

# Port Botany Industrial Estate (Southlands Remediation & Development Project - Stage 1)

S.75W Modification to MP08\_0191

Response to Referrals / Department of Planning Queries

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#### 1. Modification to submitted October 2014 PBIE Scheme

Table 1 below lists the proposed changes of the December 2014 PBIE scheme to that submitted to DoP in October 2014.

The changes are relatively minor and result from a tenant, Toll, agreeing to take Warehouse B on the site and requiring modification to its design to better suit their needs.

Warehouse A, the northern warehouse on the site, remains a speculative design, largely as per the design submitted in the October 2014 scheme.

Table 1 – Modification to October 2014 Scheme

Modification	Approved Scheme (Mod 1) 16 April 2012	October 2014 Scheme	December 2014 Scheme
Site Area	• 98,150sqm	• 93,806sqm	• 93,806sqm
Gross Floor Area	<ul> <li>Warehouse: 32,170sqm</li> <li>Office: 4,000sqm</li> <li>Total: 46,500sqm</li> </ul>	<ul> <li>Warehouse: 37,900sqm</li> <li>Warehouse A: 15,100sqm</li> <li>Warehouse B: 22,800sqm</li> <li>Office: 3,400sqm</li> <li>Office A: 1,400sqm</li> <li>Office B: 2x1,000sqm</li> <li>Total: 43,360sqm</li> </ul>	<ul> <li>Warehouse: 35,840sqm</li> <li>Warehouse A: 15,100sqm</li> <li>Warehouse B: 20,740sqm</li> <li>Office: 4,546sqm</li> <li>Office A: 2,416sqm</li> <li>Office B: 2,130sqm</li> </ul> Total: 43,389sqm
Floor Space Ratio	• 0.55:1	• 0.66:1	• 0.61:1
Subdivision Plan	• 12 lots	7 lots	7 lots
Hardstand	Small designated hardstand space provided per unit	55m hardstand space between Warehouse A & B	<ul> <li>New chain wire fence added, separating Warehouse A &amp; B.</li> <li>Additional licenced hardstand area (4,850sqm) added to east of Warehouse B.</li> </ul>

Modification	Approved Scheme (Mod 1) 16 April 2012	October 2014 Scheme	December 2014 Scheme
			<ul> <li>New gatehouse proposed to the north of Warehouse B at the Coal Pier Rd entrance.</li> <li>Additional rainwater tank provided within</li> <li>Wash area and LPG gas storage area located within north eastern corner of Warehouse B hardstand area.</li> </ul>
Car parking	<ul><li>437 spaces</li><li>No trees provided within parking</li></ul>	<ul> <li>286 spaces:</li> <li>Warehouse A: 132 spaces</li> <li>Warehouse B: 154 spaces</li> <li>No trees provided within parking</li> </ul>	<ul> <li>302 spaces:</li> <li>Warehouse A: 127 spaces</li> <li>Warehouse B: 175 spaces</li> <li>Trees provided within the car parking area at a rate of 1 / 5 spaces</li> </ul>
Warehouse A (northern)	<ul><li> 2 Warehouses</li><li> 2 Offices</li></ul>	<ul><li>4 warehouse units</li><li>4 offices</li></ul>	No change
Warehouse B (southern)	<ul><li>4 Warehouses</li><li>4 Offices</li></ul>	<ul><li>4 warehouse units</li><li>4 Offices</li></ul>	<ul> <li>4 Units consolidated into a single warehouse unit</li> <li>Consolidation of 2 offices into a single office</li> </ul>
Access	<ul> <li>2 Coal Pier Road crossovers</li> <li>4 McPherson Road crossovers</li> </ul>	<ul> <li>2 Coal Pier Road crossovers:         <ul> <li>Northern crossover providing access to car parking area</li> <li>Southern crossover providing truck access</li> </ul> </li> <li>2 McPherson Road crossovers including one for trucks and separate one for car parking access</li> </ul>	2 Coal Pier Road crossovers:     Northern crossover providing access to car parking area     Southern crossover enlarged, providing truck access for Warehouses A & B     2 McPherson Road crossovers including one for trucks and separate one for car parking access

Modification	Approved Scheme (Mod 1) 16 April 2012	October 2014 Scheme	December 2014 Scheme
Pump room / sprinkler tank	Undefined	Pump / sprinkler infrastructure located in the north western corner of Warehouse B	<ul> <li>Sprinkler tank and pump room relocated to the south western corner of Warehouse A.</li> <li>This relocation provides greater setback to Coal Pier Road, and additional screening proposed.</li> </ul>

# 2. Response to DoP Queries

The following table provides a response to DoP's queries:

DoP Query / Comment	Response
Earthworks/contamination	
Have you consulted with the EPA approved site auditor on any breaches of the marker layer during construction? The Department would like confirmation from the auditor that excavation into the marker layer can be managed appropriately via a CEMP or similar. Please provide the Department a record of the consultation.	We have addressed this directly with an EPA approved site auditor. We will provide minutes of discussion with the auditor confirming that the breach into the marker layer is acceptable in certain circumstances provided the CEMP is complied with.
I note that bulk earthworks are nearing completion in accordance with the plans in Appendix 7 of the consolidated consent. The figures provided are different to those contained in Appendix 7. Please explain how these relate to each other.	The bulk earthworks plans (Section 75W) have changed from the approved DA plans due to modifications to the building layouts including additional recessed docks which resulted in a surplus of fill. To mitigate the need to dispose this material offsite, the bulk earthworks levels were reworked to retain the material onsite while retaining the FFL.
P 12 of the Civil Infrastructure Report States that On-Site Detention is not required for the development of Stage 1 as additional storage has been provided in Stage 2. Please note that the flood detention works are included in Stage 1, please confirm that construction of any warehouses would not commence until such time as the flood storage works are complete in accordance with Condition 9 of Schedule 3.	We confirm on the site, within Stage 1, the following will be completed prior to any construction of the warehouses on site (which will remove any potential risk of flooding for the site):  Northern drainage channel - northern portion of Stage 1); Springvale drain – eastern portion of the Stage 1 site Floodvale drain – to the east of Coal Pier Road
Traffic	
Provide a revised swept path analysis for the intersection of Coal Pier Road and MacPherson Street.	Included in updated Traffic Report (dated 8 January 2015)

