

# **Environmental Impact Statement**

State Significant Development Application (SSD 9691)

**Warehouse and Distribution Development**  
**Lot 9 DP 1205673**  
**28 McPherson Street, Banksmeadow**



**Prepared for Orica Australia Pty Ltd**  
**Submitted to the Department of Planning, Industry and**  
**Environment**

**March 2020**

## Certification of Environmental Impact Statement

### Authors

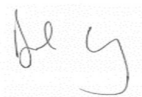
|                |                                                     |
|----------------|-----------------------------------------------------|
| Name           | Dan Keary                                           |
| Qualifications | BSc MURP MPIA                                       |
| Name           | Michael Woodland                                    |
| Qualifications | BTP NSW                                             |
| Name           | Brent Devine                                        |
| Qualifications | BAppSc                                              |
| Address        | Suite 2, Level 1<br>1 Rialto Lane<br>Manly NSW 2095 |

### Proposed development

|                      |                                                                                                                                                       |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant            | Orica Australia Pty Ltd                                                                                                                               |
| Applicant's address  | Level 2, 1 Nicholson Street<br>East Melbourne VIC 3002                                                                                                |
| Land to be developed | 28 McPherson Street, Banksmeadow                                                                                                                      |
| Legal description    | Lot 9 DP 1205673                                                                                                                                      |
| Project description  | Staged construction of two warehouse and distribution buildings, associated offices and hardstand/car parking areas on an elevated concrete platform. |

### Declaration

We certify that the contents of the Environmental Impact Statement, to the best of our knowledge, has been prepared in accordance with the requirements of clauses 6 and 7 of Schedule 2 of *Environmental Planning and Assessment Regulation 2000*; contains all available information that is relevant to the assessment of the development and that to the best of our knowledge the information contained in this report is neither false nor misleading.



Dan Keary BSc MURP MPIA  
Director  
KEYLAN Consulting Pty Ltd



Michael Woodland BTP  
Director  
KEYLAN Consulting Pty Ltd

March 2020

## Contact



Dan Keary  
 Director  
 E: [dan@keylan.com.au](mailto:dan@keylan.com.au)

Michael Woodland  
 Director  
 E: [michael@keylan.com.au](mailto:michael@keylan.com.au)

Cover image: Proposed Warehouse and Distribution Facility in Banksmeadow (Source: Axis Architectural)

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| Revision | Date Issued | Reviewed by | Approved by | Date approved | Revision Type |
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| 1        | 8.02.2019   | Dan Keary   | N/A         | N/A           | Draft         |
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| 3        | 15.03.2019  | Dan Keary   | Dan Keary   | 15.03.2019    | Final         |
| 4        | 23.03.20    | Dan Keary   | N/A         | N/A           | Revision      |

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| Appendix N  | Construction Waste Management Plan         |
| Appendix O  | Operational Waste Management Plan          |
| Appendix P  | Community Newsletter – December 2018       |

## List of Abbreviations

|                 |                                                                             |
|-----------------|-----------------------------------------------------------------------------|
| AEP             | Annual Exceedance Probability                                               |
| Applicant       | Orica Australia Pty Ltd                                                     |
| AQIA            | Air Quality Impact Assessment                                               |
| AQMS            | Air Quality Monitoring Station                                              |
| BBLEP 2013      | Botany Bay Local Environmental Plan 2013                                    |
| BDAR            | Biodiversity Development Assessment Report                                  |
| BGCP            | Botany Groundwater Clean-up Project                                         |
| BIP             | Botany Industrial Park                                                      |
| CBD             | Central Business District                                                   |
| CER             | Civil Engineering Report                                                    |
| CIV             | Capital Investment Value                                                    |
| CLM Act         | <i>Contaminated Land Management Act 1997</i>                                |
| CTMP            | Construction Traffic Management Plan                                        |
| CWMP            | Construction Waste Management Plan                                          |
| DP&E            | Department of Planning and Environment                                      |
| EIE             | Explanation of Intended Effects                                             |
| EIS             | Environmental Impact Statement                                              |
| EP&A Act        | <i>Environmental Planning and Assessment Act 1979</i>                       |
| EP&A Regulation | <i>Environmental Planning and Assessment Regulation 2000</i>                |
| EPBC Act        | <i>Environment Protection and Biodiversity Conservation Act 1999</i>        |
| EPI             | Environmental Planning Instrument                                           |
| ESCP            | Erosion and Sediment Control Plan                                           |
| ESD             | Ecologically Sustainable Development                                        |
| FERP            | Flood Emergency Response Plan                                               |
| FIA             | Flood Impact Assessment                                                     |
| GTP             | Groundwater Treatment Plant                                                 |
| HIPAP           | Hazardous Industry Planning Advisory Paper No 10 – Land Use Safety Planning |
| HRA             | Hazards and Risk Assessment                                                 |
| ICNG            | Interim Construction Noise Guideline                                        |
| LGA             | Local Government Area                                                       |
| LoS             | Level of Service                                                            |
| LSPS            | Local Strategic Planning Statement                                          |
| LUSS            | Land Use Safety Study                                                       |
| NPI             | Noise Policy for Industry                                                   |
| NVIA            | Noise and Vibration Impact Assessment                                       |
| OWMP            | Operational Waste Management Plan                                           |
| PMF             | Probable Maximum Flood                                                      |
| QRA             | Quantitative Risk Assessment                                                |
| RAP             | Remedial Action Plan                                                        |
| SEARs           | Secretary's Environmental Assessment Requirements                           |
| SEPP            | State Environmental Planning Policy                                         |
| SRI             | Scaled Risk Integral                                                        |
| SSD             | State significant development                                               |
| TAG             | Travel Access Guide                                                         |
| TIA             | Traffic Impact Assessment                                                   |
| WTP             | Workplace Travel Plan                                                       |



## Executive Summary

This Environmental Impact Statement (EIS) has been prepared by Keylan Consulting Pty Ltd (Keylan) on behalf of Orica Australia Pty Ltd (the Applicant) to support a State significant development (SSD) application for a warehouse and distribution facility at 28 McPherson Street, Banksmeadow in the Bayside local government area (LGA).

The development meets the criteria of SSD under Schedule 1, clause 12(1) of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP) as it involves development that has a capital investment value (CIV) of more than \$50 million for the purpose of warehouse or distribution centre (including container storage facilities) at one location and related to the same operation.

The EIS has been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs) issued by the Department of Planning, Industry and Environment (DPIE) on 14 December 2018 and in accordance with Schedule 2, Part 3 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation). The EIS should be read in conjunction with the appended supporting information and plans.

The Minister for Planning and Public Spaces is the consent authority for the application.

### The site and locality

The site is located at 28 McPherson Street, Banksmeadow in the Bayside LGA and is legally described as Lot 9 DP 1205673. The site forms part of a broader 18.3 hectare (ha) industrial estate formerly referred to as the 'Southlands' industrial estate.

The site comprises an area of approximately 4.1 ha and is located approximately 9 kilometres (km) south of the Sydney central business district, 4 km south-east of Sydney Airport and 400 metres (m) north of Port Botany.

The site is irregularly shaped and is generally flat with a minor slope from the north and south to the centre of the site. The site has been highly disturbed as a result of major earthworks activities (undertaken as part of previous development approvals) to prepare the site as a flood detention basin for the surrounding industrial lands. Due to the previous earthwork activities the site is now cleared of any significant vegetation.

The site is located within an established industrial area that includes a variety of warehousing and distribution developments and is positioned in close proximity to the Botany Industrial Park (BIP), located to the north-east of the site and Port Botany located to the south.

### The proposal

The proposal involves the staged construction of a warehouse and distribution facility on an elevated concrete platform above the flood storage area below. Key components of the development include:

- an elevated concrete platform to support buildings and hardstand areas with a minimum clearance height of 2.5 m above the flood storage area below;
- two warehouse buildings with a combined gross floor area (GFA) of 19,780 m<sup>2</sup> and each with a maximum building height of 13.7 m;
- two ancillary offices with a combined GFA of 2,000 m<sup>2</sup>;
- a combined 117 car parking spaces; and

- landscaping works within easements along the site boundary.

The development will be constructed in two stages:

- Stage 1 involves the construction of the elevated concrete deck. This allows the issuance of a Section A Site Audit Statement by the accredited Environment Protection Authority (EPA) site auditor once the deck is place.
- Stage 2 involves the construction of the warehouse/industrial buildings and associated hardstand areas on the deck.

The warehouse buildings will be used for the storage and distribution of general merchandise including goods arriving from Port Botany. Vehicle access to the site will be provided via McPherson Street.

### **Permissibility**

The site is located on land zoned IN1 General Industrial under *State Environmental Planning Policy (Three Ports) 2013* (Three Ports SEPP).

'Warehouse or distribution centres' and 'office premises' are permissible with consent in the IN1 General Industrial zone.

### **Strategic context**

The development demonstrates strategic merit as it is consistent with the aims and objectives of the following strategic plans:

- *Greater Sydney Region Plan*
- *Eastern City District Plan*
- *Bayside Local Strategic Planning Statement*
- *Future Transport Strategy 2056*
- *Botany Bay Planning Strategy 2031*

Strategic justification for the proposal is further outlined in Section 6 of this EIS.

### **Statutory context**

The relevant statutory requirements that relate to the development, including environmental planning instruments (EPIs) and other planning and environmental policies are addressed at Section 7 of the EIS. The following legislation is addressed:

- *Environmental Planning and Assessment Act 1979*
- *Environmental Planning and Assessment Regulation 2000*
- *Biodiversity Conservation Act 2016*
- *Contaminated Land Management Act 1997*
- *Roads Act 1993.*

Section 7 of the EIS also addresses the following EPIs that relate to the development:

- *State Environmental Planning Policy (State and Regional Development) 2011*
- *State Environmental Planning Policy (Three Ports) 2013*
- *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development*
- *State Environmental Planning Policy No. 55 – Remediation of Land*

- *State Environmental Planning Policy No. 64 – Advertising and Signage*
- *State Environmental Planning Policy (Infrastructure) 2007*
- *Draft State Environmental Planning Policy (Remediation)*
- *Draft State Environmental Planning Policy (Environment).*

### **Environmental assessment**

A detailed assessment of the potential environmental impacts of the proposal is contained in Section 8. A summary of the conclusions made regarding potential environmental impacts is provided below.

#### ***Built form***

The proposed bulk, height and scale of the development is consistent with the prevailing built form character of the surrounding IN1 General Industrial zone which includes similar bulky goods and warehouse facilities.

Both warehouse buildings will be constructed to a maximum height of 13.7 m above the platform floor level and to a maximum height of 17.2 m above the existing ground level. The warehouse buildings will be constructed of colorbond steel wall cladding with matching trims.

Landscaping is proposed along each boundary of the site and is to incorporate a variety of native trees, shrubs and grasses to soften the appearance of the facility. The site is located approximately 1 km from the nearest residential area and will not result in significant visual impacts or obstruction of scenic views.

Architectural plans for the development are included at Appendix D.

#### ***Flooding***

The site acts as a compensatory flood storage/detention basin for the broader industrial estate (formerly referred to as ‘Southlands’ and approved as part of major project MP 06\_0191). The site is therefore subject to restrictions on title prohibiting future development unless the site’s flood storage detention is maintained.

Flood modelling was undertaken for a range of flood events up to the Probable Maximum Flood (PMF) with consideration given to potential impacts on flood behaviour as a result of the elevated concrete platform proposed to sit above the flood storage area below.

While the site is typified by significant flood depths during major rainfall and storm events (with low velocities), the flood modelling determined that the development would have a negligible impact on the existing peak water depths and velocities at the site and immediate surrounding area. Further, all habitable and hardstand areas of the development will be free of inundation for a full range of flood events up to the PMF.

A Flood Impact Assessment (FIA) which includes a Flood Emergency Response Plan (FERP) for the site is provided at Appendix F.

#### ***Contamination***

Previous investigations and extensive remediation of contamination hotspots have been carried out at the site and throughout the broader industrial estate formerly referred to as ‘Southlands’. Notwithstanding, remediation/management is further required to enable the site to be used for its intended commercial/industrial use including remediation works to

address issues relating to asbestos in fill material; ground gases (carbon dioxide); and potential vapour intrusion of volatile chlorinated hydrocarbons.

The elevated concrete slab proposed as part of the development will create a large open void beneath the warehouse and hardstand areas and will allow for passive ventilation for gas mitigation.

The EIS includes a Remediation Action Plan (RAP) at Appendix G. The RAP ensures the site can be made suitable for the proposed commercial/industrial land use, subject to the successful implementation of all mitigation measures for the site.

The EIS also includes a Section B Site Audit Statement and Site Audit Report, prepared by an accredited Site Auditor at Appendix G1 and Appendix G2, respectively. The Site Audit Report finds that, should the subject site be remediated and managed in accordance with the RAP and the conditions listed as part of the Site Audit Statement, it can be made suitable for future commercial and industrial use.

### ***Hazards and risk***

The development does not involve the storage or handling of hazardous materials or dangerous goods and therefore will not exceed the relevant risk screening thresholds under *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development*. The application therefore does not trigger the requirement for a Preliminary Hazard Analysis.

An assessment of risks relating to the Botany Industrial Park (BIP) was undertaken using the most recent Quantitative Risk Assessment (QRA) model for the BIP (Sherpa Consulting, 2018) and against the criteria outlined under the NSW land use planning risk criteria provided under the *Hazardous Industry Planning Advisory Paper No 10 – Land Use Safety Planning*.

The assessment determined that the individual fatality risk posed by the BIP at the site is outside of the 0.5 in a million per year risk contour. Societal risk was also assessed, having considered the cumulative and incremental societal risk from the proposed development. The assessment determined that the development would have very little impact on the overall societal risk from the BIP.

A Hazards and Risk Assessment (HRA) is included at Appendix H.

### ***Traffic and transport***

Primary access to the site will be via McPherson Street which connects to Hills Street to the west of the site with further connection to the broader road network via Botany Road and Foreshore Road.

The development is expected to generate up to 113 vehicle movements per hour during the AM peak period and up to 122 vehicle movements per hour during the PM peak period. Traffic distribution was modelled using SIDRA for both the existing (base case) conditions and future (developed site) conditions at key intersections in proximity to the site.

Under future (developed) conditions, all intersections continue to maintain a Level of Service (LoS) 'A' or 'B', except for the intersection of Botany Road / Foreshore Road / Penrhyn Road which decreases from a LoS 'B' to LoS 'C' during both the AM and PM peak periods. Despite the reduction in LoS, this intersection maintains an acceptable overall standard.

In terms of the average intersection delay, a minor increase of 1 to 5 seconds delay would be experienced at most surrounding intersections which is considered a negligible overall impact.

The traffic modelling undertaken as part of the EIS demonstrates that all intersections will continue to maintain an acceptable LoS and operate in a safe and efficient manner.

A total of 117 car parking spaces are proposed as part of the development including two accessible spaces. The car parking provision complies with the minimum required car parking rate outlined in the Botany Bay Development Control Plan 2013.

A Traffic Impact Assessment (TIA) is included at Appendix I.

### ***Infrastructures and services***

Stormwater modelling using the MUSIC model has been undertaken as part of the EIS. The MUSIC model indicates that the stormwater treatment train will result in pollutant load reductions that will meet the requirements of the Botany Bay Development Control Plan 2013.

The EIS has considered the provision of services to the site including potable water, waste water, electricity and communications. A Civil Engineering Report (CER) is included at Appendix K which confirms the site capable of being serviced by existing and future infrastructure.

### ***Biodiversity***

The site has an extensive history of modification and disturbance including significant bulk earthworks activities that have prepared the site for its current use as a flood detention basin (carried out under separate approval). Consequently, no remnant native vegetation remains on the site. Existing vegetation comprises landscape plantings and/or exotic weed recruitment of previously disturbed areas.

Fauna habitat is generally in a poor condition due to the fragmentation of tree canopies and previous clearing works and disturbances to the site. Targeted surveys were undertaken for the Green and Golden Bell Frog species which did not locate any evidence of the species within the site or on adjacent land.

No threatened species, ecological communities or their habitat listed under the *Biodiversity Conservation Act 2016* would be impacted by the development.

A Biodiversity Development Assessment Report (BDAR) is included at Appendix J.

### ***Noise and vibration***

The site currently experiences industrial noise from surrounding industrial and commercial uses including port-related activities at Port Botany.

Noise management levels have been established for construction of the development to minimise impacts on the nearest residential receivers which are located approximately 1 km from the site. Construction works including the hours of work will be undertaken in accordance with the requirements of the *Interim Construction Noise Guideline* (ICNG).

Noise modelling was carried out to predict the proposed operational noise impacts of the proposal. Operational noise sources will primarily be associated with mechanical plant, operation of the warehouse loading docks and heavy vehicle movements to and from the site. The operational noise sources are consistent with current activities in the surrounding industrial area and are not expected to impact on surrounding sensitive receivers.

No vibration intensive activities are proposed during the operation of the development.

A Noise and Vibration Impact Assessment (NVIA) is included at Appendix L.

### **Air quality**

Air quality impacts are primarily associated with dust emission during construction and operation of the development. The nearest existing commercial and residential receptors are located approximately 30 m and 480 m respectively from the site.

The assessment determined there to be a low risk of adverse dust soiling and a low risk of human health impacts during construction of the development. A range of mitigation measures are recommended to manage dust emissions during construction works.

During operation of the development, emissions will be of a similar nature to existing emissions from traffic on McPherson Street and nearby Botany Road. Given the scale of proposed on-site operations (storage and warehouse use), there is expected to be neutral air quality impacts as a result of the development on nearby sensitive receptors.

An Air Quality Impact Assessment (AQIA) is included at Appendix M.

### **Waste**

The development has been designed to ensure waste generated during construction and operational phases is minimised and, where practicable, efficient recycling procedures have been applied.

Each warehouse will be provided with a sufficient number of bins to allow for effective segregation of wastes and recyclables. Collection services will be provided by a commercial waste contractor with waste to be transported to a licensed recycling or landfill facility.

A Construction Waste Management Plan (CWMP) and Operational Waste Management Plan (OWMP) are included at Appendix N and Appendix O, respectively.

### **Conclusion**

The EIS concludes that the development is justified on the basis that will result in the efficient and effective use of a vacant industrial land parcel to provide much needed warehousing, storage and distribution space that is located close to the Sydney CBD and Port Botany trade corridor.

The development has been designed to ensure that it will operate without impacting on the site's existing flood storage and retention capability and has been designed to ensure habitable floor levels are above the Probable Maximum Flood level for the site.

An evaluation and assessment of the risks posed by the BIP complex on the proposed development demonstrates that the proposal complies with the risk criteria for development in the vicinity of potentially hazardous facilities.

The conclusions and recommendations provided in the accompanying technical reports confirm the proposal will not have a detrimental impact on the surrounding environment and will not impact on any endangered or threatened species, ecological communities or their habitats.

Further, the EIS demonstrates the development has strategic merit as it is consistent with the aims and objectives of the relevant strategic plans that apply to the site including the Greater Sydney Region Plan and Eastern City District Plan.

# 1 Introduction

## 1.1 Purpose of this Environmental Impact Statement

This Environmental Impact Statement (EIS) supports a State significant development (SSD) application for the construction of a warehouse and distribution facility at 28 McPherson Street, Banksmeadow. The application is lodged under section 4.38 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The development involves the staged construction of an elevated concrete platform above the flood detention basin to support two warehouse buildings and hardstand / parking areas. The warehouse buildings will be used for the storage and distribution of general merchandise including goods arriving from Port Botany.

The proposal is classified as SSD in accordance with *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP). Under Schedule 1, clause 12(1) of the SRD SEPP, development that has a capital investment value (CIV) of more than \$50 million for the purpose of warehouses or distribution centres (including container storage facilities) at one location and related to the same operation, is considered to be SSD.

The CIV for the project is estimated at \$56,200,000. A quantity surveyors report is included in Appendix B.

## 1.2 Structure of this Environmental Impact Statement

This EIS should be read in conjunction with the supporting information and plans appended to this report. The structure of this EIS is summarised below:

| Section Number | Section Heading                   | Description                                                                                                                             |
|----------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
|                | <b>Executive Summary</b>          | A summary of this report and its key findings.                                                                                          |
| <b>1</b>       | <b>Introduction</b>               | Overview of the EIS, the proposed development and project objectives.                                                                   |
| <b>2</b>       | <b>Site Analysis</b>              | Description of the site and surrounding development.                                                                                    |
| <b>3</b>       | <b>Development Description</b>    | Description of the project and consultation undertaken with key stakeholders.                                                           |
| <b>4</b>       | <b>Strategic Justification</b>    | Need for the proposal and strategic framework.                                                                                          |
| <b>5</b>       | <b>Consultation</b>               | Identifies consultation activities that has been carried out during preparation of the EIS with the community and government agencies.  |
| <b>6</b>       | <b>Strategic Planning Context</b> | Identifies the key strategic plans that relate to the site and the development.                                                         |
| <b>7</b>       | <b>Statutory Planning Context</b> | Identifies the key legislation that relate to the site and the development.                                                             |
| <b>8</b>       | <b>Environmental Assessment</b>   | Identifies key activities, provides an assessment of potential impacts on the environment and includes recommended mitigation measures. |
| <b>9</b>       | <b>Conclusion</b>                 | A summary of the key findings.                                                                                                          |

Table 1: Structure of the EIS



### 1.3 Secretary's Environmental Assessment Requirements

This EIS has been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs) issued by the NSW Department of Planning, Industry and Environment (DPIE) on 14 December 2018 (SSD 9691).

