels during the four stages of the proposal are presented within the updated NMS supporting the subject proposal (**Appendix D**).

#### 2.4.2 Long-term noise barrier solution

Orora is currently considering the most beneficial uses of the land once the buildings are removed. Consideration would include construction of a structure such as building or wall that provides a benefit to the operation with inherent noise barrier benefits. Once the above phases in the management strategy have been completed plus development of the hangar land block is approved and details of the development are available, planning for the B7 and B7 Reel Store area will then proceed and options for a long-term noise barrier solution put forward.

## 3 Consultation

Pre-emptive stakeholder and community consultation has been undertaken prior to lodgement of the modification application with DPE. The objective of the consultation was to inform the proposed works ahead of lodgement of the modification application and encourage and record feedback to be addressed in the final submission to DPE. Summary of the consultation is provided below.

### 3.1 Community consultation

On the 9 April 2018, a newsletter was distributed to 1,150 properties and a doorknock undertaken informing surrounding residents of the proposed extension to the noise barrier and associated demolition works properties. The properties consulted were identified as being located in areas that are likely to be affected by the proposed works and/or may experience increased noise due to the removal of the B7 Reel Store building. An email address and 1800 number were also established and included in the collateral to receive any ongoing feedback. A copy of the newsletter and distribution area map is provided within the Community Consultation Outcomes Report in **Appendix G**.

After a two-week period, the responses were collated, analysed and summarised in a submissions outcome report provided in **Appendix G**.

The key matters raised in the community consultation process are presented below;

#### **Proposed Works in General**

No concerns were documented in terms of the proposed works. Some residents indicated they were supportive of the noise barrier being extended and that the B7 Reel Store was being demolished as this building is viewed as a fire hazard to some residents, in light of the fire that occurred to the B7 Building adjacent, which warranted its demolition.

#### **Noise**

One resident raised concerns of the existing operational noise levels. As detailed further in the report and supporting documentation, operational noise levels will increase temporarily to surrounding receivers upon demolition of the B7 Reel Store. The loss of the building which currently acts as a noise barrier will be offset by the extended noise barrier in two stages, following the staged demolition of the B7 Reel Store building occurs. The demolition activity itself would also result in exceedance of noise management levels at nearby residential receivers despite mitigation measures being implemented. The exceedances would be generally when the bays of the building are being demolished and would be limited to an estimated 4-6 week demolition period. The removal of the B7 Reel Store building would result in some residential receivers being exposed to higher levels of noise from Port Botany and Botany Road. While the noise generated from the B9 facility would be mitigated through the provision of a new noise wall, the noise wall would mitigate the noise from Botany Road and Port Botany.

#### **Dust**

Some residents raised concern of existing dust however acknowledged mitigation measures would be in place for proposed works. There would be dust generated during the demolition activities, however as residents would be at least 50m away from the demolition site and measures to minimise and

suppress dust emissions would be implemented, impacts on residential areas are not expected in this regard.

### **Work Hours**

The residents consulted were informed that the works would not be undertaken 24 hours and would be restricted to 7am-6pm Monday to Friday and 8am -1pm Saturday with no demolition or barrier extension works proposed on Sundays or public holidays.

### **Traffic**

Some residents queried whether work trucks would be travelling in the neighbouring residential streets to facilitate the proposed works. There was a positive reaction to reassurance that trucks would work from within the site and that there would be no increase in traffic generation as result of the works.

### **Odour**

Concerns were raised by some residents in relation to existing odour from the operations of the paper mill however have no bearing on the subject proposal where odour will not be increased as result of the proposed demolition and extension of noise barrier.

### **Future Work**

Some residents indicated that they were interested as to what Orora is planning to build once B7 Reel Store is completely demolished. As previously discussed, the B7 Reel Store is being demolished where it is disused and may become a fire hazard similar to the decommissioned B7 building. The demolition will also enable better use of the vacant space for storage of large equipment, improved operations vehicle manoeuvrability and reducing opportunities for conflict between operations vehicles and waste paper storage etc. There has been no decision on the future use of this land at this stage.

## **3.2 Consultation with regulatory agencies**

With a similar objective to inform and obtain any feedback to be addressed in the final submission, the proposal was discussed with key regulatory agencies; DPE, the Environmental Protection Authority (EPA) and Randwick City Council (Council). The outcome of the agency consultation is summarised in the table below;

**Table 3 Regulatory agency consultation outcomes summary**

Agency	Meeting Date	Issue raised during consultation	Response/Actions Taken
Department of Planning & Environment (DPE)	8 March 2018 at DPE offices	<ul style="list-style-type: none"> <li>» Relevant planning pathway confirmed as a S4.55 modification</li> <li>» Pre-lodgement requirements: relevant supporting documentation and consultation requirements confirmed</li> <li>» Specific emphasis on assessment of noise impacts confirmed</li> </ul>	<ul style="list-style-type: none"> <li>» Community and agency consultation undertaken ahead of lodgment of S4.55 application</li> <li>» Additional noise impacts addressed by way of an amended Noise Management Strategy which supports the subject application</li> <li>» Construction Noise and Vibration Management Plan (CNVMP) to be updated to reflect the subject proposal, consisted with that provided for the B7 Building approved by DPE</li> </ul>
Environmental Protection Authority (EPA)	18 April 2018 on site at Orora	<ul style="list-style-type: none"> <li>» Community consultation including a doorknock strongly encouraged</li> <li>» Temporary noise impacts to surrounding residents and temporary non-compliance with EPL acknowledged</li> </ul>	<ul style="list-style-type: none"> <li>» Community and agency consultation undertaken ahead of lodgment of S4.55 application</li> <li>» Any temporary non-compliance with the operational noise limits will not necessitate variation to the EPL</li> <li>» Noise Management Strategy provided which investigates potential noise impacts</li> </ul>
Randwick City Council (Council)	16 April 2018 By correspondence	<ul style="list-style-type: none"> <li>» There may be an error with the predicted noise level at residential location R4 on Partanna Avenue. In the Noise Management Strategy (page 5), it states that the predicted LAeq15 at demolition stage of the B7 Reel store is 50dBs during the night time period and therefore it is predicted to be an increase of 9dBs on</li> </ul>	<ul style="list-style-type: none"> <li>» The quarterly noise monitoring data measures ambient noise levels which encompass extraneous sources such as port noise and traffic from Botany Road, both major contributors to the noise environment in this area. Orora is not</li> </ul>

Agency	Meeting Date	Issue raised during consultation	Response/Actions Taken
		<p>the current noise levels during the night time period. However, the technical acoustic note provided (current noise assessments for the past 12 months - page 5) outlines the average noise levels at R4 averages at 50.7dBs during the night time period which exceed the current requirements for the Environmental Protection Licence for the premises of 41dBs. It appears the predicted noise level is based on the EPL criteria (41 +9dBs) rather than the current noise level criteria of 50dBs +9dBs.</p> <p>» The Environmental Health team are concerned that if there is a 9dBs increase adding to the existing frequent exceeding noise levels, it would be closer to 60dBs during the night time period and possibly resulting in sleep disturbances for many residents on Partanna Avenue for several months.</p> <p>» It is recommended the acoustic consultant clarifies on these measurements and advise what is the predicted noise level during the demolition of the B7 reel store during the absence of any acoustic barrier. Sleep disturbance impacts should also be considered and addressed in this Noise Management Strategy.</p>	<p>responsible for mitigating this noise. Orora's EPL requirements are for noise emissions from its own operations and compliance with this licence relates solely to its operation.</p> <p>» The predicted noise levels in <b>Table 2</b> of the NMS represents only Orora's contribution to the local noise environment. For this reason, adding the increase of 9 dB to the ambient noise level (i.e. contributions from all sources) for the receiver at R4 to arrive at an ambient noise level of 60 dB, is incorrect.</p> <p>» Measured ambient noise from all sources are generally represented by the measured noise levels shown in <b>Table 4</b> of the Technical note dated 19 March by Hutchison Weller. The range of the measured ambient noise levels for this compliance location is between 46.2 dB to 55.5 dB. Using an arithmetic average as a conservative estimate, the ambient noise environment is considered to be 50.7 dB.</p> <p>» Where the increase in ambient noise levels due to the additional contribution from the Orora site are predicted to be 50.2 dB, the overall noise level would be 50.2 dB + 50.7 dB = 53.5 dB (log addition). That is a 2.8 dB increase in the ambient noise environment.</p>

