

# Southlands Remediation and Development Project

## Environmental Assessment

### Project Application (MP 06\_0191)

#### Appendix C: Consultation Materials



**Botany Transformation Projects Community Briefing**  
**Saturday 17 June 2006**  
**Orica Administration Building**

**Feedback Report**

On Saturday 17 June, Orica invited the community to tour our site at Botany and join in a community briefing session on several remediation and development projects. These projects are known as the *Botany Transformation Projects*. Some 70 people attended on the day (an attendance list is provided below). This document attempts to summarise the key issues and queries raised during the day. These issues will feed into our remediation and redevelopment plans. If you feel we have not captured an issue you raised please let us know.

We'd like to thank everyone who came along and let you know that we appreciate your time and all the feedback that you provided. We hope our community consultation programs provide you with opportunities to become involved. Further community communications and sessions are planned and we welcome you to provide feedback at any time.

**Queries and Issues Raised in Response to Bus Tours and Presentations:**

**Bus Tours**

- Containment of the salt heap
- Botany Industrial Park (BIP) energy use and response to power failures
- Effluent monitoring
- No rail transport used at the BIP
- Contamination source areas
- Treatment investigations for HCB waste
- Number of workers on site
- Use of flares

**Overall Site Strategy**

- Further clarity on ownership structure of the BIP
- Responsibility, obligations and indemnities for cleanup
- Detail on why the contamination occurred
- Extent of contamination
- Regulatory involvement
- Concern that freight movements/traffic will increase
- Sale of Orica land once cleaned up

**Southlands Remediation**

- Past, current and possible landuse and zoning of the land
- Time required to cleanup the groundwater and surface soil
- Extent of contamination, differentiation between groundwater and surface water contamination
- Groundwater investigations
- Process for cleaning up groundwater and surface soil
- Explanation of technical terms
- Environmental planning legislation process and involvement of the community

**Southlands Development Concept**

- Masterplan description and process
- Traffic impacts
- Road extension
- Rail options
- Use of sustainable energy/recycling initiatives (e.g. capturing and reusing rainwater from warehousing)

**Demolition of Former Chlorine Plant**

- Protection and monitoring of workers
- Education on safety practices for workers in the BIP
- Recording of safety statistics
- Source of mercury contamination
- Water use at BIP during water restrictions

**Groundwater Treatment Plant**

- Impact of rain fall on groundwater contamination movement
- Recent dioxin discharges, concentrations above licence limit
- Groundwater treatment processes
- Suppliers of treatment technology
- Independent Monitoring Committee
- Reuse of treated water
- Bacterial fouling

**Water Recycling Initiatives**

- Residential use of treated groundwater (eg. request to consider filling rainwater tanks)
- Storage capacity on site
- Contaminants in groundwater
- Quantity currently being treated
- Alternative sources of water for reuse
- Quantity proposed for reuse
- Government grants
- Impact of large groundwater extraction rates on groundwater flows

**HCB Waste – Repackaging Plant, Regional Siting and Export**

- Creation of jobs in rural areas
- Length of time taken to destroy concentrated waste
- Waste destruction process
- Transport considerations if the waste is exported

**Car Park Waste Encapsulation**

- Bioremediation trials
- Details of bioremediation treatment solutions
- Remediation timing

**Other Matters Raised**

- Options to educate local youth on cleanup projects and engineering solutions
- Borewater: residential use, quality, safety, government directives regarding usage
- Orica's Rainwater tank rebate program

## Attendees

Vibeke Aagaard
Lucy Archer
Emma Biddles
Mary Boxall
Barbara Company
Pearl Champion
David Chu
Jennifer Cilia
Michael Cilia
Avril Clark
Brandon Durward
Samantha Durward
Robert Evans
Robert Evans Jnr
Ross Fraser
Julia Gennissen
Carey Gent
Bruce Gotting
Peter Gulevski
Susan Hall
Janet Hanscomb
John Hanscomb
Ann Hill
Nancy Hillier
Madeline Issazedah
Norm Issazedah
Robert Issazedah
Rosanna Issazedah
Samira Issazedah
Vicki Johnston
Jordan Kresnanto
Jason Little
Ted Magen
Mia Mediana
Mrs Pauline Montesin
Lynda Newnam
Mark Nicholls
Con Norton

Diane Noy
John Noy
Ben Onslow
Rupert Onslow
Kaan Ozserim
Halil Oztop
Leon Oztop
Sermin Oztop
Tony Peglar
Tania Pereira
Gary Peters
William Peters
Tom Peters
Beverley Pickering
Graeme Richardson
Lily Roberts-Everett
Con Salakas
Phyllis Salakas
Monica Salkeld
Ron Salkeld
Wendy Salkeld
Michael Selleck
Necip Sema
Madam Sema
Soegito Soegyowo
James Stening
John Swinfield
Kire Temelkovski
Ann Tourrier
John Tourrier
Jim Towart
C Vestegard
H Vestegard
Milton Way
G Wood
Marj Wright

### Orica Community Relations

Ph 1800 025 138

16-20 Beauchamp Road, Matraville nsw 2036

[info@oricabotanygroundwater.com](mailto:info@oricabotanygroundwater.com) info @oricahcb.com

[www.oricabotanygroundwater.com](http://www.oricabotanygroundwater.com) www.oricahcb.com

# Southlands Community Workshop Report

**Saturday, 19 August 2006**

A community workshop was held to provide information and the opportunity for discussion on the development jointly proposed by Orica and Macquarie Goodman for the Southlands site. A number of presentations were made covering such aspects of the project as:

- traffic impacts and mitigating measures
- flora, fauna and heritage issues
- the contamination at the site and how it is being managed
- the Remediation Action Plan
- the timeline.

A number of questions were asked on different aspects of the project and have been listed below.

How can you predict that the easements for the project will be adequate for what might required?	We have done a lot of work at the site over the years and have a very comprehensive idea of what our requirements will be.
Will the traffic model be prepared for optimum use?	Yes
Could the vapours come up through the floor of the development?	No. There will be an impermeable concrete slab under the floor of the development.
Would these vapours make you sick?	There would not be any vapours so no-one would be affected.

**SOUTHLANDS REMEDIATION AND DEVELOPMENT PROJECT****COMMUNITY WORKSHOP, TUESDAY 27 FEBRUARY 2007****WORKSHOP REPORT**

This third community workshop was held to report back on progress of the proposed remediation and development of Orica's Southlands site at McPherson Street, Banksmeadow by Orica and Macquarie Goodman (MG) and to seek community feedback on the proposal whilst development of the Environmental Assessment (EA) continues.

Presentations by members of the project team provided updates on the following facets of the project and the EA:

- the site Master Plan
- traffic management studies
- the Remediation Action Plan (RAP) and Human Health Risk Assessment (HHRA)
- flooding and stormwater management investigations
- eco-efficiency design features.

The following sections provide a brief summary of each presentation along with the questions raised by participants and the responses provided by members of the project team. Additional information has been added to clarify responses to questions as necessary. A list of people who attended the workshop and apologies is provided at the end of the report.

**1. Introduction – Graeme Richardson (Orica)**

Graeme welcomed participants and provided a brief overview of the remediation and development project.

**2. Master Plan – Jeff Lord (DBL Property)**

Jeff presented an update on the concept Master Plan for Southlands, including details relating to the major stages of remediation and development of the site and the proposed road.

Question/ Matter Raised	Response
Concern there will be major traffic problems.	<p>The traffic study has taken into account future demand on the road network and the traffic modelling has been done in consultation with the RTA.</p> <p>The RTA has reviewed the road options for connecting the site with Botany or Beauchamp Roads and have advised that the selected option (to extend a new road through the Macquarie Goodman Discovery Cove estate and onto Botany Road) provides the optimal solution.</p>

Question/ Matter Raised	Response
Concerned that existing traffic problems will worsen as movement in and around Discovery Cove is already difficult.	Discovery Cove traffic issues have been reviewed as part of the proposal, incorporating management plans recently adopted by the City of Botany Bay Council (CoBB).
Concern there will be more injuries and accidents because of parked semi-trailers.	This is noted and is an existing problem that should be reviewed independently by Botany Council.
Semi-trailers are already problematic and the number on the road network are likely to increase.	The number of semi trailers will largely be dictated by the Port which is beyond Orica's control. Traffic for the Southlands development will be made up of trucks of various sizes usually associated with warehousing but they will be parked on the site (not in the street).
Has the Ports development been considered with respect to traffic?	The traffic model has taken into account the traffic projections and road works associated with the Ports development.
How will the lights at Botany and Foreshore Roads be coordinated with the proposed new intersection at the Discovery Cove property – they are very close together.	The two intersections would be relatively close (140 m), but the RTA requires minimum distances between intersections and the proposed location meets their requirements.  The traffic signals would be coordinated to manage traffic flow and this is assumed in the traffic modelling.
Would there be container storage on the site? and could there be spillage from container storage?	MG is mindful of aesthetics and does not want to store containers. It is likely that any consent would prohibit outdoor container storage. Containers will come onto the site to be unpacked and will then be removed.
Would there be semi-trailer parking on Southlands.	Some trucks would come to the site to make deliveries and collections and parking for these vehicles will be provided in accordance with Council's Parking and Loading DCP. No other parking is proposed and would be an encumbrance on the site.
Would there be repackaging of semi's and trucks on the site?	It would mainly be a storage and distribution centre. Semi's may deliver containers to the site for unpacking, with smaller vehicles accessing the site to make deliveries. It will be similar to other nearby Macquarie Goodman developments which provide a good amenity and contain demands within the site.