The SEARs and where they are addressed in this EIS are set out in Table 2 below.

| Environmental Assessment Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | EIS Reference                        | Supporting Documentation |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------|
| <b>General Requirements</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                      |                          |
| The environmental impact statement (EIS) must be prepared in accordance with, and meet the minimum requirements of, clauses 6 and 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i> (the Regulation).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                      |                          |
| In addition, the EIS must include: <ul style="list-style-type: none"> <li>a detailed description of the development, including: <ul style="list-style-type: none"> <li>the need for the proposed development</li> <li>justification for the proposed development</li> <li>likely staging of the development</li> <li>likely interactions between the development and existing, approved and proposed operations in the vicinity of the site</li> <li>plans of any proposed building works</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                   | Section 2.4, Section 3 and Section 4 | <b>Appendix D</b>        |
| <ul style="list-style-type: none"> <li>consideration of all relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Section 7.6                          | N/A                      |
| <ul style="list-style-type: none"> <li>a risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Section 8                            | N/A                      |
| <ul style="list-style-type: none"> <li>a detailed assessment of the key issues specified below, and any other significant issues identified in this risk assessment, which includes: <ul style="list-style-type: none"> <li>a description of the existing environment, using sufficient baseline data</li> <li>an assessment of the potential impacts of all stages of the development, including any cumulative impacts, taking into consideration relevant guidelines, policies, plans and statutes</li> <li>a description of the measures that would be implemented to avoid, minimise, mitigate and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/ or contingency plans to manage significant risks to the environment</li> </ul> </li> </ul> | Section 8                            | N/A                      |
| <ul style="list-style-type: none"> <li>a consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Section 8 and Section 9              | N/A                      |
| The EIS must also be accompanied by a report from a qualified quantity surveyor providing: <ul style="list-style-type: none"> <li>a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                               | N/A                                  | <b>Appendix A</b>        |

| Environmental Assessment Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | EIS Reference                                         | Supporting Documentation |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--------------------------|
| <ul style="list-style-type: none"> <li>The report shall be prepared on company letterhead and indicate applicable GST component of the CIV</li> <li>an estimate of jobs that will be created during the construction and operational phases of the proposed development</li> <li>certification that the information provided is accurate at the date of preparation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                       |                          |
| <b>Key Issues</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                       |                          |
| <b>Statutory and Strategic Context</b> – including: <ul style="list-style-type: none"> <li>detailed justification that the proposed land use is permissible</li> <li>details of any proposed consolidation or subdivision of land</li> <li>a description of how the proposal complies with the land restrictions contained within the section 88B(E) public covenant instrument for the land pursuant to the Conveyancing Act 1919</li> <li>a description of how the proposal is consistent with the relevant requirements of the project approval for the Orica Southlands Remediation and Warehouse Project (MP_06_0191) (as modified)</li> <li>demonstration that the proposal is consistent with all relevant planning strategies, environmental planning instruments, adopted precinct plans, draft district plan(s) and adopted management plans and justification for any inconsistencies. The following must be addressed:               <ul style="list-style-type: none"> <li>State Environmental Planning Policy (Three Ports) 2013</li> <li>Greater Sydney Region Plan: A Metropolis of Three Cities</li> <li>Our Greater Sydney 2056: Eastern City District Plan</li> <li>Future Transport Strategy 2056.</li> </ul> </li> </ul> | Section 2.4.1, Section 2.4.3, Section 6 and Section 7 | Appendix C               |
| <b>Suitability of the Site</b> – including: <ul style="list-style-type: none"> <li>an analysis of site constraints, such as hazard and risk, flooding impacts and road access to the site</li> <li>a detailed justification that the site is suitable for the scale of the proposal and any constraints identified, having regard to the sites surrounds and the potential contamination, flooding and hazard impacts</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Section 2 and Section 4                               | N/A                      |
| <b>Community and Stakeholder Engagement</b> – including: <ul style="list-style-type: none"> <li>a detailed community and stakeholder participation strategy which identifies who in the community has been consulted and a justification for their selection, other stakeholders consulted and the form(s) of consultation, including a justification for this approach</li> <li>a report on the results of the implementation of the strategy including issues raised by the community and surrounding land owners and occupiers that may be impacted by the proposal</li> <li>details of how issues raised during community and stakeholder consultation have been addressed and whether they have resulted in changes to the proposal</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Section 5                                             |                          |

| Environmental Assessment Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | EIS Reference | Supporting Documentation       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------|
| <ul style="list-style-type: none"> <li>details of the proposed approach to future community and stakeholder engagement based on the results of consultation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                                |
| <b>Hazards and risk</b> – including: <ul style="list-style-type: none"> <li>a preliminary risk screening completed in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development and Applying SEPP 33 (DoP, 2011), with a clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the development. Should preliminary screening indicate that the development is "potentially hazardous," a Preliminary Hazard Analysis (PHA) must be prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis (DoP, 2011) and Multi-Level Risk Assessment (DoP, 2011)</li> <li>an evaluation and assessment of the risks posed by the Botany Industrial Park complex on the development and demonstrate that the development complies with the risk criteria for development in the vicinity of potentially hazardous facilities published in Hazardous Industry Planning Advisory Paper No. 10 – Land Use Safety Planning (DoP, 2011). The assessment must be undertaken in consultation with BIP, must be based on the most recently available data and must demonstrate that the development would not result in any increase of the overall societal risk in the area</li> <li>address all relevant recommendations published in Botany-Randwick Industrial Area Land Use Safety Study (DUAP 2001)</li> </ul> | Section 8.4   | <b>Appendix H</b>              |
| <b>Flooding</b> – a detailed hydrological and hydraulic assessment which includes the following: <ul style="list-style-type: none"> <li>a comprehensive assessment of the impact of flooding on the development for the full range of flood events up to the probable maximum flood.</li> <li>an assessment of the impacts of the development on flood behaviour (i.e. levels, velocities and duration of flooding) and on adjacent, downstream and upstream areas</li> <li>details of proposed floor levels for all proposed habitable structures on the site having considered the full range of flood events up to the probable maximum flood</li> <li>an emergency response plan for the site, which includes consideration of site accessibility, a flood-free access to and from the</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Section 8.2   | <b>Appendix F</b>              |
| <b>Contamination</b> – including: <ul style="list-style-type: none"> <li>assessment of the extent and nature of any contamination of the soil, groundwater and soil vapour including the potential risks to human health and the environmental receptors near the site</li> <li>a remediation action plan (RAP) detailing the measures that will be undertaken to remediate and manage any contamination identified at the site</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Section 8.3   | <b>Appendices G, G1 and G2</b> |

| Environmental Assessment Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | EIS Reference | Supporting Documentation |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------|
| <ul style="list-style-type: none"> <li>the engagement of a Site Auditor accredited under the <i>Contaminated Land Management Act 1997</i> NSW Site Auditor Scheme</li> <li>a Section B Site Audit Statement and Site Audit Report prepared by a NSW Site Auditor, certifying site suitability for the intended use subject to the implementation of an appropriate RAP</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                          |
| <b>Traffic and Transport</b> – including: <ul style="list-style-type: none"> <li>a Traffic Impact Assessment prepared in accordance with relevant guidelines</li> <li>details of all daily and peak traffic and transport movements likely to be generated by the development including the impact on the nearby intersections and the need/associated funding for the upgrading or road improvements works (if required)</li> <li>impacts on the safety and capacity of the surrounding road network and access points, using SIDRA or similar modelling, to assess impacts from current traffic counts and cumulative traffic from existing and proposed development</li> <li>demonstrate that sufficient loading/unloading, car parking and pedestrian and cyclist facilities have been provided for the development</li> <li>details and a justification of access to, from and within the site (vehicular and pedestrian)</li> <li>details of road upgrades, new roads or access points required for the development, if necessary</li> </ul> | Section 8.5   | <b>Appendix I</b>        |
| <b>Soils and Water</b> – including: <ul style="list-style-type: none"> <li>a description of the water demands and a breakdown of water supplies, including a detailed site water balance</li> <li>identification of any water licensing requirements under the <i>Water Act 1912</i> or <i>Water Management Act 2000</i></li> <li>details of proposed erosion and sediment controls during construction</li> <li>an assessment of potential impacts on surface and groundwater resources, drainage patterns, soil (stability, salinity and acid sulfate soils), related infrastructure, watercourses and riparian land and proposed mitigation, management and monitoring measures</li> </ul>                                                                                                                                                                                                                                                                                                                                                      | Section 8.7   | <b>Appendix K</b>        |
| <b>Infrastructure Requirements</b> – including: <ul style="list-style-type: none"> <li>a detailed written and/or graphical description of infrastructure required on the site</li> <li>identification of any infrastructure upgrades required off-site to facilitate the development, and describe any arrangements to ensure that the upgrades will be implemented in a timely manner and maintained</li> <li>detailed design plans to demonstrate the development will allow safe heights under the floor slab of the warehouse, to allow for access and maintenance and installation of service</li> <li>an infrastructure delivery and staging plan, including a description of how infrastructure on and off-site will be co-ordinated and funded to ensure it is in place prior to the commencement of construction</li> </ul>                                                                                                                                                                                                               | Section 8.7   | <b>Appendix K</b>        |

| Environmental Assessment Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                            | EIS Reference | Supporting Documentation  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------|
| <ul style="list-style-type: none"> <li>an assessment of the impacts of the development (construction and operation) on existing infrastructure surrounding the site</li> <li>consideration of the <i>Civil Aviation (Buildings Control) Regulation 1988</i> (Cwth)</li> </ul>                                                                                                                                                                                                                   |               |                           |
| <b>Biodiversity</b> – including: <ul style="list-style-type: none"> <li>an assessment of the proposal's biodiversity impacts in accordance with the <i>Biodiversity Conservation Act 2016</i>, including the preparation of a Biodiversity Development Assessment Report (BDAR) where required under the Act, except where a waiver for preparation of a BDAR has been granted</li> </ul>                                                                                                       | Section 8.6   | <b>Appendix J</b>         |
| <b>Urban Design and Visual</b> – including: <ul style="list-style-type: none"> <li>consideration of the layout and design of the development having regard to the surrounding vehicular, pedestrian and cycling networks</li> <li>detailed plans showing suitable landscaping and urban green cover design which incorporates endemic species</li> </ul>                                                                                                                                        | Section 8.1   | <b>Appendices D and E</b> |
| <b>Noise and vibration</b> – including: <ul style="list-style-type: none"> <li>a quantitative noise and vibration impact assessment undertaken by a suitably qualified person in accordance with the relevant Environment Protection Authority guidelines and including an assessment of nearby sensitive receivers</li> <li>cumulative impacts of other developments</li> <li>details of proposed mitigation, management and monitoring measures</li> </ul>                                    | Section 8.8   | <b>Appendix L</b>         |
| <b>Air quality</b> – including: <ul style="list-style-type: none"> <li>an assessment of the air quality impacts (including dust) during the construction and operation of the development, in accordance with the relevant Environment Protection Authority guidelines</li> <li>details of proposed mitigation, management and monitoring measures</li> </ul>                                                                                                                                   | Section 8.9   | <b>Appendix M</b>         |
| <b>Waste</b> – including: <ul style="list-style-type: none"> <li>details of the quantities and classification of all waste streams to be generated on site during the development</li> <li>details of waste storage, handling and disposal during the development</li> <li>details of the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the NSW Waste Avoidance and Resource Recovery Strategy 2014-2021</li> </ul> | Section 8.10  | <b>Appendices N and O</b> |
| <b>Plans and Documents</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               |                           |
| The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Regulation.<br>You should provide these as part of the EIS rather than as separate documents                                                                                                                                                                                                                                                              | Section 3     | <b>Appendix D</b>         |
| <b>Consultation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |                           |
| During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners                                                                                                                                                                                                                                                                                                          | Section 5     | N/A                       |

| Environmental Assessment Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | EIS Reference | Supporting Documentation |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------|
| <p>In particular you must consult with:</p> <ul style="list-style-type: none"> <li>• Bayside Council</li> <li>• Office of Environment and Heritage</li> <li>• Environment Protection Authority</li> <li>• Roads and Maritime Services</li> <li>• Transport for NSW</li> <li>• Department of Industry – Crown Lands and Water</li> <li>• Ausgrid</li> <li>• AirServices Australia</li> <li>• Civil Aviation Safety Authority</li> <li>• Sydney Airport</li> <li>• Sydney Water</li> <li>• surrounding local residents and stakeholders</li> <li>• any other public transport or community service providers</li> </ul> <p>The EIS must describe the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided</p> |               |                          |

Table 2: Secretary's Environmental Assessment Requirements

## 1.4 Project Team

The project team is outlined in Table 3:

| Expertise               | Consultant                           |
|-------------------------|--------------------------------------|
| Urban planning          | Keylan Consulting                    |
| Quantity Surveyor       | Altus Group                          |
| Architect               | Axis Architectural                   |
| Landscape Architect     | Geoscapes                            |
| Civil Engineering       | Costin Roe Consulting                |
| Flooding                | BMT                                  |
| Hazards and Risk        | Sherpa Consulting                    |
| Remediation Action Plan | JBS&G                                |
| Traffic and transport   | Traffix                              |
| Biodiversity            | WSP                                  |
| Noise and vibration     | SLR Consulting Australia             |
| Air Quality             | SLR Consulting Australia             |
| Waste                   | Waste Audit and Consultancy Services |

Table 3: Project team



## 2 Site analysis

### 2.1 Site location

The subject site is located at 28 McPherson Street, Banksmeadow in the Bayside local government area (LGA). The site is legally described as Lot 9 DP 1205673 (Lot 9) and forms part of a broader 18.3 hectare (ha) industrial estate formerly referred to as the 'Southlands' industrial estate.

The site is located approximately 9 kilometres (km) south of the Sydney central business district (CBD), 4 km south-east of Sydney Airport and 400 metres (m) north of Port Botany. The site is within an established industrial location and in proximity to the Botany Industrial Park (BIP).

The site location is shown in Figure 1 and Figure 2.

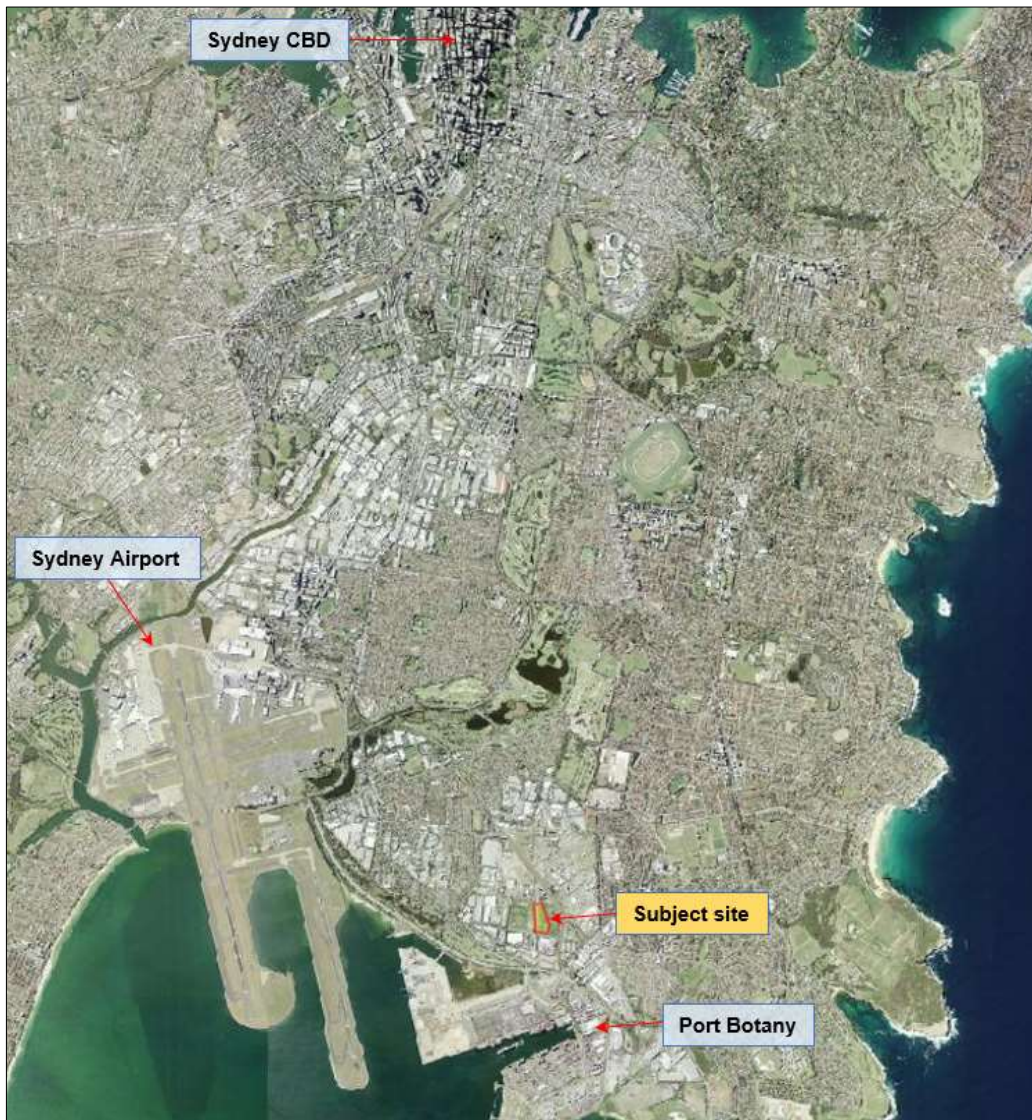


Figure 1: Site location (Base Source: Google)



Figure 2: Site location and surrounding features (Base Source: Google)

## 2.2 Site description

The site is bounded by McPherson Street to the south, Nant Street to the west, the Australian Government Detector Dog Facility to the east and north and a warehouse estate to the east (currently under construction).

The site is irregularly shaped, comprising an area of approximately 4.1 ha and is generally flat with a minor slope from the north and south to the centre of the site.

The site has been highly disturbed as a result of major earthworks activities that were undertaken in 2014 and 2015 (as part of previous development approvals) to prepare the site as a flood storage retention area. Due to the previous earthwork activities, the site is now cleared of any significant vegetation and currently comprises a mixture of new site plantings towards to the southern site boundary (along McPherson Street), grasses and exotic weeds.

## 2.3 Surrounding development

The site is located in an established industrial area that includes a variety of warehousing and distribution developments and is positioned in close proximity to the BIP which is located to the north-east of the site. The BIP is a 73 ha estate that provides for major industrial uses including chemical manufacturing.

The broader area is characterised by large-scale warehouses and industrial developments, chemical manufacturing and oil terminals located at Port Botany. The nearest residential development to the site is located approximately 1 km to the east and west and includes the suburbs of Hillsdale, Botany and Matraville.



The surrounding road network includes McPherson Street which is an east-west cul-de-sac road that intersects with Botany Road via the one-way pairing of Hills Street and Exell Street.

Nant Street adjoining the western site boundary is an unsealed road under the ownership of Bayside Council (Council) and provides direct access to the Qenos Tank Farm (located to the north of the site) via McPherson Street. The Port Botany rail line is located approximately 130 m east of the site.

Above-ground groundwater infrastructure including a pipe network and extraction wells that form part of the Botany Groundwater Clean-up Project (BGCP) are located along the southern site boundary, adjacent to McPherson Street.

To the east is a site currently being developed for 8 industrial units comprising 7 warehouses, storage and distribution units and 1 unit to be used as a distillery with associated warehousing storage and distribution. A warehouse facility owned by Goodman is located to the west of the site with two warehouses recently constructed and now operational.

In recent times there have been broader land use changes in the surrounding area including the recent closure of the Mobil terminal to the north, the establishment of the Veolia Waste Facility on the eastern side of the railway line and the recent proposal for a Holcim Concrete Batching Plant on Beauchamp Road.

The site in context to the surrounding locality and adjoining development is shown in Figure 3. Photographs of the site are shown in Figure 4 to Figure 7.

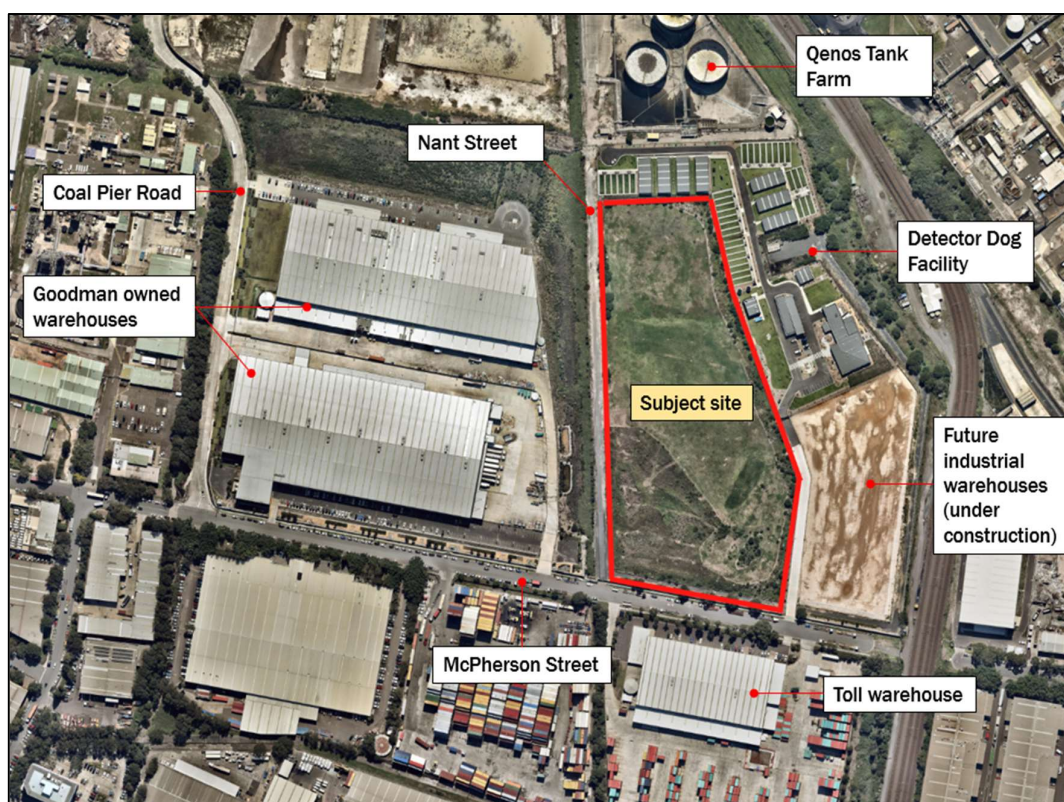


Figure 3: Location of the subject site (Lot 9) (Base source: Nearmap)



Figure 4: View of the site looking north toward the Qenos Tank Farm and Botany Industrial Park  
(Source: Keylan Consulting)



Figure 5: View of the site from the eastern boundary looking west toward the Goodman facility  
(Source: Keylan Consulting)





Figure 6: Nant Street looking north from McPherson Street toward the Qenos Tank Farm with the site located to the right (Source: Keylan Consulting)



Figure 7: Infrastructure associated with the Botany Groundwater Clean-Up Project along the southern site boundary (Source: Keylan Consulting)

## 2.4 Site history

### 2.4.1 Major Project Approval MP 06\_0191

On 16 April 2012, the delegate of the (then) Minister for Planning and Infrastructure granted project approval for the Orica Southlands Remediation & Warehouse Development Project.

Approval was granted for the following works to be carried out across two stages of development:

- site remediation works across the whole site;
- flood mitigation and drainage works;
- staged subdivision;
- establishment of 6 industrial warehouses with ancillary office components;
- traffic improvement works at the intersection of Hills Street and Botany Road; and
- carparking and landscaping works.

The easements approved over Lot 9 as part of MP 06\_0191 are shown at Figure 8.

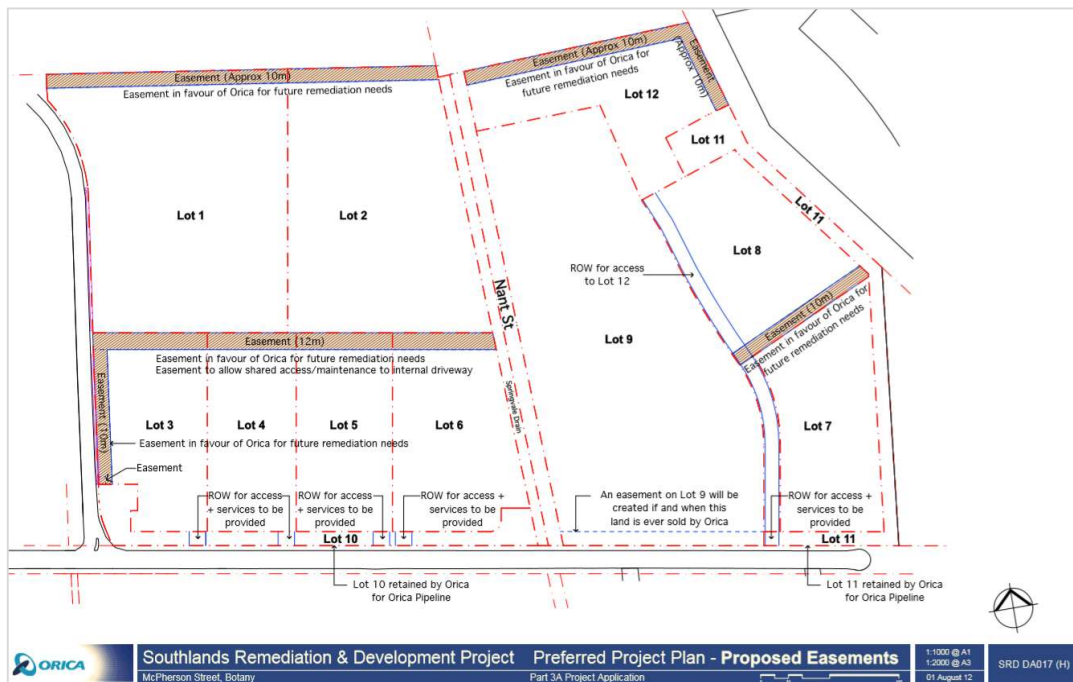


Figure 8: Approved Easements Plan – MP 06\_0191 (Source: Orica)

## 2.4.2 Modifications to MP 06\_0191

The Project Approval for MP 06\_0191 has been modified on four occasions providing approval to a range of minor variations to the original approval. The modifications are described in Table 4.

| Modification No. | Description                                                                                                                                                                                                                                                                                                                                                                                                                    | Approval Date    |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| MOD 1            | <ul style="list-style-type: none"> <li>reconfiguration of the approved flood basin and drainage works;</li> <li>revised subdivision and easement layout;</li> <li>reconfiguration of internal traffic circulation; and</li> <li>relocation of the frog ponds.</li> </ul>                                                                                                                                                       | 14 August 2013   |
| MOD 2            | <ul style="list-style-type: none"> <li>alteration of building footprints and increase in gross floor area;</li> <li>reconfiguration of internal traffic circulation and loading areas; and</li> <li>integration and relocation of car parking areas.</li> </ul>                                                                                                                                                                | 22 April 2015    |
| MOD 3            | <ul style="list-style-type: none"> <li>modifications to Warehouse A including a new truck turning area, reduced car parking spaces, removal of mezzanine storage area and an additional drainage outlet; and</li> <li>modifications to Warehouse B including reduced car parking spaces, changes to the dock office and location of the truck wash area, relocation of the rainwater tank and an additional awning.</li> </ul> | 17 February 2016 |
| MOD 4            | <ul style="list-style-type: none"> <li>new plant/service room within Warehouse A to house an electrical, refrigeration, boiler, air compressor and hot water room.</li> </ul>                                                                                                                                                                                                                                                  | 10 June 2016     |
| MOD 5            | <ul style="list-style-type: none"> <li>Two lot subdivision of Lot 9 with one lot to contain existing infrastructure associated with the Botany Groundwater Clean-up Project (BGCP) and the other to contain a future warehouse and distribution facility (the subject of this application).</li> </ul>                                                                                                                         | Under assessment |

Table 4: Modifications to MP 06\_0191

## 2.4.3 Restriction on the use of land and positive covenant

A Restriction on the Use of Land and Positive Covenant to the benefit of Council is currently in effect for the site (Lot 9 DP 1205673). The Restriction on the Use of Land and Positive Covenant are enforced through a section 88B instrument under the *Conveyancing Act 1919* as required under Condition 15, Schedule 2 of the Major Project approval for MP 06\_0191.

The Restriction on the Use of Land provides that the land owner must not:

- use the land at grade within the easement site for any purpose except the maintenance of the flood detention basin; or
- erect or permit to be erected any permanent structure except with the consent of the Prescribed Authority.

