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SOUTHLANDS REMEDIATION AND DEVELOPMENT PROJECT

RESPONSE TO SUBMISSIONS

ON THE

ENVIRONMENTAL ASSESSMENT

&

PREFERRED PROJECT PLAN

FINAL ISSUE TO DOP

**November, 2010
Rev. 2**

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REVISION HISTORY

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APPENDICIES

1	<i>Report from Community Discussion Session on 15 September 2009</i>
2	<i>Additional Traffic Advice – Traffix</i>
3	<i>Additional flood modelling review – Aurecon</i>
4	<i>Council's Parking Rates Applied (from CoBB submission)</i>
5	<i>Biosphere Environmental Consultants Supplementary Report</i>

LIST OF ACRONYMS

ABS	Australian Bureau of Statistics
ACM	Asbestos Containing Materials
AHC	Australian Heritage Council
AHD	Australian Height Datum - a standard reference point for the elevation of a location.
AHIMS	DECC Aboriginal Heritage Information Management System
ANZECC	Australian and New Zealand Environment Conservation Council
APM	Australian Paper Manufacturers
Aquifer	An underground geological formation that contains water and is capable of yielding water to a well or spring; a water bearing formation.
Aquitard	A low permeability unit that can store groundwater and also transmit it slowly from one aquifer to another.
Asbestos Waste	Under the current (DECC NSW, 2008) Waste Guidelines (refer definition for Waste Guidelines) Asbestos Waste is any waste that contains asbestos. Asbestos Waste is a type of Special Waste.
Attenuation	The removal or reduction of contaminants in groundwater with time and with distance travelled.
BCA	Building Code of Australia
BGC	Botany Groundwater Cleanup Project
Bioremediation	Removal of in situ organic contamination by utilising naturally occurring or specifically engineered or introduced bacteria.
BIP	Botany Industrial Park
BLEP	Botany Local Environmental Plan 1995
Block 1	The portion of the parcel of land known as Southlands located to the east of Springvale Drain.
Block 2	The portion of the parcel of land known as Southlands located to the west of Springvale Drain.
Botany Groundwater Cleanup (BGC) Project	The project to hydraulically contain and treat CHC contaminated groundwater in a Groundwater Treatment Plant (GTP) on BIP, and its associated infrastructure requirements, including groundwater extraction, effluent disposal and treated water distribution.
Botany Sands	The stratigraphical name given to unconsolidated sediments comprised predominantly of sand which underlie BIP and adjoining areas.
BTEX	BTEX is an acronym for benzene, toluene, ethylbenzene, and xylene
CoBB	Council of the City of Botany Bay
CEMP	Construction Environmental Management Plan
Central EDC Plume	Plume inferred to originate from the EDC storage tanks
CFM	Trichloromethane (Chloroform)
Chain-of-Custody	Procedure to ensure that samples are traceable from the sample collection through to laboratory analysis and reporting.
CHC	Chlorinated Hydrocarbon
Chemical Reduction	Degradation of chemicals in an oxygen deficient environment.
CLM Act	Contaminated Land Management Act 1997
CPWE	Car Park Waste Encapsulation
CTC	Tetrachloromethane (Carbon Tetrachloride)
dBA	decibels above reference noise level
DCP	Development Control Plan
DECC	NSW Department of Environment and Climate Change (formerly known as the Department of Environment and Conservation (DEC)) and incorporating the NSW Environment Protection Authority.

Department of Environment and Conservation (DEC)	now NSW Department of Environment and Climate Change (DECC)
DEWHA	Commonwealth Department of the Environment, Water, Heritage and the Arts
DEUS	NSW Department of Energy, Utilities and Sustainability. Divisions of this department were combined with divisions of DNR to form the DWE in April 2007.
DEWR	Commonwealth Department of Employment and Workplace Relations (now known as Department of Education, Employment and Workplace Relations (DEEWR))
Discovery Cove	Discovery Cove Industrial Estate. This refers to the parts of Discovery Cove required for works within the Estate related to the Project for the New Link Road and access arrangements, associated internal re-configuration works, demolition / building services works to accommodate the New Link Road and new car parking arrangements.
Dissolved Phase	See Aqueous Phase
DNAPL	Dense Non-Aqueous Phase Liquid - an organic chemical or mixture of organic chemicals that does not readily mix with water and is heavier than water.
DNAPL Source Zones	Zones where residual or free phase DNAPL is present
DNR	NSW Department of Natural Resources. Divisions of the DNR were combined with divisions of DEUS to form the DWE in April 2007.
DoP	NSW Department of Planning
Drawdown	A lowering of the water table of an unconfined aquifer or the potentiometric surface of a confined aquifer caused by pumping from wells.
DTD	Direct Thermal Desorption
DWE	NSW Department of Water and Energy
EAR	Environmental Assessment Requirements
EC	Environmental Consultant
ECRTN	Environmental Criteria for Road Traffic Noise
EDC	1,2-Dichloroethane (Ethylene Dichloride), an intermediate compound in the production of vinyl chloride.
EHC	Environmentally Hazardous Chemicals
EMP	Environmental Management Plan
ENCM	NSW Environmental Noise Control Manual
ENM	Excavated Natural Material is naturally occurring rock and soil (including but not limited to materials such as sandstone, shale, clay and soil) that has: <ul style="list-style-type: none"> - been excavated from the ground; - contains at least 98% (by weight) natural material; and - does not meet the definition of VENM. ENM does not include material that has been processed or contains acid sulphate soils or potential acid sulphate soils.
EPA	Environment Protection Authority (incorporated into the Department of Environment and Climate Change (DECC))
EP&A Act	NSW Environmental Planning and Assessment Act 1979
EP&A Regulation, EP&A Regs	Environmental Planning and Assessment Regulation 2000
EPBC	Commonwealth Environment Protection and Biodiversity Conservation Act 1999
ESA	Environmental Site Assessment
ESD	Ecologically Sustainable Development
Exclusion Zones	Areas of the Site which either require additional protective measures or may require the adoption of additional occupational health and safety requirements and work practices. The zones primarily correspond to:

	Areas where there is a potential for exposure to dusts or noxious vapours; and Other areas of the Site which are affected by emissions from the works being undertaken by the Remediation Contractor.
Extraction Pump	Pump associated with extraction well system.
Extraction Well	A well installed to enable in-situ groundwater remediation by the extraction of groundwater. Extraction wells assist in the control of a migrating plume.
Flow Lines	Direction of groundwater flow.
Flow Path	The direction in which groundwater is moving.
Former MCS site	Former MCS land being Part Lot 2, DP 740747, to the south of the Southlands Site, proposed to be used for a portion of the New Link Road. Formerly owned by MCS and used for container storage. Currently owned by Trust Company of Australia Limited as custodian of the TGA11 Property Trust (a Goodman managed Trust).
Free Phase DNAPL	DNAPL saturation exceeding the capillary pressure of the soil.
FSR	Floor Space Ratio
GCP	Groundwater Clean up Plan – Plan prepared in response to Notice of Clean Up Action (NCUA).
General Solid Waste (non-putrescible)	Material classified as General Solid Waste (non-putrescible) in accordance with the DECC NSW (2008) Waste Guidelines.
General Solid Waste (putrescible)	Material classified as General Solid Waste (putrescible) in accordance with the DECC NSW (2008) Waste Guidelines.
Geology	The study of the earth as a whole, its origin, structure, composition and history, and the nature of the processes which have given rise to its present state.
Goodman	Goodman International Limited
Gradient	The rate of inclination of a slope. The degree of deviation from the horizontal.
Groundwater	Water beneath ground surface.
Groundwater Extraction Exclusion Area (formerly Groundwater Protection Zone 1)	Area of groundwater as defined by NSW Department of Water and Energy (DWE) (formerly DIPNR), during August 2003, for which there is an exclusion on the extraction of groundwater except for remediation purposes.
GTP	Groundwater Treatment Plant - A chemical treatment plant required to be constructed for the ex situ treatment of groundwater from hydraulic containment as required by the Notice of Clean Up Action (NCUA).
Hazardous Waste	Material classified as Hazardous Waste in accordance with the DECC NSW (2008) Waste Guidelines.
HCB	Hexachlorobenzene
HCBD	Hexachlorobuta-1,3-diene
HCE	Hexachloroethane
Heavy Ends	Waste stream from solvent manufacturing, which includes HCB, HCBD and HCE.
Heggies	Heggies Australia Pty Ltd
Heritage Act	Heritage Act 1977
HHRA	Human Health Risk Assessment
HIPAP No. 4	Hazardous Industry Planning Advisory Paper No 4. Risk Criteria for Land Use Planning.
Hydraulic Conductivity	A coefficient of proportionality describing the rate at which water can move through a permeable medium.
Hydraulic Containment	Measures taken to lower the potentiometric surface and/or water table and effect hydraulic capture of the contaminant plume (as defined in the NCUA).
Hydraulic Gradient	The change in total head in an aquifer with the change in distance in a given direction.

Hydrocarbon	Organic chemicals such as benzene or tetrachloroethene that contain atoms of carbon and hydrogen.
Hydrogeology	The study of the interrelationships of geological materials and processes with water, especially groundwater.
Hydrology	The study of the occurrence, distribution and chemistry of all waters of the earth.
Inorganic	A chemical substance that does not contain carbon.
INP	NSW Industrial Noise Policy
LA10	The noise level which is exceeded for 10% of the sample period.
L _{Aeq}	The equivalent continuous sound level (L _{Aeq}) is the energy average of the varying noise over the sample period and is equivalent to the level of a constant noise which contains the same energy as the varying noise environment.
LEP	Botany Bay Local Environmental Plan
LGA	Local Government Area
Lithology	The geological (physical) character of a rock or soil.
LPG	Liquid Petroleum Gas
MCS	Maritime Container Services Pty Limited
Microgram (µg)	One thousandth part of a milligram (mg) one millionth part of a gram (g); one billionth part of a kilogram (kg).
Migration	The movement of materials (e.g. water, gas or contaminants in soil) from one location to another.
ML	Megalitres
Monitoring Well	A well installed to routinely observe groundwater levels or to systematically collect water samples and analyse these for chemical pollution.
MPB	Material Public Benefits
NAPL	Non-Aqueous Phase Liquid - An organic chemical or mixture of organic chemicals that does not readily mix with water.
NCUA	Notice of Clean Up Action – Notice issued by the NSW Environment Protection Authority under Section 91 of the Protection of the Environment Operations Act 1997. The notice (No. 1030236) was issued on 26 September 2003 to Orica.
NEPC	National Environment Protection Council
New Link Road Site	The site proposed for the New Link Road, being Part Lot 1 873989 (former MCS land) and Part Lot 2, DP 740747 and part crossing of SWSOOS – Part Lot 1, DP 663644.
NH&MRC	National Health and Medical Research Council
NP&W Act	National Parks and Wildlife Act 1974
NPWS as part of DECC	NSW Heritage Office and National Park and Wildlife Service
NT	National Trust
OEMP	Operation Environmental Management Plan
Organic Compound	A carbon containing compound.
Orica	Orica Australia Pty Ltd
PCA	Primary Containment Area – Block 2 Southlands
PCE	Tetrachloroethene (Perchloroethene)
PFM	Planning Focus Meeting
PHA	Preliminary Hazard Analysis
Piezometer	A well with a short slotted screen for measuring a potentiometric surface or elevation of the water table.
Plume	A mass of contaminated water extending outward from the source of the contamination.
Plume Axis	Inferred centre line of a dissolved phase groundwater contamination.
POEO Act	Protection of the Environment Operations Act 1997

Porosity	The ratio of the volume of void spaces in a rock or sediment to the total volume of the rock or sediment.
Potentiometric Surface	An imaginary surface representing the total head of groundwater and defined by the level to which water will rise in a well.
Precision	The degree to which a measurement is reproducible.
Primary Containment Area	The primary containment area is defined in the NCUA as Block 2 of Southlands.
Proponent	Orica Australia Pty Limited and its successors or assigns
Pure Phase Solubility	Aqueous solubility of a single organic compound.
RAP	Remediation Action Plan
Recharge	Replenishment of an aquifer by a natural process such as addition of water at the ground surface, or by an artificial system such as addition through a well.
REF	Review of Environmental Factors
Restricted Solid Waste	Restricted Solid Waste Material classified as Restricted Solid Waste in accordance with the DECC NSW (2008) Waste Guidelines.
RTA	Roads and Traffic Authority
RVP	Remediation Validation Plan
Saturated Zone	An underground geologic formation in which the pore spaces or interstitial spaces in the formation are filled with water under pressure equal to or greater than atmospheric pressure.
SCA	Secondary Containment Area - The area defined in the NCUA as “the location where the EPA approved contaminant works upgradient of Botany Bay and Penrhyn Estuary, for the interception and containment of contaminant plumes that have migrated or may migrate beyond the primary containment area, are carried out”.
Screen	Perforation in a well casing and usually located near the bottom of the well or at selected depths to tap perched aquifers.
Section A Site Audit Statement	Refer to <i>Site Audit Statement</i>
Section B Site Audit Statement	Refer to <i>Site Audit Statement</i>
Semi-volatile Compound	An organic compound which has a low potential to form a vapour at room temperature.
SEPP 33	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
SEPP 55	State Environmental Planning Policy No. 55 – Remediation of Land
SEPP 64	State Environmental Planning Policy No. 64 – Advertising and Signage
SEPP 66	The Draft State Environmental Planning Policy No. 66 – Integration of Land Use and Transport
SEPP Major Projects Site	State Environmental Planning Policy (SEPP) 2005 (Major Projects) The component of the Project relating to the Southlands property comprising Lot 1 in Deposited Plan (DP) 254392, Lot 1 in DP 1078077, Lot 1 in DP 85542, Lot 11 in DP 109505, Springvale that passes through Southlands, unformed Public Road – Nant Street. Referred to as the Southlands Site or the Site. Other components of the Project include the New Link Road Site and Discovery Cove and former MCS land.
Site Audit	Site auditors review the work of contaminated site consultants. The CLM Act calls these reviews ‘site audits’ and defines a site audit as an independent review: (a) that relates to investigation or remediation carried out (whether under the CLM Act or otherwise) in respect of the actual or possible contamination of land, and (b) that is conducted for the purpose of determining any one or more of the following matters:

	<p>(i) the nature and extent of any contamination of the land</p> <p>(ii) the nature and extent of the investigation or remediation</p> <p>(iii) whether the land is suitable for any specified use or range of uses</p> <p>(iv) what investigation or remediation remains necessary before land is suitable for any specified use or range of uses</p> <p>(v) the suitability and appropriateness of a plan of remediation, a long-term management plan, a voluntary investigation proposal or a remediation proposal.</p> <p>The main products of a site audit are a 'site audit statement' and a 'site audit report'.</p>
Site Auditor	An independent third party technical reviewer (for land contamination issues) who is accredited by the DECC, NSW under the Contaminated Land Management Act 1997.
Site Audit Statement	<p>A site audit statement is the written opinion by an accredited site auditor, on a DECC-approved form, of the essential findings of a site audit. There are two types of Site Audit Statement (Section A or Section B) that can be prepared.</p> <p>A Section A Site Audit Statement is used where site investigation and/or remediation has been completed and a conclusion can be drawn regarding the suitability of the land use(s).</p> <p>A Section B Site Audit Statement is used when the audit is completed to determine the nature and extent of contamination and/or the appropriateness of an investigation or remediation action or management plan and/or whether the site can be made suitable for a specified land use or uses subject to the successful implementation of a remedial action or management plan.</p>
Solvay	Solvay Interlox Pty Ltd
Southlands	A parcel of land bisected by Springvale Drain and lies to the west of the BIP. Orica purchased the land from Australian Paper Manufacturers (APM) in 1980. Refer to Site.
Southlands Remediation and Development Project	The Project to which this Environmental Assessment relates comprising remediation of the Southlands Site and development of an industrial / warehousing facility in stages and associated works, and New Link Road (and associated works) part of Stage 2 as described in this Environmental Assessment.
Special Waste	Special Waste is Material that is classified under the current (DECC NSW, 2008) Waste Guidelines (refer definition for Waste Guidelines) with unique regulatory requirements. Special Wastes are: clinical and related waste; asbestos waste; and waste tyres.
SSHSEP	Site Specific Health, Safety and Environment Plan
Stratigraphy	The study of rock and soil strata, especially their distribution, deposition and age.
SWC	Sydney Water Corporation
SWSOOS	South Western Sydney Ocean Outfall Sewer
TCE	Trichloroethene
TOC	Total Organic Carbon
Topography	The relief and contour of the land surface.
Transmissivity	The transmission rate of water (based on a unit width of an aquifer) relative to a hydraulic gradient.
Trip Blank	Type of field blank used to check if samples have been cross-contaminated with volatile contaminants during handling and transit between the field and laboratory. A trip spike typically comprises a sample of deionised water supplied by the laboratory in a laboratory sample bottle.
TSC	NSW Threatened Species Conservation Act 1995
Unconfined Aquifer	An aquifer whose upper level can extend to ground surface.
Unsaturated Zone	The area between ground surface and the underground water table. Interstitial spaces in this zone contain moisture (water) and air.
VC	Vinyl Chloride (Chloroethene)

VENM	Virgin Excavated Natural Material. This includes natural material (such as clay, gravel, sand, soil and rock) that is not mixed with any other type of waste and that has been excavated from areas of land that are not contaminated as a result of industrial, commercial, mining or agricultural activities and that do not contain sulphidic ores or soils.
VFAs	Volatile Fatty Acids
VOC	Volatile Organic Compounds
Volatile Compound	Chemical with sufficiently low vapour pressure to become a gas at room temperature.
Waste Guidelines	DECC, NSW (2008) Waste Classification Guidelines: Part 1 Classifying Waste. During April 2008 the DEC NSW Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes (2004) were replaced by these guidelines.

1. INTRODUCTION

Orica Australia Pty Ltd (Orica) proposes to create a new industrial estate on land known as Southlands at McPherson Street, Banksmeadow, NSW.

The Project has been declared as a Part 3A Project by the Minister for Planning under the relevant provisions of State Environmental Planning Policy (Major Projects) 2005 and an Environmental Assessment (EA) prepared for the project was on public exhibition between 2 September and 7 October 2009.

This report provides a response to matters raised in the submissions made on the Project EA as follows:

- Section 2 A detailed response to each of the matters raised in submissions.
- Section 3 A summary of Project amendments in response to the submissions.
- Section 4 A Preferred Project Plan. Updated drawings are attached under separate cover.

2. DETAILED RESPONSES

This section sets out the submissions received and Orica's responses to the matters raised therein. 19 submissions (plus DoP Comments) were received in response to the public exhibition of the Project EA. Orica has attempted to summarise the issues raised and, where necessary, provide a response.

In addition, the NSW Department of Planning (DoP) commissioned an independent review of both the Hydrology and Flooding Report and Traffic and Transport Assessment submitted with the EA. Orica has also received feedback from these independent reviews and responded to such in the relevant appended reports. Orica understands that the DoP will separately make the final independent review reports publically available.

Please note that, as the submissions were received by Orica in hard copy (and in some cases hand written) the text in the "Issue Raised" column has mostly been taken from character recognition software and may not be a 100% accurate in all instances. Also, and in the interests of simplicity, the supporting reports, maps and figures provided with some of the submissions have not been reproduced here.

Response No.	Issue Raised	Subject Area	Project Stage (where relevant)	Response or Reference to the Section in this Report
1. Attachment A, DoP letter dated 22/10/09	Please provide an updated on any consultation that has occurred since the EA was exhibited.	Community and Stakeholder Engagement	All stages	<p>Orica held a community discussion session on 15 September 2009 (during the EA exhibition period). A report from that session is provided as Appendix 1 and available on the Orica website¹.</p> <p>Brief project updates have also been provided at the regular quarterly meetings of the Community Liaison Committee (CLC) for the BGC Project. Minutes from each meeting are loaded onto the Orica website (following review by the CLC and acceptance at the subsequent meeting).</p>
	<p><i>Climate Change</i> Please confirm how climate change has been considered in setting Flood Planning Levels.</p> <p><i>Blockage</i> It is stated in the Hydrology and Flooding report that "it is assumed that existing drains and other structures are clean and function as they were originally designed". However, details (photos and statements) provided in this report contradict this statement and indicate that drains and culverts are partially blocked. The assessment of blockages and waterway openings should therefore be revised to include blockages as they current exist.</p> <p><i>On-site Stormwater Detention (OSD)</i> OSD for Stage 1 is proposed as underground tanks. Justification should be provided as to why OSD is proposed rather than accommodating the additional storage volume required in the proposed Stage 1 basin or the Stage 2 infrastructure. If the underground tanks are primarily for the purpose of recycling roof water, it is recommend that consideration be given to placing these tanks above ground to minimise impacts on the groundwater table and maintenance issues associated with pumps.</p> <p><i>Water Sensitive Urban Design (WSUD)</i> Details should be provided in how WSUD features have been incorporated into the design of the proposal.</p> <p><i>Stage 1 Detention Basin</i> Please confirm how safety to life (overtopping of basin, access to the basin and drowning) has been addressed in the design. In addition, please provide details (eg., EL(mAHD)/floodplain storage graph for</p>	Hydrology and Flooding	Stage 1	<p>Following a review of all submissions and meetings with the DoP, Orica has requested that Aurecon (formerly Connel Wagner) prepare additional modelling along with a response report dealing with all flooding issues raised in the various submissions. A copy of that report is attached at Appendix 3.</p>

¹ www.oricabotanytransformation.com

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	<p>existing and design scenarios) to demonstrate that there would be no significant change in temporary floodplain storage capacity within the site.</p> <p><i>Hydraulic Modelling</i> Please provide justification for the use of the Mike-11 model for hydraulic modelling, rather than a 2 dimensional model. Could you also please confirm the assumptions that have been used for the "spilt" in flows between the Floodvale and Springvale tributaries within the Mobil site, north of the project site.</p> <p>Figure 11 indicates that there is an increase in flood levels within the Mobil site as a result of Stage 1, which is inconsistent with the findings of the report indicating that there are no upstream or downstream impacts. Please clarify what impacts would occur on the Mobile site as a result of Stage 1. In addition, it is stated that impacts at the Mobil site would be negligible due to containment within the banks of Springvale Drain. However, this is inconsistent with flood extents shown on Figure 9 and should be clarified.</p> <p>The Department also request that Orica provide a tabulation of peak levels and peak flows at key locations of design events for both the existing and design scenarios. In addition, the Department requires hydraulic analysis to be undertaken for an event larger than the 1% AEP (eg 0.5% AEP) as well as the Probable Maximum Flood. In relation to the SWOOS, please clarify why overtopping in the Floodvale Drain first occurs in a 5% AEP event but the Springvale Drain is not overtopped in the 1 % AEP event. The potential for blockages should be considered in clarifying this matter. Please also confirm why the flood flows from the two drains do not converge immediately upstream of the SWOOS.</p> <p><i>Cross Sections</i></p> <p>The following points require clarification:</p> <ul style="list-style-type: none"> • what TWL relates to; • the Manning's "n" values that have been adopted and where they apply; • in many sections the extremities of the section are not limited by high ground (e.g Floodvale Drain section 866.37 on Figure E14 but there are many others). This requires further explanation as to what decisions have been taken to define the extent of each of these sections; • a "spike" appears at chainage 70 in the Floodvale Drain 			

Response No.	Issue Raised	Subject Area	Project Stage (where relevant)	Response or Reference to the Section in this Report
	<p>sections 864.47 to 868.0 (Figure E13).</p> <p>Please confirm what this spike is and how water would enter the land beyond chainage 70 as the "spike" appears to acts as a barrier;</p> <ul style="list-style-type: none"> Floodvale Drain section 866.37 on Figure E14 shows the flood waters extending 400m in width with presumably the same water level (there are other sections showing similar extents as well). Please confirm whether the flood waters all flow with some velocity across this width or whether some would more appropriately be modelled as floodplain storage with nil velocity and whether this can affect the design flood levels; please clarify the relevance of showing the Detention basin chainages on Figure 7 and how these sections relate to the sections used in the Mike-11 model; please confirm how the many culverts and other waterway structures have been included in Mike- 11 and in particular the siphons beneath the SWOOS and what additional losses etc have been assumed; please confirm the approach that has been taken to include buildings and containers in the sections. For example section 108.2 on the Springvale Drain (Figure E22) does not appear to show the oil storage tank indicated on Figure 5. Also there appears to be a "spike" at chainage negative 10m on Figures E21 to E24, however, it is unclear what this is. All sections should be checked to make sure that they accurately reflect how floodwaters can flow through the Mobile site (and elsewhere); please provide further details to explain how the floodwaters are contained to such a small waterway area at Section 711.04 (and 785.31) on Figure E30; and please confirm whether a high mound on the downstream side of McPherson Street on the east side of the Springvale Drain has been included in the hydraulic model. <p>To assist the Department with its assessment it would be appreciated if the vertical scale was only to 5m AHD on all figures and if the horizontal extent was limited to ' show only land up to 5m (or even less at the downstream end). In addition, please provide existing and design sections for each river chainage on the same graph (Appendix F) to clarify the changes that have been made to the sections. However, here is no need to plot sections that have not been altered for design.</p>			

Response No.	Issue Raised	Subject Area	Project Stage (where relevant)	Response or Reference to the Section in this Report
	<p><u>Stage 2</u></p> <p>It would appear that no hydraulic modelling (other than an assumed 40m³/s steady flow) has been included in the EA. The Department requires that the same level of hydraulic detail provided for Stage 1 should be provided for Stage 2. In this regard, the Department recommends that a 2 dimensional modelling approach be adopted to eliminate the need for any assumptions. Any other modelling approach used must be justified, with all assumptions fully detailed. The SWOOS prevents a significant obstacle to flood flows and for Stage 2 it is assumed that an additional siphon or other structure to increase flow capacity is required on the Springvale Drain. As the existing "siphons" do not appear (as requested to be clarified for the Stage 1, above) to be able to cater for large flows (refer photographs previously and acknowledgement that one sump is blocked - refer Figure B2) further details are required in order to demonstrate that a viable solution can be found at this location.</p>	Hydrology and Flooding	Stage 2	See updated Aurecon Report attached at Appendix 3.
	<p>Landscaping</p> <p>The Department notes that Botany City Bay Council considers that Stage 3 should be landscaped and managed as part of the project application. The Department requests, that at least, Orica revises the proposal to include landscaping/screening along all boundaries of the Stage 3 area and to commit to preparing a management plan to maintain this area.</p>	Landscape and Visual Impact	Stage 3	<p>The current proposal includes the use of screen planting, mounding and timber fencing during Stage 1 to screen views into the Stage 2 and 3 areas. When Stage 2 is undertaken new buildings and screening would prevent views into the Stage 3 area.</p> <p>Orica commits to preparing a landscape management plan for the Stage 3 area and will include in that a staged approach to the screening of the under-utilised portions of the site.</p>
<p>2. Hynlong Pty Ltd dated 2/10/09</p> <p>(attachments to this submission: Correspondence from Allens Arthur Robinson to CoBB dated 7/5/09 and correspondence to Hynlong from CoBB dated 11/3/09, both regarding application</p>	<p>We are deeply concerned about the proposal given the scale and complexity of the project and the existence today of various off site environmental impacts, being a legacy of past Orica/ICI site practices, that may be exacerbated and the potential for additional adverse impacts.</p>	General concern	All stages	See updated Aurecon Report attached at Appendix 3.

Response No.	Issue Raised	Subject Area	Project Stage (where relevant)	Response or Reference to the Section in this Report
for a building certificate at 15 McPherson Street, Banksmeadow; have not been copied into this table).				
	Consistent with an earlier submission relating to the adjoining Stage 2 land now fully redeveloped by Goodman and known as 15 McPherson Street, Banksmeadow dated 7 May, 2009, by Mr Noel Hemmings QC of Allens Arthur Robinson (correspondence attached) we object to the Minister for Planning granting approval to the above application unless the Department is satisfied that the work and completed development will not exacerbate any likelihood of flooding on our land and that the proposal will not in any way adversely affect our property, its future development potential or the use of our property.	Hydrology and Flooding & any adverse impacts on the Hynlong McPherson Street property (incl future development potential)	Stages 1 and 2	See updated Aurecon Report attached at Appendix 3. The Aurecon Report specifically examines impacts on the Hynlong site. The current proposal for the Southlands site will not exacerbate any likelihood of flooding on the Hynlong land.
	<ol style="list-style-type: none"> 1. We refer to the independent report commissioned by Botany Bay City Council, titled "Catchment Management Study, Floodvale & Springvale Drains, Botany" 1992 by Sinclair Knight. We are <u>deeply concerned</u> that the theoretical flood levels adjacent to our <u>downstream</u> site are shown as substantially <u>higher</u> in the Connell Wagner Flood Investigations, November 2007 than in the Sinclair Knight report. It is most surprising that conversely, the Connell Wagner report has substantially <u>lower</u> flood levels <u>upstream</u> of our site on the Orica/ICI site, despite there having been no change to the drain infrastructure in this vicinity over the period between the dates of the two reports. This seeming transfer of flood waters to our downstream site is of deep concern to us. We dispute this finding and the assumptions which have brought it about. This possible transfer of flood levels is very pertinent as the volume of flood plain storage required on the Orica Southlands site will be affected by a higher flood level on the South lands site. 2. Further in respect to flooding, the information provided to the Department was finalised on 2 November, 2007 and does not reflect present day existing circumstances particularly in relation to Springvale Drain and the property known as 15 McPherson 	Hydrology and Flooding	Stages 1 and 2	<p>See updated Aurecon Report attached at Appendix 3.</p> <p>Orica confirms that all current existing information relating to the new levels at 15 McPherson Street (determined by recent survey) have now been incorporated into the revised Aurecon modelling.</p>

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	<p>Street, Banksmeadow. The flow path for flood waters into the Drain at 15 McPherson Street has been changed as well as pipes and culverts removed by Goodman along the length of the Drain between McPherson Street and the SWOOS. Further, the sumps under the SWGOS (App. G - Figure B2) are not shown in current condition.</p> <p>3. We also wish to advise the Department that 15 McPherson Street, a substantial holding of 3.8 hectares, has been fully redeveloped and includes work not originally authorised referred to in Council's letter of 11 March, 2009 to Hynlong Pty Ltd (copy attached), specifically, the raising of the paved area by approximately one (1) metre and construction of walls on the eastern and southern side boundary. We believe it is a relevant concern that this unauthorised work was done by Goodman who, with Orica, jointly proposed to develop Southlands. Connell Wagner who have prepared the Southlands Flood Investigations also provided flood advice for 15 McPherson Street, Banksmeadow and additional information by the recent request of Council.</p> <p>Accordingly, we request that in assessing the proposal the Department of Planning is provided with current information to reflect existing circumstances, so that from a sound technical basis clear and concise conclusions can be made. Upon completion of this additional modelling we request that an independent flood plain engineer review the results to satisfy the Department that the works will not adversely affect our site.</p> <p>4. We note the verbal advice from Ann-Maree Carruthers at the project update meeting on 15 September, 2009 at Botany Town Hall that the proposal "should not make matters worse" and "hopefully better".</p> <p>This is consistent with the statement in the Introduction to Flood Investigations by Connell Wagner (Appendix G: Hydrology and</p>			<p>As stated in the Environmental Assessment, Goodman is no longer a joint proponent for the Southlands project.</p>

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	<p>Flooding) that "The clear objective of this work was to determine a development scenario for the site that does not create any adverse flooding impacts on adjoining lands" and also the State Government's Flood Policy "not to create additional flooding problems in other areas."(Appendix G: Hydrology and Flooding - Background)</p> <p>However, this objective would appear to have not been reached given the following vague and conflicting statements contained within the Environmental Assessment:</p> <p><i>"Developing the Stage 1 area of the site that will not cause any <u>significant</u> impact on surrounding properties"</i> (App. G, Page 2 - Options).</p> <p><i>" the preferred option that provided no <u>major</u> adverse flood impacts on adjoining landholdings"</i> (EA, Page 8-1, Section 8.4.1 - Flooding and Stormwater).</p> <p><i>"Design of development would ensure no <u>major</u> adverse flood impacts on adjoining landholdings"</i> (EA, Page 21-5, Draft Statement of Commitments).</p> <p>We require a tabulation of peak levels and flows for the existing and design scenarios at key locations along the two drains to confirm that there is no impact.</p> <p>5. Whilst we have not had specialist advice on all aspects of the proposal within the short time available we have sought comments from a hydraulic engineer. Accordingly, we wish to draw the Department's attention to the following:</p> <p>a) <i>There is a clear increase in adverse flood impacts on our land when comparing the existing and proposed Stage 1 flood depth maps depicted in Figures 8 and 9 of the EA;</i></p>			See updated Aurecon Report attached at Appendix 3.