DoP Query / Comment	Response
Explain why the swept path analysis shows the median island on Hill Street.	The swept paths do not include swept path analysis for Hills Street.
Plans	
Figure 4244-DA-01 shows a strip of land to the west of Warehouse B to be flood detention, according to the approved plans this is incorrect, please amend.	Noted – this is an access easement and the plans have been updated to show this.
Please also note that (as the project approval covers the whole site and any plans included in the approval will replace the current plans) the revised drawing should show Lot 9 as flood detention.	Noted – the plans have been amended to show this.
Construction of the warehouses is described as being part of Stage 1 in the Project Approval. As such, please rename all plans as Stage 1 as per the currently approved plans.	Noted – plans have been renamed accordingly.
Roof Plan 4244_DA-12 shows the area to the west of warehouse A as hardstand, yet Master Plan 4244-DA-01 and landscape plan indicates that it will be landscaped. Please confirm which is correct and update the relevant plan.	Noted – Plan has been amended.
Landscape	
Please confirm that the proposed warehouse setbacks are the same as those approved.	Setbacks are marginally modified – as shown in the updated architectural plans.
Please describe how the landscape plan integrates with the approved whole-of-site landscape plan (attached) and note that the public domain treatment has already been approved as per the attached plan (as discussed, a short description is sufficient, I will recommend a condition requiring that the landscape plan for the PBIE integrate with the approved plan).	The public domain works will be subject to the whole of site landscape plan, which still apply. The landscape plan submitted with Mod 2 only apply to landscape works within Lot 1, Stage 1. The whole of site landscape plan supplement the Stage 1
The Landscape Plan was approved (on 20/12/2013) subject to the use of black palisade fencing along the street frontages and with the note that updated plans reflecting the	Black palisade fencing currently exists along the McPherson frontage. Chain mesh fencing is proposed along this boundary north of the Orica monitoring wells

DoP Query / Comment	Response
agreed fencing be provided to the Department. An updated plan was provided (dated 23/12/2013). Can you please confirm whether the proposed fencing is the same as that approved? If Goodman is proposing to install fencing that is different to that approved, please provide details of the proposed fencing.	remediation piping infrastructure.  • Black palisade fencing is proposed along the site's Coal Pier Road frontage.
What is the difference between demarcated pedestrian pathways and footpaths along one side of internal road? Why are you seeking to change the condition requiring pedestrian pathways?	Will remove this proposed modification and keep as approved.
The Landscape Concept Plan shows a portion of land to the west of warehouse B to be flood detention. According to the approved plans this is not correct, please amend.	Noted – this has been updated.
Other	
Provide a copy of the revised Statement of Commitments.	See below - Section 4 "Revised Statement of Commitments"
Ecological assessment of impact of proposal on frog ponds	See ecological statement attached.

# **3. Response to Referral Comments**

Referral Comment / Query	Response
Botany Council	
Condition 20.a.  Council strongly objects to the deletion of the condition as it will enable vehicles over 12.5m to access the site via Botany Road and is inconsistent with the restriction placed on other warehouse developments located within close proximity of the site.	The proposed modification to Condition 20.a.ii has been removed. This condition is to remain as is.
Swept Path  Drawing No. Tx.02 prepared by Traffix dated 1 Oct 2014 indicates that the proposed truck path fails at Coal Pier Road and McPherson Street intersection. Council does not support truck routes that do not comply with the Australian Standard. The swept paths are to be redesigned.	<ul> <li>The swept paths at this intersection have been updated.</li> <li>It should be noted that this intersection currently accommodated b-double truck movement. The proposal does not therefore not propose any additional vehicle movements to that which already exists at this intersection.</li> </ul>
Give Way A Give Way sign should be installed on Coal Pier Road/McPherson Street intersection.	Noted
Approved Flood Basin	
The proponent shall ensure that all flood mitigation works, as described in Modification application 06_0191 MOD 1, are completed prior to the commencement of construction of the warehouse buildings.	All flood mitigation works to be completed prior to commencement of construction of the warehouse building.
Building Design	
Council requests that further facade treatment be incorporated to reduce the overall bulk and scale of the buildings. Large canopy trees should be planted in the car park area and front setback of Coal Pier Road to screen the	The plans have been modified to include significant tree planting along the McPherson Street frontage of the site, within the car park area. These trees will provide significant screening and will break up the appearance of overall bulk and scale of the buildings on the site.