### 3. Traffic Update – Graham Pindar (Traffix)

Graham provided an update on the initial works at Hill and Exell Streets proposed with the first stage of the development and the new road proposed for Stages 3 & 4 (the eastern side) of the development. He explained that the traffic model has taken into account the proposed development at the Port, Green Square, Prince Henry Hospital and the Airport. Considerable discussion was held in relation to the road proposal and existing traffic constraints.

Question/ Matter Raised	Response
What is the distance between the proposed traffic intersection and the existing Foreshore / Botany Road intersection?	140 metres.
Trucks from the Port bank up and queue at the Foreshore/ Botany Road intersection constricting the traffic flow. A new intersection would exacerbate the problem.	<p>The new intersection would include traffic lights and turning bays including a separate left-hand turn lane into Botany Road from Discovery Cove. Traffic signals would also be installed at Exell Street, along with free left-hand turn and right hand turn entries into Hill Street from Botany Road.</p> <p>The overall objective is to improve traffic flow and improve operations of the intersection. Traffic queues on Botany road could be freed up by this new road proposal.</p> <p>The new road is currently part of Council's section 94 contributions plan – it is already planned by the Council and Macquarie Goodman are merely providing (and relying) on this planned road.</p>
What about the impact on the existing problematic traffic flow? The existing problems start at Foreshore Road.	It is agreed there are some issues still to be resolved in relation to how the roads in the vicinity operate. This is largely associated with on-street queuing effects associated with the Port and this is a management issue that needs to be addressed, probably through internal Port operational practices.
There are difficulties presented by the existing and proposed turning lanes with the space that trucks need to make turns.	The proposed development would only attract certain customers, and it isn't likely to attract large trucks and semis in the way that the container storage site on McPherson Street presently does. All new roads will need to conform with relevant standards and requirements.
Will there be increased traffic during construction at the Southlands site?	Both high and low traffic flows are anticipated for the various stages of the works. A detailed construction traffic plan will be required and this will be a condition on any consent.
More problems are anticipated at Hill and Exell Streets. Trucks need a large space to turn and there is heavy pedestrian use of this area.	We are confident that the Hill and Exell Street intersections with Botany Road can be improved for all traffic. Pedestrian safety is key in any road design and it is agreed that it needs to be carefully considered.
Have the existing Discovery Cove tenants been consulted? There are problems with the flow of traffic through the Discovery Cove estate already.	Orica has formed an alliance with MG for this project and they own and manage the Discovery Cove property. They have been involved in the design of the new road and will be responsible for consulting with their tenants.

Additional comments raised about local traffic problems were as follows:

- There are a lot of traffic difficulties for local residents now. One participant advised that he has been stuck in traffic for half an hour trying to get from Botany Road to Foreshore Road. Another participant said this had occurred to her on the morning of the workshop.
- The road choice is seen as a cost-saving option (Note: this statement was made in comparison to the option of installing a bridge over the railway line. Detailed discussion regarding the pros and cons of each road option were not held but were recommended for future workshops).
- Considerations are required for pedestrian safety.
- Participants would like to see the RTA attend future traffic discussions.
- The Port Feeder Road approval was conditional upon works to improve the intersection of Foreshore Road and Botany Road but these works have not been implemented. Right-hand turning lanes from Botany Road to Foreshore Road, were never implemented.
- Improving local traffic conditions is a Council and RTA issue but this project will only make things worse.
- Problems are compounded by trucks parking along Foreshore Road.
- Concern that Hill and Exell Street upgrades may shift local traffic problems.

Participants asked that the proposed road be reviewed and made the following recommendations about the project and traffic management in the area generally:

- Take out the roundabout on Botany Road near Foreshore Road.
- Consider the option of providing a new road from McPherson Street to Beauchamp Road, over the railway line.
- Expand Botany Road – a land take from the Golf Course to create two lanes in each direction and to provide parking to access the eateries around Exell Street.
- Widen the intersection at Foreshore Road and Botany Road.
- Make provision for trucks going to Penrhyn Road to park on the eastern side of Foreshore Road.
- Widen Botany Road.
- Ask the RTA to attend the next workshop.

#### **4. Remediation Action Plan (RAP) and Human Health Risk Assessment (HHRA) – Gavan Butterfield (URS)**

Gavan described the results of the contamination and vapour investigations conducted at the Southlands site to date and the proposed capping remediation approach. He outlined potential risks to human health associated with vapours from the contaminated groundwater and surface water with the site in its current condition and noted that a solution for the surface water concentrations in the drain was yet to be confirmed.

Question/ Matter Raised	Response
Isn't capping the site just creating another Car Park Waste Encapsulation (CPWE)? The contaminants will still be there. Hasn't Orica learned from it's mistakes of the past?	The issues of vapours from groundwater and surface waters are the central issues for the Southlands site and differ fundamentally from the CPWE encapsulated waste scenario.  There is relatively little soil contamination at the Southlands site and the manner in which it is dealt with (capped or removed) will be agreed with the auditor and DEC.

Question/ Matter Raised	Response
	<p>Furthermore, the proposal for capping is to primarily assist with the flood mitigation – the cap will raise the land level by 1 metre to prevent flooding. The flood solution therefore offers opportunities to deal with the issues of vapours from groundwater on the lands to the east of the Springvale Drain (by forming a physical barrier which stops vapours) and isolated asbestos related issues across the site.</p> <p>The CPWE is very different in that it is an engineered store designed to store higher concentrations of contaminated soil.</p> <p>The independent auditor (who acts in lieu of the DEC in these matters) must be satisfied that the approach is appropriate and satisfies all relevant DEC guidelines.</p> <p>The auditors approach is always conservative as they take on substantial liability for the remedial approach.</p>
<p>How does capping work in relation to the open space? Can the open space be safely used?</p>	<p>The capping remedial approach will cater for the entire site.</p> <p>Areas to be used as open space are subject to specific DEC / Auditor requirements to ensure they can be safely used.</p>
<p>How does the capping solution work with stormwater detention?</p>	<p>Connell Wagner proposes installing a compensatory flood detention area on Block 1 (the eastern side of the site), primarily to deal with occasional flood conditions (1 in 20 yr / 30 yr etc).</p> <p>In addition, for "everyday" stormwater detention requirements (i.e. non-flood conditions) receptacles will be installed within the capping layer in strategic locations across the site. These receptacles will essentially be underground (relative to the post development site elevation). The stormwater detention design will need to dovetail with the remediation requirements in terms of vapour barrier integrity.</p>
<p>Can mercury leach out of the soil?</p>	<p>Mercury in the soil is likely to have been there for some time and it is unlikely that it is leaching.</p> <p>Potential sources of mercury on Southlands include fill that was most likely imported as ash from the Bunnerong Power Station, paper waste that was stored on the site in the 1960 and 1970's</p>

Question/ Matter Raised	Response
	<p>and from material removed during relining of Springvale Drain (sourced from stormwater discharges to the Drain).</p> <p>The RAP will deal with the mercury issues either by removal (if appropriate), or further assessment of leaching potential prior to capping. Additionally, once the cap is in place, leaching will be less likely, as the ingress of rainwater will be significantly less.</p>
<p>We thought Orica wanted to cleanup Southlands, now you say they want to cap it. Aren't you just leaving the contaminants for other generations?</p>	<p>The primary environmental concern in Southlands is the contaminated groundwater. The GTP is planned to be able to continue to operate into perpetuity whilst development occurs in Southlands. Additional areas of land have also been reserved to allow for future remedial technologies to be employed to treat groundwater.</p> <p>The Southlands site has never been developed or used for any industrial purposes. The soil contamination in Southlands is largely a result of uncontrolled dumping over the years by industry and local businesses.</p> <p>Investigations thus far have indicated that there is unlikely to be any material onsite that warrants excavation, treatment and disposal offsite.</p> <p>The remedial approach (capping) will render Southlands a safer environment than it is currently, and one that is suitable for industrial/commercial development.</p>
<p>What will be done to fix up Springvale Drain?</p>	<p>Recent monitoring conducted by Orica shows a considerable improvement in the surface water quality in Springvale Drain and this may relate to operation of the Botany Industrial Park groundwater containment line. Further monitoring is required to determine if this will continue.</p> <p>The Drain will be landscaped as part of the development and we will need to ensure that groundwater is managed and does not have a significant quality impact on the water in the Drain. We will ensure that we reduce risks to site users to an acceptable level.</p>
<p>How are the soil assessments conducted?</p>	<p>Soil assessments are conducted by taking samples of soil across the site (by test pitting with an excavator or soil boring using a drill rig) and analysing them for a range of potential contaminants.</p>