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	<p>b) <i>No such mapping for Stage 2 is provided;</i></p> <p>c) <i>Detail design for Stage 2 has not been done;</i></p> <p>d) <i>No graph is provided to compare the existing and proposed Stage 1 design temporary floodplain storage capacity within Southlands.</i></p> <p>e) <i>The flood investigations do not reflect present day existing circumstances.</i></p> <p><i>For example, out of date information has been used with no comment or reference made to the following:</i></p> <p>i. <i>Springvale Drain culvert and pipes removed, sumps shown not in current condition and flood flow path altered.</i></p> <p>ii. <i>Full redevelopment, including work not originally authorised, of 15 McPherson Street, Banksmeadow by Goodman.</i></p> <p>iii. <i>New Coal Pier('Port Feeder') Road and associated infrastructure.</i></p> <p>6. The proponent recommends Council and "benefitting stakeholders" contribute to the cost of the proposed work by Orica. We strongly object to this recommendation and see no reason why we, a totally unrelated adjoining land owner, should be burdened with the cost of this proposal either directly or via Section 94 contributions when the benefit and need for such work is solely for and due to this application. We also note that such costs must be higher than normal due to the environmental legacy of past Orica/ICI practices.</p> <p>7. In assessing the proposal we respectfully request that the</p>			<p>The Proposal by Orica does not seek any contributions from any private landowners. In respect of S.94 Contributions, the Proposal does put forward a request that any S.94 monies that have been gathered by Council or are to be gathered by Council in respect of the new link road be made available and used toward the cost of the link road. The current Botany Contributions Plan does include a required contribution by landowners for the "Port Botany feeder extension - McPherson Street to Foreshore Road". This contribution is collected by Council only at a point where a party seeks to redevelop their land within the Banksemadow South area as defiend by the Botany Contributions Plan.</p> <p>As stated in the EA (page 6-10), Orica has proposed that it enter into a Voluntary Planning Agreement (VPA) with Council to deliver of the various material Public benefits put</p>

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	<p>Minister and Department ensure that no adverse impacts affect our property, its future development potential or use of our property consistent with the submission of Mr Noel Hemmings QC of Allens Arthur Robinson. We wish to retain all our rights in regard to future redevelopment without being detrimentally affected by this proposal. We strongly object to any aspect of the proposal which hinders our ability to carry out an identical development to the recently completed development at 15 McPherson Street, including filling to the same raised levels as those in the yard of 15 McPherson Street.</p> <p>8. Due to limited time and the complexity and number of environmental concerns we must rely upon the Minister and Department so that all aspects of the environmental legacy of past Orica/Iel activities are improved and not exacerbated at any time by this proposal.</p> <p>9. In regards to the outdated and insufficient flooding information, we respectfully request additional modelling is done to ensure:</p> <p>A. That there is no adverse impact on our property when comparing the pre 15 McPherson Street development conditions (circa 2007) to the present day (October, 2009) conditions with the construction of 15 McPherson Street. In particular we require clarification on the assumptions for flow under the SWOOS for both design scenarios. These assumptions could make a significant difference to flood levels.</p> <p>B. No adverse impacts affect our property when comparing present day existing circumstances to the proposed Stage 1 and proposed Stage 2 redevelopment proposals.</p> <p>The additional modelling should be reviewed by an independent</p>			<p>forward and that the S.94 monies collected by Council in respect of the "Port Botany feeder extension McPherson Street to Foreshore Road", but used for that purpose (ie. the new Link Road in Stage 2 of the works).</p> <p>Council has indicated, in meetings following the lodgment of the EA, that it is willing to consider such a VPA. The DoP has requested a letter setting out the terms of the VPA. This has been discussed with Council and provided to the DoP and Council. Orica is waiting a formal response from the DoP and Council on the suitability of the terms.</p> <p>See updated Aurecon Report attached at Appendix 3.</p> <p>See updated Aurecon Report attached at Appendix 3.</p> <p>The DoP has engaged an independent flood engineer to review the updated flood modelling work. Orica has responded to the requests for additional information from</p>

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	<p>flood plain engineer prior to the updated information being resubmitted for our further assessment and comment.</p> <p>10. Stage 1 includes "interim flood detention" in the Stage 2 area directly upstream of our property. Should Stage 2 not proceed, this detention area would become permanent and whether interim or permanent, the detention area will require ongoing maintenance.</p> <p>11. Should the development proceed, given consent for both Stage 1 and Stage 2, we submit that sufficient checks and balances must be employed, by way of conditions, such that no adverse impacts as demonstrated by prior modelling, occur as a result of part of the construction process or the completed development.</p>			<p>that independent consultant.</p> <p>The compensatory flood storage area within the Stage 2 area will be provided until Stage 2 stormwater works are complete. The proposal provides for this area to be designed, planted and maintained to protect water quality and prevent mixing with groundwater. The final design and delivery of this area will be reviewed by the Environmental Auditor.</p>
<p>3. Johnson Winter & Slattery (acting for Gazal Corporation Limited) dated 6/10/09.</p> <p>Attached Traffic report prepared by ML Traffic Engineers and dated October 2009 not copied into this table.</p>	<p>We enclose a copy of a traffic report which Gazal has commissioned in relation to the traffic impact on the area. Gazal notes that this report supports its position that the proposed link road should be constructed and completed during Stage 1 of the development.</p> <p>Gazal have asked that this project not proceed until the traffic report is considered and a report is provided to Gazal.</p> <p>Appended report states that : Gazal Corporation Limited is directly opposite the proposed development and supports the development. Gazal Corporation Limited believes that a new link road from McPherson Street to Botany Road to the east of signalised intersection of Botany Road with Foreshore Road (Option 2 in the new link road) will significantly improve access and egress to the study area. Gazal Corporation Limited's position is that the road infrastructure recommended as part of Stage 2 development is brought forward as planning condition as part of the approval of Stage 1.</p>	<p>Traffic and Transport</p> <p>(Refer to October 2009 ML Traffic Engineers Report titled "Review of the Traffic Impact Assessment of Southlands Stages 1 and 2 for an Industrial Warehouse Development. McPherson Street, Banksmeadow. Review of Traffic Reports".</p>	<p>Stages 1 and 2</p>	<p>Orica does not propose to build the proposed link road in Stage 1. It is proposed as Part of Stage 2 works as determined by the traffic modelling investigations in the proposal.</p> <p>The Traffic Report by ML Traffic Engineers has been received and reviewed.</p> <p>Orica's Traffic Consultant – Traffix, has attended meetings with the DoP and the RTA and has provided a response to the various Traffic issues raised in the submissions at Appendix 2.</p>
<p>4. E-mail from Jim & Narelle Towart</p>	<p>(1) The pollution is already in the groundwater and will continue this</p>	<p>Groundwater remediation</p>	<p>Stages 1 and 2</p>	<p>The groundwater remediation works will take a very long time to complete. This doesn't prevent the productive use</p>

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(Miranda residents) dated 2/10/09	contamination, possibly becoming worse. Remediation can only be successful if the site is treated as a whole entity. Since remediation in one area, which is then developed cannot be isolated from the polluted areas adjacent. This will then recontaminate the cleaner area.			<p>of the land above while the remediation works occur.</p> <p>The “remediation” works associated with the development consists primarily of placing a layer of clean soil above the current surface to provide a barrier, not to the groundwater but to the presence of possible unrelated materials in the surface soils.</p> <p>This clean barrier of soil is positioned well above the groundwater and will not be “recontaminated”.</p>
	(2) When the 'decontaminated' areas are developed and built on it will no longer be possible to further remediate these areas, if they are recontaminated. The whole Southlands area will then never be able to be satisfactorily cleaned up.	Soil and groundwater remediation	Stages 1 and 2	<p>One of the worlds largest pump and treat systems is already in place on the site and a total of more than 500 tonnes of chlorinated solvents have been removed from the aquifer, and will continue to be removed regardless of the occupation of the site.</p> <p>In addition, an extensive array of easements have been left in place to allow for the application of future technologies if and when they become available.</p> <p>Groundwater remedial technologies are regulary applied in areas where land is already occupied. Groundwater contamination occurs primarily on developed land.</p>
	(3) Access to all areas of this site will be required during the cleanup, but once an area is developed it will not be possible to access all the contaminated areas.	Soil and groundwater remediation	Stages 1 and 2	Easements have been proposed to allow the ongoing operation of the groundwater cleanup and appropriate access for future groundwater remediation activities.
	(4) The pipeline which is removing the contaminated groundwater, to prevent it from spreading further, is on this Southlands area. Alterations to this main pipeline could interrupt or lower the efficiency of this process.	Groundwater remediation	Stages 1 and 2	The groundwater extraction wells at Southlands (known as the Primary Containment Area, or PCA) will be maintained. The pipelines which transfer groundwater through Southlands are to be relocated along the boundary of the site (these works are separate to the Project and will occur in advance). The pipeline will be maintained within an easement which will allow for ongoing access as required. The Project will not impede hydraulic containment of the contaminants.
	(5) The whole area should be returned to its original forested state, this would allow the time for further studies or scientific advancements on current methods of pollution abatement, ego designer bacteria. A forest would allow future remediation, whereas a warehouse/industrial estate would make this impossible, given that cross contamination would be probable.	Alternatives	All stages	<p>The presence of contaminated groundwater on a site does not prevent the productive use of the land. There are many examples of sites in Sydney where the land is utilised for commercial uses whilst remediation and monitoring of groundwater occurs over several years.</p> <p>Future groundwater remediation will not be prevented by</p>

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				<p>the Southlands Project. An extensive network of easements have been left in place to allow for the application of future technologies if and when they become available.</p> <p>Groundwater remedial technologies are regularly applied in areas where land is already occupied. Groundwater contamination occurs primarily on developed land.</p>
5. Urbis (on behalf of ING Industrial Fund Pty Ltd) dated 6/10/09	<p>ING owns several properties in the immediate vicinity of the Orica site, including 10-14 McPherson Street and 47 Stephen Road, Banksmeadow.</p> <p>Further, it should be acknowledged that ING has made a significant investment in traffic management works within the Banksmeadow/Botany Industrial Precincts in the past five years, including:</p> <ul style="list-style-type: none"> • ING designed and constructed Coal Pier Road (formerly known as Port Feeder Road) in Banksmeadow at a cost of approximately \$15 million (including land acquisition costs) specifically to allow ease of access and egress to Southgate Industrial Park. • ING has obtained development consent to extend Hale Street in Botany to Foreshore Road at an estimated cost of \$3 million, to redirect heavy vehicles away from Botany Road. Works associated with the Hale Street extension are due to commence in the immediate future. <p>As a nearby land owner, ING has a vested interest in ensuring the proposed development does not adversely impact the ongoing and future operations of their tenants. Further, ING has a vested interest in ensuring that other land owners meet their obligations with regard to the delivery of traffic related infrastructure to ensure that the significant investment already made by ING is not compromised by future development.</p>	Background to submission	N/A	N/A
	ING does not raise any specific objection to the form or type of	Traffic and	Stages 1 and 2	Traffic investigations undertaken as part of the Project have

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	<p>development proposed, taking into account its context and industrial zoning. However, significant concern is raised regarding the delayed construction of the New Link Road until Stage 2 (estimated to occur in 2016) and the reliance of external funding arrangements for the delivery of the road.</p> <p>Stage 1 of the proposed development comprises 47,000m² of warehouse space and it is considered that this additional floor space will result in an unreasonable level of traffic congestion that will impact on the surrounding land uses. As such, it is considered that the New Link Road should be developed as part of the Stage 1 and not delayed until 2016 (as part of Stage 2).</p> <p>We have reviewed the Environmental Assessment and associated information provided on the Department of Planning website. The following points of objection are made in relation to the proposal. Having particular regard to the likely traffic impacts and timing of the New Link Road:</p> <p>The Traffic Impact Assessment report identifies a number of deficiencies in the current road network which are likely to be exacerbated by the proposed development.</p> <p>The Hills Street intersection with Botany Road and the existing roundabout at the access to Discovery Cove both currently operate unsatisfactorily. Further, the left hand only exit from Exell into Botany Road results in extensive queuing at peak times including many vehicles undertaking U-turn manoeuvres at the roundabout to travel north along Botany Road.</p> <p>While the current scope of work proposed in Stage 1 of the development includes improvements to address these deficiencies, concern is raised that these works will not be sufficient to accommodate the additional demand placed on these intersections. The report states that the proposed Stage 1 development can be accommodated on the existing road network subject to these local road improvements, however, the report does not appear to quantify the traffic generation or nexus for the delivery of the New Link Road. Page 6-9 of the Environmental Assessment report states that the New</p>	Transport		<p>highlighted the fact that there is sufficient capacity in the existing road system to accommodate Stage 1 of the development, subject to required modifications to the Hills and Exell Streets one way paring.</p> <p>The traffic studies confirm that the new link Road will not be justified until Stage 2 of the Project takes place.</p> <p>It is understood that some landowners in the area have a desire for Orica to undertake the works in Stage 1, for the benefit of others, but this is not justified by the Stage 1 development and is not part of the proposal.</p>

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	<p>Link Road should occur <u>prior</u> to any development works on Stage 2.</p> <p>Overall, it is considered that further independent analysis by an appropriately qualified traffic consultant is required to review the Traffic Impact Assessment submitted with the application and verify whether the New Link Road should be delivered as part of Stage 1.</p>			<p>The DoP has commissioned an independent traffic engineering review for the proposal. Orica's traffic engineer has provided additional advice in response to all traffic issues as attached at Appendix 2.</p>
	<ul style="list-style-type: none"> Delivery of the New Link Road appears to be reliant upon the Minister for Planning imposing a condition that requires the City of Botany Bay to amend their Section 94 Contributions Plan or enter into a Voluntary Planning Agreement (VPA). Page 5-2 of the Environmental Assessment includes a recommendation by the Proponent that Council be required to amend their Section 94 Plan or negotiate a VPA between the Proponent and other local land owners benefitting from the new link road to contribute to the cost of and the co-development of the New Link Road and additional drainage infrastructure anticipated for Stage 2. <p>Concern is raised as to whether or not such a condition would be able to be imposed on the consent and the way in which this may impact on the timing of the New Link Road being built, if at all. In particular:</p> <p>It is queried as to whether the Minister is able to instruct Council to amend a Section 94 Plan and whether this will. Impact on the delivery of the New Link Road in Stage 2. Inclusion of the road within a Section 94 Plan may mean that the construction road will be delayed until such time as sufficient funds are gathered from other future developments before the road may be constructed.</p> <p>It is considered a significant impost on Council to negotiate a VPA between the proponent and other land owners within the precinct. Such an approach would be reliant on the good will of the other land owners, which seems unrealistic. In particular, ING has already made a significant contribution to the local traffic infrastructure (\$13 million for Coal Pier Road) and would be unwilling to contribute any further</p>	Section 94 Contributions / Volunatry Planning Agreement	Stage 2	<p>The EA does not state that the Project is reliant on a Voluntary Planning Agreement between Council and Orica, in respect of S.94 Contributions or the Stage 2 link road. The Project is therefore not reliant on this. However, the EA does recommend that a VPA be entered into between Council and Orica to allow the allocation of any S.94 contributions that have been collected for the purposes of the "Port Botany feeder extension McPherson Street to Foreshore Road" (see Transport Works Contributions required under Botany Contributions Plan for Banksmeadow South).</p> <p>Meetings with Council, subsequent to the lodgment of the EA, have confirmed that Council is interested in entering into a VPA for this purpose. A letter of offer has been issue dto the DoP and Council.</p> <p>The Project and the establishment of the VPA is therefore not contingent upon any condition of a Project Approval from DoP.</p> <p>Orica has discussed the VPA with Council and Council has indicated a willingness to enter into such an agreement. Orica is not seeking direct funding from other landowners at this stage.</p> <p>As noted above, Orica understands that other landowners in the area may have a desire for Orica to undertake the works in Stage 1 for the benefit of others, but this is not justified by the Stage 1 development and is not part of the proposal.</p>

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	<p>funds to local traffic infrastructure by way of a VPA.</p> <p>Overall, it would appear that while the New Link Road is proposed as part of the Stage 2 Project Application, the Proponent has not made any allowance for its construction. Significant concern is raised as to whether or not the required road will be delivered, taking into account the funding mechanisms proposed in the Environmental Assessment on page 5-2 and the Draft Statement of Commitments on page 21-8 (which are not consistent).</p>			<p>Current traffic studies indicate that the new link road may be required for Stage 2 to proceed and funding would be required for the works for that Stage . The funding of the new link is not contingent on a VPA with Botany Council, but it seems equitable and responsible for any S.94 monies that have been collected for the “Port Botany feeder extension McPherson Street to Foreshore Road” under the current Botany Contributions Plan to be made available for that purpose, ie. The new Stage 2 Road Link, as required.</p>
	<ul style="list-style-type: none"> The Environmental Assessment report appears to inappropriately link the Botany Groundwater Clean Up Project with the timing and staging of the current redevelopment proposal. <p>The linkages appear to be driven by both a spatial perspective and a financial perspective. The importance of the site remediation and the need to relocate infrastructure associated with this work is recognised. However, the redevelopment of the site, including Stage 1, should require key infrastructure to be delivered to mitigate the impacts of the development.</p> <p>Page 2-10 of the Environmental Assessment states that the Orica groundwater remedial obligations are paramount in the design and timing of the proposal. The report states that the remediation and development approach is contingent upon the implementation and verification of specific systems/plans, including the Springfield Drain mitigation works. Confirmation is sought that the staging, delivery and costs of the remediation works are not unduly influencing the timing for the delivery of the New Link Road, which is located adjacent to the Springfield Drain.</p> <p>Further, the proposed redevelopment should not be linked to the funding of the remediation works. All proponents have financial obligations and the economic outcome of a proposed development should not be linked to the funding of a separate responsibility. Orica is required to meet its environmental requirements, regardless of the</p>	<p>Timing of development and links with timing of Orica's remediation activities</p>	<p>Stages 1 & 2</p>	<p>The Botany Groundwater Cleanup Project has been underway for some time and the development of the Southlands site will not interrupt its operation.</p> <p>It is true to say that “the remediation and development approach is contingent upon the implementation and verification of specific systems/plans, including the Springfield Drain mitigation works”. It is a normal part of the remediation process that a Remediation Action Plan is prepared with a Remediation Strategy that sets out the approach for site remediation. Accordingly it is expected by the Environmental Auditor for all sites subject to remediation that verification and confirmation is undertaken at the completion of the works to verify the effectiveness of that remediation. This is a normal and usual approach that requires Development Approval before the works can be undertaken.</p> <p>The funding of the Botany groundwater Cleanup Project is in no way linked to the redevelopment of the Southlands site.</p> <p>Orica concurs with the assertion that the new Road link should be delivered based on traffic demand. On that basis, the current traffic investigations indicate that the New Link will be required prior to any new development on Stage 2, and not earlier.</p>

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	<p>redevelopment of this site.</p> <p>Overall, the New Link Road should be provided when it is required from a traffic management perspective and should not be delayed due to the remediation works or funding arrangements.</p>			
	<ul style="list-style-type: none"> The public consultation undertaken by the Proponent clearly showed a high degree of dissatisfaction with the local road network by local landowners and tenants and significant concern over the likely impacts of the current proposal. <p>ING considers that their existing tenants are likely to be inconvenienced due to the increased pressure on an already very busy intersection of Exell Street and Botany Road. Concern is raised regarding the ability of ING to retain their existing tenants and/or attract new tenants unless the likely traffic impacts of the proposed development are appropriately mitigated.</p> <p>Overall, it is considered that the New Link Road should be constructed in Stage 1 and should not be unnecessarily delayed until Stage 2 of the development.</p> <p>ING considers that the proposal should be amended to include the construction of New Link Road by the Proponent as part of the Stage 1 works.</p> <p>Further, the traffic impact assessment should be subject to a comprehensive independent review by an appropriately qualified traffic consultant to confirm its findings and recommendations and to confirm whether the road should be brought forward to Stage 1, as requested.</p>	Traffic and Transport	Stages 1 & 2	<p>The proposal includes a traffic analysis that reviews the current capacity of the local road network. This has been updated to meet comments provided in response to the exhibition of the EA. It commits to making the necessary road upgrades (to Hills and Exell Streets) to improve road capacities to meet the needs of Stage 1 development.</p> <p>At this stage no traffic is generated by the Southlands site, and all adverse conditions are created by traffic generated by existing developments.</p> <p>Orica, like other landowners, has a right to make use of the public road system to service appropriately zoned lands. The traffic analysis indicates that the improvements proposed in Stage 1 are sufficient to meet the needs of the Stage 1 development and that Stage 2 will be reliant on a new road link or other form of improvements.</p> <p>Therefore like all other developments the proposal needs to and has demonstrated that its traffic generation can be accommodated in the local road system.</p>
6. Julia Gennissen, Concerned Citizens Association - Rockdale 3rd Ward, dated 2/10/09	<p>The large and many documents provided, in regard to this project, have been very well and thoroughly prepared.</p>	Background to submission	N/A	N/A

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	<p>With the limited time available and the massive amount of information enclosed, therefore, it is impossible to have addressed all the issues involved.</p> <p>These responses are written on behalf of The Concerned Citizens, Rockdale Third Ward who would like to address the following.</p>			
	<p>4.3 Permissible Uses</p> <p>If after development of the site it is sold, as is the suggestion, how can we be sure that the new owners would not use the site for one of the other options deemed unfeasible by this EA? This needs to be stated specifically to any possible developers.</p>	Alternatives to the Project	General	<p>Orica is seeking Project Approval for use of part of the Southlands site as an industrial warehouse facility.</p> <p>If, following any approval of this Project, an alternate land use is sought by a developer then a new Development Application (DA) would be required. A new Application would be subject to public exhibition, and must comply with the current zoning.</p>
	<p>5.4.1 Site Preparation and Remediation</p> <p>Reference is made here to the remediation of hazardous materials either on or off site. Remediation practices are too indecisive.</p> <p>The DTD plant, for example, hasn't as yet been approved for the car park. What is the alternative?</p> <p>WHAT is the off site arrangement?</p> <p>The physical barrier to prevent contact between site users and "underlying ACM impacted contaminated materials" hasn't been thought through. In such an important issue we need to see details of the design of this barrier.</p>	Project Description	General	<p>On 12 November 2009 (following preparation of this specific submission) Orica received Project Approval for remediation of the Car Park Waste Encapsulation (CPWE) using Directly-heated Thermal Desorption (DTD) technology.</p> <p>If HCB impacted materials are encountered on Southlands in quantities and concentrations that require treatment, then it is the intention of Orica to treat this material in the DTD plant.</p> <p>There are no available "offsite" arrangements for scheduled HCB waste.</p> <p>Detailed barrier design and management will be subject to approval by the independent NSW contaminated sites auditor. The barrier will be in place as a precautionary measure only, it is not a critical system.</p>

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	<p>8.1 Hydrology and Flooding</p> <p>It is stated that this site "operates as a defacto flood storage area for other developed areas despite its current industrial zoning".It continues that to develop the site, the groundwater contamination necessitates remediation measures.</p> <p>The options to remediate include the filling of Stage 1 and the removal of materials from Stage 2.</p> <p>What is Stage 1 to be filled with and from where?</p> <p>The material to be removed from Stage 2 is contaminated. Where is it going?</p>	Hydrology and Flooding (specific questions relate to the Project Description)	Stages 1 and 2	<p>Section 5.4.1 of the EA states that remediation works for Stage 1 would generally involve "filling of the Stage 1 area (other than the materials cut from the southern portion of Block 1) with Virgin Excavated Natural Materials (VENM) as defined under the POEO Act 1997 and/ or Excavated Natural Material (ENM) as defined under the POEO (Waste) regulation 2005, with materials appropriately placed to create a physical separation layer in accordance with the Southlands RAP".</p> <p>The material would be sourced prior to the works from a quarry or large scale excavation project. For instance, materials excavated from recent tunnelling projects in Sydney were used on several contaminated sites as clean fill. ,</p> <p>Any contaminated "hotspots" in Stage 2 will be excavated, classified in accordance to NSW EPA regulations and disposed of accordingly under the guidance of the independent auditor.</p>
	<p>9.2.2 Link Road and contamination</p> <p>It is stated that more assessment is needed for the potential health risks to be more thoroughly investigated. Nothing is stated decisively here. ORICA seems to be currently investigating measurement of vapour concentration at ground surface.</p> <p>Why is this EA even being presented if investigations are still taking place? Results and a specific remediation approach need to be available first.</p> <p>In much of section 9 the implications are that remediation methods are still being trialled or sought and the word WOULD not WILL does not promote confidence in the reader.</p>	Soil, Geology and Contamination	Stage 2	<p>It is correct to identify that further investigations are required before development of the Link Road could proceed. It is usual for a development to progress in stages, and for further detailed work to be undertaken post approval. Any approval would be conditional upon the satisfactory completion of the further works identified as necessary.</p> <p>Section 9.3 of the EA notes that the RAP identifies several requirements that include preparation of specific plans or other documents as part of its implementation. The independent auditor has agreed that the remedial approach outlined in the RAP is appropriate, however he will be required to review and approve every stage of the remediation and development.</p> <p>As noted in "Notes on Text" at the beginning of the EA, the future conditional tense of "would" is used in the EA, instead of "will", because a determination of the project can only be made after the EA has been on public display and submissions considered. Whilst this is a consistent approach in EA documents, Orica acknowledges that this language can be confusing to the reader.</p>

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	<p>9.4.1</p> <p>The Long Term Environmental Management is mentioned again it says that it WOULD be prepared.</p> <p>Why is it not ready NOW?</p>	Soil, Geology and Contamination	General	<p>Please refer to above comment in relation to the use of “would” instead of “will”.</p> <p>Long term environmental management plans (EMP) can only be prepared following completion of a remediation project. Only at this stage can the auditor be confident the remediation has been completed to a satisfactory standard. If required, the auditor may also choose to add further site specific management requirements to the EMP</p>
	<p>10.3.1 Air Quality- during construction- Dust</p> <p>It is not difficult to assess dust and this project, during construction especially, will create more dust, but with all of that NOONE can CONTROL dust.</p> <p>Please note the recent dust storm that hit Sydney - that may be an excessive example but we CANNOT control dust, whatever its density!</p> <p>ORICA will not NOW seek approval for a solution to the inhalation of volatile materials at Springvale Drain.</p> <p>WHY not now?</p> <p>Reasons given here are unsatisfactory.</p>	Air Quality	General	<p>As noted in the EA, controls during the remedial and earth works will be a detailed in a construction environmental management plan (CEMP). Compliance to this plan will be monitored..</p> <p>Orica's investigation into volatile chemicals in air near Springvale Drain are separate to the Southlands project. Information on those investigations has been shared at CLC meetings and in CLC Briefing Papers. In short, Oricas pump and treat activities dramatically improve the air quality in the vicinity of the drain. Additional measures are being taken to ensure protection of future workers on Southlands when it is developed. These measures are not required unless the site is developed.</p>
	<p>11 Human Health Risk Assessment</p> <p>To begin addressing this issue, it is noted that in the Executive</p>	Human Health Risk Assessment	General	<p>The independent contaminated sites auditor has approved the remedial approach. However detailed verification is required at every stage to assure the auditor that the remedial works are effective.</p> <p>This is common practice and the NSW audit system is</p>

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	<p>Summary Page ES-7, it is stated that the" assessment of potential risks to human health on the Southlands Site is complex"!</p> <p>Hardly reassuring!</p> <p>Workers on site need extra considerations. The Risk Mitigation Measures from Table 11.1 are addressed below .</p> <p>. "safe work practices including addressing any issues associated with works that breach the areas covered with barriers" will be undertaken in the Long Term EMP. This needs clarification. Does it mean that an accident has to happen before action is taken?</p> <p>The Table 11.1 leaves lots of unanswered questions and doubts about the safety of the project.</p> <p>It states that the effectiveness of mitigation measure regarding exposures from groundwater discharging into Springvale Drain requires verification!</p> <p>There is very little reassurance in the statement that further "sampling could be undertaken to better define the extent of the area affected by elevated concentrations."</p> <p>Also requiring verification is the proposed drainage system and its effectiveness. Hardly reassuring either!</p> <p>These and many other concerns arise from 11.5 .</p> <p>Many things still need verifying or validation and rely on data collection AFTER commissioning.</p> <p>This does not make us feel confident that this project has been</p>			<p>designed for this approach.</p> <p>The long term EMP addresses issues of residual risk that remain following remediation.</p> <p>It will include descriptions of safe work practices that must be adhered to on the site in the event that excavations occur.</p> <p>Orica acknowledges the comments and concern that complete information is not available at this stage of the project. It is however, usual for a project such as this to develop in stages and prudent to ensure that controls are effective, and the best way to do that is to test the controls once in place.</p> <p>Orica fully supports an approach that ensures that controls are well understood and implemented effectively before they are relied upon. The verification process and involvement of the Site Auditor are important aspects of the project.</p>

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	thoroughly investigated prior to putting out this EA.			
	<p>12 Traffic.</p> <p>Traffic is another MAJOR concern with this project.</p> <p>Currently Botany Road is a nightmare. The implication here is that the development would ease the burden of traffic.</p> <p>The proposals re Exell St and Hills St HA VE to be fully investigated with regard to the WHOLE picture of roads and traffic lights. These also with the proposed new access road (Option 2 - 12.4.2.)</p> <p>If the roundabout is removed and the traffic lights for Exell St are operative the next two sets of lights need to be thoroughly planned.</p> <p>Traffic lights at the new access road would mean three sets of lights in extremely close proximity.</p> <p>Is the speed limit coming down for drivers to be prepared for so many stops?</p> <p>The current lights at present turning right from Botany Road onto Foreshore Drive are currently a nightmare.</p> <p>THERE SHOULD BE A RIGHT HAND TURNING ARROW NOW. There isn't and it is extremely dangerous.</p> <p>If all of these plans go ahead, to put in extra lights, this MUST include the addition of a green arrow at this location.</p> <p>Drivers will have enough to cope with both during construction and at</p>	Traffic and Transport	General	<p>The traffic impact assessment takes into account existing and proposed traffic in the Project area.</p> <p>No changes to the existing speed limits are proposed as part of the Southlands Project.</p> <p>Refer to the response to submissions in relation to traffic included as Appendix 2.</p>

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	<p>the completion of the project. With extra traffic (a "moderate increase") as a result of this new site they don't need to be driving into danger with what is meant to be a helpful measure.</p> <p>The "MODERATE" stated increase is one increase too many. Any increase will further add to the stresses of driving along Botany Rd.</p>			
	<p>14 Flora and Fauna</p> <p>14.2</p> <p>The existing environment is low in native species.</p> <p>If as stated this is due to historical use of the land how can there be confidence in any future life being sustainable?</p> <p>It may well be the case that Woonnona, Arncliffe and Greenacre are suitable habitats for the green and golden bell frogs. PLEASE don't encourage them to venture on to a site which may well kill them off.</p> <p>It is essential that NO flora or fauna be present on the site until it is ABSOLUTLEY certain that the clean up is successful.</p>	Flora and Fauna	General	<p>The proposed development includes weed removal, extensive landscaping with native plant species and the construction of small frog ponds and associated foraging areas. No fauna will be introduced to the site. The landscaping works will be conducted as soil remediation works are completed across each Stage.</p>
	<p>Land Use Safety Planning</p> <p>17.2.1 It is stated here "low quantities of dangerous goods that are expected to be stored or used on the site would be below" required levels.</p> <p>How do we know this when it is explicitly stated that the site may be sold and there seems to be no reassurance that the developers have</p>	Landuse Safety Planning	General	<p>Section 17.2.1 is based on expected use of the land as a warehousing facility. If the land is sold following completion of the remediation works, and an alternate site use is proposed, a further development application would be required and a further hazard analysis would be required if significant quantities of dangerous goods are proposed to be stored on site.</p>

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	any restrictions imposed?			
18	<p>Waste Management</p> <p>18.3.1</p> <p>Waste materials identified pose serious health risks. What is the plan if the DTD plant is refused?</p> <p>If storage on site is required then a new EA would be necessary for the packaging and storage of the waste. That is needed now. Why does it have to wait until the Remediation Contractor is appointed?</p> <p>This Remediation and Development Project for Southlands fails in many ways, as stated above.</p> <p>In all areas, even those not addressed specifically in this submission, the word WOULD is too prevalent and poses too many questions.</p> <p>This project relies on the untried and not the absolute.</p> <p>This doesn't aid in the confidence of the reader who leaves this document with a lack of confidence that this project can be carried out safely both during construction and when in operation.</p>	Waste Management	General	<p>As noted above, on 12 November 2009 (following preparation of this specific submission) Orica received Project Approval for remediation of the CPWE using DTD technology. Use of the DTD plant for non-CPWE materials would need to be assessed, discussed with DoP and DECCW and appropriate approvals sought. At this stage it is unknown whether such materials will be encountered during remediation.</p> <p>Please refer to comments above about the use of "would" and the need for future verification activities.</p>
7. Submission dated 6/10/09 [author requested anonymity]	I hereby lodge an objection to the abovementioned proposal for the following reasons:	Introduction	N/A	N/A
	<u>1. Traffic and Transport</u>	Traffic and Transport	Stages 1 and 2	Traffic investigations undertaken as part of the EA did identify that traffic conditions were a limiting factor for the development of the total site. However, the traffic analysis has identified the fact that sufficient capacity for the Stage 1