The Positive Covenant requires the landowner to maintain the lot for the purposes of a flood detention basin but is structured in such a way as to allow any uses that are approved by a consent authority and that do not interfere with or affect the maintenance of the site for the purposes of a flood detention basin.

The development is proposed to be constructed upon an elevated concrete platform that will be constructed with a minimum clearance of approximately 2.5 m above the existing flood detention basin below. The development will therefore be designed to ensure no impact on the site's existing flood storage capacity.



### 3 Development description

#### 3.1 Development overview

The development comprises a warehouse and distribution facility including the construction of two warehouse buildings, ancillary office space and hardstand/car parking areas on an elevated concrete platform above the flood storage area below.

The warehouse buildings will be used for the storage and distribution of general merchandise including goods arriving from Port Botany. The development will be constructed across two stages:

- **Stage 1** involves the construction of an elevated concrete platform with a minimum clearance height of 2.5 m above the flood storage area below and supported by a series of timber piers. The platform is designed to ensure the site's capacity as a flood detention basin is maintained and allows for access to services located underneath the platform.

As the development will be constructed on suspended concrete slabs, no bulk earthworks will be required on the site.

Construction of the concrete deck and installation of the timber piers will generally involve the following activities:

- site stripping and grubbing;
- proof rolling and levelling;
- placement of a marker layer;
- staged importation of road base cover;
- stage piling of timber piers at 10 m intervals; and
- formation of the deck on a staged basis.

A minimum height clearance of 2.5 m will be provided underneath the deck to allow for continued access by Orica for any future remedial works that are required to be carried out on the site. Access underneath the deck will be provided via Nant Street with a central easement placed over the site to ensure access arrangements are maintained. Mesh fencing will be provided around the perimeter of the deck to ensure only authorised access is provided underneath.

- **Stage 2** involves the construction of two warehouse structures and ancillary office space, car parking and hardstand areas and landscaping works upon the elevated concrete platform. Access to the site will be provided via a crossover from McPherson Street.

A summary of the development is provided in Table 5.

Figure 9 shows the proposed subdivision of the site (currently under assessment as part of MP 06\_0191 MOD 5) with the warehousing structures to be constructed on future Lot 1. The existing BGCP infrastructure will be contained within future Lot 2. Figure 10 shows the proposed layout of warehousing structures, car parking and hardstand areas on the site.

| Development summary |                                                                                                                                                                                                                                                                  |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stage 1             |                                                                                                                                                                                                                                                                  |
| Concrete Platform   | <ul style="list-style-type: none"> <li>• An elevated concrete platform comprising a total area of 34,130 m<sup>2</sup>. The elevated platform will support the warehouse buildings, hardstand/car parking areas above the flood detention basin below</li> </ul> |

| Development summary                                |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                    | <ul style="list-style-type: none"> <li>The elevated platform will be supported by a grid of timber piles constructed with a minimum clearance height of 2.5 m above the existing ground level to retain the flood retention capability of the basin below.</li> <li>The timber piers will be constructed in a 10 m grid formation and will be driven to a depth of approximately 8 to 10 m below the ground surface.</li> </ul> |
| Stage 2                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Warehouse Building 1 (southern end of site)</b> | <ul style="list-style-type: none"> <li>Total GFA of 11,135 m<sup>2</sup> comprising: <ul style="list-style-type: none"> <li>Warehouse GFA – 10,135 m<sup>2</sup></li> <li>Office GFA (levels 1 and 2) – 1,000 m<sup>2</sup></li> <li>Maximum building height of 13.7 m</li> </ul> </li> </ul>                                                                                                                                   |
| <b>Warehouse Building 2 (northern end of site)</b> | <ul style="list-style-type: none"> <li>Total GFA of 10,645 m<sup>2</sup> comprising: <ul style="list-style-type: none"> <li>Warehouse GFA – 9,645 m<sup>2</sup></li> <li>Office GFA (levels 1 and 2) – 1,000 m<sup>2</sup></li> <li>Maximum building height of 13.7 m</li> </ul> </li> </ul>                                                                                                                                    |
| <b>Warehouse Use</b>                               | <ul style="list-style-type: none"> <li>Delivery and storage of general merchandise</li> <li>Dispatch and distribution of goods</li> <li>Ancillary office administration</li> </ul>                                                                                                                                                                                                                                              |
| <b>Access and Car Parking</b>                      | <ul style="list-style-type: none"> <li>Vehicle access provided via a crossover from McPherson Street</li> <li>59 spaces including 1 disabled space for warehouse building 1</li> <li>58 spaces including 1 disabled space for warehouse building 2</li> </ul>                                                                                                                                                                   |
| <b>Landscaping</b>                                 | <ul style="list-style-type: none"> <li>10 m landscaped buffer along northern and eastern site boundary</li> <li>5 m landscaped buffer along southern site boundary (beyond 10 m setback for services comprising BGCP infrastructure)</li> </ul>                                                                                                                                                                                 |
| <b>Capital Investment Value</b>                    | <ul style="list-style-type: none"> <li>Approximately \$56.2 million.</li> </ul>                                                                                                                                                                                                                                                                                                                                                 |

Table 5: Development summary

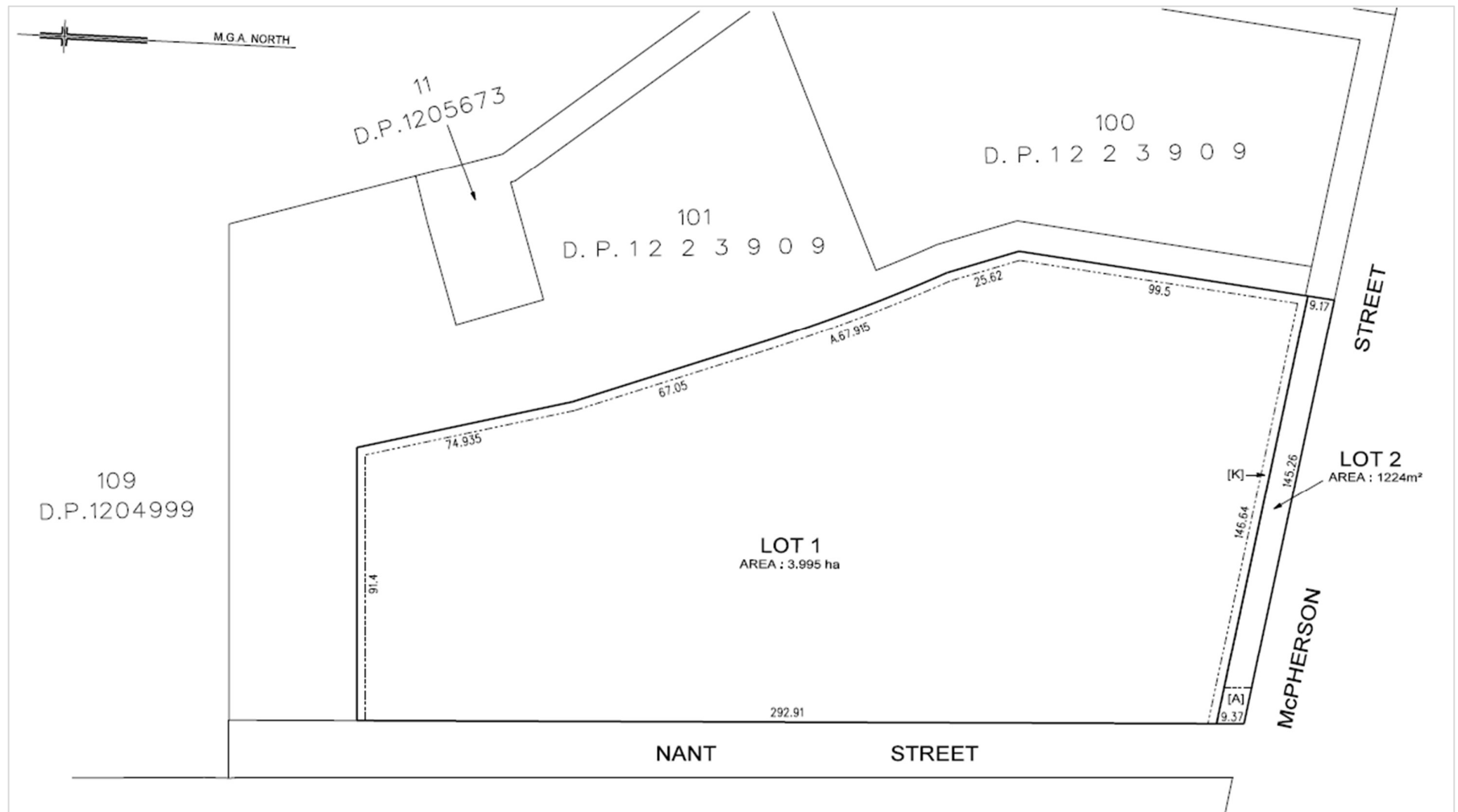


Figure 9: Proposed subdivision plan – subject to MP 06\_0191 MOD 5 (Base source: Gregory Jon Firth Surveyor)

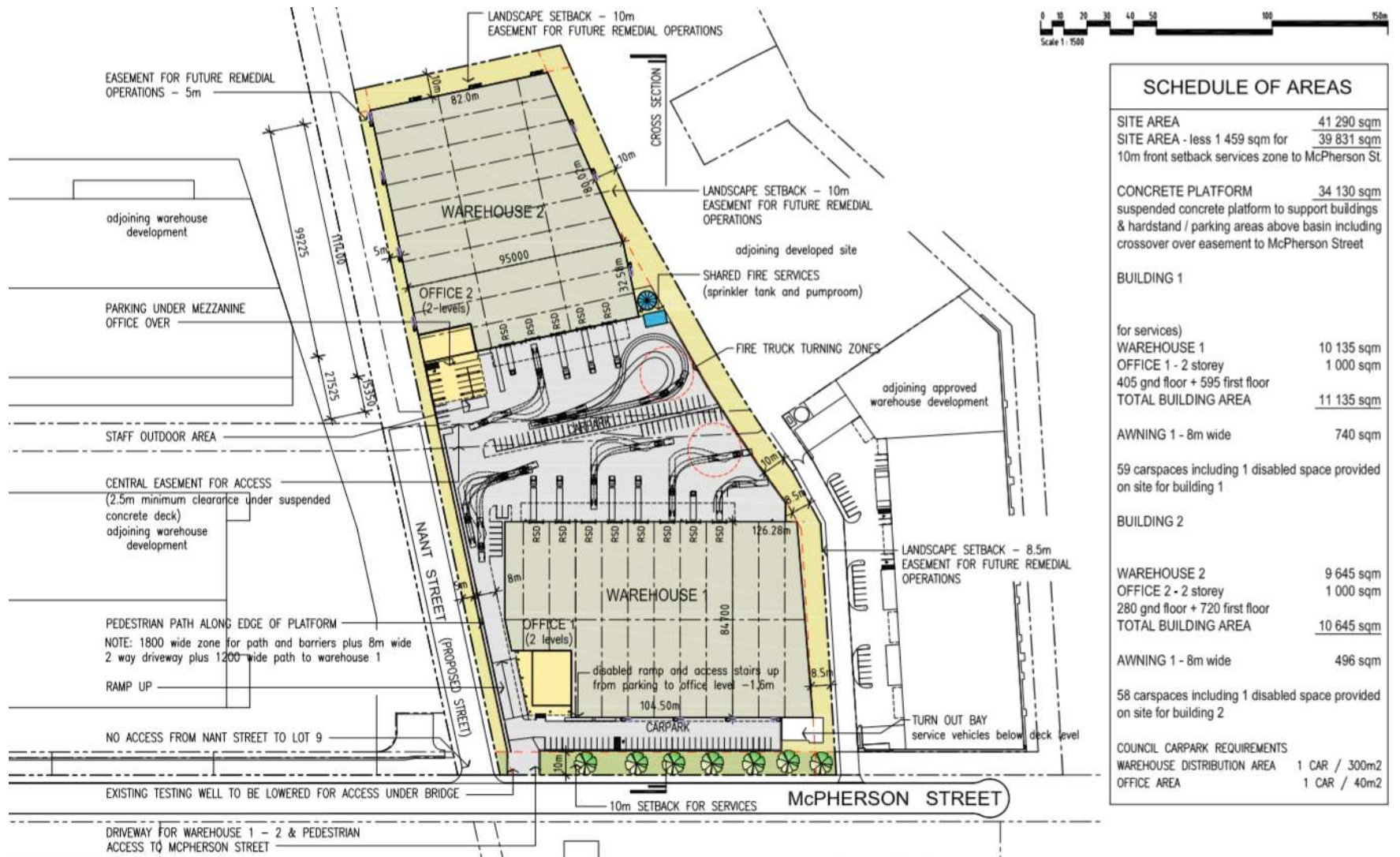


Figure 10: Site plan (Source: Axis Architectural)

### 3.2 Built form

The built form of the development consists of two warehouse structures constructed on an elevated concrete platform that will enable the site to continue to function as a flood detention basin. The concrete platform will cover an area of 34,130 m<sup>2</sup> and sit at a level that archives an approximate 2.5 metre clearance to the existing ground level.

The elevated platform will be supported by a grid of piles constructed with a minimum clearance height of 2.5 m above the existing ground level to retain the flood retention capability of the basin below. The level of the platform also allows for ongoing access underneath the deck for cleaning and maintenance purposes for ongoing access by Orica for future possible remedial works, as required. The elevated concrete platform above the flood storage area will ensure there is no impact on the existing flood regime at the site and the surrounding locality.

Warehouse building 1 fronts McPherson Street and has a front setback of 26 m. The building will comprise a total GFA of 11,1350 m<sup>2</sup> including a 10,135 m<sup>2</sup> warehouse with 1,000 m<sup>2</sup> of ancillary office space. The existing landscaping and footpath along McPherson Street will be maintained.

Warehouse building 2 is located toward the rear of the site and will comprise a total GFA of 10,645 m<sup>2</sup> including a 9,645 m<sup>2</sup> warehouse and 1,000 m<sup>2</sup> of ancillary office space.

Both warehouse buildings will be constructed to a maximum height of 13.7 m above the platform floor level. The ancillary office space within both buildings will be distributed over 2 storeys.

The warehouse buildings will be constructed with colorbond steel wall cladding with matching trims. The roof of both warehouse buildings will comprise translucent and colorbond steel roof sheeting. The office components will be constructed with fibre cement, glazed panels, and aluminium glazed frames. A black mesh fence will wrap the underside of the concrete platform around both buildings.

A photomontage of the proposed development is shown in Figure 11.

Figure 12 and Figure 13 show the proposed elevations for warehouse building 1 and warehouse building 2, respectively.

The built form and visual impact of the development is further considered at Section 8.1 of the EIS.





Figure 11: Photomontage of the warehouse and distribution centre (Base source: Axis Architectural)

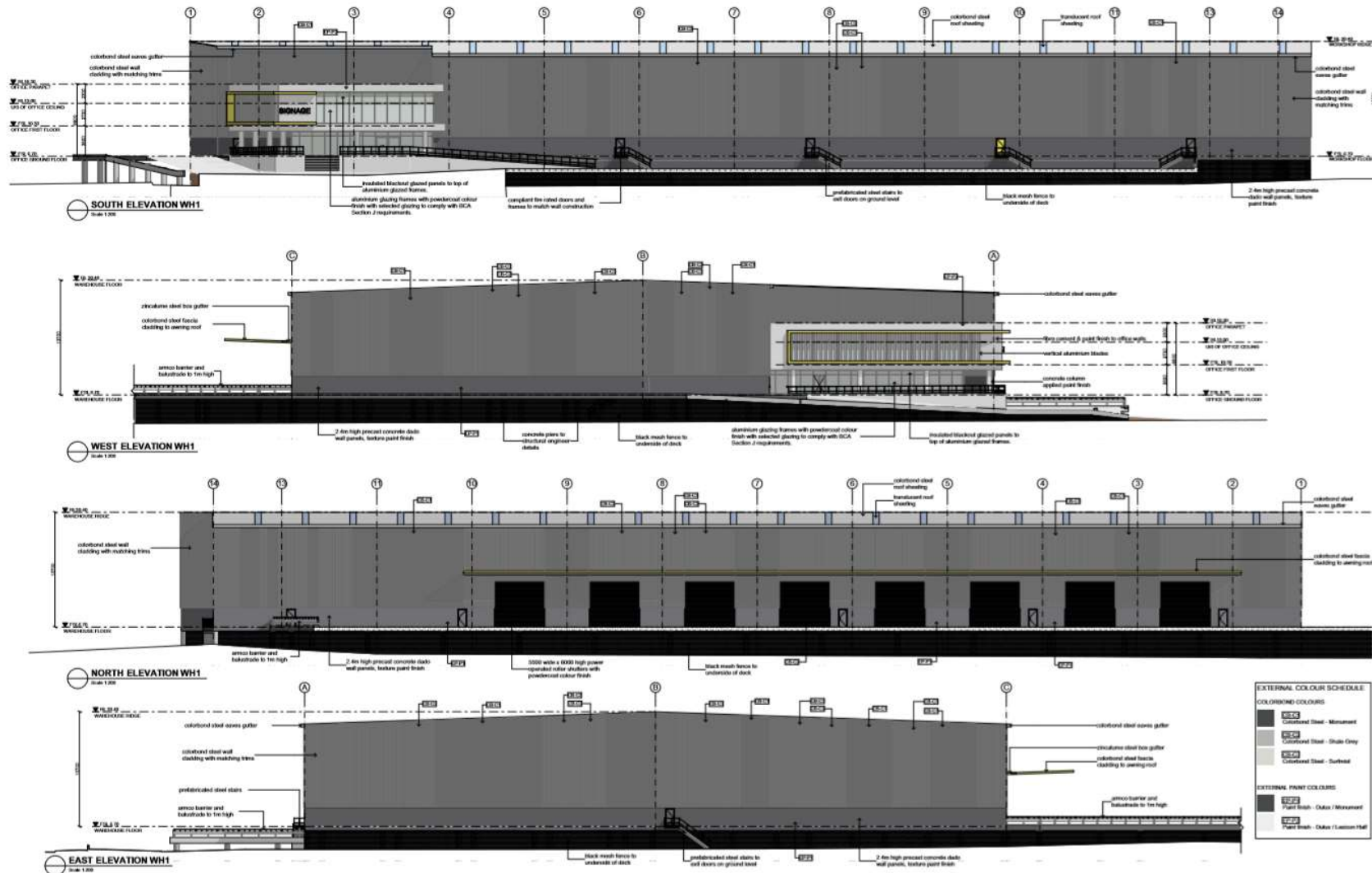


Figure 12: Building elevations – Warehouse 1 (Source: Axis Architectural)



Figure 13: Building elevations – Warehouse 2 (Source: Axis Architectural)

### 3.3 Access and car parking

Vehicle access to the site is provided from McPherson Street.

Warehouse building 1 will have 59 allocated car parking spaces (including 1 disabled space). Warehouse building 2 will have 58 allocated car parking spaces (including 1 disabled space).

The car parking spaces will be located along the McPherson Street frontage and in the central portion of the site between the two warehouse buildings. The location of car parking spaces is shown on the site plan at Figure 10 above.

### 3.4 Landscaping

The landscape design aims to retain the substantial plantings along the northern and eastern boundaries of the site and to include further plantings where gaps in the vegetation are currently present. The landscaping treatment will include a variety of native trees, shrubs and grasses consistent with the Southlands Redevelopment Landscape Masterplan. In summary, the development will include:

- a 10 m landscaped setback along the northern boundary of the site;
- a 8.5 m to 10 m landscaped setback along the eastern boundary of the site;
- a 5 m landscaped setback along the western site boundary fronting Nant Street; and
- protection and retention of the existing vegetation within the 10 m setback to McPherson Street.

Figure 14 shows the proposed 5 m landscaped buffer between the western boundary of the site and Nant Street.

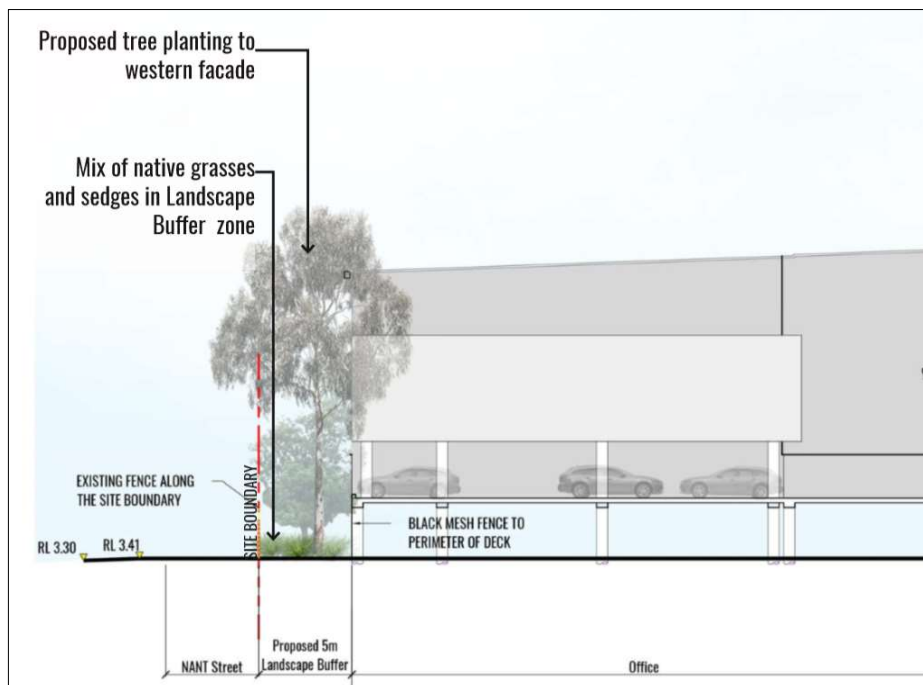


Figure 14: Landscaped buffer to Nant Street (Source: GeoScapes)



## 4 Strategic Justification

### 4.1 Need for the proposal

The development will provide much needed warehousing, storage and distribution space that is located close to the Sydney CBD and Port Botany trade corridor. An additional 21.780 of warehouse and office floor space is proposed to be made available for future end-users.

The development will result in the efficient and effective use of a vacant industrial land parcel and is strategically located within an established industrial precinct and in proximity to Port Botany. Importantly, the development has been designed to ensure that it will operate without impacting on the site's flood retention capability. The development is also located on a site that provides efficient access arrangements to the broader metropolitan arterial road network for the transportation of goods and services.

Further, the development demonstrates strategic merit as it is consistent with the aims and objectives of the relevant strategic plans that apply to the site. Strategic justification for the proposal is further outlined in Section 6 of this EIS.

### 4.2 Proposal alternatives

Schedule 2, Part 3 of the *Environmental Planning & Assessment Regulation 2000* (EP&A Regulation) requires an analysis of any feasible alternatives to the carrying out of the development, including any feasible alternatives.

The alternatives to the proposal include (1) not providing the warehouse and distribution facility, or (2) developing the site for alternative uses.

#### 1. Not providing the warehouse and distribution facility

This alternative would result in the site remaining vacant while continuing to be used for its current flood detention purposes. This alternative is considered a suboptimal outcome for the site as it would:

- result in the continued underutilisation of a vacant site that is appropriately zoned for industrial purposes and is strategically located close to the Sydney CBD and Port Botany trade corridor; and
- forgo a range of positive economic benefits that the development would provide including a capital investment of approximately \$56.2 million and employment opportunities during construction and operation.

#### 2. Develop the site for alternative uses

The site is located on land zoned IN1 General Industrial under *State Environmental Planning Policy (Three Ports) 2013* (Three Ports SEPP). Other permissible uses in the IN1 General Industrial zone include:

*Boat building and repair facilities; Business premises; Depots; Food and drink premises; Freight transport facilities; General industries; Jetties; Light industries (other than artisan food and drink 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.*

While there are alternative uses that are permissible (with consent) for the site, these may not be compatible with the surrounding locality which consists of bulky warehouse structures and other heavy industrial and port related uses.

## 5 Consultation

Orica has undertaken extensive consultation with Council and State Government authorities as part of the preparation of the EIS and in accordance with the requirements of the SEARs. Consultation has been carried out in the following methods:

- targeted presentation to the Orica Botany Liaison Committee;
- letterbox drop, including a newsletter providing details of the proposal, to the wider community on 17 December 2018 (refer Appendix P);
- 1800 telephone number;
- updates to the Orica Botany Remediation Projects website;
- direct contact with adjoining neighbours;
- letter notification by email and letterbox drop to landowners in the immediate area on 9 and 10 January 2018; and
- consultation with the relevant Agencies and stakeholders.