Referral Comment / Query	Response	
proposed warehouse buildings from the street.	<ul> <li>The appearance of bulk and scale of the proposal's Coal Pier Rd elevation will be reduced by:</li> <li>The significant setback of Warehouse A from the road.</li> <li>The proposed modular landscaping along the road frontage which includes tall growing Eucalyptus trees. This landscaping will provide significant screening.</li> </ul>	
Section 94	Noted	
Due to the increase in the gross floor area, a revised S.94 contribution is required.		
Scale of Landscape Plans		
No scale is provided on the landscape plans and Council's Officer is unable to determine the dimensions to some of the landscape areas. Amended plans are required.	The landscape plans have been updated to include a scale.	
McPherson Street		
There is a 10 metre setback between the property boundary (palisade fence) on McPherson Street and the proposed hardstand car park. This area contains elevated pipeline and monitoring wells. There is no landscaping proposed in this area and is considered unsatisfactory by Council. It should be noted that landscaping is provided for this area under the original approval and all industrial development proposals in the Botany Bay local government area (LGA) are required to contain landscaped setbacks to street frontages. Amended plans are required.	<ul> <li>No landscaping is possible within Lot owned and managed by Orica along the McPherson St frontage, as this area is lots is used by Orica's for its monitoring wells and associated pipework related to the Orica groundwater remediation works heavy piping and other infrastructure.</li> <li>The landscape plans have been updated to include trees within the car park, which will soften and enhance the visual appearance of proposal's McPherson Street elevation.</li> </ul>	
Frog Ponds		
A new access road is proposed along the eastern boundary for truck egress to McPherson Street. It is unclear whether the new access road will have additional adverse impacts (i.e. noise and vibration generated from vehicle and operation) on the green golden bell frog pond. The proposed amendment should be referred to an ecologist for assessment.	The impact of the proposed access road on the frog ponds have been referred an ecological consultant, Biosphere Environmental Consultants Pty Ltd, who have confirmed that the noise and vibrations from the proposed road will have unacceptable impact on the ponds.	

Referral Comment / Query	Response
Cycleway  The cycleway along Coal Pier Road has not been indicated. Amended plans are required.	The submitted landscape plans only apply to the Stage 1 area within Lot 1 of the site. The public domain and other landscaping not included with the Mod 2 landscape plans, including the cycleway, remains subject to the whole of site landscape plan.
Clarification It is unclear whether the landscaping occurs within natural soil or what provisions or considerations have been made for landscaping in contaminated soils.	Landscaping to occur within natural venom layer soil. (Contaminated soil is capped below) This soil is therefore appropriate for planting.
Landscaping on the road verge (i.e. between palisade fence and kerb) in McPherson Street has not been defined. The previous proposal included street trees, shrub planting and a footpath. This public domain improvement principle is applicable for this site.	The landscaping plans have been updated to include this portion of public domain landscaping. This includes trees, shrubs and a footpath. All other public domain works remain subject to the previously approved landscape plans as applies to all other landscaping outside the Stage 1, Lot 1 works.
Provide explanation why the Coal Pier Road setback area fronting Warehouse A is largely a grass seeded area.	This area is to remain grassed to provide outdoor area for employees relaxation.
Treatment (i.e. landscaping) of the flood storage basin has not been defined.	Flood zone landscaping completed under a separate approved landscape plan which runs in conjunction with the submitted landscape plan which deals only with the landscaping within the the Stage 1, Lot 1 site.
Gazania tomentosa and Tristaniopsis laurina 'Luscious' are proposed for the typical carpark bays (Drawing Number 004 prepared by Site Image Landscape Architect). However, this is inconsistent with the species shown on the section and pictorials.	Landscape plans updated to show correct species.
Drawing Number 005 identified the planting and species will be used for the Orica Southland development. However, the location of the planting is unclear.	Landscape drawings updated for clarity.
Clarify whether the close planting of Spotted Gum (modular landscaping) at approx. 2m apart is preferable with consideration for suppressed tree canopies in the future.	The Spotted Gum's proposed in the modular landscaping have been placed at 2.5-3m centres. We have used this spacing regularly in the past and have found them to perform well in providing dense canopy screening and vertical articulation to warehouses.

Referral Comment / Query	Response
Statement of Commitment The reference of the landscaping plan contained in the proposed Statement of Commitments, as indicated in Table 5 of Environmental Assessment report prepared by UAS, should not be modified until the above landscaping issues are resolved.	Noted
Subdivision As noted from Proposed Subdivision Plan prepared by Nettletontribe dated 5 November 2014, Area 1 will be subdivided into two lots (i.e. Lot 1 & 10). This should be reflected in Table 4 of Environmental Assessment report prepared by UAS.	Noted – report updated accordingly
Referencing The reference documentation contained in Table 4 is inconsistent with the submitted environment assessment report and plans.	Noted – report updated accordingly
Project Description The definition of Project should not be replaced as Modification application 06_0191 MOD 1 approved the reconfiguration of the flood basin and drainage works over Area 1, 2 and 3. The project description should be amended as follows: Project: The development described in Schedule I, the EA and PPR and defined as the 'Stage 1 Works' as modified by 06_0191 Mod 2 and 'Flood mitigation and drainage works over Area 1, 2 and 3' as modified by 06_0191 Mod 1.	Noted
Schedule 2/2; 2/13; 2/14; 3/21	Noted – report updated accordingly
Schedule 3/25 Council is concerned that construction vehicles will utilise Denison Road and local roads to access the subject site. The extension of the construction hours may impact on the residential amenity of the Hillsdale area, in particular, the residential uses located on the eastern side of Denison Street.	The application only seeks an extension of 2 hours on the permissible Saturday construction, from 1pm to 3pm. As this is not a sensitive time of the day and there is no nearby residential development likely to be impacted by the extension, we do not agree with Council on this point.