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	<p>Current traffic conditions arising out of the Coal Pier Road (former Port Feeder Road) development continues to present congestion issues along McPherson Street, Exell Street, Hill Street and Botany Road and this is without the full projected vehicle movements being in place from this development.</p> <p>This congestion occurs on a regular basis and leads to blocked driveways by double parked vehicles limiting access to the [author requested anonymity] site as well as lengthy delays to exit the site because of banked up traffic from the Botany Road and Foreshore Drive set of traffic lights back into Exell and McPherson Streets. This is also a concern should there be a need for the emergency services to attend our McPherson Street site.</p> <p>This traffic issue has been of concern for quite some time now due to lack of action by the responsible parties. Concerns have also been raised by our employees who have complained through our site consultative process about the restrictions to enter and exit the site.</p> <p>The EA itself states that 'the street network is a limiting factor for any new development' but still proposes to introduce additional vehicle movements to the order of 230 vehicles per hour as part of Stage 1 of the Southlands development and this can only exacerbate an already existing congested road system.</p> <p>The proposal to alter traffic flow from Botany Road to Hill Street to be two lanes will not make any difference because semi trailers turning into Hill Street from either direction from Botany Road will take up both lanes for the turn and on approach to McPherson Street they will have to merge into one lane in order to turn the corner. Double parking along both Hill and McPherson Streets will also continue to limit access along these roads. Additionally, the proposal to restrict right turns into Greenfield Street will add further traffic to Hill, McPherson and Exell Streets.</p> <p>The proposal to install traffic lights at the Exell Street and Botany</p>			<p>of the development can be delivered through improved accessibility arrangements at the Hills and Exell Street intersections. Orica has taken this advice from Traffic Engineers Traffic and their advice has been updated as shown in Appendix 2. Final Designs for the new intersection treatments will be developed in consultation with the relevant Authorities, namely Botany Bay City Council and the RTA.</p> <p>Orica also notes that existing traffic conditions in the vicinity are not as a result of Orica and come about by virtue of existing road users. The Southlands site has direct access to McPherson Street and therefore has rights to access the road. In doing so Orica recognises the need to improve the capacity and therefore as part of the Stage 1 works has proposed upgrade works to the Hillss and Exell Street intersections. Based on current traffic modelling, the total Southlands site will not be developed until the new link road in Stage 2 is delivered or improved traffic conditions are established.</p> <p>Orica is happy to work with Botany Bay City Council during detailed design works to implement improved traffic and parking initiatives in the vicinity.</p>

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	<p>Road intersection will only add to the traffic congestion already present in McPherson and Exell Streets and will extend this along Botany Road as well as each stretch of roadway is brought to a standstill when the lights are red. This will be made worse by the elimination of the 'free' left turn from Exell Street into Botany Road as is currently the case.</p> <p>While Stage 2 of the Southlands development proposes a direct link from McPherson Street to Botany Road that will then ease traffic in McPherson, Exell and Hills Streets, the issue remains that until such time as Stage 2 of the development is carried out any additional traffic in McPherson, Exell and Hill Streets and Botany Road will add dramatically to the already congested roads than is currently the case. And, in the event that Stage 2 does not proceed then the roads will remain indefinitely grid-locked.</p> <p>There should be no additional traffic added to McPherson, Exell and Hill Streets and Botany Road until such time as the existing traffic congestion has been rectified with an allowance for the additional traffic to be included from the as yet non operational developments as part of the Coal Pier Road development and other developments involving McPherson and Exell Streets.</p> <p>All traffic from the proposed Southlands Stage 1 development should be redirected via alternate routes such that it does not in any way add to the existing ongoing traffic concerns experienced in McPherson, Exell and Hill Streets and Botany Road. That is, any approval of Stage 1 should be conditional on the link road proposed as part of Stage 2 being brought forward to Stage 1.</p>			
	<p><u>2. Hydrology and Flooding</u></p> <p>The EA states that flooding of Springvale and Floodvale Drains results from a number of causes including 'undersized drainage infrastructure'. It also states that the entire Southlands site 'currently</p>	Hydrology and Flooding	Stages 1 and 2	<p>Flood modelling presented in the EA and updated Flood modelling requested by the DoP and other submissions has demonstrated that the Stage 2 area can provide sufficient flood storage capacity to compensate for the loss of flood storage area on Stage 1.</p> <p>Therefore despite the fact that some adjoining lands may have been built below the current 1:100 flood level, the proposal should have no additional impact on these properties.</p>

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	<p>operates as a defacto flood storage area for other developed areas'.</p> <p>Because of repeated flooding of buildings on-site, [the author of this submission] has, due to necessity, already raised building entry levels to prevent flood water entering its buildings and causing more damage.</p> <p>The Flood Study as presented was carried out prior to more recent developments being implemented and as such is not representative of current prevailing conditions and constraints.</p> <p>Additionally, it assumes that the likes of the open section of Floodvale Drain is a free flowing carriageway for storm water when in fact it is choked with undergrowth and comprises 'trash racks' that regularly get blocked with debris. These aspects mean restricted flows and this contributes significantly to flooding of surrounding areas during heavy and/or lengthy downpours.</p> <p>While the entire Southlands area may have acted as a water sink, reducing this area by half for Stage 1 of the proposed Southlands development would mean that the benefit of having the entire Southlands area as a soak and slow release area is eliminated and will result in an excessive direct run off into Floodvale Drain. Added to this would be run off from properties north of the Southlands development that would otherwise flow through Southlands. Considering the high water table, even the provision of using the Stage 2 area as a water collection basin may well not be adequate to cope.</p> <p>While Stage 2 of the Southlands development proposes a series of modifications to improve the hydraulic capacity of the existing storm water systems that will then 'serve to significantly improve flood conditions for the whole area', the issue remains that until such time as Stage 2 of the development is carried out any additional water shedding into Floodvale Drain will have the potential to cause more severe flooding than is currently the case. And, in the event that Stage</p>			<p>The modelling demonstrates this.</p> <p>The updated flood study contained in Appendix 3 includes all recent developments. New updated information has been included based on new site survey works and final as built information provided by Botany Bay City Council.</p> <p>The flood studies acknowledge the blocked nature of existing drains and the studies assume a blockage factor in all modelling. However drains should be subject to regular cleaning and maintenance.</p> <p>The flood modelling has determined a flood compensation area on the eastern portion of Southlands during Stage 1 that can accommodate the existing flood inundation on Southlands during the 1:100 year event. This therefore will provide any required storage for events up to the 1:100.</p> <p>With the compensatory flood storage area provided in Stage 2, Southlands will therefore continue to maintain flood storage capacities consistent with the existing situation.</p> <p>Flood modelling will be reviewed the independent consultant employed by the DoP to ensure that capacities are sufficient to match existing with no new impacts on surrounding properties.</p> <p>Stage 2 proposes additional works and until such time as that work occurs the compensatory flood storage area is designed to maintain the current flood regime in the area not impacting on adjoining properties. Flood impacts are therefore not contingent upon Stage 2 works being undertaken.</p>

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	<p>2 does not proceed then the likes of Floodvale Drain will remain indefinitely a source of flooding to adjacent properties.</p> <p>That is, any approval of Stage 1 should be conditional on the modifications proposed as part of Stage 2 being brought forward to Stage 1.</p>			
	<p><u>3. Services</u></p> <p>The proposal to share [the authors] current rising main sewer connection with that of the proposed Stage 1 development of Southlands is also of concern as we have not had the opportunity to review the proposal in principle, let alone have any details about the effluent likely to be involved. Add</p> <p>itionally, our current licence with Sydney Water provides for a maximum discharge rate that is also limited by our pipeline capacity.</p>	Services	Stage 1	<p>Noted.</p> <p>Feasibility advice has been sought from Sydney Water. Sydney Water alone can direct how sewer connections are made to its infrastructure.</p> <p>Therefore the ultimate requirements for new sewer connections will rest with Sydney Water.</p>
	<p><u>4. Easements</u></p> <p>[The author] currently has easement rights for pipelines on the Southlands property and any development must ensure that these easement rights are maintained and that access to our pipelines is not impeded in any way.</p>	Easements	General	<p>Orica acknowledges the easements in favour of the author that pass across the northern edge of the Southlands site. New works on the site have been designed to avoid this easement and to maintain it in its current location. Access to existing easements will therefore be maintained.</p>
8. South Eastern Sydney Illawarra NSWHealth Division of Population Health Public Health Unit	<p>The Southlands Remediation and Development Project: Environmental Assessment Volume 2 Appendix A contains the detailed quantitative Human Health Risk Assessment Final Report</p>	Background to	N/A	

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dated 7/10/09	<p>as undertaken by URS Australia Pty Ltd and dated the 2 October 2008. The Executive Summary of the document reports that a review of data available for Southlands indicates the presence of contamination in groundwater, soil, sediment, surface water and air.</p> <p>The Chemicals of Concern are outlined and include Polycyclic Aromatic Hydrocarbons, Total Petroleum Hydrocarbons, BTEX and several heavy metals. Most of these chemicals pose health effects, whether they are acute or chronic, and some are recognised carcinogens.</p>	submission		
	<p>Recommendations</p> <p>I believe that there will be intense public and media scrutiny of this process and given that the project has a potentially major impact on the health of the local residents due to the presence of contamination in the groundwater, soil, sediment, surface water and air and the type of contamination we strongly recommend the following:</p> <p>(1) That the applicant engage an independent appropriately qualified and respected third party to peer review the process and all documentation, especially the Human Health Risk Assessment and the Air Quality Report</p> <p>(2) That the process of choosing the independent person is transparent and that the NSW Health Environmental Health Branch is contacted to liaise and assist with the selection of the appropriate third party. The contact telephone number for the Environmental Health Branch is 9816 0426</p> <p>(3) That the peer review and accompanying report be circulated to</p>	Human Health Risk Assessment	General	<p>Chris Jewell from CJ Jewell and Associates is certified by the Department of Environment, Climate Change and Water (DECCW) and has been appointed the independent contaminated sites auditor for the project. Mr Jewell has provided detailed third party review of the human health risk assessment, remediation action plan and all other relevant documents.</p> <p>Mr Jewell has extensive experience with large scale contaminated site developments, including soil and groundwater investigations and human health risk assessments. He is well recognised in the industry and is certified as an independent contaminated sites auditor by DECCW.</p> <p>The Part B site audit statement, a document that accesses the appropriateness of the remediation action plan and human health risk assessment, has been made available to DECCW. On completion of the project, the Part A site audit statement, which provides a statutory declaration of the sites suitability for occupation, will also be made available</p>

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	<p>appropriate Agencies on completion</p> <p>(4) That any recommended changes to the Human Health Risk Assessment or the Air Quality Report identified by the independent third party, be incorporated and implemented into the final reports</p> <p>(5) That Workcover NSW be included in the response to these documents as many of the identified risks relate to workers health</p>			<p>publicly.</p> <p>The auditor reviews all the reports while they are in draft and makes comments with respect to their accuracy, appropriateness and usability prior to the reports being finalised.</p> <p>Orica does not believe such additional review is necessary. The NEPM/enHealth methodology will be followed scrupulously and will be reviewed by the auditor. These guidelines are regarded as conservative, and are usually far more conservative in setting allowable exposure levels/remediation criteria compared with occupational exposure levels referenced by Workcover NSW. The involvement of Workcover NSW would not be a normal process for a contaminated site where soil vapour issues require management for development and ongoing industrial/commercial use. We do not see why this additional review is necessary for the Southlands development.</p>
9. Sydney Regional Development Advisory Committee (SRDAC), Roads and Traffic Authority (RTA) dated 6/10/09	I wish to advise that in addition to the meeting held at Council on 21 September 2009 between the Department, RTA and Council. the Sydney Regional Development Advisory Committee (SRDAC) considered the traffic impact of this application at its meeting on 23 September 2009.	Background to submission	N/A	All issues raised by the SRDAC and RTA were the subject of meetings with the RTA. Additional material has been prepared for the RTA following those meetings and additional Traffic information has been provided by Traffix and is attached at Appendix 2.
	<p>The Committee and the RTA request that the following issues be addressed, prior to the determination of the subject development application:</p> <p>I, Concern is raised that the proposed road access options have been modelled using a strategic modelling tool, which is inappropriate as a strategic model does not properly model the complex interactions between intersections in the road network.</p> <p>Further to the above, SCATES and INTANAL modelling is also considered inappropriate to determine the traffic impact of the proposed road access options on the existing road network. The proposed road access options will result in a significant redistribution of traffic within the precinct and SCATES and INTANAL are not modelling tools that can redistribute traffic associated with different road access</p>	Traffic and Transport	Stages 1 and 2	All issues raised by the SRDAC and RTA were the subject of meetings with the RTA. Additional material has been prepared for the RTA following those meetings and additional Traffic information has been provided by Traffix and is attached at Appendix 2. This material has been discussed with and provided previously with the DoP and their independent consultants, Samsa Design.

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	<p>proposals.</p> <p>Micro-simulation is the appropriate modelling tool to properly determine the traffic impact of the proposed road access options, as it redistributes traffic within the network and also illustrates the relationship between different intersections.</p> <p>Given the significant scale and size of the proposed development, the request for a micro-simulation model for the proposed road access options (particularly Options 2 and 4) is not unreasonable.</p> <p>The model should cover the area outlined in blue on the attached image (provided but not reproduced here).</p> <p>It should be noted that for similar type of developments with multiple accesses options, the RTA also has requested micro-simulation model be undertaken.</p> <p>In addition to the above, it is noted that the proposed road access options have been modelled on 2016 traffic volumes, which is unacceptable as any new intersection shall have a minimum life span of 10 years, post construction. Therefore, the micro-simulation model shall include background traffic growth up to the year 2026.</p> <p>2. The RTA will not approve the proposed traffic signals at the intersection of Botany Road and the proposed Link Road under Section 87 of the Roads Act unless it can be demonstrated (to RTA satisfaction) through micro-simulation modelling that the proposed intersection and the associated redistribution of traffic will not have a detrimental impact on Botany Road and foreshore Drive.</p> <p>The micro-simulation model for the proposed signalised intersection shall also include a model that prohibits right turn movements from Botany Road into the proposed Link Road.</p> <p>3. The RTA will not grant approval to the proposed traffic signals at the intersection of Botany Road and Exell Street as modelling undertaken by the RTA has shown that the proposed signals will result in extensive delays and unacceptable vehicle queue lengths on Botany Road.</p> <p>4. The proposed left turn slip lane from Botany Road into Hills Street and the protected right turn bay on Botany Road into Hills Street shall be designed and constructed in accordance with the RTA's Road Design Guide and to RTA requirements. These roadworks</p>			

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	<p>shall be at full cost to the developer.</p> <p>5, The traffic generation of the proposed development has been underestimated (465 trips in the peak hour). Based on the RTA's Guide to Traffic Generating Developments, the traffic generation is 495 trips in the peak hour.</p> <p>6. The submitted traffic report states that there could be a reduced level of traffic activity due to movement of goods by rail. However, the plans submitted illustrate that all traffic activity to/from the subject site will be via road.</p> <p>Once the micro-simulation model and revised traffic study is undertaken (to RTA satisfaction) and submitted to the RTA for review, the Authority will be in a position to define the road infrastructure requirements to be incorporated into any development consent.</p>			
10.Lynda Newnam dated 27/09/09	<p>The following briefly explains my interest in and experience of this proposal and the proponent.</p> <p>My introduction to the proposal to develop Southlands came on Saturday June 17, 2006, at a Community Briefing and Botany Industrial Park Site Tour.</p> <p>Previous to this I was not aware that Orica had intentions to develop this site. My introduction to Orica came in 2000 when the company proposed to destroy its HCB stockpile at Botany, using a technology called Geomelt. I attended a meeting at Botany Town Hall and subsequent to this made a submission to the Commission of Inquiry investigating this proposal. After the Commission's report was referred to an Independent Review Panel I started regularly attending community consultation meetings convened by Orica. These meetings have included the CPRC (for HCB waste and the Orica Carpark Waste), the Groundwater CLC, the BIP (Botany Industrial Park), and all the meetings held to discuss Southlands.</p> <p>It surprised me that in mid-2006 Orica would consider developing a floodplain buffer site such as Southlands, given the negative impacts of its local operations, its damaged reputation as a result, and the fact that the Southlands was the site of the primary containment line and the groundwater contained the worst of the Groundwater contamination. In 2009 the proposal is more than surprising it is both irresponsible and foolish and a clear example of what historian Barbara Tuchman described in her most popular</p>	Background to submission	N/A	<p>The Southlands Project has been developed to ensure that the ongoing implementation of the groundwater cleanup is not compromised.</p> <p>Please refer to earlier comments stating that Orica is seeking a financial return from the Southlands project consistent with the its land use zoning classification for Industrial uses and is not in a position to set the land aside for an environmental project.</p> <p>Goodman, (formerly named Macquarie Goodman) had its</p>

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	<p>book 'The March of Folly' where she examined organizations unable to work in their own self-interest.</p> <p>It is little wonder that Orica's original partners in this project, first Macquarie and more recently Goodman, have seen the folly and opted out.</p>			own reasons for not proceeding, unrelated to the suggestions implied by this submission. However, Goodman has requested to be considered as a participant in the future development.
	<p>THE BROADER PERSPECTIVE – BOTANY MUNICIPALITY THREATENED</p> <p>In 2006 Climate Change may have been old news for environmentalists hut it was not yet part of the daily news diet. But 2008 ushered in significant changes in our approach to the environment and our place in it. In April the ABC reported on a CSIRO study which identified Botany Bay and Rockdale as areas most vulnerable to climate change in the Sydney region.</p> <p>In September the Australian Government publication, "About the House", quoted Professor Thorn's comments on threats to low-lying areas. :</p> <p>'When will barrages be needed at Port Phillip or Botany Bay ? When will the very low runway at Sydney airport need to be elevated ?' .</p> <p>In October Professor Ross Garnaut presented his Review on Climate Change where he made it very clear that 'BUSINESS AS USUAL' could not be an option.</p> <p>And yet this proposal is a clear example of "Business as Usual". It ignores the physical constraints, it ignores the social context, and by so doing it ignores the opportunities for Orica to do better. Garnaut in his review and in subsequent public discussions has been quick to point out the opportunities that will come when BUSINESS IS DONE DIFFERENTLY - when decision-makers think outside the usual square.</p>			<p>The project has been developed with physical constraints, such as the need for ongoing groundwater extraction, at front of mind.</p> <p>Over recent years Orica has progressed a range of projects under the banner of the Botany Transformation Projects. The approach has been to identify the best remediation solutions for specific legacy contamination issues, to develop these projects in consultation with the regulatory authorities and interested community members, and to implement them with the key aim of managing risks to human health and the environment whilst returning land to useful purpose.</p> <p>At the corporate level Orica has identified 10 priority actions that will help the company progress towards our aspiration of no harm to people and the environment. This approach targets our efforts at our major sustainability impacts including: energy consumption; greenhouse gas emissions; water consumption; and waste generation. Progress for 2009 is reported in a Sustainability Report available on www.orica.com.au/sustainability.</p>
	<p>RIGHTS AND OBLIGATIONS – REGRET IS NOT ENOUGH</p> <p>Orica argues that it has every right to develop this property, bought in 1980. They present their case as a simple matter of recognizing an owner's rights. I would suggest that their purchase of Southlands in 1980 was critical given their contamination of the aquifer.</p>			ICI Australia (the predecessor to Orica) purchased Southlands before there was any awareness of the contamination of the aquifer. It was purchased from Amcor's predecessor as buffer land and for future industrial development, which never occurred.

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	<p>Orica needed Southlands as a buffer and for access to the groundwater that they had contaminated. This site has been left vacant for very good reasons.</p> <p>The issue of ownership and rights is not straightforward. No 'right' is absolute.</p> <p>Residents in Banksmeadow and parts of Hillsdale and Botany are banned from using bores. For most of these residents access to bore water was a feature of the property when they purchased it. Orica acknowledged this loss of amenity in a statement, dated 7/12/04, on its website: <i>Orica deeply regrets the loss of amenity, which this legacy contamination has caused to its neighbours.</i></p> <p>Consider also the case of NSW farmers after the introduction of SEPP 46 in 1995. The new SEPP which restricted land clearing was introduced to slow down the rate of biodiversity loss, address critical water conservation issues, and reduce emissions. There has been opposition to the SEPP and the subsequent Native Vegetation Conservation Act (1997) and there have been issues with regard to compensation and consultation but to continue wholesale land clearing was not an option. The NSW State Government realized this in 1995.</p> <p>Consider the current conflict on the Liverpool Plains between Coal Mining interests and Farmers.</p> <p>It is 2009, not 1980, not 2003 before the bores were banned, and not even 2006 when this proposal was first floated. We live in different times and it's time to grasp the opportunities on offer.</p>			<p>Orica does regret the loss of amenity which the groundwater contamination has caused to its neighbours and Orica acknowledges that community members are angry about the contamination.</p> <p>Over recent years Orica has implemented a range of initiatives to provide information and resources to the local community, including:</p> <ul style="list-style-type: none"> • Residential bore monitoring • The rainwater tank rebate program • Community air monitoring • Funding of independent experts • Funding of the OzGreen environmental education program <p>Orica also funds research and development into bioremediation technology, with the aim of potential future application for remediation purposes at the Botany site, or at other sites globally.</p> <p>More recently Orica has committed funds for an ecological survey and walking track project within Botany Bay National Park.</p>
	<p>SOUTHLANDS IS NOT A WASTELANDS</p> <p>Despite what is stated in the Environmental Assessment Southlands is not a Wastelands. It is teeming with life. It is connected to a rail corridor and rail corridors are wildlife corridors. Southlands has enormous potential. The Spring 2009 issue of Live Wires features an article titled, 'Marked for Eviction', about the Rare and Threatened Grey Headed Flying Fox. The authors state that —there has been an overall movement south of all flying foxes which may be due to climate change... (and)...councils need to plant habitat to encourage animals away from built up(residential) areas.</p> <p>Flying Foxes are just one of a number of threatened species which could be encouraged to this site. Another is the Green and Golden</p>			<p>The flora and fauna survey in the EA describes the existing environment and assesses the impact of the proposed development on the existing environment.</p> <p>Orica proposes to develop the site and has included provision for extensive landscaping and ponds for Green and Golden Bell Frog habitat.</p>

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	<p>Bell Frog which is acknowledged in the Environmental Assessment. The authors of the Fauna and Flora survey note a number of species in the general area but say that Southlands is too degraded to support them. This approach may have been acceptable pre-Garnaut but not now. Just because a landholder has not realized the ecological potential of a site doesn't mean that the site has none. It simply points to a lack of imagination. Just because a site has been left to degrade doesn't mean that it can't be restored.</p> <p>Remember this site has never been developed. Used for market gardens but not developed and not developed for a very good reason – Orica's contamination of the Botany Aquifer.</p> <p>Below is a vegetation map showing Banksmeadow around 1800: Southlands was a freshwater Melaleuca Swamp. [map provided but not included here]</p> <p>Benson and Howell describe the area surrounding Southlands as containing some of the best examples of Eastern Suburbs Banksia Scrub, a Rare and Threatened Community, and wetlands of <i>Cauarina glauca</i> and <i>Eucalyptus robusta</i>. In 1850 Frederick Mackie walked the area and recorded his observations: — <i>The road lies over sand hills covered with small scrub and various flowers. The sand in many places has almost the whiteness of snow and so little mixture of earth is there in it that it would doubtless be entirely destitute of vegetation but for the moisture of it; water is found about 2 ft. below the flat surface.</i> In the <i>Illustrated Guide to Sydney</i> (1882), the writer lamented the changes: — <i>Those who remember the road to Botany in years gone by are not surprised at the name given by the first discoverer (James Cook).... We know most of the wild flower regions of the colony, but none to compare in variety and richness with Botany, as it was.</i> 'In contrast to the sandy or peaty nature of the other swamp systems, Long Swamp near Malabar and Veterans Swamp at Banksmeadow appear to have been more fertile and were developed for market gardens in the nineteenth century; some of these market gardens still exist. The vegetation here was probably low forest of the paperbarks <i>Melaleuca ericifolia</i> and <i>Melaleuca linariifolia</i> and Swamp Mahogany, <i>Eucalyptus robusta</i>, with a grassy and herbaceous understorey.'</p> <p>In the map following it is shown as Veteran Swamps, part of the region's wetlands stretching from Lachlan Swamps at Centennial Park [map provided but not reproduced here].</p>			

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	Below is an image of Southlands in 2007 showing Penrhyn Estuary and Foreshore Beach prior to commencement of construction of the 3 rd Port Terminal. [image provided but not reproduced here]			
	<p>On July 24, 2009, a new State Environmental Planning Policy was announced for Port Botany. One of the objectives in creating the new zone is to 'encourage Industrial Ecology'.</p> <p>Retaining Southlands as part of the Groundwater Treatment Buffer and enhancing the site with a phytoremediation project which also fulfills the requirements of an environmental offset fits with encouraging Industrial Ecology in this zone.</p> <p>It should be noted that Environmental Protection Works are permitted without consent.</p>			<p>The submission refers to modifications to State Environmental Planning Policy (SEPP) (Major Development) 2005.</p> <p>Under this SEPP the Southlands site falls within zone IN1 – General Industrial. The objectives of Zone IN1 General Industrial are as follows:</p> <ul style="list-style-type: none"> (a) to provide a wide range of industrial and warehouse land uses, (b) to encourage employment opportunities, (c) to minimise any adverse effect of industry on other land uses, (d) to facilitate and encourage port related industries that will contribute to the growth and diversification of trade through the port, (e) to enable development for the purposes of retailing or commercial offices only where it is associated with, and ancillary to, port related activities or ancillary to industrial use of the same land, (f) to encourage ecologically sustainable development. <p>The proposed Southlands development meets these objectives (with the alphabetical reference for each repeated) as follows:</p> <ul style="list-style-type: none"> (a) by providing a warehouse facility, (b) the warehouse facility will return the land to use and provide employment opportunities, (c) the assessment has quantified environmental impacts of the development and the commitments made to ameliorate the adverse impacts, (d) the supply of warehouse facilities in close proximity to Port Botany meets this objective, (e) the development incorporates offices for the warehouse development which is likely to be utilised for port related activities, (f) Chapter 22 of the EA outlines how the development meets the principles of ecologically sustainable development.

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				<p>The objective of encouraging industrial ecology was mentioned in an earlier DoP planning paper for the Three Ports amendment to the Major Development SEPP, but not included in the final changes to the SEPP.</p> <p>Orica notes that environmental protection works are permitted without development consent in this zone. They are defined in the Standard Instrument – Principal Local Environmental Plan as follows: environmental protection works means works associated with the rehabilitation of land towards its natural state or any work to protect land from environmental degradation, and includes bush regeneration works, wetland protection works, erosion protection works, dune restoration works and the like.</p>
	<p>Below is an artist's drawing of the proposed Southlands Development [drawing from from EA included with submission – but not reproduced here], complete with small sedans on Botany Road but missing the semi-trailers, B-Doubles and Super B-Doubles and queues of heavy vehicles outside the Patrick terminal and the third terminal, due for completion in 2012.</p> <p>So neat, so heavy- traffic free, so green, so 'unreal', and yet take away the buildings and add Melaleucas and Southlands could be a haven in this industrial area and Orica could proudly claim this as an Offset for the damage it has done to the Banksmeadow/Botany environment, promote this as an example of Reconciliation ecology and in the future possibly claim this as a carbon sink.</p>			Refer earlier comments – Orica is not proposing that the land be used for an environmental project.
	<p>OFFSETS, RECONCILIATION ECOLOGY = ORICA'S OASIS Melaleucas could be reinstated and wildlife encouraged. The Melaleucas could be monitored to establish the uptake of toxins from the groundwater. This could be a large phytoremediation project.</p> <p>If in the future access were required to groundwater the removal of Melaleucas would be easier than the removal of concrete, landfill and warehouses.</p> <p>In 2002, the Sydney Morning Herald reported on a Reconciliation Ecology project at Chullora.</p>			The proposed development allows for future access for the ongoing groundwater cleanup project. The staged approach supports this.