Agency	Meeting Date	Issue raised during consultation	Response/Actions Taken
			<ul style="list-style-type: none"> <li>» While this increase is expected to be audible, it is not considered to be significant and would be temporary, reducing to levels lower than the EPL requirements once the noise wall is constructed.</li> <li>» Imperative that the noise barrier be constructed as early as possible to minimise timeframe of temporary impact.</li> </ul>
		<ul style="list-style-type: none"> <li>» The proposed extension of the barrier aims to achieve the same acoustic performance as the B7 Reel store currently does by shielding noise from the paper mill and Port Botany. The current acoustic barrier recently installed appears to be maintaining the noise levels at the same levels as seen prior to the demolition of the B7 building paper mill (Acoustic technical report provided (Hutchison Weller dated 19 March 2018).</li> <li>» A Noise Management Strategy prepared by Hutchison Weller (dated 3 April 2018) concludes that the extension of the barrier will allow the site to meet the relevant noise criteria set out in the Environmental Protection licence. It is therefore considered that the barrier will address the noise issues that may arise from the demolition of the B7 reel store however it is recommended that an acoustic validation report is undertaken to confirm compliance once the wall has been constructed. This validation assessment should consider further operational or fixed treatment measures once the B7 reel store building has been</li> </ul>	<ul style="list-style-type: none"> <li>» An updated Noise Validation Assessment will be undertaken post construction of the noise barrier and post demolition of the B7 Reel Store consistent with that provided for the B7 Building demolition approval.</li> </ul>



Agency	Meeting Date	Issue raised during consultation	Response/Actions Taken
		demolished and the operational plans for the site has been finalised to minimise noise impacts.	
		<ul style="list-style-type: none"> <li>» In the past, it is noted that residents have contacted council to discuss concerns regarding visual impacts caused by the installation of acoustic walls to the premises. The concerns were in relation to diminishing the surrounding view and that an acoustic wall would impact on the outlook from bordering properties resulting in a significant financial impact to the market value of properties.</li> <li>» Although this proposed extension of the acoustic wall is a significant distance away from the nearest sensitive receiver and the containers will be painted to blend in with the original colour of the development, the wall is still significantly high which may impact surrounding residents. It is therefore recommended that prior to the construction of the extension of the acoustic wall, Orora should liaise with concerned residents to discuss and resolve any concerns with any visual impacts.</li> </ul>	<ul style="list-style-type: none"> <li>» Detailed assessment in regards to visual amenity is addressed under Section 8.4 of the SEE.</li> <li>» No concerns regarding visual amenity were raised during the preliminary consultation with the surrounding community as detailed in Part 4.1 above.</li> <li>» Indeed, the proposed continuation of the noise barrier will provide/result in a single continuous structure, industrial in aesthetic character, befitting in its location and use.</li> </ul>

## 4 The site

The site is located at 1891 Botany Road, Matraville. The land on which the development is located is legally described as Lot 14 in DP 1205936 and Lot 1 in DP 363611. The site is roughly triangular in shape, relatively flat and approx. 122,560m<sup>2</sup>. The site is located within the Matraville industrial area and is zoned IN1 – General Industrial pursuant to the *State Environmental Planning Policy (Three Ports) 2013* (Ports SEPP) and is within the Randwick Council Local Government Area (LGA).

The site does not contain a heritage item nor is it located within a heritage conservation area.

A current aerial view of the site is shown in **Figure 3** below.

The site is surrounded by a mix of industrial, commercial and residential land uses. The closest residential properties to the subject site are located approximately 30 metres from the eastern boundary along Partanna, Murrabin and Australia Avenues. Commercial offices are located to the north-west of the site on McCauley Street. Industry associated with Port Botany is located to the south and south-west of the site.

**Figure 3 Aerial view of subject site showing existing structures and surrounding street network**



Source: Nearthmaps 2018

# 5 The Proposal

## 5.1 Overview of modification application

The proposed modification application seeks approval for:

- » Staged demolition of the B7 Reel Store building and two smaller adjacent buildings
- » Extension of the existing noise barrier along the north-eastern boundary
- » Deletion of condition 13C(a) to enable demolition of the B7 Reel Store, where operational noise would be effectively mitigated by the proposed noise barrier extension

The assessment included in this report demonstrates that the proposal would not result in any adverse impacts with particular consideration for the surrounding environment and amenity of neighbouring residential properties. A more detailed description of the proposed modifications is provided below.

## 5.2 Demolition of the B7 Reel Store Building and adjoining structures

### 5.2.1 Commencement of work

The demolition of the B7 Reel Store Building would commence shortly after approval for the modification is received, and subject to any relevant conditions of consent. It is envisaged that the complete demolition would take approximately 4-6 weeks in total as part of a two-stage process outlined as follows;

#### Stage 1

2-3 weeks demolition + 1 week for barrier extension

#### Stage 2

2-3 weeks demolition + 1 week for barrier extension

The adjoining two smaller adjacent buildings will be demolished as part of Stage 2.

### 5.2.2 Description of demolition

The areas and structures to be demolished are shown in **Figure 4** and **Figure 5** below.

Demolition of the buildings would be down to the ground slab (ie. the slab would be left in place). Any holes in the slab would be filled to provide a trafficable surface. There is no associated infrastructure adjacent to the building that will require demolition (i.e tanks, machinery, pipe bridges etc), these were removed with the B7 demolition works. The demolition would comply with appropriate standards and guidelines. The current Demolition Work Plan and associated Environmental Management Plan would be revised before demolition commences as detailed in **Appendix E and H**.

The B7 Building is largely a brick structure with metal roof. The significantly smaller adjacent buildings are a demountable structure and a small single-story brick building.

Consistent with B7, the following activities would be undertaken to demolish the B7 Reel Store building and two smaller adjacent buildings :

- » **Compound establishment** – The demolition contractors would establish a compound adjacent to the buildings which would include an equipment storage area, recycling and waste bins, a small office and worker amenities.
- » **Asbestos removal** – This activity would continue throughout the demolition period. The survey and subsequent removal and disposal of asbestos would be undertaken by an appropriately licensed contractor and would comply with the relevant guidelines.
- » **Removal of the reel machines and any associated services** – the B7 Reel Store machines and associated services have yet to be removed and any salvageable components that can be easily removed would be before the demolition of the building.
- » **Installation of any safety protection structures or measures** – Safety protection measures such as scaffolding, supports, traffic diversions etc may be required to ensure that the demolition activities do not pose a risk to workers and site infrastructure. The incoming weighbridge, for example, would require specific protection due to its close proximity to the B7 Reel Store Building as well as the northern boundary wall to the adjoining McCauley Street light industrial precinct.
- » **Demolition of the building** – The B7 Reel Store building would be demolished progressively in two stages from one end to the other by mechanical means. Similar to B7, this would be undertaken by specifically modified excavators equipped with shears, hammers, claws and other similar attachments. Generally, three bays of the building would be demolished at once. After the further salvage and the loading of the demolition waste, the next three bays would be demolished and so on. The two smaller adjacent buildings will be demolished as part of stage 2 works.
- » **Further salvage of recyclable items** – any recyclable items that are economically feasible to separate from the demolition rubble would be salvaged.
- » **Loading and disposal of demolition waste** – The demolition waste would be load on to trucks and taken to appropriately licenced landfill.
- » **Demolition of the building would be down to the ground slab** (ie. the slab would be left in place). Any holes in the slab would be filled to provide a trafficable surface. There has been no decision on the future use of this land at this stage – and the areas would remain in Orora’s management and ownership.