Referral Comment / Query	Response
Without knowing the construction access routes for the Orica Southland development, Council does not support the extension of construction time.	
Schedule 3/29 Fencing detail has been not submitted for consideration. Therefore, Condition 29 of Schedule 3 should be retained.	The architectural and landscape plans indicate the use of black palisade fencing on the McPherson & Coal Pier Rd frontages. The other frontages are defined in the plans to be "lack chain wire fencing with 3 rows of barbed wire"
Subdivision Plan It appears that the submitted subdivision plan (Drawing No: 4244-SK053 dated 5 November 2014 prepared by Nettletontribe) is inconsistent, along the eastern boundary of Stage 2, with the approved subdivision plan (Drawing No: SRD DA014(H) dated 1 August 2012 prepared by Orica).	It appears that drawing this plan was deleted from the architectural set of the approved drawing Drawing No: SRD DA014(H) dated 1 August 2012 was deleted from the architectural set for 06_0191 MOD1. This drawing is therefore not relevant. Any previous subdivision drawings are replaced by Drawing No: 4244-SK053 dated 5 November 2014 prepared by Nettletontribe.
Pump Room and Tanks  No detail has been provided for the pump room and tanks. These structures should be located away from Coal Pier Road frontage.	The architectural drawings have been updated to provide adequate detail of the pump / tank room and its location. This infrastructure has been relocated to provide a greater setback to Coal Pier Road and landscape screening is proposed to provide a visual barrier to the road (detail of this screening provided in updated landscape plan).
Other Works and Uses  No additional work, use or amendment is to be approved as part of this project approval.	Noted
Future Developments All future developments on Lots 7, 8 and 12 will be subject to separate approval	Noted
RMS	No queries / comments received from RMS on the proposal.
EPA	
The EPA notes that the proponent should report all proposed breaches of the surveyed marker layer along with soil testing results and proposed rectification measures to the EPA's approved independent site auditor, prior to any construction."	The site auditor has been made aware of proposed breaches of the marker layer and is satisfied that the CEMP in place will manage the impacts of any breach. This may be includes as a condition of consent if required.

Referral Comment / Query	Response
NSW Fire & Rescue	
That the proponent prepares an Emergency and Fire Response Plan for the site to the satisfaction of Fire and Rescue NSW.	Emergency and Fire Response Plan will be prepared in consultation with FRNSW and will be in place prior to commencement of operation as per Condition No.36.
With respect to the Port Botany Industrial Estate, that any alternative solution developed to meet performance requirements of the Building Code of Australia (BCA) be developed in accordance with the principals detailed in the 'International Fire Engineering Guidelines' (IFEG).	Fire Safety Engineering Strategy which addresses the performance requirement of the BCA and will be prepared in accordance with IFEG.
That the preparation of the fire engineering brief (as specified by the IFEG) be undertaken.	Fire Safety Engineering Brief will be undertaken in consultation with all key stakeholders including FRNSW.

## **Revised Statement of Commitments**

		Implementat	ion	
Mitigation Measure	Design	Constr. / Remed.	Operations	Responsibility
GENERAL				
The Proponent would carry out construction and operation generally in accordance with the:  Project Application;  Preferred Project Development Plans, dated 8 November 2010 (as amended);				
Revised Stage 1 Development Plans dated October 2014;				
<ul> <li>EA as amended by:         <ul> <li>Southlands Remediation and Development Project – Response to Submissions on the EA and PPR (dated November 2010);</li> <li>Southlands Remediation and Development Project – Response to Submissions (June 2011);</li> <li>Aurecon Flood Modelling Report (November 2010);</li> <li>Modification 1 to the Project Approval;</li> <li>Modification 2 to the Project Approval;</li> <li>Agreed SoC as amended by Mod 1 and Mod 2.</li> </ul> </li> </ul>	All stages	All stages	All stages	Proponent
The Proponent would ensure that all buildings are designed and constructed generally in accordance with the plans provided as part of Modification 2, PPR, the BCA and the relevant parts of the EP&A Act building certification.	All stages	All stages		Proponent
Maintain obligations under the VMP or other regulatory instrument throughout and following implementation of the Southlands Remediation and Development Project.	All stages	All stages	All stages	Orica
Review with the OEH Accredited Auditor the need and as required by the Auditor implement and maintain an active vapour mitigation system (such as shallow groundwater extraction system) aimed at reducing the discharge of contaminated shallow groundwater into Springvale Drain and hence reducing the potential for volatile emissions from surface waters to ambient air in the vicinity of the Drain. This would be implemented by Orica through a separate approvals process under the VMP	Prior to Stage 1	All stages	All stages	Orica
A detailed monitoring well replacement program would be developed for the Southlands Site to provide a documented framework that ensures Orica's ongoing responsibilities under the NCUA for hydraulic and chemical monitoring can be met both during the construction stages of the development and during the future land use. This would be implemented by Orica through a separate approvals process under the VMP.	All stages	All stages	All stages	Orica