A detailed summary of the consultation that has been carried out during preparation of the EIS is summarised in Table 6 below.

| Stakeholder                        | Key issues                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bayside Council                    | <ul style="list-style-type: none"> <li>• A pre DA meeting was held with Council to discuss the preliminary project proposal.</li> <li>• Council pre DA minutes were issued on 18 July 2018.</li> <li>• Council provided a response for the SEARs on 21 November 2018.</li> <li>• Council has no objection in principle to the proposal, however it raises issues with the following: <ul style="list-style-type: none"> <li>○ Restriction of the use of the land and positive covenant</li> <li>○ Modelling assumptions</li> <li>○ Safe access to the site and evacuation plan</li> <li>○ Traffic and transport</li> <li>○ Contamination</li> <li>○ Land use safety risk</li> <li>○ Urban design/visual impact</li> <li>○ Biodiversity</li> <li>○ Noise and vibration</li> <li>○ Air quality</li> </ul> </li> <li>• These issues have been addressed in the EIS.</li> </ul> |
| Office of Environment and Heritage | OEH provided a letter of advice on the proposal for the SEARs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Environment Protection Authority   | <ul style="list-style-type: none"> <li>• Orica held a meeting with the EPA on 14 November 2018 to discuss the project and outline how site remediation matters will be addressed.</li> <li>• EPA provided a response to the SEARs on 21 November 2018.</li> <li>• EPA made a number of recommendations to ensure appropriate assessment and management of contamination.</li> <li>• These recommendations have been considered in the preparation of this EIS.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                   |
| Roads and Maritime Services        | <ul style="list-style-type: none"> <li>• RMS provided a response for the SEARs on 12 November 2018.</li> <li>• RMS identified the following issues to be addressed in the traffic impact assessment: <ul style="list-style-type: none"> <li>○ Daily and peak traffic movements generation</li> <li>○ Proposed accesses and parking provisions</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Stakeholder                                    | Key issues                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                | <ul style="list-style-type: none"> <li>Proposed number of car parking spaces and compliance with appropriate parking codes</li> <li>Details of light and heavy vehicle movements</li> <li>Cumulative study area traffic impacts associated with the redevelopment</li> <li>Implications of the proposed development for non-car travel modes</li> <li>Implementation of a location-specific sustainable travel plan</li> <li>These issues have been addressed in the traffic impact assessment at Appendix I.</li> <li>Contact was made with RMS on 10 January 2019 to discuss requirements and any additional issues</li> </ul>                                                                              |
| Transport for NSW                              | TfNSW provided a letter of advice for the SEARs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Department of Industry – Crown Lands and Water | <ul style="list-style-type: none"> <li>Crown Lands currently owns Springvale Drain that sits immediately to the west of Nant Street.</li> <li>Orica previously obtained a licence to carry out clean up works along Springvale Drain as part of the wider Southlands Project.</li> <li>No works are proposed in Springvale Drain as part of this Application</li> <li>No groundwater is to be extracted by the project and all of Orica's key GTP infrastructure will be maintained,</li> <li>Water supply is available via a Sydney Water main in McPherson Street.</li> </ul>                                                                                                                               |
| Ausgrid                                        | <ul style="list-style-type: none"> <li>Ausgrid has been contacted to discuss supply requirements.</li> <li>To date no formal response has been provided by Ausgrid</li> <li>Preliminary discussions suggest the site has available electrical supply pending Ausgrid approval on application for connection, to the site from one of the feeders.</li> <li>Provision of supply would be from a multiple kiosk substation arrangement, to be established connected into one of the feeders, depending on the load required for the site.</li> </ul>                                                                                                                                                            |
| Airservices Australia                          | <ul style="list-style-type: none"> <li>Direct phone contact has been made with Airservices Australia to notify of the development application including proposed height of structures.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Civil Aviation Safety Authority                | <ul style="list-style-type: none"> <li>Direct phone contact has been made with the Civil Aviation Safety Authority to notify of the development application including proposed height of structures.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Sydney Airport                                 | <ul style="list-style-type: none"> <li>Direct phone contact was made with Sydney Airport.</li> <li>Sydney Airport provided a response for the SEARs on 16 November 2018</li> <li>Key issues include: <ul style="list-style-type: none"> <li>Approval to operate construction equipment</li> <li>Planning for aircraft noise and public safety zones</li> </ul> </li> <li>Sydney Airport indicates that if heights of the buildings are below RL 51, the proposal should not raise any issues regarding height in the prescribed airspace.</li> <li>The height of any cranes for construction also need to be considered in the RL 51 height limit.</li> <li>These issues are addressed in the EIS.</li> </ul> |
| Sydney Water                                   | <ul style="list-style-type: none"> <li>A formal feasibility application has been prepared and lodged with Sydney Water for water and sewer supply.</li> <li>Water supply is available to the site per previous advice from Sydney Water, however the available capacity and design of additional inputs into the Southlands pressure sewer will be the key issue.</li> </ul>                                                                                                                                                                                                                                                                                                                                  |

| Stakeholder         | Key issues                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Local Community     | <ul style="list-style-type: none"> <li>• A presentation was held on 20 November 2018 with the Orica Botany Liaison Committee</li> <li>• Minutes of Meeting are referenced in the EIS.</li> <li>• Key issues include: <ul style="list-style-type: none"> <li>○ how the proposal would be constructed</li> <li>○ loss of existing vegetation on the site in the compensatory flood basin</li> </ul> </li> <li>• These issues have been addressed in the EIS.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Adjacent landowners | <ul style="list-style-type: none"> <li>• Key issues included traffic and flooding.</li> <li>• To date 3 land owners have responded.</li> <li>• <b>Aust Equity</b> have raised the following three issues: <ul style="list-style-type: none"> <li>○ Setbacks – request that the proposal provide a 10 metre landscape setbacks for the full length and particularly along the common frontage to their site.</li> <li>○ Vapour Impacts – Enclosure of the site will direct vapours at the side openings into adjoining sites. Aust Equity propose that the deck be enclosed and vapours be discharged at a high level.</li> <li>○ Traffic – What works will be undertaken to improve traffic issues in the area.</li> <li>○ Orica have responded to these issues directly with the landowner;</li> </ul> </li> <li>• <b>Gazal</b> – Have requested copies of flooding and traffic reports when ready.</li> <li>• <b>Charter Hall</b> – asked for a copy of the plans.</li> <li>• These issues have been addressed directly with the landowners.</li> </ul> |

Table 6: Stakeholder consultation

## 6 Strategic Planning Context

### 6.1 Greater Sydney Region Plan

The *Greater Sydney Region Plan – A Metropolis of Three Cities* (GSR Plan) provides a 40-year vision (to 2056) and establishes a 20-year plan to manage growth and change for the Greater Sydney Region in the context of social, economic and environmental matters. The GSR Plan integrates land use, transport and infrastructure planning across three connected cities:

- the established Eastern Harbour City
- the developing Central River City
- the emerging Western Parkland City

By integrating land use, transport links and infrastructure across the three cities, people will have better access to jobs, schools, hospitals and services within a 30-minute radius. The GSR Plan sets out four overarching objectives to improve the planning and provision of infrastructure across Greater Sydney. These objectives relate to:

- Infrastructure and collaboration
- Liveability
- Productivity
- Sustainability

The following objectives outlined in the GSR Plan are of particular relevance to the development:

**Objective 15** aims to strengthen opportunities in the Eastern Economic Corridor which includes the Port Botany trade corridor. The proposal includes the provision of warehousing facilities and jobs within the Port Botany trade corridor and would therefore strengthen opportunities in the Eastern Economic Corridor.

**Objective 16** aims to ensure Greater Sydney's freight and logistics network is competitive and efficient. The proposal will provide warehouse facilities in an established freight and logistics hub that is strategically located in proximity to Port Botany.

**Objective 23** aims to ensure industrial and urban services land is planned, retained and managed. The development falls under the activity of 'major freight, industry and heavy manufacturing' and is located close to critical infrastructure including Port Botany and is separated from residential uses.

### 6.2 Eastern City District Plan

The *Eastern City District Plan* (District Plan) manages growth in the context of economic, social and environmental matters in the Eastern City. It provides the district level framework to implement the goals and directions outlined in the *Greater Sydney Region Plan* for the Eastern City District.

The proposed development is consistent with the District Plan as it will:



- strengthen the function of Port Botany as one of Australia's major land and sea freight gateways and the State's freight hub through the provision of additional warehousing, distribution and office structures;
- protect the employment land through the provision of employment uses;
- continued operation of industrial uses in the Port Botany area; and
- reinforce the role of the industrial land around Port Botany and promote a freight gateway through additional employment opportunities associated with industrial facilities.

### **6.3 Bayside Local Strategic Planning Statement**

The Bayside Local Strategic Planning Statement (LSPS) outlines a 20-year vision for land use planning in the Bayside LGA and sets the direction for Council's economic, social and environmental planning priorities. The LSPS was adopted by Council on 11 March 2020.

The LSPS is structured around the four key themes of infrastructure and collaboration, liveability, productivity and sustainability, which is consistent with the objectives of the District Plan.

The LSPS acknowledges Port Botany as a regionally and nationally significant trade gateway, which is anticipated to handle significantly more freight by 2036. Accordingly, the LSPS requires industrial and urban services lands to be retained for industrial and urban services. The proposed development is consistent with the LSPS as it will provide for the efficient and effective use of industrial land in proximity to Port Botany for the storage and distribution of goods.

### **6.4 Future Transport Strategy 2056**

The *Future Transport Strategy 2056* acknowledges the vital role transport plays with regards to land use, tourism and economic development. The Strategy is supported by a suite of plans to achieve a 40-year vision for transport in New South Wales to cater for the estimated increase in population to 12 million by 2056.

An integral component of the Strategy is to provide an integrated network of transport corridors to support the movement of people and goods throughout Greater Sydney. The proposed development will receive goods arriving from Port Botany which is strategically located within approximately 400 m of the site. The proposed development is also located in proximity to Foreshore Road that provides direct connections to the broader arterial road network to facilitate the movement of goods and services across Greater Sydney.

### **6.5 Botany Bay Planning Strategy 2031**

The *Botany Bay Planning Strategy 2031* provides a 25-year framework for growth in the Bayside LGS and includes recommendations to address housing and employment directions, revitalisation of centres, revival of the local economy and protection of the environment.

The Strategy identifies the Banksmeadow industrial area as an area that should be protected for economic activity at Port Botany and to provide sites for larger warehousing, distribution and freight handling activities.

The development is consistent with the Strategy as it provides warehousing and distribution uses that are located within an established industrial area in Banksmeadow and will enhance Port-related economic activity.

## 7 Statutory Planning Context

### 7.1 Environmental Planning and Assessment Act 1979

The EP&A Act provides the statutory framework for land use planning in NSW. Under section 4.36 of the Act, certain development types are declared SSD by means of a State Environmental Planning Policy (SEPP) or by order of the Minister for Planning.

The development meets the criteria of SSD which is defined under the SRD SEPP. Schedule 1, clause 12(1) of the SRD SEPP states that development with a CIV of more than \$50 million for the purpose of warehouses or distribution centres (including container storage facilities) at one location and related to the same operation, meets the criteria for SSD.

The development is for a warehouse and distribution facility with a CIV of \$56,200,000. A cost estimate summary for the proposal is included at Appendix B.

This report responds to the requirements of section 4.12(8) of the EP&A Act which requires a development application for SSD to be accompanied by an EIS.

#### 7.1.1 Objects of the EP&A Act

Development under the EP&A Act must have regard to the objects of the Act set out under Section 1.3 of the Act. The proposed development is considered consistent with the objects of the Act, as outlined in Table 7 below.

| The Objects of the Act                                                                                                                                                                                  | Consideration                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (a) <i>To promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,</i>      | The development promotes the social and economic welfare of the community providing employment opportunities during construction and operation of the development. The development will not have a detrimental impact on the State's natural resources.     |
| (b) <i>to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,</i> | This EIS provides information on the relevant economic, environmental and social impacts of the proposed development to enable the consent authority to undertake a thorough environmental assessment and assist in its decision-making on the application. |
| (c) <i>to promote the orderly and economic use and development of land,</i>                                                                                                                             | The development promotes the orderly and economic use of the land by proposing a permissible use (being for a warehouse and distribution facility with ancillary office space) in the IN1 General Industrial zone.                                          |
| (d) <i>to promote the delivery and maintenance of affordable housing,</i>                                                                                                                               | Affordable housing does not form part of the application.                                                                                                                                                                                                   |
| (e) <i>to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,</i>                              | The BDAR included as part of the EIS has determined that the development will not impact on any endangered or threatened species, ecological communities or their habitats.                                                                                 |
| (f) <i>to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),</i>                                                                               | Previous heritage assessments carried out at the site have determined there to be no significant European or Aboriginal cultural heritage features at the site.                                                                                             |

| The Objects of the Act                                                                                                                                     | Consideration                                                                                                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (g) <i>to promote good design and amenity of the built environment,</i>                                                                                    | The development will be located in an established industrial area that includes numerous warehouse and distribution developments of similar height, bulk and scale. The built form of the development is considered to promote good design and amenity.                                |
| (h) <i>to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,</i>          | The development will be constructed in accordance with any conditions of approval issued by the consent authority and the relevant requirements that relate to health and safety, construction and maintenance.                                                                        |
| (i) <i>to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,</i> | This EIS is submitted to DPIE to enable an environmental assessment of the application. It is expected that the EIS will be referred by DPIE to other State agencies for further assessment and comment.                                                                               |
| (j) <i>to provide increased opportunity for community participation in environmental planning and assessment.</i>                                          | As part of DPIE's assessment of the application, the EIS will made publicly available with the community, Council and State agencies invited to provide a submission on the proposal. Any submissions received will be addressed by Orica as part of a Response to Submissions Report. |

Table 7: Objects of the EP&A Act

### 7.1.2 Section 4.15 Matters for Consideration

The consent authority is required to take into consideration the matters listed under section 4.15 of the EP&A Act when determining a development application. An evaluation of the proposed development against the provisions of Section 4.15(1) of the EP&A Act is provided in Table 8 below.

| The Objects of the Act                                                                                                                                                                                                                                                                                                                   | Consideration                                                                                                                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (a) <i>the provisions of:</i>                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                             |
| (i) <i>any environmental planning instrument, and</i>                                                                                                                                                                                                                                                                                    | The environmental planning instruments relevant to the site are addressed at Section 7.6.                                                                                                                   |
| (ii) <i>any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and</i> | Draft environmental planning instruments relevant to the site are addressed at Section 7.6.                                                                                                                 |
| (iii) <i>any development control plan, and</i>                                                                                                                                                                                                                                                                                           | Under clause 11 of the SRD SEPP, development control plans do not apply to SSD. However, the car parking requirements specified under the Botany Bay Development Control Plan 2013 have been relied upon to |

| The Objects of the Act                                                                                                                                                       | Consideration                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                              | determine the appropriate number of car parking spaces for the development.                                                                                                                                                                                                                                                     |
| (iii) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and | No planning agreement or draft planning agreement has been entered into as part of this application.                                                                                                                                                                                                                            |
| (iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph),                                                                         | The EP&A Regulation is addressed at Section 7.2.                                                                                                                                                                                                                                                                                |
| (v) (Repealed)                                                                                                                                                               | N/A                                                                                                                                                                                                                                                                                                                             |
| that apply to the land to which the development application relates,                                                                                                         |                                                                                                                                                                                                                                                                                                                                 |
| (b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts of the locality,     | The likely impacts of the development, including environmental impacts on the natural and built environments, social and economic impacts are addressed at Section 8.                                                                                                                                                           |
| (c) the suitability of the site for the development,                                                                                                                         | The suitability of the site for the development is considered at Section 4.                                                                                                                                                                                                                                                     |
| (d) any submissions made in accordance with this Act or the regulations,                                                                                                     | Any submissions received on the application will be considered and addressed as part of a Response to Submission report.                                                                                                                                                                                                        |
| (e) the public interest.                                                                                                                                                     | The development is in the public interest as it will result in the efficient and effective use of industrial land, is strategically located in an established industrial precinct and in proximity to Port Botany, incorporated the principles of ESD and will not result in significant or irreversible environmental impacts. |

Table 8: Section 4.15 Assessment

## 7.2 Environmental Planning and Assessment Regulation 2000

This EIS has been prepared in accordance with form and content requirements of Schedule 2 of the EP&A Regulation. An overview of how the requirements of the EP&A Regulation have been satisfied is included in Table 9 below.

| Environmental Planning and Assessment Regulations 2000                                                                                                                                                                                         | EIS Reference           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <i>An environmental impact statement must also include each of the following:</i>                                                                                                                                                              |                         |
| (a) a summary of the environmental impact statement,                                                                                                                                                                                           | Executive Summary       |
| (b) a statement of the objectives of the development, activity or infrastructure,                                                                                                                                                              | Section 4.1             |
| (c) an analysis of any feasible alternatives to the carrying out of the development, activity or infrastructure, having regard to its objectives, including the consequences of not carrying out the development, activity or infrastructure,  | Section 4               |
| (d) an analysis of the development, activity or infrastructure, including:                                                                                                                                                                     | Section 3 and Section 8 |
| (i) a full description of the development, activity or infrastructure, and                                                                                                                                                                     |                         |
| (ii) a general description of the environment likely to be affected by the development, activity or infrastructure, together with a detailed description of those aspects of the environment that are likely to be significantly affected, and |                         |

|                                                                                                                                                                                                                                                                                 |                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| (iii) the likely impact on the environment of the development, activity or infrastructure, and                                                                                                                                                                                  |                         |
| (iv) a full description of the measures proposed to mitigate any adverse effects of the development, activity or infrastructure on the environment, and                                                                                                                         |                         |
| (v) a list of any approvals that must be obtained under any other Act or law before the development, activity or infrastructure may lawfully be carried out,                                                                                                                    |                         |
| (e) a compilation (in a single section of the environmental impact statement) of the measures referred to in item (d) (iv),                                                                                                                                                     | Section 9               |
| (f) the reasons justifying the carrying out of the development, activity or infrastructure in the manner proposed, having regard to biophysical, economic and social considerations, including the principles of ecologically sustainable development set out in subclause (4). | Section 4 and Section 8 |
| <i>Note. A cost benefit analysis may be submitted or referred to in the reasons justifying the carrying out of the development, activity or infrastructure.</i>                                                                                                                 |                         |
| (1) Subclause (1) is subject to the environmental assessment requirements that relate to the environmental impact statement                                                                                                                                                     | N/A                     |
| (2) Subclause (1) does not apply if:                                                                                                                                                                                                                                            |                         |
| (a) the Secretary has waived (under clause 3(9)) the need for an application for environmental assessment requirements in relation to an environmental impact statement in respect of State significant development, and                                                        | N/A                     |
| (b) the conditions of that waiver specify that the environmental impact statement must instead comply with requirements set out or referred to in those conditions.                                                                                                             | N/A                     |

Table 9: Requirements of the EP&A Regulation

### 7.3 Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) aims to maintain the diversity and quality of ecosystems and enhance their capacity to adapt to change and provide for the needs of future generations.

Under the BC Act, SSD proposals require an accredited ecologist to prepare a Biodiversity Development Assessment Report (BDAR). A BDAR has therefore been prepared by WSP and is included at Appendix J. The BDAR provides the following:

- assesses the biodiversity values of the land in accordance with the BAM;
- assesses the impact of the proposed development on the biodiversity values of the land; and
- sets out the measures the proponent proposes to take to avoid or minimise biodiversity impacts.

The consent authority must consider if the proposed development is likely to have serious and irreversible biodiversity impact and determine any additional and appropriate measures that would minimise such impacts should approval be granted. The BDAR notes that the site has a long and extensive history of disturbance associated with the development of the site for flood detention purposes. Due to these previous activities, including extensive site earthworks, the site is considered to have low biodiversity value.



The BDAR determined there are no remnant native vegetation or associated PCTs on the development site. Further, no threatened species, ecological communities or their habitat listed under the BC Act have been determined to be affected by the project.

Biodiversity is further discussed in Section 8.6 of the EIS.

## **7.4 Contaminated Land Management Act 1997**

The *Contaminated Land Management Act 1997* (CLM Act) establishes a process for investigating and (where appropriate) remediating land where contamination poses a significant risk of harm to human health or the environment.

In accordance with Part 4 of the CLM Act, an EPA accredited site auditor has been appointed by Orica. A Remediation Action Plan (RAP) for the site has been prepared by JBS&G is included at Appendix G. The RAP has been reviewed by an EPA accredited Site Auditor who has confirmed the site can be made suitable for the proposed use, subject to the successful implementation of measures outlined in the RAP. .

Contamination is further discussed at Section 8.3.

## **7.5 Civil Aviation (Buildings Control) Regulations 1998**

The *Civil Aviation (Buildings Control) Regulations 1998* aims to ensure that the airspace over which aircraft fly is obstacle-free. The site is located in an area defined under the Regulation which limits the height of structures in proximity to Sydney Airport to 15.24 m AHD without prior approval of the Civil Aviation Safety Authority.

Sydney Airport was consulted during preparation of the SEARs and advised that there were no objections to the erection of the development to a maximum height of 17.7 m AHD.

## **7.6 Environmental planning instruments**

### **7.6.1 State Environmental Planning Policy (State and Regional Development) 2011**

The SRD SEPP aims to identify development that is SSD, State significant infrastructure, critical State significant infrastructure and regionally significant development.

The development meets the criteria of Schedule 1, clause 12(1) of the SRD SEPP as it is development that has a capital investment value (CIV) of more than \$50 million for the purpose of warehouses or distribution centres (including container storage facilities) at one location and related to the same operation.

As the development meets the criteria of the SRD SEPP, the application will be assessed as SSD and determined by the Minister for Planning (or nominated delegate).

### **7.6.2 State Environmental Planning Policy (Three Ports) 2013**

The Three Ports SEPP sets out the land use planning and assessment framework for development on land in Port Botany, Port Kembla and the Port of Newcastle. The three ports are the largest in NSW and are recognised as state significant precincts due to their contribution to the NSW and Australian economies.

The Three Ports SEPP aims to provide a consistent planning regime for the development and delivery of infrastructure and to protect land for port-related purposes. The site is located on land zoned IN1 General Industrial under the Three Ports SEPP. The primary objective of the zone is to provide a wide range of industrial and warehouse land uses.

The site is located on land identified on the Port Botany land application map that is zoned IN1 General Industrial. 'Warehouse and distribution centres' and 'office premises' are permissible uses with consent in the IN1 General Industrial zone. Consent for office premises in the IN1 zone must not be granted unless the consent authority is satisfied that the development is associated with, and ancillary to, port facilities or industrial uses of land. An assessment against the objectives of the IN1 zone is provided in the Table 10 below.

| Objectives of IN1 General Industrial Zone                                                                                                               | Consideration                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>To provide a wide range of industrial and warehouse land uses.</i>                                                                                   | The proposal involves the development of two warehouse facilities that will receive and store goods arriving from Port Botany.                                                                                                                                                                                                                                                                                                                                                           |
| <i>To encourage employment opportunities.</i>                                                                                                           | The proposed warehouse and distribution facility will provide employment opportunities during construction and operation of the development.                                                                                                                                                                                                                                                                                                                                             |
| <i>To minimise any adverse effect of industry on other land uses.</i>                                                                                   | The development site is located in an established industrial environment in proximity to Port Botany and the Botany Industrial Park. The nearest residential development is approximately 1 km from the site. The provision of two warehouse structures and ancillary office space will not impact on other land uses.                                                                                                                                                                   |
| <i>To facilitate and encourage port related industries that will contribute to the growth and diversification of trade through the port.</i>            | The proposed warehouses would receive and store goods arriving from Port Botany and will therefore contribute to the growth and diversification of trade through the port.                                                                                                                                                                                                                                                                                                               |
| <i>To enable development for the purposes of business premises or office premises associated with, and ancillary to, port facilities or industries.</i> | Ancillary office space is proposed within each of the warehouse buildings which will be used to receive and store goods arriving from Port Botany.                                                                                                                                                                                                                                                                                                                                       |
| <i>To encourage ecologically sustainable development.</i>                                                                                               | The development encourages ecologically sustainable development by preventing downstream pollution through appropriate on-site water treatment and drainage systems, incorporating the use of energy efficient lighting design as part of the warehouse building, incorporating the use of rainwater tanks for stormwater harvesting, incorporating building materials with recycled content (such as steel) and through the provision of bicycle parking to encourage active transport. |

Table 10: Assessment of zone objectives under the Three Ports SEPP

The site is not located on land within the 'Referral Area' which requires notification of the Port Operator and is not located on land within the 'Port Botany Lease Area'.

### **7.6.3 Three Ports SEPP Amendment**

The NSW Government recently announced a suite of possible amendments proposed to the Three Ports SEPP. An Explanation of Intended Effects (EIE) outlining the proposed amendments was publicly exhibited to 3 December 2018. The EIE outlines the regulatory changes that are under consideration which included amendments to the SEPP that would limit land uses in the IN1 zone to container storage and port-related uses.

At the time the EIS was prepared, the amendments proposed to the Three Ports SEPP were under consideration and had not come in to affect. The proposed development is, however, consistent with the broader objectives of the Three Ports SEPP and is permissible with consent in the IN1 zone.

### **7.6.4 State Environmental Planning Policy No. 33 – Hazardous and Offensive Development**

*State Environmental Planning Policy No. 33 – Hazardous and Offensive Development* (SEPP 33) aims to ensure that in considering any application to carry out potentially hazardous or offensive development, the consent authority has sufficient information to assess whether the development is hazardous or offensive and to impose conditions to reduce or minimise any adverse impact.