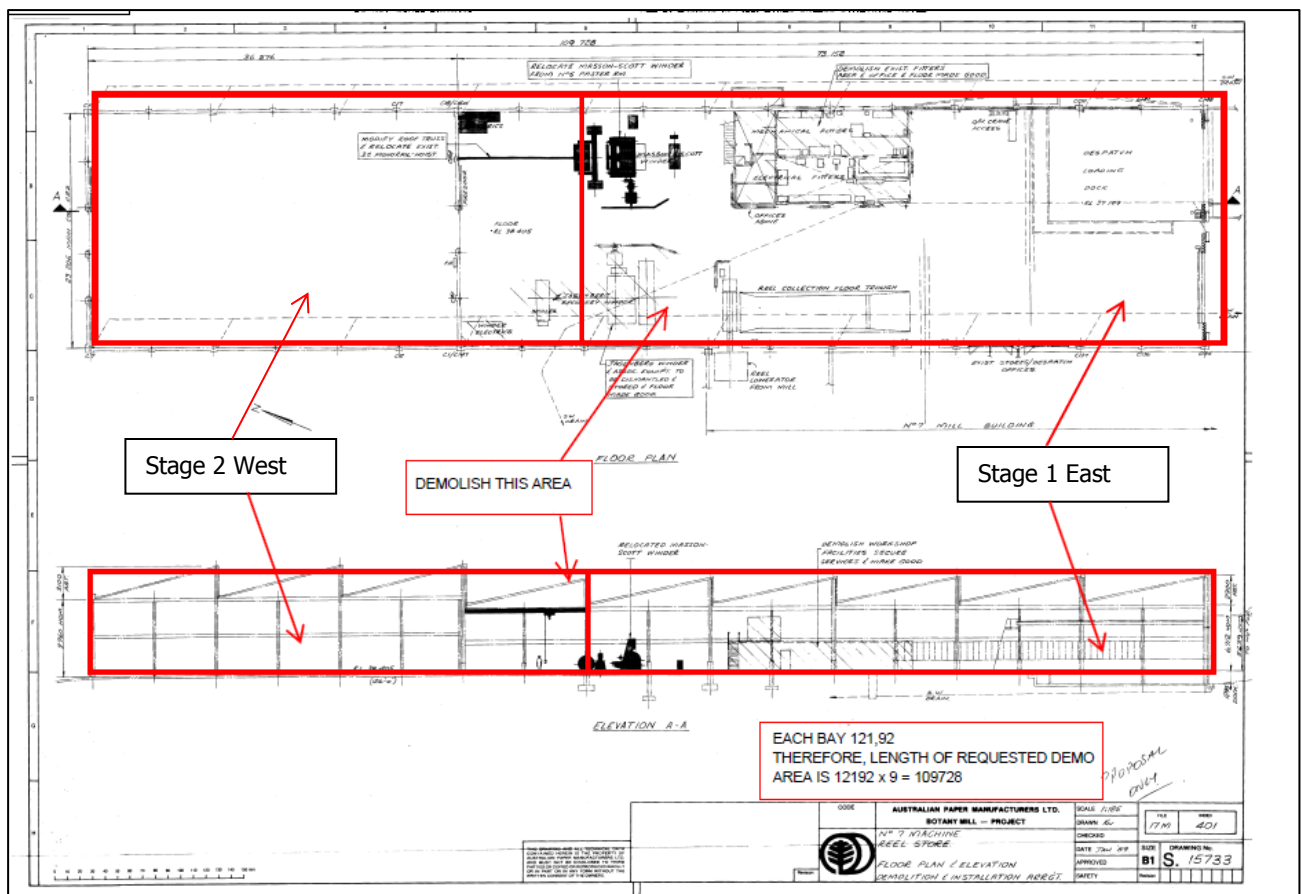
**Figure 4** Map demonstrating area of demolition and noise barrier extension



Source: Elton Consulting, April 2018

Consistent with B7 building demolition, it is anticipated that a condition of consent will be adopted with any approval which requires the existing Demolition Work Plan (**Appendix H**) to be updated to reflect the proposed works. Orora would not object to such condition of consent.

**Figure 5 Plan and Long Section of proposed demolition of B7 Reel Store Building**



Source: Orora Limited as amended by Elton Consulting.

## 5.3 Extension of the noise barrier

### 5.3.1 Commencement of work

The prevailing site constraints around the B7 Reel Store necessitate the demolition and noise barrier construction being performed in stages as shown in **Figure 6** (East end demolition) and **Figure 7** (West end demolition) and detailed as follows (with indicative timeframes included);

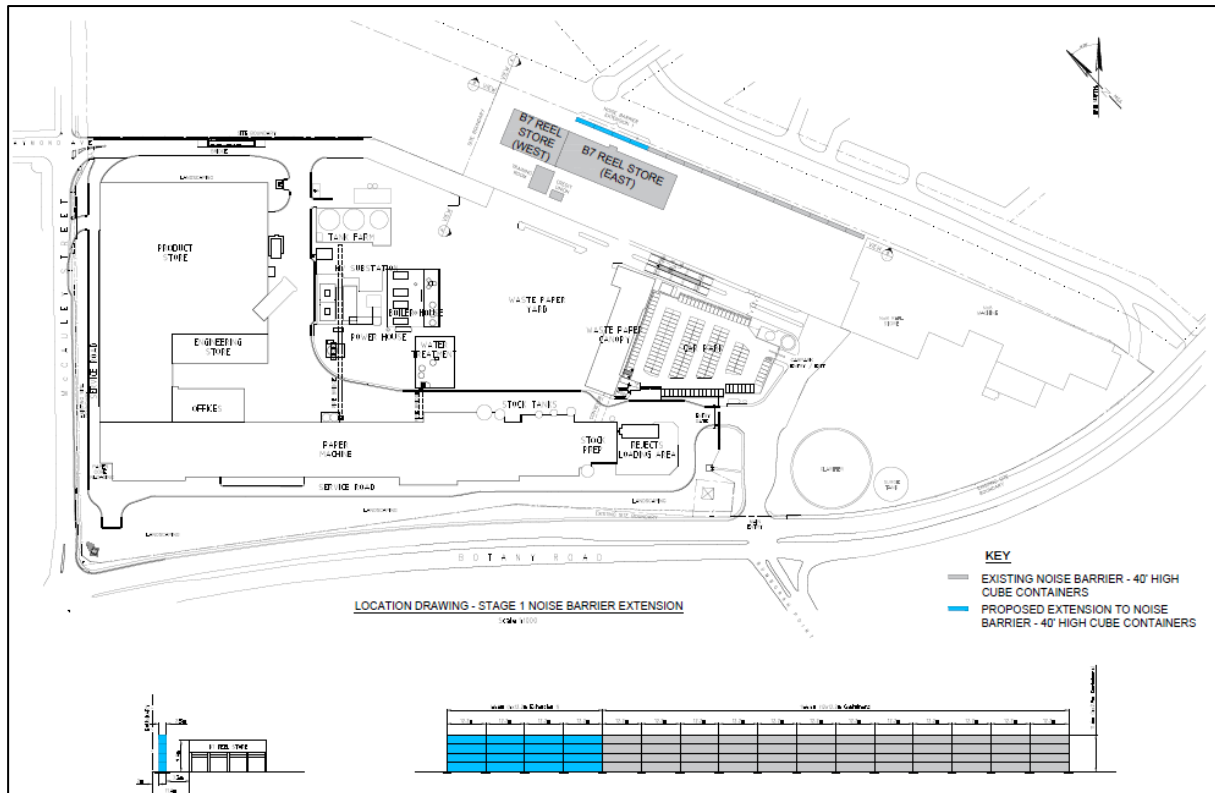
1. Demolition of the east end of the Reel Store (5 bays) – approximately 2-3 weeks duration
2. Installation of extension 1 noise barrier to close the gap to the remaining part of the Reel Store – approximately 1 week duration
3. Demolition of the last portion (west end) of the Reel Store (4 bays) plus two smaller adjacent buildings – approximately 2-3 weeks duration
4. Installation of extension 2 noise barrier to close the gap to the boundary fence – approximately 1 week duration.

The duration and timing of each stage will be dependent on wet weather however takes into consideration that no construction to be undertaken on Sundays or public holidays. The total time of

demolition and construction is estimated to be 6-8 weeks. There may be other unforeseen factors that may result in a variation to the above indicative timeframes.