Question/ Matter Raised	Response
	<p>The initial investigation identified a few “hotspots” or areas with concentrations of contaminants exceeding commercial/ industrial guidelines on the site.</p> <p>Detailed delineation testing was performed in these areas. This work was done in order to get a better idea of the size and extent of the hotspots.</p> <p>The results indicated the extent of the contaminated soils was considerably less than initially anticipated.</p>
<p>Are you conducting water quality assessments after rainfall to understand the impact of dry and wet weather conditions on the Drain?</p>	<p>We have conducted 13 samples each month for the past 13 months. This has included some wet and dry periods.</p> <p>We will continue to sample groundwater levels and the water quality in the Drain and will advise the community of the results.</p>
<p>Are you assessing water quality in the ponds on Southlands?</p>	<p>The ponds are currently dry.</p>
<p>There is an odour emanating from the stormwater drains at Discovery Cove, do you know what that is from?</p>	<p>The Discovery Cove stormwater pits drain to Springvale Drain which runs underneath the property. Our monitoring has confirmed that the chlorinated hydrocarbon contamination in the groundwater can result in odours at the stormwater pits at Discovery Cove.</p>
<p>Are you monitoring near Springvale Drain?</p>	<p>Yes, Orica has been conducting vapour monitoring along the Drain. Further work is also planned shortly.</p> <p>As noted above, we have recently seen significant improvements in the water quality in the Drain.</p>

## **5. Flooding and Stormwater Management Investigations - Des Brady & David Kennewell (Connell Wagner)**

Des provided an overview of the catchment and the proposed approach to the management of stormwater and flooding prevention. He explained the modelling which has been undertaken for the project and explained that further survey work is being undertaken at the boundaries of the model. He explained that the eastern side of the site would be used to provide compensatory floodplain storage in the initial stage of the development and that a number of on-site and downstream options existed for stages 3 and 4 (the eastern side of the site).

David Kennewell discussed the modelling outputs and explained potential dual use detention design features.

Question/ Matter Raised	Response
<p>What about the impact on neighbouring properties? There are currently flooding issues there already.</p>	<p>We acknowledge that there is an existing flood problem in the catchment, but that problem is not for Orica to solve alone. It is important that Council, government and the landowners work together.</p> <p>There are a range of potential solutions including flood storage and improving the capacity of the existing drains down gradient of the Southlands site.</p> <p>Our proposal included detention to reduce the flow of water from the site during storm events, and in ground storage for rainwater.</p>
<p>Something needs to be done before the flooding situation worsens for nearby residents (e.g. Dent Street).</p>	<p>This proposed development won't impact on the Dent Street area.</p> <p>Flooding in that area is part of a wider catchment problem.</p>
<p>Does the model state the volume of water that will go to Springvale Drain from the development site and how that will be managed?</p>	<p>For the development of Stages 1 &amp; 2 (the western side of the site) flood storage will be provided on the area of Stages 3 &amp; 4 (the eastern side of the site) so that there won't be an increase to peak flows to the Drain.</p> <p>In-ground rainwater detention will also be provided to off-set the decreased permeability of the site.</p> <p>Options exist for the management of stormwater for the development of stages 3 and 4 but a final solution would need to be developed in conjunction with adjacent land owners, the state government and Council.</p>
<p>Will all the water from the site run into Springvale Drain?</p>	<p>Water from the developed site will run off to both Springvale and Floodvale Drains, under a flow pattern much the same as presently occurs.</p> <p>The proposal for stormwater and flood management is designed to ensure that Springvale Drain takes the majority of flows while those to Floodvale Drain are not increased (but it will still take some flows).</p> <p>The existing stormwater drainage system is not sufficient to take high rainfall flows and McPherson Street has been known to flood between Floodvale and Springvale Drains. In a</p>

Question/ Matter Raised	Response
	report from the mid 1990's Botany Council has identified a number of works that could be done to improve the flooding in the catchment. This will include measures that are required to be implemented by the Council and state government agencies.
Does the plan take the Port Development and Penrhyn Estuary into consideration in relation to flow over of flooding?	Stormwater flows into Botany Bay via the Estuary now. The proposed development will not have a significant effect on the volumes of water flowing to the Bay during a peak rainfall event as we have allowed for on-site detention.
While you are implementing measures what happens to existing localised flooding problems?	Existing, localised flooding off site from the Southlands site will not be effected.
A huge area feeds into the catchment. An increase of run off to the drains will cause a problem for flooding of the Penrhyn Estuary particularly in storm events where there is ocean surge.	We aim to provide detention and flood storage to ensure that peak flows don't exceed those currently occurring in storm events. We agree this will need to be looked at closely but also note that the flood levels in the estuary are controlled by the ocean and any additional impact that may occur would be insignificant.

## 6. Eco-efficiency Design Features - Des Brady (Connell Wagner)

Des provided details about the eco-efficiency features outlined in the Botany Council Development Control Plan and those proposed for the Southlands development. No specific questions on this presentation were noted.

## 7. Other Q&A

Question/ Matter Raised	Response
Has Mr. Debnam spoken to Orica about [using the site for] the desalination plant?	No.
What about providing habitat for frogs? In initial project briefings the Green and Golden Bell Frogs were given some significance and now this appears to have changed.	<p>The Green and Golden Bell Frog had been identified passing through the Southlands site in past fauna surveys so we had thought there may be a need to provide frog habitat as part of the landscaping of the site.</p> <p>Arthur White has visited the Southlands site on three occasions to conduct a frog survey for this project.</p> <p>Unfortunately it hasn't rained much this summer so there haven't been ideal conditions for frogs. However, Arthur advised that his last survey was conducted after rain in almost perfect frog conditions.</p>

Question/ Matter Raised	Response
	<p>Three frogs have been identified on the site, but no Green and Golden Bell Frogs have been found.</p> <p>Frogs hadn't been included in the agenda for this workshop but can be included for discussion at future workshops.</p>
How much land will be used as open space in the development?	At this stage we think about 2.2 hectares of open space will be provided for on-site stormwater detention. Trees are usually planted on the edge of this type of area so it is landscaped as well as being functional.
Will there be grassed areas?	Yes. As above.
The trees at Newington are dying.	The landscape architect will select trees and planting as part of their design for the site.

## 8. Actions and Next Steps

The following actions were noted at the close of the meeting:

- Another public workshop will be held in a month or two to discuss the following matters in more detail:
  - Traffic options and management (including safety and pedestrians, truck queuing, construction traffic, the impact of the 5<sup>th</sup> berth proposed at the Port). The RTA will be asked to attend and participate in this discussion.
  - The RAP (including how the concentration of contaminants found in soil at the site compare with DEC guidelines). The Site Auditor will be asked to attend to provide information about his scope of work and to provide comment on the proposed capping solution.
  - Surface water monitoring results (including detail on how the concentrations in the Drain vary over time in response to rainfall).
  - Frogs (including the results of surveys conducted for the project and the need for habitat offsets in the development plans).

## 9. Attendance List & Apologies

The meeting was attended by the following people:

Name	Organisation
Lucy Archer	Orica
Warwick Asquith	Pac & Send Botany
Rick Bevan	Solvay Interlox P/L
Des Brady	Connell Wagner
Nicole Brewer	URS
John Burgess	Aust. National Fishing Assoc.
Gavan Butterfield	URS
Stephen Corish	Orica
Ambrose Dunne	Orica
Julia Gennissen	Botany Environment Watch
Maylene Goldengaye	Resident
Susan Hall	Aust.Environmental School.com
Tony Hill	Resident
Nancy Hillier OAM	Botany Environment Watch
David Kennewell	Connell Wagner
Jeff Lord	DBL Property
William Main	Macquarie Goodman
Roger Miller	Valad
Lynda Newnam	Botany Bay and Catchment Alliance
Beverley Pickering	Botany Environment Watch
Graham Pindar	Traffix
Paul Qeeney	Gazal Apparel
Graeme Richardson	Orica
Lily Roberts-Everett	Orica
Tony Rohr	Rohr Group
Mark Rohr	Rohr Group
Irma Ruiz	Resident
Wendy Salkeld	Orica
Paul Shepherd	City of Botany Bay Council
Reinhard Skrandies	Matraville Chamber of Commerce
John Tullis	Eastlakes Community Group
Martha Varela	Resident
Caroline Vernan	URS
Jackie Wright	URS

Apologies were received from:

Name	Organisation
Richard Benson	Qenos
Coleen Greene	Resident
Scott Jeffries	Department of Planning

## **SOUTHLANDS REMEDIATION AND DEVELOPMENT PROJECT**

### **COMMUNITY WORKSHOP, THURSDAY 3 MAY 2007**

#### **WORKSHOP REPORT**

Consistent with Orica's commitment to seek community input into the proposed Southlands development while the Environmental Assessment (EA) continues to be developed, a fourth community workshop was conducted on 3 May 2007.

