

Botany Paper Mill

ORORA

Modification Report - Demolition of B7 and Minor Subdivision Modification

Final

November 2014



JACOBS®

Botany Paper Mill

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Executive Summary

Orora (formerly AMCOR Packaging) obtained project approval under Part 3A of the *Environmental Planning and Assessment Act 1979* in 2007 (Application No. 05_120) for the construction and operation of the B9 Paper Mill at its site in Matraville, Sydney. The B9 Paper Mill has been built and commenced full production in early 2013. The B9 Paper Mill replaced two older paper machines (B7 and B8) which were located in two large brick buildings along the northern boundary of the site. These paper machines are no longer operational and have been partially decommissioned.

In December 2013, a fire occurred in the B7 building causing significant structural damage to the building. As a consequence the B7 building has become structurally unsound and requires demolition to ensure the safety of the site.

Also as part of a previous modification (#2), Orora obtained approval to subdivide the site to enable the sale of excess land. Subdivision boundaries were identified in the modification application, however, Orora wishes to modify one of the boundaries of the McCauley Street precinct (Lot 1) slightly to better align with the final internal road alignments. Also Orora is proposing to move an existing access to the McCauley Street precinct (Lot 1) at the corner of McCauley Street and Australia, about 30 metres south along McCauley Street away from residential areas.

The Department of Planning & Environment (DP&E) have been consulted on the proposed works and the change to the subdivision boundary and have indicated that that a modification to the existing Part 3A approval is required. DP&E also provided Secretary's Environmental Assessment Requirements which detailed the key issues that were required to be assessed in the modification report and consultation requirements for other relevant agencies and the community.

The key issues that were assessed and a summary of the findings are presented below.

- Air quality – There would be dust generated during the demolition activities. However as residents would be at least 100m away from the demolition site and measures to minimise dust emissions would be implemented, impacts on residential areas are not expected.
- Demolition Traffic – The number of vehicles movements associated with the demolition 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.
- Traffic implications of relocated access – The new location of the access to the McCauley Street precinct (Lot 1) would not result in any new traffic or safety impacts and would improve the current situation of having the access located adjacent to the McCauley Street and Australia Avenue intersection.
- 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 and would be sent to landfill.
- Noise – The demolition activities would 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 the 3-5 months demolition period. The removal of the B7 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.
- Soil and water – Provided appropriate mitigation measures are implemented there would be negligible risks to soil and water quality from the proposed activities.

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 long term impact – and would meet the object of the Environmental Planning and Assessment Act.

Important note about your report

The sole purpose of this report and the associated services performed by Jacobs is to assess the impacts associated with the demolition of the B7 building and other minor works in accordance with the scope of services set out in the contract between Jacobs and the Client. That scope of services, as described in this report, was developed with the Client.

In preparing this report, Jacobs has relied upon, and presumed accurate, any information (or confirmation of the absence thereof) provided by the Client and/or from other sources. Except as otherwise stated in the report, Jacobs has not attempted to verify the accuracy or completeness of any such information. If the information is subsequently determined to be false, inaccurate or incomplete then it is possible that our observations and conclusions as expressed in this report may change.

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1. Introduction

1.1 Background

Orora (formerly AMCOR Packaging) obtained project approval under Part 3A of the *Environmental Planning and Assessment Act 1979* in 2007 (Application No. 05_120) for the construction and operation of the B9 Paper Mill at its site in Matraville, Sydney. The Paper Mill has been built and commenced full production in early 2013.

The B9 Paper Mill replaced two older paper machines (B7 and B8) which were located in two large brick buildings along the northern boundary of the site (See Figure 1). These paper machines are no longer operational and have been partially decommissioned.

In December 2013, a fire occurred in the B7 building causing significant structural damage to the building. As a consequence the B7 building has become structurally unsound and requires demolition to ensure the safety of the site.

Also as part of a previous modification (#2), Orora obtained approval to subdivide the site to enable the sale of excess land. Subdivision boundaries were identified in the modification application, however, Orora wishes to modify one of the boundaries of the McCauley Street precinct (Lot 1) slightly to better align with the final internal road alignments and relocate an existing access gate.

The Department of Planning & Environment (DP&E) have been consulted on the proposed works and the change to the subdivision boundary and have indicated that a modification to the existing Part 3A approval is required.

This report provides information on the proposed works, any impacts and mitigation measures required to address any impacts.

1.2 Secretary's environmental assessment requirements

Orora formally applied to the DP&E for a modification to the existing Project Approval to demolish the B7 building and for the minor change to the subdivision boundary of the McCauley Street precinct. DP&E provided Secretary's environmental assessment requirements (SEARs) to Orora on the 27 June 2014, which detail the matters that Orora must address in this modification report. The Secretary's environmental assessment requirements and where they are addressed in the report are presented in Table 1.1.

Table 1.1 : Secretary's environmental assessment requirements

Secretary's requirements	Where addressed in report
The Environmental Assessment must include:	
An executive summary	Executive Summary
A detailed description of the following within the site and any associated areas: - Historical operations/activities - Existing and approved operations/facilities including any statutory approvals that apply to these operations/facilities - A description of the project in relation to any existing environmental management plans that would need to be updated	Section 2.1 and 2.2 Section 2.3 Section 5.3

Secretary's requirements	Where addressed in report
A detailed description of the project including: - Need & justification for the project - Alternatives considered - Likely staging of the project - Plans of all demolition and other works associated with the project	Section 3.4 Section 3.1 and 3.2 Section 4 Section 4
Demonstrate the status of compliance with existing conditions of approval for MP 05_120	Appendix A
Consider all relevant environmental planning instruments including justification for any inconsistencies with these instruments	Section 5
Include a risk assessment of the potential environmental impacts of the amended project identifying key issues for further assessment	Section 6
Provide a detailed assessment of the key issues specified below and any other significant issues identified in this risk assessment which includes: - A description of the existing environment using sufficient baseline data - As assessment of the potential impacts of all stages of the project including any cumulative impacts taking in consideration relevant guidelines, policies, plans and statutes and - A description of the measures that would be implemented to avoid, minimise and if necessary offset the potential impacts of the project including proposals for adaptive management and/or contingency plans to manage any significant risks to the environment	Section 7
Include an updated consolidated summary of all proposed environmental management and monitoring measures, highlight relevant commitments included in the original EA	Section 8
A conclusion justifying the project on economic, social and environmental grounds taking in consideration whether the project is consistent with objects of the EP&A Act; and	Section Error! Reference source not found.
A signed statement from the author of the any written statement certifying that the statement contains all available information that is relevant to the environmental assessment of the project, and that the information contained on the statement is neither false or misleading.	Section 9
Key issues – the supporting documentation must address the following issues	
<i>Noise and vibration</i> - A quantitative assessment of all noise and vibration impacts on the sensitive receivers during demolition	Section 7.1.3
- Details of all management, mitigation and monitoring measures that will be implemented to manage these impacts	Section 7.1.5
- A quantitative assessment of the noise impacts on surrounding sensitive receivers once demolition has taken place including consideration of noise generated by activities within the Paper Mill site and existing development within the Port Botany precinct	Section 7.1.4
<i>Air quality</i> - An assessment of all air quality impacts on surrounding sensitive receivers during demolition	Section 7.2

Secretary's requirements	Where addressed in report
- An outline of asbestos removal procedures and management	Section 4.1.2
- Details of all proposed management and monitoring measures	Section 7.2.5
Transport and Access	
- Updated Traffic Impact Assessment to address the additional traffic movement associated with the demolition works	Section 7.3
- Assessment of the impacts of the relocated access on turning pathways, considering the proximity to nearby intersections and existing driveways and whether this will impact upon performance/LOS etc	Section 7.3
Waste	
- Accurate estimates of the quantity, characterisation and classification of the potential waste streams during demolition	Section 7.4
Identification of beneficial reuse opportunities for all wastes generated by the project	Section 7.4.2
A description of the measures that would be implemented to ensure that any waste produced is appropriately handled, processed and disposed off.	Section 7.4.3
Soil and Water	Section 7.5
- An assessment of the potential soil, groundwater, surface water and wastewater impacts during demolition including consideration of potential contamination impacts	
- A detailed description of the mitigation and management controls that would be put into place	Section 7.5.3
Consultation During the preparation of the EA you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with:	Section 1.3 and 1.4
- EPA - Randwick City Council - WorkCover NSW - Sydney Water	
The EA must describe the consultation process and the issues raised, and identify where the design of project has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.	Section 1.3 and 1.4

1.3 Consultation with other organisations

The Secretary's requirements state that Orora must consult with a number of other organisations to identify any additional issues that must be addressed in the modification report. The organisations consulted and the issues they raised are presented in Table 1.2.

Table 1.2 : Issues raised by other organisations

Issues	Where addressed in report
WorkCover	
Demolition and asbestos removal activities must be undertaken in compliance with relevant standards and codes	Section 7.4.3
Randwick City Council	
Operational noise impacts on residential receivers from the removal of B7 building	Section 7.1.4
Requirement of detailed operational noise assessment	Section 7.1.4
Contamination of land and SEPP55	Section 7.4
Requirement for Demolition Noise & Vibration Management Plan	Section 7.2.5
Requirement for Demolition Site Management Plan	Section 4.1.2
Requirement for Waste Management Plan	Section 7.4.3
Impacts on public utilities	Section 4.1.2
Standard working hours for demolition activities.	Section 4.1.6
Asbestos removal	Section 4.1.2
Sediment and erosion control	Section 7.5
Relocation of McCauley Street precinct access	Section 7.4
Sydney Water	
Section 73 requirements for subdivision	Section 4.2

1.4 Community consultation

A flyer on the proposed demolition works was distributed to 1100 properties in late July 2014. These properties are 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 building. A copy of the flyer and the distribution area is presented in Appendix B.

Only one phone call was received from a resident regarding the works. They declined to give their name and requested clarification on which building on site was going to be removed and when was it going to be removed.

2. Background and previous development

2.1 Historical development

Paper making has occurred at the Matraville site since 1902 when the Federal Paper Mills Company constructed and commissioned their No. 1 machine (B1). Over the next century, another seven paper machines were built and operated. Australian Paper Manufacturers – which was primary corporate precursor to AMCOR and Orora, was created in 1926 and has managed the site and paper mills since then.

In the 1960's, the B7 and B8 paper machines were built and began operation. These paper machines were converted to use wastepaper as source material to produce a brown paper suitable for manufacturing boxes, cardboard and other similar types of packaging. In the early 2000s, AMCOR decided that the end of the operational life of the B7 and B8 paper machines was approaching and therefore started planning for a new paper machine – the B9 paper machine.

In 2006, AMCOR exhibited an Environmental Assessment for the new B9 paper mill. Approval from the Minister for Planning under Part 3A of the Environmental Planning and Assessment Act was received in 2007 and construction of the new B9 paper mill commenced in 2010. In July 2012, the B7 and B8 paper machines ceased production, with the B9 paper mill being commissioned in late 2012.

2.2 B7 and B8 paper machines and buildings

As noted above the B7 and B8 paper machines ceased operation in July 2012. Subsequent to their closure, the main services to the paper machines were also decommissioned and cut over to new B9 paper mill. However some building services were maintained such as power for lighting, fire protection services and other minor services.

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

Orora is currently considering future potential uses of the Matraville site. At this stage it is intending to sell the McCauley Street precinct and the Hanger land in the north east corner of the site. The land on which the B7 and B8 buildings is located and all land to the south towards Botany Road, at this stage will be retained by Orora for future development of Orora facilities and to support the operation of the B9 paper mill.

In December 2012, a fire broke out in the B7 paper machine building. The fire and associated fire fighting activities caused significant damage to the B7 paper machine building. This has resulted in the building becoming structurally unsound and requiring demolition.

2.3 B9 paper mill

2.3.1 Description of B9 paper mill

The B9 paper mill is a modern “state of the art” wastepaper mill. Some features of the B9 paper mill include:

- Uses approximately 370,000 tonnes of waste paper and cardboard as source material
- Can produce up to 345,000 tonnes of paper annually
- Can produce substantially different grades and widths of paper
- Is an environmentally friendly process that uses minimal chemicals

Some of the major improvements associated with the B9 paper mill and the cessation of operations of the B7 and B8 paper mills include:

- Significant reduction in odour emissions – The water management systems associated with the B7 and B8 paper machine were outdated and resulted in periodic odour events that generated widespread community

complaints. With the B9 paper mill a new water management system was installed that has virtually eliminated odour emissions and community complaints.

- Significant reduction in noise emissions – the new B9 paper mill was located in the south western corners of the site, maximising the distance from residential areas. To further minimise noise emissions, the B9 project includes silencers on fans, noise absorptive building fabric, noise walls and other features.
- Greater efficiency in the use of electricity, gas and water per unit of paper produced.
- Cessation of process water discharge into Botany Bay during wet weather events
- Over 95% of the process water is sourced from groundwater and stormwater and is treated and reused up to 20 times before discharge to sewer
- Improved management and treatment of stormwater
- Improved management of reject paper and other waste
- Improved traffic management
- Improved visual appearance of the site
- Substantial upgrade of McCauley Street

The B9 Paper Mill began producing paper in late 2012, gradually ramping up to full production in the middle of 2013. Construction activities were ongoing until about May 2014 when the Waste Paper Yard upgrade was completed. There are still a number of minor approved activities which have yet to be completed including the demolition of the remainder of the B5 building and the design and reconstruction of the Botany Road access.

3. Alternatives, need and justification

3.1 Alternatives to demolition

A number of alternatives were considered after the fire in the B7 building including:

- Option 1 Do nothing – The damaged building could remain in its current condition. This option is not feasible as the building poses a safety risk to traffic and workers on site. If nothing was done the B7 building would continue to deteriorate and would eventually result in closure of nearby areas of the site significantly disrupting the operation of the site.
- Option 2 Partial demolition of the B7 building – The most severely damaged sections of the building could be demolished and other less fire-affected sections could be retained. This option is not feasible as partial demolition of the building would result in structural damage and weakness in the retained sections – and eventually the retained sections would also pose a safety risk.
- Options 3 Repair of the B7 building – The fire damage to some sections of the building is significant and the cost of repairing the damage would be considerable. As the B7 building is redundant and unlikely to be able to be re-purposed for any other use, there is no economic justification for repairing the building.
- Option 4 Complete demolition of the B7 building – This is the preferred option as it is the only option that will guarantee the ongoing safe operation of the site and is the most cost effective solution.