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	<p>[Image included but not reproduced here]</p> <p>"It really is an oasis" ... Terrill Nordstrom, of the South West Enviro Centre, at the Freshwater Creek Wetlands in Chullora, which are helping to regenerate the Cooks River and its dependent wildlife. Photo: Andrew Meares In the heart of an industrial area, just a kilometre downstream from where the polluted Cooks River begins, there is an oasis teeming with life. Only four years ago the site was a wasteland, contaminated with heavy metals, arsenic and asbestos. Now known as the new lungs of the river, the wetlands are a functioning ecosystem, which boasts 68 bird species as well as frogs, fish and the occasional turtle at the former railway workshops area. It is a virtual secret - only four people hold the key to the gate - which has protected the highly sensitive environment from unwanted visitors and vandalism. The site, boxed in by truck depots, takes street run-off and water leaking from the Potts Hill reservoirs. After 12 days winding through channels and lakes in the system, the water emerges and continues down the Cooks River's concrete channel. Flow into the area can be controlled, and an unused compressor is on-site in case the water has to be injected with oxygen. Tests by the centre recently found levels of salt and phosphorous were lower at the wetlands' exit than the entry. The South West Enviro Centre is largely responsible for maintenance of the wetlands, which have had to deal with a carp infestation and viscous oil run-off from heavy industry upstream. "It's amazing what gets into the middle of nowhere," Mr Nordstrom said. "It really is an oasis."</p> <p>At a Community Briefing on Southlands, 9th August 2007, Gary Blaschke one of the founders of the South West Enviro Centre, and the Chullora project, gave a presentation on these wetlands. The Department of Planning representative on that occasion was Deanna Burn. Orica dismissed the proposal saying that the Chullora option for Southlands was not suitable because of health risks.</p> <p>But Chullora was presented as an example of an Offset not as the template.</p> <p>Orica did not consider any alternative such as a Melaleuca forest as an environmental offset for non-human use and research.</p> <p>In his book <i>The New Nature, Winners and Losers in Wild Australia</i>, prominent biologist Tim Low argues for the nature around us: 'Nature</p>			

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	<p><i>is sold to us as something separate that lives far away from us in wild places, when really it's all around us, engaging with us more than we guess. The wilderness begins right here where we live. The 'new nature' is really the story of animals and plants responding to the latest environmental challenge – us.'</i></p> <p>Just as the Challenges of Peak Oil and Climate Change are 'encouraging' us to think differently about how we travel and consume, we are also coming to terms with new ways of living with nature in residential and industrial areas.</p> <p>Industrial areas can present even more opportunities for creating nature havens because issues like sleep disturbance which are significant in residential areas are not in industrial areas.</p> <p>Southlands is integral to the Clean Up of the Botany Aquifer.</p> <p>See Appendix 2 and a description of problems encountered in laying the first bores. The first of the bores included crossing a railway line, crossing a series of 330, 132, 33 and 11 kVA Energy Australia HV cables, high pressure gas lines, unique ground conditions, contaminated soil and stringent site regulations when operating within the confines of the plant.</p> <p>Why risk reducing potential access by concreting over Southlands.</p>			
	<p>ORICA'S ENVIRONMENTAL ASSESSMENT OF OFFSET PROPOSAL</p> <p>In Section 4-4 of the Environmental Assessment the proposal for an Environmental Project is addressed by the following:</p>			
	<p>Orica comment: The land represents an employment generating asset for the Botany Bay and Metropolitan areas.</p> <p>My response: So would an Environmental Project – research, monitoring, maintenance, public relations – which could include webcams to record behaviour of species like Grey Headed Flying Fox.</p>			Refer earlier comments.
	<p>Orica comment: The Site will be subject of (sic) significant expenditure to realise its development potential and therefore it will need to attract full commercial rents to justify that expenditure.</p>			<p>Refer earlier comments.</p> <p>Orica's Environment Protection Licence requires it to maximise the reuse of treated water from the GTP and water recycling is also in line with the State Government's</p>

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	<p>My response:</p> <p>It will cost a significant amount of money to remediate and develop because it is natural floodplain, the site of the primary containment line, and the aquifer at Southlands is the most polluted. That's why a SIMPLE Environment Project is proposed. Fencing the site and planting with Melaleucas is significantly cheaper than what has been proposed. It brings environmental benefits rather than the negatives of a traffic generating development conflicting with local residents, business and the wider Port network. It also brings public relations benefits. It has potential to further research in Contaminated Sites.</p> <p>It should be noted that Orica is allowed to sell the treated aquifer water from the Groundwater Treatment Plant. There is no cost for extracting the water. Not only has Orica escaped a substantial fine for contaminating the aquifer and depriving neighbours of water that they previously depended upon but it has been granted the right to sell the treated aquifer water from the Groundwater Treatment Plant.</p> <p>The argument floated - 'they are entitled to sell the water because it has cost them so much for the Groundwater Treatment Plant and Processing.' If you graffitied a car, and the judge did not apply a fine but instead you were required to clean the car, would there be any chance of driving the car away afterwards!</p>			Metropolitan Water Plan. Orica acknowledges that some community members do not agree with the sale of treated water from the GTP.
	<p>Orica comment:</p> <p>The proposed development has been developed with consideration for the site location, environmental issues and planning requirements. It is proposed that the land be rendered fit for industrial use, consistent with its industrial zoning, with the inclusion of extensive landscaping and the provision of habitat for the Green and Golden Bell Frog.</p> <p>My response:</p> <p>That's not an argument against an environmental project. It's just a rehash of the same statement over and over. The Green and Golden Bell Frog is only one of many animals that could benefit if this land were regenerated.</p> <p>The token frog pond is just that, a token, it doesn't represent a genuine attempt to accommodate species that occupied this vacant, never developed land in what is the relatively recent past.</p>			Refer earlier comments.
	It is true that neighbouring sites are being developed but Southlands is a very different site and Orica has a very different relationship with the surrounding community. But even so, the justification for the			

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	project is not proven. Examine each of the claims as outlined at 3-2 as: JUSIFICATION FOR PROPOSAL. The proponent states that 'the proposed development is envisaged to have the following benefits.'			
	<p>LISTED AS A JUSTIFICATION</p> <p>Making efficient and effective use of a large vacant parcel of industrial land at the heart of Sydney's major industrial and ports precinct.</p> <p>MY RESPONSE</p> <p>It is true that this is now Sydney's major Port Precinct but recommendations from the Railing Port Botany Containers Report and many similar Supply Chain reports make it clear that for greater efficiency containers need to be moved away from the Port to intermodal terminals and then trucked to warehouses. The proposed Industrial zones are Cooks River, Enfield, Moorebank, Minto, Eastern Creek, Yennora, Villawood, Camellia. Traffic from warehousing (smaller trucks) at Southlands would negatively impact traffic flowing in and out of the Port where the carriers will be subject to Peak Pricing.</p>			<p>The subject land is zoned for Industrial purposes and its use for employment generating land uses is endorsed by the Metropolitan Strategy and the current Botany bay zoning and the recent 3 Ports State Environmental Planning Policy.</p> <p>Provision of this land use adjoining the Port is supported by Sydney Ports and will reduce container traffic flows to other parts of the City particularly if, as is expected, the users of the land operate port related businesses.</p>
	<p>LISTED AS A JUSTIFICATION</p> <p>Achieving combined remediation and development of the Southlands property to create a new industrial State.</p> <p>MY RESPONSE</p> <p>Could also achieve an offset and remediate experimentally, and retain easy access to the aquifer.</p>			Refer earlier comments.
	<p>LISTED AS A JUSTIFICATION</p> <p>Achieving a fit with Orica's more comprehensive strategy to address its historical contamination issues at, and adjacent to, the BIP.</p> <p>MY RESPONSE</p> <p>A better fit would be to make this area an offset for the historical contamination of the environment and the impacts on the human population.</p>			Refer earlier comments.
	<p>LISTED AS A JUSTIFICATION</p> <p>Attracting a range of new users through provision of a high quality estate.</p> <p>MY RESPONSE</p> <p>This would be better placed near an Intermodal.</p>			Orica believe that Port related industrial space is and will be required adjoining the Port. This view is shared by the Metropolitan Strategy which reinforces the need for this employment generating land in this location.
	<p>LISTED AS A JUSTIFICATION</p> <p>Remediating the Site and provision for the ongoing groundwater treatment by Orica allowing Orica to meet its ongoing environmental obligations.</p>			<p>Refer earlier comments.</p> <p>The traffic impacts of the development are to be off-set with the proposed local road improvements. Refer to transport</p>

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	<p>MY RESPONSE</p> <p>The Site could be remediated as a longterm phytoremediation project. Orica is obligated to clean up the contamination of the Aquifer. This is no justification for filling, capping, putting in more warehouses, generating more traffic and negatively impacting the surrounding residents and businesses further.</p>			<p>and traffic assessment in the proposal in Appendix L.</p> <p>The groundwater contamination will take many decades to remediate. The presence of groundwater contamination in itself does not preclude the beneficial use of the land. Phytoremediation is not a viable remedial technology for the groundwater in this instance, however Orica has left an extensive network of easements to allow for application of future technologies should they become available.</p> <p>The proposal does not include the treatment of contaminated soil using any of the existing Orica licenced treatment facilities at BIP.</p>
	<p>LISTED AS A JUSTIFICATION</p> <p>Providing additional benefits in the area by improving existing traffic problems through works to Hills and Exell Street intersections with Botany Road.</p> <p>MY RESPONSE</p> <p>This would not be compensation for the traffic that the site generated. The RTA are responsible for Hills and Exell Street. This is sillier than Sydney Ports arguing that the Third Terminal is justified because JJCahill school would benefit with a new gymnasium. The Hills and Excell Street =benefit' points to a deal with the RTA – an organization that has refused to attend any of the community consultation on this proposed project and examine this project and others within the context of a sub-regional traffic strategy.</p>			<p>The proposed traffic improvements have been developed as an appropriate means to ameliorate the additional traffic from the Southlands development following discussions with the RTA, CoBB and local community representatives.</p>
	<p>LISTED AS A JUSTIFICATION</p> <p>Providing appropriate flood mitigation to ensure that the Stage 1, 2 and 3 development does not contribute to a significant off-site impact from storm and flood waters;</p> <p>MY RESPONSE</p> <p>This is not justification and doesn't prove need. It is a reminder that this site is natural floodplain.</p>			<p>This statement is included as confirmation that appropriate mitigation has been proposed.</p>
	<p>LISTED AS A JUSTIFICATION</p> <p>Addressing the State Objective for the supply of employment land.</p> <p>MY RESPONSE</p> <p>Would there be anyone in Sydney who is not aware that we have too many people commuting too far for employment. The Eastern Suburbs already are well supplied with Employment Lands and commuting out rates are many times lower than commuting out rates</p>			<p>The site is zoned as referred to above, with the intention that it be used for employment creation purposes. Zoning is set by Local and Government agencies.</p>

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	<p>for those living in western Sydney. The population centre for Sydney is west of Parramatta. We need Employment Lands in the west where the Intermodal Terminals are planned. And that's where we need the warehousing as outlined in Freight Strategy reports.</p> <p>A cornerstone of the Metrostrategy is creating a City of Cities.</p> <p>Botany Municipality is prime land for Urban Residential Consolidation and diversification in employment but does not need Warehousing in an area where the traffic generated will negatively impact surrounding businesses and traffic flows for the Port.</p>			
	<p>BOTANY MUNICIPALITY IS PRIME LAND FOR RESIDENTIAL AND FOR NATURE HAVENS</p> <p>[Image included but not reproduced here]</p> <p>The Botany Municipality is only 10km south of Circular Quay and well within the 40km foraging range of Grey Headed Flying Foxes, a threatened species. The Flying fox could be encouraged to this site.</p> <p>The Grey Headed Flying Fox already forages in the area and as a nocturnal animal is not deterred by light spills from Port Botany and other industry in the area. The daylight conditions are less disturbing than in the Royal Botanic Gardens in the heart of Sydney's CBD where a colony of 20000 roost.</p> <p>The Southlands site has the potential to relieve more sensitive sites (because of human activity), like the Gardens (directly north), of the burden of excess Flying Fox numbers.</p>			Refer earlier comments.
	<p>COMMUNITY CONSULTATION</p> <p>In the Department of Planning's Guidelines for Major Project Community Consultation the Department states that it considers community and stakeholder consultation valuable because it can:</p>			
	<p>PLANNING CRITERIA:</p> <p>Ensure that factual information about a proposal is widely available to people with an interest.</p> <p>MY RESPONSE:</p> <p>Orica has provided information and the Departments of Planning and DECCW have been represented at community workshops. There is no complaint about this part of the process.</p> <p>However the Roads and Traffic Authority (RTA) have been conspicuous in their absence. The Community has asked for their</p>			Orica has presented information regularly and invited comment and we cannot respond for other agencies or parties.

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	<p>participation and the RTA have refused. Their refusal is a sign of arrogance and disrespect- and this is coming from an organization with a very poor track record in Southern Sydney. The RTA as an organization could learn from participating in open forums.</p> <p>The changes to Exell and Hill Street were brokered without community involvement and without regard to the bigger traffic picture within the sub-region and beyond.</p> <p>The major player in the bigger traffic picture in this area is Sydney Ports. Sydney Ports are introducing the first Peak Pricing system in Australia in order to streamline container movements in and out of the port. The cost of accessing the port during Peak hours will be \$160.</p> <p>Warehousing in the area impacts on container flows in and out of Port Botany. Port Botany is the second largest container port in Australia. It is located only 10km from the Sydney CBD. There have been a number of Supply Chain studies of the traffic problems around Port Botany and major connecting roads, General Holmes Drive, Wentworth Avenue, Bunnerong Road, as well the Freeways, M5 and ED, which connect the Port to major industrial areas in the west.</p> <p>The proposed Intermodal Network for Sydney is essential for addressing traffic congestion. Warehousing hubs need to be located near Intermodals not at the Port. To maximize efficiency so near the Port we need complementary industries not those that are prime traffic generators like warehousing. A new SEPP was introduced for the Port, 24/7/09. This is a State Significant site for landing, collecting and depositing containers. Warehousing too close to the Port puts smaller trucks in competition for road space with the major carriers.</p>			
	<p>PLANNING CRITERIA: Allow the community and relevant stakeholders to have their say in the assessment process.</p> <p>MY RESPONSE: Traffic has been one of the major concerns for residents and neighbouring businesses and the absence of the RTA in this process has made it difficult to have a proper say. They needed to be questioned directly and major stakeholders such as Sydney Ports, Carriers, Distributors, Supply Chain consultants, needed to be part of the conversation.</p> <p>This process has been going for more than 3 years, there really are no excuses.</p>			Orica has invited the RTA to community meetings and cannot comment further.

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	<p>PLANNING CRITERIA: Bring new information and ideas to a project.</p> <p>MY RESPONSE: When there are open forums there is an opportunity for dialog between all the different stakeholders and new ideas can emerge in that process. The RTA absented itself from that process.</p> <p>The Community has brought the idea of an Environmental Offset to the table.</p>			<p>As above.</p> <p>The proposal to utilise the site for an environmental project is not supported by Orica.</p>
	<p>PLANNING CRITERIA: Avoid unnecessary delays by addressing stakeholder concerns prior to lodgement</p> <p>MY RESPONSE: The forums have been useful in sharpening the focus on key issues, but the process as a whole was compromised because of the absence of the RTA and unwillingness to address traffic flow efficiency issues at Port Botany, and most importantly Orica's refusal to consider Southlands as an OFFSET.</p>			As above
	<p>PLANNING CRITERIA: Provide an opportunity for the negotiation of outcomes acceptable to both the proponent and community.</p> <p>MY RESPONSE: There has been no negotiation. The community are getting another polluting development that detracts from the area. Imagine the news: 'Banksmeadow to get another Warehouse' or 'Banksmeadow to get a Nature Haven – the meadow that Banks saw'</p>			Refer earlier comments.
	<p>PLANNING CRITERIA: Build important long term relationships in the local community</p> <p>MY RESPONSE: The workshops/forums are an excellent opportunity for stakeholders to meet each other. This is useful not just for the proposed project but for any subsequent projects. These networks are important for improving information flow.</p>			Noted.
	<p>PLANNING CRITERIA: Enhance a proponent's reputation in the community.</p> <p>MY RESPONSE:</p>			Refer earlier comments.

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	It has been suggested to Orica that if Southlands were to become an Environmental Offset it would improve its relationship with the local community and enhance its reputation not only locally but throughout Australia and internationally.			
	<p>When this project was proposed in 2006 the Groundwater Treatment Plant had only recently been commissioned. In the early part of its commissioning there were a number of occasions when dioxin stack emissions exceeded the EPA standards. In 2006 the Community were aware that the Groundwater Treatment Plant would be in operation for around 30 years. But in late 2008 they were told that it would take hundreds of years to clean the Aquifer. See Appendix 1 [not reproduced here] for text of Sydney Morning Herald article where one community members suggests that Orica must to something 'vast and fabulous' to compensate for this legacy.</p> <p>[Image included but not reproduced here]</p> <p>There has been a lot of uncertainty in dealing with the ICI legacy in Botany – the experts have sometimes been spectacularly wrong. The time has come for the Precautionary Principle to be taken seriously. For Intergenerational Equity to mean that the children of Banksmeadow and surrounding suburbs can see that their environment is valued. That those who pollute, pay.</p> <p>It has been suggested that a caveat be put on development of the Southlands site until the Aquifer is clean. In place of a caveat Orica could include the Southlands Site as part of its Voluntary Management Agreement for the Clean Up of the Botany Aquifer. It could be part of the new movement in Reconciliation Ecology. In 2011, on the 40th Anniversary of the First Green Ban, Orica could be unveiling a Melaleuca Meadow in Banksmeadow.</p> <p>[Image included but not reproduced here]</p> <p>[Appendices included but not reproduced here]</p>			
11. N Hillier O.A.M. on behalf of Botany Environment Watch, undated	<p>This development is so large, has many components, all with difficult problems. The reports have many assumptions and uncertainties, one must wonder is remediation with development possible.</p> <p>Building roads, realignment of two storm water channels (and the) disturbance of a natural estuary.</p>	Background to submission	N/A	N/A

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	<p>The report in itself is such an enormous document and should have been made available for comment by the community for sixty (60) days at the very least.</p> <p>BEW submission is made mostly from the information supplied in Volume 1 Main Report.</p> <p>Much reading time was given to perusal of the other supporting documents, which are excellent information and are great reference material for use in the future.</p> <p>The Botany Environment Watch will neither approve or disagree with the Remediation and Development going ahead.</p> <p>Our community is damned if it does approve and damned if it doesn't approve. Further information is now written about this dilemma.</p>			
	<p>The property should be cleaned up and all contaminated earth and material disposed of in a safe operation off site.</p> <p>The current waste destruction plant and proposed plants: It must be made clear exactly what those plants are licensed to destroy, and not taken for granted any newly discovered waste to be covered by the original license.</p>	Soil, Geology and Contamination	N/A	<p>The Remediation Action Plan submitted with the EA details how soil contamination will be safely managed.</p> <p>The Southlands Remediation and Development proposal does not include the treatment of contaminated soil using any of the existing Orica licenced treatment facilities at BIP. Those facilities are licensed to treat specific wastes.</p> <p>If small volumes of contaminated soils are identified at Southlands that could be potentially treated at the DTD plant to be used to remediate the CPWE, then further assessment and approvals will be required.</p>
	<p>If there is no remediation and development, what then could happen in the future? New generations could see a large fenced off land which is unoccupied. This could prove disastrous.</p> <p>Should the remediation and development go ahead, it could protect Botany's South Ward being taken over by Port Botany and accommodate port orientated industry out of our residential areas.</p> <p>Then again, Orica's proposal for this site could have extreme damaging ramifications to the entire area as well as the development becoming a white elephant.</p> <p>Damned if we do support, damned if we don't.</p>	General statement	N/A	N/A

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	<p>Volume 1 Executive Summary</p> <p>Air Quality Dust Emissions would be managed during remediation and construction.</p> <p>The writer of this section makes this statement not from experience but (by) referring to references.</p> <p>Botany at the present time is enduring its worse exposure to dust since the demolishment of the concrete mixing operations, which were located at the Botany rail line.</p> <p>The dust from the current operations for destroying and recycling building demolition materials had many control placed on its approval. (But) with the dry weather and controls not working, people are suffering. My own experience (is), the outside of my home has had to be professionally washed and paid. Inside, venetian blinds, curtains, the clothes in cupboards are always dusty. Not just fluffy dust but grimy, gritty dust. So tell me about dust management. There is no such thing.</p> <p>There has to be on-going regular monitoring and results (are to be) reported to the community each month. There must be a contact phone number without (an) answering machine response but by a person who will listen and act on receiving dust complaints. (The) number of complaints (are) to be recorded and published.</p>	Air Quality	N/A	<p>Orica acknowledges that the author experiences dust from a range of local sources, which are likely to include local road and rail traffic.</p> <p>Section 10.3.1 of the EA notes that dust may be generated during remediation and construction and a commitment is made to preparation of an Air Quality Management Plan as part of the CEMP. It also states that the effectiveness of measures would be monitored by visual assessment and air quality monitoring.</p> <p>As noted in Chapter 7 of the EA a Communications Plan will be implemented which includes mechanisms for submitting feedback and asking questions about the project.</p>
	<p>Traffic and Transport</p> <p>New roads are all about increased traffic and do not improve the environment and peace of residential areas. During construction and operation(s), compliance with NSW DECC's Industrial Noise Policy who monitors compliance what penalties, a phone number for complaints is a must, and action taken in response to complaint(s).</p>	Noise and Vibration	N/A	<p>As noted in Chapter 13 of the EA, the predicted traffic increases attributable to the Southlands Project (during both construction and operation) would have a negligible impact to residents along or near Foreshore Drive / Botany Road.</p> <p>Orica will respond to any complaints made to it directly, and the option of contacting Council or DECCW with noise complaints is available to anyone with concerns.</p>
	<p>Flora and Fauna</p> <p>As to be expected, it was concluded the project would not have a significant impact.</p> <p>Flows through Springvale Drain to Penrhyn Estuary for Stage 1 would match the existing regime. It is unclear whether that statement is talking about before or after Sydney Ports have completed their rearrangement of the estuary. More information on impacts from Orica's development proposals crossing over Port expansion</p>	Hydrology and Flooding	Stage 1	<p>This statement merely refers to the fact that the compensatory flood storage area to be provided on the site during stage 1 will maintain the current hydrological and flooding regime on the site. That is, the Southlands site will retain the same level of flood waters in the 1:100 year event as is currently the case. This therefore will maintain the existing regime of flows.</p>

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	developments (is needed).			
	Heritage Why wait on protocol(s) for addressing any unforeseen heritage issues? Have the Aboriginal communities been invited to respond to this development proposal?	Heritage	N/A	The EA was advertised and placed on public exhibition. Orica placed advertisements in local newspapers, but did not contact the Local Aboriginal Land Council specifically.
	Socio Economics It is to be hoped this will be as written. However, proper care of workers health and comfort must be a priority. A medical centre with First Aid facilities must be included in these plans. (A) hospital for emergencies is not an instant response to an incident these days. Also, it might be considered an advantage to have a convenience shop to be included in the plans. This development is so sterile of human needs. Help of this type is too far away.	Socio Economic		The Development Application provides for a cafe as part of the Stage 2 development.
	Land use Safety Planning. Preliminary Hazard Analysis not required Could there be risks from other hazardous industry? Or from individual operations and storage of hazardous materials in warehouses?	Land Use Safety Planning		Chapter 17 of the EA and the Landuse Safety Planning Assessment report included in Appendix P of the EA assess potential impacts from adjacent operations. No significant impacts are identified. The use of fire resistant material is to be considered for the boundary of the north east warehouse building and emergency procedures for the Southlands development are to be integrated with plans for the Mobil and Qenos tank farms and the BIP.
	Waste management, as written earlier, raised the potential issue of existing DHTD destruction plants being used for other newly found wastes not accounted for in original licenses for operations.	Waste management		The Project Approval for the CPWE remediation project states that an additional approval would be required if any additional material is to be treated using the DTD plant.
	Water and Energy Efficiency Who monitors, result published in local newspaper or newsletters during construction may be of help. Energy saving tinted glass in windows and doors may relieve glare for workers.	Water and Energy Efficiency		Orica's proposal incorporates water and energy efficiency design commitments. These features pertain to the operation, not construction phase of the development. Noted.
	Conclusion A committee, including contractors, Council Officers, Government relevant agencies, local MPs and residents for construction stages, and an on-going environment committee during (the) life of operations.			A DECCW accredited Site Auditor has been appointed to the project and the Site Audit process will continue throughout the implementation of the RAP. Orica is committed to preparing a Communications Plan for future stages of the project and continuing to respond to

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	<p>The panel of three independent consultants, which worked for the CPRC Committee on the HCB Destruction, would be a great asset to such a committee, as well as an independent Auditor for the duration of Remediation and Development stages.</p> <p>The BEW thank you for the opportunity to respond to this Environment Project Report.</p>			queries and to sharing project progress with the local community. Project updates are currently provided at CLC meetings, which are well attended by community, Council and government representatives.
12. Ministry of Transport dated 12/10/09	<p>I refer to your letter dated 27 August 2009 seeking comments on the project application for the above major project. NSW Transport and Infrastructure (NSWTI, formerly the Ministry of Transport) appreciates this opportunity to provide input into the environmental assessment of this application.</p> <p>NSWTI has reviewed the accompanying environmental assessment prepared by URS Australia Pty Ltd and the traffic review by Traffix Traffic and Transport Consultants Pty Ltd. NSWTI understands that further traffic modelling is being undertaken by the Roads and Traffic Authority with respect to this proposal.</p> <p>NSWTI notes that walking, cycling and public transport are not specifically addressed in the environmental assessment nor in the appended traffic assessment.</p> <p>Notwithstanding the nature and location of the proposed development, there are opportunities to facilitate mode shift for employees to non-car transport modes, in accordance with the State Plan, and improve the sustainable transport future of the site. NSWTI recommends that the following matters be considered for inclusion as possible conditions of consent should the proposal be approved:</p> <ul style="list-style-type: none"> • Provision of a safe and amenable pedestrian network that includes direct and convenient access to the 309 bus route on Botany Road; • Provision of cycleways that connect to surrounding existing and proposed bicycle networks; • Preparation of a workplace travel plan to promote the use of sustainable and active transport, addressing: 	Traffic Transport		Orica's traffic engineer, Traffix has provided additional advice in response to all traffic issues attached at Appendix 2.

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	<ul style="list-style-type: none"> o The provision of adequate and secure bicycle storage facilities as well as showers and lockers as part of the development. NSWTI recommends the Department of Planning's <i>Guidelines for Walking and Cycling</i> (2004) for review; o The management of parking, including a reduction in car parking provision to the RTA's recommended rates, to increase the use of public transport together with cycling; o The use of 'car share' schemes for company use and individual staff to allow a minimal yet flexible use of cars; and <p>The preparation of a Travel Access Guide (TAG) to inform staff and visitors to the site of all transport options.</p>			
13. Sydney Water dated 7/10/09	<p>Sydney Water Servicing</p> <p>Sydney Water will further assess the impact of the development when the developer applies for a Section 73 Certificate. This assessment will enable Sydney Water to specify any works required as a result of the development and to assess whether amplification and/or changes are applicable. Sydney Water requests the Department continue to instruct developers to obtain a Section 73 Certificate from Sydney Water.</p> <p>Developers must fund any adjustments needed to Sydney Water infrastructure as a result of any development. The developer should engage a Water Servicing Coordinator to get a Section 73 Certificate and manage the servicing aspects of the development. Details are available on Sydney Water's website at www.sydneywater.com.au.</p> <p>Sydney Water e-planning</p> <p>Sydney Water has created a new email address for planning authorities to use to submit statutory or strategic planning documents for review. This email address is urbangrowth@sydneywater.com.au. The use of this email will help Sydney Water provide advice on</p>	Services		Noted

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	<p>planning projects faster, in line with current planning reforms. It will also reduce the amount of printed material being produced.</p> <p>This email should be used for:</p> <ul style="list-style-type: none"> • Section 62 consultations under the <i>Environmental Planning and Assessment Act 1979</i> • Consultations where Sydney Water is an adjoining land owner to a proposed development • Major Project applications under Part 3A of the <i>Environmental Planning and Assessment Act 1979</i> • Consultations and referrals required under any environmental planning instrument • Draft LEPS, REPs, SEPPs or other planning controls, such as DCPs • Any proposed development or rezoning within a 400m radius of a Sydney Water Sewage Treatment Plant (STP) • Planning Strategies <p>Any proposed planning reforms or other general planning or development inquiries</p>			
14. Randwick City Council dated 7/10/09	<p>Contamination</p> <p>The purpose of the Botany Groundwater Cleanup Project to hydraulically contain the contaminated groundwater to prevent it from entering Botany Bay and ensures that risks to human health are managed at acceptable levels. The groundwater containment and monitoring program is a regulatory requirement contained within the notice of clean up action for this project.</p> <p>The Remedial Action Plan (RAP Appendix H) identifies that vital</p>	Contamination		<p>Orica will ensure that hydraulic containment is not compromised during remediation or development.</p> <p>The focus of chemical groundwater monitoring is not on Orica property but in offsite areas such as Penrhyn estuary and Botany Golf Course where the risks need to be carefully monitored.</p>

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	<p>infrastructure to achieve hydraulic containment is located on southlands site and that the development of southlands proposes to replace groundwater monitoring infrastructure, for monitoring and hydraulic containment.</p> <p>Of concern is that the RAP only contains a preliminary well replacement plan and states that a replacement well network is yet to be designed which is to be completed as later detail site planning.</p> <p>Any development of the site must not compromise the hydraulic containment or required routine groundwater monitoring.</p> <p>The development consents if provided should only be provided if:</p> <ul style="list-style-type: none"> Hydraulic containment and chemical monitoring requirements can be maintained during construction and following development, and A well replacement plan is developed prior to any works occurring on the site. 			<p>The destruction and replacement of monitoring wells on Southlands will not not adversely impact on the effectiveness of Orica's monitoring program..</p>
	<p>Warehousing as preferred use of the site over Container Storage</p> <p>The site is well suited for a container terminal with close proximity to Port Botany, regional road system and potential access to nearby Sydenham- Botany Goods Railway Corridor. The site is also within Close proximity to Botany Industrial Park containing heavy industry and is located at some distance from residential areas unlike many remaining industrial sites within Sydney's east.</p> <p>Justification of warehousing provided in the Environmental Assessment is predominantly based on employment generating capacity above that of Container Storage and would not generate significant levels of employment on a long term basis as specified in the Sydney Metropolitan strategy.</p>	Landuse		<p>Council will realise that the land uses on the site are limited by the zoning. Furthermore it is the clear intent of the Department of Planning in the Metropolitan Strategy to encourage the use of the land in the area for employment generating uses. Within the permitted uses under the zoning various light industrial /warehousing activities are seen as the most likely and the greatest opportunity for employment generation.</p>
	<p>Environmental monitoring activities (as stated in the RAP Appendix H) have demonstrated that the risks to human health associated with vapour emissions from contaminated surface water in Springvale drain are unacceptably high and would restrict the development.</p>	Contamination and HHRA		<p>The development is contingent on Orica convincing the independent contaminated sites auditor that the site is suitable for occupation. There will be several contingencies in place to make this happen, including large offsets (vacant land) left around Springvale Drain.</p>

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	<p>Section 7 RAP summary states that some degree of variability remains with potential concentrations of chlorinated hydrocarbons (CHCs) in air close to Springvale drain within southlands such that potential for peak exposure associated with groundwater discharge into the drain after rainfall events or shutdown of GTP should be further managed.</p> <p>The Botany Groundwater Cleanup Project is reliant upon long term requirements for remediation of the groundwater and ongoing reliable operation of the groundwater treatment plant (GTP) the duration of the remediation some 30+ years. In addition there is an existing degree variability of groundwater flow and behaviour of contaminants within groundwater. Based on these risk factors is it responsible to have a development which encourages significant levels of employment in an area where variability remains with potential concentrations of CHCs.</p>			
	<p>Development may reduce future options for groundwater remediation</p> <p>Orica in their September 2009 newsletter on the project commits to "continue to search for ways to speed up the groundwater cleanup". Council is concerned as to what levels will the development of the southlands site hinder and/or prevent more effective and efficient groundwater cleanup methods being employed if and when they are identified.</p>	Contamination		<p>Future groundwater remediation will not be prevented by the Southlands Project. An extensive network of easements have been left in place to allow for the application of future technologies if and when they become available.</p> <p>Groundwater remedial technologies are regularly applied in areas where land is already occupied. Groundwater contamination occurs primarily on developed land.</p>
	<p>Traffic Issues</p> <p>The traffic report indicates that the site is contained wholly within Botany Bay City Council area with no direct access to Randwick Council's local roads. Given the geographic location of the Randwick Council area to the east of the site is a peninsula with minimal through traffic/ traffic impacts on Council's local roads is considered minimal.</p> <p>Option 3 (a new road access on the alignment of McPherson Street over the railway line connecting Beauchamp Road at its intersection with Perry Street) is not supported as it means that the development will have direct traffic impacts on Council's local roads. It is highly unlikely Council would ever formally approve any such proposal within the Randwick Council area.</p>	Traffic		<p>Noted and Orica note that a crossing over the railway line is not currently the preferred option.</p>

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	<p>Potential noise, odour and pollution impacts</p> <p>The Department should appropriately condition any approval to ensure that protection of the environment, and the amenity of the nearby industrial and residential land, is maintained in regards to air emissions, water treatment and disposal and acoustic amenity.</p> <p>It should be noted that Council regularly receives complaints from residential neighbours pertaining to increased noise nuisances during the night and evening periods from the Sydney Ports area creating sleep disturbance. Appropriate acoustical assessment and report should be prepared by a suitably qualified acoustic consultant for the proposed development. The report should demonstrate that noise and vibration emissions from the development will comply with the relevant provisions of the Protection of the Environment Operations Act 1997, Environmental Protection Authority Noise Control Manual and industrial Noise Policy.</p> <p>The proposal should ensure that the operation of all plant and equipment shall not give rise to an 'offensive noise' as defined in the Protection of the Environment Operations Act 1997 and Regulations. In this regard, the operation of the premises and plant and equipment shall not give rise to a sound pressure level at any affected premises that exceeds the background L A90 15 min noise level, measured in the absence of the noise source/s under consideration by more than 5dB(A). The source noise level is assessed as an LAeq, 15 min and adjusted in accordance with the NSW Environmental Protection Authority's Industrial Noise Policy 2000 and Environmental Noise Control Manual (sleep disturbance).</p> <p>The potential for odour and any other pollution from the future uses on the site should be addressed. There are to be no emissions or discharges from the premises which would give rise to a public nuisance or result in an offence under the Protection of the Environment Operations Act 1997 and Regulations.</p> <p>These matters should be included in the proponent's Statement of Commitment that will form part of the Environmental Assessment</p>			<p>Noted and it is anticipated that normal conditions relating to noise, dust control, erosion and sediment control and control of water borne pollutants would be included in any consent.</p> <p>Further it is noted that the EA included a Draft Statement of Commitments from Orica which amongst other things included commitments to prepare a Construction Environmental Management Plan and an Operational Environmental Management Plan that will include steps to mitigate any noise, dust, odour, sediment and erosion impacts.</p> <p>The EA includes an acoustic and vibration assessment of the Project from Heggies Australia which concluded that no noise mitigation measures were necessary. As noted above, we understand that an appropriate noise condition would be included in any consent.</p> <p>Botany Bay City Council have raised a similar issue suggesting that the following condition be included:</p> <p>Standard Noise Criteria Adopted by Council</p> <p>(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).</p> <p>(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.</p> <p>(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 necessary.</p> <p>Noted. Orica agrees that this condition would be</p>

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	for this project or alternatively included as a condition in any Instrument of Approval for the project.			appropriate for any future consent. Further it is noted that it is likely to be the subject of a Condition of Consent in any future Use Applications sought for new buildings.
	<p>construction Issues</p> <p>The impact of construction (in particular, noise, traffic and dust) on local and regional land-uses and local residents should be examined. Traffic and safety measures at construction stage should be detailed in the Environmental Assessment Report.</p> <p>Council's Traffic Engineer has advised that a detailed Construction Traffic Management Plan (CTMP) should be forwarded to both Botany Council and Randwick Council for approval. It should be noted that Council's preference is for the construction truck routes to the subject site be from the west via Botany Road and/or Foreshore Drive.</p>			The inclusion of a Construction Environmental Management Plan was included in the Draft Statement of Commitments in the EA. The Construction Environmental Management Plan will include a Construction Traffic Management Plan.
15. Sydney Ports dated 13/10/09	<p>Sydney Ports is supportive of proposals surrounding the port that encourage industrial, and specifically port related, uses which complement the nearby port operations. This support is consistent with the objectives for the Port Botany State Significant Site identified in <i>SEPP Major Development 2005</i>, under which the site is zoned General Industrial. I note that the discussion of permissible uses in the orca EA is now outdated given the amendments in July 2009 to the <i>SEPP Major Development 2005</i>.</p> <p>Whilst Sydney Ports is supportive of port related industrial development on the Southlands Site, there are a number of matters where further assessment is warranted and where Sydney Ports has concerns in relation to potential impacts on Port Botany operations and environmental impacts in the area. Sydney Ports' concerns are set out below.</p>			Noted support for use of Industrially Zoned lands being used for that purposes adjoining the Port.
	<p>Development Stage 1</p> <p>1. The temporary storage in Stage 1 on Site 2 should be sealed / stabilised to ensure that dust is not created when it is dry and that sediment is not eroded and discharged into Springvale Drain during rain events.</p>			<p>1. The current proposal envisages landscaping and hydroseeding of the Stage 2 flood compensation area. This will effectively grass and landscape the flood compensation area, and will reduce the potential for any erosion and sediment loss.</p> <p>2. Orica monitors the Estuary quarterly to assess the impacts of contaminated groundwater. Since remedial</p>