The EIS includes a Hazards and Risk Assessment (HRA) at Appendix H. The HRA undertook a preliminary risk screening in accordance with the requirements of SEPP 33. The HRA states that the development will not involve:

- the storage or transport of incompatible materials;
- the generation of hazardous waste;
- the generation of dust within confined areas
- incompatible, reactive or unstable materials that could lead to uncontrolled reaction or decomposition; or
- the storage or processing operations that requires high (or extremely low) temperature and/or pressures.

The SEPP 33 risk screening determined the development does not constitute ‘potentially hazardous’ development with respect to the storage and handling of dangerous goods and therefore does not require a Preliminary Hazard Analysis to be prepared.

### **7.6.5 State Environmental Planning Policy No. 55 – Remediation of Land**

*State Environmental Planning Policy No. 55 – Remediation of Land* (SEPP 55) aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment by specifying when consent is required, and when it is not required, for a remediation work any by requiring remediation works to meet certain standards and notification requirements.

As required under SEPP 55, a consent authority must not consent to the carrying out of any development on land unless it has considered whether the land is contaminated and, if the land is contaminated, it is satisfied that the land is suitable in its contaminated state for the purpose for which the development is proposed to be carried out.

The EIS includes a RAP at Appendix G. The RAP ensures the site can be made suitable for the proposed commercial/industrial land use, subject to the implementation of various remediation measures. A Site Audit Statement (Appendix G1) and Site Audit Report (Appendix G2), prepared by an EPA accredited Site Auditor, is provided as part of the EIS which confirm the site can be made suitable for the proposed use, subject to the successful implementation of measures outlined in the RAP. Contamination is further discussed at Section 8.3.

#### **7.6.6 State Environmental Planning Policy No. 64 – Advertising and Signage**

*State Environmental Planning Policy No. 64 – Advertising and Signage* (SEPP 64) aims to ensure that advertising and signage is well located, compatible with the desired amenity of an area and of high quality.

SEPP 64 applies to all signage, advertisements that advertise or promote any goods, services or events and any structure that is used for the display of signage that is permitted under another environmental planning instrument.

Signage is permissible in the IN1 General Industrial Zone under the Three Ports SEPP. The proposal includes an indicative signage zone for a future building identification sign on the southern elevation of warehouse building 1 which will primarily be visible from McPherson Street. Any future signage will be subject to a future Complying Development Certificate under *State Environmental Planning Policy (Exempt and Complying Development Codes)* 2008.

#### **7.6.7 State Environmental Planning Policy (Infrastructure) 2007**

*State Environmental Planning Policy (Infrastructure) 2007* (Infrastructure SEPP) requires consultation to be carried out with relevant public authorities about certain development types during the assessment process or prior to a development commencing.

Clause 104(3) of the Infrastructure SEPP requires traffic-generating developments, as specified under Schedule 3 of the SEPP, to be referred by the consent authority to the RMS prior to the determination of a development application. As outlined under Schedule 3, the development meets the criteria of traffic-generating development as it is for a warehouse or distribution centre that has a gross floor area of 8,000 m<sup>2</sup> or more.

The RMS were notified of the development during preparation of the SEARs. Comments made by RMS are summarised at Section 5 of this report. It is expected that RMS will be further notified of the development application and invited to provide further comment on the proposal during the EIS exhibition period.

#### **7.6.8 Draft State Environmental Planning Policy (Remediation of Land)**

*Draft State Environmental Planning Policy (Remediation of Land)* (Remediation of Land SEPP) aims for better management of remediation works by aligning the need for development consent with the scale, complexity and risks associated with the proposed works.

The new SEPP will retain the core objective of SEPP 55 which is to establish a State-wide planning approach for the remediation of land. Once adopted, the Remediation of Land SEPP will:

- provide a State-wide planning framework for the remediation of land;

- require planning authorities to consider the potential for land to be contaminated when determining development applications and rezoning land;
- clearly list the remediation works that require development consent; and
- introduce certification and operational requirements for remediation works that can be undertaken without development consent.

As discussed in Section 7.6.5, a RAP prepared for the site outlines various measures to ensure the site is made suitable for its proposed use (Appendix G). A Site Audit Statement and Site Audit Report confirms the site can be made suitable for the proposed use, subject to the successful implementation of measures outlined in the RAP (Appendix G1).

#### **7.6.9 Draft State Environmental Planning Policy (Environment)**

The draft *State Environmental Planning Policy (Environment)* aims to promote the protection and improvement of key environmental assets for their intrinsic value and the social and economic benefits they provide. Once adopted it will consolidate the following existing environmental planning instruments:

- *State Environmental Planning Policy No.19 – Bushland in Urban Areas*
- *State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011*
- *State Environmental Planning Policy No.50 – Canal Estate Development*
- *Greater Metropolitan Regional Environmental Plan No.2 – Georges River Catchment*
- *Sydney Regional Environmental Plan No.20 – Hawkesbury-Nepean River (No.2-1997)*
- *Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005*
- *Willandra Lakes Regional Environmental Plan No.1 – World Heritage Property*

It is noted that the preliminary maps accompanying the Draft Environment SEPP do not identify the site as urban bushland or a critical habitat area.

A BDAR has been prepared by WSP and is included at Appendix J. The BDAR determined there are no remnant native vegetation or associated PCTs on the development site. Further, no threatened species, ecological communities or their habitat (listed under the BC Act) have been determined to be affected by the project.

## **7.7 Development Control Plan**

### **7.7.1 Botany Bay Development Control Plan 2013**

The *Botany Bay Development Control Plan 2013* (BBDCP 2013) provides detailed planning and design guidelines and development controls for the Bayside LGA.

Under clause 11 of the SRD SEPP, development control plans do not apply to SSD or for development covered under the Three Ports SEPP. Notwithstanding, certain provisions under the BBDCP 2013 have been considered in the preparation of the development design including the minimum car parking rates for warehousing and ancillary office use and setting criteria for stormwater pollutant load reductions.



## **8 Environmental assessment**

### **8.1 Built form**

The built form of the development consists of two warehouse structures constructed on an elevated concrete platform. The concrete platform will cover an area of 34,130 m<sup>2</sup> and provide a minimum clearance height of 2.5 m the existing ground level. The height of platform will enable the site to continue to function as a flood detention basin and allow for access to services underneath.

Warehouse building 1 will comprise a floor space of approximately 10,135 m<sup>2</sup> and include 1,000 m<sup>2</sup> of ancillary office floor space.

Warehouse building 2 will comprise a floor space of approximately 9,645 m<sup>2</sup> and also includes 1,000 m<sup>2</sup> of ancillary office floor space.

Both warehouse buildings will be constructed to a maximum height of 13.7 m above the platform floor level and to a maximum height of 17.2 m above the existing ground level.

The warehouse buildings will be constructed of colorbond steel wall cladding with matching trims. The roofs of both warehouse buildings will comprise translucent and colorbond steel sheeting. A black mesh fence will wrap the underside of the concrete platform around both buildings.

The use of differing colours and materials will help to break-up the scale of large facades. The office components within each of the buildings will be constructed with fibre cement, glazed panels and aluminium glazed frames. Each warehouse building will be stepped in height to differentiate the office and warehouse components within each building.

The built form of the development constitutes a contemporary industrial design that will be located adjacent to similar development types of a comparable height, bulk and scale.

#### **8.1.1 Visual impact**

The site is within an established industrial area with various bulky goods and warehouse facilities located in proximity to Port Botany. The proposed bulk, height and scale of the development is consistent with the surrounding industrial location which includes similar warehouse developments recently been constructed, including the Goodman facility to the west of the site, the Toll warehouse facility located directly to the south and another warehouse estate that currently under construction directly to the east of the site.

The site is located approximately 1 km from the nearest residential development which includes the suburbs of Hillsdale, Botany and Matraville. There is adequate distance between the development site and nearest residential areas to ensure there are no significant visual impacts or obstruction of important views. Further, the proposed warehouse buildings are of a similar scale and design to existing surrounding warehouse developments and will therefore integrate with the surrounding industrial context.

Landscaping is proposed along the entire boundary of the site and is to incorporate a variety of native trees, shrubs and grasses consistent with the Southlands Redevelopment Landscape Masterplan. The landscaping works will soften the appearance of the facility particularly when viewed from Nant Street and McPherson Street.

Photomontages illustrating the built form of the proposed warehouse and distribution facility is provided Figure 14 and Figure 16 below.

The elevations of each warehouse building are shown at Figure 12 and Figure 13 above.

Architectural plans prepared by Axis Architectural are included as part of the EIS at Appendix D.



Figure 15: Indicative view of the development looking to the north (Source: Axis Architectural)



Figure 16: Indicative view of the development looking to the east (Source: Axis Architectural)

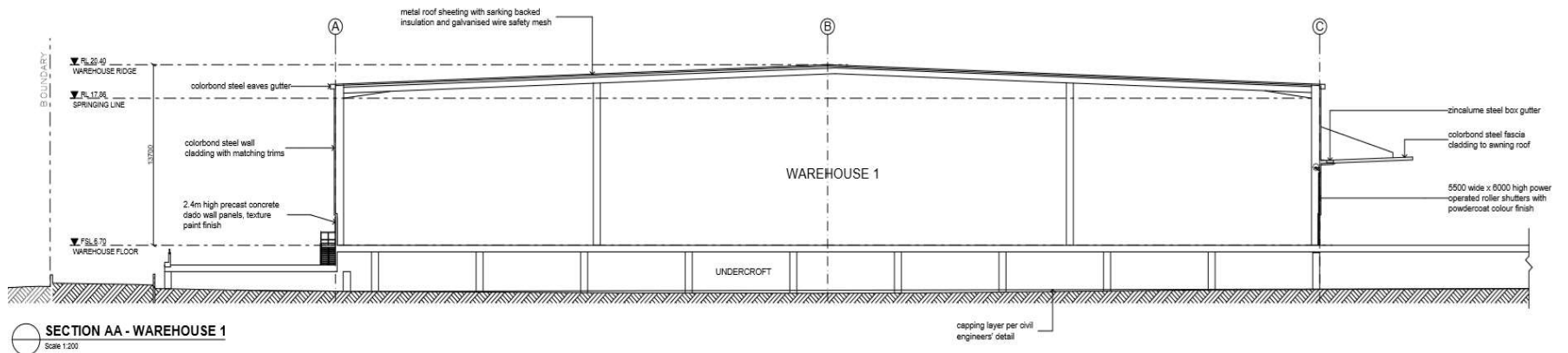


Figure 17: Cross-section of Warehouse Building 1 (Source: Axis Architectural)

## 8.2 Flooding

A Flood Impact Assessment (FIA) was prepared by BMT Eastern Australia Pty Ltd (BMT) and is included at Appendix F. The FIA provides:

- a comprehensive assessment of the impact of flooding on the development for the full range of flood events up to the probable maximum flood (PMF);
- an assessment of impacts of the development on flood behaviour (i.e. levels, velocities and duration of flooding) and on adjacent, downstream and upstream locations; and
- details of proposed floor levels for all proposed habitable structures on the site having considered the full range of flood events up to and including the PMF.

The FIA was prepared using the TUFLOW hydraulic model developed as part of the Springvale Drain and Floodvale Drain Flood Study (BMT WBM, 2014) provided by Council.

### 8.2.1 Existing conditions

The site is located at the lower end of the Springvale and Floodvale Drains catchment. The catchment covers an area of approximately 380 ha and consists mostly of industrial and commercial land uses.

During major flood events, such as the 1% Average Exceedance Probability (AEP) event, roads immediately adjacent the site including McPherson Street and Nant Street are subject to significant overland inundation that flows from Springvale Drain. The site therefore acts a large flood detention basin that is typified by low flood velocities but significant flood depths.

As outlined at Section 2.4.1, the site forms part of a broader land parcel owned by Orica and formerly referred to as 'Southlands'. On 16 April 2012, the delegate for the (then) Minister for Planning and Infrastructure granted project approval for the Orica Southlands Remediation & Warehouse Development Project. As part of the approval, the subject site (Lot 9) was identified as a compensatory flood detention basin. Accordingly, the site has not been developed and is the subject of restrictions on title allowing future development, subject to the site's flood storage detention being maintained.

The existing flood levels at the site for significant flood events include:

- 4.1 m AHD for the 1% AEP event; and
- 5.0 m AHD for the PMF event.

The location and topography of the site within the study catchment is shown in Figure 18.



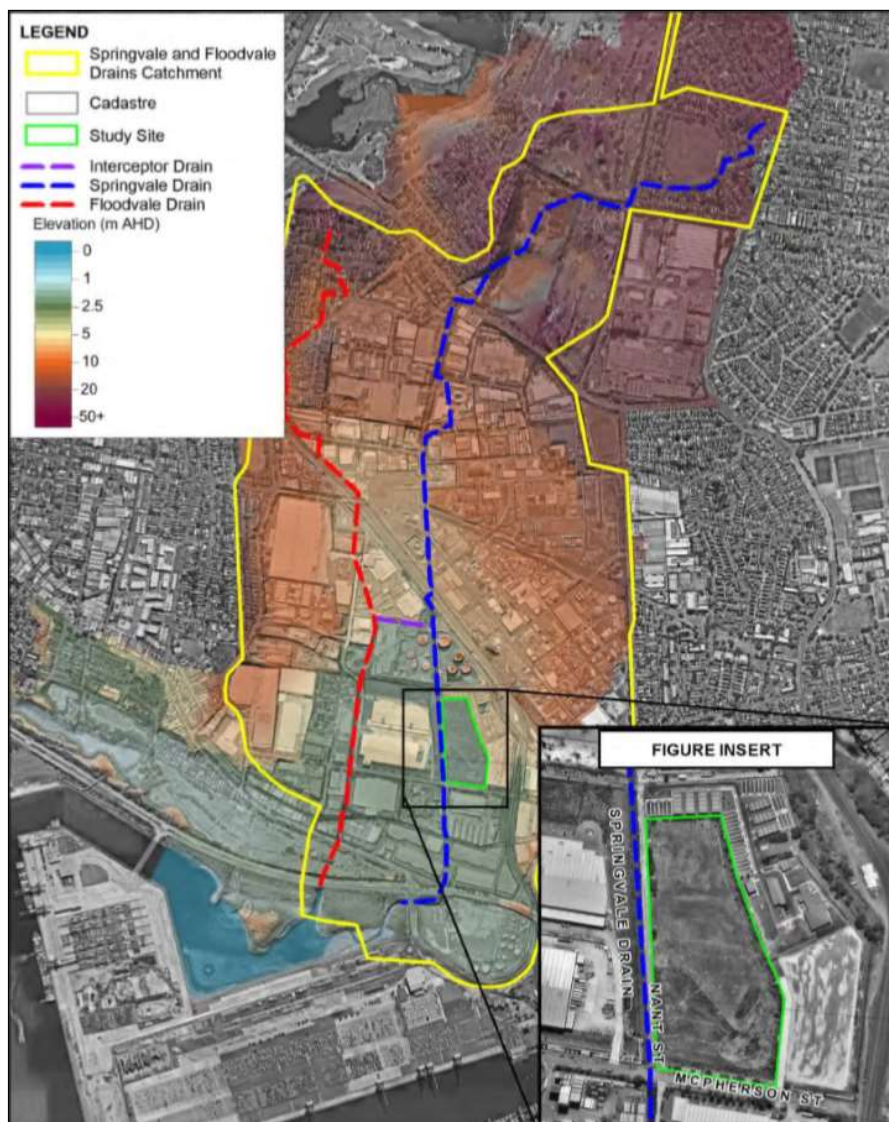


Figure 18: Subject site within the Springvale and Floodvale Drains catchment (Source: BMT)

### 8.2.2 Flooding impact

Design flood simulations at the site were modelled as part of the FIA under the following scenarios:

- 5% AEP event;
- 1% AEP event; and
- PMF event.

Modelling was carried out for the current scenario (existing site conditions) and the proposed scenario (the developed site) to compare the level of impact that would result from the development, including any on-site and off-site impacts that may be experienced due to the construction of the elevated concrete slab over the site's flood storage area below.



The peak water levels (flood depths) and peak velocities (flood flows) were assessed at ten different locations across the site (referenced as PT\_01 to PT\_10). The modelling locations are shown at Figure 19 which also illustrates the peak flood depths during the 1% AEP.

A comparison of the peak water levels and peak velocities under existing (un-developed) conditions and the proposed (developed) scenario for the % AEP, 1% AEP and PMF events is provided in Table 11 and Table 12, respectively.

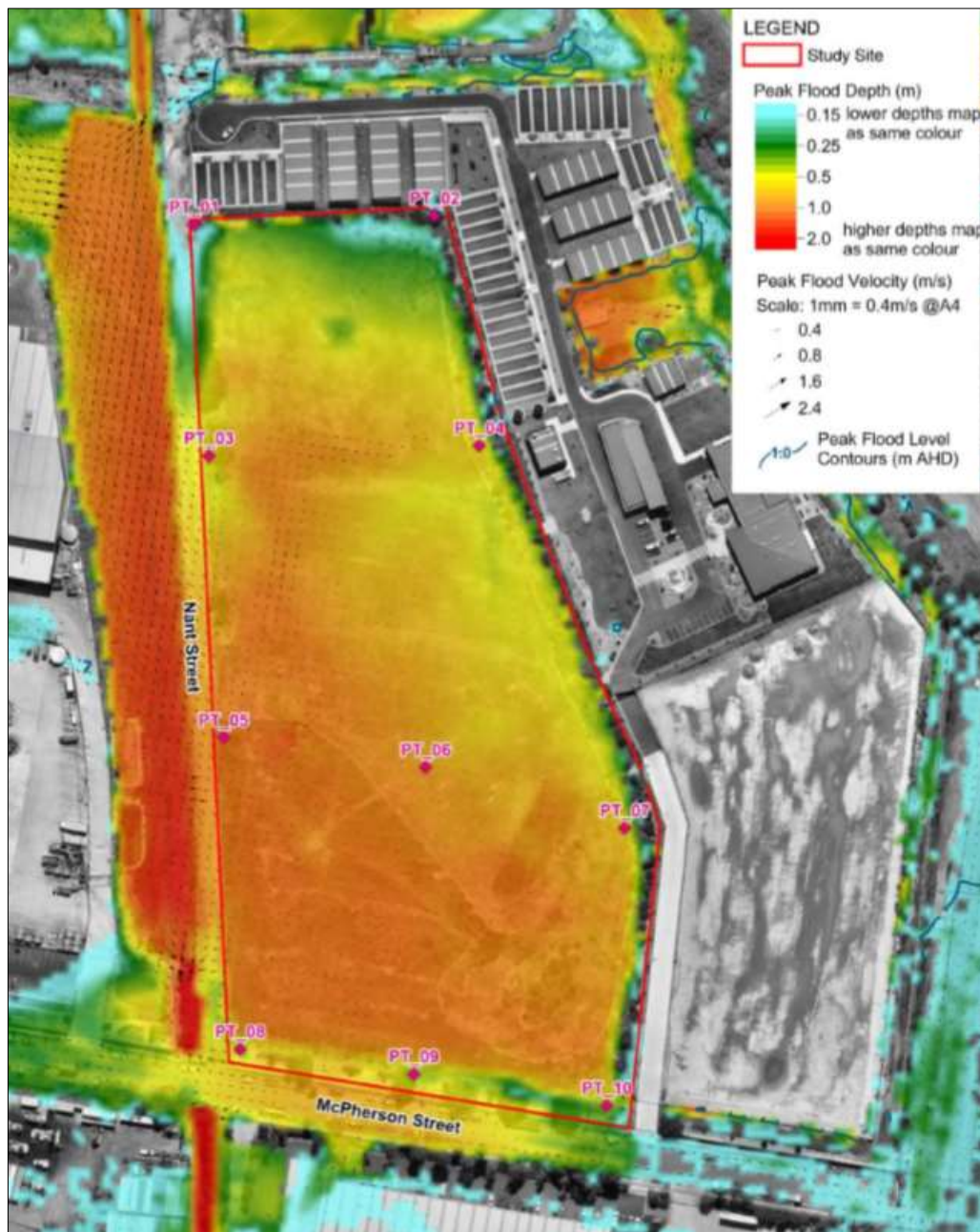


Figure 19: 1% AEP existing conditions – modelling locations (Source: BMT)

| Location<br>(Refer to<br>Figure 5-1) | Current Scenario           |                            |                      | Proposed Scenario          |                            |                      |
|--------------------------------------|----------------------------|----------------------------|----------------------|----------------------------|----------------------------|----------------------|
|                                      | 5% AEP<br>Event<br>(m AHD) | 1% AEP<br>Event<br>(m AHD) | PMF Event<br>(m AHD) | 5% AEP<br>Event<br>(m AHD) | 1% AEP<br>Event<br>(m AHD) | PMF Event<br>(m AHD) |
| PT_01                                | n/a                        | n/a                        | 4.9                  | n/a                        | n/a                        | 4.9                  |
| PT_02                                | n/a                        | n/a                        | 5.0                  | n/a                        | n/a                        | 5.0                  |
| PT_03                                | 3.9                        | 4.1                        | 4.9                  | 4.0 <sup>1</sup>           | 4.1                        | 4.9                  |
| PT_04                                | 3.9                        | 4.1                        | 4.9                  | 4.0 <sup>1</sup>           | 4.1                        | 4.9                  |
| PT_05                                | 3.9                        | 4.1                        | 4.9                  | 4.0 <sup>1</sup>           | 4.1                        | 4.9                  |
| PT_06                                | 3.9                        | 4.1                        | 4.9                  | 4.0 <sup>1</sup>           | 4.1                        | 4.9                  |
| PT_07                                | 3.9                        | 4.1                        | 4.9                  | 4.0 <sup>1</sup>           | 4.1                        | 4.9                  |
| PT_08                                | 3.9                        | 4.1                        | 4.9                  | 4.0 <sup>1</sup>           | 4.1                        | 4.9                  |
| PT_09                                | 3.9                        | 4.1                        | 4.9                  | 4.0 <sup>1</sup>           | 4.1                        | 4.9                  |
| PT_10                                | 3.9                        | 4.1                        | 4.9                  | 4.0 <sup>1</sup>           | 4.1                        | 4.9                  |

Table 11: Peak water levels at selected locations for 5% AEP, 1% AEP and PMF events (Source BMT)

| Location<br>(Refer to<br>Figure 5-1) | Current Scenario         |                          |                    | Proposed Scenario        |                          |                    |
|--------------------------------------|--------------------------|--------------------------|--------------------|--------------------------|--------------------------|--------------------|
|                                      | 5% AEP<br>Event<br>(m/s) | 1% AEP<br>Event<br>(m/s) | PMF Event<br>(m/s) | 5% AEP<br>Event<br>(m/s) | 1% AEP<br>Event<br>(m/s) | PMF Event<br>(m/s) |
| PT_01                                | n/a                      | n/a                      | 0.8                | n/a                      | n/a                      | 0.7                |
| PT_02                                | n/a                      | n/a                      | 0.2                | n/a                      | n/a                      | 0.3                |
| PT_03                                | 0.2                      | 0.3                      | 0.9                | 0.2                      | 0.3                      | 0.9                |
| PT_04                                | 0.0                      | 0.0                      | 0.1                | 0.1                      | 0.1                      | 0.2                |
| PT_05                                | 0.2                      | 0.3                      | 0.6                | 0.2                      | 0.3                      | 0.6                |
| PT_06                                | 0.0                      | 0.0                      | 0.2                | 0.1                      | 0.1                      | 0.2                |
| PT_07                                | 0.0                      | 0.1                      | 0.2                | 0.0                      | 0.1                      | 0.2                |
| PT_08                                | 0.2                      | 0.2                      | 0.5                | 0.2                      | 0.2                      | 0.4                |
| PT_09                                | 0.0                      | 0.0                      | 0.2                | 0.0                      | 0.1                      | 0.2                |
| PT_10                                | 0.0                      | 0.0                      | 0.3                | 0.0                      | 0.0                      | 0.3                |

Table 12: Peak velocities at selected locations for 5% AEP, 1% AEP and PMF events (Source: BMT)

As shown in Table 11 and Table 12, there would be negligible impacts to the peak water levels and velocities as a result of the development during the 5% AEP, 1% AEP and PMF events.

The FIA states that there are no modelled off-site impacts for all flood events up to the PMF due to the underside of the proposed development deck (constructed to 6.7 m AHD) being elevated well above the PMF flood levels (5.0 m AHD). Flood mapping for the full range of flood events is provided at Appendix B of the FIA.

### 8.2.3 Flood planning levels

Chapter 8 of Council's Stormwater Management Technical Guidelines state that:

*"For a site within Council's identified flood area or within the vicinity of Council or Sydney Water drainage easement/reserve or stormwater drainage system (including open/covered channel, watercourse and underground drainage pipes/culverts), the finished floor levels shall be minimum 500mm (habitable buildings/structures) and 300mm (non-habitable buildings/structures, such as garages, ramps to the basement car parking area) above the estimated 1% AEP flood level."*

To accord with Council's guidelines, the flood planning levels for the site are required to be constructed to 4.6 m AHD for habitable buildings and 4.4 m AHD for non-habitable buildings, (noting that 1% AEP flood level for the site is 4.1 m AHD).