Option 4 – the complete demolition of B7 is the preferred option for the project.

3.2 Alternatives to subdivision

Two options were considered for the change in subdivision boundary.

Option 1 - Do nothing – The existing subdivision boundaries remain. This would result in a loss of potentially developable industrial land as neither Orora or any new owner of McCauley Street precinct would be able to develop this land.

Option 2 - Minor alteration of the subdivision boundary – This would allow the parcel of land to be developed and would increase size and usable area of the McCauley Street precinct increasing its potential development opportunities.

Option 2 – the minor alteration of the subdivision boundary is the preferred option for the project.

3.3 Alternatives to relocating access

Two options were considered for relocation of the access to the McCauley Street precinct.

Option 1 - Do nothing – The existing location of the access is maintained. This would result in poor traffic and safety outcomes as the access is very close to the corner of McCauley Street and Australia Avenue. There would also be higher traffic noise impacts as the access is located immediately adjacent to residential areas.

Option 2 – Relocation of the access to the middle of the McCauley Street precinct site (about 30 metres south of its present location) – This would provide improved traffic and safety outcomes as there would not be a conflict with the Australia Avenue and McCauley Street intersection. Traffic noise impacts on residential areas would also be reduced as the relocated access is further away from residential areas.

Option 2 – Relocation of the access to the middle of the McCauley Street precinct site (about 30 metres south of its present location) is the preferred option for the project.

3.4 Need and justification

The fire in December 2013 and resultant fire fighting activities resulted in significant structural, heat, water and smoke damage to a substantial portion of the B7 building. The damage to building has caused it to become unsafe and accelerated further deterioration of the building. Some areas around the building have restricted access due to safety concerns – and with further deterioration of the building areas such as the incoming weighbridge and Waste paper yard access would also need to be closed. As well as a safety risk, this would significantly impact Orora's operations on site.

The B7 building and associated paper machine are redundant to Orora's paper making business as both are over 50 years old. The B7 paper machine does not produce grades and sizes of paper that are in demand in today's market. The B7 building was built specifically to house the complex and unique paper machine and is unlikely to be able to be repurposed in the future.

The assessment of the alternatives presented above concludes that demolition of the B7 building and paper machine is the most appropriate and preferred option.

While the minor change in subdivision boundary of the McCauley Street precinct is not critical, the change would result in the more efficient use of industrial zoned land, which is scarce in this area. There would no impacts associated with the change in subdivision boundary.

The relocation of the access would provide improved traffic, safety and noise outcomes to roads users and residential areas.

4. Description of modification to project approval

4.1 Demolition of B7 building and associated infrastructure

4.1.1 Commencement of work

The demolition of the B7 building would commence as soon as approval for the modification is received due to it current safety risks. It is envisaged that the complete demolition of the B7 building and associated infrastructure would take approximately 3 to 5 months. There is no intention to stage the works.

4.1.2 Description of demolition

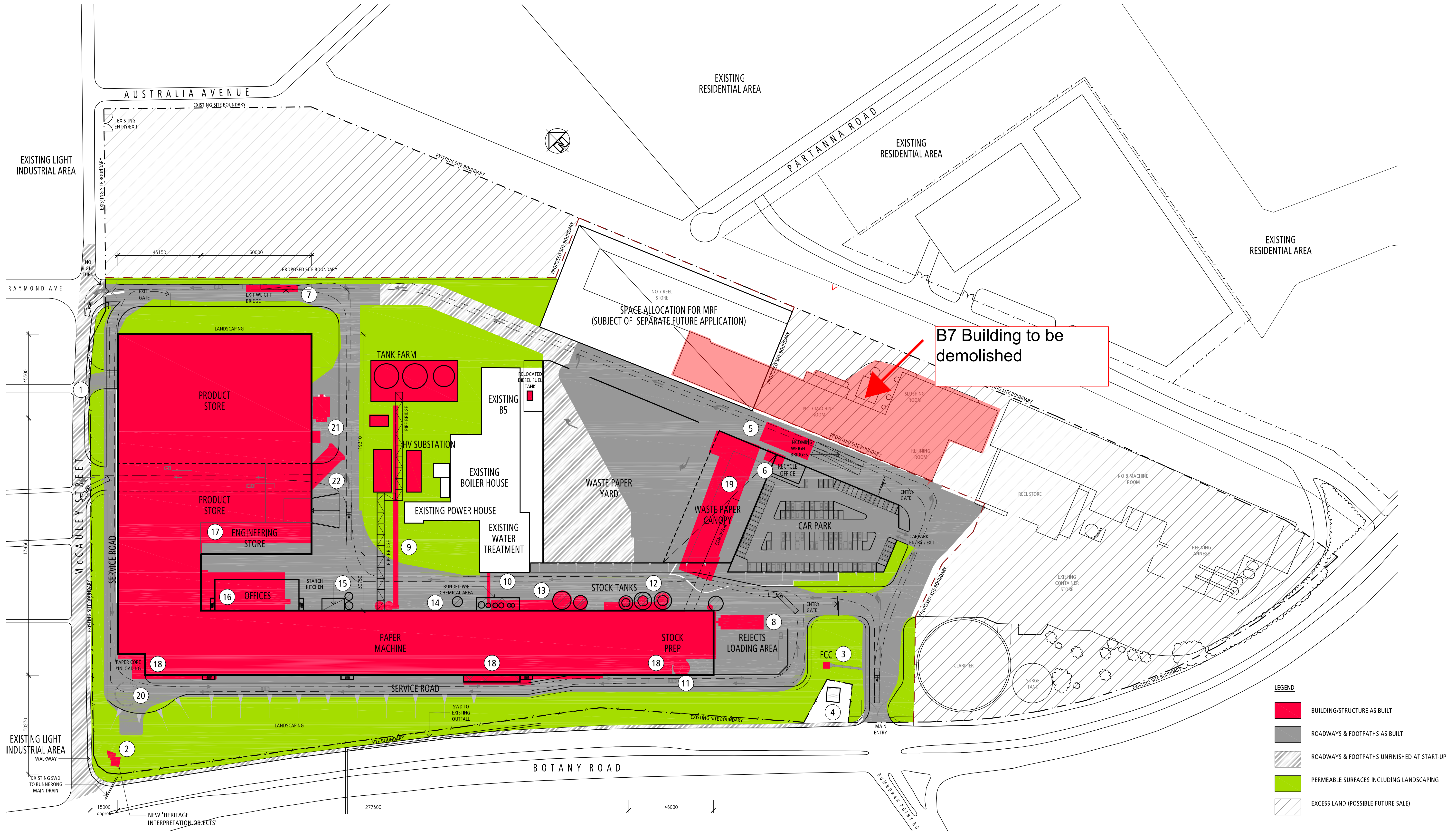
The areas and structures to be demolished are shown in Figure 4.1.

The following activities would be undertaken to demolish the B7 building and associated infrastructure:

- Compound establishment – The demolition contractors would establish a compound adjacent to the B8 building which would include an equipment storage area, recycling and waste bins, a small office and worker amenities.
- Asbestos removal – This activity has already commenced and would continue throughout the demolition period. There is some asbestos lagging around pipes, some asbestos pipes, asbestos in some window eaves and infills and some asbestos sheeting in the internal roof structures. The removal and disposal of asbestos would be undertaken by an appropriately licensed contractor and would comply with the relevant guidelines.
- Removal of the paper machine and any associated services – the old B7 paper machine 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 building.
- Demolition of the building – The B7 building would be demolished progressively from one end to the other by mechanical means. 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.
- 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 associated infrastructure – Associated infrastructure includes a number of above ground tanks, sections of pipe bridges and other smaller items immediately adjacent to the B7 building.

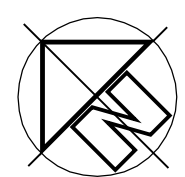
Demolition of the building would be down to the ground slab (ie. the slab would be left in place). Any holes in the slab would be filled to provide a trafficable surface. There has been no decision on the future use of this land at this stage – and the areas would remain in Orora's management and ownership.

Figure 4.1 : Area of demolition



AMCOR PROJECT B9 - "AS EXECUTED" SITE LAYOUT (OVERLAYED ON APPROVED DA LAYOUT)

CNR BOTANY ROAD & McCAULEY STREET, MATRAVILLE NSW



DATE: AUGUST 2012
DRAWN BY: BE
SCALE @ A1: 1:1000
SCALE @ A3: 1:2000



NOTE:
DIMENSIONS APPROXIMATE ONLY,
INCLUDING 10,000m² PRODUCT STORE LAYOUT

NO.	DATE	REVISION	BY	CHK.
D	23-11-09	REVISIONS AS PER CLIENT	GP	AY
E	29-03-12	As Executed - shown "RED"	GP	AY
g	12-07-12	LEGEND & COLOURS ADDED	BE	AY
h	15-08-12	REFERENCE NUMBERS ADDED	BE	AY

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The demolition of the B7 building would comply with appropriate standards and guidelines. A Demolition Management Plan would be prepared before demolition commences.

- Work Health and Safety Act 2011
- Occupational Health and Safety (Hazardous Substances) Regulation 2001
- Occupational Health and Safety (Asbestos Removal Work) Regulation 2001
- WorkCover NSW Code of Practice for the Safe Removal of Asbestos
- Australian Standard 2601 (2001) – Demolition of Structures
- Protection of the Environment Operations Act 1997
- Protection of the Environment Operations (Waste) Regulation 2005
- Relevant Office of Environment & Heritage / Environment Protection Authority (EPA) and WorkCover NSW Guidelines.
- Randwick City Council Asbestos Policy (adopted 13 September 2005)
- Waste Classification Guidelines (DEC 2009)

4.1.3 Re-construction of brick boundary wall

A section of the existing double brick boundary wall adjacent to the B7 building was damaged during the fire fighting activities. This damaged section of the wall would be repaired using similar bricks. These works are very minor and would only have negligible impacts on the community. Consequently there is no detailed assessment of the impacts of this activity in the following sections.

4.1.4 Construction of noise wall

The B7 building acts as a noise barrier between the B9 project and residential areas to the north of the site. With its removal a noise wall would need to be installed to enable the B9 facility to meet its operational noise limits. The exact location and extent of the noise wall has yet to be decided as there are a number of options for its location. To ensure that the noise wall will enable B9 to meet its operational noise limits, noise monitoring would be undertaken to provide actual (rather than predicted) noise levels. As soon as the B7 building has been demolished, a week's noise monitoring would be undertaken to confirm the actual noise impact from the B9 project. Based upon this noise monitoring and additional modelling, the exact location and extent of the noise wall or mound would be determined and construction of the wall would occur as soon as possible.

If a noise wall is selected it would be of similar construction to the noise wall constructed along Australia Avenue, namely piled steel supports with Hebel panels placed between the supports. Another option may be a noise mound constructed of compacted fill in the hanger land.

The construction of the noise wall does not form part of the modification as this activity has already been approved as part of the previous project approvals.

The exact location and design of the noise wall would be identified in Stage 2 – Noise Barrier Design Plan (MCoA: 10A) which would be submitted to DP&E for their review and approval.

4.1.5 Impacts on public utilities

Most of the utilities connected to the B7 building have been disconnected. The exceptions are water and power for the fire suppression services. These would be disconnected before demolition commences. No other public utilities would be impacted by the proposed works.

4.1.6 Work hours

Noisy demolition activities would be undertaken during standard construction hours, namely:

- 7am to 6pm – Monday to Friday
- 8am to 1pm – Saturday
- No work on Sundays or public holidays

Where non-noisy work can be demonstrated to be below a Leq of background + 5 dB, it may be undertaken outside these hours.

4.2 Change in subdivision boundary of Lot 1

The proposed changes to the boundary of Lot 1 are presented in Figure 4.2. The southern corner of the Lot 1 would be adjusted to align with the internal Orora road network. This would improve the usability of Lot 1 and remove an area of land that would be essentially unusable by Orora. The increase in area of Lot 1 would be 0.077 hectares.

No impacts would occur and no mitigation measures are required for this modification to the Lot 1 subdivision boundary.

A Section 73 certificate from Sydney Water has been applied for the McCauley Street precinct. The continuing progress of this certificate is dependent on the subdivision boundary modification being approved.