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	<p>2. The EA identifies that removal of contaminated shallow groundwater is required to ensure that the contamination is not discharged into Springvale Drain. Sydney Ports is concerned to ensure that contaminated groundwater is not discharged into Springvale Drain, and thereby into Penrhyn Estuary.</p> <p>a. It appears that a trial is required to confirm that extraction of contaminated shallow groundwater will be successful. We consider that the trial needs to be conducted, and determined to be successful, prior to any other development work taking place on the site.</p> <p>Monitoring of water quality discharging into Springvale Drain should be required for the duration that the shallow groundwater extraction system is required to be operational, to ensure that the system continues to operate successfully. Monitoring results should be reported to DoP / DECCW at specified intervals.</p> <p>Responsibility for the ongoing operation of the groundwater extraction system needs to be identified to ensure that it continues to be operated successfully in the event of sale of the land.</p>			<p>works commenced at Botany in 2005, there have been dramatic improvements to the surfacewater quality in Penrhyn Estuary. The development of Southlands will not change this.</p> <p>a. The independent contaminated sites auditor will need to be convinced that that all remedial measures on the site functionally accordingly to their purpose prior to issuing a site audit statement. The need for a trial will be discussed with the auditor.</p> <p>The surface water quality of Springvale Drain is monitored as part of Orica's regulatory obligations. This is performed quarterly and results are provided to DECCW.</p> <p>Orica will maintain a regulatory obligation to continue operation of the Groundwater Treatment Plant.</p>
	<p>Development Stage 2</p> <p>Given the lack of detailed assessment provided for the Stage 2 works and the extent of uncertainty as to the impacts arising from these works, with respect to Penrhyn Estuary and the port operations, Sydney Ports is of the view that an approval for Stage 2 would be premature. We also consider that the proposal would require referral under the EPBC Act given the potential to impact on migratory shorebirds in Penrhyn Estuary which are protected under international treaties.</p>			<p>The Stage 2 works have been outlined in the EA and essentially involve the development of that Stage, the new road link, new stormwater works and works to Discovery Cove.</p> <p>It has been discussed with the Department of Planning that additional details can be provided to the Department where necessary, as they see fit prior to the issuance of the Construction Certificate for this Stage of works.</p> <p>In response to the matter of migratory shore birds, Orica has sought the further advice of URS, who prepared the flora and fauna report for the EA. They advise as follows:</p>

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				<p>Whilst the flora and fauna assessment highlights that the site may provide some potential foraging habitat for these avian species, the 'seven part test of significance' for water birds clearly states that this habitat is not optimal foraging habitat for any of the species. It also clearly states that these species 'will occupy optimum foraging habitats when available' and that optimum habitat is available in the close surrounds including; Sir Joesph' Banks Park, the Lachan Swamp and Penrhyn Estuary (URS 2007). All available foraging habitats on site are described as being in low or poor condition given the limited size, lack of connectivity and contamination.</p> <p>In summary the conclusions of this assessment state that there is unlikely to be a significant impact on the water birds. Given that no significant impacts to local population of the species are expected, the poor quality of the habitat and the simple fact that the clean up and removal of contaminants from the site would prevent contaminants from entering the food chain, no offset package is required.</p>
	<p><u>3. Impacts on Penrhyn Estuary</u></p> <p>Sydney Ports is in the process of rehabilitating and expanding Penrhyn Estuary to create long term secure habitat for migratory shorebirds, some of which are protected under international treaties. This work is in progress and due for completion within the next 12 months. Sydney Ports is spending about \$8 million on the enhancement works.</p> <p>The enhancement works are governed by approval from the NSW Minister for Planning under the <i>Environmental Planning & Assessment Act 1979</i> and the then Commonwealth Minister for the Environment & Heritage under the <i>Environment Protection & Biodiversity Conservation Act 1999</i> [EPBC Act]. The details of the works are set out in the approved Penrhyn Estuary Habitat</p>			<p>Orica has received the following advice from URS in response to this matter.</p> <p>The need for additional detail design to address potential issues at the penryhn Estuary were noted in the EA within the Hydrology and Flooding Report at Appendix G. In particular it was noted that:</p> <p><i>The proposed improvements to the hydraulic capacity of Springvale Drain would likely lead to a reduction in the duration of the flood hydrograph and an associated increase in the peak flow rate passing to Botany Bay. An increase in peak flow rate has potential to affect the outlet to Botany Bay and the surrounding Penrhyn Estuary wetlands. Possible issues including scour near the outlet channel and wetland degradation may result without sufficient mitigation measures. Detailed design of the new infrastructure will therefore need to incorporate mitigating design features, prior to construction. These measures will be designed and modelled prior to any Stage</i></p>

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	<p>Enhancement Plan [PEHEP].</p> <p>Sydney Ports considers that there is insufficient detail with which to be able to assess potential impacts of 'the development on Penrhyn Estuary. The EA does not take into account the habitat enhancement works being implemented by Sydney Ports.</p> <p>Penrhyn Estuary is likely to be impacted due to:</p> <p>the change in the flow direction and velocity of the discharge into Penrhyn Estuary from Springvale Drain, causing erosion; and</p> <p>increased freshwater flow into Penrhyn Estuary, causing stress to the estuarine flora & fauna.</p> <p>The EA states that there is potential for erosion in the Estuary and that mitigation measures would be required to address this however the details would need to be determined at a later date. The extent of erosion of Penrhyn Estuary is not able to be determined until the type of mitigation has been identified and its impacts assessed. It is not even known whether appropriate mitigation is possible.</p> <p>The EA does not consider the potential impact of additional freshwater flows into Penrhyn Estuary on benthic ecology, saltmarsh and seagrasses. The recovery rate of salinity levels within the Estuary during frequent rain events needs to be assessed, to confirm that the additional freshwater flows would not jeopardise the success of the Penrhyn Estuary habitat enhancement works.</p>			<p><i>2 works being undertaken, and will ensure an optimal design solution resulting in negligible impact on the wetlands and Botany Bay.</i></p> <p><i>Detailed design measures to be investigated will therefore include:</i></p> <ul style="list-style-type: none"> <i>• Scour prevention by increased vegetation of the banks immediately downstream of the outlet;</i> <i>• Upstream detention by the incorporation of additional in-ground detention areas on the Southlands site, where possible;</i> <i>• Upstream detention in the land adjacent to the section of drain between Foreshore Drive and Penrhyn Road. This could be achieved through excavation of a wider channel, a secondary channel or a detention basin in this area. Approval would need to be sought from the landowner.</i> <i>• Pollutant removal through measures such as a detention basin or rock weirs in the channel upstream of Penrhyn Road to reduce sediment loading and a trash rack at the inlet to the culvert under Penrhyn Road.</i> <p><i>Initial modelling and design resolution confirms that these measures are possible and will reduce flow and scour impacts in the Penrhyn estuary, but detailed design and incorporation of these mitigating items will be required prior to the issuance of a Construction Certificate for the Stage 2 works.</i></p> <p>Orica maintains this commitment.</p>
	<p><u>4. Flooding</u></p> <p>Sydney Ports is concerned that with the proposed capacity increase in Springvale Drain, the open channel south of Botany Road (at Caltex) will now become the control point for flood waters in the catchment and could result in flooding of Penrhyn Road or the Port Botany rail line with increasing frequency. This would not be acceptable as these assets are critical for access to the port. Additional assessment of the impacts of changes to the flood flow regime in the Springvale Drain catchment is required.</p>			<p>See Aurecon comments attached at Appendix 3.</p>

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	<p>5. Traffic</p> <p>Sydney Ports is concerned that the proposal to create a new link road through the Discovery Cove site to the junction with Botany Road may adversely impact on a key port access, being the Penrhyn Road / Foreshore Road intersection. Additionally, we are concerned that it will impact on the new grade separated road access that Sydney Ports is to build at Penrhyn Road, as identified in the Port Botany Expansion Environmental Impact Statement. The options for improvement of this intersection are limited due to the location of the Orica groundwater extraction wells within the median strip of Foreshore Road.</p> <p>The traffic assessment undertaken has analysed the two intersections in isolation and does not take into account the two new intersections currently being constructed on Foreshore Road to support the Port Botany Expansion, a third intersection to be built as part of the extension to Hale Street and the nearby existing Botany Rd / Beauchamp Rd intersection. The outcome is likely to be more positive by analysing the two intersections in isolation. We therefore request that a co-ordinated analysis of all intersections together, to General Holmes Drive, be undertaken.</p> <p>Additional work is also required in the following areas:</p> <p>Justification of the traffic generation & parking forecasts. Data based on comparable distribution centres would be more representative of traffic numbers than the use of RTA II istorie generation rates. The traffic forecasts are critical to the assessment of impacts. Trucks and car trips also need to be distinguished from each other.</p> <p>Extending the analysis to 2021 to get a better idea of the future traffic situation. Assessing the validity of background traffic numbers assumed for 2016 as it appears that limited growth in background traffic has been incorporated.</p> <p>The traffic study recommended widening of the Botany Road north</p>			<p>Issues raised in relation to traffic modelling have been the subject of review by Traffix. A copy of the Traffix response is attached at Appendix 2.</p>

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	<p>approach to four lanes. This is not readily achieved within the existing road reservation and indicates that significant road upgrade is required.</p>			
	<p>Issues relevant to all stages of development</p> <p>6. The EA states that gross pollutant traps will be installed to treat stormwater.</p> <p>Sydney Ports considers that due to the nature of the activities taking place on site stormwater treatment should also include sediment, oil, grease and hydrocarbon <i>removal</i> in addition to litter removal.</p> <p>7. Sydney Ports considers that the Construction and Operation EMPs need to include spill response procedures to prevent spills from entering Springvale Drain and thereby discharging into Penrhyn Estuary.</p> <p>8. Sydney Ports requests that air quality monitoring data during construction, particularly with respect to airborne asbestos particles, is made publicly available to keep neighbours informed of any impacts and risks.</p> <p>9. The cumulative noise assessment has not considered the impacts of approved future developments in the area such as the Port Botany Expansion. This assessment needs to be undertaken to accurately reflect the cumulative noise impacts.</p> <p>Sydney Ports discussed the key issues outlined in this letter with Orica at a meeting on 1 October 2009</p>			<p>These issues will be the subject of Conditions of Consent in any Approval, and will be the subject of the CEMP and OEMP.</p>
<p>16. DECCW, Environment Protection and Regulation dated 7/10/09</p>	<p>General Comments</p> <p>As noted in previous correspondence, the Department of Environment, Climate Change and Water (OECCW) is currently regulating the containment of chlorinated hydrocarbon plumes present beneath South lands to prevent the "further migration of. contaminated groundwater beyond the site, The regulated activities are collectively referred to as the Botany Groundwater Clean up Project and include groundwater extraction, groundwater monitoring, and maintenance of relevant infrastructure at</p>			

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	<p>Southlands, While the remediation of the chlorinated hydrocarbon groundwater plumes does not form part of the Environmental Assessment (EA) for the remediation and redevelopment of South lands, tile ability to mamtain containment of the contaminant plumes and conduct "future remediation works to address the groundwater contarnlnation is an important consideration of the proposed development works.</p> <p>We note Orica's commitment that the redevelopment of the Southlands site "would allow for the continued operation and maintenance of Infrastructure required for Orica's ongoing groundwater remediation works and would in no way compromise Orica's commnment to the Botany Groundwater Clean up Project",</p> <p>it is also important to emphastse that DECCW's primary interest in the proposed redevelopment of Southtands is its interface with the Botany Groundwater Clean up Project. Accordingly, DECCW has restricted its review of the Southlands EA to those sections which nave direct links to the Clean up Project. We are also reviewing the Flora and Fauna Assessment and the Green and Golden Bell Frog Assessment given the overlaps with DECCW's responsibilitities for threatened species matters.</p>			See Biosphere Report attached at Appendix 5.
	<p>Recommended Conditions of Approval</p> <p>In light of the above, we provide the following recommended conditions of approval for your consideration:</p> <ul style="list-style-type: none"> The hydraulic containment system, including the Botany Industrial Park, Primary and Secondary Containment Areas, and Groundwater Treatment Plant, will operate and be maintained throughout the South lands Remediation and Redevelopment Project. Orica Australia Pty Ltd (Orica) will maintain ownership of the easements identified in the Proposed Easements Plan (diagram SRD DA017 (A)) for the duration of the Groundwater Clean up Project. Orica must advise the Department of Environment, Climate Change and Water of any changes to the Easement 			<p>Agreed but suggested rewording as follows: Orica will maintain hydraulic containment at the Primary containment area throughout the Southlands Remediation and Redevelopment project.</p> <p>Agreed but Orica will maintain rights to the easements identified in the Proposed Easements Plan (diagram SRD DA017 (A)) for the duration of the Groundwater Clean up Project. Orica must advise the Department of Environment, Climate Change and Water of any changes to the</p>

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	<p>Plan.</p> <p>Orica Australia Pty Ltd will provide additional information to demonstrate that the easements will be appropriate to facilitate future remediation works, including an explanation of how the limited area of the proposed easements would affect Orica's ability to implement potential remediation technologies and how access to these areas (when required) will be ensured.</p> <ul style="list-style-type: none"> • Subject to other necessary approvals, a shallow groundwater extraction system to prevent groundwater discharge to Springvale Drain will be installed, operated and maintained. Prior to occupation of the site, it must be demonstrated that the system is effective at preventing groundwater discharge to the drain. • A marker layer will be placed beneath the fill material across those parts of Southlands that are the subject of this approval. • Consideration must be given to potentially contaminated sediments in Springvale Drain when conducting any works associated with the drain. This must include an assessment of the potential scouring of sediments due to the proposed increase in the hydraulic capacity of Springvale Drain and the preparation and implementation of a plan to minimise any scouring and the potential impact of these sediments on downstream environments. 			<p>Easement Plan.</p> <p>Disagree. All easements, location and size have been reviewed with the Auditor and therefore the Auditor has agreed their application to the site in their current configuration. We therefore do not see the need for any additional consent condition of this type.</p> <p>Orica cannot predict the land requirements of remedial technologies that have not been developed yet. However, given that most contaminated sites are on occupied land, it can be assumed that future remedial technologies will be developed with these restrictions in mind.</p> <p>The proposed array of easements will allow for significant flexibility in application of any number of passive and active remedial measures.</p> <p>Agreed, however suggested rewording as follows: Subject to other necessary approvals, a shallow groundwater extraction system will be developed to manage vapour emissions from the drain</p> <p>Agreed.</p> <p>Agreed. Appropriaet sedimenst and erosuion control measures will be incorporated into the CEMP.</p>

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	Any excavation, movement or storage (or other activities) of soil contaminated with hexachlorobenzene must be carried out in accordance with the Scheduled Chemical Wastes Chemical Control Order (2004), made under the <i>Environmentally Hazardous Chemicals Act 1985</i> .			Agreed
	<p>We also recommend that the Department of Planning adopt conditions 1 to 4 of Site Audit Statement No. SA263 prepared by the accredited Site Auditor Chris Jewell (included as Appendix I of the Environmental Assessment) as conditions of approval. Based on the auditor's recommendations, we consider that additional conditions of approval would be appropriate, including:</p> <p>".</p> <ul style="list-style-type: none"> Implementation of the Auditor-approved compensatory flood storage area groundwater reticulation system to prevent groundwater discharge to the storage area (including surface water monitoring to assess the effectiveness of the system). Implementation of the Auditor-approved Construction Environment Management Plan and Waste Management Plan. Implementation of the Auditor- and DECCW~approved groundwater monitoring well replacement plan. Implementation of the Auditor-approved long-term environmental management plan, including ongoing monitoring and maintenance requirements for the vapour intrusion mitigation measures, stormwater retention areas and physical separation barriers to ensure risks to site occupiers are being appropriately managed. The long-term environmental management plan will be enforced via a public positive covenant under the <i>Conveyancing Act 1919</i>. 			<p>Generally agreed but suggested rewording to allow flexibility in design, as follows: Implementation of the Auditor-approved compensatory flood storage area to prevent groundwater discharge to the satisfaction of the Auditor</p> <p>Agreed</p> <p>Agreed</p> <p>Agreed</p>
17. DECCW, Environment Protection and Regulation dated 13/10/09	Our reviews of the assessments and the statement of commitments relating to flora and fauna indicate that they remain largely unchanged compared to the documents included in the draft EA that was submitted for review earlier this year (we provided recommendations and comments relating to the Flora and Fauna and GGBF			Additional Green and Golden Bell Frog surveys have been undertaken for the site and a report summarising that additional survey work by Biosphere Environmental Consultants (Bioshpere) is attached at Appendix 5. Biosphere also respond to issues raised in submissions to the EA in respect of Green and Golden Bell Frogs.

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	<p>Assessments accompanying the draft EA by letter on 16 February 2009). However, we acknowledge the new commitment to undertake additional survey work for the Green and Golden Bell Frog prior to any construction works on the site.</p> <p>We consider that the additional work should be completed and that, in light of the results of the surveys, appropriate adaptive measures be taken to amend the proposal to protect this endangered species <i>prior</i> to any project approval being granted. This is consistent with Orica's "commitment .. , to amend the proposal should the species be identified on site", made in their letter to the Department of Environment, Climate Change and Water (DECCW) of 26 June 2009. The surveys should be conducted during suitable climatic and weather conditions and the results made available to the Department of Planning (DoP) and DECCW.</p>			
	<p>Recommended Conditions of Approval</p> <p>If the surveys for the GGBF are conducted after approval is granted, we recommend that the following condition of approval be included:</p> <p>Additional surveys for the GGBF will be conducted at all potential habitat areas (including Springvale Drain) during suitable climatic and weather conditions, in accordance with the DECCW environmental impact assessment guidelines for this species. The results of the surveys will be provided to DoP and DECCW prior to commencement of any works. Should the species be identified during the surveys, additional appropriate adaptive measures will be implemented to protect the GGBF.</p> <p>Regardless of whether the GGBF surveys are conducted prior to or following project approval, we recommend that the project approval include the following conditions (which for the most part reiterate our comments provided in our letter of 16 February 2009):</p>			<p>The additional survey work has been undertaken and is attached at Appendix 5. This condition is therefore not required.</p> <p>We note that the latest surveys conducted and attached at Appendix 5, once again did not highlight any GGBF on the Southlands site. Despite that some offset ponds are proposed as set out in the EA and updated in Appendix 5. Therefore whilst Orica generally agrees to the following conditions they should not be so onerously applied as to create an entire amangmnet system for a species that is apparently not found on site.</p>

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	<ul style="list-style-type: none"> A GGBF long term management plan will be prepared and implemented. The plan will address the following matters: <ul style="list-style-type: none"> Monitoring of the performance of any created habitat for GGBF using criteria that are in accordance with the DECCW environmental impact assessment guidelines for the GGBF, which require that the success of the created/offset habitat is demonstrated before any development resulting in loss of breeding habitat takes place (refer to 'Mitigating Impacts' in Appendix 2 to the GGBF recovery plan: www.environment.nsw.gov.au/resources/nature/recoveryplanGreenGoldBellFrogDraft.pdf); Identification and implementation (if required) of adaptive management actions in response to any impacts; Development and implementation of detailed measures for the maintenance of any GGBF habitat (e.g. ponds and associated foraging areas), including provision for the constructed ponds to be filled from a permanent suitable water source and drained to allow the water level in the ponds to be varied when necessary; Identification and implementation of measures to provide connectivity of the proposed breeding ponds with other known and potential GGBF breeding, foraging, shelter, movement and over-wintering habitat in the local area (information that may be of assistance may be found in DECCW's (2008) <i>Management plan for the Green and Golden Bell Frog key population of the Lower Cooks River</i> and any plans for the species developed by Randwick, Rockdale, Botany Bay and City of Sydney Councils and Sydney Water); Use of native plant species that are appropriate for supporting GGBF in revegetating Springvale Drain and any non-bunt areas; and 			<p>Agreed. Although we note that the extent of offset habitat for Stage 1 and 2 of the development are as set out in the proposal, and as now amended /updated by the Biosphere advice at Appendix 5.</p> <p>Agreed</p> <p>Agreed as set out in our proposal.</p> <p>Agreed</p> <p>Agreed</p>

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	<ul style="list-style-type: none"> Any measures for the control of weeds and pests will not include herbicides containing compounds (e.g. glyphosate) that may be harmful to GGBF. The Stage 2 drainage infrastructure (including modifications to Springvale Drain) will be designed and constructed to minimise potential scouring and sediment impacts at Penrhyn Estuary; A long term monitoring plan will be developed and implemented to assess the impacts of changed hydraulic flows in Springvale Drain on the Saltmarsh endangered ecological community in Penrhyn Estuary/Botany Bay and outline adaptive management actions in response to any impacts; and <p>The results of environmental monitoring, including monitoring associated with the GGBF and Penrhyn Estuary, will be made publicly available.</p>			<p>Agreed</p> <p>Agreed as set out in EA.</p> <p>Not agreed. Hydraulic flows are not proposed to be varied by Stage 1 works and the Southlands Stage 1 development will actively alter hydraulic flows. Stage 2 works will be designed to minimise impacts on Penrhyn Estuary, and whilst it will alter the velocity of flows to Penrhyn Estuary it is aimed at resolving a flooding issue for the wider area. Therefore the detailed design of the Stage 2 works needs to incorporate measures to limit impacts on Penrhyn Estuary as noted in the EA.</p>
18. COBB dated 21/10/09	<p>1. Planning and Legislative Requirements- DCP 33 Industrial Development</p> <p>The EA states that regard has been given to Council's DCP 33 <i>Industrial Development</i>. The project fails to address the following issues outlined within Council's DCP.</p> <p>i) <i>Rail Access</i></p> <p>DCP 33 identifies controls for the Banksmeadow Industrial Precinct. Condition 3 (page 56 of the DCP) states that <i>Council will require development that has a frontage to the Sydenham- Botany Goods Railway Line to provide/investigate rail access into the site for transport of goods by rail</i>. The project fronts the rail line and has not investigated access to the goods rail line nor has the development been designed to facilitate access in the future. The design should address surrounding land uses and its site context.</p>			<p>A review meeting between the Orica project team and COBB was held on 25 November 2009 and Council's submission was reviewed in detail. The comments shown below generally represent Minutes taken by Council at that meeting and subsequently reviewed by Orica, and cover the various issues raised by COBB.</p> <p>No rail access has been proposed due to Energy Australia ownership of a strip of land running along the eastern boundary of Southlands, dividing the site from the rail corridor. Furthermore, gas easements located on the Southlands property containing Qenos gas lines similarly limit access to the rail corridor. It is believed the easement is used for gas pipelines. Council records describe the land as being Lot 1 DP542583. Orica believe that it will be very difficult to obtain approval to cross the gas lines and the EA land and at this stage. Therefore Orica has not pursued access to the rail corridor, although Orica would not be opposed to it if it were proposed as an opportunity. As such</p>

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				Orica is unable to modify the development proposal to indicate possible freight rail line access. Council acknowledges the constraints to future rail access.
	<p>ii) <i>Building Heights</i></p> <p>The EA states that the warehouse buildings will generally be 12 metres in height but may extend to 30-40 metres in height depending on the end user. The architectural plans however indicate that the building height for Stages 1 & 2 will be limited to a maximum of 12 metres. The 12-metre height is consistent with existing industrial warehousing in the Banksmeadow precinct.</p> <p>It should be noted that if approval is given for buildings and/or structures exceeding 15.24 metres AILD then the Department is required to refer the project to Air Services Australia for assessment regarding the impacts to the Obstacle Surface Limitation (OLS) for Sydney Kingsford Smith Airport.</p>			The proponent is only seeking approval for building heights as shown on the architectural plans. If end users require additional height in a warehouse unit the modification will be proposed at a later date.
	<p>iii) <i>Architectural Design</i></p> <p>In order to avoid bulky, metal shed warehouse designs 'with extensive blank facades Council prepared built form and character controls within DCP' 33 which has resulted in new styles of warehousing within the Banksmeadow Precinct that result in high quality industrial warehousing.</p> <p>The EA states that the warehouses will be of a high quality design and would incorporate ancillary office components on their primary frontage however; the architectural plans identify colurbond cladding, alucabond cladding (IS the main building materials thereby resulting in large 'tin shed' designs. The Department is requested to ensure that the warehouses are designed and treated in accordance with the built form controls of DCP 33 to ensure high quality industrial warehousing,</p> <p>As stated in its previous submission Council employs the services of its Urban Design Review Panel to review the major commercial, industrial and residential development planned within the City of Botany Bay. This process is of benefit to the residents of the City of Botany Bay LGA, the Council and the proponent to ensures a high level of architectural design of buildings within the LGA.</p> <p>Council suggests that this process be followed in this instance to ensure that buildings are of a high standard of urban design. The Department is advised that</p>			Orica has no objection to Council's Urban Design Review Panel independently reviewing the architectural merits of the application at each stage, prior to the issuance of a Construction Certificate for new staged building works.

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	<p>the Council's DRP have reviewed in recent times two industrial developments in McPherson Street, Banksmeadow, specifically No.15 McPherson Street and No. 10-16 McPherson Street both of which required significant amendments to their building design In order to achieve a high standard of urban design.</p> <p>Council is willing to convene on behalf of the Department its Urban Design Review Panel to independently review the Orica Southlands project. The project review would be undertaken at the proponent's expense. The Department would be welcome to attend the Urban Design Review Panel proceedings to determine the architectural merits of the project and as such Council prevails upon the Department to adopt this design procedure.</p>			
	<p>IV) <i>Graffiti Management</i></p> <p>Graffiti management is an important issue within Botany Bay and Council requests that developments which incorporate extensive blank building facades to either employ CPTED principles in their design and/or incorporate anti-graffiti coatings on building elevations to assist in the removal of graffiti. It is recommended that the Department prepare a condition of consent that requires the proponent to use anti-graffiti coatings on building facades.</p>			<p>Orica raised no objections to a standard condition of consent. Council is to provide the Department of Planning with an anti-graffiti coating condition to be included in any consent granted. The condition would be as follows:</p> <p>(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.</p> <p>(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.</p> <p>(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.</p>
	<p>2. Section 94 Contributions</p> <p>Council requests that the Department levy a Section 94 Contribution in accordance with the Council's Section 94 Contributions Plan 2005-2001. It is also noted that the proponent is willing to enter into a Voluntary Planning Agreement (VPA) as it perceives that there is material public benefit proposed by the Southlands development in respect of wads and drainage, Council has not fully considered Section 94 contributions for this project since the proposed contributions such as upgrades to Springvale Drain and development of the new link road have been compromised by issues of owners consent and project</p>			<p>Orica indicated that a Voluntary Planning Agreement (VPA) would be preferable with Council. Orica indicated that the VPA would be staged to cover the 2 stages of works. Stage 1 would include upgrades to Hills and Exell Street intersections with Botany Road, the provision of a cycle way on Coal Pier Road, and monies toward the upgrade / repair of the road surface of McPherson Street. Stage 2 would then cover construction of the new link road and the stage 2 stormwater works.</p> <p>Council requested that Orica prepare a draft VPA for consideration. Council does not have a standard format VPA that could be used for a development such as Southlands. The DoP subsequently requested that a letter</p>

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	<p>partnerships.</p> <p>Therefore any VPA will need to be negotiated with Council once the proponent has confirmed the contributions proposed.</p>			<p>setting out the terms of the VPA be provided to the DoP. Orica has provided this letter to the DoP and it will be forwarded to Council..</p> <p>Council agrees that any upgrade works to Exell and Hills Street intersections with Botany Road should occur prior to issuing the construction certificate for Stage 1 building works. Council would prefer the new link road to also commence as part of Stage 1. However traffic investigations clearly show that the new link road is not justified on traffic grounds until Stage 2. Furthermore, final commercial arrangements for the purchase of the link road corridor cannot be finalised until a Consent is issued.</p> <p>Orica recommends that a condition of consent be included requiring a VPA to be prepared.</p>
	<p>3. Owners Consent</p> <p>It should be noted that owners consent for the unformed road (Nant Street) has not been provided by Council to date nor has the proponent approached Council for owners consent.</p>			<p>As outlined in the EA discussions have already occurred with Council on this matter and in particular with the Director of Environment & Assets regarding the closure of Nant Street.</p> <p>Council has subsequently advised that they do not wish to close Nant Street.</p> <p>Therefore Nant Street will remain as a public road through the development site, and any works on it or new access onto it or across it will be subject to approval by Botany Bay City Council, as is the case with works or access to any public road.</p> <p>This therefore amends the site which is the subject of the Application to exclude the Nant Street corridor, but has no impact on the development plans for the Southlands site.</p>
	<p>4. Noise</p> <p>As stated in Council's previous submission the following noise criteria has been adopted by the City of Botany Bay Council to address the issue of "noise creep", The Council's noise criteria sets the minimum acoustical requirements that any proposed development or activity with the city must achieve as a minimum to</p>			<p>No objections raised by Orica to the condition being part of any consent issued.</p> <p>Standard Noise Criteria Adopted by Council</p> <p>(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).</p>

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	<p>ensure that a suitable acoustical amenity is provided:</p> <ol style="list-style-type: none"> <i>The operation of all plant and equipment shall not give rise to an equivalent continuous (LAeq) sound pressure level at any point on any residential property greater than 5dB(A) above the existing background LA90 level (in the absence of the noise under consideration).</i> <i>The operation of all plant equipment when assessed on any residential property shall not give rise to a sound pressure level that exceeds LAeq 50dB(A) day time and LAeq 40dB(A) night time.</i> <i>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 LAeq 65dB(A) day time/night time.</i> <p><i>For assessment purposes, the above LAeq 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 necessary.</i></p> <p>Council requests that the above noise criteria be included as a condition of consent if granted.</p>			<p>(b) The operation of all plant equipment when assessed on any residential property shall not give rise to a sound pressure level that exceeds LAeq 50dB(A) day time and LAeq 40dB(A) night time.</p> <p>(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 LAeq 65dB(A) day time/night time. For assessment purposes, the above LAeq 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 necessary.</p>
	<p>5. Traffic Management</p> <p>Council and the local community are concerned that development on the Southlands site will greatly increase the volume of traffic on Botany Road to the south-east of Stephen Road. Anecdotal evidence shows that Botany Road with its current traffic volumes experiences extended periods of traffic queuing between 3pm and 6pm. This appears to be caused by congestion and light phasing at the intersection of Botany Road and Foreshore Drive. In order to accurately determine the impacts to the local road network Council is undertaking a local traffic count study. The study will be completed in November 2009 and results provided to the Department.</p>			<p>Council has undertaken a local traffic count study which was presented to Orica at the meeting. A copy was supplied to Orica. A copy was also forwarded to the RTA. A copy has already been provided to the Department of Planning and the Department's independent traffic engineer.</p> <p>Orica has engaged Traffix to undertake an updated review of all traffic related comments and to address traffic modelling issues. This updated Traffic information is attached at Appendix 2 and addresses the traffic related issues raised by Council and other parties.</p>

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	<p>Council has also identified the following issues that were expressed at the meeting between Council, the Department and the RTA on the 21 September 2009.</p> <p>1. <i>Traffic modeling</i></p> <p>The traffic modeling only addressing traffic impacts until 2016. Due to changes in traffic conditions since the preparation of the traffic study in 2006 it is recommended that the traffic modeling be extended to 2026, thereby accounting for changes in traffic conditions since 2006. The extension of modeling impacts to 2026 will allow the proponent and the Department to ensure that a realistic life span to the local road network will be achieved by the proposed road network upgrades.</p> <p>11, <i>Traffic Study</i></p> <p>The Department should note that the traffic study has not investigated the following matters:</p> <ul style="list-style-type: none"> ○ The study does not address pedestrian traffic needs on site, along Hill and Exell Street upgrades and the new link road; ○ The study does not address alternative modes of transport such as bicycles for staff by providing bicycle lanes along the new link road or bike racks within the site; ○ The study does not discuss how the modifications to the Discovery Cove Estate will result in a loss of on site parking and where Discovery Cove Estate will reallocate this lost parking; ○ The study does not investigate the opportunity to link to the freight rail line for transportation to reduce impacts to the local road network, The design of the warehouses and site infrastructure does not lend itself to possible freight railway line connection in the future. ○ The traffic study does not clearly articulate truck manoeuvring paths to show that the design of the warehouses and truck parking bays can allow for semi-trailer manoeuvring whilst not impeding the general traffic flow on-site and along the link road. ○ The traffic study also does not appear to address how semi-trailers will interact with other traffic manoeuvring within the site and traffic entering and exiting the Discovery Cove Estate . 			