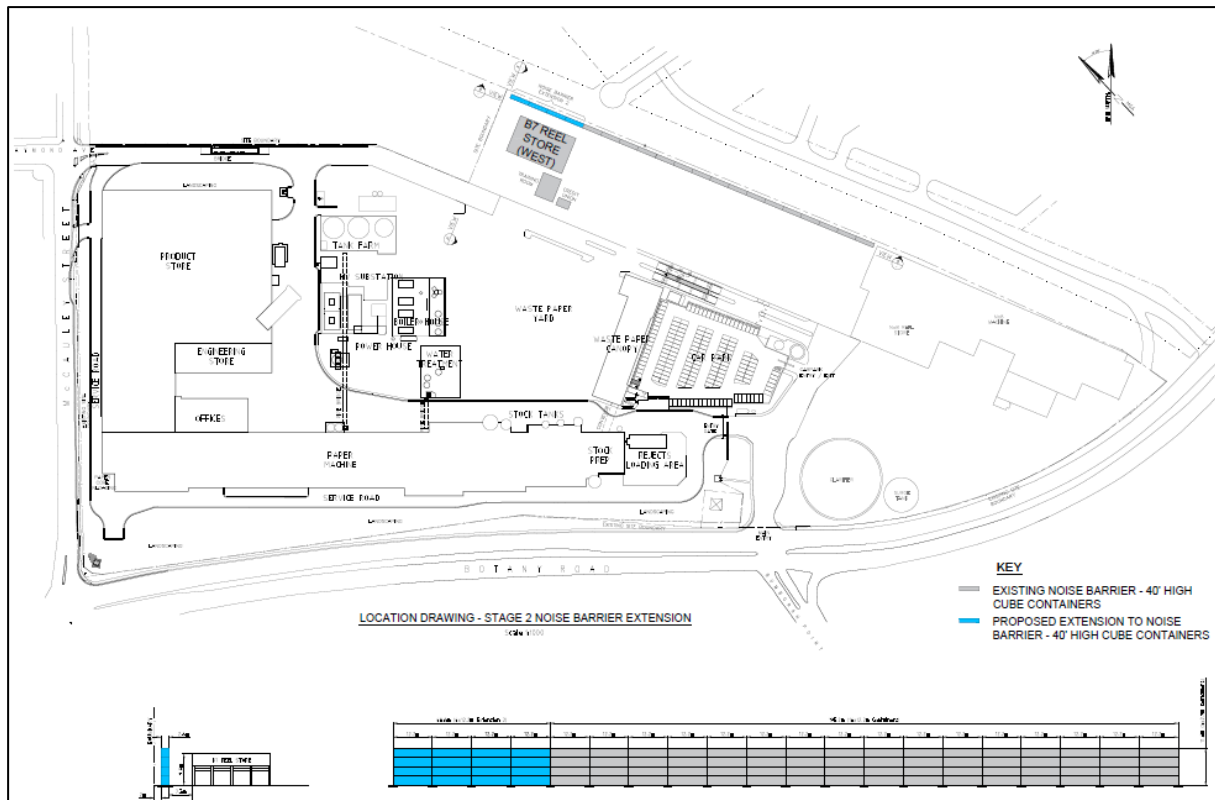
To enable the barrier to be erected as quickly as practical, the mounting slabs which will support the containers will be placed concurrent to demolition.

**Figure 6 Stage 1 Plan - Demolition of the east end of the B7 Reel Store**



Source: Orora Limited, March 2018

**Figure 7 Stage 2 Plan - Installation of extension 1 noise barrier**



Source: Orora Limited, March 2018

### 5.3.2 Description of Works

As previously outlined under Part 3.2.2, in 2015, Orora was granted approval for demolition of the B7 Building (MOD 5) which outlined conditions to enable support the demolition. Following this approval, Orora submitted a stage 2 Noise Barrier Plan which was subsequently approved by DPE in November 2015. The barrier is a cost effective, durable and effective solution, which, based on quarterly noise monitoring data (**Appendix C**), allows Orora to continue to meet it's EPL limits post demolition of the B7 Reel Store Building.

The proposed noise barrier is to be of similar appearance to the existing barrier (**Figure 8**). As mentioned above, the proposed noise barrier cannot be physically constructed until each stage of demolition is complete. Extension 1, around 49 metres long and approx. 12m in height, would be installed following Stage 1. Extension 2, consisting of a further 49 metres and of the same height, would be installed following Stage 2. The proposed staging is illustrated in the noise barrier detail plans provided in **Appendix A** and **Figures 6-7**. The barrier would traverse along the north-eastern perimeter of the site consistent with the existing barrier.



**Figure 8 Existing container wall as viewed from Partanna Avenue**



Source: Hutchison Weller, March 2018

For a short period of time after Stage 1 demolition and Stage 2 demolition, there would be no noise barrier in place and operational noise levels at adjacent residences are likely to be greater than existing levels.

A Noise Management Strategy (NMS) dated 3 April 2018 by Hutchison Weller has been provided (**Appendix B**) which investigates the potential impacts of the proposed demolition and mitigation measures. The report also details the operational noise limits with which Orora complies, the modelling method and predicted changes in noise levels due to the reel store demolition and noise barrier installation.

A Technical Note by Hutchison Weller dated 19 March 2018 (**Appendix D**) has also been provided which provides an analysis of monitoring data for six monitoring periods prior to demolition of the B7 Building which was adjacent to the B7 Reel Store Building, and two periods subsequent to demolition which indicates that noise levels to sensitive receivers after the barrier was installed are lower than prior to the B7 Demolition, a testament to the barriers effectiveness as a means of operational noise mitigation.

Consistent with B7 building demolition, it is anticipated that a condition of consent will be adopted with any approval which requires the existing Demolition Work Plan (Appendix H) and associated documentation to be updated to reflect the proposed works. Orora would not object to such condition of consent.

## 5.4 Amendment to condition

The application seeks to modify condition 13C(a) which requires retention of the B7 Reel Store as a means of operational noise shielding. This condition was adopted under modification application 2 referenced 05\_0210 Mod 2 and is sought to be amended in the following manner (striketrough in red our inclusion):

*13C. Prior to the commencement of operations, the Proponent shall ensure that all of the following noise mitigation controls are implemented:*

- ~~*a) retention and redesign of the B7 reel store to provide acoustic shielding*~~ **[DELETE]**
- b) placement of ventilation fans on decks on the south side of the paper machine building;*
- c) engineering controls on fans and blowers to achieve 85dB(A) at 1 m from the outlets;*
- d) ground floor level wall of the paper machine building facing residential areas to be constructed of concrete and a double clad metal system;*
- e) machine floor level wall of the paper machine building facing residential areas to be constructed of a double steel cladding system;*
- f) design of the internal road system and traffic flow to prevent sleep disturbance criteria being exceeded; and*
- g) design of the finished product store to allow trucks to be loaded inside the building and to exit the site via a separate access on McCauley Street further from residential areas.*

The deletion of this condition is to enable demolition of the B7 Reel Store. The extension of the existing noise barrier sought under this modification application will provide an effective means of operational noise shielding to replace the B7 Reel Store, thus satisfying the objective of the condition.

As previously discussed in Part 6.3.2 above, the barrier is an evidence-based method verified by the supporting Noise Management Strategy by Hutchison Weller and associated Technical Note detailing outcomes of quarterly noise monitoring data in relation to the existing noise barrier.

## 6 Statutory framework

The EP&A Act provides the framework for environmental planning and assessment in NSW. The Act is supported by the EP&A Regulation 2000.

As part of the recent amendments to the EP&A Act, the transitional arrangements for former Part 3A projects have now closed with all future modifications to these projects now assessed under the State Significant Development (SSD) planning pathway. Accordingly, modifications to former Part 3A projects must now be made under Section 4.55.

The modification will be assessed against the original approved development for the Paper Mill, as at the time it is transitioned to State Significant Development (SSD) (Gazetted as SSD on 25 May 2018).

The relevant sections of the EP&A Act with respect to this application are addressed below.

### 6.1 Section 4.55(1A) modification – minimal environmental impact

The proposed modification to development consent no. MP 05\_0120 may be sought under Section 4.55(1A) of the EP&A Act so long as certain requirements are addressed. These requirements are addressed in the table below.

**Table 4 Compliance with Section 4.55(1A) of the EP&A Act**

Section 4.55(1A) EP&A Act	Comment
<i>(1A) Modifications involving minimal environmental impact</i> <i>A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:</i>	
<i>(a) it is satisfied that the proposed modification is of minimal environmental impact, and</i>	The proposed development is considered to be of minimal environmental impact as: <ul style="list-style-type: none"><li>» It seeks to provide an extension to the existing noise barrier to mitigate operational noise of the existing paper mill to surrounding noise sensitive receivers, once the B7 Reel Store is demolished</li><li>» The noise barrier will be constructed of cube containers stacked four high and eight long, consistent with the existing noise barrier constructed to mitigate operational noise as required under modification 2</li><li>» The proposed location of noise barrier will not be visually obtrusive or significantly impact on the amenity of residents at the site or adjacent, and will be of the same colour treatment to the existing barrier</li></ul>