4.3 Relocation of access to McCauley Street precinct

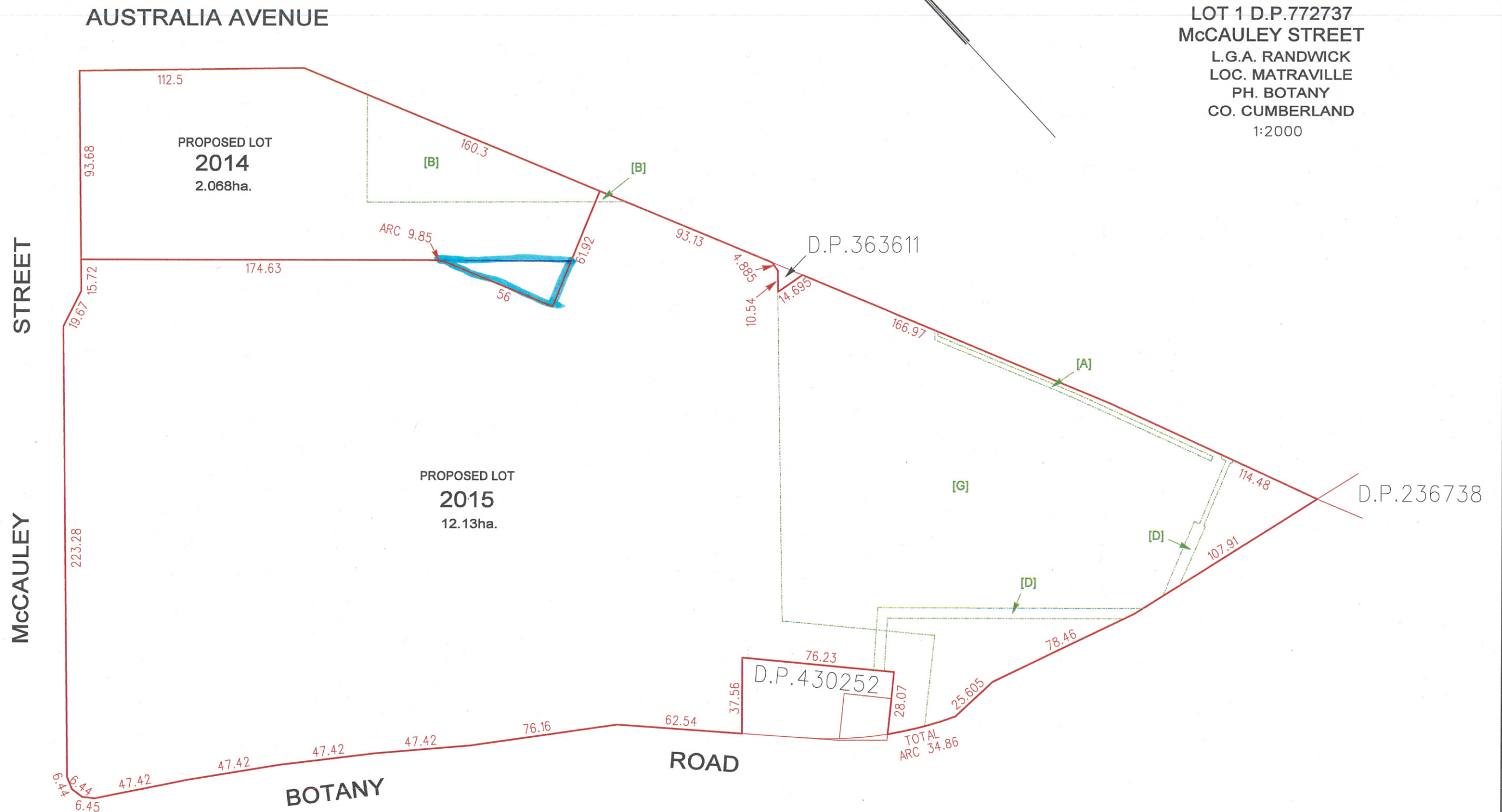
The existing and proposed location for the access to the McCauley Street precinct is shown in Appendix D. Orora is not seeking to construct the access at this stage, however to provide a meaningful assessment of its potential impacts, a concept design suitable for a multi-unit industrial park has been developed. Concept design features of the access would include:

- Kerb and guttering along the McCauley Street frontage
- Traffic management measures to limit heavy vehicle movements to southbound McCauley Street
- Pavement and geometric design suitable for vehicles up to a 19 metre long semi-trailer (but not B-Double).

Traffic generation from a multi-unit industrial park has also been assumed to assess impact of the proposed relocated access.

The detailed design and operation of the access would be part of a future development application to either Randwick City Council or the Department of Planning.

PLAN
OF PROPOSED SUBDIVISION OF
LOT 1 D.P.772737
McCAULEY STREET
 L.G.A. RANDWICK
 LOC. MATRAVILLE
 PH. BOTANY
 CO. CUMBERLAND
 1:2000



Rygate & Company Pty Limited
 P.W. Rygate & West
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w rygate.com.au

REF: 76313 DATE: 23/04/2014

5. Statutory approvals and compliance

5.1 Existing approvals

The following statutory approvals apply to the operation of the B9 paper mill:

- Planning approval (#: MP05_120) under Part 3A of the Environmental Planning and Assessment Act 1979. There have been 4 modifications to the original planning approval including:
 - Modification #1 – Additional demolition of B5 building
 - Modification #2 – Subdivision of site, change to operational noise limits, use and upgrade of McCauley Street and other minor matters
 - Modification #3 – Extension of time to complete McCauley Street upgrade
 - Modification #4 – Extension of time to complete McCauley Street upgrade
- Environmental Protection Licence (EPL) under the Protection of Environment Operations Act 1997 and associated regulations.
- Water Access Licence (WAL) under the Water Management Act 2000 for the Snape Park borefield which provides the majority of process water for the paper mill.
- Trade Waste Licence under the Sydney Water Act for the discharge of waste process water to the sewer system
- Various licences and notifications for the storage and use of dangerous goods.

An assessment of compliance of the B9 project against its existing project approval conditions is presented in Appendix A.

5.2 Current environmental planning instruments

The Orora site is located in the Randwick local government area. 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 *State Environmental Planning Policy (Three Ports) 2013* (Three Ports SEPP). 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.

The Orora site is located outside the Lease Area of Port Botany. 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 the project approval under the 3A of the EP&A Act, the Minister for Planning (or their delegate) is the consent authority for the project.

The Orora site is zoned General Industrial (IN1) under the Three Ports SEPP. The McCauley Street precinct has a further land use restriction in that container depots are not a permitted land use. The objectives of the zoning as well as the permitted development is described below

Zone IN1 General Industrial

1 Objectives of zone

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To facilitate and encourage port related industries that will contribute to the growth and diversification of trade through the port.
- To enable development for the purposes of business premises or office premises associated with, and ancillary to, port facilities or industries.
- To encourage ecologically sustainable development.

2 Permitted without consent

Environmental protection works

3 Permitted with consent

Boat building and repair facilities; Business premises; Depots; Food and drink premises; Freight transport facilities; General industries; Jetties; Light industries; Neighbourhood shops; Office premises; Roads; Signage; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Warehouse or distribution centres; Waste or resource management facilities

4 Prohibited

Any development not specified in item 2 or 3

Other relevant clauses in the Three Port SEPP to the proposed works are presented below.

16 Subdivision—consent requirements

- (1) Any land to which this Policy applies may be subdivided, but only with development consent.
- (2) Development consent must not be granted for the subdivision of land that comprises, or on which there is, a State heritage item.

17 Demolition requires development consent

The demolition of a building or work may be carried out only with development consent.

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.

The demolition of the B7 building would not result in any change in land use as the B7 building and paper machine are already decommissioned. As noted in the Clause 17 of the Three Ports SEPP, demolition requires development consent and thus this modification application to DP&E has been made.

The change in the subdivision boundary may not require formal consent from DP&E as consent for the subdivision has already been obtained. However, a map showing the subdivision has been attached to project approval and therefore to ensure consistency project approval needs to be modified to include a revised map. It should be noted that there are no heritage items on the Orora site.

There are no other environmental planning instruments that apply to the works.

5.3 Current environmental management plans

As suite of staged environmental plans for construction of the B9 project have been already been approved by DP&E.

6. Environmental risks

Presented in the following section is a risk assessment of all environmental aspects associated with the modification activities. Overall no additional new key risks over those described in the DGRs were identified.

Aspect	Existing Environment	Risk	Likelihood	Consequence	Overall Risk
Biodiversity – Demolition and operation	There are no threatened ecological communities, flora or fauna species on site or in the areas immediately adjacent to the site. No clearing of vegetation would be required for the proposed works. The stormwater system in the local area discharges Brotherson Docks a heavy dredged and modified section of the Botany Bay	The only potential risk to biodiversity would be if sediment-laden water from the works area was to find its way into the stormwater system – and in turn into Botany Bay.	Low	Low	Low Non-key issue requiring no further assessment
Groundwater – Demolition & operation	Part of the Orora site is in Botany Groundwater Extraction Exclusion Zone, created due contamination from the Orica site.	The demolition activities would not result in the contamination of the groundwater or works with in the groundwater zone. There would be no change in the operation of the site relevant to groundwater	Low	Low	Low Non-key issue requiring no further assessment
Aboriginal & non-Aboriginal heritage – Demolition & operation	There are no known Aboriginal and non-Aboriginal heritage sites or items on the Orora site or in area immediately adjacent to the site.	The only risk is encountering unknown heritage sites or items.	Low	Low	Low Non-key issue requiring no further assessment
Soil & water – demolition	All of the Orora site eventually drains into Botany Bay either via the existing stormwater system, Bunnerong Canal or Long Dam. The stormwater system in the local area discharges Brotherson Docks a heavy dredged and modified section of the Botany Bay	Demolition activities will generation dust and rubble which may result in sediment-laden runoff being produced after rainfall.	Moderate	Moderate	Moderate Requires further assessment as key issue
Soil & water – operation	All of the Orora site eventually drains into Botany Bay either via the existing stormwater system, Bunnerong Canal or Long Dam. The stormwater system in the local area discharges Brotherson Docks a heavy dredged and modified section of the Botany Bay	The existing slab will not be demolished and any holes in the slab would be sealed to eliminate any areas of undisturbed soil.	Low	Low	Low Non-key issue requiring no further assessment

Aspect	Existing Environment	Risk	Likelihood	Consequence	Overall Risk
Noise & Vibration – Demolition	There are residential areas in close proximity to the B7 building	Demolition activities will generate periods of significant noise from both the actual demolition of the B7 building as well as loading and handling of demolition waste.	High	High	High Requires further assessment as key issue
Noise & Vibration – Operation	There are residential areas in close proximity to the B7 building	The B7 building acts as effective barrier for some residential areas to site, road and Port Botany noise. The removal of the building will expose some residential areas to increased noise from these sources	High	High	High Requires further assessment as key issue
Traffic – Demolition	Botany Road, which is an arterial road, provides excellent access to the larger arterial road network. McCauley Street has been upgraded as part of the B9 project and provides heavy vehicles access to Botany Road	There will be increased heavy vehicle movements associated with the delivery of plant and the removal of waste and recyclable material.	High	Low	Moderate Requires further assessment as key issue
Traffic – Operation	Botany Road, which is an arterial road, provides excellent access to the larger arterial road network. McCauley Street has been upgraded as part of the B9 project and provides heavy vehicles access to Botany Road	There will be no change in vehicle numbers and destinations once the works has been completed.	Low	Low	Low Non-key issue requiring no further assessment
Air quality – Demolition	There are residential areas in close proximity to the B7 building	Demolition activities may result in dust generation from both the actual demolition of the B7 building as well as loading and handling of demolition waste.	High	Moderate	High Requires further assessment as key issue
Air quality – Operation	There are residential areas in close proximity to the B7 building	There will no change in operational air quality after demolition is complete	Low	Low	Low Non-key issue requiring no further assessment
Waste – Demolition	Not applicable	Waste materials and recyclables will be generated from the demolition of the B7 building.	Moderate	Moderate	Moderate Requires further assessment as key issue

Aspect	Existing Environment	Risk	Likelihood	Consequence	Overall Risk
Waste – Operation	Not applicable	There will no change in waste generation after demolition is complete	Low	Low	Low Non-key issue requiring no further assessment
Contamination & Asbestos	There is asbestos and one transformer with high PCB levels present in the B7 building.	If asbestos and PCB removal is not undertaken in compliance with required guidelines, contamination could result.	Low	High	Moderate Requires further assessment as key issue

7. Key Issues - Impact assessment

Presented in the following sections is an assessment of the impact of demolition activities on key environmental aspects. The assessment includes:

- A description of the existing environment using sufficient baseline data
- An assessment of the potential impacts of all stages of the project including any cumulative impacts taking in consideration relevant guidelines, policies, plans and statutes and
- A description of the measures that would be implemented to avoid, minimise and if necessary offset the potential impacts of the project including proposals for adaptive management and/or contingency plans to manage any significant risks to the environment

7.1 Noise and vibration

7.1.1 Background and methodology

A detailed construction and operational noise and vibration assessment was undertaken in compliance with relevant NSW guidelines. Information on the methodologies used are contained in detailed Noise and Vibration Assessment in Appendix C.

7.1.2 Existing environment

The noise environment in the Port Botany area is characterised by a variety of noise sources but is dominated by emissions from road traffic, port operations and industrial premises. In addition to the constant background noise levels from these sources, ambient levels are also punctuated with infrequent noise events such as international and domestic aircraft movements at Sydney Airport. Other intermittent noise sources at residential locations around the B9 Paper Mill include local traffic, birds, and human activities in and around Purcell Park.

There have been numerous noise studies undertaken for the Paper Mill during the operations of the B7 and B8 paper machines prior to the commissioning of the B9 paper machine. These studies do not reflect the current noise environment, which has changed as the result of the revised layout and operations due to:

- Relocation of the new B9 Paper machine to the South Eastern Boundary;
- Demolition of redundant buildings with the site prior to and after commencement of B9 operations;
- Altered traffic access arrangements for waste paper deliveries;

In addition to the onsite changes, operations at Port Botany container terminal have also seen a gradual expansion in activity over the last few years. Port operations for container storage and loading for transport are now located immediately adjacent to Botany Road. These operations are located about 300-400 metres from the nearest residential receivers in Partanna and Moorina Avenues. These and other factors such as increasing traffic on major arterial routes around the Orora site have transformed the noise environment at nearby receiver locations.

7.1.2.1 Background noise levels

Background noise levels adjacent to the mill are regularly monitored and measured as part of the operational compliance requirements of the Orora site. **Table 7-1** presents the latest background noise monitoring survey undertaken in July 2014. The daytime noise levels have been adopted for the modification assessment and compared to the predicted construction noise impacts from the demolition works.

Table 7-1 Operational noise monitoring results (15 minute samples)

ID	Location	Time period		Noise level dB(A)		
				LA _{eq}	LA ₉₀	LA _{max}
R1	92 Australia Avenue	Day	12:23	54.1	45.0	75.1
		Night	22:05	52.4	47.4	70.0
R2	Australia Avenue and Purcell Park	Day	12:42	49.1	43.4	68.9
		Night	23:46	53.6	50.0	60.4
R3	Murrabin Avenue	Day	13:05	48.8	44.3	66.2
		Night	22:28	54.8	52.3	63.3
R4	Partanna Avenue	Day	13:28	49.2	43.8	69.2
		Night	22:45	47.7	46.8	62.9
R5	Cnr. Partanna and Moorina Avenues	Day	14:05	50.3	40.8	78.0
		Night	23:27	48.7	45.7	72.2
R6	Moorina Avenue	Day	13:46	47.9	40.6	66.8
		Night	23:08	45.4	44.3	63.1

Since commissioning of the B9 paper machine, a picture of the current noise environment is being developed both with and without the operations of the B9 mill.