#### **1. Introduction**

This workshop aimed to provide an opportunity to further discuss concerns regarding the proposed traffic plans associated with the remediation and development of Orica's Southlands site at McPherson Street Banksmeadow, as identified at the February 2007 workshop. Participants from previous Southlands workshops engaged in a round-table discussion with representatives from Orica, DBL Property (Project Manager on behalf of Orica and Goodman International) the City of Botany Bay Council (CoBB), and Traffix (the project traffic planners). The Roads and Traffic Authority (RTA) was invited to the session but advised that they would not attend as they had not yet reviewed a final traffic report for the project. A list of participants is provided in Section 5 of this report.

While no formal presentations were made, Graham Pindar from Traffix, and Jeff Lord of DBL Property, provided maps and details of the traffic options considered for the Southlands development. Participants focused on three specific areas. These were:

- the existing traffic situation in the vicinity of the proposed development;
- proposed Stage 1 Works; and
- proposed Stage 2 Works.

Sections 2, 3 and 4 provide a summary of discussions relating to the above three areas and lists questions raised and responses provided. Concerns and recommendations tabled by participants are included.

The reader is advised that the names of the various project stages has been varied through project development. The stages are now described as follows:

- Stage 1: the western block of Southlands;
- Stage 2: the south of the eastern block of Southlands; and
- Stage 3: the north of the eastern block of Southlands.

Orica and Goodman International propose to submit an EA seeking project approval for the Stage 1 development and concept approval for Stages 2 and 3.

An area map of roads around the Southlands site is provided as Appendix A for reference. Please note that Foreshore Road only extends in a westerly direction from the intersection with Botany Road at the Botany Golf Course. The continuation of the road to the east (over the railway line) is actually part of Botany Road (that section of road is sometimes incorrectly referred to as Foreshore Road).

## **2. Existing Traffic Situation in the Vicinity of the Proposed Development**

Participants acknowledged the significant existing traffic issues in the area and raised the following points:

- The area is already constrained in relation to traffic. It can take 20 minutes to get from McPherson Street to Foreshore Road at 4.00 pm on weekdays.
- Entry into Hills Street is difficult, especially for heavy vehicles.
- Hills Street is deemed a sub-standard road.
- Turning left from Exell Street is difficult.
- A participant tabled photographs as evidence of the traffic difficulties facing workers in the area.
- Workers access to sites in the area is being blocked by the queuing of trucks.
- An unofficial bypass 'route' has developed between McPherson Street and Stephen Road through the Portside Distribution Centre (an industrial premises fronting Stephen Road). This route is regularly used by cars. This reflects present difficulties using Exell Street and Hills Street.
- The capacity to enter Foreshore Road from Botany Road is problematic as the traffic signals do not provide sufficient green time for this movement, with limited lane capacity, so that only a few cars can proceed through the intersection with each phase.
- A right-hand arrow is required at the intersection of Botany & Foreshore Roads to facilitate traffic movements from Botany Road to Foreshore Road, which presently only provides a 'filter' right turn. It was acknowledged that RTA and CoBB approval would be required for that change to be made. CoBB was asked to consider this suggestion.
- Queuing on Botany Road is caused by through traffic on Foreshore Road which is given priority; while queues on Exell Street (to turn left) are caused by southbound through traffic on Botany Road.
- The roundabout at the Botany Hotel presents major issues. The single lane is easily grid-locked by large trucks, many of which undertake 'U' turns.
- There is an option to construct an additional lane in Botany Road on approach to Foreshore Road which would assist conditions at this intersection. This may have implications for loss of on-street parking, especially for the Botany Hotel patrons who currently use the road verge and the area in front of the Discovery Cove Estate gates (when they are closed) for parking.
- CoBB noted that they are considering the provision of additional right-angled parking in the vicinity of the Hotel on this section of Botany Road which would compensate for any road widening.
- Moving traffic off Botany Road, especially heavy vehicles, results in an increase of traffic on Foreshore Road and the issue arises as the respective role of these two roads.
- Golfers may have health concerns as a result of increased traffic in the area.
- Some truck drivers are unfamiliar with the area and do not always know the local road rules and can cause traffic problems.
- Only two out of the three traffic related approval conditions for the Port Feeder Road have been implemented. Improvements at the intersection of Foreshore Road and Botany Road were supposed to have occurred. These included two right-turning lanes and one through-lane at the Botany & Foreshore Road intersection (when coming from Botany Road). A contribution of \$65,000 by Australand was made toward the improvements and the RTA has since changed the specific requirements.
- Local businesses have sought RTA assistance and are not satisfied with the response they have received.
- Proposed improvements cannot be considered until existing issues are resolved.

### 3. Stage 1 Works

Graham Pindar of Traffix provided details of the proposed traffic improvements to be implemented for Stage 1 of the Southlands development. Maps were available to identify the locations being discussed.

The proposed improvements are:

- Hills Street – creation of separate right turn and left turn entry lanes in Botany Road for the movement into Hills Street.
- Hills Street – widening at the entrance to allow two lanes with a merge on approach to McPherson Street.
- Exell Street and Botany Road intersection – new traffic lights to facilitate right and left turns into Botany Road from Exell Street, with pedestrian crossings on all approaches.

Additional road improvement measures were also discussed that could improve conditions in the area, but are not necessarily required to improve conditions and capacity on McPherson Street, as follows:

- Botany Road Roundabout – to be removed to provide two southbound through lanes in Botany Road as well as prohibiting right turn exits from Discovery Cove at this western gate.
- Botany and Foreshore Road Intersection – Additional lanes created in both directions on Botany Road.
- Discovery Cove eastern gate on Botany Road – new intersection with traffic signals allowing all turns.

Workshop participants discussed the proposed improvements. The following questions and responses are noted.

Question/ Matter Raised	Response
Concern regarding the close proximity of the existing signals at the intersection of Foreshore and Botany Road with the new proposed traffic signals at the eastern Discovery Cove entrance on Botany Road.	The two sets of signals would be relatively close but can be managed safely by correct phasing of the lights. The distance has been discussed and agreed in principle with RTA officers.
Improvements resulting from the new signals should not be at the cost of the proper functioning of the existing intersection at Foreshore and Botany Road.	Noted.
How will removing the roundabout near the Botany Hotel improve the traffic flow?	<p>This roundabout has been identified as an impediment to local traffic flow by CoBB. DBL Property &amp; Traffix have spoken to CoBB about the possibility of removing this roundabout to improve the geometry and ease the traffic flow.</p> <p>Removing the roundabout also creates more room for the provision of additional roadside parking in this part of Botany Road.</p>
What increase in local traffic will be generated by Stage 1 of the proposed Southlands development and how will it be distributed throughout the day.	<p>The estimated amount of traffic generated by Stage 1 of the Southlands development is 230 vehicles per hour. These are combined in and out trips and includes cars and trucks.</p> <p>The estimated amount of traffic generated by</p>

Question/ Matter Raised	Response
	<p>Stage 1, 2 and 3 works (full development) is 460 vehicles per hour, combined in and out trips. In this regard, warehousing is a low traffic generating use and is therefore the most appropriate for consideration on this constrained site.</p> <p>The traffic would be comprised of approximately 80% light vehicles (car, vans) and 20% heavy vehicles (trucks).</p> <p>Light vehicles will be focussed on commuter periods, while trucks servicing the distribution centres will be distributed over the entire day.</p>
<p>How does this compare with existing traffic numbers and expected traffic growth over time?</p>	<p>Current traffic turning off Botany Road into Hills Street was noted as approximately 800 vehicles per hour in a June 2003 report.</p> <p>The traffic model prepared for the development looks at the cumulative growth in traffic and accounts for projections up to 2016 (accounting for the Port Development, the Prince Henry Hospital redevelopment, Green Square urban renewal project and the Sydney Airport Master Plan.</p> <p>Proposed changes to local traffic management (such as a new link from Botany Road to Foreshore Road at Hale Street) will improve traffic in coming years by providing increased capacity.</p>
<p>What is the scale of expected construction traffic?</p>	<p>Construction vehicles are expected to occur over about a nine month period with an average 50 to 60 trucks per day, or 10 per hour. These can be accommodated.</p>
<p>How many days of the week will the proposed warehouses operate?</p>	<p>The warehousing sites would operate generally on weekdays between 7.00am and 6.00pm. This will depend upon individual tenants needs.</p>
<p>The Goodman International Discovery Cove Estate should be accessed from the eastern point onto Botany Road (not the western access near the Botany Hotel).</p>	<p>The proposed traffic improvements for Stage 1 do not require any change to the current access arrangements for Discovery Cove. However, options are available to remove the roundabout near the Botany Hotel and restrict movements to left-hand turn exits only onto Botany Road. This would encourage the bulk of traffic movements to the Estate to go via the proposed new eastern access onto Botany Road (which would have new traffic signals) which is proposed in Stage 2.</p>
<p>Why do local residents have to put up with more development in the area? Traffic is already problematic.</p>	<p>16,000 new jobs need to be created under the NSW Metropolitan Plan.</p> <p>Southlands is zoned for industrial use and should be used for that purpose.</p>