		Implementat	ion	
Mitigation Measure	Design	Constr. / Remed.	Operations	Responsibility
A series of easements would be granted on the Southlands Site in favour of Orica for use in both groundwater monitoring and extraction as well as for future remediation technologies, should such become available or relevant to remediation of the site and/or other areas in BIP in accordance with <i>Drawing SRD 017 (H)</i> .	All stages	All stages	All stages	Proponent
Prepare and implement:				
a CEMP prior to the issuance of a Construction Certificate; and	A.II			
<ul> <li>an OEMP prior to the issuance of an Occupation Certificate for any new building.</li> </ul>	All stages	All stages	All stages	Proponent
Which include the specific measures outlined in the following sections of this table.				
Preparation and implementation of Communications Plan including the requirements of the Southlands RAP to notify site neighbours and the wider community of construction timing and progress;  • mechanisms for submitting feedback and asking questions regarding the project;  • reporting progress via Orica's monthly columns in the Southern Courier and St George and Sutherland Shire Leader newspapers; and  • maintaining project information on the Orica Botany Transformation Projects webpage.	All stages	All stages		Orica
HYDROLOGY AND FLOODING				
Detailed design of the Compensatory Flood Storage Area to prevent ponding and discharge of groundwater generally in accordance with the Aurecon Flood Modelling Report — Orica Southlands Remediation and Development Project Hydraulic Modelling Report and Response to Exhibition Submissions/Comments — (Report Ref: 204617, 29th November 2010, Revision 3 by Aurecon) as amended by Southlands — Detailed Design 2D Flood Re-Modelling — Addendum Advice Regarding Variation to Compensatory Flood Basin Design and Impact, Aurecon Letter to Orica, Dated 22 February 2013).  This would be reviewed by the Site Auditor as part of the Site Audit process leading to the issue of the Section A Site Audit Statement(s).	Prior to Stage 1			Proponent / Contractor
Design of development would involve delivery of the flood modelling outcomes as generally shown in accordance with the Aurecon Flood Modelling Report – Orica Southlands Remediation and Development Project Hydraulic Modelling Report and Response to Exhibition Submissions/Comments – (Report Ref: 204617, 29th November 2010, Revision 3 by Aurecon) as amended by Southlands – Detailed Design 2D Flood Re-Modelling – Addendum Advice Regarding Variation to Compensatory Flood Basin Design and Impact, Aurecon Letter to Orica, Dated 22 February 2013).	All stages	All stages		Proponent

		Implementat	ion	
Mitigation Measure	Design	Constr. / Remed.	Operations	Responsibility
Delivery of new building pads in Stage 1 and 2 above the 1% flood event in accordance with the Aurecon Flood Modelling Report – Orica Southlands Remediation and Development Project Hydraulic Modelling Report and Response to Exhibition Submissions/Comments – (Report Ref: 204617, 29th November 2010, Revision 3 by Aurecon) as amended by Southlands – Detailed Design 2D Flood Re-Modelling – Addendum Advice Regarding Variation to Compensatory Flood Basin Design and Impact, Aurecon Letter to Orica, Dated 22 February 2013),.				
Design of development would ensure no adverse impacts on stormwater quality through incorporation of appropriate stormwater quality control measures as shown on <i>Civil Drawings</i> .		All stages		Contractor / Proponent
SOILS, GEOLOGY AND CONTAMINATION				
The requirements of the Southlands RAP would be implemented as detailed in <b>Appendix H</b> and the conditions of the Section B Site Audit Statement ( <b>Appendix I</b> ).	All stages	All stages	All stages	Proponent
The review of further studies and plans required under the Southlands RAP would be undertaken as part of the Site Audit process leading to issue of the Section A Site Audit Statement(s) by the Site Auditor.	All stages	All stages	All stages	Proponent
Any variation to the remedial measures outlined in the Remediation Action Plan (URS, Oct 2008) will be submitted, before implementation, to the OEH Accredited Site Auditor, responsible for issuing the Site Audit Certificate. The Remediation Action Plan will therefore only be amended, with the agreement of the Accredited Site Auditor.	All stages	All stages	All stages	Proponent
Treated and validated materials may be placed within the area of the Southlands Site, subject to separate approval and assessment (Carpark Waste Encapsulation Remediation Project Approval No 06_0197, as modified). Any such materials will first be treated and validated in accordance with the relevant requirements of that project approval.	Stage 1			Proponent
Issue of Site Audit Statement(s) to establish site suitability for the proposed land use.			Prior to occupation	Proponent
The CEMP would address soil and erosion control as identified in the Southlands RAP.		All stages		Proponent / Contractor
The Communications Plan would ensure effective and efficient consultation with stakeholders for the duration of the soil remediation works as provided in the Southlands RAP ( <b>Appendix H</b> ).	All stages	All stages		Orica

		Implementat	ion	
Mitigation Measure	Design	Constr. / Remed.	Operations	Responsibility
A detailed physical barrier design would be prepared prior to implementation of the remedial approach.  Design of the proposed vapour mitigation measures for future site buildings/structures would be completed prior to implementation of the remedial approach.  These designs would be reviewed by the Site Auditor as part of the Site Audit process leading to the issue of the Section A Site Audit Statement(s).	All stages	All stages		Proponent / Contractor
All underground services beneath, and in the environs of, Southlands would be mapped and documented. This is required to avoid intercepting services during remediation works that require excavation, as well as to enable incorporation of service and easement locations into the long term EMP.	All stages	All stages	All stages	Proponent / Contractor
A Site Specific Health, Safety and Environment Plan (SSHSEP) would be prepared and implemented for the site in accordance with the framework described in the Southlands RAP (Appendix H).	All stages	All stages		Proponent / Contractor
A Long Term EMP would be prepared and implemented to ensure activities which could potentially or directly result in exposure of future land users to the contaminated soils beneath the physical barrier are precluded or limited / controlled and to include the requirements outlined in the Southlands RAP. This would be reviewed by the Site Auditor as part of the Site Audit process leading to the issue of the Section A Site Audit Statement(s).			All stages	Proponent
AIR QUALITY				
Develop and implement an Air Quality Management Plan as part of the CEMP to manage and mitigate dust and other air quality issues and address the requirements for measures and monitoring outlined in the Southlands RAP.		All stages		Proponent / Contractor
A Vapour Intrusion Conceptual Model and detailed design of the Vapour Intrusion Mitigation Measures for Site Structures would be prepared for review and approval by the Site Auditor as part of the Site Audit process leading to issue of the Section A Site Audit Statement(s) by the Site Auditor.	Stage 1		Stage 1	Proponent
The long term EMP will include additional contingency measures to be finalised following further air sampling after the proposed infilling of the re-alignment channel.	All stages	All stages	All stages	Proponent
TRAFFIC AND TRANSPORTATION				