The project criteria and a selection of historical data for the site has been tabulated for the monitoring locations and compared to the latest monitoring survey undertaken in July 2014. The most recent noise data for the night time period is strongly influenced by a temperature inversion for the night time results. In contrast, the daytime data exhibited a reduction in noise levels compared to the previous monitoring survey at the key receiver locations.

Table 7-2 Comparison of night time background noise (dB(A) rounded)

ID	Location	Criteria	Background Noise May 2012	Operational noise Aug 2013	Operational noise July 2014	Difference (Aug 2013 vs. Jul 2014)
		L _{Aeq} ,15min	L _{A90} ,period	L _{A90} ,15min	L _{A90} ,15min	
R1	Cnr. McCauley Street and Australia Avenue	43	46	44	47	+3
R2	Australia Avenue	43	46	46	50	+4
R3	Murrabin Avenue	43	42	48	52	+4
R4	Partanna Avenue	41	41	42	47	+5
R5	Cnr. Partanna and Moorina Avenues	39	43	42	46	+4
R6	Moorina Avenue	39	43	44	44	0

Typical noise levels during the day and night (in no particular order) at the monitoring locations included:

- Orora site noise (boiler relief)
- Aircraft movements
- Reverse quacker (Weighbridge/Landscape supplies)
- Orora paper yard reversing beeper
- Heavy vehicle movements (McCauly St)
- General traffic on Botany Road
- Regular aircraft movements
- Bird song
- Distant Port noise
- General traffic (Beauchamp Rd/ Perry St)
- Heavy vehicle movements within the Orora site

7.1.3 Demolition impacts

Vibration criteria for the proposal have been outlined in **Appendix C**. The closest residential dwellings are situated about 100 metres from the nearest point on the B7 building. The activities to be undertaken for the demolition of B7 do not require extensive subsurface earthworks and therefore would have minimal opportunity to generate vibration impacts at these residential locations.

During demolition it is possible that falling debris could generate infrequent impulsive vibrations into the existing building slab, which may then be transferred to the nearby receivers. These impacts are not expected to exceed the guideline levels however, potential impacts would be managed throughout the demolition process with measures outlined in **Section 7.1.6**.

Construction noise impacts have been estimated at each of the key receiver locations as well as 3 additional demolition locations. The additional locations represent the closest receivers in Partanna and Moorina Avenues. The daytime NMLs for the proposal have been adopted from the requirements in Error! Reference source not found. and the most recent noise monitoring outlined in **Table 7-1**. The predicted construction/demolition NML are presented in **Table 7-3** against the predicted noise levels at each location. The various stages assessed account for the gradual removal of the building and the increase influence of traffic noise and the Orora site.

Table 7-3 Predicted demolition noise levels at key locations (daytime)

ID	Location	Day NML criteria $L_{Aeq,15min}$	Demolition stages (Per 3 bays)						
			1	2	3	4	5	6	7
R1	Cnr. McCauley Street and Australia Avenue	55	46	46	46	46	46	46	46
R2	Australia Avenue	53	45	42	42	42	43	43	43
R3	Murrabin Avenue	54	47	44	46	46	48	46	44
R4	Partanna Avenue	54	55	59	59	60	59	60	57
R5	Cnr. Partanna and Moorina Avenues	51	55	51	49	50	51	53	49
R6	Moorina Avenue	51	49	53	53	53	53	54	48
D1	Partanna Avenue	54	63	59	66	67	66	68	62
D2	Partanna Avenue	51	61	61	62	62	61	63	58
D3	Moorina Avenue	51	57	57	57	58	57	56	52

The predicted noise levels indicate that the NMLs for receivers in Partanna and Moorina avenues are likely to be exceeded during most stages of the demolition works. Residential receivers directly opposite the B7 building would be the most affected due to the absence of any direct shielding between the dwellings and the building.

While exceedances are predicted, the estimated levels are expected to be worst case and are not expected to reach the highly impacted noise levels criteria. In practice, levels will vary depending on the activity and the quantity of plant operating at the time, and would be audible within about a 7 dB(A) range, with the higher levels near the upper end of these values.

Noise monitoring surveys should be used to confirm these predictions during demolition and provide recommendations for reducing noise levels where impacts cannot be managed using standard mitigation measures.

Details of management and mitigation options are presented in **Section 7.1.5**.

7.1.4 Operational impacts

Table 7-4 presents the results of daytime noise prediction scenarios without the B7 building or the influence of traffic from Botany and Bunnerong Roads. These results provide information on the true predicted influence of the B9 operations on the nearby residential receivers after the removal of the B7 building. The predicted noise levels do not include any benefit from noise walls or other mitigation to replace the loss of shielding offered by the building.

Table 7-4 Predicted noise levels at EPL compliance locations – No B7, No External Roads

ID	Location	Project noise Limit $L_{Aeq(15 \text{ min})}$ dB(A)		Predicted $L_{Aeq(15 \text{ min})}$ dB(A)	
		Day time	Night time	Day time	Night time
R1	Australia Ave	46	43	45.6	44.2
R2	Australia Ave	45	43	41.5	39.5
R3	Murabbin Ave	46	43	42.4	40.6
R4	Partanna Ave	42	41	42.8	42.1
R5	Cnr Partanna and Moorina Ave	42	39	39.8	39.1
R6	Moorina Ave	43	39	38.9	38.4

The predicted levels indicate general compliance with marginal exceedances or compliance in Partanna Avenue and Moorina Avenues. The increase in noise levels at these locations is a direct result of the removal of the B7 building resulting in greater exposure to the operations from within the site.

At Partanna Avenue, a greater exposure to the waste paper yard operational activities is the major contributor to the increase in noise levels.

The predicted increase in noise levels impacts would be mitigated by means of additional shielding adjacent to the waste paper yard from a local noise barrier. **Table 7-5** presents the outcomes of modelling with an 8 metre noise wall in place at the boundary of the B7 building adjacent to the paper yard.

Table 7-5 Predicted noise levels at EPL compliance locations – No B7, No External Roads

ID	Location	Project noise Limit $L_{Aeq(15 \text{ min})}$ dB(A)		Predicted $L_{Aeq(15 \text{ min})}$ dB(A)	
		Day time	Night time	Day time	Night time
R1	Australia Ave	46	43	45.6	44.2
R2	Australia Ave	45	43	41.4	39.5
R3	Murabbin Ave	46	43	42.3	40.6
R4	Partanna Ave	42	41	40.5	39.3
R5	Cnr Partanna and Moorina Ave	42	39	39.3	38.9
R6	Moorina Ave	43	39	38	37.7

The predicted noise levels indicate that a noise barrier located adjacent the waste paper yard would provide sufficient attenuation to reduce noise levels to within the project noise limits. The location and finished height of the modelled noise wall is indicative only and would be subject to survey and feasibility constraints for the site once the B7 building has been removed.

Due to the expected marginal compliance of the site noise limits, it is recommended that a detailed noise monitoring survey is undertaken after the removal of the B7 building to confirm the noise levels predicted in this assessment.

To provide additional information on the expected noise levels at these receiver locations, a cumulative noise impact assessment has been undertaken for the site. The cumulative impacts include the influence of road traffic noise from some of the nearby arterial roads which provide a significant noise source in the area. In modelling these impacts an estimate of actual noise levels at the key receiver locations is possible.

7.1.5 Cumulative Impacts

The cumulative impacts resulting from the demolition of B7 have been assessed based on the available information of traffic data for Botany Road. Estimated total vehicle movements for the modelling are expected to be around 30,000 vpd for Botany Road and about 22,000 vpd for Bunnerong Road.

The modelling for the cumulative case with and without the B7 building providing shielding to the residents in Partanna and Moorina is presented in **Table 7-6**.

Table 7-6 Predicted noise levels at EPL compliance locations – Including external roads

ID	Location	Predicted With B7 L _{Aeq} (15 min) dB(A)		Predicted No B7 L _{Aeq} (15 min) dB(A)		Difference B7 and no B7 dB(A)	
		Day	Night	Night	Day	Night	Day
R1	Australia Ave	48.3	46.6	48.4	46.6	0.1	0
R2	Australia Ave	45.7	43.6	46.2	44.2	0.5	0.6
R3	Murabbin Ave	45.9	43.9	46.4	44.2	0.5	0.3
R4	Partanna Ave	47.1	44.2	48.7	46.3	1.6	2.1
R5	Cnr Partanna and Moorina Ave	47.9	45.1	49	46.5	1.1	1.4
R6	Moorina Ave	51.9	48.6	52	48.9	0.1	0.3

The predicted noise levels from the modelling indicate that the noise levels at the nearest receivers without the B7 building in place would be about 2 dB(A) above the predicted noise levels with the building in situ.

While the increase in the L_{Aeq} noise level is predicted to be small, the audibility of specific site noise emissions such as the operations of the waste paper yard is expected to be an identifiable source of the overall noise levels.

The resulting noise levels outlined in table **Table 7-6** would exceed the project noise goals however, as per the predictions in **Table 7-4**, the contribution from the Orora site is expected to be with the EPL noise limits. Overall noise levels are expected to be comparable to the existing L_{Aeq} levels measured during the compliance noise surveys undertaken for the Paper Mill. This assumption will be detailed further using information from upcoming monitoring surveys undertaken during both normal and shutdown conditions.

7.1.6 Mitigation measures

Construction

Prior to commencing the demolition activities, the existing staged CNVMP would be updated to include demolition activities. This would detail how work is to be carried out to minimise the impacts of noise and vibration on adjacent properties.

Measures to reduce potential noise impacts should include general controls such as:

- Compliance with standard construction hours: 7am – 6pm (Monday-Friday), 8am-1pm (Saturday) and at no time Sundays and public holidays, unless otherwise approved through a DNVMP approved by the Department of Planning.
- Notifying the nearest noise receptors of the works plan and expected levels of noise well in advance of the works occurring, and responding to residents comments when planning noisy activities.

- Timetabling to minimise noise impacts - this may include time and duration restrictions and respite periods, and should be considered after consultation with affected receivers.
- Maintaining equipment in efficient working order.
- Using quieter construction methods where possible.
- Where acceptable from an Occupational Health and Safety perspective, using quieter alternatives to reversing alarms (such as spotters, closed circuit television monitors and 'smart' reversing alarms).
- Dealing promptly with all noise complaints received.
- Machinery would not be turned on prior to the work hours outlined above. This would include the daily maintenance activities and/or 'warming up' of engines.
- Where it has been identified as necessary (eg in response to community complaints), noise monitoring would be undertaken to check that the noise mitigation measures are effective.

Further construction noise mitigation methods are contained in Tables 4 to 10 of the *Interim Construction Noise Guideline* (DECC, 2009). The final CNVMP would be completed in conjunction with the selected contractor and submitted for approval to DP&E prior to commencement of the works.

Operational mitigation

The following operational mitigation measures would be implemented:

- To provide a full assessment of the required barrier height and location, a noise monitoring survey and detailed assessment for the noise barrier management plan would be completed for the site once the B7 building is demolished.
- Based upon the outcomes of the monitoring, the location and height of an optimal noise wall would be determined.
- An updated Noise Barrier Design Plan would be submitted to DP&E once the location and height of the new noise wall had been determined.

7.2 Air quality

7.2.1 Background and methodology

A quantitative assessment of potential air quality impacts from the demolition of the B7 building was undertaken to identify potential impacts and develop mitigation measures to minimise the impacts on nearby residential receivers.

7.2.2 Existing environment

The closest sensitive receivers to the B7 building are residential areas located approximately 100 metres to the north east on Partanna Avenue.

The air quality of the local area would be largely determined by local sources of air pollution such as:

- Vehicle traffic on the arterial and the local road network.
- Shipping and other port-related activities at Port Botany.
- Industrial air emissions.
- Domestic sources such as lawn mowing, wood-fired heating and other similar measures.

For some air quality pollutants, regional air quality is also an important factor in determining local pollutant concentrations. Regional air quality can be influenced by:

- Bushfires and dust storms.
- Meteorological and climatic conditions.

The nearest OEH air quality monitoring station is located in Randwick. A review of this data indicates that air quality in eastern Sydney is generally good and pollutant concentrations are generally lower compared to western and northern west Sydney. This is likely to be because of the close proximity of the ocean – and the resultant higher average wind speed which effectively disperses pollutants.

7.2.3 Demolition impacts

Demolition of the B7 building would result in the generation of dust and to a lesser extent exhaust emissions from heavy vehicle use. The main dust generating activities would be from:

- Mechanical demolition of the building – As noted in the project description this would be undertaken progressively with up to three bays demolished at once. This activity would generate dust, however would only occur relatively infrequently (about 6 times over the demolition period).
- The management and handling of demolition rubble – This activity would occur throughout the demolition period and would involve the salvage of recyclable items and the loading and transport of demolition rubble via excavators and trucks.

The mechanical demolition of the B7 building is unlikely to generate significant quantities of dust as the building would be progressively demolished and unlike explosive demolition, the physical forces used in the mechanical demolition are relatively low. Many other redundant buildings have been demolished as part of the B9 project using the same method – and these have not resulted in the generation of significant quantities of dust or complaints about dust in the surrounding community. The mitigation measures proposed would further minimise dust impacts on the surrounding land uses.

The management and handling of demolition rubble may generate minor quantities of dust, typical of levels generated during earthworks. Standard mitigation measures to minimise dust impacts would be applied to further reduce levels.

While there would be increased truck movements and the use of plant for demolition, their exhaust emissions would only have a minor contribution to local air quality, given the high traffic levels and proximity of Port Botany to the site.

7.2.4 Other impacts

The repair of the brick wall would not generate dust.