The floor levels of the two warehouse structures upon the elevated concrete platform will be set at 5.6 m AHD and 6.7 m AHD ensuring that all habitable structures and hardstand areas proposed as part of the development will be free of inundation during the full range of flooding events up to the PMF.

In summary, the site will maintain its existing flood storage capacity once the proposed warehouse and distribution facility is constructed and operational.

### 8.2.4 Flood Emergency Response Plan

The FIA included a Flood Emergency Response Plan (FERP) for the site which includes consideration of site accessibility, flood-free access to and from the development site and evacuation measures in extreme flood events up to the PMF.

The FERP refers to a six-tiered flood hazard classification threshold, as outlined in the *Updating National Guidance on Best Practice Flood Risk Management* prepared by the National Flood Risk Advisory Group. The flood hazard categorisation and vulnerability thresholds are outlined in Table 13.

| Hazard Classification | Description                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| H1                    | Relatively benign flow conditions. No vulnerability constraints.                                                                               |
| H2                    | Unsafe for small vehicles.                                                                                                                     |
| H3                    | Unsafe for all vehicles, children and the elderly.                                                                                             |
| H4                    | Unsafe for all people and vehicles.                                                                                                            |
| H5                    | Unsafe for all people and all vehicles. Buildings require special engineering design and construction.                                         |
| H6                    | Unconditionally dangerous. Not suitable for any type of development or evacuation access. All building types considered vulnerable to failure. |

Table 13: Flood hazard classification and vulnerability thresholds (Source: BMT)

During the 1% AEP event, floodwaters along both Nant Street and McPherson Street are characterised as H1, H2 or H3 (refer to the flood hazard classification at Table 13) while the

level of flood hazard within the development site is predominately H3 (mostly as a result of the flood depths, noting the relatively low velocities).

During the PMF event the flood hazard classification on the site and along both Nant Street and McPherson Street increases to H4, with minor sections of Nant Street increasing to the H5 hazard classification.

Based on the local flood behavior within and surrounding the site during major flood events, the FERP considers there would be insufficient warning time to enable a safe evacuation of the entire site during flood events that exceed the 1% AEP. This is due to floodwaters inundating the surrounding road network within an hour of the onset of flood producing rainfall.

As there is limited available warning time to safely evacuate the site and the proposed development design provides for flood free refuge over the entire development footprint, the FERP's primary recommendation is for all habitants remain on-site during a significant flood event (1% AEP event or greater). The FERP further recommends the installation of an automated flood level alert device which automatically flashes when water reaches a specified depth on McPherson Street.

In addition to the FERP, the FIA recommends a flood education, awareness and preparedness program is implemented for the site.

### **8.3 Contamination**

Southlands and the BIP have been the subject of detailed and extensive contamination investigations and assessments carried out for Orica Australia Pty Ltd (and its predecessor ICI Australia Limited) by a number of consultants and extending over the period from 1990 to 2018.

To support the application, a Remediation Action Plan (RAP) has been prepared by JBS&G and is included at Appendix G. The RAP provides a summary of previous remediation works that have been carried out at the site and outlines a remediation approach to ensure the site is made suitable for its intended use as an industrial warehouse and distribution facility.

#### **8.3.1 Previous investigations**

Previous investigations undertaken for the Southlands Remediation and Development Project presented a remedial approach for identified contamination that was endorsed by an EPA accredited Site Auditor.

Stage 1 of the project included the completion of all remedial works and the issue of a Section A Site Audit Statement indicating that the western portion of former 'Southlands' estate (i.e. the Goodman owned land) was suitable for commercial/industrial use. During this stage of works, remediation was also undertaken on the eastern portion of the former Southlands estate with shallow, non-volatile and volatile contamination being remediated for commercial/industrial use and outdoor commercial/industrial use respectively. Subsequent development of two of the eastern lots (i.e. the site of the Australian Government Detector Dog Facility and the 8-unit industrial development currently under construction to the east of the subject site) has also resulted in the issue of Section A Site Audit Statements.



The subject site (Lot 9) was the subject of an EPA accredited Site Auditor review and subsequent preparation of a Site Audit Report. This is discussed in further detail at Section **Error! Reference source not found..**

### 8.3.2 Extent and nature of contamination

The RAP notes that widespread asbestos impacted soils exist across the site. Previous investigations and extensive remediation of contamination hotspots have been carried out at the site and throughout the broader Southlands industrial estate. JBS&G states that *“due to the presence of ground gases (primarily carbon dioxide), dissolved phase chlorinated hydrocarbon groundwater plumes and chlorinated hydrocarbon soil vapour, gas mitigation measures are required to prevent vapour intrusion for buildings proposed to be constructed on the site”*.

The RAP notes that the following remediation/management is required to enable the site to be used for its intended commercial/industrial use:

- asbestos in fill material;
- ground gases (carbon dioxide); and
- potential vapour intrusion of volatile chlorinated hydrocarbons.

### 8.3.3 Remediation Action Plan

The RAP has been prepared in accordance with the requirements of the EPA’s statutory guidelines. The preferred remediation strategy for the site, as outlined in the RAP involves:

- *On site containment of fill materials as impacted by bonded (i.e. ACM) and friable (asbestos fines) asbestos using marker and barrier layers across the site, with the exception of an existing vegetation buffer along the eastern portion of the site that will be retained in its current state and secured with a fence to minimise access; and*
- *Management of potential soil vapour intrusion into buildings by construction of any buildings on a suspended slab with a large open void beneath, which will provide a passive venting system for gas mitigation into buildings.*

The consolidation and isolation of the soil on-site by containment within a property design barrier is the most appropriate remediation option for asbestos impacted fill at the site. This remediation option will minimise soil disturbance and therefore public risk.

The RAP confirms that the gas mitigation will be achieved as a result of the elevated concrete slab proposed as part of the development that will allow for a large open void beneath the warehouse and hardstand areas. The presence of this open void will allow for passive ventilation for gas mitigation.

Subject to the successful implementation of the remediation measures detailed in the RAP, it is considered that the site can be made suitable for the proposed land use and enable a Section B Site Audit Statement to be issued by the EPA accredited Site Auditor (discussed at Section **Error! Reference source not found.**). Further, the development is consistent with the requirements of SEPP 55 as the RAP confirms that the site can be made suitable industrial and commercial use.

The RAP also states that a site-specific Construction Environmental Management Plan (CEMP) is required for the construction phase of the proposed development which will need



to consider how the required works under the RAP will be completed. The CEMP will require approval by the appointed Site Auditor.

#### **8.3.4 Site Audit Statement and Site Audit Report**

A Section B Site Audit Statement and Site Audit Report have been prepared by an EPA accredited EPA Site Auditor (C.M Jewell and Associates Pty Ltd). The Site Audit Statement and Site Audit Report are provided at Appendix G1 and Appendix G2, respectively.

The Site Audit Statement, dated 15 May 2019, confirms the subject site (Lot 9 in DP 1205673) can be made suitable for its intended use (commercial/industrial land use), subject to compliance with the following conditions:

- a CEMP must be prepared to manage any risks associated with contamination in soil, groundwater and ground gas that may be encountered during remediation and construction activities and must be submitted to a site auditor for review, and
- a Validation Report must be prepared which demonstrates that site work has been completed in accordance with the RAP and CEMP and includes verification of placement of the contact barrier and confirmation of the construction of the deck, void and associated foundations and must be submitted to a site auditor for review prior to construction of any permanent buildings on the site, and
- a Long-Term Environmental Management Plan must be prepared for the site that provides a legally enforceable mechanism to document the presence of residual contamination by asbestos and hazardous ground gases at the site and manage the risks associated with that contamination and must be submitted to the a site auditor for review, and
- a Site Audit Statement confirming that the site is suitable for commercial and industrial use must be issued by a site auditor prior to occupation of any permanent buildings constructed on the site.

The Site Audit Report has been prepared in accordance with the EPA's *Guidelines for the NSW Site Auditor Scheme* (EPA, 2017). The Report summarises the process of assessment of contamination affecting the site, and the procedures and standards to be followed in order to manage the risks posed by contaminated soil and groundwater and associated vapour/gas, in order to make the site suitable for the proposed commercial/industrial land use.

The Site Audit Report finds that the RAP prepared for the site is suitable and appropriate. The Site Audit Report concludes that, should the subject site be remediated and managed in accordance with the RAP and the conditions listed in the Site Audit Statement, it can be made suitable for future commercial and industrial use.

### **8.4 Hazards and risk**

A Hazards and Risk Assessment (HRA) has been prepared by Sherpa Consulting and is included at Appendix H. The HRA includes:

- a preliminary risk screening in accordance with SEPP 33;
- an assessment of the risks posed by the BIP on the development; and
- an evaluation of the recommendations outlined in the Botany-Randwick Industrial Area Land Use Safety Study (LUSS) (DUAP, 2001).

#### 8.4.1 SEPP 33 risk assessment

The risk screening process specified under *Applying SEPP 33* (DPE, 2011) requires consideration of the type and quantity of hazardous materials to be stored on a site, the distance of the hazardous materials storage area to the nearest site boundary and the expected number of transport movements of dangerous goods.

The proposed warehouse and distribution facility will be used for the storage and distribution of general merchandise arriving from Port Botany. The development will not involve the storage or handling of hazardous materials or dangerous goods and therefore will not exceed the relevant risk screening thresholds under *Applying SEPP 33* for either storage or transport.

Further to the above, the HRA confirms the development will not involve:

- storage or transport of incompatible materials (i.e. hazardous and non-hazardous materials);
- generation of hazardous waste;
- generation of dusts within confined areas;
- incompatible, reactive or unstable materials and process conditions that could lead to uncontrolled reaction or decomposition; and
- storage or processing operations involving high (or extremely low) temperature and/or pressure.

The SEPP 33 risk screening included as part of the HRA determined the development does not constitute 'potentially hazardous' development with respect to the storage and handling of dangerous goods and therefore does not require a Preliminary Hazard Analysis to be prepared.

#### 8.4.2 BIP risk assessment

The assessment of risks relating to the BIP on the proposed development was undertaken in reference to the most recent Quantitative Risk Assessment (QRA) model for the BIP (Sherpa Consulting, 2018).

The QRA describes the BIP as comprising approximately 73 ha and is bounded by an industrial area to the north by Corish Circle, to the east by Denison Street, to the south by Beauchamp Road and to the west by the Botany Goods railway line easement. In addition, Qenos owns land to the west of the railway line near Nant Street which contains a tank farm.

There are two main facilities within the BIP producing feedstock for downstream plants, which are described in the QRA as:

1. *At the northern end of the BIP, the Qenos Olefines plant manufactures ethylene, propylene and co-products by cracking ethane feed supplied to the BIP by pipeline. The ethylene is reticulated around the BIP and used by the Qenos Alkathene and Alkatuff Plants, and the Huntsman Surfactants Plant to produce other materials.*
2. *At the southern end of the BIP is the Ixom ChlorAlkali Facility. The ChlorAlkali Plant (CAP) uses salt, water and electricity to manufacture gaseous chlorine, caustic soda and hydrogen using electrolysis in a membrane cell plant. All produced chlorine is consumed in the Products Plants, comprising the sodium hypochlorite (Hypo) plant, the hydrochloric acid (HCl) plant and the ferric chloride (FeCl<sub>3</sub>) plant.*

The subject site in context to the BIP and Qenos tank farm is shown in Figure 20.



Figure 20: Site location in proximity to the Botany Industrial Park (Base source: Sherpa Consulting)

Risk has been assessed in the HRA by comparing risk levels at the development site against the NSW land use planning risk criteria provided under the *Hazardous Industry Planning Advisory Paper No 10 – Land Use Safety Planning* (HIPAP) (DPE, 2011).

The HIPAP outlines the risk criteria for new development in the vicinity of potentially hazardous facilities. In the context of the proposed development site in Banksmeadow, potentially hazardous facilities may include the various industrial facilities operating within the adjacent BIP. The relevant risk criteria assessed in the HRA includes:

- Individual fatality risk
- Damage and propagation (heat radiation)
- Damage and propagation (explosion overpressure).

Figure 21 to Figure 23 illustrate the BIP risk profiles contours that were used to assess to level of risk posed by the BIP.



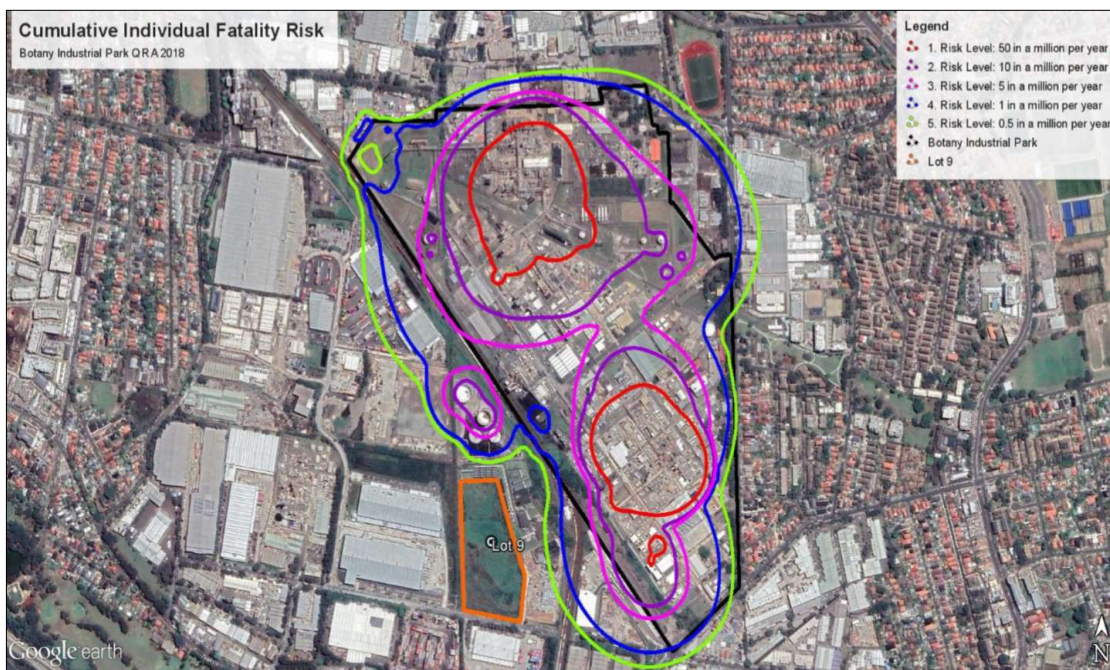


Figure 21: Individual fatality risk contours (Source: Sherpa Consulting)

As shown in Figure 21 above, the individual fatality risk at the 50 in a million per year level is contained mostly within the BIP and Qenos Tank Farm boundaries. The risk posed by the BIP at the proposed development is outside of the 0.5 in a million per year risk contour.

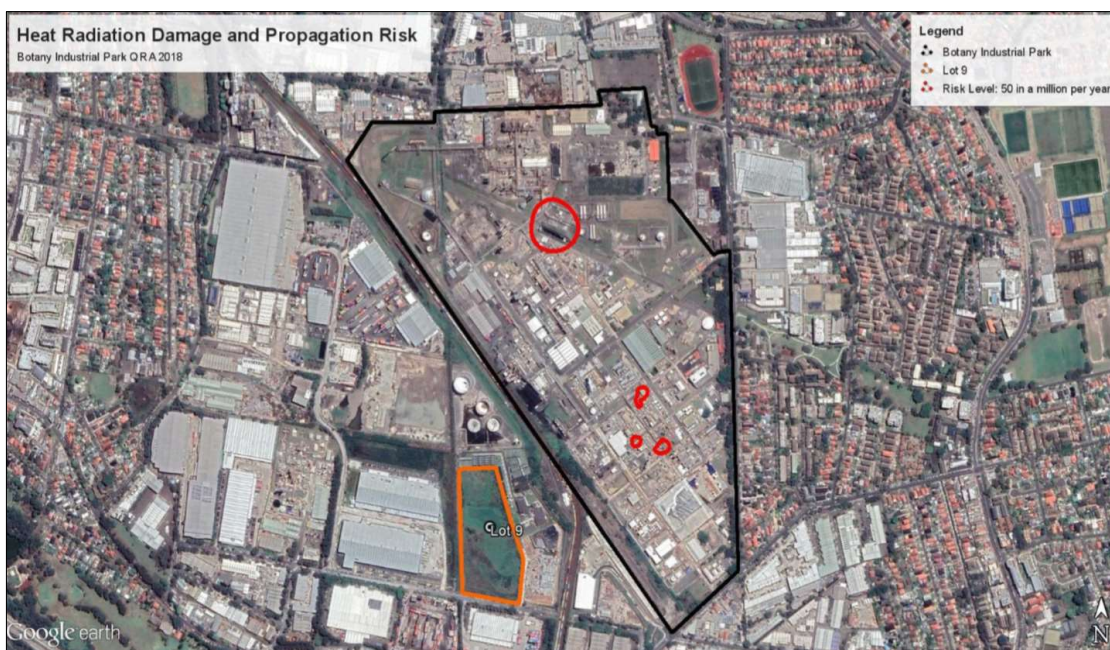


Figure 22: Damage and propagation risk contours – heat radiation (23 kW/m<sup>2</sup>) (Source: Sherpa Consulting)



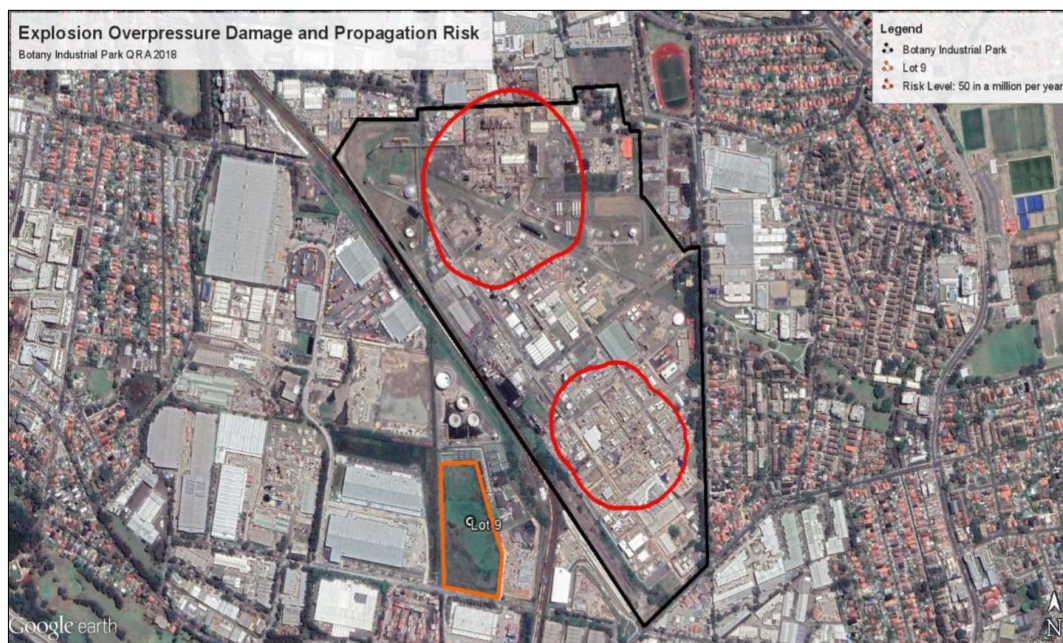


Figure 23: Damage and propagation risk contours – explosion overpressure (14 kPa) (Source: Sherpa Consulting)

As shown in Figure 22 and Figure 23 above, both the heat radiation damage and explosion overpressure damage and propagation risk at the 50 in a million per year level do not encroach within the proposed development site.

#### 8.4.3 Societal risk

The HRA defines societal risk as a measure of the probability of incidents affecting an actual person/population. The HIPAP requires societal risk to be assessed should a proposed development result in the intensification of population in the vicinity of a hazardous facility.

The assessment of societal risk in the HRA considers impacts to both the cumulative societal risk and the incremental societal risk from the proposed warehouse development.

The population density for the proposed development (number of employees) is dependent on the end-use and associated operations that are carried out within the facility. Accordingly, the HRA makes reference to the employment density for general goods warehousing activities (i.e. storage and distribution) for industrial areas in the vicinity of the BIP. A total of 41 people/ha is identified in the BIP QRA (2018). This information has, therefore, been used to estimate the total population of the proposed development, based on the total site area (approximately 4.1 ha). The proposed development is estimated to have a maximum employment population of 170 people (day-time) and 34 people (night-time).

The population definition for storage and distribution facilities is shown in Table 14 below.



| Activity                 | Definition       |          |         | Area (ha) | Onsite Population |       |
|--------------------------|------------------|----------|---------|-----------|-------------------|-------|
|                          | Density (per ha) | Day      | Night   |           | Day               | Night |
| Storage and distribution | 41.2             | 100% day | 20% day | 4.13      | 170               | 34    |

Table 14: Population definition – storage and distribution facilities (Source: Sherpa Consulting)

The BIP QRA (2018) assesses two societal risk profiles, including:

- **Current development** – refers to the societal risk profile assessed for populations on existing developments, based on the latest 2016 census data (residential) and journey to work data (employment)
- **Approved development** – refers to the societal risk profile assessed for the ‘current development’, plus population estimates for developments that have been approved around the BIP (but are not yet occupied or were likely to be occupied after the collection data of the 2016 census), including:
  - BIP subdivision at Denison Street and Corish Circle, Banksmeadow
  - Bunnings Warehouse on Denison Street, Eastgardens (opposite the BIP)
  - Redevelopment of the former British-American Tobacco site adjacent to Westfield Eastgardens

The HRA compared the societal risk profile against the BIP QRA (2018) risk profile for both the ‘current development’ and ‘approved development’ scenarios to determine the impact of the proposed development to the overall societal risk and evaluation against the HIPAP societal risk criteria.

The **cumulative** societal risk assessment found that the proposed development has very little impact on the overall societal risk when compared against both development scenarios. The **incremental** societal risk assessment found that proposed development lies within the negligible region, and therefore, should not be precluded within the context of the HIPAP.

### Scaled Risk Integral

In addition to qualitative and quantitative risk assessment against HIPAP 10 criteria, DPIE further requested (in a meeting with the Applicant on 19 February 2019) that the incremental societal risk for the proposed development be determined using the Scaled Risk Integral (SRI) technique, set out in HIPAP 10.

This method is derived from the standard societal risk ‘FN’ plot concept that was adopted for the area wide BIP 2018 QRA (the FN curve is the cumulative frequency of fatality (F) of a number (N) or more people), but uses the following simplified information to determine a single SRI value for a proposed development:

- the average individual risk results
- the land use category of each site (e.g. housing, retail, industrial etc.)
- details of the number of persons (n) at each site
- the proportion of time each site is occupied by (n) persons
- the area of each site

The HRA notes that a conservative estimate of SRI has been made based on the proposed development area using:

- the calculated population case (i.e. maximum of 170 people/employment)
- the highest risk level at the site (i.e. northern end of the proposed development, equating to  $9 \times 10^{-8}$  per year)

A 'comparison value' of 1100 is used for assessment purposes. The method of the obtaining the comparison value is detailed in the HRA.

The HRA confirms that the estimated SRI for the site is 10, which is well below the comparison value of 1100. The HRA, therefore, finds that the societal risk will not significantly change as a result of the proposed development on the subject site.

### **Summary**

The HRA has assessed the cumulative and incremental societal risk of the proposed development and considered the proposal in accordance with the SRI.

The HRA finds that the development will have very little impact on overall cumulative and incremental societal risk from the BIP, and that the broader societal risk profile will not result in a significant change due to the proposed development.

#### **8.4.4 Botany-Randwick Industrial Area Land Use Safety Study**

The Botany-Randwick Industrial Area LUSS recommends that future developments within the Botany/Randwick industrial area should be subject to full risk assessment. In addition, proposed developments should undergo comprehensive environmental impact assessment to conclusively demonstrate that the development will not produce off-site risks that are inappropriate for surrounding land uses.

The relevant considerations and detailed recommendations specified under the Botany-Randwick Industrial Area LUSS are listed in the HRA. The key considerations provided in the HRA note the following:

- the SEPP 33 risk screening demonstrates the development will not pose off-site fatality risk as no hazardous materials and dangerous goods are proposed;
- the development is not 'potentially hazardous' and therefore a Preliminary Hazard Analysis is not required;
- residential intensification is not proposed as part of the development;
- the transportation of dangerous goods is not proposed as part of the development;
- suitable emergency response procedures will be developed for site;
- the Proponent will consult with the BIP to ensure the emergency plan for the site accounts for the required response to an incident in the BIP or the Qenos Tank Farm (this may be achieved through a condition of consent); and
- the community and relevant stakeholders will be consulted as part of the SSD assessment process including consultation with the BIP in relation to emergency response planning.

In summary, the risk assessment finds that the development will not result in off-site risks or impact on the surrounding land uses.