		Implementat	ion	
Mitigation Measure	Design	Constr. / Remed.	Operations	Responsibility
Provision of intersection improvements at the of Hills Street and Botany Road intersection as per the RTA advice of 30 June 2011, including:				
The existing length of the right turn lane on Botany Road on the eastern approach to the Hills Street intersection shall be increased in length by 20 metres;				
On road safety grounds, the right turn lane should be fully protected by constructing a 900mm wide central median in Botany Road for the full length of the right turn lane; and	Stage 1		Stage 1	Proponent
The minimum width of the right turn lane shall be 3,2 metres.				
Truck access to the site for the purposes of construction and operation will comply with all weight and vehicle length restrictions routes imposed by the RTA.	All stages	All stages	All stages	Proponent
FLORA AND FAUNA				
Offset habitat for the Green and Golden Bell Frog in the form of two small frog ponds and associated foraging areas would be constructed and maintained in accordance with the detail provided by BEC (2007) in <b>Appendix O</b> and the updated response advice provided by BEC (Feb 2010 and April 2013) and any relevant requirements of the Southlands RAP.	Stage 1	Stage 1	Stage 1	Proponent
A Weed and Pest Management Plan would be prepared as part of the Construction Environmental Management Plan and Environmental Management Plan for the Site. Caution is required during all remediation and construction activities to limit the risk of spread of Noxious Weed species present on Site.		All stages		Proponent
HERITAGE AND ARCHAEOLOGY				
A CEMP would be developed and implemented addressing heritage issues. The CEMP would detail the management strategies to be followed in the event that an Aboriginal object or non-aboriginal archaeological relic is uncovered during construction and be incorporated where appropriate into site inductions for site personnel. It would require that any relic uncovered be reported to COBB and DECC.		All stages		Proponent
LAND USE SAFETY PLANNING				
Emergency procedures would be integrated with the emergency plans for the Mobil and Qenos tank farms, and the BIP Emergency Plan.			All stages	Proponent

		Implementat	ion	
Mitigation Measure	Design	Constr. / Remed.	Operations	Responsibility
WASTE MANAGEMENT				
Develop a Waste Classification Report and management plan. These would be reviewed by the Site Auditor as part of the Site Audit process leading to issue of the Section A Site Audit Statement(s).	All stages	All stages		Proponent
Develop and implement a Waste Management Plan, as part of the CEMP addressing the principles of avoid, reduce reuse and disposal. The Plan would also address waste management issues as identified in the Southlands RAP.	All stages	All stages	All Stages	Proponent
Water management would be addressed in the CEMP that identifies the issues described in the Southlands RAP and the requirements for contingency planning for interception of groundwater during excavation works and water management to prevent surface run off from becoming contaminated as a result of soil disturbance or contact with site contaminants.	All stages	All stages		Proponent
Develop a Waste Management Plan as part of the OEMP for operation.				Proponent
LANDSCAPE AND VISUAL				
Implementation of the landscape design generally as shown in the Landscape Plans for the project (Dwgs L01 – L18, Issue 0 for Construction, dated May 2012, prepared by Jocelyn Ramsay and Assoc.) submitted with Modification 2, prepared by Site Image and dated 16 December 2014, Site Fencing Plan (L-02) prepared by Jocelyn Ramsay & Assoc. PTY. LTD dated May 2012, and Landscape Management Plan dated October 2013.	All stages		All stages	Proponent
Implementation of a landscape maintenance program upon completion of construction of the new buildings.			All stages	Proponent
WATER AND ENERGY EFFICIENCY				
Buildings would be designed to maximise the benefits of solar energy through appropriate orientation.	All stages	All stages	All stages	Proponent
Detailed design would be in accordance with CoBB DCP for Energy Efficiency.	All stages	All stages	All stages	Proponent
Use of recycled water on site for non-potable uses proposed from stormwater / rainwater harvesting and, if practicable, from the Orica GTP where possible.	All stages	All stages	All stages	Proponent
Energy efficient appliances would be installed.	All stages	All stages	All stages	Proponent
ACOUSTICS				