Question/ Matter Raised	Response
How will Hills Street be widened? There isn't room.	It is proposed that a small strip of land be acquired from the Department of Defence site on the corner of Hills Street and Botany Road.
Simultaneous right and left turns from Hills Street in Botany Road don't seem possible.	With some additional land take there is room for this to occur.
There is already heavy traffic on Hills, McPherson and Exell Streets. Adding 230 vehicles will increase the existing problems and is not acceptable. The workers commuting to Southlands should use another road to get to work.	<p>These 230 veh/hr in Stage 1 will be spread over both routes.</p> <p>The traffic modelling undertaken indicates that the proposed works at the intersections of Hills and Exell Streets with Botany Road are sufficient to mitigate the increased traffic resulting from Stage 1 of the Southlands development.</p> <p>An assessment of this modelling will need to be undertaken as part of the review and determination of the EA.</p>
Community participants do not believe things will improve enough with works at Hills and Exell Streets. More people drive now and an increase in resident numbers and workers in the area will add further pressure.	<p>The modelling has demonstrated that the proposed Stage 1 improvements will accommodate the predicted traffic generation and this takes account of traffic conditions in 2011.</p> <p>Stages 2 and 3 require further improvements based on a 2016 modelling scenario that takes account of all sources of traffic growth in the area.</p>
No right turn at Exell Street was implemented to prevent trucks from going up Botany Road. Placing a traffic light to allow right-turns will increase heavy vehicle usage of Botany Road.	<p>What currently happens is that trucks turn left, then perform U-turn at the roundabout to go up Botany Road.</p> <p>Allowing right turns onto Botany Road doesn't necessarily increase heavy vehicles numbers on Botany Road. A right turn from Hale Street didn't lead to an increase. It is also noted that Botany Road is a main road and that many workers may reside in the locality and need to turn right on exit.</p>
Trucks turning left onto Botany Road then doing a U-turn at the roundabout near the Botany Hotel needs to be addressed.	It is possible that the roundabout could be removed although this is not required for Stage 1 and is a matter for further discussion with Council and the RTA.
Can railway access to the Southlands site be utilised to reduce traffic demand? The Ports development requires that 40% of products are railed but then they eliminated rail.	Rail is not feasible for Stage 1 but could be considered for Stages 2 and 3 depending upon user requirements.
Bus stops on Botany Road are an issue. Safety of the bus users must be addressed when planning changes to Botany Road.	Noted.

Question/ Matter Raised	Response
Approval has been given for a lot of car-heavy, rather than truck-heavy development in the area.	Noted.
Problems at the Foreshore and Botany Road intersection cannot be solved without a right-turn arrow to Foreshore Road (from Botany Road). The proposed extra lane on Botany Road must be designated to be a right-hand turn only lane onto Foreshore Road.  If the extra lane becomes a designated right-hand turn lane, lane ends on Botany Road must be carefully planned to avoid them from converting into a parking lane.	A green right-hand turn arrow, along with other options such as a (free) left-hand turn, can be examined in consultation with Council and the RTA.
Can the eastern gates at Discovery Cove, where new signals are proposed, be designated as a heavy vehicle access gate, and the western gates, where the roundabout is now, be designated for light vehicle access only?	This is an option that is not required for Stage 1 but can be considered.
CoBB noted that their position will be that the new Road from McPherson Street to Foreshore Road (through the Discovery Cove Estate) should be built with Stage 1 of the Southlands proposal.	Noted.

#### 4. Stage 2 & 3 Works – the new road proposal

Graham Pindar outlined the proposal to build a new road from McPherson Street through the existing Maritime Container Services (MCS) land and the Goodman International Discovery Cove Estate to Botany Road as the traffic solution for Stages 2 and 3 of the Southlands development.

Several options for a new road have been considered:

- Access Botany Road from McPherson Street through MCS and Discovery Cove (preferred);
- Access Botany Road from McPherson Street adjacent to the railway line and through the eastern part of Discovery Cove;
- Access Botany Road from McPherson Street between MCS and the Gazal site; and
- Access Beauchamp Road from McPherson Street (2 options).

The following questions and responses were noted regarding the new road.

Question/ Matter Raised	Response
What is the catalyst for the new road?	The additional traffic expected in Stages 2 and 3 of the Southlands development creates a need for this additional road link. This can be reviewed in more detail at a later stage. This will also improve conditions on Botany Road, Exell Street and Hills Street.
Resolving traffic problems should be part of	The current traffic conditions are

Question/ Matter Raised	Response
Stage 1 works.	acknowledged. The proposed road improvements during Stage 1 are sufficient to mitigate the increased traffic associated with the first stage of the Southlands development.
Existing traffic problems in the Botany area are overwhelming.	The Southlands development will generate moderate traffic increases compared to existing traffic movements and the planned improvements offset the impacts. A lack of adequate traffic planning in the past is acknowledged.
Another traffic workshop should be planned to address wider traffic issues. This workshop should have representatives from local councils, local government, residents, local businesses, taxi drivers, bus drivers, the RTA, Sydney Ports Corporation etc.	<p>It is acknowledged that there are bigger traffic issues to manage in the area but the resolution of these issues is not the responsibility of Orica and Goodman International.</p> <p>In proposing to develop the site it is incumbent on Orica and Goodman International to conduct a thorough assessment using the relevant RTA standards.</p> <p>Consultation has been conducted to seek feedback from local stakeholders and that feedback will be reported in the EA for the Minister to consider when making a determination on the project.</p>

Participants raised the following points:

- Local businesses and residents present suggested that the new road is needed now.
- CoBB will continue to insist that the new road should be part of Stage 1 improvements.
- Local businesses and residents present noted support for CoBB's position.
- CoBB acknowledges the difficulties of building a road from McPherson Street through to Beauchamp Road without the assistance of the affected land owners.
- Workers in the area will have a lot of difficulties getting in and out of the area with increased traffic flows. A solution must be made to manage better how they would travel to and from work.
- CoBB notes that the proposal is to be determined by the NSW Minister for Planning. CoBB have advised that If the development goes ahead they think that the 'preferred' road link option (i.e. access to Foreshore Road from McPherson Street through MCS and Discovery Cove) should be built in Stage 1 of the Southlands development;
- The proposed new road could be a private road for Southlands, MCS and Discovery Cove only (by closing McPherson Street access to Hills and Exell Streets). This would relieve the pressure on these roads from the development.
- The traffic standards being used were developed 10 years ago and could be inappropriate. CoBB cited the example of the Ibis Hotel development and acknowledged that sometimes the assessment process doesn't come up with the right answer.

Participants requested an opportunity to discuss the Southlands proposal with the RTA. Orica suggested that the RTA may be in a better position to attend a workshop once they have received the final traffic report and had the opportunity to review it thoroughly. Orica advised they would seek RTA participation at a future community workshop focussed on traffic (it was

noted that this may not be able to occur prior to submission of the EA if the RTA will only attend a public meeting once they have completed their assessment).

## **5. Actions and Next Steps**

Participants asked about project timing and were advised that the project team aims to submit a draft EA in a few months time but that some of the studies are not yet finalised. It is anticipated that, if approved, the earliest works would not commence on site in approximately 18 months time.

The following actions were noted at the close of the meeting:

- Traffic Management from Rockdale, Mascot and Randwick Councils to be invited to future Southlands workshop on traffic, as well as local members and Min. Frank Sartor.
- Bus drivers, taxi drivers, rail workers and Sydney Ports Corporation also to be invited to future public meetings.
- Notes from the workshop to be distributed to participants and referenced in the EA for consideration by the Minister when determining the EA.
- Further workshops to discuss the progress of the flood study, frog investigations, and remediation proposal are planned and yet to be scheduled. Invitations will be sent to all participants of the Southlands workshops held to date, those parties listed above, and are to also be advertised locally.

## 6. Participants

The 3 May 2007 Southlands Workshop was attended by the following people:

Susan Hall	Aust. Environmental School.com
Alexandra van Rijn	Aust. Environmental School.com
Lynda Newnam	Botany Bay and Catchment Alliance
Julia Gennissen	Botany Environment Watch
Paul Shepherd	CoBB
Jeff Lord	DBL Property
Lucy Archer	Orica
Graeme Richardson	Orica
Lily Roberts-Everett	Orica
Erika Kano-Hosoyama	Orica
Jeffrey Goldingay	Resident
Tony Rohr	Hynlong P/L
Mark Rohr	Hynlong P/L
Rick Bevan	Solvay Interlox P/L
Charles Koch	Solvay Interlox P/L
Graham Pindar	Traffix

Apologies were received from the following people:

John Burgess	Aust. National Fishing Assoc.
Nancy Hillier OAM	Botany Environment Watch
Jason Little	Goodman International
William Main	Goodman International
David Colpo	Goodman International
Ambrose Dunn	Orica
Ann Hill	Resident
Tony Hill	Resident

## Appendix A

Map showing Hills Street, Exell Street, McPherson Street,  
Botany Road and Foreshore Rd



[Source] UBD, 2007. *Sydney and Blue Mountains: street directory*. 43<sup>rd</sup> ed. Macquarie Park, NSW: Universal Publishers. Map 296.