## 8.5 Traffic and transport

A Traffic Impact Assessment (TIA) has been prepared by TRAFFIX and is included at Appendix I. The TIA considers the existing traffic conditions surrounding the site, assesses the potential traffic implications as a result of the development and considers the car parking requirements that would be generated by the proposal.

### 8.5.1 Existing traffic conditions

Primary access to the site will be via McPherson Street which connects to Hills Street to the west. The road network surrounding the site is shown in Figure 24 and is further described below:

- **Botany Road:** an RMS arterial road that traverses in a north-south direction between Regent Street in the north and Bunnerong Road in the south;
- **Foreshore Road:** an RMS arterial road that traverses in an east-west direction between Botany Road in the east and General Holmes Drive in the west;
- **McPherson Street;** a local road that traverses in an east-west direction between a cul-de-sac in the east and Hills Street in the west;
- **Hills Street:** a local road that traverses in a north-south direction between McPherson Street in the north and Botany Road in the south. Orica undertook upgrading works at the intersection of Hills and Botany Road in 2015 as part of its works to facilitate the development of the wider site, formerly referred to as 'Southlands';
- **Exell Street:** a local road that traverses in a north-south direction between McPherson Street in the north and Botany Road in the south; and
- **Nant Street:** an unformed access road that traverses in a north-south direction between the Qenos Tank Farm in the north and McPherson Street in the south. It is used as the primary access for the Qenos Tank Farm with access restricted by a gate. As such, Nant Street does not accommodate general traffic.

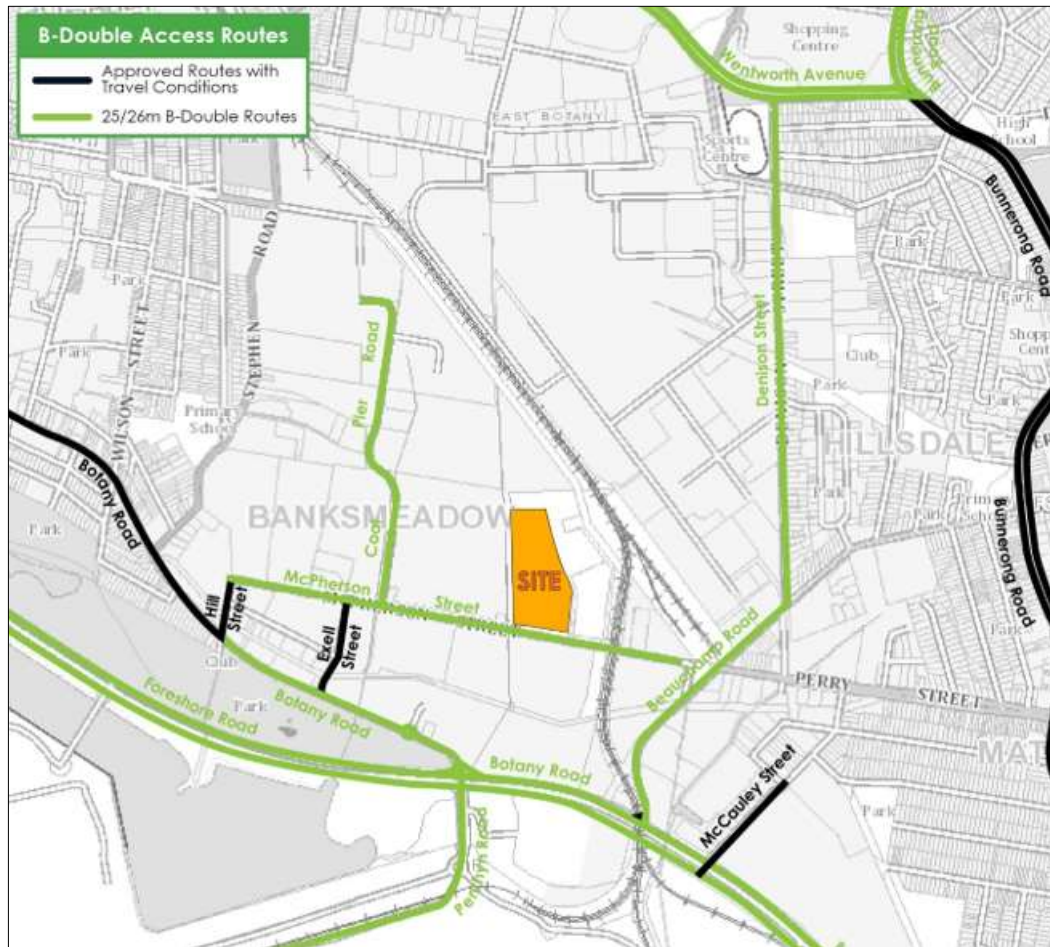


Figure 24: Road network surrounding the site and B-Double access routes (Source: TRAFFIX)

### 8.5.2 Traffic impact assessment

The TIA has adopted the traffic generation rates for business parks and industrial estates as outlined in the *Guide to Traffic Generating Developments – Updated traffic surveys* (RMS, 2013/04a). The application of these rates to the development anticipates the following traffic generation:

- 113 vehicles per hour during the AM peak period (79 in, 34 out)
- 122 vehicles per hour during the PM peak period (37 in, 85 out)
- 980 vehicles per day (split between in and out)

Using the above trip generation rates, traffic distribution was modelled using SIDRA for both the existing (base case) conditions and future (developed site) conditions at the following intersections:

- Botany Road / Hills Street
- Botany Road / Exell Street
- Exell Street / McPherson Street
- McPherson Street / Nant Street
- Botany Road / Foreshore Road / Penrhyn Road

The location of key intersections is shown in Figure 25. The traffic modelling results at these intersections are outlined in Table 15.

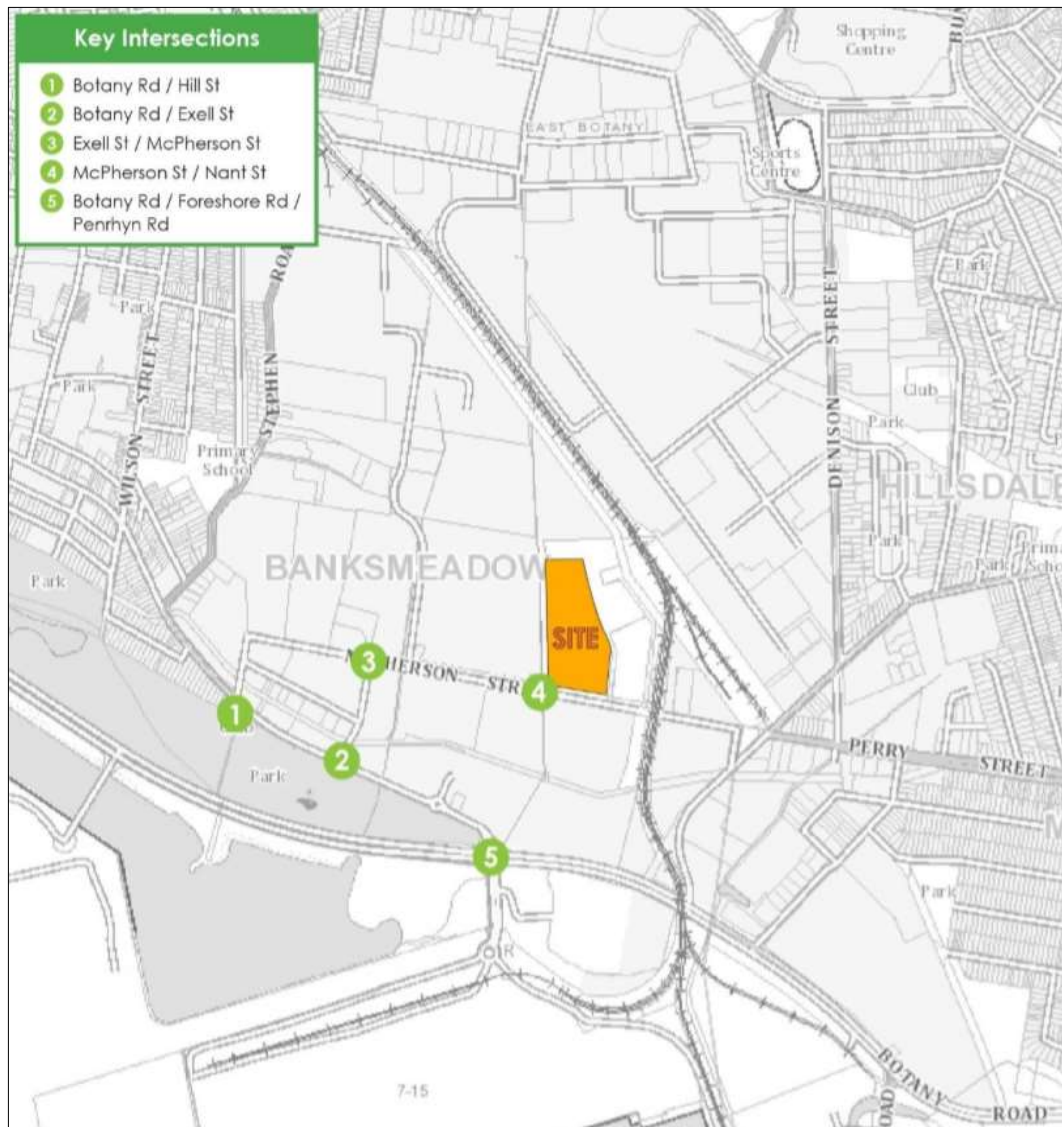


Figure 25: Location of modelled intersections (Source: TRAFFIX)



| Intersection                                 | Scenario | Period | Degree of Saturation | Intersection Delay | Level of Service |
|----------------------------------------------|----------|--------|----------------------|--------------------|------------------|
| Botany Road and Hills Street                 | Existing | AM     | 0.573                | 17.0               | B                |
|                                              | Future   |        | 0.699                | 19.8               | B                |
|                                              | Existing | PM     | 0.208                | 10.5               | A                |
|                                              | Future   |        | 0.246                | 10.4               | A                |
| Botany Road and Exell Street                 | Existing | AM     | 0.403                | 11.9               | A                |
|                                              | Future   |        | 0.443                | 12.0               | A                |
|                                              | Existing | PM     | 0.471                | 9.1                | A                |
|                                              | Future   |        | 0.559                | 9.9                | A                |
| Exell Street and McPherson Street            | Existing | AM     | 0.129                | 6.9                | A                |
|                                              | Future   |        | 0.155                | 6.8                | A                |
|                                              | Existing | PM     | 0.211                | 6.5                | A                |
|                                              | Future   |        | 0.278                | 6.5                | A                |
| McPherson Street and Nant Street             | Existing | AM     | 0.002                | 4.7                | A                |
|                                              | Future   |        | 0.032                | 5.5                | A                |
|                                              | Existing | PM     | 0.013                | 4.6                | A                |
|                                              | Future   |        | 0.025                | 5.5                | A                |
| Botany Road, Foreshore Road and Penrhyn Road | Existing | AM     | 0.852                | 25.7               | B                |
|                                              | Future   |        | 0.895                | 30.6               | C                |
|                                              | Existing | PM     | 0.771                | 28.4               | B                |
|                                              | Future   |        | 0.792                | 29.8               | C                |

Table 15: Intersection performance (Source: TRAFFIX)

As shown in Table 15, all key intersections currently operate at a Level of Service (LoS) 'A' or LoS 'B' during the AM and PM peak periods. LoS 'A' and 'B' indicate the highest levels of operating performance with acceptable delay and spare capacity.

Under future (developed) conditions, all intersections continue to maintain the existing LoS except for the intersection of Botany Road / Foreshore Road / Penrhyn Road which decreases from a LoS 'B' to LoS 'C' during both the AM and PM peak periods. Despite the reduction in LoS the intersection is expected to maintain an acceptable overall standard.

In terms of the average intersection delay, a minor increase of 1 to 5 seconds delay would be experienced at most intersections which is considered a negligible overall impact.

In summary, the SIDRA modelling demonstrates that all intersections will continue to maintain an acceptable LoS and operate in a safe and efficient manner. Consequently, the development does not generate the need for any upgrading or improvement works across the broader road network.

### 8.5.3 Access and car parking

The development proposes a new two-way access point to be constructed from McPherson Street. The access point will have a width of approximately 14.3 m and will be constructed in accordance with the requirements of AS 2890.2 (2002).

The development provides a total of 117 car parking spaces, including two accessible spaces. The development also provides a total of 12 bicycle parking spaces. The car parking provision complies with the minimum required car parking rate outlined in the BBDCP 2013, as outlined in Table 16 below.

| Type                                     | GFA                   | DCP Minimum Parking Rate           | Car Parking Required | Spaces Provided |
|------------------------------------------|-----------------------|------------------------------------|----------------------|-----------------|
| <b>Warehouse or Distribution Centres</b> |                       |                                    |                      |                 |
| <b>Warehouse</b>                         | 19,780 m <sup>2</sup> | 1 space per 300 m <sup>2</sup> GFA | 67                   | 117             |
| <b>Ancillary Office</b>                  | 2,000 m <sup>2</sup>  | 1 space per 40 m <sup>2</sup> GFA  | 50                   |                 |
| <b>Total</b>                             |                       |                                    | 117                  |                 |

Table 16: Summary of car parking requirements

The internal design of the car park ensures that it will comply with AS 2890.1 (2004), AS 2890.2 (2002) and AS 2890.6 (2009).

#### 8.5.4 Refuse collection and servicing

Each warehouse building is proposed to provide an internal loading area capable of accommodating a design vehicle up to and including a 19 m AV.

The TIA includes a swept path analysis for the largest design vehicle anticipated to service the development which demonstrates that the loading area can be operated satisfactorily.

#### 8.5.5 Sustainable travel

The TIA recommends preparing a Workplace Travel Plan (WTP) for the development to encourage alternative modes of transport such as walking, cycling and public transport use. A WTP is considered the most effective travel planning measure to encourage employees to travel by alternative means other than by private vehicle.

There are no dedicated cycle lanes in the vicinity of the site, therefore requiring cyclists to share the road with heavy vehicle traffic. The WTP would therefore encourage alternative modes of transportation, such as carpool schemes.

The TIA also encourages the adoption of a Travel Access Guide (TAG) which educates employees of alternative transport options, other than private car usage. The TAG would be distributed to employees and visitors in order to provide relevant transport information.

The TIA recommends that both a WTP and TAG be finalised prior to the release of an Occupation Certificate. The adoption of these plans will encourage alternative modes of transport and therefore reduce the reliance on private vehicles.

#### 8.5.6 Construction Traffic Management Plan

A Construction Traffic Management Plan (CTMP) will be prepared and submitted to Council separate to this DA, and in response to any future conditions of consent. The CTMP will be finalised upon appointment of the head contractor.

The TIA concludes that the ultimate developed site will not have any unacceptable traffic implications on the local road network and can operate satisfactorily.

## **8.6 Biodiversity**

A Biodiversity Development Assessment Report (BDAR) has been prepared in accordance with the NSW Biodiversity Assessment Method (BAM) 2017 established under the BC Act. The BDAR was prepared by WSP and is included at Appendix J.

### **8.6.1 Existing environment**

The BDAR has found no remnant native vegetation or associated plant community types (PCT) on site and that all current vegetation is the result of landscape plantings and/or exotic weed recruitment of previously disturbed areas. This is the result of an extensive history of modification and disturbance of the site including significant bulk earthworks activities to prepare the site as a flood detention basin (carried out under separate approval).

Targeted surveys were undertaken for the Green and Golden Bell Frog species during optimal conditions in accordance with the BAM guidelines. The surveys did not locate any evidence of the Green and Golden Bell Frog within the site or adjacent lands. Further, the BDAR notes that the species is considered extinct in the Botany Wetland locality based on a lack of any recent records.

Fauna habitat is generally in a poor condition due to the fragmentation of tree canopies and previous clearing works and disturbances to the site. There are limited potential resources available for locally occurring fauna and no hollow-bearing trees were identified within the site.

No threatened species, ecological communities or their habitat listed under the BC Act would be impacted by the development.

### **8.6.2 Flora assessment**

The BDAR has found no remnant native vegetation or PCTs on the site and all current vegetation is the result of landscape plantings and/or exotic weed recruitment of previously disturbed areas.

The BDAR considers that no natural soil profiles exist within the site and all patches on native vegetation occur because of landscape plantings.

Two non-native vegetation types were recorded within the development site, including:

- Miscellaneous ecosystem – highly disturbed areas with no or limited native vegetation (mostly exotic perennial grassland and scattered shrubs)
- Miscellaneous ecosystem – urban exotic/native landscape plantings

No threatened fauna was identified utilising the development site during field surveys.

### **8.6.3 Fauna assessment**

Background investigations identified 38 threatened fauna species as having been previously recorded or predicted to occur within the locality, however no threatened fauna has been identified to have a moderate – high likelihood to occur.

No threatened fauna species were identified during field surveys.

The site does not contain any mapped watercourses or permanent water bodies that would provide habitat for any listed threatened aquatic species. The Springvale drain, located west of the site exhibits little suitable habitat for any listed threatened aquatic species.

#### *Green and Golden Bell Frog*

Targeted surveys for the Green and Golden Bell Frog were undertaken as part of the BDAR, which did not provide any evidence of the Green and Golden Bell Frog on site.

The BDAR concludes that as a result of targeted surveys and a lack of any recent records of the species in the broader locality, that the Green and Golden Bell Frog is not considered to be affected by the development.

#### **8.6.4 Mitigation Measures**

The BDAR concludes that a CEMP would be required for the construction phase of the project. The CEMP would include industry standard measures for the management of soil, surface water, weeds and pollutants, as well as site-specific measures such as environmental safeguards for protection of neighbouring properties and waterways.

The BDAR has outlined the following mitigation and management measures to be implemented as part of the CEMP:

- *Erosion and sediment control plans would be established prior to the commencement of piling and construction and be updated and managed throughout as relevant to the activities during the construction phase.*
- *Best practice erosion and sediment controls should be implemented in accordance with Volume 2D of Managing Urban Stormwater: soils and construction (Department of Environment and Climate Change 2008). Design temporary scour protection and energy dissipation measures to protect receiving environments from erosion.*
- *Temporary scour protection and energy dissipation measures should be designed to protect receiving environments from erosion.*
- *Stormwater and flood management will remain per the current circumstance with the basin continuing to discharge into Springvale Drain. New stormwater outlets from the decked development will be treated with appropriate scour protection at ground level.*
- *Stabilised surfaces should be reinstated as quickly as practicable after construction. With a capping layer being created under the deck. Where possible existing planting in setback zones will be maintained and supplemented by new planting per the Landscape Plans for the project.*
- *All stockpiled material should be stored in bunded areas and kept away from waterways to avoid sediment entering the waterway*
- *Restrict equipment storage and stockpiling of resources to designated areas in cleared land.*

The BDAR concludes that no threatened flora or fauna species or their habitat, listed under the BC Act, have been determined to be affected by the proposal.

## **8.7 Infrastructure and services**

A Civil Engineering Report (CER) has been prepared by Costin Roe Consulting and is provided at Appendix K. The CER addresses civil engineering components of the development and provides an overview of the proposed infrastructure and services requirements for the site.

### **8.7.1 Stormwater infrastructure**

All stormwater detention requirements for the former 'Southlands' industrial estate, including the subject site, are accommodated within Lot 9. The surrounding industrial lands discharge directly to Springvale Drain or via the subject site in flood events.

The CER states that the design of the stormwater system for this site will be based on relevant national design guidelines, Australian Standard Codes of Practice and Council's Guidelines for the Design of Stormwater Drainage Systems Within the City of Botany Bay.

The piped stormwater drainage (minor) system has been designed to accommodate the 1 in 20-year ARI storm event. Overland flow paths (major) which will convey all stormwater runoff up to and including the 1 in 100-year ARI storm event have also been provided which will limit major property damage and any risk to the public in the event of a piped system failure.

In accordance with the BBDCP 2013, the development is required to achieve the following pollutant load reductions:

- 90% of gross pollutants;
- 80% of total suspended solids;
- 55% of total phosphorus; and
- 40% of nitrogen.

Roof, hardstand, car parking, roads and other extensive paved areas are required to be treated prior to being discharged from the site. The CER outlines the components of the treatment train for the development as follows:

- primary treatment to parking and hardstand areas is via Stormwater360 S200 Enviropod pit inserts; and
- tertiary treatment of all site water will be treated via infiltration in the flood storage zone/detention basin. The infiltration area is based on a proportion of the basin based on the proportion of the site catchment which is draining to it.

Stormwater modelling using the MUSIC model is further detailed in the CER. The MUSIC model indicates that the stormwater treatment train will result in pollutant load reductions that will meet the requirements of section 3G.4 of the BBDCP 2013. Further, the CER indicates that the design of a stormwater quality management strategy has been developed that will reduce both peak flows and pollutant load leaving this site which will remain consistent with the existing flows.

### **8.7.2 Erosion and sediment control**

The CER includes an Erosion and Sediment Control Plan (ESCP) that demonstrates the construction of the development can proceed without polluting receiving waters. A detailed ESCP will be prepared prior to the commencement of any on-site works. The CER recommends a range of erosion and sediment control measures to be included as part of the detailed ESCP, including (but not limited to) the following:

- clearly visible barrier fencing be installed to ensure traffic control and prohibit unnecessary site disturbance.;



- vehicular access to the site be limited to those essential for construction works and only through stabilised access points;
- land recently established with grass species to be watered regularly until an effective cover has properly established;
- where practical, foot and vehicular traffic will be kept away from all recently established areas; and
- during windy weather, large, unprotected areas will be kept moist (not wet) by sprinkling with water to keep dust under control.

Implementation of the above measures will ensure erosion and sediment control is appropriately managed during construction of the development.

### **8.7.3 Services**

The CER considers the supply and management of the following services required for the development:

- potable water (drinking water);
- waste water;
- electricity; and
- communications.

Sydney Water is the servicing authority for potable water in Banksmeadow. An existing 150 millimetre (mm) water main is located along the full length of the property frontage to McPherson Street. This would need to be extended into the development site in consultation with Sydney Water.

Sydney Water is the servicing authority for sewage disposal in Banksmeadow. Gravity sewer is currently unavailable in the vicinity of the development site. However, Sydney Water have previously agreed that a new pressure main may be installed to meet the needs of the servicing area. A connection to the Southlands Industrial Pressure Sewer System would be required to service the development. Confirmation of the required flows and exact sizing details of the connection will be determined during the detailed design of the development.

Ausgrid is the serving authority for electricity to the site. Consultation with Ausgrid has confirmed that there is adequate capacity in the network for a 1000 kVA substation load. Connection to the site will be via the two existing high-voltage cables adjacent to McPherson Street. The Applicant will continue to consult with Ausgrid to discuss electrical supply to the development.

Communications infrastructure (Telstra) was constructed along the McPherson Street frontage of the site as part of the consent for the former 'Southlands' industrial estate. Future connections will therefore be an extension of this existing infrastructure and will require future consultation with the National Broadband Network.

The CER confirms the site is capable of being serviced by existing and future infrastructure for sewage, potable water, electricity and communications.

### **8.7.4 Groundwater treatment plant**

Infrastructure associated with Orica's groundwater treatment plant (GTP) located in the BIP will be mostly unaffected by the development. The exception is one monitoring well that is

proposed to be lowered into a pit to allow for the construction of the new access driveway extending from McPherson Street. The proposed works will not impact on the continued operation of the GTP and associated infrastructure.

## 8.8 Noise and vibration

A Noise and Vibration Impact Assessment (NVIA) has been prepared by SLR Consulting Australia Pty Ltd (SLR) and is included at Appendix L. The NVIA addresses the potential construction and operational noise and vibration impacts associated with the development.

### 8.8.1 Existing noise conditions

The site and surrounding locality currently experience industrial noise from surrounding industrial and commercial uses including noise from port-related activities at Port Botany. The nearest residential receivers also experience existing road traffic noise particularly along Denison Street in Hillsdale and Stephen Road in Botany.