7.2.5 Mitigation measures

The mitigation measures that would be implemented to minimise dust impacts include:

- The Construction Air Quality Management Plan would be updated and include specific activities and mitigation measures relating to demolition of the B7 building.
- Residents within 200 metres of the B7 building would be notified of the days when major mechanical demolition of the B7 building is to occur. The notification distance would be reviewed after the first day of major demolition and may be either increased or decreased depending on the amount and dispersion of dust.
- Major mechanical demolition of the B7 building would not occur during periods of high winds or when winds could potentially disperse dust in to residential areas.
- Dust generated from the handling and management of demolition rubble would be monitored – and if found to be excessive, water sprays would be installed to reduce dust levels.
- All trucks transporting dust generating material would be covered.

7.3 Traffic

7.3.1 Background and methodology

Modification #2 for the B9 project contained a revised and detailed traffic impact assessment – which included the upgrade and use of McCauley Street. The Modification #2 traffic assessment included:

- All heavy vehicles from the B9 project accessing the site via Botany Road and exiting the site via McCauley Street.
- All heavy vehicles from a possible Materials Recycling Facility (MRF) accessing the site via Botany Road and exiting the site via McCauley Street.
- All heavy and light vehicles from a potential warehousing facility on excess land in the McCauley Street precinct using McCauley Street to access and exit the facility.
- All heavy and light vehicles from a potential warehousing facility on excess land in the Botany Road precinct using Botany Road to access and exit the facility.

As this is a worst case assessment for potential traffic impacts, the Modification #2 traffic impact assessment has been used as the basis for assessing the impacts on traffic from demolition activities. Consequently no additional intersection modelling or traffic monitoring has been undertaken for this modification.

For the relocation of the access to the McCauley Street precinct, a separate traffic assessment was prepared and is attached in Appendix D. The findings of the separate traffic assessment are summarised below.

As the demolition works would be completed within 6 months and the relocated access would not be operational until a new development had been approved and constructed on the McCauley Street precinct, there is no need to assess the cumulative impacts of the two separate activities.

7.3.2 Existing environment

7.3.2.1 Demolition

Access to and from the Orora site is via Botany Road and McCauley Street. The access arrangements are:

- All heavy and light vehicles access the site via the Botany Road access – which is at the intersection of Botany Road and Bomborah Point Road. A diagrammatic representation of the intersection is presented in Figure 7.1. Over 95% of vehicles access the site via a left turn from Botany Road western leg.
- 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.

As noted above the Modification #2 traffic impact assessment assumed the development of a MRF and two warehousing facilities on excess land. The MRF and warehousing facilities have not been approved or developed.

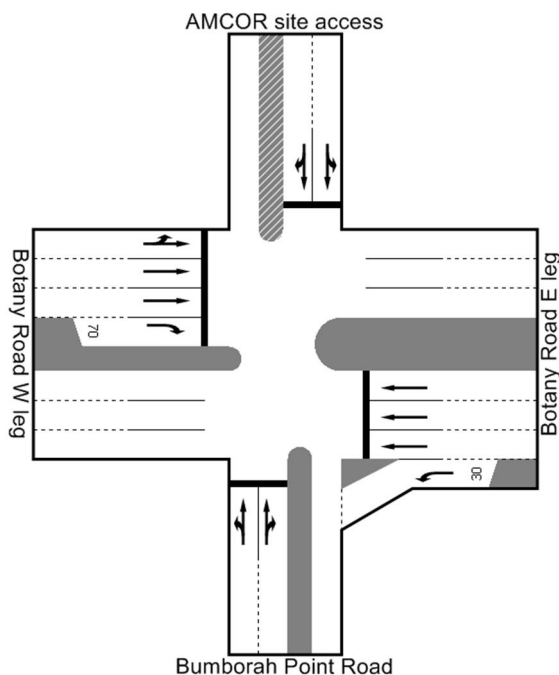
Heavy vehicles numbers for B9 project were predicted for Modification #2 traffic impact assessment and were estimated to be approximately 233 heavy vehicles accessing the site every day. Now the B9 project is operational, actual heavy vehicle numbers have been monitored and the number is considerably lower with approximately 185 heavy vehicles accessing the site every day. This is mainly due to changes in how the B9 project is sourcing its wastepaper.

Vehicle numbers using the Botany Road and McCauley Street are presented in **Table 7-7**.

■ **Table 7-7 Existing Daily Traffic Volumes**

Road	Location	AADT	Source (Year)
Botany Road	West of Beauchamp Rd	35,826	RTA (2002)
	East of Beauchamp Rd	20,331	RTA (2002)
	South of Mill Pond Rd	27,237	RTA (2002)
Bunnerong Road	North Beauchamp	19,582	RTA (2002)
Beauchamp Road	North of Botany Rd	17,164	RTA (2002)
	West of Bunnerong Rd	8,759	RTA (1999)
Foreshore Road	East of General Holmes Dr	29,851	RTA (2002)
Southern Cross Drive	West of Wentworth Ave	85,163	RTA (2002)
General Holmes Drive	At runway tunnel	133,393	RTA (2002)
McCauley Street	-	1,700	Randwick Council (1997)

Figure 7.1 : Diagrammatic representation of Botany Road access and intersection



7.3.2.2 Relcoated access

Additional traffic counts were undertaken for the intersection of Raymond Avenue, McCauley Street and Orora's main exit to McCauley Street. These are presented in full in Appendix D. The traffic counts indicated that typical peak hour two way traffic movement was about 160 vehicles in the afternoon peak (with about 15% heavy vehicles) and about 130 in the morning peak (with about 10% heavy vehicles). The majority of vehicle movements were through traffic along McCauley Street, however there was a substantial proportion of vehicle movements to and from Raymond Avenue.

7.3.3 Impacts

7.3.3.1 Demolition

Trucks for the removal of demolition waste and salvageable material would enter the site via the Botany Road access and exit the site either via McCauley Street or directly to Botany Road. An estimate of the number of 20 m³ truck loads required to remove demolition waste and salvageable material is presented in Table 7.8.

Table 7.8 : Number of trucks for demolition material removal

Material	Weight (tonnes)	Bulking Factor	Volume (m ³)	Number of 20m ³ trucks
Masonry & concrete	12750	1.2	10625	530
Ferrous material	2540	0.9	2822	141
Non-ferrous material	420	0.9	467	23
Total				694

Assuming that the major demolition activities would occur over a 12 week period (or 60 week days), the average number of daily truck loads associated with the removal of demolition and salvageable material would be approximately 12 loads a day. If it was also assumed that there will be peak days where double the average number of truck movements would be required, this would equate to 24 loads a day. Assuming that there would be another two trucks a day accessing the site to deliver skip bins, other materials, plant etc, the peak number of additional trucks accessing the site for demolition would be 26 a day. These truck movements would occur throughout the day and would not be concentrated at a specific time.

This would equate to an additional 52 truck movements a day on Botany Road and 26 truck movements southbound along McCauley Street (before the trucks access Botany Road).

Given the vehicle numbers along Botany Road near the Orora site were around 20000 to 35000 AADT in 2002 and have likely increased since then (typically at about 3.5% per annum), the temporary increase of an additional 52 truck movements a day would have a negligible impact on Botany Road capacity.

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 26 truck movements a day exiting the site via the Botany Road access would not affect the intersection performance.

As discussed above, the traffic assessment undertaken for the Modification #2 (SKM 2010) included the use of McCauley Street for all exiting B9 project heavy vehicles, a proposed Materials Recycling Facility (MRF) and a concept warehouse development for the McCauley Street precinct. Even with the predicted increased numbers of vehicles from the MRF and a concept warehouse development for the McCauley Street precinct, the operational performance of the McCauley Street/Botany Road intersection in peak periods remained good with a Level of Service of B. Therefore, the impacts of an additional 26 vehicles movement associated with demolition and the lower than predicted number of B9 heavy vehicles would have a lower impact on the

intersection performance compared to the traffic assessment undertaken for Modification #2. Therefore the additional demolition vehicles would have minimal impact on the traffic capacity and intersection performance of McCauley Street.

7.3.3.2 Relocation of access

To assess the impact of the relocated access on the nearby intersection of McCauley Street, Raymond Avenue and Orora main site exit, SIDRA modelling of the intersection was undertaken. Traffic generation from a likely potential development was estimated using RMS' *Guide to Traffic Generating Development, Section 3 – Land use Traffic Generation (October 2002)*. Based upon the guideline it was estimated that 86 vehicle movements an hour would be generated during peak times. It was also assumed that all heavy vehicle movements would be to the south along McCauley Street. The SIDRA analysis of the intersection indicates that the level of service of the intersection would be "A" which is the current level of service – and therefore the relocated driveway would not impact upon the intersection.

The previous traffic assessment undertaken for Modification #2, assumed a similar type of development with almost identical peak vehicle movements. This assessment concluded that the level of service at the McCauley Street and Botany Road intersection would be unchanged with the B9 paper Mill and the development of the McCauley Street precinct.

The current informal parking arrangements on the road verge in front of the McCauley Street precinct would change with the kerb and guttering of the road frontage. It is assumed that the new parking arrangements would be parallel parking which is consistent with the remainder of parking along McCauley Street. Parking arrangements would be determined in consultation with RCC.

In terms of traffic safety, the relocation of the access to a location almost equidistant between the McCauley Street/Raymond Avenue intersection and the McCauley Street/Australia Avenue intersection would result in an improvement in comparison to the existing location for the access. There would also be reduced traffic noise impacts on nearby residential receivers as the relocated access would be further away from residential areas.

7.3.4 Mitigation measures

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

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

The mitigation measures that would be implemented to minimise traffic impacts from the relocated access include:

- RCC would be consulted on the final design and operation of relocated driveway during the development approval process for any new development on the McCauley Street precinct.
- The final design of the relocated access would include measures to ensure that heavy vehicles can only enter and exit the McCauley Street precinct from the south.

7.4 Waste

7.4.1 Background and methodology

The demolition of the B7 building would result in the generation of materials able to be recycled and waste material that would not be able to be reused. The waste assessment below presents:

- Accurate estimates of the quantity, characterisation and classification of the potential waste streams during demolition
- Identification of beneficial reuse opportunities for all wastes generated by the project
- A description of the measures that would be implemented to ensure that any waste produced is appropriately handled, processed and disposed off.

7.4.2 Demolition impacts

The B7 Building still contains the redundant paper machine as well as associated services and other items. The paper machine and services contains a high proportion of metals that are suitable for recycling. Before the demolition of the B7 building commences, recyclable items which are easily able to be removed will be. After the demolition of the building there will be significant further efforts undertaken to salvage all recyclable items. The B7 building was constructed of brick and concrete in the 1960's. The bricks are from that era and therefore are not particularly desired and have no real resale value. Consequently it is not economically viable to recycle the bricks and they will require disposal.

The other main items of waste generated are waste oil from transformers and asbestos. Oil in all the redundant transformers have already been tested and all apart from one transformer, have concentrations of PCBs lower than the appropriately guideline level. The uncontaminated oil would be sent off-site to be reused or recycled. The PCB contaminated oil would be sent to the Lidcombe Liquid Waste processing facility for destruction.

Asbestos from the B7 building that is accessible would be removed before the demolition of the B7 building commences. Demolition of some sections of the building will be required to access some asbestos containing materials.

The volumes, classification and management of waste materials are described in Table 7.9.

Table 7.9 : Waste generated by demolition of Building B7

Material	Weight (tonnes)	Classification	Management
Masonry & concrete	12750	General solid waste(non-putrescible)	Disposal to appropriately licensed landfill
Ferrous material	2540	General solid waste (non-putrescible)	Recycle
Non-ferrous material	420	General solid waste(non-putrescible)	Recycle
Waste oil	5	Liquid waste (non-hazardous)	Recycle/reuse
Waste Oil (PCBs)	0.25	Liquid waste (hazardous)	Disposal at Lidcombe liquid waste facility
Asbestos	20	Asbestos waste	Disposal landfill licensed to take asbestos

7.4.3 Mitigation measures

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.
- An Asbestos Management Plan would be developed and implemented.
- 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.

7.5 Soil and water

7.5.1 Existing environment

The existing environment for soils, groundwater, wastewater and surface water includes:

- Soil – The contamination status of the soils beneath the B7 is unknown because it has not been possible to get a drilling rig of sufficient size into the B7 building to drill through the deep foundations.
- Groundwater – The B7 building is partially within the Botany Groundwater Extraction Exclusion Zone. 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.
- Wastewater – The site discharges excess process water from the paper making process into the Sydney Water sewerage network via a Trade Waste Agreement.
- Surface water – The B7 building area drains to Bunnerong Canal which in turn drains into Botany Bay. Some areas of the B7 building area drain directly to Bunnerong Canal without treatment – while other areas drain into the B9 stormwater system which has a GPT to treat stormwater before it is discharged.

7.5.2 Demolition impacts

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.

The process wastewater system servicing the B7 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.

As the existing concrete slab would be retained, there would 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. The contamination status of the soils beneath the slab are unknown – but as these soils would remain undisturbed, no mitigation measures are required. It is likely that once the B7 building is removed, testing of the soils beneath the slab would occur sometime in the near future. While the B7 building is in place it is impossible to effectively test the soils beneath the building.

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. 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. Provided this plan is implanted, the risk to surface water bodies, namely Botany Bay would be minimal.

7.5.3 Mitigation measures

The following mitigation measures would be implemented to minimise the impacts on groundwater, surface water, wastewater and soils:

- A Surface Water Management Plan would be developed to limit the volume of water entering the demolition area and to capture and treatment any runoff from the demolition area.
- All chemicals, fuels and oils would be stored in appropriately designed bunded areas.
- All waste management and storage areas would be design to capture and treat runoff.

8. Summary of mitigation measures

The mitigation measures are summarised in the following table.