## **SOUTHLANDS REMEDIATION AND DEVELOPMENT PROJECT**

**COMMUNITY WORKSHOP, THURSDAY 9 AUGUST 2007**

### **WORKSHOP REPORT**

Consistent with Orica and Goodman's commitment to seek community input into the proposed Southlands Remediation and Development project while the Environmental Assessment (EA) continues to be developed, a fifth community workshop was conducted on 9 August 2007.

This report provide a summary of the presentations provided, along with questions raised by participants and the responses provided by members of the project team. Where necessary, additional information has been added to this report to clarify responses provided on the day of the workshop.

A list of workshop participants and apologies is provided at the end of this report.

#### **1. Welcome and Apologies – Graeme Richardson (Orica)**

G Richardson welcomed participants and noted the apologies for the meeting.

#### **2. Introduction - Graeme Richardson**

G Richardson provided a brief overview of the agenda for the workshop and advised that the workshop will deal specifically with the following aspects of the Southlands project:

- Flooding and Stormwater Management Investigations;
- Update on proposed Remediation Action Plan; and
- Green and Golden Bell Frog Assessment.

#### **3. Flood Study – Des Brady (Connell Wagner Group Pty Ltd)**

D Brady of Connell Wagner Group Pty Ltd presented a summary of the flooding and stormwater management study and modelling conducted for the Southlands development.

Participants discussed the model and the findings. The following questions and responses are noted.

<b>Question/ Matter Raised</b>	<b>Response</b>
The area north of the Southlands site is shown to flood under the existing and proposed scenarios. Will the proposed floodplain storage area on the eastern block of Southlands be able to contain all flood waters?	<p>The modelling confirms that there are no significant off-site flooding impacts up to the 1 in 100 year storm event.</p> <p>The storage area on the southern portion of the eastern block of Southlands will be at a depth of approximately one metre above existing ground levels.</p> <p>Retention basins on site will capture stormwater, which therefore will not add to</p>

Question/ Matter Raised	Response
	possible flooding.
What impact if any, will there be on Springvale and Floodvale Drains?	It is anticipated that the proposed development will not result in any change to flows in Floodvale Drain. There may be minor changes to flows in Springvale Drain.
Modelling shows flooding will occur over McPherson Street. If Orica is providing flood mitigation along the McPherson Street boundary, why does this happen?	As per existing flooding patterns, in storm events water will continue to come over McPherson Street when flows in the drain are very high.
How much are these plans likely to change with detailed design for the project.	An objective of the modelling was not to increase surface water infiltration to groundwater and not to have any significant off site impacts.  Investigations to date have only looked at Stage 1 of the development in detail. The detailed design for the whole development will be submitted for Concept approval. <sup>1</sup>
By using water detention, Orica will not have to upgrade the drains. Will rate payers have to pay for the upgrade of drains as a result?	Council owns parts of Floodvale and Springvale drains.  Culverts upgrades are proposed as part of the project and this will benefit flows in the area. Sediment traps are also proposed for on site stormwater inflows to the drains.  The project will not adversely affect the existing infrastructure or create additional demands on ratepayers. Orica currently pays significant rates for the Southlands site for such things as the use of public infrastructure like drains.
If culverts are installed, won't it flood elsewhere?	Culverts could resolve the issues for broader flooding in the area as they enable more water to move quickly through an area. Additional culverts are not proposed until Stage 2 of the development.
Has the modelling taken into consideration the existing conditions in the area?	Modelling has been based on a full detailed survey of the area and extends on other flood modelling done in the area. The modelling has taken into account existing conditions. Surveys have found that vegetation/litter and silt currently block the drains. This material would

<sup>1</sup> Orica and Goodman note that in September 2007 the Department of Planning provided feedback advising that concept approvals are not generally encouraged by the Minister for Planning and suggested that project approval should be sought where possible. In response to this feedback the proponents have decided to submit a project application for Stages 1 & 2 in the first instance. Stage 3 will be the subject of a separate project application. This note relates to many of the references to concept plans throughout this workshop report.

Question/ Matter Raised	Response
	need to be removed to enable proper functioning of the drains. Gross pollution traps would also be cleaned so they can function as designed to do.
Who will maintain the above work?	The new infrastructure will be provided to Council for their care, control and maintenance. After cleaning, there may not be much sediment build up as the area is becoming more urbanised.
Will improvements cost tax payers?	No. Infrastructure improvements will be funded as part of the proponents works or by Section 94 contributions.
If a detention basin is being used, there will be toxins. How will the stormwater and groundwater be filtered?	<p>Detention basins will be on the western side of Springvale Drain. Plantings will be used around the detention basin to filter sediments and gross pollutants. Surface water quality will be improved on site.</p> <p>On-site issues include:</p> <ul style="list-style-type: none"> <li>- Potential for sediment to be picked up by surface water flows and washed into drains; and</li> <li>- Interaction with contaminated groundwater.</li> </ul> <p>Both of these issues are being carefully considered. The depth to groundwater will determine how deep excavations can be made and what type of surfaces are appropriate for the site. The primary contamination issue for the site is groundwater. Soil contamination is not a major issue at the site.</p> <p>Orica noted the importance of this question and advised that further information could be provided as the EA progresses.</p>
Will an Environmental Assessment (EA) be conducted?	<p>Yes. Orica and Goodman are conducting a full EA for the project under Part 3A of the Environment Planning and Assessment Act.</p> <p>While a more general Concept application can be submitted, more detail is required for specific project applications.</p>
What is the benefit of a Concept Plan?	<p>It is up to the proponent to get approval for the EA. A Concept Plan provides the opportunity to develop a planning approach for the entire site and gives some assurance that the ultimate development can proceed.</p> <p>Specific detailed project approvals are required for each stage of the project to proceed.</p> <p>Orica aimed to give the community the whole picture for the site from the outset.</p>
Once Stage 2 & 3 is developed, what is the	Further stormwater improvements, such as

Question/ Matter Raised	Response
likelihood of floodwater going to the next neighbour or creating more damage downstream, such as forming eddies or erosion?	increased culverts, will be required for Stage 2 development. Orica acknowledges that further details will need to be provided for Stages 2 & 3 to be approved. It would not be acceptable to create significant offsite impacts and these will need to be managed through detailed stormwater and flood prevention planning.
The exposure of workers to contaminated groundwater is an issue.	Agreed. A human health risk assessment is being prepared to assess such risks and to identify appropriate management measures.

#### 4. Remediation Action Plan – Stephen Corish (Orica)

S Corish prefaced his presentation by noting that it is a progress update only as the human health risk assessment is still being conducted and a full report on the remediation approach for Southlands is not yet available. He advised that final details will be provided to interested community members once available. The following questions and responses are noted.

Question/ Matter Raised	Response
Are monitoring wells being removed?	Yes, some monitoring wells will need to be removed and replaced with new wells. The wells which are to be replaced will be decommissioned in stages so that monitoring information continues to be available.
How many DNAPL sites are there? What is the total area of DNAPL?	A map indicating the area in which DNAPL is inferred was displayed. This showed that there a number of inferred DNAPL locations across the Southlands site, mainly in the north-east corner of the site. These are inferred, as DNAPL locations cannot be specifically located and identified.

#### 5. Green and Golden Bell frog Assessment – Jeff Lord on behalf of Arthur White (Biosphere Environmental Consultants Pty Ltd)

J Lord presented findings of an assessment conducted for the project by A White regarding green and golden bell frogs (GGBF). Participants noted the following issues.

##### **GGBF Habitat**

L Newnam advised that a representative from Taronga Zoo has reported that there have been recent sightings of the GGBFs in the local area. She noted that it would be exciting to foster GGBFs in an effort to restore the habitat that was here before Orica and other industrial development.

It was acknowledged that Matraville has been a historical habitat for the GGBF and that the proposed development aims to provide a movement corridor for GGBFs along Springvale Drain. Community participants noted that ample foraging areas nearby should also be provided and that the environment must meet the needs of the sun-baking GGBF.

Orica noted that plans to cleanup Springvale Drain will expand the habitat for the GGBF and that the proponents are taking A White's recommendations on board.

## **Legislation**

Some participants raised concern that certain State and Federal legislation is excluded by the Part 3A process. The DoP representative at the meeting noted that all Part 3A applications are subjected to review and assessment in accordance with a range of legislation, including an ecological assessment.

## **6. Short Presentation – Gary Blaschke (Botany Bay & Catchment Alliance – BB&CA)**

BB&CA had asked Orica in advance of the workshop if they could make a short presentation. G Blaschke provided background information about the BB&CA and shared details about an environmental wetlands project at Chullora which he has been active in implementing. G Blaschke proposed that a similar project be established at Botany on part of the Southlands site, and suggested that Orica give consideration to such a project as a means of making a positive environmental contribution to the local area.