Section 4.55(1A) EP&A Act	Comment
	<p>» To further justify that the proposal will have minimal environmental impact, a Technical Note has been provided with the application which demonstrates the effectiveness of the barrier to shield operational noise to sensitive receivers (residential properties), post-demolition of B7 under Modification 5.</p>
<p><i>(b) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which the consent was originally granted and before that consent as originally granted was modified (if at all), and</i></p>	<p>The proposed modification relates to the extension of a noise barrier to mitigate the operational noise of the paper mill approved under the original application MP 05_0120.</p> <p>The demolition of the B7 Reel Store Building and two adjacent buildings relates to the new B9 Paper mill approved under the original application (MP 05_0120) which replaced the B7 and B8 Buildings and ancillary structures including the B7 Reel Store Building, rendering them redundant.</p> <p>It is noted that the original approval constituted demolition of existing industrial buildings to facilitate the new paper mill.</p> <p>With consideration of the above, it is considered that the proposed development, as modified, is substantially the same for which consent was originally granted and is within the scope of section 4.55(1A) of the EP&amp;A Act rather than requiring a new development application to be lodged.</p>
<p><i>(c) it has notified the application in accordance with:</i></p> <p><i>(i) the regulations, if the regulations so require, or</i></p> <p><i>(ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and</i></p>	<p>As the proposed modification is of minimal environmental impact, it is understood that DPE may apply discretion to notify and would consider any submission received in relation to the proposed modification in the assessment of the application.</p> <p>As discussed in Part 3 of the report, community and regulation agency consultation has been undertaken upfront, prior to the submission of the modification application, the concerns raised and addressed under the relevant section of the report.</p>
<p><i>(d) it has considered any submissions made concerning the proposed modification within any period prescribed by the regulations or provided by the development control plan, as the case may be.</i></p> <p><i>Subsections (1), (2) and (5) do not apply to such a modification.</i></p>	<p>It is understood that the DPE would consider any submissions received on the proposed development as part of the assessment process.</p>

As discussed above, it is considered that the proposed development, as modified, is substantially the same for which consent was originally granted consistent with the overall intent of the relevant

planning controls applying to the site and is considered to have minimal environmental impact, satisfying the provisions of Section 4.55 of the EP&A Act.

## 6.2 Environmental Planning Instruments

All development within Port Botany is covered by the *State Environmental Planning Policy (Three Ports SEPP)* and thus the Randwick Local Environmental Plan 2012 (RLEP 2012) does not apply in this instance.

### 6.2.1 State Environmental Planning Policy (Three Ports) 2013

On 7 March 2014, the NSW Government finalised an amendment to the State Environmental Planning Policy (Port Botany and Port Kembla) 2013, to apply the same planning controls to the Port of Newcastle that already apply at Port Botany and Port Kembla. As a consequence of the amendment, the State Environmental Planning Policy (Port Botany and Port Kembla) 2013 was renamed to the State Environmental Planning Policy (Three Ports) 2014 (Ports SEPP).

The Orora site is located in the Randwick City Council LGA. However, the Orora site and the adjacent Port Botany have been excluded from the area covered by the Randwick LEP 2010 and instead the relevant environmental planning instrument that governs development on the site is the Three Ports SEPP.

Clause 17 of the Ports SEPP stipulates that demolition requires development consent, unless otherwise identified by the policy. Part 3, Clause 24 of the Ports SEPP schedules the criteria in which development is to satisfy if it is to be deemed as 'exempt' development which includes demolition (Schedule 1). The Orora site is located outside the Lease Area of Port Botany thus demolition of the existing B7 Reel Store building is not classified as 'exempt' development pursuant to the exempt provisions of the Ports SEPP thus consent is sought under S4.55 of the EP&A Act.

The aims of this SEPP are:

- a) *to provide a consistent planning regime for the development and delivery of infrastructure on land in Port Botany, Port Kembla and the Port of Newcastle,*
- b) *to allow the efficient development, re-development and protection of land at Port Botany, Port Kembla and the Port of Newcastle for port purposes,*
- c) *to identify certain development within the Lease Area as exempt development or complying development,*
- d) *to specify matters to be considered in determining whether to grant consent to development adjacent to development for port purposes,*
- e) *to provide for development at Port Botany that does not, by its nature or scale, constitute an actual or potential obstruction or hazard to aircraft,*
- f) *to identify certain development as State significant development or State significant infrastructure,*
- g) *to ensure that land around the Lease Area is maintained for port-related and industrial uses, including heavy industry on land around Port Kembla.*

Typically, Randwick City Council would be the consent authority for works on the site, but as the works are being undertaken as a modification to the existing project which was originally approved under the 3A of the EP&A Act (now SSD), the Minister for Planning is the consent authority for the project in this instance.

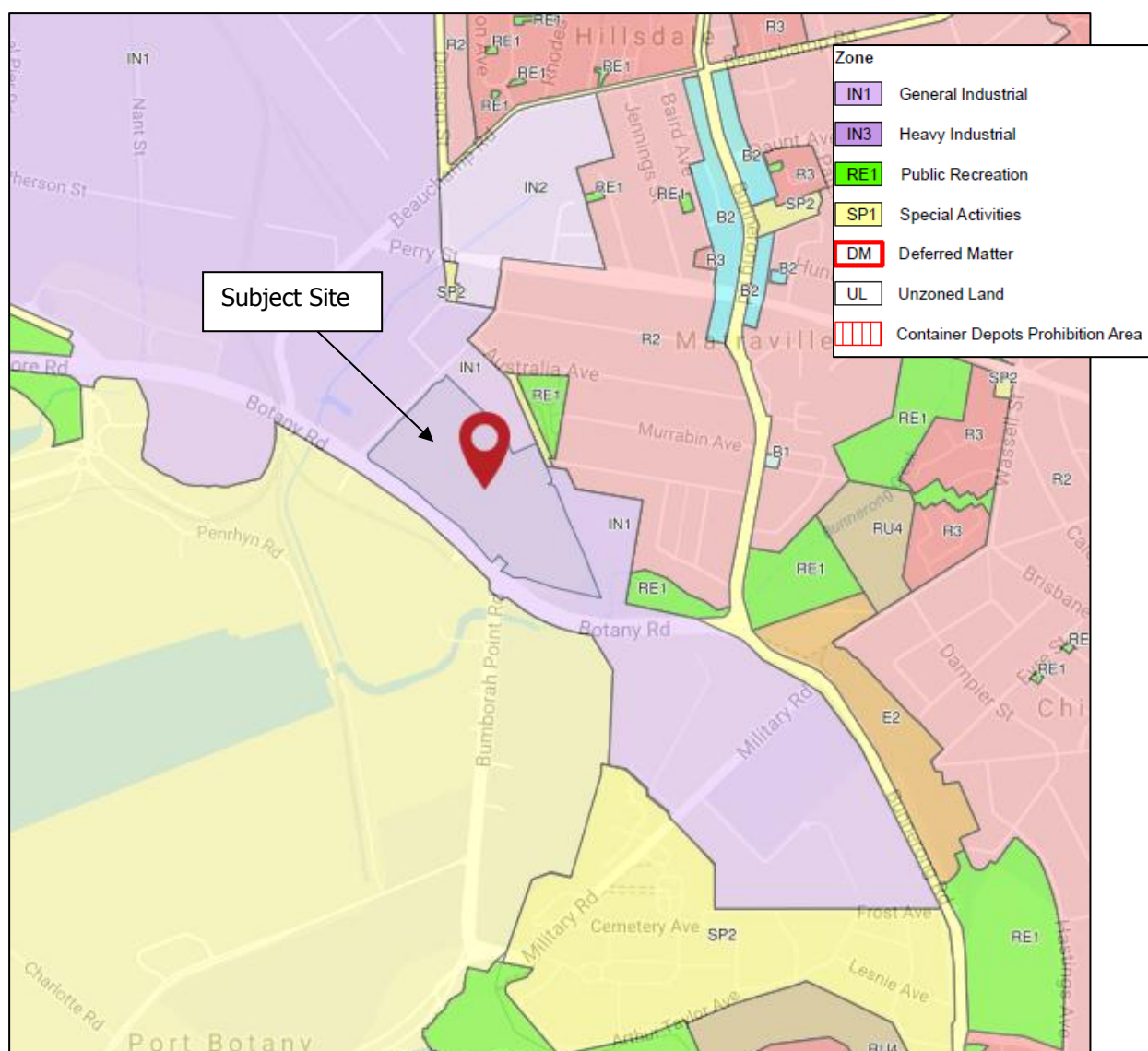
The Orora site is zoned General Industrial (IN1) under the Three Ports SEPP (**Figure 9**). The McCauley Street precinct has a further land use restriction in that container depots are not a permitted land use however this restriction does not pertain to the subject site. A compliance table outlining the relevant provisions of the zone is provided below;