Aspect	When
General	
A Demolition Management Plan would be prepared before demolition commences.	Pre-demolition
The demolition of the B7 building would comply with appropriate standards and guidelines. • Work Health and Safety Act 2011 • Occupational Health and Safety (Hazardous Substances) Regulation 2001 • Occupational Health and Safety (Asbestos Removal Work) Regulation 2001 • WorkCover NSW Code of Practice for the Safe Removal of Asbestos • Australian Standard 2601 (2001) – Demolition of Structures • Protection of the Environment Operations Act 1997 • Protection of the Environment Operations (Waste) Regulation 2005 • Relevant Office of Environment & Heritage / Environment Protection Authority (EPA) and WorkCover NSW Guidelines. • Randwick City Council Asbestos Policy (adopted 13 September 2005) • Waste Classification Guidelines (DEC 2009)	Pre-demolition
Noise	
Prior to commencing the demolition activities, the existing staged CNVMP would be updated to include demolition activities. This would detail how work is to be carried out to minimise the impacts of noise and vibration on adjacent properties. Measures to reduce potential noise impacts should include general controls such as: • Compliance with standard construction hours: 7am – 6pm (Monday-Friday), 8am-1pm (Saturday) and at no time Sundays and public holidays, unless otherwise approved through a DNVMP approved by the Department of Planning. • Notifying the nearest noise receptors of the works plan and expected levels of noise well in advance of the works occurring, and responding to residents comments when planning noisy activities. • Timetabling to minimise noise impacts - this may include time and duration restrictions and respite periods, and should be considered after consultation with affected receivers. • Maintaining equipment in efficient working order. • Using quieter construction methods where possible. • Where acceptable from an Occupational Health and Safety perspective, using quieter alternatives to reversing alarms (such as spotters, closed circuit television monitors and 'smart' reversing alarms). • Dealing promptly with all noise complaints received. • Machinery would not be turned on prior to the work hours outlined above. This would include the daily maintenance activities and/or 'warming up' of engines.	Pre-demolition & demolition

Aspect	When
Where it has been identified as necessary (eg in response to community complaints), noise monitoring would be undertaken to check that the noise mitigation measures are effective. Further construction noise mitigation methods are contained in Tables 4 to 10 of the <i>Interim Construction Noise Guideline</i> (DECC, 2009). The final CNVMP would be completed in conjunction with the selected contractor and submitted for approval to DP&E prior to commencement of the works.	
To provide a full assessment of the required barrier height and location, a noise monitoring survey and detailed assessment for the noise barrier management plan would be completed for the site once the B7 building is demolished.	Post-demolition
Based upon the outcomes of the monitoring, the location and height of an optimal noise wall would be determined.	Post-demolition
An updated Noise Barrier Design Plan would be submitted to DP&E once the location and height of the new noise wall had been determined.	Post-demolition
Air quality	
The Construction Air Quality Management Plan would be updated and include specific activities and mitigation measures relating to demolition of the B7 building.	Pre-demolition & demolition
Residents within 200 metres of the B7 building would be notified of the days when major mechanical demolition of the B7 building is to occur. The notification distance would be reviewed after the first day of major demolition and may be either increased or decreased depending on the amount and dispersion of dust.	Pre-demolition & demolition
Major mechanical demolition of the B7 building would not occur during periods of high winds or when winds could potentially disperse dust in to residential areas.	Demolition
Dust generated from the handling and management of demolition rubble would be monitored – and if found to be excessive, water sprays would be installed to reduce dust levels.	Demolition
All trucks transporting dust generating material would be covered.	Demolition
Traffic	
All heavy vehicles drivers would be inducted into the site Drivers Code of Conduct.	Pre-demolition
All heavy vehicle routes would avoid local roads and residential areas where possible.	Demolition
RCC would be consulted on the final design and operation of relocated driveway during the development approval process for any new development on the McCauley Street precinct.	During approval of any new development
The final design of the relocated access would include measures to ensure that heavy vehicles can only enter and exit the McCauley Street precinct from the south.	During approval of any new development
Waste	
The Construction Waste Management Plan would be updated.	Pre-demolition and demolition
The removal, handling and disposal of asbestos would be undertaken in accordance with appropriate guidelines, standards and legislation by an appropriately licensed contractor.	Demolition
An Asbestos Management Plan would be developed and implemented.	Pre-demolition and demolition
All waste material requiring disposal would be disposed off at an appropriately licensed landfill.	Demolition
All wastes that are economically feasible to be reused or recycled would be.	Demolition

Aspect	When
Soil & Water	
A Surface Water Management Plan would be developed to limit the volume of water entering the demolition area and to capture and treatment any runoff from the demolition area.	Pre-demolition and demolition
All chemicals, fuels and oils would be stored in appropriately designed bunded areas.	Demolition
All waste management and storage areas would be design to capture and treat runoff.	Demolition

9. Conclusion

The demolition of the B7 building is required to maintain safe operations at the Orora site. There are no feasible alternatives to the demolition of the B7 building as the building and paper machine are redundant and about 50 years old. During the demolition of the B7 building there will be impacts 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. Other demolition impacts such as waste generation and traffic would be minor.

Once the B7 building is demolished, residential areas especially along Partanna Avenue will be exposed to noise from the B9 facility, Botany Road and Port Botany. Further noise monitoring and modelling post-demolition would be undertaken to determine the optimal location and height for a noise wall to mitigate operational noise from the B9 facility. This will enable the B9 facility to meet its operational noise limits. However some residential areas will experience increased noise levels due to noise from Port Botany and Botany Road. While the placement of the noise wall will endeavour to maximise noise mitigation, these noise sources are not Orora's responsibility.

An assessment of the works in relation to the objects of the EP&A Act is contained in Table 9.1. Overall the works would meet the objects of the EP&A Act.

EP&A Act object	Response
the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment	The works involve the proper management of artificial resources. The works would not result in any impacts on natural resources.
the promotion and co-ordination of the orderly and economic use and development of land	The works promote the orderly and economic development of redundant land. Once the B7 building is demolished the land would be available for future development
the protection, provision and co-ordination of communication and utility services	This object is not relevant for the proposed works,
the provision of land for public purposes	This object is not relevant for the proposed works,
the provision and co-ordination of community services and facilities	This object is not relevant for the proposed works,
the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats	The works would not result in any impacts on native animals and plants, including threatened species, populations and ecological communities, and their habitats.
Ecologically sustainable development	
(a) the precautionary principle, namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by: (i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and (ii) an assessment of the risk-weighted consequences of various options	There are no threats of serious or irreversible environmental damage as the works are relatively minor and appropriate mitigation measures have been proposed.

EP&A Act object	Response
b) inter-generational equity, namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations	The works would not have any intergenerational impacts.
c) conservation of biological diversity and ecological integrity, namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration	The works would not have any impacts on biological diversity and ecological integrity
(d) improved valuation, pricing and incentive mechanisms, namely, that environmental factors should be included in the valuation of assets and services, such as: (i) polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement, (ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste, (iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.	Orora would be responsible for costs associated with impact mitigation and pollution generation.
the provision and maintenance of affordable housing	This object is not relevant for the proposed works,
to promote the sharing of the responsibility for environmental planning between the different levels of government in the State	Randwick City Council and DP&E were consulted during the preparation of this impact assessment and their requirements have been addressed.
to provide increased opportunity for public involvement and participation in environmental planning and assessment	The potentially impacted community was consulted and given the opportunity to raise any issues or concerns regarding the works.

I certify that this report contains all available information that is relevant to the environmental assessment of the project, and that the information contained on the statement is neither false or misleading.

Jonas Ball

Principal Environmental Planner

Jacobs

Appendix A. Compliance with existing approval conditions

Condition Ref		Condition	
Minister's Conditions of Approval (MCoA)			
MCoA		ADMINISTRATIVE CONDITIONS	
MCoA		Obligation to Minimise Harm to the Environment	
MCoA	1	The Proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction and/or operation of the project.	Noted
MCoA		Terms of Approval	
MCoA	2	The Proponent shall carry out the project generally in accordance with the:	
MCoA	2 a)	EA;	Noted
MCoA	2 b)	site plan contained in Appendix A;	Noted
MCoA	2 c)	submissions report;	Noted
MCoA	2 d)	statement of commitments; and	Noted
	e)	Modification application 05_120 Mod 2 with supporting documents titled Environmental Assessment Report: B9 Project - New Paper Mill - Revised modification #2 Subdivision and Site Layout, 16 February 2010 prepared by SKM and Response to Submissions from Exhibition of Environmental Assessment Report May 2010 prepared by SKM	Noted
MCoA	2 f)	conditions of this approval.	Noted
MCoA	3	If there is any inconsistency between the above, and the conditions of this approval, then the most recent documents shall prevail to the extent of the inconsistency.	Noted
MCoA	4	The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of:	Noted
MCoA	4 a)	any reports, plans, strategies, programs or correspondence that are submitted in accordance with this approval; and	Noted
MCoA	4 b)	the implementation of any actions or measures contained in these reports, plans, strategies, programs or correspondence.	Noted
MCoA		Limits on Production	
MCoA	5	The Proponent shall ensure that the project does not produce more than:	

Condition Ref		Condition	
MCoA	5 a)	383,763 tonnes per annum of paper; and	Current production is approximately 380,000 tonnes per annum
MCoA	5 b)	275,000 tonnes per annum of paper during the transition period as described in the EA.	Less than 275,000 tonnes of paper was produced during transition period
MCoA		Management Plans/Monitoring Programs	
MCoA	6	With the approval of the Director-General, the Proponent may submit any management plan or monitoring program required by this approval on a progressive basis.	Staged submission of plans has been approved for Construction EMPs & Subplans and Noise Barrier Design Plan
MCoA		Structural Adequacy	
MCoA	7	The Proponent shall ensure that all new buildings and structures on the site are constructed in accordance with the relevant requirements of the BCA.	Private certifier has certified all structures and buildings constructed in accordance with BCA
MCoA		Demolition	
MCoA	8	The Proponent shall ensure that all demolition work is carried out in accordance with <i>Australian Standard AS 2601-2001: The Demolition of Structures</i> , or its latest version.	All demolition work to date has been undertaken in compliance with standard
	9	The Proponent shall ensure that demolition of buildings does not affect the integrity of the facade of the old finishing mill building, until Condition 15 - Heritage is satisfied.	This was complied with - however approval was obtained from DPE to demolish the heritage façade in 2012
MCoA		Protection of Public Infrastructure	
MCoA	10	Prior to commencement of demolition, the Proponent shall:	
MCoA	10 a)	prepare a dilapidation report of the public infrastructure in the vicinity of the site (including roads, gutters, footpaths, etc) in consultation with Council; and	A dilapidation report for McCauley Street was produced in consultation with Council
MCoA	10 b)	submit a copy of this report to the Director-General.	The report was provided to the Director-General
MCoA	11	The Proponent shall:	
MCoA	11 c)	repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and	During construction no public infrastructure was damaged
MCoA	11 d)	relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.	Orora has funded the relocation of any public infrastructure as required
MCoA		Compliance Audit	

Condition Ref		Condition	
MCoA	12	Prior to commissioning the new paper mill, the Proponent shall submit work as executed plans to the Department for all development associated with the project. These plans must be prepared by a suitably qualified and experienced expert, and must include plans showing the work as executed plans laid over the approved plans to demonstrate that the development has been carried out in accordance with the approved plans.	The work as executed plans have been provided to DP&E and approved.
MCoA		Operation of Plant and Equipment	
MCoA	13	The Proponent shall ensure that all plant and equipment used on the site is maintained and operated in an efficient manner, and in accordance with relevant Australian Standards.	This is ongoing and a comprehensive maintenance plan for the site has been developed
MCoA		SPECIFIC ENVIRONMENTAL CONDITIONS	
MCoA		ODOUR	
MCoA	1	The Proponent shall ensure that the project complies with Section 129 of the <i>Protection of the Environment Operations Act, 1997</i> .	Since the B9 paper mill commenced operations, the frequency and extent of odour emissions and complaints has significantly decreased. There have been four odour complaints over the past two years with 1 related to commissioning processes (disinfection of a pipeline), one relating to a diesel smell, one relating to "rotten egg" smell (probably from Sydney Water assets) and only one relating to an odour from the paper making process. This indicates that the B9 paper mill is in compliance with Section 129 of the POEO Act.
MCoA		Notes: Section 129 of the <i>Protection of the Environment Operations Act 1997</i>, provides that the Proponent must not cause or permit the emission of any offensive odour from the site, but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.	See above
MCoA		AIR QUALITY	

Condition Ref		Condition	
MCoA	2	During the life of the project, the Proponent shall carry out all reasonable and feasible measures to minimise the dust generated by the project.	There have been no complaints about dust from the project since operations commenced
MCoA		SOIL AND WATER	
MCoA		Discharge Limits	
MCoA	3	Except as may be expressly provided in an EPL for the project, the Proponent shall comply with Section 120 of the <i>Protection of the Environment Operations Act 1997</i> .	There have been no discharges of water that have not complied Section 120
MCoA		Extraction	
MCoA	4	Prior to the commencement of operation, the Proponent shall ensure that all necessary licences are obtained for the extraction of groundwater for the facility in accordance with the requirements of the Department of Water and Energy.	New licences for groundwater extraction have been issued to Orora under the Water Management Act and the Water Sharing Plan for the Botany Sands Aquifer.
MCoA		Flooding	
MCoA	5	The Proponent shall undertake a detailed flood study of the site in consultation with Council and ensure that the project is designed to ensure that floor levels are a minimum of 300mm above the 1 in 100 year flood level. The study shall be submitted to the Director-General prior to commencement of construction of the paper machine building.	This study was prepared and submitted to the Director-General. All floor levels are at minimum of 300mm above the 1 in 100 year flood level.
MCoA		Bunding	
MCoA	6	All chemicals, fuels and oils shall be stored in appropriately bunded areas, with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund. The bund(s) shall be designed and installed in accordance with:	All fuels, oils and chemicals are stored in appropriately sized bunded areas.
MCoA	6 a)	the requirements of all relevant Australian Standards; and	These bunded areas have been designed in reference to the Australian Standards
MCoA	6 b)	the DECC's <i>Environmental Protection Manual Technical Bulletin Bunding and Spill Management</i> .	These bunded areas have been designed in reference to the DECC Manual.
MCoA		Remediation	
MCoA	7	Prior to commencement of construction, the Proponent shall prepare a Remediation Action Plan (RAP) that has been approved by an accredited site auditor. Prior to construction on land identified in the RAP and the EA, as contaminated, the Proponent shall remediate the land in accordance with the requirements of the <i>Contaminated Land Management Act 1997</i> and the recommendations of the Remediation Action Plan.	A RAP was prepared and subsequently approved by an accredited site auditor. The RAP was implemented and the most work packages have been signed off by a certified auditor. Orora is waiting on sign off of the final work package from auditor.
MCoA		Erosion and Sediment Control Plan	