The NVIA has identified the following as the proposal's nearest noise sensitive receivers:

- The Australian Government Detector Dog facility – outdoor active use (R01)
- 8 warehouse units east of the project site (under construction) – commercial use (R02)
- Warehouse south of the project site – commercial use (R03)
- Commercial building south west of the project site – commercial use (R04)
- Warehouse west of the project site – commercial use (R05)
- Residential receivers to the east – residential use (R06)
- Residential receivers to the west – residential use (R07)
- Banksmeadow Public School – educational establishment (R08)

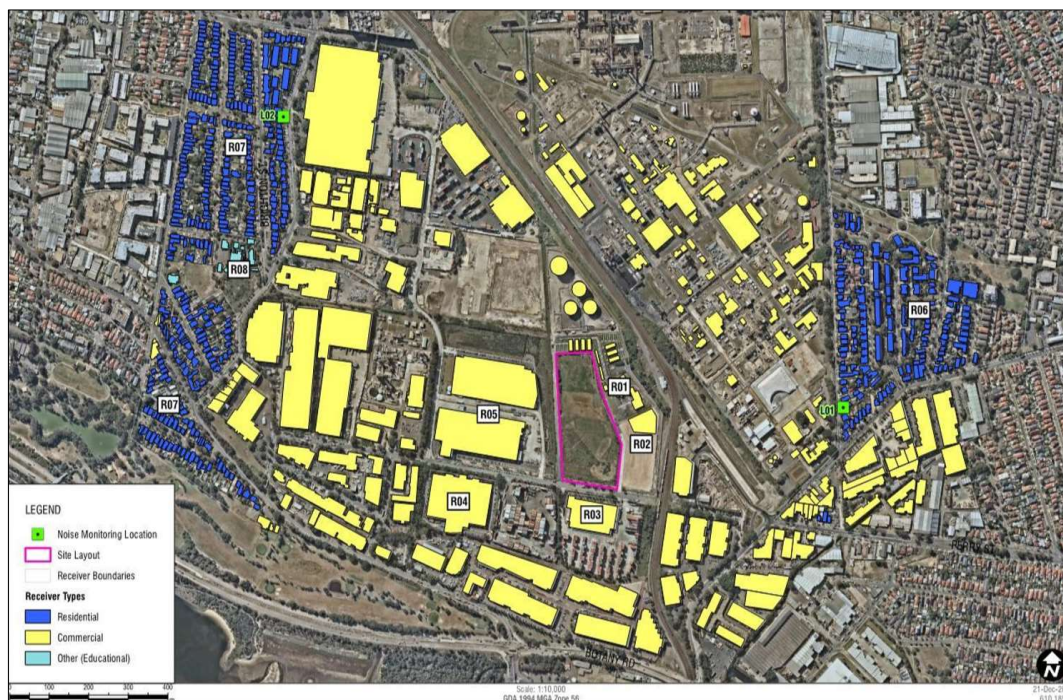


Figure 26: Surrounding sensitive receivers (Source: SLR)

## 8.8.2 Construction noise

Construction works will be undertaken in accordance with the NSW *Interim Construction Noise Guideline* (ICNG) as outlined below:

- 7am to 6pm Monday to Friday; and
- 8am to 1pm on Saturdays.

The NVIA notes that noise sources during construction works would be generated by the following activities:

- site establishment works;
- piling;
- concrete works (including ramps);
- construction of the warehouse buildings; and
- landscaping works.

The NVIA includes a summary of the predicted noise levels (without any additional mitigation) for each of the closest receivers for the various work activities listed above. The summary is shown in Table 17.

| Receiver ID | Receiver type  | Noise Management Levels (NML) | Predicted LAeq(15minute) Noise Level (dBA) <sup>1</sup> |                |                        |                                   |                     |
|-------------|----------------|-------------------------------|---------------------------------------------------------|----------------|------------------------|-----------------------------------|---------------------|
|             |                |                               | W.0001- Early Works – Site Establishment                | W.0002- Piling | W.0003- Concrete works | W.0004- Construction of warehouse | W.0005- Landscaping |
|             |                |                               | Operating Period                                        |                |                        |                                   |                     |
|             |                |                               | DAY                                                     | DAY            | DAY                    | DAY                               | DAY                 |
| R1          | Outdoor Active | 65                            | 74                                                      | 83             | 76                     | 76                                | 82                  |
| R2          | Commercial     | 70                            | 63                                                      | 72             | 65                     | 65                                | 60                  |
| R3          |                | 70                            | 65                                                      | 74             | 67                     | 67                                | 62                  |
| R4          |                | 70                            | 50                                                      | 59             | 52                     | 52                                | 47                  |
| R5          |                | 70                            | 63                                                      | 72             | 65                     | 65                                | 60                  |
| R6          | Residential    | 64                            | 36                                                      | 45             | 38                     | 38                                | 33                  |
| R7          |                | 59                            | 35                                                      | 44             | 37                     | 37                                | 32                  |
| R8          | School         | 55                            | 33                                                      | 42             | 35                     | 35                                | 30                  |

Note 1: Cell shading indicates highest predicted exceedance of NML for worst-case proposed operating period; yellow = minor (less than 10 dB), orange = moderate (11-20 dB), red = high (greater than 20dB)

Table 17: Predicated worst-case noise levels during construction (Source: SLR)

The NVIA finds that exceedances of the noise management levels during construction are predicted only at the surrounding commercial receivers due to the proximity of the proposed works. The NVIA predicts that construction noise will comply with the noise management levels at all surrounding residential receivers.

All feasible and reasonable mitigation measures will be implemented during construction of the development. Impacts from the construction works will be minimised and managed in accordance with the procedures outlined at Section 6.5 of the NVIA.

### **8.8.3 Vibration**

Vibration is likely to occur during the piling works proposed to be undertaken during construction of the elevated concrete platform. Safe working distances for building damage will be complied with at all times and vibration monitoring will be undertaken to ensure acceptable levels of vibration are satisfied.

The NVIA notes that safe working distances relate to continuous vibration and that most construction activities will have intermittent vibration emissions. Therefore, higher vibration levels occurring over shorter periods are acceptable.

Construction vibration is not likely to exceed the criteria applicable for human comfort and therefore the nearest residential receivers are not likely to experience adverse vibration impacts.

The NVIA has identified construction mitigation measures to be implemented in order to minimise and manage all construction impacts. These mitigation measures will be adopted to ensure construction noise is acceptable and complies with the relevant guidelines.

### **8.8.4 Operational noise**

Potential operational noise sources of the development include:

- mechanical plant
- internal warehouse operations
- operation of the loading docks
- truck and light vehicle movements on hardstands and in parking areas

An end user for the warehouse development has not been identified at this stage of the project and therefore the exact uses that would be carried out within the warehousing structures is yet to be determined. Notwithstanding, the identified operational noise sources are consistent with current activities in the surrounding industrial area.

Noise modelling has been developed to predict the proposed operational noise impacts of the proposal. Calculations were undertaken based on the CONCAWE methodology, with meteorological conditions set to 'worst-case' in accordance with the EPA's *Noise Policy for Industry* (NPI) guideline.

In order to assess the operational noise impacts from the development, the NVIA has modelled worst-case peak light and heavy vehicle movements. Light vehicles have been modelled in the car parking areas and heavy vehicles in the hardstand areas. A total of 10 heavy vehicle movements and 52 light vehicle movements per warehouse were modelled.

External forklift movements (outside of the warehouses) have been modelled in the at-grade dock areas of the hardstands. It has been assumed that forklifts would operate continuously during any one 15-minute period. Two forklifts have been modelled operating externally in the hardstand areas for each warehouse.



The NVIA conservatively assumes that as a worst case, the night-time operations will remain the same as during the daytime period.

Operational noise levels have been predicted at all residential receivers surrounding the development site and are outlined in Table 18. The predicted night-time noise levels at the nearest receivers and criteria for sleep disturbance under the NPI is provided at Table 19.

| Receiver ID | Noise Level (dBA)                           |         |            | Predicted Noise Level<br>(LAeq(15minute)) (dBA) | Compliance |
|-------------|---------------------------------------------|---------|------------|-------------------------------------------------|------------|
|             | PNTL Criteria (LAeq(15minute))              |         |            |                                                 |            |
|             | Daytime                                     | Evening | Night-time |                                                 |            |
| R1          | 53 dBA (when in use)                        |         |            | 51                                              | Yes        |
| R2          | 63 dBA (when in use)                        |         |            | 54                                              | Yes        |
| R3          | 63 dBA(when in use)                         |         |            | 46                                              | Yes        |
| R4          | 63 dBA(when in use)                         |         |            | 44                                              | Yes        |
| R5          | 63 dBA (when in use)                        |         |            | 52                                              | Yes        |
| R6          | 56 dBA                                      | 51 dBA  | 47 dBA     | 30                                              | Yes        |
| R7          | 54 dBA                                      | 50 dBA  | 47 dBA     | <30                                             | Yes        |
| R8          | 48 dBA (noisiest 1 hour period when in use) |         |            | <30                                             | Yes        |

Table 18: Predicted operational noise levels (Source: SLR)

| Receiver Location          | Source         | LA <sub>r</sub> max Noise Level (dBA) |           |            | Compliance? |
|----------------------------|----------------|---------------------------------------|-----------|------------|-------------|
|                            |                | Criteria                              | Predicted | Exceedance |             |
| Hillsdale Residential Area | Truck Airbrake | 57                                    | 53        | -          | Yes         |
| Botany Residential Area    | Truck Airbrake | 62                                    | 54        | -          | Yes         |

Table 19: Sleep disturbance criteria (Source: SLR)

The NVIA finds that the operational noise levels are expected to comply with the project noise trigger levels (PNTLs) and the sleep disturbance criteria under the NPI.

Overall, the NVIA finds that the development will result in negligible noise impacts during operation and will comply with the relevant criteria outlined in the NPI, subject to the adoption of appropriate noise mitigation measures.

## 8.9 Air quality

An Air Quality Impact Assessment (AQIA) has been prepared by SLR Consulting Australia Pty Ltd and is included at Appendix M.

The AQIA provides an assessment of air quality impacts during construction and operation of the development (in accordance with the relevant EPA guidelines) and recommends mitigation, management and monitoring measures to address potential air quality impacts.

### 8.9.1 Potential dust emissions

Potential air pollutants at the site may include:

- suspended particulate matter;



- deposited dust; and
- products of fuel combustion (including particulates).

Potential sources of dust emissions generated during construction may include wind-generated dust from disturbed surfaces and stockpiles and wheel-generated dust and combustion from equipment during site stripping.

Potential sources of dust emissions generated during operation development may include products of fuel combustion (including particulates) from on-site vehicle movements and/or idling at the site during loading/unloading operations and wind-generated dust from vehicle movements on hardstand areas.

Environmental factors at the site are a key factor in the generation and dispersion of dust including wind direction, wind speed and rainfall.

### **8.9.2 Impact assessment**

Air quality monitoring in NSW is performed by the OEH. The closest monitoring station is the Randwick Air Quality Monitoring Station (AQMS) located approximately 2.4 km north east of the site. The following air pollutants are monitored by the Randwick AQMS:

- Carbon monoxide (CO);
- Oxides of nitrogen (NO, NO<sub>2</sub> and NO<sub>x</sub>);
- Fine particles (PM<sub>2.5</sub> and PM<sub>10</sub>); and
- Sulfur dioxide (SO<sub>2</sub>).

The AQIA notes that the nearest commercial (medium sensitivity) and residential (high sensitivity) receptors are located approximately 60 m and 480 m respectively from the site. The assessment indicates that even without any mitigation measures applied to control dust emissions at the site during construction, there would be a low risk of adverse dust soiling and a low risk of human health impacts. Notwithstanding, a number of site-specific management measures are recommended in the AQIA to manage potential dust emissions during construction.

Operational air quality impacts are mostly associated with wheel-generated dust and products of combustion from trucks and other vehicles accessing and idling at the site. The AQIA states that these emissions will be of a similar nature to existing emissions from traffic on McPherson Street and nearby Botany Road. A risk-based assessment is provided as part of the AQIA that considers the nature of impact, receptor sensitivity and magnitude of emissions. The AQIA determined that given the scale of operations, the potential impact of the development on sensitive receptors is concluded to be neutral for all receptors.

### **8.9.3 Conclusion**

Key findings in the AQIA included the following:

- off-site impacts associated with dust deposition and suspended particulate during the construction phase are anticipated to be negligible for construction activities, as the site will be stripped and open for only a short period of time before it is capped with geotextile and a road base cap; and
- the potential for off-site air impacts from the operations at the site is concluded to be neutral.

The AQIA concluded that the risk of any exceedances of air quality criteria at nearby industrial or residential receptors due to air emissions from the site would be minimal.

## 8.10 Waste

A Construction Waste Management Plan (CWMP) and Operational Waste Management Plan (OWMP) have been prepared by Waste Audit and Consultancy Services and are included at Appendix N and Appendix O, respectively.

The CWMP and OWMP detail the quantities and classification of waste streams to generated during construction and operation of the development and includes measures to ensure the development is consistent with the aims and objectives of the *NSW Waste Avoidance and Resource Recovery Strategy 2014- 2021* (EPA, 2014).

### 8.10.1 Construction waste

The CWMP ensures all waste generated during construction is managed in a safe and environmentally sensitive manner. The plan aims to:

- minimise the generation of waste to landfill;
- maximise waste material avoidance and reuse on the site;
- ensure that where practicable, an efficient recycling procedure is applied to waste materials; and
- raise awareness among employees and subcontractors of their waste management responsibilities.

Table 20 outlines the estimated quantity of waste material to be generated during construction of the development and method of reuse or disposal.

| Type of material  | Materials on site                  |                                                                               | Destination                                                                                                 |                                                |
|-------------------|------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------|
|                   | Estimated volume (m <sup>3</sup> ) | On-site (reuse or recycle)                                                    | Off-site (detail contractor and recycling contractor)                                                       | Disposal (detail contractor and landfill site) |
| Concrete          | 5 m <sup>3</sup>                   | Separated on site and crushed for use in pavement construction where possible | Collected by contractor and disposed at concrete recycling facility                                         | Facility TBA upon appointment of contractor    |
| Timber (formwork) | 35m <sup>3</sup>                   | Separated and where feasible, reused for further formwork                     | Unused material separated and stockpiled onsite. Collected by specialist timber subcontractor for recycling | Facility TBA upon appointment of contractor    |
| Metals            | 10m <sup>3</sup>                   | No on-site reuse                                                              | Collected by specialist metal subcontractor for recycling                                                   | Facility TBA upon appointment of contractor    |

| Materials on site   |                  |                              | Destination                                                                                                                                         |                                                                                                                             |
|---------------------|------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Plasterboard        | 5m <sup>3</sup>  | No on-site reuse             | Collected by the contractor for recycling.                                                                                                          | Facility TBA upon appointment of contractor                                                                                 |
| Carpet              | 2m <sup>3</sup>  | No on-site reuse             | This will be disposed of into a designated bin and collected regularly as required for recycling if of the required quality or disposal to landfill | Facility TBA upon appointment of contractor                                                                                 |
| Mixed hard plastics | 10m <sup>3</sup> | No on-site reuse             | Collected by contractor for recycling. Facility TBA upon appointment of contractor.                                                                 | No disposal to landfill                                                                                                     |
| Glazing             | 2m <sup>3</sup>  | No on-site reuse             | Recyclers consulted as to potential for recycling and if suitable separated for recycling.                                                          | Facility TBA upon appointment of contractor                                                                                 |
| Soil/Sand/Gravel    | 10m <sup>3</sup> | Will be stockpiled for reuse | Excavation materials will be collected and used as clean fill by the waste contractor with appropriate notification as to location                  | All remaining material will be disposed at landfill – facility (or other sites as fill), TBA upon appointment of contractor |
| Mixed recyclables   | 15m <sup>3</sup> | No on-site reuse             | Contractor appointed to collect and recycle                                                                                                         | No disposal to landfill                                                                                                     |
| General waste       | 30m <sup>3</sup> | No on-site reuse             | No recycling or reuse                                                                                                                               | Facility TBA upon appointment                                                                                               |

Table 20: Construction waste management system (Source: Waste Audit and Consultancy Services)

The recommendations outlined in the CWMP are expected to form part of any conditions of consent.

### 8.10.2 Operational waste

The OWMP outlines the predominant waste streams that would be generated by the development including:

- general waste;
- commingled recycling;
- cardboard and paper recycling;

- hard and soft plastics;
- e-waste;
- pallet recycling; and
- secure paper recycling.

Waste generation estimates for the development are summarised in Table 21.

| Waste classification          | Litres per week |
|-------------------------------|-----------------|
| General waste                 | 5,446           |
| Commingled recycling          | 2,179           |
| Paper and cardboard recycling | 5,446           |
| <b>Total</b>                  | <b>13,071</b>   |

Table 21: Operational waste generation (Source: Waste Audit and Consultancy Services)

Warehouse areas (office and storage areas) will be designed to allow for the effective segregation of recyclables. Each warehouse will be provided with a sufficient number of bins to allow for effective segregation of wastes and recyclables.

Collection services will be provided by a commercial waste contractor with waste to be transported to a licensed recycling or landfill facility. The collection of e-waste, soft plastic recycling and non-treated timber pallets will take place on an as-needed basis by a qualified private waste contractor.

Waste storage areas are appropriately located for each warehouse, as shown in Figure 27. The OWMP recommends the waste storage areas are:

- adequately sized to comfortably accommodate all bins associated with the development;
- appropriately graded with the floor surface sufficiently level; and
- designed with convenient access.

The recommendations outlined in the OWMP are expected to form part of any conditions of consent.

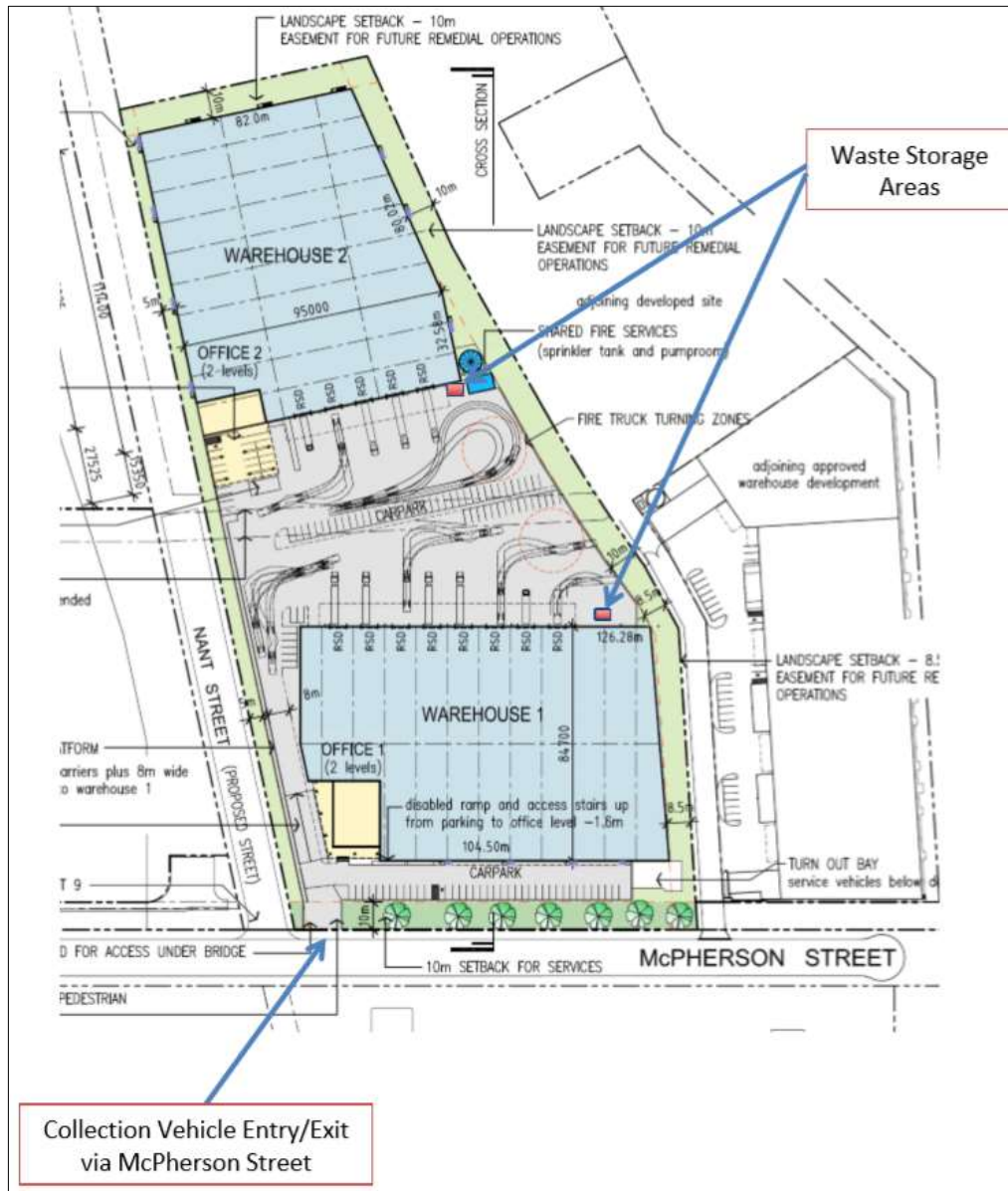


Figure 27: Waste storage areas (Source: Waste Audit and Consultancy Services)

## 8.11 Mitigation measures

Mitigation measures to protect the existing environment and amenity of the surrounding locality are detailed in the technical reports submitted as part of this EIS. The key mitigation measures are summarised below:

- Built form and visual impact:
  - the use of differing colours and materials will help to break-up the scale of large facades.



- integration of a contemporary industrial design that is comparable in height, bulk and scale of surrounding industrial developments.
- extensive landscaping works across the site to soften the appearance of the facility.
- Flooding:
  - floor levels of the two warehouse structures will be set at 5.6 m AHD and 6.7 m AHD to ensure the development is free of inundation during the full range of flooding events up to the PMF.
  - a FERP will be implemented for the site.
  - a flood education, awareness and preparedness program for the site will be implemented for the site.
- Contamination:
  - implementation of a RAP for the site which has been prepared in accordance with the requirements of the EPA's statutory guidelines.
  - an accredited EPA Site Auditor will provide a Site Audit Report and Section B Site Audit Statement to confirm the suitability of the RAP.
- Traffic:
  - A CTMP will be prepared and submitted to Council upon appointment of the head contractor.
- Biodiversity:
  - erosion and sediment control plans to be implemented to during the construction phase of the development to protect receiving environments.
  - stockpiled material to be stored in bunded areas and kept away from waterways to avoid sediment entering into waterways.
- Erosion and sediment control:
  - clearly visible barrier fencing be installed to ensure traffic control and prohibit unnecessary site disturbance.
  - vehicular access to the site be limited to those essential for construction works and only through stabilised access points.
  - land recently established with grass species to be watered regularly until an effective cover has properly established.
  - where practical, foot and vehicular traffic will be kept away from all recently established areas.
  - during windy weather, large, unprotected areas will be kept moist (not wet) by sprinkling with water to keep dust under control.
- Noise and vibration:
  - complete works during standard daytime construction hours.
  - truck routes to site should be limited to major roads.
  - position work compounds, parking areas, and equipment and material stockpiles away from noise sensitive locations.
  - noise emissions from plant and equipment operated on the site shall be minimised by installing and maintaining, wherever practicable, efficient silencers, low noise mufflers (residential standard) and by replacing reversing alarms with alternative silent measures, such as flashing lights (subject to occupational health and safety requirements).

- notification to be provided to the neighbouring properties where high impacts are anticipated or where out of hours works are required.
- where complaints are received, the work practices are to be reviewed and feasible and reasonable mitigation and management measures implemented to minimise any further impacts.
- **Waste:**
  - each warehouse will be provided with a sufficient number of bins to allow for effective segregation of wastes and recyclables.
  - collection services will be provided by a commercial waste contractor with waste to be transported to a licensed recycling or landfill facility.

## 9 Conclusion

The EIS has been prepared in accordance with the SEARs issued by DPIE and provides a comprehensive assessment of the potential impacts associated with the development. It addresses all relevant strategic and statutory documents, policies and instruments.

The EIS concludes that the development is justified on the basis that will result in the efficient and effective use of a vacant industrial land parcel to provide much needed warehousing, storage and distribution space that is located close to the Sydney CBD and Port Botany trade corridor.

The development has been designed to ensure that it will operate without impacting on the site's existing flood storage and retention capability and has been designed to ensure habitable floor levels are above the Probable Maximum Flood level for the site.

An evaluation and assessment of the risks posed by the BIP complex on the proposed development demonstrates that the proposal complies with the risk criteria for development in the vicinity of potentially hazardous facilities.

The conclusions and recommendations provided in the accompanying technical reports confirm the proposal will not have a detrimental impact on the surrounding environment and will not impact on any endangered or threatened species, ecological communities or their habitats.

Further, the EIS demonstrates the development has strategic merit as it is consistent with the aims and objectives of the relevant strategic plans that apply to the site including the *Greater Sydney Region Plan* and *Eastern City District Plan*. The development will strengthen opportunities in the Eastern Economic Corridor which includes the Port Botany trade corridor through the provision of additional warehousing, distribution and office facilities.

The development is therefore considered to be in the public interest and warrants approval.

## **Appendix A**

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### **Secretary's Environmental Assessment Requirements**

## Appendix B

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### Cost Estimate Summary



## Appendix C

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### Section 88B Instrument – Restriction and Covenant

## Appendix D

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### Architectural Plans

## Appendix E

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### Landscaping Plans

## Appendix F

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### Flood Impact Assessment

## Appendix G

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### Remediation Action Plan



## **Appendix G1**

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### **Site Audit Statement and Site Audit Report**

## Appendix H

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### Hazards and Risk Assessment

## Appendix I

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### Traffic Impact Assessment

## Appendix J

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### Biodiversity Development Assessment Report

## Appendix K

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### Civil Engineering Report



## Appendix L

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### Noise and Vibration Impact Assessment

## Appendix M

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### Air Quality Impact Assessment

## Appendix N

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### Construction Waste Management Plan

## Appendix O

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### Operational Waste Management Plan

## Appendix P

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**Community Newsletter – December 2018**