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	<p>iii. <i>Proposed Link Road</i></p> <p>The traffic impact assessment by 'TRAFFIX' evaluates four road access options. Council raises the following comments:</p> <ul style="list-style-type: none"> ○ <i>Option 1</i> -- a new access road connecting the existing roundabout access to Discovery Cove at Botany Road to McPherson Street. This access at Botany Road is within 165.00m (app) of the intersection with Foreshore Drive. It is not a preferable location as there is problem of sight lines and extensive queuing at peak times. Moreover the additional eastbound traffic will cause excessive congestion problems at the Botany Road/Foreshore Drive intersection. <p><i>Council response:</i> This proposed access road would pass through Discovery Cove Estate. This proposal would need approval from Discovery Cove Estate and acquisition of land from them.</p> <ul style="list-style-type: none"> ○ <i>Option 2</i> - a new public road that connects the site with Botany Road using existing left-in/left-out Discovery Cove Estate access via a substantially improved signal-controlled intersection. The distance of existing Discovery Cove Estate access from the Botany Road/Foreshore Drive intersection is 140.00m. The proposed signal should be synchronized with the existing Botany Road/Foreshore Drive intersection to avoid extensive queuing. <p><i>Council response:</i> The modeling shown by 'TRAFFIX' in their report indicates that Option 2 is a more viable and preferable option.</p> <p>Council notes that the new public road proposed would pass through Discovery Cove Estate. It would require approval from the owners of Discovery Cove Estate (i.e. Goodmans) and No.15 McPherson Street. The new link road would require land acquisition before considering Option 2 as a viable option.</p> <p>The Department should ensure that the required owners consent has been granted and be satisfied that procedures have been adopted to ensure that the land proposed for the new link road can be acquired and developed prior to granting approval to this option.</p> <ul style="list-style-type: none"> ○ <i>Option 3</i> - the proposed new road access on the east-west alignment of McPherson Street to pass over the railway line, crossing to intersect directly 			<p>Owners Consent to the lodgement for the Application has been obtained and is attached to the EA.</p>

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	<p>east with Beauchamp Road.</p> <p><i>Council response:</i> The City of Botany Bay Council believe this option should be explored further in so far as it provides direct vehicular access cast over the railway line connecting both sides of McPherson Street.</p> <ul style="list-style-type: none"> ○ <i>Option 4</i> - the traffic movements showing in the proposed concept plans in both Hill Street and Exell Street intersections with Botany Road are satisfactory. But it will need acquisition of additional land in the intersection of Hill Street. In this option traffic will be diverted to both west and east direction from Exell Street and the additional eastbound traffic will results unsatisfactory performance at Botany Road/Foreshore Drive intersection. (The predicted Level of Services at the intersection of Botany Road/Foreshore Drive is unsatisfactory on the basis of traffic figure in 2016.) <p><i>Council response:</i> As stated previously a traffic study is currently being undertaken by Council with results expected to be available in early November 2009. The study is in the vicinity of this industrial precinct at four selected locations in McPherson Street, Hill Street, Exell Street and Port Feeder Road and will be utilised for further assessment of the current traffic conditions and provide additional comments on the proposed options and likely impacts on the local road network.</p>			
	<p>iv. <i>Designated Truck Routes</i></p> <p>The Department should note that Council imposes the following condition on all industrial developments within the Banksmeadow Industrial precinct to manage truck movements. The following condition should be included in the consent, if granted.</p> <p><i>The Truck movements shall be restricted:</i></p> <ul style="list-style-type: none"> (i) <i>Inward movements: Foreshore, Exell Street, Botany Road and McPherson</i> (ii) <i>Outward movements: McPherson Street, Exell Street, Botany Road, Foreshore Drive</i> 			<p>No issues were raised regarding the condition being imposed on any consent granted. Council indicated that this was a standard condition of consent imposed on industrial developments within the Banksmeadow Industrial Precinct. Obviously in Stage 2 there will be alternate traffic options.</p> <p><i>The Truck movements shall be restricted:</i></p> <ul style="list-style-type: none"> (i) <i>Inward movements: Foreshore, Exell Street, Botany Road and McPherson</i> (ii) <i>Outward movements: McPherson Street, Exell Street, Botany Road, Foreshore Drive</i>

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	<p>6. Car Parking</p> <p>The car parking rules shown by 'TRAFFIX' in their report for Stage 1 & 2 are incorrect when referring to parking requirements within Council's Car Parking DCP. Clause 3.3 from Council's Car Parking DCP and Table 1 below outline Council's parking requirements for industrial developments.</p> <p>3.3 (2) <i>Performance Criteria -Factories/Warehouses</i></p> <ul style="list-style-type: none"> o <i>Office Component -One (1) space per 40 sq.m. gross floor area.</i> o <i>Factory Component One (1) space per 80 sq.m of manufacturing or storage space, whether or not included in a building.</i> o <i>Multi-Unit Development – In addition to the above requirements, multi-unit factory complexes require:</i> <ul style="list-style-type: none"> o <i>One (1) visitor's parking space for each unit;</i> o <i>plus one (1) truck parking bay/or every six (6) units.</i> <p>Table One - Council's Parking Rates Applied (reproduced in Appendix 4)</p> <p>Table 1 identifies a deficiency of 202 parking spaces for Stage 1 and an additional 32 parking spaces provided within Stage 2. Regardless of the additional parking spaces provided within Stage 2 the overall project (i.e, stage 1 & 2 combined) presents a deficiency in on site parking of 170 spaces.</p> <p>Council requests that the Department impose a condition of consent, if granted, requiring the multi-level parking adjoining Port Feeder Road providing an addition 300 spaces be developed during Stage 1 to address the deficiency.</p> <p>Council provides. the following justification for adopting the Car Parking. DCP</p>			<p>The Traffix advice at Appendix 2 provides additional justification for the proposed car parking numbers. Appendix 4 also outlines the proposed parking for the Project, comparing it to Council car parking rates.</p> <p>Council is concerned that any strata subdivision of the warehouse units may result in additional impacts on car parking which is already limited in the Banksmeadow Precinct. Orica would consider a condition of consent that requiring additional car parking if strata titling is proposed. Council would prefer to be the consent authority for any subsequent strata subdivision or occupation of the warehouse units to ensure that car parking on site is adequately addressed.</p>

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	<p>requirements with respect to this development proposal:</p> <ul style="list-style-type: none"> r. The Car Parking DCP has been applied to other industrial developments within the Banksmeadow Precinct and the Department should apply a consistent standard to car parking for this project in order to be consistent with surrounding development approvals, ii. The warehouse buildings have the potential to be strata subdivided in the future creating greater levels of tenancy than shown in the current project and a greater tenancy rate than what is currently anticipated by the RTA guidelines. iii. Strata subdivision could lead to applications for additional tenancies and associated office space thereby increasing the on -site car parking needs. Once the development is completed it would be impossible for Council to require future tenants to provide additional on-site parking to address this increasing need. IV. The RTA has raised serious concerns about traffic impacts generated by this development and associated impacts on the local road network. v. The proposed 24 hour operations means that even with staggered staff shifts the development could have a sustained impact on the local road network beyond the traditional peak periods. Particularly if 24 hour operations becomes the standard hours of operation for other developments in the area thereby placing greater pressure on the availability of on-site parking to service truck movements and staff and visitor parking needs. 			
	<p>7. Flooding</p> <p>Council offers the following comments:</p> <ul style="list-style-type: none"> i. It is noted that Stage 3 of the proposed development does not form a large part of the current development proposal however Stage 3 is proposed as a regarding basin to 'temporarily' manage the entire southlands stormwater issues. Given the significance of its use in the current development and the impacts this usage will have on the projects viability. Council requested that the Department include the use of Stage 			<p>Orica confirms that Stage 3 will not form part of the current development proposal. Council accepts that Stage 3 will not form part of this project.</p> <p>Council has raised concerns that Stage 3 will not be managed appropriately thereby resulting in Stage 3 remaining isolated, highly contaminated and un-</p>

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	<p>3 lands within the development proposal.</p> <p>11. In addition to any drainage works proposed in the developable site area Council wishes to see the proponent complete additional improvement works within the Springvale Drain (i.e. vapour treatment and expansion of Springvale Drain to manage additional flooding volumes).</p> <p>iii. Environmental considerations such as WSUD must be incorporated into the construction of any flood mitigation / storm water controls. This should include the works within the Springvale Drain.</p> <p>iv. Use of Stage 3 as a defacto flood mitigation pond is inappropriate unless the area is properly capped, vegetated and managed. If used for flood mitigation purposes appropriate management considerations must be conditioned as part of the consent (i.e. vegetation management, access, OH&S etc). A Site Audit Statement must be prepared to show Stage 3 can be appropriately developed as a flood mitigation basin. It is also recommended that Stage 3 remain as a flood mitigation pond to appropriately address the flood detention requirements of the entire Southlands site.</p>			<p>developable. Orica has agreed to prepare a landscape management plan for this area.</p> <p>This already forms part of our proposal.</p> <p>DoP has engaged an independent stormwater engineer who has requested additional modelling of flooding impacts from Springvale Drain. Orica is preparing the information and will submit it to the Department's consultant. Council will await the additional information from DoP and provide comments.</p> <p>WSUD measures have been dealt with in the updated Aurecon Report attached at Appendix 3.</p> <p>Orica will meet the requirements of the Site Auditor.</p>
	<p>8. Stormwater Management</p> <p>The proposed stormwater management, runoff, drainage and the creation of man-made ponds and basins has not incorporated the principles of Water Sensitive Urban Design. It is recommended that Springvale Drain, the frog ponds and various detention basins should be designed with consideration of WSUD principles. This would provide a holistic approach to hydrological design over the entire site with regard for wildlife habitat, environmental sustainability, biodiversity, water recycling and treatment of nutrients and contaminants.</p> <p>Council acknowledges that the Department as part of its determination has engaged an engineering consultant with a knowledge of WSUD principles. It would be beneficial to the project if the Department reserved its determination until the consultant has reviewed the project and any recommendations have</p>			<p>WSUD measures have been dealt with in the updated Aurecon Report attached at Appendix 3.</p>

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	been incorporated into the overall project design.			
	<p>9. Contamination</p> <p>Council strongly supports any remediation and environmental works that improve the environmental value and usability of degraded and contaminated lands within the LGA. Council offers the following general comment to address matters of on site contamination and remediation:</p> <p>i. Council is of the opinion that Stage 3 earthworks and landscaping requirements <u>must</u> be included in the current application to ensure a consistent approach is applied across the Southlands site. Council is concerned that failure to condition general landscaping and site management requirements in the current consent will lead to the establishment of derelict portions of the site (i.e. Stage 3) that are not in keeping with the improvements Council has recently sort to the Banksmeadow Industrial precinct.</p> <p>ii. Significant demonstration of all remedial technologies must be demonstrated prior to issue of a construction certificate. Demonstration of remedial technologies must also include, and be based upon, reliable temporal data. These requirements must form a condition of consent, which addresses site suitability, and the long-term management of on-site contamination issues.</p> <p>iii. The Department should note that Council does not wish to remain the owner of the proposed Nant Street extension. Ownership of the road must be transferred to the organisation responsible for managing the contamination within the area (i.e. Orica or a future site owner). This requirement should be stipulated as a condition of consent, if granted.</p> <p>iv. Council does not wish to see piecemeal development of the Southlands site. Council is concerned that the development of Stages 1 and 2 will produce more complicated contamination issues within Stage 3 remaining unresolved. The use of Stage 3 as a de facto flood storage basin will also lead to the development of Stage 3 becoming financially unviable.</p>			<p>i. Earthworks across Stage 2 will occur as part of the Stage 1 development. These will be performed in order to create sufficient flood retention. Following earthworks, the site will be hydro-seeded and maintained by Orica.</p> <p>ii. An occupation certificate for the new buildings cannot be issued until a site audit statement is obtained from the independent contaminated site auditor. This will not be issued until the auditor is satisfied that all remedial measures are effective and reliable.</p> <p>iii. Council have recently advised Orica that they wish to retain ownership of Nant Street.</p> <p>iv. The site cannot be developed as a whole for a number of reasons. A portion must be left vacant to allow for flood compensation. This is a common practice. Secondly, Stage 3 cannot be developed until such time that the investigations and possible remediation of the source areas has been completed. At some point, Orica may use this land, however it will remain largely vacant.</p> <p>v. See comments above.</p> <p>vi. The Stage 3 area is not part of this Application and remains vacant at this stage and subject to any remediation opportunities.</p> <p>vii. The Stage 3 is not to be used as the flood</p>

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	<p>v. Council is opposed to the division of the Southlands site if the highly contaminated and difficult to manage areas of the site are not included in the Stage 1 development and associated remedial works. At a minimum Council wishes to see the Site Audit Statement prepared for the entire site to avoid 'difficult to manage' areas remaining vacant and being divided into difficult or isolated sites.</p> <p>vi. Once the Stage 3 is used as a defacto flood basin it will become increasingly difficult to remediate the site and complete any invasive remediation works without costly (and possibly unviable) flood mitigation works to the Springvale Drain and surrounds.</p> <p>vii. Although the area incorporating Stage 3 is not to be developed within this proposal conditions must imposed to ensure the area is appropriately managed (i.e, vegetation, weeds, flooding etc).</p> <p>viii. If Stage 3 is to be used as a flood detention basin it must be given more consideration in the current development as it will require long-term management and forms a critical part of the current development.</p> <p>ix. Climate change has not been considered in the EA. A recent report prepared by the Sydney Coastal Council Group in partnership with the CSIRO identified that the greater Botany / Banksmeadow region was located in a region or high vulnerability when considering the impacts of climate change on urban flooding and coastal impacts (such as sea level rise).</p>			<p>compensation area. After Stage 1 , the Stage 2 and 3 areas will be landscaped and subject to a management plan until Stage 2 is undertaken. Stage 3 is not currently part of the redevelopment proposal.</p>
	<p><i>Compensation under the Contaminated Lands Management Act</i></p> <p>Given the significant impact of the groundwater contamination plume to both residents and Council assets compensation to the community and/or Council should be investigated, particularly due to recent amendments to the CLM Act.</p> <p>Council believes that the proponent should look at continuing to fund local</p>			<p>Orica has provided funding for rainwater tanks in the Groundwater extraction Exclusion zone over several years such that by the end of the term of the offer, applications</p>

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	<p>resident rainwater tanks (and other such initiatives) and provide compensation to Council for the following costs incurred by the groundwater contamination plume:</p> <ul style="list-style-type: none"> I. Compensation for the loss of groundwater for irrigation of local sporting fields; II. Loss of groundwater reuse at Botany Golf Course; III. Compensation for the costs Council incurred in sourcing alternative water supplies, and IV. Compensation for the cost of developing infrastructure (i.e, pipelines, pumping stations) to access alternative water supplies. <p>Given the difficulty in developing Stage 3 it is Council's opinion that the proponent should offer the land as compensation in the form of a permanently designated flood detention basin over the entire Stage 3 equating to 38,430m². The basin could then be design for use as a compensatory wetland habitat incorporating WSUD principles.</p> <p>Council believes that significant contribution is required for this development to go ahead. This contribution must not only include Section 94 contributions but a greater contribution for the issues the site represents both environmentally and socially within the region. The local residents on a whole would like to see appropriate compensation paid to the community and Council for the long history of contamination and its ssociated issues.</p>			<p>had virtually ceased. To date some 1,000 tanks have been provided at a cost of \$2,431,239.</p> <p>The DECCW and predecessor Departments have imposed restrictions on groundwater extraction in the Botany area extending vastly beyond the scope of the contaminated groundwater plume emanating from the Orica site. Council's claims appear to extend way beyond the area of Orica's responsibility.</p>
	<p><i>Groundwater Treatment Plants & Site Remediation</i></p> <p>Historically the DEC/ EPA (now DECCW) regulations for the site related to the containment of the contamination. It is widely acknowledged that current remedial techniques will need to operate for the life of the development. Given this, Council is concerned as to the potential viability of new and developing remedial processes to be adopted given that large portions of the site are to be developed for hard stand warehousing thereby significantly reducing direct access to the areas of contamination. Given these issues Council offers the</p>			<p>No-one can predict the land requirements of remedial technologies that have not been developed yet. However, given that most contaminated sites are on occupied land, it can be assumed that future remedial technologies will be developed with these restrictions in mind.</p> <p>Regardless, the proposed array of easements will allow for significant flexibility in application of any number of passive or active remedial measures.</p>

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	<p>following recommendations:</p> <ul style="list-style-type: none"> i. The Department to consider future accessibility to the contaminated groundwater within the development site. Council proposes that easements stipulated in the current EA be increased in size and cover portions of the warehouse buildings so that if access is required to the groundwater there will be sufficient opportunity for access throughout the site. iii. Council further proposes that more flexible site operations and structural development be investigated to allow for unimpeded future access to the contaminated groundwater and subsoils within the Southlands site. iv. Significant consideration should be given to the building design to allow for access to the subsoils and groundwater within large open floor sections of the warehouses. Some form of easement or access rights must be established within all areas of the site prior to approval. v. Given the current length of time for remediation the long term viability and success of any vapour barriers must be incorporated as part of any consent. vi. A fail-safe procedure must be established to insure that the occupational exposure risks associated with the Springvale Drain (and onsite groundwater) are appropriately managed for the life of the development. This should include consideration of: <ul style="list-style-type: none"> o contaminated groundwater ingress into the drain (as was historically the case); o the overall groundwater levels within the site; and o the contamination levels within the groundwater and drain (and 			<p>One must also remember that Southlands is not an isolated contaminated site, but part of a much larger contamination issue. Effective future remediation of the site (with yet to be developed technologies) would not occur in isolation on Southlands, but need to be part of a much wider remedial approach.</p> <p>See above</p> <p>Again, Southlands is only a proportion of the greater Orica groundwater contamination issues. Like most contaminated sites, the majority of Orica's contamination is located under developed land.</p> <p>The subsoils will not require remediation, as described in the Remediation Action Plan, and the groundwater is subject to remedial measures already (a very large pump and treat system that will operate indefinitely).</p> <p>Agreed</p> <p>Agreed</p>

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	<p>its long term variability).</p> <p>vii. A contingency plan must be in place to manage any issues associated with long- term temporal changes to the groundwater level and the impacts this may have on vapour risks (groundwater levels may alter over time due to climate change impacts and potential critical failure of the Groundwater Treatment Plant (GTP) which currently does not have a contingency plan for the continued treatment of the groundwater contamination plume).</p> <p>viii. Given that future on-site developments and contamination concentrations cannot be accounted for at this stage it is Council's opinion that all potentially developable areas within the site should be fitted with vapour barriers / extraction management systems.</p> <p>ix. Given the GTP has a 30 yr life span adequate conditions must be in place to ensure the appropriate long-term management of the contamination within the development area occurs for the life of the proposed development.</p> <p>x. Although Stage 3 is to be developed at a later stage the capping and containment works should be completed during the greater onsite bulk earthworks proposed in Stage 1.</p> <p>xi. The buffer zone along the Springvale Drain (to alleviate and manage vapour issues) should be developed as a riparian zone with restricted access. This area should also incorporate greater regional habitat opportunities.</p> <p>XII. During development works there must be no net loss in groundwater monitoring wells. Council is of the opinion that additional wells should be included to allow for long term detailed temporal mapping of contamination levels within the development site. This detailed monitoring is essential to monitor the risks associated with future site</p>			<p>Medium and long terms risks presented by the development will be the subject of consideration by the auditor</p> <p>Vapour issues will be addresses as part of ther remediation works. They will be reviewed by the indepednant auditor.</p> <p>The GTP will operate well beyond 30 years.and the area will be subject to regulation for many decades to come.</p> <p>Stage 3 will not be accessible to the public, and hence will not require capping works.</p> <p>The first 10 metres either side of the drain will remain as a riparian zone, however the remeainder of any buffer may be hardstand</p> <p>The number of groundwater wells that remain following development will be determined by the requirement to manage containment and chemical distriction over time. A plan will be developed for review by the auctor prior to works commencing.</p>

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	occupation.			
	<p>10. Flora and Fauna.</p> <p><i>Proposed Green & Golden Bell Frog Habitat</i></p> <p>The EA includes two 7~part tests conducted under Part 5A of the EP&A Act for native water birds and the Green & Golden Bell Frog. The tests conclude that:</p> <ul style="list-style-type: none"> • The proposal is unlikely to have a significant impact on bird foraging activities, even though the development will remove potential foraging habitat; • Existing habitat is isolated, surrounded by industry and disturbed and degraded; • Habitat to be removed is represented elsewhere locally at a higher grade; • Removal of habitat will not impact on the long term survival of these birds; and • Provision of 2 frog breeding ponds will negate potential impact to the GAGBF breeding habitat and are consistent with the Recovery Plan (DEC 2005) for this species. <p>Two man-made frog ponds are proposed to the east of the northernmost building in Stage 1. The location and design of the ponds raises the following questions:</p> <ul style="list-style-type: none"> • the suitability of the location; • pond design; 			<p>Additional Green and Golden Bell Frog surveys have been undertaken for the site and a report summarising that additional survey work by Biosphere Environmental Consultants (Bioshpere) is attached at Appendix 5. Biosphere also respond to issues raised in submissions to the EA in respect of Green and Golden Bell Frogs.</p>

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	<ul style="list-style-type: none"> landscape treatment; the impacts of noise and vibration from the adjoining warehouses on enabling a suitable habitat for frogs; the proximity and compatibility of the habitat with surrounding landscape types; interrelationships with Springvale Drain; water volume (whether permanent or ephemeral) and how this will be achieved; the potential for the ponds to be contaminated from Springvale Drain; and the likelihood for the ponds to be inhabited by exotic species eg. <i>Gainbusia</i>. <p>The last 2 points have the potential to impact on the ability of frogs to breed and survive in this location. None of these factors have been adequately considered within the EA. The location of the ponds appear to be random in a residual parcel of land with a less than optimal location, habitat and useability for frogs.</p> <p>It is recommended Biosphere Consultants be engaged to review the proposed location and design of the ponds and its surrounds to determine the suitability of the ponds to attract and provide habitat for frogs. Chapter 14 of the EA recommends that further frog surveys will need to be conducted, This should be undertaken at a suitable time of year and day and to enable modification/relocation of proposed frog habitat if required. It is recommended that further frog studies be undertaken prior to the determination of this application should the studies recommend an alternative location for the frog ponds may result in amendments to the overall design.</p>			

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	<p><i>Native water bird foraging habitat</i></p> <p>The site was identified as having medium to high foraging potential for 1 migratory wader and 6 threatened native water birds, however no offset has been provided within the development proposal to cater for this potential habitat.</p> <p>The proposed frog ponds would provide little foraging habitat opportunity for birds if it were to be primarily developed as a breeding habitat for frogs. However, there is ample space within the site to provide replacement habitat suitable for bird foraging by creating additional permanent water bodies and suitable vegetation communities and vegetation types. The development proposal and FA has not investigated or developed these issues further.</p> <p>It is also noted that the season and weather conditions surrounding the avian survey was not suitable for sighting these bird species and so the presence of these birds cannot be discounted.</p> <p>The project is also not consistent with the DECC's Priorities Action Statement for threatened species to protect wetlands, ponds and marshy areas from clearing, to protect foraging areas from disturbance and to protect and maintain potential habitat. The consultant suggests otherwise in the 7-part lest however the DECC's Priorities Action Statement has not been fully considered and as a result the proposal fails to adequately offset the potential of the site as foraging habitat for water birds.</p> <p>It is recommended that the Department require a revised avian survey to be undertaken at an appropriate time of year (i.e, a seasonal survey with favourable weather conditions) to adequately determine the potential impact of this project on native water bird habitats.</p>			<p>The following advice has been obtained from URS in response to this matter:</p> <p>Whilst the flora and fauna assessment highlights that the site may provide some potential foraging habitat for these avian species, the 'seven part test of significance' for water birds clearly states that this habitat is not optimal foraging habitat for any of the species. It also clearly states that these species 'will occupy optimum foraging habitats when available' and that optimum habitat is available in the close surrounds including; Sir Joesph' Banks Park, the Lachan Swamp and Penrhyn Estuary (URS 2007). All available foraging habitats on site are described as being in low or poor condition given the limited size, lack of connectivity and contamination.</p> <p>In summary the conclusions of this assessment state that there is unlikely to be a significant impact on the water birds. Given that no significant impacts to local population of the species are expected, the poor quality of the habitat and the simple fact that the clean up and removal of contaminants from the site would prevent contaminants from entering the food chain, no offset package is required.</p> <p>The wetlands on site are not considered or listed as notable, important or 'Ramsar' sites under the Threatened Species Conservation Act 1995 or the Environmental Protection and Biodiversity Conservation Act 2002.</p> <p>The consultant agrees that the project is not consistent with the aforementioned priority actions for threatened species (Appendix A of the Flora and Fauna Assessment Report). However, given that the wetlands and potential foraging habitat on site have been planted and the high levels of contamination, the site has little conservation significance and limited ecological value. The project is unlikely to impact any KTP's, therefore these priority actions should not apply to any vegetation or habitat on site.</p> <p>Whilst it is recognised within the flora and fauna assessment that surveys for birds were not conducted under optimal conditions given the season and weather. A habitat assessment for threatened species and migratory species has been undertaken in accordance with state threatened species guidelines. If potential habitat for any of</p>

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				the species was determined during the assessment, then the presence of the species is assumed regardless of sightings.
	<p><i>Reptile habitat</i></p> <p>A number of native reptiles were sited during the field surveys, all of which will be displaced by the proposal. No assessment has been provided about where the reptiles will be displaced to and how the reptiles will be able to move off site when the existing habitat is redeveloped.</p> <p>This specific impact requires greater consideration to adequately address the impact of the project on reptile populations and how displacement can be managed (wildlife corridors, trapping and relocation etc) if it is determined to be the only viable option.</p>			<p>The following advice has been obtained from URS in response to this matter:</p> <p>No threatened reptiles were identified during URS (2004, 2007) surveys or by White (2007). No potential habitat for threatened reptile species was identified on site either (Table 2 of Flora and Fauna Assessment Report). Therefore no further assessment was undertaken.</p> <p>Relocation plans and fauna rescue options are not required for non-threatened species known or expected to occur on site, and where they are required they are rarely successful.</p>
	<p>11. Landscaping</p> <p>i. The landscape design includes extensive landscaping around the peripheries of the development and some landscaping throughout the site. 20-25% of the site is landscaped, which exceeds Council's DCP requirements but would nevertheless be expected on a site of this size. However it is considered that internal landscaping could be expanded and enhanced, particularly with respect to catering for high quality bird and frog habitats, as discussed above.</p> <p>ii. The site is to be filled/capped. However there is insufficient information with regard to the establishment of the landscaping with respect to fill heights. It is unclear whether all of the landscaping is to be established over the finished cap level or whether some (contamination permitting) will be at natural ground. If landscaping is over the capped level how will it be treated (i.e. retaining walls, mounding etc). Some information is shown for the McPherson Street setback but not for the entire site. Furthermore, how do the artificial frog ponds and various ephemeral water storage basins function in relation to site filling.</p> <p>iii. There is also insufficient tree planting throughout some of the car park</p>			<p>The site will generally be filled to required bulk earthworks levels to suit flood levels and the remediation strategy. Generally this means that a minimum of 1 metre of fill will be brought onto the site. Boundaries and edges of the site will be treated with retaining walls and batters as shown on the earthworks and landscape drawings contained within the Application. Landscaping details have therefore been provided for all new works across the site in accordance with this filling regime.</p> <p>Landscaping details are provided for the McPherson Street frontage and for the rest of the site showing landscape treatments for all new buildings etc.</p> <p>Landscaping in car park areas can be increased to 1 tree per 5 car spaces.</p> <p>Orica agrees that a cyclepath extension could be provided along the western edge of the site as an extension of any existing path along Coal Pier Road. This could then be linked into the site to suit the new buildings.</p> <p>Orica notes, however, that Council is interested in additional planting in some locations and would accept a standard condition of consent allowing Council to review the final</p>

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	<p>areas. Council's DCP requirement is 1 tree/5 car spaces.</p> <p>IV. The Landscape Masterplan indicates some walkways however there does not appear to be any provision for a cycleway through the site to enable workers to travel to their workplace by bike.</p> <p>v. The extension of the link road through the Discovery Cove site has resulted in a reduction in landscaping on the Discovery Cove site and an increase in impervious areas. Similar principles of 20% landscaping on the Discovery Cove site should also be ensured.</p> <p>vi. The EIS states that plant species of local provenance are to be used and that the landscape plans have "adhered" to this approach. Council is concerned about the proposed use of <i>Acacia paraniattensis</i>, <i>Bursari</i> and <i>Clerodendron</i> as suitable species. Further information should be sought from NPWS with regard to the proposed species to be planted on this site. Deciduous trees are considered inappropriate where habitat and "natural" values are to be enhanced.</p>			<p>landscape plan prior to the issuance of a Construction Certificate for any new buildings.</p> <p>The final landscape plan for the Building Construction Certificate will address:</p> <ul style="list-style-type: none"> landscaping within the car parking areas, tree species selection, particularly avoiding deciduous tree varieties and the location and treatment of connections to Councils existing cycle way network which currently adjoins the site.
	<p>12. Heritage</p> <p>As stated in Council's previous submission the Department of Planning Heritage Branch provided written advice in December 2007 that Botany Bay LGA has been identified as a priority to receive funding for the preparation of an Aboriginal Heritage Study.</p> <p>The Study is currently being undertaken as a requirement of the preparation of the new Comprehensive Local Environmental Plan for the LGA. The study commenced in February 2009 and is still ongoing. Council requests that it be notified in the event that an Aboriginal object/relic is uncovered. Council also requests that it be notified of any non-Aboriginal objects/relics that are uncovered.</p>			<p>Noted. Development of a CEMP that includes a requirement to notify CoBB and DECCW of any uncovered relics was included in the Statement of Commitments in the EA.</p>
	<p>13. Future Uses</p> <p>Council believes that it should be the determining authority for any use</p>			<p>Orica accepts a standard condition of consent that Council will be the consent authority for any future use applications. Council would consider the following draft condition to be appropriate:</p>

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	<p>applications. This is to ensure that the cumulative impact of traffic and risk can be assessed particularly if strata subdivision of the warehouse units is proposed in the future. As stated previously car parking and manoeuvring could become an issue following strata subdivision and the increase in on-site traffic.</p> <p>Furthermore with the introduction of the 3 Ports Amendment to SEPP -Major Development 2005 Council will need to ensure that future business premises are port related.</p>			<p><i>A separate Development Application is to be submitted to the City of Botany Bay for the future use of each individual industrial unit, where that use involves a variation to the proposed warehousing and related office activity proposed in the Project Application.. For future noise generating industries, an acoustic report may be required with any future Development Application. A separate Development Application shall also be submitted for the internal fit out and modification of each unit if proposed as part of any future use.</i></p>
19. NSW Office of Water dated 4/11/09	<p>Groundwater</p> <p>The Major Project Application is recognised by the NSW Office of Water as representing a Master Plan for the development of the Southlands property. As the project has the potential to impact on the contaminated groundwater beneath the site, together with regulated actions to clean up the contamination, specific conditions are required to manage the proposed Master Plan activities and possible future individual development applications.</p> <p>In this regard, any works proposed under the Master Plan and future individual development applications are required to:</p> <ul style="list-style-type: none"> • Not impede, hinder or otherwise adversely affect the Orica Botany Groundwater Clean Up Project as provided for by the Joint Determining Authorities Report (1) and regulated under the Notice of Clean Up Action (2) (together with any subsequent amendments). • Not extract groundwater under any circumstances except as provided for under the Remediation Action Plan. • Not prevent ready access to any monitoring or groundwater extraction installation for the purposes of water quality sampling, inspection, audit, rehabilitation or maintenance. <p>Recommended conditions of approval are provided for the control of</p>			<p>The Project does not impact upon the determination of Orica's BGC Project or the NCUA in any way.</p> <p>No groundwater is proposed to be extracted as part of the Southlands Remediation and Development Project.</p> <p>Easements have been proposed to allow the ongoing operation of the groundwater cleanup and appropriate access for future groundwater remediation activities.</p>