Condition Ref		Condition	
MCoA	8	The Proponent shall prepare and implement an Erosion and Sediment Control Plan for the site, to the satisfaction of the Director-General. The Plan shall be submitted prior to commencement of demolition and construction and shall be prepared in accordance with Landcom's publication <i>Managing Urban Stormwater – Soils and Construction</i> .	An ESCP was prepared and submitted to Director-General. Approval from the D-G was received.
MCoA		Water Management Plan	
MCoA	9	The Proponent shall prepare and implement a Water Management Plan for the site to the satisfaction of the Director-General. The Plan shall:	See below
MCoA	9 a)	be submitted to the Director-General for approval prior to commencement of operation;	See below
MCoA	9 b)	include: • a Water Supply Strategy for the site including a report on the sustainability of groundwater extraction from the Snape Park borefield and the impact on the Botany Sands Aquifer. The strategy should also assess options for alternative water supply, and should be undertaken in consultation with the DWE; • a Stormwater Management Scheme for the site that has been prepared in accordance with the requirements of Sydney Water and Council, and generally in accordance with the <i>Managing Urban Stormwater: Council Handbook (DECC)</i>; and • a Wastewater System for the site prepared in accordance with the requirements of Sydney Water. The system should include details of discharge rates, wastewater quality and automated controls for monitoring discharges to the Southern and Western Sydney Ocean Outfall Sewer (SWSOOS).	All three documents were prepared and submitted to the DP&E before operation. Approval for all three documents was provided by the DP&E
MCoA		NOISE	
MCoA		Noise Limits	
MCoA	10	The Proponent shall ensure that noise from operation of the project does not exceed the noise limits presented in Table 1.	Generally quarterly noise monitoring has demonstrated that the project has complied with the noise limits in Table 1

Condition Ref	Condition	
MCoA	Notes: - Noise from the premises is to be measured at any point within 1 metre of any residential boundary or other noise sensitive areas in the vicinity of the premises to determine compliance with the LAeq(15 minute) noise limits in the above table. - Where it can be demonstrated that direct measurement of noise from the development is impractical, the Department and the DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). - The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable. - The noise limits identified in Table 1 apply under the following meteorological conditions: - wind speeds up to 3 m/s at 10 metres above the ground level; or - temperature inversion conditions up to 30C/100m and wind speeds up to 2 m/s at 10 metres above ground level.	See above
	10A Prior to commencement of operations of the project, the Proponent shall prepare and implement a detailed Noise Barrier Design Plan. The Plan shall: - be prepared in consultation with Council - be prepared and implemented to the satisfaction of the Director-General - demonstrate that the proposed noise barriers are designed with a material density of no less than 15kg/m² unless otherwise approved by the Director-General - Include a detailed plan of the layout indicating how the noise barriers would traverse along the north eastern perimeter of the Amcor site and around the waste paper storage yard - include the detailed design of the barrier, outlining how it would be visually treated to reduce mitigate any visual impacts such as the provision of landscaping on its northern side	A Stage 1 Noise Barrier Design Plan has been prepared in consultation with RCC, approved by DP&E and implemented.
MCoA	Hours of Work	
MCoA	11 Unless otherwise agreed with the Director-General, the Proponent shall comply with the demolition, construction and operation hours in Table 2.	Demolition and construction hours were generally complied with. Where works were required outside these hours approval from DP&E was sought. Operation is permitted 24 hours a day 7 days a week

Condition Ref		Condition	
MCoA		Notes: • Construction activities may be conducted outside the hours in Table 2 provided that the activities are not audible at any residence beyond the boundary of the site.	See above
MCoA		Operating Conditions	
MCoA	12	The Proponent shall ensure that noise from reversing alarms is minimised at all times.	The use of reversing alarms is minimised wherever possible however they are unable to be totally eliminated from site.
MCoA		Construction Noise Management	
MCoA	13	The Proponent shall prepare and implement a Construction Noise Management Plan for the project to the satisfaction of the Director-General. The plan shall be submitted to the Director-General prior to commencing demolition and construction, and must:	A staged submittal of the CNMP was approved - and for each stage a revised CNMP has been submitted and approved by DPE. Measures within the plan were implemented during construction
MCoA	13	a) Identify specific activities to be carried out and the noise generation from these activities;	See above
MCoA	13	b) Identify all potentially affected sensitive receivers;	See above
MCoA	13	c) Identify all reasonable and feasible mitigation measures to comply with a construction noise limit of LA10(15 minute) 50dB(A) for demolition phases, earthworks and construction of the new paper machine building;	See above
MCoA	13	d) Identify all reasonable and feasible mitigation measures to comply with the operational noise limits in Table 1 for periods of machine construction and commissioning/transition phases;	See above
MCoA	13	e) Provide details of the length of the construction period to the Director-General;	See above
MCoA	13	f) Assess the potential noise impacts against the noise objectives;	See above
MCoA	13	g) Describe monitoring procedures to measure compliance with noise objectives;	See above
MCoA	13	h) Describe procedures for implementing noise mitigation treatments and monitoring their effectiveness in meeting the noise objectives; and	See above
MCoA	13	i) Include procedures for notifying residents of construction activities that are likely to affect their noise and vibration amenity, and procedures for managing complaints.	See above

Condition Ref		Condition	
	13A	The Proponent shall prepare and implement an Operational Noise Management Plan for the project to the satisfaction of the Director-General. The plan shall be submitted to the Director-General prior to commencement of operations and must: a) identify all potentially affected sensitive receivers b) specify the relevant noise criteria c) describe management methods and procedures and specific noise mitigation treatments that will be implemented to control noise emissions d) detail a noise monitoring program to be prepared by a qualified acoustic consultant and implemented to monitor the effects of the project on the acoustic environment during operation, the effectiveness of all noise control devices and the noise barrier, and monitoring of road traffic noise, with details of procedures to be undertaken if any non-compliance is detected e) detail procedures to receive, record and respond to complaints.	The Operational Noise Management Plan has been approved by DPE. The ONMP is being implemented on site.
	13B	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 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 85 dB(a) at 1 m from the outlets d) ground level wall of the paper machine building facing residential areas to be constructed of concrete and a double steel 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 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	All of these noise management measures have been implemented as part of the design and/or management of the site.
MCoA		Operational Noise Monitoring Program	

Condition Ref		Condition	
MCoA	14	Within 3 months of the commencement of operations, the Propoent shall submit a Noise Verification Study to satisfaction fo the Director-General to demonstrate compliance with the noise limits in Table 1. This Study shall: a) be undertaken by a suitably qualified acoustic expert and in accordance with the Industrial Noise Policy b) validate the predictions made in the EA c) demonstrate complaince with the noise limits in Table 1 d) describe the contingencies that would be implemented and the timing for implementation should non-compliances be detected.	An initial Noise Verification Study has been completed and is currently undergoing an internal review. The final Noise Verification Study can not be completed until the final works on the Waste Paper Yard are completed and the B5 building is demolished (late 2015).
MCoA		HERITAGE	
MCoA	15	Within two months of the date of this approval, the Proponent shall prepare a Heritage Conservation Management Plan, in consultation with Randwick City Council and to the satisfaction of the Director-General. The Plan must:	Three versions of the Heritage Conservation and Management Plan have been prepared in consultation with RCC and approved by DP&E.
MCoA	15	a) be prepared by a suitably qualified and experienced person who is to receive the prior approval of the Director-General;	See above
MCoA	15	b) include details of options for the conservation management of the façade of the old finishing mill, including:	See above
MCoA	15	i) opportunities for maintaining any aspects of the building; or	See above
MCoA	15	ii) suggestions for integrating any elements of the heritage item with the new paper mill or the site, to recognise the old finishing mill building in the papermaking history of the site;	See above
MCoA	15	c) an interpretation strategy prepared in accordance with the NSW Heritage Office guidelines;	See above
MCoA	15	d) justification for selection of the preferred option;	See above
MCoA	15	e) details of full photographic and archival recording prior to any demolition works. The archival recording must be in accordance with current NSW Heritage Office guidelines/policies; and	See above
MCoA	15	f) consideration of any other Heritage Office guidelines.	See above
	15	Once this plan is approved, the Proponent shall implement the plan to the satisfaction of the Director-General.	See above
MCoA		LANDSCAPE AND VISUAL	
MCoA		Building Design	

Condition Ref		Condition	
MCoA	16	The Proponent shall submit a detailed design plan for the facility that must be approved by the Director-General prior to the commencement of construction of the paper machine building. The plan shall include details of the final design of the paper mill building including colour, signage, external materials and other architectural treatments designed to minimise the visual impact of the bulk and continuous façades along Botany Road and McCauley Street.	A design plan on the external appearance of the B9 paper mill was prepared, approved by DP&E and implemented.
MCoA	17	Prior to the commencement of construction, the Proponent shall provide evidence to the satisfaction of the Director-General, that the Sydney Airports Corporation Limited is satisfied with the proposed height of all temporary and permanent structures associated with the new paper mill and requiring approval under the <i>Civil Aviation (Buildings Control) Regulations</i> .	SACL and CASA approval was obtained for all temporary and permanent structures that may impact the PAN-OPS and OLS.
MCoA		Lighting	
MCoA	18	The Proponent shall ensure that the lighting associated with the project:	Lighting for the project has been designed in compliance with the relevant guidelines and requirements
MCoA	18	a) complies with the latest version of Australian Standard AS 4282(INT) - <i>Control of Obtrusive Effects of Outdoor Lighting</i> ; and	See above
MCoA	18	b) is mounted, screen and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.	See above
MCoA		Landscaping	
MCoA	19	The Proponent shall prepare and submit to the Director-General prior to commencement of construction of the paper machine building, a landscape plan, providing details of screening trees to be planted along the site boundaries, other landscape treatments within the site and details of a footpath to be provided along the McCauley Street and Botany Road frontages. The plan shall be prepared in consultation with Council and shall include a program for implementation.	A Landscape Plan was prepared in consultation with RCC, approved by DP&E and implemented on site
MCoA		TRANSPORT	
MCoA		Operating Conditions	
MCoA	20	The Proponent shall ensure that:	
MCoA	20	a) the internal road network and parking on site complies with Australian Standards AS 2890.1:2004 and AS 2890.2:2002;	The internal road network was designed and constructed in compliance with the relevant standards

Condition Ref		Condition	
MCoA	20	b) site related vehicles do not queue on any public roads;	Queuing on Botany Road or other public streets has been eliminated with relocation of the incoming weighbridge to the centre of the site. However it should be noted that because of the fire in B7 building the incoming weighbridge is currently on functional due to safety issues.
MCoA	20	c) heavy vehicles are restricted from using McCauley Street north of Raymond Avenue	Traffic management measures have be incorporated into the design of exits on McCauley Street to limit vehicles movements to south. There have been no complaints about Orora heavy vehicles using McCauley Street north of Raymond Ave
MCoA	20	d) any changes to site access, including new access points and closure of existing access points are notified to the Director-General prior to commencement of operation.	Noted- Modification #5 proposes relocation of access on McCauley Street
	20A	The Proponent shall complete the upgrade McCauley Street between Botany Road and Raymond Avenue by the 31 March 2013 to the satisfaction of the Director-General. The Proponent shall: a) submit detailed design of the road upgrade works to Council for approval b) fund the full cost of the upgrade works c) dedicate a strip of land adjacent to McCauley Street up to 2m wide to Council as a public road excluding the heritage wall which is to be retained on AMCOR owned land d) consult Council on the design of the shared access on McCauley Street opposite Raymond Avenue e) consult Council on the most appropriate traffic manangement measures to limit heavy vehicle movements north of Raymond Avenue f) apply to the RTA for the southbound section of McCauley Street to be designated as a B-Double route prior to operation	The upgrade of McCauley Street has been completed successfully and in compliance with the relevant subconditions.