**Table 5 Zoning compliance table**

Clause	Control	Objectives	Compliance
12 Land use zone	IN1 General Industrial  Uses permitted with consent include: <i>General industries, Waste or resource management facilities</i>	<ul style="list-style-type: none"> <li>» <i>To provide a wide range of industrial and warehouse land uses.</i></li> <li>» <i>To encourage employment opportunities.</i></li> <li>» <i>To minimise any adverse effect of industry on other land uses.</i></li> <li>» <i>To facilitate and encourage port related industries that will contribute to the growth and diversification of trade through the port.</i></li> <li>» <i>To enable development for the purposes of business premises or office premises associated with, and ancillary to, port facilities or industries.</i></li> <li>» <i>To encourage ecologically sustainable development.</i></li> </ul>	<p><b>Complies</b></p> <ul style="list-style-type: none"> <li>» The New Paper Mill development could be considered either a General industry or a Waste or resource management facility and is therefore permissible development for the IN1 zoning.</li> <li>» The demolition of the B7 Reel Store building and two smaller adjoining buildings would not result in any change in land use as the buildings are already decommissioned.</li> <li>» As discussed above, Clause 17 of the Ports SEPP requires development consent for demolition for sites outside of the Lease Area and thus this modification application to DPE has been made.</li> </ul>



**Figure 9 Land Zoning Map**



Source: [www.legislation.nsw.gov.au](http://www.legislation.nsw.gov.au)

# 7 Assessment of Proposal

## 7.1 Noise

A Noise Management Strategy (NMS) Report and associated Technical Notes have been provided by Hutchison Weller which investigates the potential impacts of the proposed demolition and mitigation measures. The report details the operational noise limits with which Orora complies, the modelling method and predicted changes in noise levels due to the reel store demolition and noise barrier installation and is included in **Appendix B**. The key findings contained within the reports are summarised below.

### 7.1.1 Existing noise environment

Aside from the Orora Paper Mill, the existing noise environment in the Port Botany area is generally dominated by emissions from road traffic on Botany Road and McCauley Street, Port Botany container terminal 24-hour operations, with intermittent domestic aircraft movements from Sydney Airport.

The nearest sensitive noise receivers to the site are located along the north-eastern boundary and include residential properties along Partanna, Murrabin and Moorina Avenues and thus will be the most affected by the proposal.

Background noise levels adjacent to the paper mill are regularly monitored at a number of locations, illustrated in **Figure 10**, as part of operational compliance requirements of the Orora site. Monitoring indicates that the noise levels in the area are not dominated by a specific site or activity but are a combination of surrounding noise influences.

Historical noise monitoring data dating back to May 2012 is provided in Appendix B of the NMS Report which supports the modification application. The data presents a historical overview of the background noise levels measured at the EPL compliance locations for periods when the site was under a shut down as well as operational. The noise levels are presented with the site specific LAeq 15 minute criteria for each location.



**Figure 10 Map of site and noise monitoring receivers**



Source: Hutchison Weller, 3 April 2018

## 7.1.2 Modelling

A noise model has been developed for the Orora site and includes the latest developments both within the site and externally. The model includes the removal of B5 and B7 Buildings, the recently completed water treatment plant (WTP) and the light industrial development at McCauley Street to the north of the site. Modelling has been completed for 4 stages of demolition and noise barrier installation, as illustrated by the plans provided in **Appendix A** and discussed in Part 5 of the report.

The noise model was used to predict the overall cumulative noise impact for the combined operations of the B9 paper mill in accordance with the ISO9613 prediction method, at the compliance locations identified in the EPL.

The modelled scenarios include the combined operations of the activities within the Orora site but does not consider external noise influences from other noise generating sources.

The quarterly noise monitoring data provided in the Technical Note by Hutchison Weller dated 19 March 2018 measures ambient noise levels which encompass extraneous sources such as port noise and traffic from Botany Road, which as previously discussed, are both major contributors to the noise environment in this area. Orora is not responsible for mitigating this noise. Orora's EPL requirements are for noise emissions from its own operations and compliance with this licence relates solely to its operation.

Measured ambient noise from all sources are generally represented by the measured noise levels shown in Table 4 of the Technical Note (reproduced below in **Table 6**). The range of the measured ambient noise levels for this compliance location is between 46.2 dB to 55.5 dB. Using an arithmetic average as a conservative estimate, the ambient noise environment is considered to be 50.7 dB.

**Table 6 Median values for quarterly monitoring – Location R4 and R5**

Location	Container noise barrier status	Median Values					
		Noise level Range LA90 dB(A)		Noise level Range LAeq dB(A)		Arithmetic average	
		Min	Max	Min	Max	LA90	LAeq
R4	Not installed	39.4	47.9	45.5	52.2	43.1	49.6
	Installed	(38.6)	(46.8)	46.2	55.5	(42.3)	50.7
R5	Not installed	40.5	44.5	46.1	53.1	42.8	48.7
	Installed	(34.2)	(43.6)	(43.6)	(51.6)	(38.2)	(46.4)

### 7.1.3 Predicted noise levels

The site is required to abide by an Environmental Protection Licence (EPL) under the *Protection of Environment Operations Act 1997* and associated regulations.

Space constraints around the B7 Reel Store necessitate the demolition being performed in two stages; east end and west end of the building.

The proposed noise barrier can only be constructed once each stage of demolition is complete. Extension 1, around 49 metres long, would be installed following Stage 1. Extension 2, consisting of a further 49 metres, would be installed following Stage 2. Proposed staging is illustrated in Appendix A. For a short period of time after stages 1 and 2, there would be no noise barrier in place and operational noise levels at adjacent residences are likely to be greater than existing levels.

The removal of the B7 Reel Store Building would result in some residential receivers being exposed to higher levels of noise from Port Botany and Botany Road. While the noise generated from the paper mill and other noise sources would be mitigated through the provision of a new noise wall.

Hutchison Weller assessed the likely impacts of the proposed demolition and found that, in the period following demolition, the community may experience higher noise levels from Orora's operation since the demolished B7 Reel Store building provided some noise screening.

Predictions have shown that the noise levels likely to be experienced by the community would be around 50 dBA in Partanna Avenue for the first stage of the project and up to around 45 dBA in Partanna Avenue and nearby Murabbin Avenue during the second stage.

Predicted noise levels for each stage of demolition to noise monitoring locations against the EPL requirements (NGL, as a worst-case scenario) are presented in Table 2 of the accompanying NMS further supported by an explanatory (Technical) note also provided with the application, which compares the anticipated noise levels to everyday activities/situations (Table 1 of the Technical Note dated 9 April 2018).

Contours demonstrating increase in noise levels following the demolition of the B7 Reel Store building are provided in Appendix C of the NMS as well as how the noise may be negated post construction of the extended noise barrier.

The predicted noise levels for each stage of demolition and mitigation are presented in Table 2 of the NMS Report and represents only Orora's contribution to the local noise environment and reproduced below in **Table 7**;

**Table 7 Predicted noise levels against noise limits for each compliance location**

Receiver	Night criterion dB(A)	Predicted LAeq, 15 minute noise level			
		Demolition Stage 1	Noise barrier extension 1	Demolition Stage 2	Noise barrier extension 2
R1 Australia Avenue	43	39.7	39.7	39.7	39.7
R2 Australia Avenue	43	41.4	41.3	41.8	41.6
R3 Murabbin Avenue	43	43.7	43.4	44.9	43.4
R4 Partanna Avenue	41	50.2	40.7	44.4	40.6
R5 CNR Partanna Avenue and Moorina Avenue	39	39.0	38.8	39.3	38.9
R6 Moorina Avenue	39	35.4	35.4	35.4	35.4
Number of potentially impacted residents		14	0	5	0

Source: Hutchison Weller, 3 April 2018

Where the increase in ambient noise levels due to the additional contribution from the Orora site are predicted to be 50.2 dB, the overall noise level would be:  $50.2 \text{ dB} + 50.7 \text{ dB} = 53.5 \text{ dB}^1$  which is a 2.8 dB increase in the ambient noise environment.

While this increase is expected to be audible, it is not considered to be significant and would be temporary, whilst the noise barrier is being constructed which is predicted to reduce to levels lower than the EPL requirements once the noise wall is constructed.

The demolition activities would result in temporary exceedance of noise management levels at nearby residential receivers despite mitigation measures being implemented. The exceedances would be generally when the bays of the building are being demolished and would be limited to an estimated 2-3 week demolition period for reach stage.

Noise levels at residential receivers from this increased demolition will be in the ranges predicted in the NMS as indicated in **Table 7** above. It should be noted that demolition is a relatively short-term activity and is expected to be completed in a month.

Appropriate noise mitigation measures as identified in the existing Construction Noise Management Plan would be implemented to minimise noise impacts. It should be noted that the demolition undertaken to date has not resulted in any noise complaints from nearby residents.