		Implementat	ion		
Mitigation Measure	Design	Constr. / Remed.	Operations	Responsibility	
The operation and use of new buildings within the estate will comply with the Botany Bay City Council standard noise criteria as follows:					
Standard Noise Criteria Adopted by Council (a) The operation of all plant and equipment shall not give rise to an equivalent continuous (L Aeq ) sound pressure level at any point on any residential property greater than 5dB(A) above the existing background L A90 level (in the absence of the noise under consideration). (b) The operation of all plant equipment when assessed on any residential property shall not give rise to a sound pressure level that exceeds L Aeq 50dB(A) day time and L Aeq 40dB(A) night time. (c) The operation of all plant and equipment when assessed on any neighbouring commercial/industrial premises shall not give rise to a sound pressure level that exceeds L Aeq 65dB(A) day time/night time. For assessment purposes, the above L Aeq sound levels shall be assessed over a period of 10 -15 minutes and adjusted in accordance with EPA guidelines for tonality, frequency weighting, impulsive characteristics, fluctuations and temporal content where			All Stages	Operator	
BUILDING DESIGN					
The detailed design of each building will be submitted to Botany Bay City Council for review and design input from the Botany Bay City Council Urban Design Review Panel, prior to the issuance of a Construction Certificate for each new building.	Stage 1			Proponent	
The design of buildings will comply with the Botany Bay City Council requirements in terms of anti-graffiti coating, as follows:  (a) A detailed Schedule of Finishes and Colours must be submitted to Council for approval prior to issuing the construction certificate in respect of the new buildings to be erected on the site.  (b) The Schedule of Finishes shall consist of samples of materials cross referenced with manufacturers details and product code. The Schedule shall include detailed facade treatment, anti graffiti coatings and green screens where required to prevent the application of graffiti to the buildings.  (c) The detailed Colour Scheme is to be shown in the form of detailed coloured building elevations, cross-referenced with a colour sample chart showing manufacturers details and product code.	All Stages			Proponent	
DEVELOPER CONTRIBUTIONS					
Prior to the issue of an occupation certificate for any new building approved under this approval in Stage 1 the Proponent will either:  1. pay developer contributions in accordance with Botany Bay City Council Section 94 Contributions Plan 2005 - 2010 totalling \$3,110,914 \$XXXX as	Stage 1			Proponent	

			Implementation			
Mitiga	ation Measure	•	Design	Constr. / Remed.	Operations	Respo
set out below. The to reflect the proportion percentage of the	ortion of each I	ot in Stage 1 as a				
Required S. 94 Contribution	Rate in CP	Required Contribution				
Community facility	\$259.00 \$XXXX per empl.	\$140,870.10 \$XXXX				
Administration	\$42.00 \$XXXX per empl	\$22,843.80 \$XXXX				
Shopping Centre Improvements (City Wide)	\$188.00 \$XXXX per empl.	\$102,253 \$XXXX				
Open Space and Recreation	\$1,745.00 \$XXXX per empl.	\$949,105.50 \$XXXX				
Total per Employee	\$2,234.00\$ XXXX	\$1,215,073 \$XXXX				
Transport	\$20.19 <b>\$</b> X					
Management (based	XXX Per m <sup>2</sup> site	\$1,895,841 \$XXXX				
Management (based on Stage 1 site area 9.39 ha)  Total Payment  Required  te:  Rates are based on the	Per m <sup>2</sup> site area	\$XXXX \$3,110,914 \$XXXX				
Management (based on Stage 1 site area 9.39 ha)  Total Payment Required	Per m² site area  ne January 2006 that the rates habeen adopted and a of 93,900 m² of forridor, DOL lands floor area of 36,17 an; ermined in accorda Varehousing at 1 cand 8 are propose on for those lots	\$XXXX  \$3,110,914 \$XXXX  CP. The Council has we not changed since the rates remain as new lots 1 - 6 5, Orica Pipeline lots rom2 as shown on ance with Botany CP employee per 66.5 m2				
Management (based on Stage 1 site area 9.39 ha)  Total Payment  Required  e:  Rates are based on the advised (19 July 2011) the time the CP has be originally adopted;  Based on Total Site are excluding Nant Street C (10 and 11), and gross final (Mod 1) Project Placemployee numbers det as Transport/Storage/Vest43.9 employees; Contributions for Lots 7 stage of a use Application	Per m² site area  me January 2006 that the rates habeen adopted and of 93,900 m2 of orridor, DOL lands floor area of 36,17 and; permined in accorda Varehousing at 1 cand 8 are propose on for those lots of	\$XXXX  \$3,110,914 \$XXXX  CP. The Council has we not changed since the rates remain as new lots 1 - 6 5, Orica Pipeline lots rom2 as shown on ance with Botany CP employee per 66.5 m2				
Management (based on Stage 1 site area 9.39 ha)  Total Payment  Required e:  Rates are based on the advised (19 July 2011) the time the CP has be originally adopted; Based on Total Site are excluding Nant Street C (10 and 11), and gross final (Mod 1) Project Place Employee numbers det as Transport/Storage/V = 543.9 employees; Contributions for Lots 7 stage of a use Applications for Lots Total Contribution Per Lot Lot Area	Per m² site area  me January 2006 that the rates habeen adopted and a of 93,900 m2 of corridor, DOL lands floor area of 36,17 an; ermined in accorda Varehousing at 1 cand 8 are propose on for those lots	\$XXXX  \$3,110,914 \$XXXX  CP. The Council has we not changed since of the rates remain as new lots 1 - 6 5, Orica Pipeline lots rom2 as shown on ance with Botany CP employee per 66.5 m2 and to be levied at the Required				
Management (based on Stage 1 site area 3.39 ha)  Fotal Payment Required  E:  Rates are based on the advised (19 July 2011) the time the CP has been decided by the simulation of the simulation	Per m² site area  me January 2006 that the rates habeen adopted and a of 93,900 m2 of corridor, DOL lands floor area of 36,17 an; ermined in accorda Varehousing at 1 cand 8 are propose on for those lots	\$XXXX  \$3,110,914 \$XXXX  CP. The Council has we not changed since of the rates remain as new lets 1 - 6 5, Orica Pipeline lets rom2 as shown on ance with Botany CP employee per 66.5 m2 and to be levied at the  Required Contribution				
Management (based on Stage 1 site area 3.39 ha)  Total Payment Required  Example 19 Stage 1 site area 3.39 ha)  Rates are based on the advised (19 July 2011) the time the CP has leviginally adopted;  Based on Total Site are excluding Nant Street C (10 and 11), and gross final (Mod 1) Project Ple Employee numbers data Transport/Storage/ V = 543.9 employees;  Contributions for Lots 7 stage of a use Application Contribution Per Lot  Lot Area (m2)  28000  40386  2 24300	Per m² site area  me January 2006 that the rates habeen adopted and a of 93,900 m2 of corridor, DOL lands floor area of 36,17 an; ermined in accorda Varehousing at 1 cand 8 are propose on for those lots	\$XXXX  \$3,110,914 \$XXXX  CP. The Council has we not changed since of the rates remain as new lots 1 - 6 s, Orica Pipeline lots rom2 as shown on ance with Botany CP employee per 66.5 m2 and to be levied at the  Required Contribution  371,378 \$XXXX				
Management (based on Stage 1 site area 0.39 ha)  Fotal Payment Required  Rates are based on It advised (19 July 2011) the time the CP has leriginally adopted; Based on Total Site are excluding Nant Street (10 and 11), and gross final (Mod 1) Project Pla Employees numbers det as Transport/Storage/V = 543.9 employees; Contributions for Lots 7 stage of a use Application Contribution Per Lot 28000  Area (m2)  28000  40386  2 24300  3 10500	Per m² site area  me January 2006 that the rates habeen adopted and a of 93,900 m2 of corridor, DOL lands floor area of 36,17 an; ermined in accorda Varehousing at 1 cand 8 are propose on for those lots	\$XXXX  \$3,110,914 \$XXXX  CP. The Council has we not changed since of the rates remain as new lots 1 - 6 5, Orica Pipeline lots rom2 as shown on ance with Botany CP amployee per 66.5 m2 and to be levied at the  Required Contribution  371,378 \$XXXX \$746,				
Management (based on Stage 1 site area 9.39 ha)  Total Payment Required  e:  Rates are based on the advised (19 July 2011) the time the CP has be originally adopted; Based on Total Site are excluding Nant Street C (10 and 11), and gross final (Mod 1) Project Placement (Mod 1) P	Per m² site area  me January 2006 that the rates habeen adopted and a of 93,900 m2 of corridor, DOL lands floor area of 36,17 an; ermined in accorda Varehousing at 1 cand 8 are propose on for those lots	\$XXXX  \$3,110,914 \$XXXX  CP. The Council has we not changed since of the rates remain as new lots 1—6 s, Orica Pipeline lots r0m2 as shown on ance with Botany CP employee per 66.5 m2 and to be levied at the  Required Contribution  371,378 \$XXXX  \$746, \$368,822 \$341,003 \$371,229				
Management (based on Stage 1 site area 9.39 ha)  Total Payment  Required  e:  Rates are based on the advised (19 July 2011) the time the CP has be originally adopted; Based on Total Site are excluding Nant Street C (10 and 11), and gross final (Mod 1) Project Ple Employee numbers det as Transport/Storage/V = 543.9 employees; Contributions for Lots 7 stage of a use Application Contribution Per Lot Lot Area (m2)  Lot Area (m2)  28000  40386  2 24300  3 10500  4 9100	Per m² site area  me January 2006 that the rates habeen adopted and a of 93,900 m2 of corridor, DOL lands floor area of 36,17 an; ermined in accorda Varehousing at 1 cand 8 are propose on for those lots	\$XXXX  \$3,110,914 \$XXXX  CP. The Council has we not changed since of the rates remain as mew lots 1 - 6 s, Orica Pipeline lots rom2 as shown on ance with Botany CP amployee per 66.5 m2 and to be levied at the contribution  Required Contribution  371,378 \$XXXX  \$746, \$368,822 \$341,003				