## **7. Wrap Up**

G Richardson thanked G Blaschke and the other presenters and the participants for their interest in the Southlands project.

## **8. Close**

Meeting closed at 4.20 pm.

## 9. Participants

The 9 August 2007 Southlands Workshop was attended by the following people:

Susan Hall	Aust. Environmental School.com
John Burgess	Aust. National Fishing Assoc.
Richard Benson	BIP & Qenos
Gary Blaschke	Botany Bay and Catchment Alliance (BB&CA)
Lynda Newnam	BB&CA
Sarah Deards	City of Botany Bay Council (CoBB)
Des Brady	Connell Wagner
David van Senden	Connell Wagner
Deanna Burn	Dept. of Planning
Jeff Lord	DBL Property
Peter Wood	Gazal
Scott Warr	Maritime Container Services
Stephen Corish	Orica
Ambrose Dunn	Orica
Peter Lucas	Orica
Graeme Richardson	Orica
Lily Roberts-Everett	Orica
Paul Pickering	Resident
Tony Rohr	Hynlong P/L
Mark Rohr	Hynlong P/L
Rick Bevan	Solvay Interlox P/L

Apologies were received from the following people:

Lucy Archer	Orica
Alexandra van Rijn	Aust. Environmental School.com
Charles Koch	Solvay Interlox P/L
Julia Gennissen	Botany Environment Watch
Nancy Hillier OAM	Botany Environment Watch
Erika Kano-Hosoyama	Orica
Paul Queeney	Gazal
David Colpo	Goodman International
Paul Shepherd	CoBB

## **SOUTHLANDS REMEDIATION AND DEVELOPMENT PROJECT**

### **SIXTH COMMUNITY WORKSHOP**

**TUESDAY 27 JANUARY 2009**

#### **WORKSHOP REPORT**

The sixth community workshop offered community members the opportunity to meet Mr Chris Jewell, a Department of Environment and Climate Change (DECC) accredited contaminated site auditor, who has been appointed by Orica and Goodman to audit and approve the Remediation Action Plan (RAP) for the Southlands Remediation and Development Project. The workshop was conducted on 27 January 2009 and it focused on the RAP, providing an overview of the proposed remedial approach and a presentation from C Jewell on his review of the appropriateness of the RAP and the suitability of the site for the proposed land use.

This report provides a summary of the presentations provided, along with questions or matters 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 workshop.

A list of workshop participants and apologies is provided at the end of this report.

#### **1. Welcome and Apologies – Lucy Archer (Orica)**

L Archer welcomed participants and noted the apologies for the workshop.

#### **2. Consultation History – Lucy Archer**

L Archer summarised the topics covered and discussed at previous community workshops held for the project to date, and informed the participants on the status with the draft Environment Assessment (EA), which was lodged with the Department of Planning (DoP) on 19 December 2008. The DoP conducts an Adequacy Review of the draft EA (including the RAP) before it is finalised and placed on public exhibition. She advised that this workshop would focus on the RAP.

#### **3. Project Overview and Status – Jeff Lord (Project Manager, DBL Property)**

J Lord ran through the master plan for the project, including the staging plan and proposed new link road proposed to be constructed during Stage 2 of the development. He re-emphasised that the draft EA covers Stage 1 and 2 developments only, and that a separate application will be required for Stage 3 of the development. Participants discussed concerns about management of floodwaters, local traffic and the proposed link road. The following questions and responses are noted.

<b>Question/ Matter Raised</b>	<b>Response</b>
There is a current Development Application (DA) for the site owned by Goodman on 15 McPherson Street that does not seem to include any provision for future construction of the proposed new link road along the eastern	Provision for the new link road is included in the draft EA for the Southlands project. As the link road is not part of the current DA for 15 McPherson Street it would not be shown on those plans. J Lord advised that he was

Question/ Matter Raised	Response
side of Springvale Drain.	confident that the DA for 15 McPherson Street allowed room for the link road proposed for Stage 2 of the Southlands development, but that he would check this to confirm.
Participants are very concerned about local traffic congestion and asked why the new link road isn't part of the Stage 1 development instead of at Stage 2.	<p>J Lord explained that the traffic model used for the project indicates that the proposed road improvement works at Hill and Exell Streets (presented and discussed during the third and fourth community workshops held in early 2007)<sup>1</sup> would provide adequate congestion relief to offset the additional traffic from Stage 1 of the Southlands development. The assessment concluded that a new link road would only be necessary for Stage 2 development.</p> <p>Existing road congestion matters were noted. J Lord explained that management of local traffic is the consideration of the RTA and City of Botany Bay Council (CoBB) and that the Southlands development has presented an option to address the additional traffic from that development alone.</p> <p>Orica notes that the approval of other developments in the area has used up road capacity that all ratepayers should be entitled to.</p>
Why is the Roads and Traffic Authority (RTA) never present at these community workshops? RTA was not present when traffic roundtable workshop was held in May 2007. The community needs the RTA to understand the current local traffic issues and consider them when looking at the Southlands EA.	<p>Orica noted that the RTA has been invited to attend all community workshops held to date. A Carruthers from the DoP advised that the draft EA has been referred to the RTA and the CoBB but that no feedback on roads and traffic has been received so far.</p> <p>The DoP acknowledged that there would be the opportunity to make submissions during public exhibition of the EA.</p>
Where would the water captured in the flood detention area go? Southlands is currently a flood basin for the area. If the area's flood water gathers in the detention basin, would that cause an overflow of the drains?	J Lord explained that much of the surrounding area and portions of Southlands are under the one-in-100-year flood level. Southlands currently acts as a <i>de facto</i> flood storage area due to flooding caused by development in the area. The new detention area would allow flood water to flow into the detention area during peak flows and then drain into Springvale Drain. The detention basin provides an area for the water to flow so that there will be no increase in flood levels on surrounding

<sup>1</sup> Presentations given at these workshops and the workshop reports are available on Orica Botany Transformation Projects website ([www.oricabotanytransformation.com](http://www.oricabotanytransformation.com)).

Question/ Matter Raised	Response
	<p>properties.</p> <p>He noted that CoBB conducted a study of flooding in the area in 1999-2000, which concluded that the area was indeed subject to flooding and that augmentation of existing infrastructure / drains and other works are necessary to relieve flood stress in the local area. The Stage 1 detention basin provides appropriate flood storage for that stage of the development and further works would be required in order for Stage 2 to proceed.</p>
<p>Is the existing capacity of Springvale and Floodvale Drains sufficient to sustain a one-in-100-year flood event?</p>	<p>No. For that reason CoBB conducted the abovementioned study to see what can be done to improve localised flooding in heavy rain events. Apart from drain augmentation, it also looked at onsite flood detention as an option. Existing buildings in the area are already subject to one-in-100-year flooding. Stage 1 of the Southlands proposal addresses the one-in-100-year flooding issue by building up Southlands Block 2 with 1 m of fill, and creating a compensatory flood storage area in southern portion of Block 1.</p> <p>The compensatory flood storage area will have a drainage system installed beneath it to capture and drain shallow groundwater (and send it for treatment at the Groundwater Treatment Plant) before it is discharged into surface water.</p>
<p>The term 'compensation' for flooding compensation area seems misleading.</p>	<p>This term is used throughout NSW whenever an area is designed to capture floodwater in compensation for another area that used to capture the water prior to it being developed.</p>
<p>There is another DA for a site on the corner of Exell and McPherson Streets (1 Exell Street) that proposes to raise the site with 0.2 - 0.5 m fill based on a flood study that does not consider the Southlands development. Is Orica aware of that project?</p>	<p>Orica and Goodman will have a look at the DA for 1 Exell Street and discuss this with CoBB.</p> <p>It is usual for a DA to consider current and known proposed future developments in the area. Orica and Goodman looked at the expansion of Port of Botany and included considerations such as global warming in the project's flood study.</p>
<p>When did the last major flood take place in the area?</p>	<p>The flooding in 1974 was probably the last recorded major flood in the area. Today flooding is an important consideration in any development and design criteria must meet one-in-100-year flood levels. Flood studies are based on calibrated models that take into account detention sites, climate change effects, tides and other worst-case scenarios.</p>

Orica acknowledged that local traffic and flooding matters remain a key concern of workshop participants and suggested that further discussion on those matters is required at a local level with the relevant government authorities – not just in relation to the Southlands project.

#### 4. Overview on the Remediation Action Plan (RAP) – Stephen Corish (Orica)

S Corish presented the proposed works to remediate the site and render it suitable for industrial/commercial land use. The presentation provided an outline on the investigations conducted to date to identify contamination on site, the objectives of the RAP, the development considerations, and the proposed remedial approaches. He noted that mitigation measures outlined in the RAP are subject to a further detailed design before remediation can commence. The following questions and responses are noted.