Response No.	Issue Raised	Subject Area	Project Stage (where relevant)	Response or Reference to the Section in this Report
	<p>groundwater-related impacts within the proposed scope of works. In facilitating the operation of these conditions, the applicant may wish to consult with the NSW Office of Water throughout the remediation and development process.</p> <p>(1). Department of Environment and Conservation (NSW), Department of Infrastructure, Planning and Natural Resources (NSW), NSW Maritime, Sydney Water Corporation and Sydney Ports Corporation 2005. Botany Groundwater Cleanup Project Joint Determining Authority Report Under Section 112 of the <i>Environmental Planning and Assessment Act</i> 1979. Report reference DEC 2005/13, dated February 2005</p> <p>(2). Notice of Clean Up Action No. 1030236, issued by the NSW Environmental Protection Authority under Section 91 of the <i>Protection of the Environment Operations Act</i> 1997 to Orica Australia Pty Ltd, dated 26 September 2003</p>			
	<p>Recommended Conditions of Approval</p> <p>Groundwater</p> <p>1. Future individual development applications shall not be approved where the building or warehousing design includes habitable or trafficable enclosed areas that extend beneath the marker layer as described in the Remediation Action Plan and require temporary or prolonged extraction of groundwater to enable construction or to maintain a safe operating environment, respectively.</p>			<p>Agreed. However we note that the EMP will allow a managed penetration of the marker layer. The EMP will be reviewed and approved by the Auditor.</p>
	<p>2. Subject to appropriate Occupational Health and Safety provisions the applicant shall make provision for access by the NSW Office of Water, or any person authorised by it, to any licensed works, either during or after construction, for the purpose of undertaking inspection or auditing of compliance with</p>			<p>Noted and acceptable.</p>

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	approval or licence conditions.			
	3. The applicant shall carry out any work or alterations deemed necessary by the NSW Office of Water to ensure the protection and maintenance of the works, or the control of the water extracted and for the protection of the quality and the prevention from pollution or contamination of surface and subsurface water.			Noted but we do not see this as being needed given Orica's current obligations under the Clean Up Notice.
	4. The applicant shall apply for and obtain an authorisation for the installation, operation and maintenance of the proposed 'Springvale Drain Shallow Groundwater Extraction System' and comply with any conditions attached thereon.			Noted.
	5. The proposed 'Groundwater Well Replacement Program', as it applies to both groundwater monitoring installations and groundwater extraction installations, shall be designed and implemented to the satisfaction of the NSW Department of Environment, Climate Change and Water.			Noted and acceptable.
	6. The decommissioning of any licensed work is to be completed in compliance with the relevant condition attached to the authorisation.			Noted and acceptable
	<p>Waterway and Riparian Land</p> <p>7. A riparian zone consisting of local native plant species shall be established and maintained in and adjacent to the waterway on the site, for its entirety within the site.</p> <p><u>Protection of the waterways and riparian land</u></p> <p>The EA makes reference to two waterways, Floodvale Drain and Springvale Drain. The NOW notes that Floodvale Drain is located beyond the western boundary of the site and is adjacent to the Port</p>			<p>The 10metre riparian setback is agreed. The 20metre setback is not prospected as a riparian setback and relates to risk issues. Therefore the 10metre riparian setback will be provided as required by NOW.</p>

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	<p>Feeder Road (Section 2.1.2, EA Vol 1, page 2-2).</p> <p>Table 7-1 of the EA (volume 1, page 7-4) states that the former DWE indicated a minimum 10 m wide riparian zone be established along both sides of Springvale Drain. It is noted that Section 11.5 of the EA (Volume 1, page 11-5) indicates the proposal is to provide a setback distance width of 20 m either side from Springvale Drain. As a minimum, the NOW recommends that a 10m wide riparian zone be established either side of Springvale Drain, however the NOW would support a wider 20 m setback width either side of the waterway if this is required as part of the development.</p> <p>The riparian zone should consist of fully structured local native vegetation (trees, shrubs and groundcover species).</p> <p>Any Asset Protection-Zone (APZ) requirement, or any part of the APZ, must not be located within the riparian zone.</p> <p>All above ground uses associated with the proposal with the exception of environmental protection works and crossings (e.g. roads, service utilities etc) should be located outside riparian zone, as the riparian zone should be for the protection and rehabilitation of riparian vegetation.</p> <p>Section 4.5 of the EA (Volume 2 Appendix G, page 14) indicates that the proposed improvements to hydraulic capacity of Springvale Drain would increase the peak flow rate passing to Botany Bay which has the potential to affect the outlet to Botany Bay and the surrounding Penrhyn wetlands. Appropriate mitigating measures need to be provided to ensure that degradation to the wetlands is mitigated. Detention basins should be located outside the channel and the riparian zone.</p>			<p>Agreed</p> <p>No APZ is required.</p> <p>Agreed</p> <p>Agreed</p>
	8. The width of the riparian zone is to be a minimum of 10 metres on both sides of the waterway. The extent of the riparian zones			Agreed

Response No.	Issue Raised	Subject Area	Project Stage (where relevant)	Response or Reference to the Section in this Report
	is to be measured horizontally landward from the top of the bank of the waterway.			
	9. A VMP for site rehabilitation is to be prepared that demonstrates protection of any remnant local native riparian vegetation at the site and the restoration of any riparian zones to a state that is reasonable representative of the natural ecotone of the protected waters system, to achieve sound naturalised watercourse and long term riparian area stabilisation and management by the enhancement/emulation of the native vegetation communities of the subject area.			Agreed
	10. Seed and propagule sources are to be from local botanical provenance (regarded as from as close as possible and from the same general habitat (same soil type, distance from watercourse, exposure etc)			Agreed
	11. The riparian zones must be maintained for a period of at least five (5) years after final planting or where other revegetation methods are used, five years after plants are at least of tubestock size and are at the densities required by these conditions and with species richness as described in the VMP, and five (5) years minimum for those areas required for access and maintenance relating to any WP.			Agreed
	12. The riparian zones must be monitored over a period of 5 years commencing after final planting and will include weed control monitoring and the establishment of locally indigenous riparian vegetation (comprising both natural regeneration and/or planting).			Agreed
	13. A permanent physical barrier, (such as bollards, logs, a fence, pathway, road etc), to prevent inadvertent damage to riparian zones is to be placed at the landward extent of the riparian zones.			Agreed
	14. Erosion and sediment control measures are to be implemented prior to any works commencing at the site and must be maintained for as long as necessary after the completion of			Agreed

Response No.	Issue Raised	Subject Area	Project Stage (where relevant)	Response or Reference to the Section in this Report
	works, to prevent sediment and dirty water entering the watercourse. These control measures are to follow relevant management practices as outlined in the Landcom manual <i>"Managing Urban Stormwater: Soils and Construction – Volume 1"</i> (4th Ed., 2004) - the <i>"Blue Book"</i> .			
20. Australian Rail Track Corporation dated 30/10/09	<p>Road Access Options</p> <ul style="list-style-type: none"> If Option 3 (new road access on the alignment of McPherson St over railway line) was selected (the report indicates it was not considered suitable), then ARTC requires 7.1m vertical clearance to accommodate double stack containers. Any bridge over the rail corridor requires a formal application to ARTC. <p>Stages 3 & 4</p> <ul style="list-style-type: none"> No drainage into rail corridor unless prior approval has been obtained from ARTC. Any construction impacts near rail corridor such as excavation or craneage in or near rail corridor airspace may require applicant to enter a Deed with ARTC. <p>Possible future Rail Siding/s</p> <ul style="list-style-type: none"> Any proposals to connect to the ARTC network require a formal application to ARTC. <p>It would be appreciated if the above matters were added to the consent conditions.</p>			Issues raised by ARTC are noted and can be accommodated in the current proposal.

3. SUMMARY OF PROJECT AMENDMENTS IN RESPONSE TO SUBMISSIONS

Based on the submissions raised the following amendments and commitments have been made by Orica, as a response to the submissions:

- **VPA Letter of Offer** – Orica has provided a letter of offer setting out the terms of a proposed VPA between Orica, the Minister and Botany Bay City Council;
- **Nant Street Corridor** - Orica note that Botany Bay City Council has now confirmed that it does not at this stage wish to sell Nant Street. Therefore the Nant Street public road corridor does not form part of this Application;
- **Green and Golden Bell Frog Pond Design:** It is proposed that artificial, above ground ponds be installed. This style of pond has been used successfully at Sydney Olympic Park and at Davistown (on the Central Coast). An above ground pool has logistical advantages of not needing to disturb ground soil and being higher than normal flood levels during heavy rain events. They also have an ecological advantage in that an elevated pond can exclude many terrestrial competitors, such as Striped Marsh frogs (*Limnodynastes peronii*). A logistical disadvantage of these ponds is that they cannot usually be filled by natural run-off, and will have to be filled from either town water, or from roof captured water. Roof captured water is preferred as this can better simulate natural flooding events in the local area.

Assuming above ground ponds are used as now proposed, more than two ponds should be established. The ponds would be set up so that the overflow from the first pond feeds the second pond at each location at the Southlands site: in this way a variety of water depths are achieved at the site.

As the Southlands site is proposed to be developed for a warehouse, with secure fencing there is little fear of vandalism to these ponds.

- **Landscape Management Plan for Stage 3 area** - Orica commits to preparing a landscape management plan for the Stage 3 area and will include in that a staged approach to the screening of the under-utilised portions of the site.
- **Urban Design Review by BBCC Panel** - Orica has no objection to Botany Bay Council's Urban Design Review Panel independently reviewing the architectural merits of the buildings at each stage, prior to the issuance of a Construction Certificate for new staged building works, in terms of elevational treatments.
- **Anti Graffiti Condition** - Orica raises no objections to a standard condition of consent from Botany Bay City Council in respect of anti-graffiti coating. Council is to provide the Department of Planning with an anti-graffiti coating condition to be included in any consent granted. The condition would generally be 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.

- **Standard Noise Criteria** - Orica raised no objection to the following standard Condition in respect of Noise Criteria being a condition of consent of any consent issued.

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 necessary.

- **Truck Movements** - Orica raised no objection to a Condition relating to Stage 1 in respect of truck movement routes, noted by Botany Bay City Council as follows:

The Truck movements shall be restricted:

- (i) Inward movements: Foreshore, Exell Street, Botany Road and McPherson*
- (ii) Outward movements: McPherson Street, Exell Street, Botany Road, Foreshore Drive*

- **Conditions raised by the DECCW in respect of Remediation issues and Green and Golden Bell Frogs** – Generally agreed to proposed conditions but with some proposed amendments. (see comments on Submission 16. DECCW, Environment Protection and Regulation dated 7/10/09 and Submission 17. DECCW, Environment Protection and Regulation dated 13/10/09)
- **Conditions raised by NSW Office of Water** – Generally agreed to proposed conditions but with some proposed amendments. (see comments on Submission 19. NSW Office of Water dated 4/11/09)
- **Review of Flood Impacts** – At the request of the DoP and some submissions from neighbours, further more detailed flood analysis has been undertaken updating previous flood modelling with new 2D flood modelling. This work has been undertaken in consultation with independent flood consultants engaged by the DoP. As a result of this work, the following modifications have been made to the Site Plan for the Stage 1 area:
 - The rear vacant area behind the northern warehouse areas which includes two easements has been increased in width by 6 metres (ie. increased rear building setback of 6 metres) to allow additional flood flow area between

- Floodvale and Springvale drains. To offset this area the northern warehouse areas have been marginally increased to the west by up to 10 metres;
- Setback of the northern warehouse buildings/carparks has been set to a minimum of 18 metres from Coal Pier Road;
 - The removal of the Nant Street access road and Springvale Drain crossing in favour of access to the rear warehouse areas by use of the adjoining Coal Pier Road;
 - Introduction of a weir within Springvale Drain upstream of McPherson Street to facilitate the hydraulic function of the design to utilise the Stage 1 detention area to mitigate the flood impacts of the project.
- **Amendments to the Site Plan (Stage 1) and Subdivision Plan**
To facilitate the above-mentioned variations required by the flood modelling and to provide a greater range of warehouse types in Stage 1, the proposed site layout and resulting subdivision plan has been altered to now show development on six (6) parcels of land in Stage 1.
 - The six parcels of land either front MacPherson Street or have access to Coal Pier Road. The proposed subdivision pattern now reflects this layout.
 - The resulting warehouse, ancillary office space, parking and loading areas has been redesigned to allow the delivery of each warehouse on the individual lots. The resulting plan is depicted in the Preferred Project Plan and maintains the general layout as previously proposed with only a minor reduction in GFA (500 m²) from the previously submitted proposal;
 - Car parking has been maintained at the previous rates identified in the Project Application and is now dedicated to each individual parcel of land to suit the GFA proposed for that warehouse; and
 - Nant Street access for Stage 1 has been removed as a result of the flood study recommendations and access to the rear warehouse Lots 1 and 2 is now from Coal Pier Road;

The Stage 3 area is still not proposed for any new development by way of this Project Application. However the subdivision layout has been amended to divide this Lot into two areas to allow flexibility in dealing with potential uses in the future. Any development on the Stage 3 area would be the subject of a separate Project Application.

- **Selection of Fill Material**

Significant filling works are proposed as part of Stage 1 and 2 to realise the required design flood levels. The Environmental Assessment accompanying the Application proposed that this material be Virgin Excavated Natural Material (VENM). The validation of the material was to be the matter of review by the Environmental Auditor.

It is proposed to amend the requirement for the sole use of VENM in favour of any material that has been validated by the Environmental Auditor as being suitable for placement on the Southlands site.

4 PREFERRED PROJECT PLAN

Primarily as a response to the submissions and the additional flood modelling, the Project Proposal has been updated as a Preferred Project Plan.

The Preferred Project Plan maintains all the staging as originally proposed and makes amendment only to the Stage 1 of the proposal. The Stage 1 area has been divided into six lots offering a variety of warehouse sizes which Orica believe is better suited to the market and the location. The resulting plan maintains the same general layout as originally proposed but incorporated the measures required by the new flood modelling, namely an increased setback from the northern boundary of 6 metres and a setback of 18 metres to the north western warehouse from Coal Pier Road. Access to the rear lots is via Cola Peir Road, whilst the four southern warehouse will maintain access from McPherson Street.

The compensatory flood storage area has been slightly modified to suit required capacities.

Accordingly, the Architectural Plans and Engineering plans for the project have been updated to reflect these changes and are attached under separate cover, as the Preferred Project Plan for the Application.

Appendix 1

Report from Community Discussion Session on 15 September 2009



SOUTHLANDS REMEDIATION AND DEVELOPMENT PROJECT

COMMUNITY DISCUSSION SESSION TUESDAY 15 SEPTEMBER 2009

REPORT

This report provides a summary of the information shared along with questions and comments raised by participants and the responses provided by members of the project team and the government representatives present. Where necessary, additional information has been added to this report to clarify responses provided on the day of the meeting. A list of workshop participants is provided at the end of this report.

1. Welcome and Scope – Lucy Archer (Orica) – 4.15 pm

L Archer welcomed participants and noted that it had been nine months since the last community workshop on this project was held (January 2009). She advised that the Environmental Assessment (EA) for the Southlands Remediation and Development Project was submitted to the Department of Planning (DoP) in December 2008 for an adequacy review and amended earlier this year in response to the matters raised. L Archer went on to explain that Orica was now the sole proponent of the project and that Orica had proceeded without Goodman Group Limited (Goodman) to ensure that the project was assessed whilst each of the consultant reports supporting the EA were current.

L Archer explained that the EA describes two stages of the project – Stage 1 is on Orica land and would proceed if approved, and Stage 2, which includes the provision of a new link road through Goodman property to Botany Road. The implementation of Stage 2 is uncertain with Goodman no longer a project proponent. L Archer advised that Goodman had some concerns that the EA did not clearly represent that Orica did not have access to the land for the proposed Stage 2 link road. She clarified that Stage 2 is dependent on the acquisition of land rights.

L Archer noted that the session was planned to be brief and thanked the Community Liaison Committee (CLC) for agreeing to accommodate the discussion at this time.

2. Project Update – Graeme Richardson (Orica) & Jeff Lord (Project Manager, DBL Property)

G Richardson provided a short presentation noting the EA exhibition dates, locations and an overview of the project stages (including proposed local traffic improvements at the intersections of both Hills and Exell streets with Botany Road as part of the Stage 1 works). He reiterated that Orica is the sole project proponent and that Stage 2 may not proceed.

The following questions and responses are noted (the name of the person asking the question and of who replied is noted in italics).

Question/ Matter Raised	Response
Why is Stage 2 included in the EA if it may never proceed. <i>R Bevan</i> Why is Stage 3 referred to if the EA only seeks approval for Stages 1 and 2? It is confusing for the reader. <i>P Shepherd</i>	The overall project has been developed under a Master Plan for the entire Southlands site and this describes three separate phases to the development, i.e. Stage 1, 2 and 3. The studies undertaken for the EA considered the Master Plan but focussed on Stages 1 and 2. It is only recently that Orica decided to proceed as sole proponent. Stage 2 was still included as the studies and reports contributing to the EA had been prepared with consideration of both stages. Orica thinks that Stage 2 is still an opportunity that may be realised if land rights can be acquired. The Stage 3 area overlies inferred dense non-aqueous phase liquids (DNAPL) source areas and there are no current plans to develop that section of the site. <i>G Richardson</i> Regardless of Goodman's involvement, Orica would always have had to

Question/ Matter Raised	Response
	<p>acquire land for the proposed link road to have been constructed in Stage 2. It is not realistic to assume that full commercial terms would have been agreed prior to the necessary approvals being in place. The approval of the new road link would need to have been received before commercial terms for the acquisition of the road link would be agreed. The strip of land for the road, or any other alternative that may be approved for Stage 2, will therefore not be purchased until Orica is certain that the project has been approved by the DoP, and the parties can agree commercial terms.</p> <p><i>J Lord</i></p> <p>Referencing the three stages presents a worst case scenario for the assessment of impacts, such as traffic, so the DoP thinks that the full presentation of all stages is appropriate.</p> <p><i>AM Carruthers</i></p>
<p>Mascot Library is listed as an EA viewing location but it is temporarily closed.</p> <p><i>P Shepherd</i></p>	<p>The DoP was not aware of Mascot Library's temporary closure at the exhibition announcement time and apologises for any confusion. Other EA exhibition venues remain available.</p> <p><i>AM Carruthers</i></p>
<p>Why isn't the Road & Traffic Authority (RTA) in attendance? Passing on information to the RTA after the event is not community engagement. RTA representatives should be at the table to hear community concerns and talk through the important issues.</p> <p><i>L Newnam</i></p>	<p>L Archer read correspondence from the RTA noting that it had not completed the assessment of the EA, would not be attending the community meeting, that feedback should be passed to the RTA via DoP and that local traffic management issues should be directed to the City of Botany Bay Council (CoBB) Traffic Committee.</p> <p><i>L Archer</i></p>
<p>Have other traffic alternatives been considered, other than the link road to Botany Road?</p> <p><i>P Shepherd</i></p>	<p>Yes. There are 4 or 5 road options identified and assessed in the traffic report (refer to Appendix L of the EA). Each option would require some land acquisition.</p> <p><i>J Lord</i></p>
<p>Is there a right hand turn green arrow from Botany Road onto Foreshore Road? That seems to be necessary for improving the traffic flow at that intersection. It seems it would take a serious accident to have the local traffic problems acknowledged and addressed.</p> <p><i>J Gennissen</i></p>	<p>No. The traffic assessment and modelling conducted indicates that the works at the Hills and Exell street intersections with Botany Road are sufficient to offset the increased traffic from the Stage 1 development of Southlands. The traffic modelling undertaken incorporated data from the RTA, CoBB and other developments in the area.</p> <p><i>J Lord</i></p> <p>Installation of a green right hand turn arrow was a condition of the Port Feeder Road (now known as Coal Pier Road) construction but it was never done.</p> <p><i>R Bevan</i></p> <p>Orica approached Michael Daley MP, who was the Minister for Transport at the time, to see if anything can be done to address the local traffic congestion. There has been no reply. It was noted that M Daley is now the Minister for Police and that the roads portfolio is now with David Campbell MP.</p> <p><i>G Richardson</i></p>
<p>Unless changes are made at the intersection of Botany Road and Foreshore Road, the congestion on Botany Road will remain an issue. The Port Feeder Road didn't open up new land – it just provided an alternate route to Botany Road.</p> <p><i>P Shepherd</i></p>	<p>The improvements that Orica proposes with Stage 1 will improve traffic flow on Botany Road. Orica has had problems in the past with trucks parking along the McPherson Street verge and damaging the Southlands fencing. There have been a number of other developments along McPherson Street approved by CoBB whilst the Southlands project has been in development. These sites will all add traffic to the local network.</p> <p><i>G Richardson</i></p> <p>The addition of the Port Feeder Road (Coal Pier Road) has effectively taken traffic off the Stephen Road residential streets and put it onto McPherson Street taking away traffic capacity for McPherson Street.</p>

Question/ Matter Raised	Response
<p>The traffic was backed up along Botany Road from [Hills and Exell] McPherson Street to Dent Street today.</p> <p><i>R Bevan</i></p>	<p><i>J Lord</i></p> <p>Driving past the site on the way to the meeting, it was clear that trucks are stopped along McPherson Street causing problems.</p> <p><i>J Lord</i></p>
<p>Won't the traffic lights for the new link road intersection with Botany Road be too close to the lights for the intersection of Botany Road and Foreshore Road?</p> <p><i>J Gennissen</i></p>	<p>Acknowledged. The RTA has a requirement that lights are to be a minimum of 140 m apart. Given the close proximity the lights would work in sequence – they would be phased as one intersection.</p> <p><i>J Lord</i></p>
<p>How will Southlands be remediated?</p> <p><i>N Hillier</i></p>	<p>There is no significant soil chemical contamination at the Southlands site.² Most contamination referred to in the EA resulted from the illegal dumping of demolition waste before the site was fenced. The demolition waste contains some asbestos containing material. Orica proposes to raise the level of the site by an average of 1 m across Stage 1 to address the potential flood risk, and this will also create a protective barrier from the asbestos containing material.</p> <p>The Stage 2 area will act as a flood detention basin during Stage 1 of the proposed development. The development will not increase the flood risk at adjacent sites.</p> <p>The Master Plan allows for groundwater extraction wells, pipelines and monitoring wells for the ongoing groundwater cleanup project. This is described in the EA.</p> <p>The point where Springvale Drain passes under McPherson Street is a drainage “choke” point and further downstream mitigation works would be required to manage stormwater and a 1:100 year flood event as part of the Stage 2 development (if it proceeds).</p> <p><i>G Richardson</i></p>
<p>The 1 in 100 year flood event could occur at any time couldn't it?</p> <p><i>N Hillier</i></p>	<p>Yes.</p> <p><i>G Richardson</i></p>
<p>Where was the reactive iron barrier installed (as part of the groundwater cleanup project)?</p> <p><i>N Hillier</i></p>	<p>On the Stage 3 area of Southlands.</p> <p><i>G Richardson</i></p>

3. Project Assessment –Ann-Maree Carruthers (DoP)

AM Carruthers explained that DoP is engaging two independent experts to aid with the assessment of the Southlands EA, and these are:

- Samsa Consulting (Alan Samsa): who will review the traffic assessment (including the assumptions and analysis, the appropriateness of the proposed Botany Road intersection upgrades and the link road and alternate options. The consultant may also be asked to undertake a strategic review of the sub-regional traffic conditions); and,
- WMA Consulting (Richard Dewar): who will review the flood study. She noted that this consultant is also currently looking at proposal for the local Amcor site.

² Investigation works to date have not identified any significant soil contamination at Southlands that relates to the manufacturing or handling of chemicals that occurred on BIP. Should any such contamination be encountered during remedial works, it will be addressed accordingly.

AM Carruthers explained that DoP is meeting with CoBB and the RTA on 21 September to discuss traffic matters. This will be a preliminary discussion. She advised that part of the DoP's role during the EA public exhibition is to coordinate the receipt of submissions and to provide information to appropriate agencies and stakeholders. AM Carruthers recommended that if anyone wants to comment on the Southlands EA and is short on time, it is better to put in a preliminary submission by the due date (7 October) and make a note to the DoP that a final submission will be made at a later date.

The following questions and responses are noted.

Question/ Matter Raised	Response
<p>The RTA should be in attendance at this discussion with the community. Community engagement is important. The RTA's failure to attend shows no respect for the community or to the engagement process. It would be useful for a community member to attend the 21 September meeting.</p> <p><i>L Newnam</i></p>	<p>The concerns raised will be passed onto the RTA and the independent traffic consultant. Submissions should be forwarded to the DoP by 7 October, but the Department is happy to offer more time if required. You can make an initial submission and follow through with more detailed questions or comments if need be.</p> <p><i>AM Carruthers</i></p>
<p>Will the independent traffic consultant review the public submissions on the EA?</p> <p><i>R Bevan</i></p>	<p>Yes.</p> <p><i>AM Carruthers</i></p> <p>The reports from each of the community workshops held up to January 2009 were included in Appendix C to the EA.</p> <p><i>L Archer</i></p>
<p>Will CoBB make a submission on traffic?</p> <p><i>S Hall</i></p>	<p>CoBB had considered engaging an expert to review the traffic assessment, but has decided not to do that as the DoP has engaged an expert – it would be a waste of public funds for both organisations to engage an independent traffic consultant.</p> <p>CoBB will be making a submission to the EA.</p> <p><i>P Shepherd</i></p>
<p>Will submissions on the EA be made public?</p> <p><i>S Hall</i></p>	<p>Submissions are not placed on the DoP website for legal reasons. If you request to have your name withheld the details will not be made available to Orica. Submissions will be provided to Orica so that they can prepare a response.</p> <p><i>AM Carruthers</i></p> <p>Randwick City Council will make a submission and the council generally makes its submissions available on the council website.</p> <p><i>B Englaro</i></p> <p>I am unsure whether CoBB places its submissions on the council website.</p> <p><i>P Shepherd</i></p>
<p>How can the community hear of the outcome of the independent assessments conducted by the consultants engaged by DoP?</p> <p><i>L Archer</i></p>	<p>The findings will be detailed in the DoP determination report, which is made publically available.</p> <p><i>AM Carruthers</i></p>
<p>CoBB planners do not have an issue with the project – utilisation of the land for the purpose which it has been zoned is seen by Council to be a good idea.</p> <p>Don't forget that Kristina Keneally is the Planning Minister.</p> <p><i>P Shepherd</i></p>	<p>Noted.</p>
<p>Could there be a Commission of Inquiry?</p> <p><i>N Hillier</i></p>	<p>There is no longer a Commission of Inquiry step for the EA process.</p> <p>A new body called the Planning Assessment Commission has a number of roles and delegated rights to review some complex projects or projects that have a high level of community interest. The Commission has in the past reviewed the "reasonableness" of DoP reports and reported back to the Minister.</p> <p><i>AM Carruthers</i></p>
<p>How do CLC members feel about the development?</p>	<p>From feedback I have gathered, some community members feel that</p>

Question/ Matter Raised	Response
<p><i>L Archer</i></p>	<p>Orica owes the community and I can see nothing impressive or special about this project or any sustainable offsets for the impact it will have on the community. Does the Southlands project make things better or worse for the local community?</p> <p><i>S Hall</i></p> <p>The project group engaged Connell Wagner to prepare a Water and Energy Efficiency Report (Appendix R of the EA) in response to earlier community requests for sustainability principles to be introduced into the project.</p> <p><i>L Archer</i></p> <p>Port related development should be kept near the Port. We have fought to stop port related activities spreading to the South Ward and don't want containers any closer to the residential areas. Southlands is close to the Port and therefore appropriate for this type of development.</p> <p><i>N Hillier</i></p> <p>Agree that from a land use planning perspective it makes sense, but traffic problems need to be resolved.</p> <p><i>P Shepherd</i></p>
<p>Should the CLC consider making a submission to DoP – given the CLC's role to oversee the ongoing implementation of the groundwater cleanup?</p> <p><i>P Shepherd</i></p>	<p>After some discussion it was agreed that given the exhibition timing and range of opinions, individual submissions would be made and not a combined CLC submission.</p> <p>DECCW will review the project from the perspective of ensuring ongoing access for the groundwater cleanup, and the feedback from the independent contaminated sites auditor who reviewed the Remediation Action Plan.</p> <p>DECCW would ensure that the plan for ongoing groundwater monitoring at Southlands is incorporated in the Voluntary Management Proposal for the groundwater cleanup project.</p> <p><i>M Hart</i></p>
<p>Is the Southlands site included in the Three Ports State Environmental Planning Policy (SEPP)?</p> <p><i>P Shepherd</i></p>	<p>The Ports SEPP is now included as a schedule to the Major Projects SEPP and yes, this area includes the Southlands site.</p> <p><i>AM Carruthers</i></p>

4. Wrap Up & Next Steps – Lucy Archer

L Archer thanked attendees for their time and interest in the project. She noted that the discussion session had been advertised in the Southern Courier and the Orica website and that a leaflet on the project had been delivered in the area around the Southlands site (from the rail line to Stephen Road). The CLC and the HCB Community Participation and Review Committee were also informed of the session. To date, Orica had not received any new enquiries about the project. L Archer noted that Orica was happy to offer specific briefings on aspects of the project if requested and that hard and CD copies of the EA are available. There were no further requests for specific community consultation activities during the EA exhibition period.

5. Close

Session closed at 5.15 pm.

6. Participants

The 15 September 2009 Southlands Discussion was attended by the following people:

Name	Representative of:
Lucy Archer	Orica
Rick Bevan	Solvay Interlox Pty Ltd
Ann-Maree Carruthers	Dept of Planning (DoP)
Helena Cooke-Yarborough	Kellogg's
Greg Dasey	URS Australia Pty Ltd
Bronwyn Englaro	Randwick City Council
Julia Gennissen	Botany Environment Watch & Third Ward Rockdale
James Goodwin	Dept. of Environment, Climate Change & Water (DECCW), Sydney Industry
Susan Hall	Australian Environmental School.com
Matthew Hart	DECCW, Contaminated Sites
Nancy Hillier OAM	Botany Environment Watch
Erika Kano-Hosoyama	Orica
Kathy Lloyd	Sydney Ports Corporation (SPC)
Jeff Lord	DBL Property
Lynda Newnam	Botany Bay Explorers
Warrick O'Brien	City of Botany Bay Council (CoBB)
Graeme Richardson	Orica
Tony Rohr	Rohr Group – Hynlong Pty Ltd
Greg Russell	NSW Office of Water (part of DECCW)
Wendy Salkeld	Orica
Christa Sams	SPC
Paul Shepherd	CoBB, Acting CLC Chair

Appendix 2

Traffic Review - Traffix



traffix
traffic & transport planners

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Ref: 07 076

30 May 2010

DBL Property
Level 6
432 Kent Street
Sydney NSW 2000

Attention: Jeff Lord, Director

Re: Part 3A Application 06-0191: Proposed Remediation and Redevelopment of Orica Southlands Site, Botany Bay

Dear Jeff,

We refer to the Transport Assessment Review Report prepared by Samsa Consulting and our subsequent meeting with the DoP and in response to the matters raised we now advise as follows:

Parking

- The parking requirements of the site at full development (both stages) is 821 spaces based on Council's requirements and 203 spaces based on the RTA's Guideline. As the predominant use is warehousing, the RTA's rates are considered far more likely to reflect the expected demand. Council's DCP rate is very high and is actually more than the RTA rate for factories. In addition, the office component is not treated as ancillary to the warehouse use under Council's DCP and is in fact the same as the RTA's rate for freestanding commercial offices. In these circumstances, the proposed provision of 617 spaces is expected to be more than required and additional surveys are not considered to be necessary. To the extent that the State Government is pursuing travel by promoting alternate (non car) travel modes, compliance with Council's DCP would in our view undermine this policy. Finally, at the level of parking proposed, which is substantially more than the 'unrestrained' demand derived by the RTA in its own Guideline, there is not expected to be any latent parking demand so that the resulting traffic generation represents a worst case scenario.
- It is noteworthy that since the RTA's research that underpins the Guideline was undertaken, parking demands have generally increased but this reflects the need to accommodate shift overlaps for 24 hour warehouse uses, which is a more recent phenomenon. In addition, these shift overlaps typically occur outside peak periods so that an increased level of parking does not result in a commensurate increase in peak period traffic generation. It is therefore misleading to rely on the 'trips per space per hour' criteria for warehouse uses as Samsa Consulting has recommended.

Traffic Generation

- The percentage of heavy vehicles is significant and has been included in the NETANAL modelling. This varies according to individual routes but in relation to the development site



itself is 20%. This reflects the fact that during peak periods, the predominant traffic movements are associated with employee arrivals and departures.