			Implementation			
Miti	gation Measure		Design	Constr. / Remed.	Operations	Responsibility
forward for these lo	ts;					
Botany Bay City Construction Cet 1, that contemple any of the followi payment of mone maximum contrib under the Botany Contributions Pla	ntary Planning Agre Council prior to the rtificate for new buil ates the carrying ou ng works in kind wi etary contributions of bution payable for the Bay City Council S an 2005 - 2010:	issuance of a dings in Stage it of one or th or without up to the nis stage				
Item Works	Scope of works	Estimated Value of works				
(a) New cycle way extending the existing cycle way on Coal Pier Road along the western edge of Southlands	Construction of new 2.4 metre (or as specified by Council) wide cycle path connecting to the existing cycle path along the western boundary to Southlands on the Coal Pier Road frontage. Dedication of land to Council to accommoda te the cycleway. This will be subject to retention of rights for vehicular, pedestrian access and services etc. into and out of the Southlands site.	Value of works to be determined by independent QS and land value dedicated to Council to be determined by valuer suitable to parties up to the maximum value of the total S.94 Contributions payable for Stage 1, less any amount agreed for (b) and (c).				
(b) Pavement repairs to Hills, Exell and McPherson Streets	Roadwork pavement repairs. Precise scope of pavement improvements to be defined with	Value of works to be determined by QS suitable to parties up to a maximum				

					Implementat	tion	
	Mitiç	gation Measure		Design	Constr. / Remed.	Operations	Responsibility
(c)	Botany Bay Hotel Frontage Works	Works outside the Botany Bay Hotel including a refuge island and modifications to on street parking.	value of the total S.94 Contributions payable for Stage 1, less the agreed value for items (a), and (c).  Value of works to be determined by QS suitable to parties up to a maximum value of the total S.94 Contributions payable for Stage 1, less the agreed value for items (a) and				