Further details in regards to noise mitigation measures during construction are provided in **Appendix E**

## 7.2 Vibration

Equipment and appropriate vibration management methodology selected for the work will specifically aim to minimise any vibrations to the surrounding properties. The activities to be undertaken to facilitate the demolition and noise barrier works will not require extensive earthworks and thus would

<sup>1</sup> The sum of two sound pressure levels is a log addition

have minimal impacts in terms of generating adverse vibration impacts to residential properties which are generally at distance of more than 50m to the B7 Reel Store building.

There may be the potential for intermittent vibration generation from falling debris etc that may be transmitted to nearby residential properties and thus mitigation measures such as swift response to complaints and restricting construction hours to 7am – 6pm Monday to Friday and 8am-1pm Saturday with no works proposed Sundays or Public Holidays.

Further details in regards to vibration and noise mitigation measures during construction are provided in **Appendix E**.

## 7.3 Traffic

### 7.3.1 Demolition and noise barrier extension traffic

No material increases to the current traffic generation to and from the site is anticipated as result of the proposed works. The level of additional movements are not significant in the context of site specific traffic.

The number of vehicles movements associated with the demolition and noise barrier extension activities would be relatively small in comparison to the average vehicle numbers using surrounding roads and intersections. There would be no decrease in the capacity or performance of the surrounding intersections or roads due to the additional vehicles associated with demolition.

Access to and from the site for demolition vehicles and vehicles used to transport the containers/heavy machinery to construct the barrier will be via the Botany Road access which is at the intersection of Botany Road and Bomborah Point Road. Over 95% of vehicles access the site via a left turn from Botany Road.

Traffic movements, as per the current situation, are described as follows;

- » access and exit the site either via McCauley Street or directly to Botany Road.
- » All light vehicles exit the site via the Botany Road access
- » All heavy vehicles exit the site via McCauley Street and travel south to the McCauley Street/Botany Road intersection. Over 90% of vehicles turn right into Botany Road westbound at McCauley Street/Botany Road intersection.
- » Trucks for the removal of demolition waste and salvageable material would enter the site via the Botany Road access and exit the site via either McCauley Street or back through Botany Road.

The performance of the Botany Road, Bumborah Point Road and Orora Botany Road access intersection would not be affected by the small increase in vehicle movements associated with demolition because:

- » All demolition vehicle movements to access the site would involve a left turn directly from the left lane of Botany Road into the Orora Botany Road access. Generally only vehicles accessing the Orora site use the left lane and perform this traffic movement
- » The daily truck movements entering and exiting the site via the Botany Road access would be less than that which was required for the substantially larger B7 building (approx.26 truck movements a day for demolition) and will not affect the intersection performance.
- » The containers used for the noise barrier extension will be brought onto site via side loaders – total 32 movements (one for each container). This negligible increase in traffic

during the construction phases will not be discernible in the context of the current operations of the paper mill and adjoining Port

- » The crane to stack the container will also be brought onto site and will remain onsite for the duration of the activities.

The mitigation measures that would be implemented to minimise traffic impacts during the demolition and construction phases include:

- » All heavy vehicle and machinery drivers would be inducted into the site Drivers Code of Conduct.
- » All heavy vehicle and machinery routes would avoid local roads and residential areas where possible.

Further details in terms of construction and waste management will be detailed in the amended Construction Management Plan to be completed prior to works commencing on the site.

Further details in regards to construction traffic management are provided in **Appendix E**

### 7.3.2 Operational traffic

The proposal seeks demolition and construction of a noise barrier only and will not intensify the ongoing operations of the paper mill. There will be no increase to the operational traffic exiting and entering the site as result of the proposed works.

## 7.4 Visual impacts

A Stage 2 Noise Barrier Plan (NBP) was prepared by Orora and dated 22 May 2017 in consultation with Council and the EPA to satisfy condition 10(B) issued under MOD 5. Condition 10B required a detailed design of the barrier including how it would be visually treated to reduce and mitigate any visual impacts. The DPE reviewed the NBP for the Orora paper mill and was subsequently approved on the 14 June 2017.

The containers which form the barrier will be the colour and quality of finish represented by the existing container barrier (**Figure 11**). The uniform shade of blue is chosen to match the main colour palette of the original development, so it is consistent across the site. The containers will also be stacked four high so the existing scale is representative of what is proposed along the remainder of the north western boundary.

Refer to detailed design plans for the noise barrier provided with the application in **Appendix A** and as extracted in **Figures 7 & 8** which show the proposed barrier relative to the boundary and adjoining structures. There is also elevation detail showing wall height relative to the B7 Reel Store Building.

The noise barrier will be located adjacent to the B7 Reel Store Building and a significant distance from residential properties where it lies parallel to vacant land, Partanna Road cul-de-sac and Purcell Park to the northern most portion. As with the B7 Reel Store building, the existing canopy trees which align along the boundary will effectively screen the barrier from the public domain and neighbouring properties.

Other visual aspect issues such as deterioration and graffiti were considered and addressed for the existing container noise barrier. Graffiti has not been an issue for the current noise barrier in place which are only accessible from the Orora site. Furthermore, there will be a spatial separation of more



than 2m from the nearest boundary fence to the external face of the container barrier to allow provision for maintenance of the barrier.

As with the existing barrier, the container wall will be inspected annually to ensure structural integrity and appearance is maintained. Any sign of rust and associated damage will be repaired appropriately.

The proposed continuation of the noise barrier will provide/result in a single continuous structure, industrial in aesthetic character, befitting in its location and use.

**Figure 11 Existing container wall as viewed from Partanna Avenue**



Source: Hutchison Weller

**Figure 12 B7 Reel Store Building as viewed from the end of Partanna Avenue**



Source: Elton Consulting, April 2018

## 7.5 Air Quality

Orora is required to comply with the existing condition requiring compliance with Section 129 of the *Protection of the Environment Operations Act, 1997* with respect to the emission of offensive odour. Furthermore, Orora is required to undertake both annual reporting and an independent environmental audit of the facility (including odour expert) to ensure compliance with the approval.

There is the potential for increased dust generation during the demolition and, to a lesser extent, exhaust emissions from demolition vehicles. Appropriate mitigation measures as identified in the current Construction Dust Management Plan would be implemented to minimise dust impacts. It should be noted that dust emission during demolition and construction activities to date has been below the Department of Environment & Climate Change (DECC) guidelines.

Further details in regards to air quality mitigation measures during construction are provided in **Appendix E**

## 7.6 Contamination

The proposal entails demolition and construction of a noise barrier which will not necessitate any excavation or breach of the ground.

As the existing concrete slab would be retained, there would be no excavation of soils and only minimal areas of exposed soils (ie where a structural element of the building which extends through the slab is removed). Where a void is created in the slab due to the removal of a structural element, these would be filled immediately with crushed concrete to provide an impervious trafficable surface.

The risk of contamination of the soils from the demolition activities would be negligible and no special mitigation measures would be required.

While the B7 Reel Store Building is in place it is virtually impossible to effectively test the soils beneath the building because, as with the B7 Building, it has not been possible to get a drilling rig of sufficient size into the building to drill through the deep foundations. Although, the contamination status of the soils beneath the slab are unknown, these soils would remain undisturbed, thus no mitigation measures are required. It is likely that once the B7 Reel Store Building is removed, testing of the soils beneath the slab would occur sometime in the near future, once future uses have been considered.

## 7.7 Waste

The demolition of the B7 building would generate waste material, mainly bricks/concrete and metals. All metals would be recycled whereas the bricks and concrete would be unable to be recycled thus loaded onto trucks and would be sent to an appropriately licenced landfill.

There would be increased volumes of material requiring disposal or recycling due to the increased demolition. This includes bricks, timber, steel and concrete. As with the demolition that has already occurred material generated by demolition would be recycled or reused wherever possible. For example, bricks unable to be recycled would be crushed and reused for fill. The waste generated by the proposed demolition would be significantly less than that for the B7 Building.

The following mitigation measures would be implemented to minimise the impacts of waste generation and management:

- » The Construction Waste Management Plan would be updated.
- » The removal, handling and disposal of asbestos would be undertaken in accordance with appropriate guidelines, standards and legislation by an appropriately licensed contractor.
- » All waste material requiring disposal would be disposed off at an appropriately licensed landfill.
- » All wastes that are economically feasible to be reused or recycled would be recycled.

Further details of waste management measures during construction are provided in **Appendix E**.

## 7.8 Soil and Water

As per the existing arrangement, any surface water will enter into the existing Botany – B9 stormwater system which will then pass through the Gross Pollutant Traps on the site and eventually travel to Botany Bay via Bunnerong Creek. Appropriate mitigation measures will be implemented and there would be negligible risks to soil and water quality from the proposed works.