- 2 The inherent trip rate under the RTA's Guideline is 1.5 trips/space/hr for warehouse uses. The overall development assessment is based on 465 veh/hr with 617 parking spaces which equates to 0.75 trips/space/hr. This is actually an aberration that is a direct consequence of the perceived need to substantially satisfy Council's DCP which requires four times the parking that would be required based on the RTA's Guideline. It should not be assumed that for warehouse uses, an increase in parking above the RTA's requirements would result in a commensurate increase in traffic generation due to a 'latent demand'. That is, in any case where parking exceeds the RTA's requirement, then there is not likely to be any 'latent' demand for car parking and the "underutilisation of parking for long periods" referred to by Samsa Consulting is indeed likely to occur. It is also noteworthy that the peak parking demand occurs at shift change-over time which does not coincide with the on-street peak period. The peak period traffic generation for this particular (warehousing) land use is therefore independent of peak period parking demands. Hence, there is no need to penalise the application by the adoption of higher trip rates.
- 2 The traffic study has included an additional 26,700 trips/hr onto the road network and it is of course accepted that only a proportion of this traffic will impact upon the study area. Nevertheless, the Southlands development does represent only 2% of this traffic and this point was made simply to give a context to the contribution that the development makes towards network flows in the region. This is a concern to the applicant in circumstances where the road improvements being required to accommodate this development are largely due to other development in the region, including general traffic growth over a 10 year period, which is now being required by the RTA to assess conditions based on a 2026 scenario (land use and traffic). Hence, while future micro simulation modelling can be undertaken, it should not be assumed that the improvement works that are identified are wholly the responsibility of the applicant.

Road Network Analysis

- 2 The proposed interim improvements (Option 5) are intended to facilitate only the Stage 1 development and will be temporary. This includes traffic signals at the intersection of Exell Street with Botany Road and the provision of improved channelization at the intersection of Hill Street with Botany Road. This was the subject of our separate letter to the RTA dated 10th December 2009, with an improved intersection layout, as well as the more recent provision of advice to the RTA in response to detailed design issues. That is, all matters raised by the RTA have been addressed and we await a formal response from the RTA (via the DoP) to confirm that the proposed improvements are accepted in principle (see **attachment 1**). The need for these signals to remain will be further assessed as part of the micro simulation modelling that is now being sought by the RTA, which is accepted by the applicant only in relation to the Stage 2 development.
- 2 Growth rates and land use development assumptions were agreed with the RTA as part of the modelling process and these vary for individual routes.
- 2 The modelled network outputs can be made available on request if required. However, the RTA has not raised any concerns over the validity of the models or the developed road network. The site access volumes are moderate and do not require modelling; although this could be examined if necessary in any future micro simulation model.

Road Network Upgrades

- 2 The entry to Greenfield Street from Hill Street will only be restricted to traffic travelling eastbound along Botany Road. The diversions required occur only on arrival and involve only



moderate increases in travel times. Further, any disbenefit will be compensated by the improved operation at the intersection of Hill Street with Botany Road as a consequence of the improvements, as well as by improved exit onto Botany Road via Exell Street via the proposed new signals.

- Vehicles will be able to exit from Greenfield Street onto Hill Street and would not need to turn around to exit onto Exell Street.
- The left turn lane in Botany Road for the movement into Hill Street will comply with the RTA's requirements and will be of adequate length, subject to detailed design.
- The proposed widening of Botany Road on approach to Foreshore Road is not proposed or relied upon. Nevertheless, this widening could be implemented with no affectation beyond the road reserve.
- The provision of traffic signal control at the intersection of Exell Street with Botany Road is proposed for the Stage 1 development only, with the long term operation of this intersection to be assessed as part of the later micro simulation modelling exercise required by the RTA.

Alternative Transport

- The need to assess alternate travel modes is a matter that can be dealt with through the preparation of a Transport Access Guide (TAG) which can be conditioned. The benefits to be derived from such an initiative are however potentially diminished by the provision of any parking above the RTA requirements (at the level proposed but particularly if compliance with Council's DCP is required), so that these two issues appear to be in conflict. We prefer that parking is suppressed slightly as is proposed (or even more), with alternate travel supported by a TAG.

Construction Phase

- Construction issues are acknowledged and will need to be the subject of a detailed Construction Traffic Management Plan which can be conditioned in relation to Stage 1 and later for Stage 2. It is expected that this will principally relate to the timing of the Stage 1 improvements and the subsequent link road in Stage 2. This will include all relevant construction matters including stagings, truck frequencies and routes, employee levels, access requirements, work zones etc.

Other Submissions (not discussed above)

- It is noted that Randwick Council does not support a future link road over the railway line on the alignment of Macpherson Street to connect to Beauchamp Road at Perry Street. This is consistent with the conclusions made in our previous traffic studies.
- We note that the need to prepare a Transport Access Guide (TAG) to promote alternate travel modes (which can be conditioned) satisfies the matters raised by the Ministry of Transport.
- The matters raised by the Sydney Ports Corporation can be addressed as part of the micro simulation modelling to be undertaken post the Stage 1 development.
- Measures to minimise impacts on residential areas and Botany Road (as raised by Botany Bay Watch and Concerned Citizens Association Rockdale 3rd Ward) can also be addressed in further detail as part of the micro simulation modelling to be undertaken post the Stage 1 development.
- Many submissions relate to the need for the proposed new link road to be provided in Stage 1, and by implication this can be read as support in principle for the proposed link road. In this regard, there is much to be gained by neighbouring landowners with the advancement of this



link road, which will overcome existing road deficiencies, with improved accessibility to the precinct north of Botany Road. Nevertheless, this link needs to be seen in the context where it provides a strategic road solution that benefits all landowners and is not required solely to support the subject application. It does not have a nexus solely with the Stage 1 development which is moderate in its scope. Even when provided in Stage 2, there are cost sharing issues that will need to be addressed including offsets to Section 94 contributions.

- The needs of pedestrians will be met through the establishment of footpaths along the site frontage to Macpherson Street (northern side) as well as along one side of all internal access roads. These are matters that can be conditioned and addressed at cc stage. With regard to the link road, it is expected that this will incorporate a footpath along both sides within the available road reservation and this will be assessed at detailed design stage following completion of Stage 1. The movement of pedestrians along Hill Street will not be impacted although there will be an opportunity to improve connectivity at the detailed design stage. The provision of traffic signals at the intersection of Exell Street with Botany Road incorporates pedestrian crossings on all approaches and this will provide a significant improvement.
- It is proposed to extend the existing bicycle lane on the Port Feeder Road along the entire site frontage to connect to Macpherson Street and this can be conditioned. The opportunity will be available in Stage 2 to incorporate either an on-road cycle facility or a shared off-road facility for pedestrians and cyclists (on one side only) and this will be further investigated as part of Stage 2. The provision of bicycle racks and cyclist facilities within the developments is supported in principle and can be conditioned.
- The proposed modifications to the Discovery Cove Estate have been assessed in sufficient detail to establish the feasibility of the link road and will need to be the subject of separate project/development applications in Stage 2. This has included an assessment of the ability of the site to accommodate a car park structure (west of the link road) to accommodate all displaced parking. The ability of trucks to access Discovery Cove will be further assessed in Stage 2 but in principle the provision of left-in and left-out movements is proposed on both sides of the link road, to minimise conflicts.
- Truck manoeuvring has been assessed and is satisfactory. It is proposed to achieve full compliance with AS 2890.1 and AS 2890.2 in response to a suitable condition of consent and this would be undertaken at cc stage. It is noted that the Stage 1 Project Application provides dedicated truck manoeuvring areas which are physically separated from car park areas as far as practicable (as required under the RTA Guideline) but also to a substantial degree.

We trust that the above provides a satisfactory response to the matters raised in the Samsa Consulting report. These matters were also discussed at the meeting with the Department and on the basis of this, there would appear to be no impediment to an approval subject to appropriate conditions, ideally incorporating the RTA's requirements when these become available. In the meantime, please contact the undersigned should you have any further queries.

Yours faithfully,

traffix

Graham Pindar
Director

Encl: attachment 1: Advice to RTA dated 17 May 2010



attachment 1

Graham Pindar

From: Graham Pindar [graham.pindar@traffix.com.au]
Sent: Monday, 17 May 2010 12:59 PM
To: 'SELLATHURAI Pahee'
Cc: 'Jeff Lord'
Subject: RE: Orica Southlands Site
Attachments: Int. Concept Design 17 May 2010.pdf

Hi Pahee

Please see attached minor amendments which deal with all your concerns. Note that the red lines through the kerbside/parking lanes along Botany Road are on the survey base and should be ignored. The bus mirrors can overhang the kerb side so 2600mm will be sufficient and is superior in any case to Austroads. The amended layout is a concept design for 'in principle' approval from the RTA and we anticipate a condition requiring compliance with RTA requirements at this intersection as well as at the Hill Road/Botany Road intersection.

Can you please advise when we the DoP might expect a response from the RTA on the overall application, noting that we are seeking Stage 1 approval based on these localised improvements, as discussed in previous correspondence with Ken Moon.

Regards

Graham Pindar
Director

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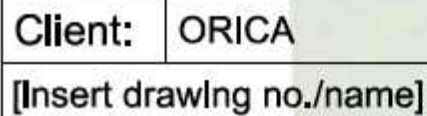
From: SELLATHURAI Pahee [mailto:Pahee_SELLATHURAI@rta.nsw.gov.au]
Sent: Friday, 14 May 2010 5:48 PM
To: Graham Pindar
Subject: RE: Orica Southlands Site

Hi Graham

Sorry for the delay.

Here are RTA comments for your perusal.

- 1) Turn path for a 19.0m semi-trailer shows that it will mount the kerb on the north eastern corner when turning right from Exell Street, although there does appear to be another line on the sketch which may indicate that the kerb is to be amended so this doesn't happen. But recommend that the kerb line be adjusted as per point 4. The 19.0m semi-trailer turn path making a left turn out of Exell Street is acceptable.
- 2) A 25.0m B-double is also shown mounting the kerb on the north eastern corner when turning right out of Exell Street. It should be noted that the 25.0m B-double when turning right from Exell Street must turn from the left lane in Exell Street and when turning left must use the right turn lane in Exell Street. Although legal for a long vehicle to do this it may not be desirable depending on the amount of b-doubles anticipated to exit Exell Street.
- 3) A bus cannot use the proposed bus bay on the western side Exell Street, as it doesn't have the correct taper on the entry and buses when picking up and setting down passengers will be half in and half out of the bus bay and will block the through lane. The bus bay is also shown as 2.3m wide which I assume includes the width of gutter and as a bus is approximately 2.8m wide (from mirror to mirror) it will intrude into the adjacent through lane and could get clipped by a heavy vehicle.
- 4) The kerb on the north eastern corner should be extended to protect the first parking space as it is in a very vulnerable position (see attached sketch).



Client:	ORICA
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Swept Path Analysis

Scale 1:200 at A3

Address:	EXELL STREET BOTANY
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Job No.:	[TRAFFIX Job No. 06076]
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Date:	17 MAY 2010
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traffix

5) The first parking space on the southern side of Botany Road on the western side of the intersection is vulnerable when a heavy vehicle turns left from Exell Street. This may require a kerb blister to direct heavy vehicles and provide protection.

6) Traffic Signal must be in accordance with the RTA's Traffic Signal Design guidelines.

7) There is a proposal to implement vehicle restrictions at Sir Joseph Banks Street. So no heavy vehicle can go any further up Botany Road and access Hale Street and then onto Foreshore Road.

Regards

Pahee

Pahee Sellathurai
Land Use and Transport Planner
Roads and Traffic Authority
T: 8849 2219 M: 0417 246 510 F: 8849 2918

From: Graham Pindar [mailto:graham.pindar@traffix.com.au]
Sent: Thursday, 13 May 2010 9:33 AM
To: SELLATHURAI Pahee
Cc: 'Brendan Seage'
Subject: FW: Orica Southlands Site

Hi Pahee

Just a follow up on my email of 6th May...this is now becoming urgent...we sent the information on 30 March (6 weeks now).

Call me if any queries and please let me know when we can expect a response.

Regards

Graham Pindar
Director

a: suite 3.08 46a macleay street potts point nsw 2011 | **PO Box 1061 potts point nsw 1035**
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From: Graham Pindar [mailto:graham.pindar@traffix.com.au]
Sent: Thursday, 6 May 2010 12:56 PM
To: 'SELLATHURAI Pahee'
Subject: RE: Orica Southlands Site

Thanks Pahee...the sooner the better...we we've been on hold since Dianne went on leave 5 weeks ago!

Regards

Graham Pindar
Director

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From: SELLATHURAI Pahee [mailto:Pahee_SELLATHURAI@rta.nsw.gov.au]
Sent: Thursday, 6 May 2010 9:35 AM
To: graham.pindar@traffix.com.au
Subject: RE: Orica Southlands Site

Hi Graham

I have taken over this project along with a number of other projects from Dianne. I am going through all of them. Hopefully I will be in a position to give you a response by next week.

Regards

Pahee

Pahee Sellathurai

Land Use and Transport Planner

Roads and Traffic Authority

T: 8849 2219 M: 0417 246 510 F: 8849 2918

From: REES Dianne B
Sent: Monday, 3 May 2010 2:20 PM
To: SELLATHURAI Pahee
Subject: FW: Orica Southlands Site

Hi Pahee

Can you please respond to this email?

Regards

Dianne Rees

Land Use and Transport Planner
RTA Sydney Region
Transport Planning Section
Level 11, 27 Argyle Street, Parramatta, NSW 2150

Phone: 8849 2237
Fax: 8849 2918
Email: Dianne_REES@rta.nsw.gov.au

From: Graham Pindar [mailto:graham.pindar@traffix.com.au]
Sent: Monday, 3 May 2010 1:22 PM
To: REES Dianne B
Subject: RE: Orica Southlands Site

Hi Dianne
Any ideas when we can expect a response?

Regards
Graham

Graham Pindar
Director

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From: REES Dianne B [mailto:Dianne_REES@rta.nsw.gov.au]
Sent: Tuesday, 30 March 2010 9:02 AM
To: Graham Pindar
Subject: RE: Orica Southlands Site

Graham

Thank you for the information. I will be on leave from tomorrow returning on 12 April. I will have a look at it when I return.

Regards

Dianne Rees

Land Use and Transport Planner
RTA Sydney Region
Transport Planning Section
Level 11, 27 Argyle Street, Parramatta, NSW 2150

Phone: 8849 2237
Fax: 8849 2918
Email: Dianne_REES@rta.nsw.gov.au

From: Graham Pindar [mailto:graham.pindar@traffix.com.au]
Sent: Tuesday, 30 March 2010 8:52 AM
To: REES Dianne B
Subject: Re: Orica Southlands Site

Dianne

Sorry for the delay with this, I know how hard it is to 'start up' again...

Hope this is everything you need but if not, please call or email. The plan is obviously still a concept but sufficient to demonstrate that it can work and we anticipate a condition requiring design to RTA's satisfaction based on this plan.

Regards

On Tue, Feb 2, 2010 at 10:36 AM, REES Dianne B <Dianne_REES@rta.nsw.gov.au> wrote:
Graham

Our Reference: 09M23 Vol 2 SYD09/00032 - Redevelopment of Orica Southlands Site.

Can you please forward a further plan for the intersection at Exell Street which shows the swept paths of the longest vehicles which are turning right and left from Exell Street into Botany Road for the proposed traffic signals? The drawing showing the swept path previously submitted with the traffic report is very difficult to read as it is printed with yellow printing and does not appear to show traffic lanes, parking along Botany road and Exell Street and shows only 2 pedestrian crossings. There is also no scale shown on the drawing.

Can you also send a revised design (similar to the design on the aerial photo which you submitted previously), showing the full extent of the proposed intersection up to the roundabout at Discovery Cove, indicating how the intersection design will work? The design shall include but not be limited to:

- dimensions (including length and width) for all traffic and parking lanes
- show all proposed parking spaces along Botany Road and Exell Street
- swept paths of the longest vehicle
- location of all pedestrian crossings
- scale
- existing property boundaries.

Regards

Dianne Rees

Land Use and Transport Planner
RTA Sydney Region
Transport Planning Section
Level 11, 27 Argyle Street, Parramatta, NSW 2150

Phone: 8849 2237
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Graham Pindar
Director

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Ref: 06 076

07 December 2010

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Attention: Jeff Lord, Director

Re: Preferred Project Application - Part 3A Application 06-0191: Proposed Remediation and Redevelopment of Orica Southlands Site, Botany Bay

Dear Jeff,

We refer to the abovementioned application and note that this was the subject of our previous Transport Assessment Report dated October 2007. In this regard, we note the amended plans dated 8th November 2010 which have been prepared in support of the Preferred Project Plan and our response to these amended plans is outlined below:

]

Parking

- The parking provision for the site at full development (both stages) is 817 spaces. This is substantially more than the RTA's Guidelines (262 spaces) but less than Council's DCP requirement (1,066 spaces). The Preferred Project Plan achieves a suitable balance for the reasons discussed in our advice dated 30th May 2010.
- The parking for Stage 1 (with 47,000m² of area) was previously assessed at 440 spaces; while the Preferred Project Plan for Stage 1 has an area of 46,500m², with 437 spaces. Hence, consistency is achieved at an appropriate parking level.
- It is noted that staff and visitor parking is physically separated as far as practicable and this is supported and reflects the previous design philosophy.

Traffic Generation

- The overall development application was previously assessed on the basis of a trip generation of 465 veh/hr based on an area of 79,190m². The Preferred Project Master Plan, with an area of 78,740m², is predicted to generate slightly lower trips and a worst-case assessment scenario therefore remains; while the report conclusions similarly are unchanged.
- The Stage 1 development that is the subject of this Preferred Project Plan relates to an area of 46,500m² and this compares with 47,000m² under the previous Project Plan. The traffic impacts associated with Stage 1 is therefore consistent with the previous assessment and the results and conclusions remain valid.



Road Network Upgrades

- The proposed interim improvements for Stage 1 remain unchanged and include the installation of traffic signals at the intersection of Exell Street with Botany Road and the provision of improved channelization at the intersection of Hill Street with Botany Road.
- The provision of traffic signal control at the intersection of Exell Street with Botany Road is proposed for the Stage 1 development only, with the long term operation of this intersection to be assessed as part of the later micro simulation modelling exercise that is required by the RTA in relation to the link road that is proposed in Stage 2.
- We note that the Stage 2 works encompass the Discovery Cove development which forms a necessary element of the delivery of the link road in Stage 2.

Detailed Design Issues

- The main change made for the purpose of the Preferred Project Plan relates to the proposal to obtain direct vehicular access onto Coal Pier Road, which serves Warehouses 5 and 6. This achieves a more satisfactory dispersal of trips onto the road network. Warehouses 1 to 4 inclusive retain direct access onto McPherson Street and this is appropriate.
- The internal design is satisfactory and complies with relevant standards. Nevertheless, a condition requiring compliance with AS 2890.1 (2004) and AS 2890.2 (2002) is anticipated and further detailed design will be undertaken at construction certificate stage. It is assumed for this purpose that access by B Doubles will be required to all Warehouses.

Construction Phase

- Construction issues are acknowledged and will need to be the subject of a detailed Construction Traffic Management Plan which can be conditioned in relation to Stage 1 and later for subsequent stages.

We trust that the above advice is sufficient and request that you contact the undersigned should you have any further queries.

Yours faithfully,

traffix

Graham Pindar
Director

Appendix 3

Flooding Review - Aurecon

(Attached under Separate Cover)

Appendix 4

Council's Parking Rates Applied (from CoBB submission)

Stage	Area	Council Parking Requirement	Spaces Provided
Stage 1	Warehouse 42,500sqm	531	437
	Office 4,000sqm	100	
	Visitor Parking	6	No spaces nominated
Stage 1 Total		642	437
Stage 2	Warehouse 14,850sqm	186	260
	Office 1,400sqm	35	
	Visitor Parking	7	No spaces nominated
Stage 2 Total		228	260

Appendix 5

Biosphere Environmental Consultants – Supplementary Report



Biosphere
Environmental
Consultants Pty Ltd
Dr. Arthur White - ph & fax: (02) 9599 1161

Mail Address: 69 Bestic St. Rockdale NSW 2216 A.C.N. 065 241 732
e-mail: 1arthur@tpg.com.au A.B.N. 32 065 241 732

**Supplementary Green and Golden Bell Frog Survey
And Response to Relevant Submissions
Southlands Site
ORICA
Banksmeadow
February 2010**

Introduction

The Southland Site is a large area of dis-used industrial land adjacent to the Orica Plant Site at Botany. The site retains little of the original vegetation of the area and has been greatly modified as a result of various land uses. The site is divided into two main sections (Figure 1); an eastern section referred to as Southlands Block 1 (Figure 1) and a western section referred to as Southlands Block 2.

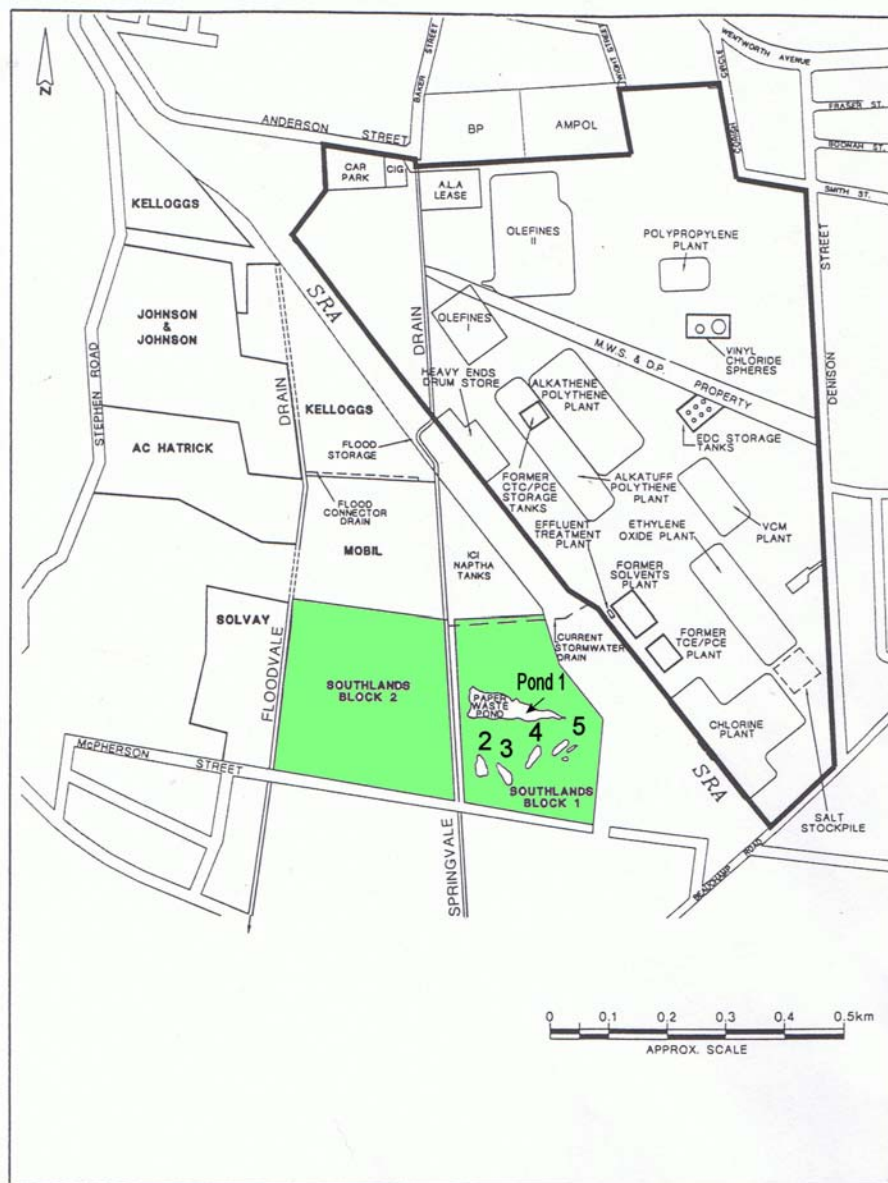
In 1997, a major fauna survey was carried out on the site (Biosphere 1997) and juvenile Green and Golden Bell Frogs *Litoria aurea* were found on the site. Green and Golden Bell frogs are an endangered species listed under the New South Wales' Threatened Species Conservation Act 1995, and the Commonwealth's Environmental Protection and Biodiversity Conservation Act 1999. Bell frogs have not been recorded from the site since then. Targeted surveys were carried out in 2007 (Biosphere) as part of the Environmental Assessment for Orica's proposal for a staged warehouse development of the site.

In December 2009, Biosphere Environmental Consultants Pty Ltd were commissioned by Orica to undertake supplementary targeted frog surveys on the Southlands Site, following a request for additional survey work by the Department of Environment, Climate Change and Water (DECCW) as part of the EA review process.

Survey Area

The southlands site is a quadrangular block of land that faces McPherson Street at Banksmeadow (Figure 1). The western boundary of the side is demarcated by a large open drain (Floodvale Drain) while the eastern side of the side is demarcated by a State Rail Authority rail easement. Dividing the two blocks is the central Springvale Drain.

Figure 1
Southlands Site



There has been little development of the site other than the laying of groundwater collection pipes and minor pumping stations that are part of Orica's groundwater cleanup project. There are a few dirt tracks across the site; the major track runs north-

south parallel with the Springvale Drain and provides access to the Qenos Tank farm situated to north of the site.

Dumping and land filling on the site has created basins that collect rainwater. These basins (referred to as ponds 1-5: Figure 1) regularly dry out and, in recent years are most often dry. In contrast, the two opens drains that runs through the site always carry small amounts of water.

The dryness of the site may be accounted for due to the recent full operation of the Groundwater Treatment Plant which we are advised, has had the effect of significantly lowering the groundwater level on Southlands.

There are no major buildings or constructions on the site.

Methods

Timing of Surveys

In order to maximize the chances of detecting Bell frogs on the site, the surveys were timed to coincide with or immediately following local rainfall events. Most of December 2009 was quite hot and dry; on the morning of the 28th of December 20 mm of rain fell and the rest of the day remained quite warm but overcast. The first survey was conducted that night. The next series of showers fell on the 3rd of January 2010 and the second survey was carried out on the afternoon/evening of the 4th of January 2010. Fourteen millimeters of rain fell on the 13th of January 2010 and the third and final survey was carried out on the 14th of January 2010.

Survey Methods

Surveys focused on areas where surface water was collecting on site; this approach was taken as the site has been quite dry for the last few years and the main ponds remained dry during the present surveys. As the present surveys were conducted after rain, each pond was visited but many did not have open water but were simply damp at the base. The Springvale and Floodvale drains, in contrast, always had water slowly trickling through them.

Surveys consisted of an initial two minute listening period at each pond or damp earth site where all of the calling frog species were noted. This was followed for 1 minute by the broadcasting of the mating call of the Green and Golden Bell frog. This was followed by another minute listening period before ground searches commenced.

After the call survey, a spotlight search was carried out around the edges of the ponds. Reed beds in the central parts of the pond were searched and any ground cover materials near the ponds were upended to try to locate sheltering, non-calling frogs.

If free water was present at the site, a small hand-net was trawled through the water to capture any tadpoles present. Tadpoles that were caught were transferred to a sterile plastic bag, identified using Anstis (2002) and released.

Hygiene Protocol

To ensure that correct hygiene standards were employed all field surveys equipment (including boots) were sterilised in bleach before entering the site. Only clean, sterile plastic bags were used to hold frogs or tadpoles and the bags were not re-used. If frogs were handled, hands were later washed in mild disinfectant and rinsed in clean water carried onto the site. Dis-used and waste water was collected and transported off the site for safe disposal.

Results

No Green and Golden Bell Frogs were detected during the surveys. Only two frog species were found on the site; the result of each survey is presented in Table 1 below:

Table 1
Survey Results

	Pond 1	Pond 2	Pond 3	Pond 4	Pond 5	Springvale Drain	Floodvale Drain
Survey 1 28/12/2009	LP	Nil	Nil	Nil	LP	CS LP	LP
Survey 2 4/1/2010	LP	Nil	Nil	Nil	Nil	CS LP	LP
Survey 3 14/1/2010	LP	Nil	Nil	Nil	Nil	CS LP	LP

CS = Common Eastern Froglet *Crinia signifera*
LP = Striped Marsh Frog *Limnodynastes peronii*

In addition to the above sites, some Striped Marsh Frogs were also found away from the ponds on site.

Conclusion

No Green and Golden Bell Frogs were found during the surveys and the general lack of water on the site means that little useful habitat exists for these frogs. The smaller ponds have been dry for about 3 years and the main pond (pond 1) does not appear to hold water for longer than a week after rain (S. Moore, Orica pers. comm..). As noted above, the dryness of the site may be accounted for due to the recent full operation of the Groundwater Treatment Plant which we are advised, has had the effect of significantly lowering the groundwater level on Southlands. If Bell frogs still occur in the local (Botany) area they are probably unable to use the Southlands site very often, if at all.

Response to Submissions

The following outlines matters raised in relation to the Green and Golden Bell Frog in public and government submissions on the Southlands Environmental Assessment (URS, August 2009). A response to each is provided:

1. **Suitability of Location:** the location of the pond(s) should be close to potential frog movement corridors. Only two potential corridors have been identified for the Southlands Site: along the Springvale Drain, or along the railway corridor between the Southlands Site and the Botany Industrial Park. Either of these locations would be suitable. The railway corridor is not owned by the proponent. The proposed development is on land directly adjacent to Springvale Drain and this is where the ponds are proposed to be located.
2. **Pond Design:** It is proposed that artificial, above ground ponds be installed. This style of pond has been used successfully at Sydney Olympic Park and at Davistown (on the Central Coast). An above ground pool has logistical advantages of not needing to disturb ground soil and being higher than normal flood levels during heavy rain events. They also have an ecological advantage in that an elevated pond can exclude many terrestrial competitors, such as Striped Marsh frogs (*Limnodynastes peronii*). A logistical disadvantage of these ponds is that they cannot usually be filled by natural run-off, and will have to be filled from either town water, or from roof captured water. Roof captured water is preferred as this can better simulate natural flooding events in the local area.

Assuming above ground ponds are used as now proposed, more than two ponds should be established. The ponds would be set up so that the overflow from the first pond feeds the second pond at each location at the Southlands site: in this way a variety of water depths are achieved at the site.

As the Southlands site is proposed to be developed for a warehouse, with secure fencing there is little fear of vandalism to these ponds.

3. **Landscape treatment:** the area around the ponds will require some preparation and replanting. If above ground ponds are used as proposed, all imported native plants will be established in the imported clean soil (that is proposed to be imported and placed on top of the existing ground level). Landscaping will entail the planting of grassed areas around the ponds (to attract grasshoppers and crickets to feed the adult frogs), as well as clumps of tussock plants and rocks (that will provide shelter for the adult frogs).

Emergent vegetation in the ponds can be established in submerged pots.

4. **Noise and movement impacts:** a number of other Green and Golden Bell frogs sites are in or close to industrial sites. In each case, little impact has been observed on the frogs from noise or movements around the site. This appears to be due to the fact that the frogs are nocturnal and most of the site activity takes place during the day. One factor that is very important is night lighting: night lights cannot be directed into the frog ponds or frog areas. The location indicated for the ponds in the Environmental Assessment on the non active side of the warehouse is

therefore ideal.

5. **Proximity and compatibility with surrounding habitats:** Bell frogs are a colonising species that often occurs on highly disturbed landscapes (Pyke and White 2001). The disrupted nature of the Southlands site would not interfere with Bell frogs using the area (but might preclude some other more sensitive frog species). The frog ponds and associated habitat areas would be specifically tailored for Bell frogs and will look rather different to the rest of the site- again, this will not diminish the value of these habitats or interfere with Bell frogs moving around the wider site.
6. **Interrelationships with Springvale Drain:** Springvale Drain is not used by Bell frogs for breeding or shelter: it may be used as a short-term foraging area and a dispersal corridor. Because of its potential habitat value, the frog ponds should be within easy dispersal distance (ie. less than 100 metres) from the Drain. The location currently proposed in the EA is therefore well suited as it immediately adjoins Springvale Drain.
7. **Water Volumes in the ponds:** the ponds will always need to contain some water but water volumes must fluctuate (ie. it must not be a static pond). To ensure that there is always a minimal amount of water in the ponds, a float valve connected to town water should be set at a 25% depth limit. If roof run-off can be harvested, this would supply the water surges needed during rainfall events to flood and overflow the ponds. If roof water cannot be harvested, then ongoing management will be required whereby water will be added to the ponds (either from town water or from tank water) to simulate flooding events).
8. **The potential for contamination by Springvale Drain:** artificial above-ground ponds will negate this problem.
9. ***Gambusia* invasion:** as above-ground ponds are not linked to existing drains by surface run-off, the chances of *Gambusia* invasion are greatly reduced. Should *Gambusia* become established, the ponds can easily be drained and the fish eliminated.

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Dr Arthur White
25 March 2010.