Condition Ref		Condition	
	20B	The Proponent shall upgrade the intersection of McCauley Street and Botany Road by 31 March 2013 to the satisfaction of the Director-General. The Proponent shall: a) submit detailed design of the intersection upgrade works to the RTA for approval b) commission an independent Certified Auditor to undertake a Stage 3 Road Safety Audit of the intersection design c) fund the full cost of the upgrade works including any utility adjustment or relocation works d) dedicate land at the intersection, if required, to the RTA as a public road e) enter into a Works Authorisation Deed with the RTA for the upgrade works	The upgrade of McCauley Street/Botany Road intersection has been completed successfully and in compliance with the relevant subconditions.
	20C	Prior to the commencement of construction, the Proponent shall consult the RTA on the design of the shared access on Botany Road to satisfaction of the Director-General.	The shared access on to Botany Road has yet to be constructed and plans for its completion are currently on hold
MCoA		Construction Traffic Management Plan	
MCoA	21	The Proponent shall prepare and implement a Traffic Management Plan , to the satisfaction of the Director-General and in consultation with the RTA, Council and Sydney Ports Corporation. The Plan shall be submitted to the Director-General prior to demolition and construction commencing and must include:	A Traffic Management Plan was prepared in consultation with the relevant stakeholders and implemented where relevant during construction and operation of the project
MCoA	21	a) a Driver Code of Conduct and training to ensure that noisy practices are not unnecessarily undertaken on site or near sensitive receivers	See above
MCoA	21	b) details of construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic controls	See above
MCoA	21	c) procedures for notifying residents of construction traffic routes and potential disruptions to routes and access	See above
MCoA	21	d) a description of the parking arrangements during construction;	See above
MCoA	21	e) detailed analysis of the impact on the road network, where temporary road closures are required.	See above
		f) procedures to minimise the use of reversing alarms	See above
		g) movement scheduling where practicable to reduce impacts during sensitive times of the day	See above
		h) procedures for preventative and corrective action including disciplinary action for breaches of noise minimisation procedures	See above
MCoA		HAZARDS	

Condition Ref		Condition	
MCoA	22	The Proponent shall prepare and implement a Construction Safety Study to the satisfaction of the Director-General. The plan must:	A staged Construction Safety Study was prepared, approved by DP&E and implemented during construction
MCoA	22	a) be prepared by a suitably qualified independent person approved by the Director-General;	See above
MCoA	22	b) be submitted for approval prior to the commencement of demolition; and	See above
MCoA	22	c) be prepared in accordance with the Department of Planning's <i>Hazardous Industry Planning Advisory Paper No. 7 – Construction Safety Guidelines</i> .	See above
MCoA	23	The Proponent shall prepare and implement a Construction Hazard Plan to the satisfaction of the Director-General. The plan must:	Fire Safety, Hazard and Operability and Final Hazard Studies were prepared, approved by the relevant agencies and have been implemented
MCoA	23	a) be prepared by a suitably qualified independent person approved by the Director-General;	See above
MCoA	23	b) be submitted for approval prior to the commencement of construction of the paper machine building; and	See above
MCoA	23	c) include a: • Fire Safety Study that has been prepared in accordance with the Department of Planning's <i>Hazardous Industry Planning Advisory Paper No. 2 – Fire Safety Study Guidelines</i> and the NSW Government's <i>Best Practice Guidelines for Contaminated Water Retention and Treatment Systems</i> and approved by the Commissioner of the NSW Fire Brigades; • Hazard and Operability Study for the paper mill that has been prepared in accordance with the Department of Planning's <i>Hazardous Industry Planning Advisory Paper No. 8 – HAZOP Guidelines</i>; and • Final Hazard Analysis prepared in accordance with the Department of Planning's <i>Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis</i>.	See above
MCoA		Operation Hazard Plan	
MCoA	24	The Proponent shall prepare and implement an Operational Hazard Plan for the site to the satisfaction of the Director-General. This plan must:	An Emergency Plan and Safety Management System was prepared, approved by DP&E and these plans have been implemented.
MCoA	24	a) be prepared by a suitably qualified independent person approved by the Director-General;	See above

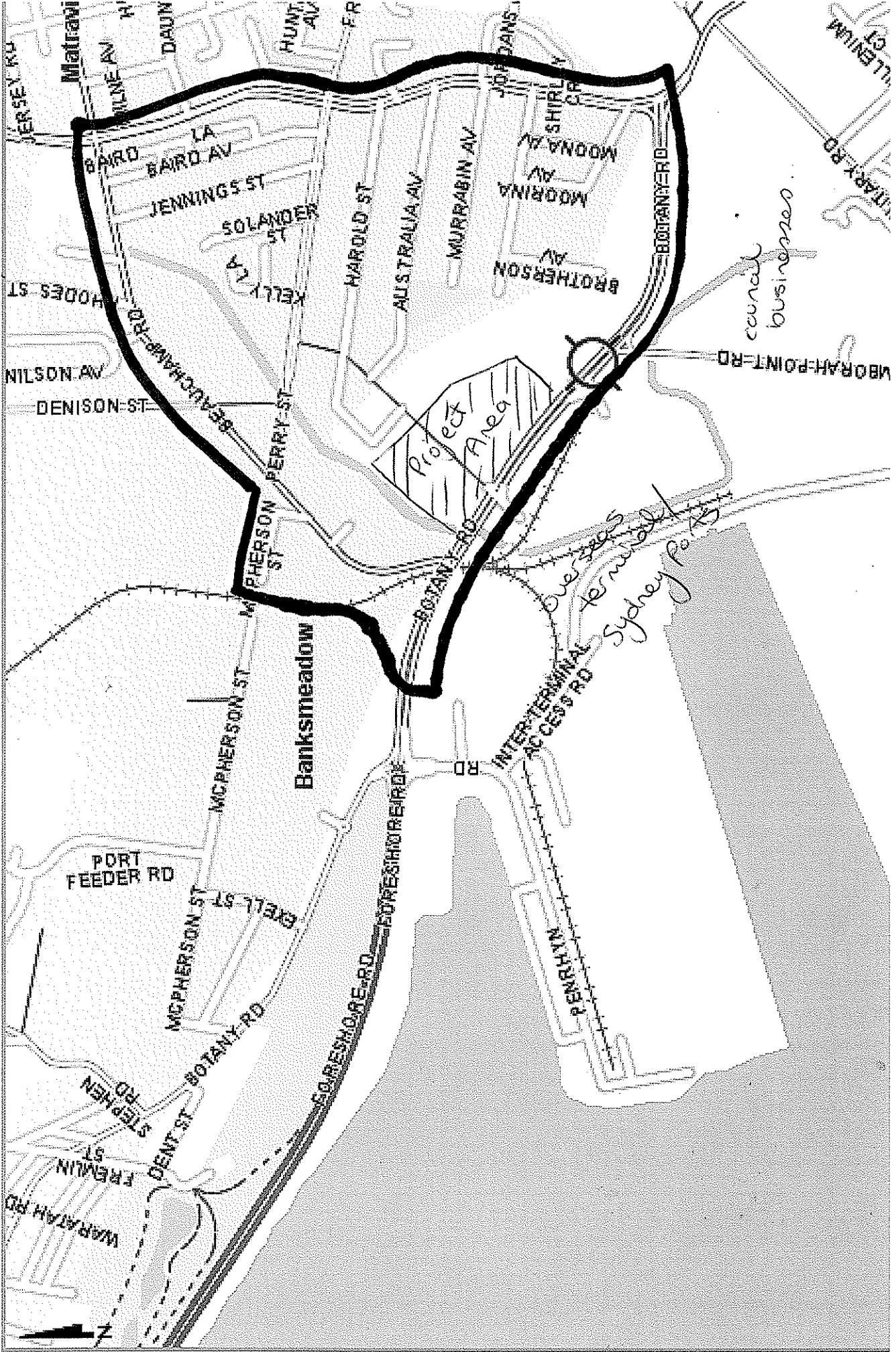
Condition Ref		Condition	
MCoA	24	b) be submitted for approval prior to the commencement of commissioning; and	See above
MCoA	24	c) include a: • Emergency Plan that has been prepared in accordance with Department of Planning's <i>Hazardous Industry Planning Advisory Paper No. 1 – Industry Emergency Planning Guidelines</i> ; and • Safety Management System covering all on-site operations and associated transport activities involving hazardous materials. The Safety Management System shall be developed in accordance with the Department of Planning's <i>Hazardous Industry Planning Advisory Paper No. 9 - Safety Management</i> .	See above
MCoA		WASTE	
MCoA	25	The Proponent shall ensure that all waste generated on the site during demolition, construction and operation of the project is classified in accordance with the <i>DECC's Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes</i> and disposed of to a facility that may lawfully accept the waste.	All waste generated during demolition, construction and operation has been appropriately classified and disposed off.
MCoA	26	The Proponent shall prepare and submit to the Director-General prior to commencement of demolition and construction, a Waste Management Plan including:	A staged Waste Management Plan was prepared, approved by DP&E and implemented during construction
MCoA	26	a) Details of the type and quantity of waste to be generated by demolition, construction, transition and operational phases of the project;	See above
MCoA	26	b) Detail materials to be reused or recycled, either on or off site; and	See above
MCoA	26	c) Procedures for handling, storage, collection of recycling and disposal of waste.	See above
MCoA	27	For the life of the project, the Proponent shall:	The type and quantities of waste generated by the project is monitored - and wherever possible opportunities to minimise waste are implemented
MCoA	27	a) Monitor the amount of waste generated by the project;	See above
MCoA	27	b) Investigate ways to minimise waste generated by the project; and	See above
MCoA	27	c) Implement reasonable and feasible measures to minimise waste generated by the project.	See above
MCoA	27	to the satisfaction of the Director-General.	See above
MCoA		GREENHOUSE GAS	
MCoA		Energy Savings Action Plan	

Condition Ref		Condition	
MCoA	28	The Proponent shall prepare and implement an Energy Savings Action Plan for the project to the satisfaction of the Director-General. This plan must be prepared in accordance with the requirements of the Department of Water and Energy and the <i>Guidelines for Energy Savings Action Plans, DEUS 2005</i> , and be submitted to the Director-General for approval.	An Energy Savings Action Plan was prepared, approved by DP&E and has been implemented.
	28A	The Proponent shall carry out the subdivision in accordance with the Plans of subdivision included in Appendix A	The full subdivision has yet to be implemented and a minor modification to the boundaries of one of the new lots is proposed.
	28B	Prior to the issuing of the subdivision certificate, the Proponent shall ensure that each lot is connected to services drainage and utilities and provide documentary evidence of proposed easements to the accredited certifier or Council	As part of the B9 construction works, required services to the new lots were provided
	28C	Easements for services, drainage and maintenance or any encumbrances and indemnities required for joint or reciprocal use of part or all of the proposed lots of the subdivision must be created over those lots pursuant to the Conveyancing Act 1919	Noted - however full subdivision has yet to be implemented
	28D	All costs associated with the preparation and registration of any covenant or restriction on title, whether directly or indirectly will be borne solely by the Proponent	Noted - however full subdivision has yet to be implemented
MCoA		ENVIRONMENTAL MANAGEMENT AND MONITORING	
MCoA		ENVIRONMENTAL MANAGEMENT STRATEGY	
MCoA	29	The Proponent shall prepare and implement an Environmental Management Strategy for the project, to the satisfaction of the Director-General. This strategy shall be submitted to the Director-General prior to demolition commencing. The plan shall be updated as required throughout construction and must:	A staged Environmental Management Strategy was prepared, approved by DP&E and implemented during construction
MCoA	29 a)	provide the strategic context for environmental management of the project;	See above
MCoA	29 b)	identify the statutory and other obligations that apply to the project;	See above
MCoA	29 c)	describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the project; and	See above

Condition Ref		Condition	
MCoA	29	d) describe the procedures that would be implemented to: • keep the local community and relevant agencies informed about the construction, operation and environmental performance of the project; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise during the course of the project; • respond to any non-compliance; • report on monitoring results; and • respond to emergencies.	See above
MCoA		INDEPENDENT ENVIRONMENTAL AUDIT	
MCoA	30	Within one year of the commencement of operations, and every three years thereafter, unless the Director-General directs otherwise, the Proponent shall commission an Independent Environmental Audit of the project. This audit must:	An Independent Environmental Audit was undertaken in August 2014. However the audit did not totally comply with the requirements of the MCoA. A complying audit is planned for early 2015
MCoA	30	a) be carried out by a suitably qualified, experienced and independent audit team, that contains an odour specialist, noise expert and wastewater specialist, whose appointment has been endorsed by the Director-General;	See above
MCoA	30	b) assess the environmental performance of the project;	See above
MCoA	30	c) assess whether the project is complying with the conditions of both this approval and the EPL for the project;	See above
MCoA	30	d) review the adequacy of any strategy/plan/programme required under this approval, and if necessary, recommend measures or actions to improve the environmental performance, and or any strategy/plan/programme required under this approval; and	See above
MCoA	30	e) include a Hazard Audit in accordance with the Department's <i>Hazardous Industry Planning Advisory Paper No. 5 – Hazard Audit Guidelines</i> .	See above
MCoA	31	Within two months of completing this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, with a response to any recommendations contained in the audit report.	See above
MCoA	32	Within three months of submitting the audit report to the Director-General, the Proponent shall review and if necessary revise the strategies/plans/programs required under this approval.	See above
MCoA		INCIDENT REPORTING	

Condition Ref		Condition	
MCoA	33	Within seven days of detecting an exceedance of the limits/performance criteria in this approval, or an incident causing (or threatening to cause) material harm to the environment, the Proponent shall report the exceedance/incident to the Department, and any relevant agency. The report must:	The only incident to date that has required reporting is the December 2013 fire in the B7 building. Information on this incident has been provided to DP&E - with the action to demolish the building the outcomes.
MCoA	33	a) Describe the date, time, and nature of the exceedance/incident;	See above
MCoA	33	b) Identify the cause (or likely cause) of the exceedance/incident;	See above
MCoA	33	c) Describe what action has been taken to date; and	See above
MCoA	33	d) Describe the proposed measures to address the exceedance/incident.	See above
MCoA		ANNUAL REPORTING	
MCoA	34	Within 12 months of this approval, and annually thereafter, the Proponent shall submit an Annual Environmental Monitoring Report (AEMR) to the Director-General and relevant agencies. This report must:	AEMRs have been submitted for most of the construction period. Orora is currently preparing the AEMRs to cover the outstanding periods and will provide them to DP&E in early 2015
MCoA	34	a) identify the standards and performance measures that apply to the project;	See above
MCoA	34	b) describe the works carried out in the last 12 months;	See above
MCoA	34	c) describe the works that will be carried out in the next 12 months;	See above
MCoA	34	d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years;	See above
MCoA	34	e) include a summary of the monitoring results for the project during the past year;	See above
MCoA	34	f) include an analysis of these monitoring results against the relevant: • impact assessment criteria/limits; • monitoring results from previous years; and • predictions in the EA;	See above
MCoA	34	g) identify any trends in the monitoring results over the life of the project;	See above
MCoA	34	h) identify any non-compliance during the previous year; and	See above
MCoA	34	i) describe what actions were, or are being, taken to ensure compliance.	See above
MCoA		ACCESS TO INFORMATION	
MCoA	35	Subject to confidentiality, the Proponent shall make all documents required under this approval available on a web site.	Ororra has recently demerged from Amcor and are currently working with their new IT department to develop a website to host this information

Appendix B. Map of distribution of community flyer



Appendix C. Noise assessment

Appendix D. Traffic assessment