There may be a small increase in areas of exposed soils as a result of demolition activities. Where demolition activities have the potential to cause increased risk of sedimentation and erosion, a revised Surface Water Management Plan would be developed for the demolition and waste management area which would aim to limit the volume of water entering the demolition area and effectively capture and treat any runoff from the demolition area, minimising runoff to surface water catchment areas such as Botany Bay.

As with the B7 Building, the process wastewater system servicing the B7 Reel Store building has already been decommissioned and site process wastewater system reconfigured to service the B9 project. Therefore, there would no impacts on the wastewater system and no requirement for mitigation measures.



While there would be only very small areas of exposed soils during demolition, there would be risk of runoff from the demolition area containing demolition dust and other demolition related contaminants. As with the B7 Bridling, a Surface Water Management Plan would be developed for the demolition and waste management area which would aim to limit the volume of water entering the demolition area and to effectively capture and treat any runoff from the demolition area.

Further details in regards to soil and water mitigation measures during construction are provided in **Appendix E**.

## 7.9 Groundwater extraction

The noise barrier extension and structure to be demolished sits across the Groundwater Extraction Exclusion Area. The groundwater is likely to about 10 metres below the surface given the previous groundwater measurements undertaken at the site. The quality of groundwater based on previous monitoring is likely to mostly fresh and uncontaminated.

As the existing concrete slab would be retained, there would no excavation in the groundwater table. The risk of contamination of the groundwater from the demolition activities would be negligible and no special mitigation measures would be required.

## 7.10 Flora and fauna

The Botany Paper Mill site has been largely cleared of vegetation to make way for the extensive industrial development of the site, however there are a number of small trees which remain.

No additional vegetation would be cleared as a result of increased demolition activity. Therefore, no impacts on flora and fauna would result from increased demolition.

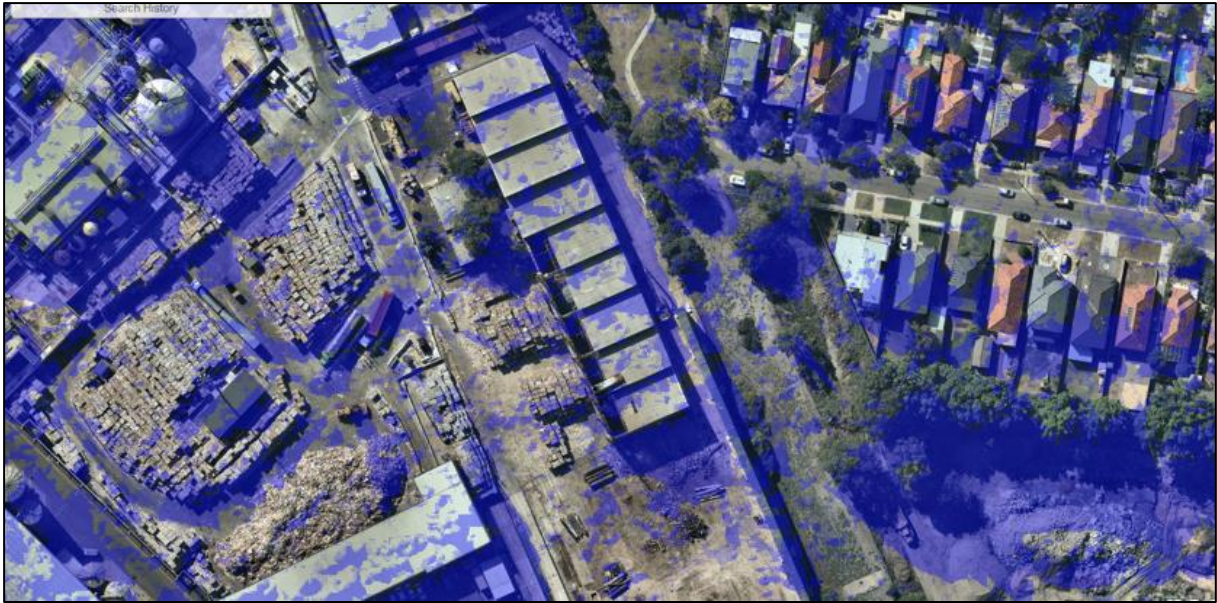
An updated Soil and Water/Management Plan would be implemented which ensures surface runoff to Botany Bay is controlled and effectively minimised which will reduce any impacts on aquatic flora and fauna within downstream catchment areas such as Botany Bay and Bunnerong Creek.

A continuous row of canopy trees which occur along the north-eastern boundary external to the subject site will remain unimpacted and will effectively screen the proposed noise barrier from the public domain.

## 7.11 Overshadowing

Overshadowing of the neighbouring properties as result of the noise barrier extension will not be a contention due to orientation, spatial separation and characteristics of the topography where there is a significant level difference between the subject site and residential lots on the adjacent land, which increases exponentially northwards on the site. The below figure illustrates existing shadows cast by the barrier at 3pm mid-winter (worst case scenario) based on a projection provided by Nearmaps data. Based on these shadows, and the increase in level difference northwards of the existing barrier, it is not expected that the proposed noise barrier extension will cast any additional shadows onto the adjoining properties.

**Figure 13 Existing shadows cast by the noise barrier at 3pm mid-mid-winter**



Source: Nearmaps 2018

## 7.12 Security

The extension of the noise barrier will not impact upon security for neighbouring properties where there is currently no passive surveillance afforded by the existing blank wall of B7 Reel Store building. Furthermore, no change to the boundary fence is sought thus security is retained to the site.

## 7.13 Landscaping

No landscaping is proposed within the site adjacent between the noise barrier extension and the boundary fence where it is required to remain unobstructed for maintenance. Notwithstanding, it is noted that there is an existing established landscape buffer which lies along the adjacent north-eastern boundary of the site which will partially screen the proposed noise barrier and soften the visual impact when viewed from the public domain and neighbouring residential properties (As seen in **Figure 12** above under Part 7.4).

## 8 Conclusion

This Statement of Environmental Effects (SEE) is submitted to support an application to modify Development Consent issued under MP 05\_0120 for the construction and operation of a new paper mill at 1891 Botany Road, Matraville (the site).

The application is made pursuant to Section 4.55(1A) of the *Environmental Planning and Assessment Act, 1979* (EP&A Act) and is submitted to the Department of Planning (DPE) on behalf of Orora Limited (Orora) – the Applicant.

The modification seeks approval for:

- » The staged demolition of the B7 Reel Store Building and smaller adjoining buildings
- » The staged extension of the existing noise barrier along the north-eastern boundary
- » Deletion of Condition 13C(a) which reads as follows;

*13C. Prior to the commencement of operations, the Proponent shall ensure that all of the following noise mitigation controls are implemented:*

*a) retention and redesign of the B7 reel store to provide acoustic shielding*

The application has been prepared in accordance with Section 4.55(1A) of the EP&A Act and Division 12 of the EP&A Reg and it is considered that there is minimal environmental impact arising from this modification as justified in this report and the development consent as modified will relate to substantially the same development as the development for which consent was originally granted.

Randwick City Council, DPE and the EPA were consulted during the preparation of this SEE and their requirements have been addressed accordingly. The surrounding community were also consulted during the preparation of S4.55 application and given the opportunity to raise any issues or concerns regarding the works.

Although the B7 Reel Store Building affords some noise attenuation from the operation of the paper mill as well as surrounding noise sources such as Botany Road and Port Botany, the building and adjoining structures are aged and redundant thus requires removal to ensure better use of the site and negate any potential fire hazards similar to the B7 Building.

During demolition there will be some impact on nearby residential areas from noise and dust, however these impacts will be minimised as much as possible with the implementation of appropriate mitigation measures, including extension of the noise barrier. Other demolition impacts such as waste generation and traffic would be minor.

For each environmental aspect, mitigation measures have been developed to minimise the impact of the activities. Overall the proposed activities would have a relatively minor environmental impacts and would meet the objectives of the EP&A Act 1979.

The assessment included in this report demonstrates that the proposal would not result in any adverse impacts and is therefore recommended for approval.

# Appendices

A	Detail plans of demolition and noise barrier
B	Noise Management Strategy
C	Technical Note – Measured noise levels – Orora quarterly monitoring
D	Technical note – Description of noise effects from B7 Reel Store demolition
E	Statement of Commitments
F	Compliance with conditions
G	Community consultation outcomes report
H	Demolition Work Plan