Question/ Matter Raised	Response
The photographs of Southlands in the presentation slides do not show the ponds that used to be seen.	The ponds on Southlands Block 1, which are commonly known as Paperwaste Ponds, are exposed shallow groundwater and have remained generally dry since the commencement of GTP operation (as the groundwater has been lowered by Orica's pumping). These ponds were formed in the early 1960's by extraction of peat and sand, and were filled with paper waste slurry before Orica owned the site. The ponds will be backfilled during the remediation works.
Given the long-term nature of the Botany Groundwater Cleanup Project (BGC Project), won't capping of the Southlands site inhibit access to contamination source areas? Will this mean another contaminated site left for future generations to deal with?	<p>The purpose of the RAP is to restore the site to a condition suitable for industrial/commercial use. No remediation renders a site to its pristine condition. The proposed remedial works aim to address identified contamination by removing and treating hotspots in surface soils, and by mitigating possible chlorinated hydrocarbon (CHC) vapour risks. The capping of the site is necessary to mitigate floodwaters and to provide a protective barrier for potential asbestos containing materials in subsurface soils.</p> <p>The groundwater contamination source areas are in the area of Southlands that is subject to Stage 3 of the development (and in parts of the Sydenham-Botany Goods Railway Corridor and the Botany Industrial Park [BIP]). This RAP addresses Stage 1 and 2 of the development only. Further consideration of source area contamination would be required before Stage 3 would proceed.</p> <p>Easements have been included in the Stage 1 and 2 areas to provide appropriate access for groundwater extraction, monitoring and potential future remediation activities.</p>

Question/ Matter Raised	Response
When will the Stage 3 development occur?	There is no time frame for Stage 3 yet. Work in that area will be dependent on future consideration of groundwater contamination source areas.
What are the impacts of CHC vapours on the ecosystems of Springvale Drain?	<p>CHC vapours disperse into the air quickly. The main issue with vapour from Springvale Drain is not ecological risk, but the risks it presents to workers adjacent to the drain in Southlands.</p> <p>The source of the CHC vapour is contaminated groundwater discharging into the drain and the realignment channel, which was constructed in the late 1990s for maintenance works on the drain. Orica plans to fill the realignment channel to stop shallow groundwater collecting there.</p> <p>Orica conducted monitoring during 2005-2007 to assess the ecological impacts of hydraulic containment in Penrhyn Estuary, where the drain discharges.<sup>2</sup> The study found no detectable changes in estuary's ecology following groundwater extraction. In addition, Orica monitors surface water quality in the estuary and the drains,<sup>3</sup> and the quality has improved significantly since the commencement of GTP operation.</p>
<p>At a previous workshop, community members suggested that Orica look into setting aside part of the Southlands site for an environmental project, such as development of a wetland. Orica responded to say that it cannot consider this option.</p> <p>Some community members believe that Orica has a moral obligation to make positive environmental contributions given the contamination caused by historical operations at the BIP. The current development plan and the RAP show no environmental offsets, and capping approach would present more environmental issues.</p>	<p>Orica believes that it has an obligation to address the contamination issues at Botany resulting from historical manufacturing at the BIP. Southlands is a wasteland in the middle of a heavily industrialised area that is not currently being used. The development will return the site to a beneficial use, consistent with its industrial zoning, and create labour and economical benefit to the community. The project will also remediate the site's soil contamination to a condition suitable for industrial/commercial occupation in an environmentally responsible way.</p> <p>The site would be landscaped with each stage of the development and two frog ponds are proposed for habitat for the Green and Golden Bell Frog.</p>

<sup>2</sup> The report is available for download from Orica Botany Transformation Projects website under Environmental Monitoring, Other Reports in BGC Project pages: [www.oricabotanytransformation.com](http://www.oricabotanytransformation.com)

<sup>3</sup> Monitoring is conducted quarterly and reported in the quarterly Groundwater Cleanup Plan Progress Reports. The report is available on [www.oricabotanytransformation.com](http://www.oricabotanytransformation.com) under Progress Reports in BGC Project pages.

Question/ Matter Raised	Response
	Due to the presence of shallow groundwater contamination, an environmental offset in the form of a wetland project is not viable.
Could phytoremediation <sup>4</sup> be considered?	Suitable native trees that may assist with lowering of the groundwater level will be assessed and implemented if considered suitable.
Could Orica consider incorporating a cycleway or walkway for community use?	The site will be remediated for commercial industrial purposes. Like many other remediated industrial sites in Sydney, this will render it unsuitable for public use.
Is the health risk related to the CHC vapour and proposed mitigation measures being reviewed by both the NSW Health and DECC?	The DoP has forwarded the draft EA to DECC for their review. DoP will check if the NSW Health has been contacted.

## 5. Review of the RAP and Human Health Risk Assessment and Preparation of Site Audit Statement – Chris Jewell (DECC accredited Site Auditor)

C Jewell provided an overview on the role of a Site Auditor as outlined in Section 47 of the *Contaminated Land Management Act (NSW) 1997*. He explained the two types of site audit statement, and presented the reviews he had done to date for the Southlands Remediation and Development Project. He also discussed his forward involvement with the project.

C Jewell concluded that, as a Site Auditor, he is satisfied that the site can be made suitable for industrial/commercial use with the implementation of the RAP with some conditions, which he recommends the DoP consider in its review of the RAP/EA. The following questions and responses are noted.

Question/ Matter Raised	Response
Shouldn't the Section B Site Audit Statement come before Section A?	The regulation sets out the types of site audit statements as Section A and Section B. Section B provides approval of the remedial approach and is usually done first before Section A (which is issued at the completion of remediation). This is also the case for the Southlands Remediation and Development Project.
Isn't there a risk of CHC vapour with the watertable rising in the Southlands when the BGC Project is complete and the extraction of the groundwater with the GTP finishes?	Orica has considered contingencies for when extraction stops or the GTP is offline. Watertable levels in Southlands before the commencement of GTP operation have been considered in the RAP and flood study.
What is the impact of CHC vapours on the safety of workers outdoors at Southlands? The RAP focuses on mitigation measures for workers indoors.	The RAP has been prepared focusing on potential CHC vapour exposures in outdoor areas. Some of the vapour mitigation measures for the outdoor areas proposed in the RAP are infilling the Springvale Drain realignment channel and a fenced 20 m setback from the drain.  The indoor mitigation measures have been

<sup>4</sup> Phytoremediation is a remediation method that uses plants.

Question/ Matter Raised	Response
	<p>developed as extra precaution. All these mitigations measures were developed based on investigations and modelling and will need to be verified before the buildings can be occupied.</p> <p>Orica and Goodman are committed to implementing mitigation measures that will not pose unacceptable risks to site occupiers for both indoor and outdoor work.</p>
Will there be ongoing monitoring and investigations to ensure the safety of the site to workers?	A monitoring or investigation program will be developed and incorporated in the site's environmental management plan (EMP), which will be prepared once the site's remediation is complete.
How will the EMP be carried to future site owners?	Implementation of the EMP may be made a condition of development consent or may be enforced through a covenant on the site's land title. The existence of the EMP would also be recorded on Planning Certificates.
What has been the contact between the Site Auditor and the DoP to date? Has the DoP been in touch with any other agencies?	<p>As a Major Project under Part 3A of the <i>Environmental Planning and Assessment Act (NSW) 1979</i>, the draft EA is currently being checked by agencies, including the DECC and the RTA, for its adequacy.</p> <p>If it is found to be adequate, then the draft EA will be finalised and would go on a public exhibition for a minimum of 30 days, where it will be further reviewed by relevant agencies, and reviewed by the public.</p> <p>If the draft EA is found to be inadequate, then Orica is required to make any necessary changes before it can be finalised for public exhibition.</p> <p>Agencies and the public can make submissions during the exhibition period. Orica will be asked to respond to matters raised in any submissions. If any changes to the proposal are made in response to matters raised in submissions, Orica would be required to submit a Preferred Project Report, which will then be checked again by the review agencies.</p> <p>The DoP issues a Director General's environmental assessment report at the end of the process. This report will be made publicly available once a determination is made.</p>

Question/ Matter Raised	Response
	The DoP will consider the Site Auditors conditions in its assessment of the project.
The community wants to hear feedback on the RAP from DECC, NSW Health and other agencies before it goes on a public exhibition.	DoP advised that it will let Orica know if the draft EA is adequate and OK for exhibition or if additional work is required before it goes on exhibition. Orica noted that it could let workshop participants know the outcome of the adequacy review.
The Director General's environmental assessment report is too complex and long for community members to read and understand during their spare time. The community needs different means to learn and understand key points raised by the reviewing agencies. Also, the community would like an opportunity for the agencies to hear their concerns regarding the project.	<p>The DECC is currently reviewing the RAP and the flora and fauna studies. DECC's review is mainly focused on the ongoing operation of the BGC Project.</p> <p>Orica is willing to organise further workshops to facilitate the exchange of information about the Southlands project between community members and the relevant government agencies. Orica will contact agencies such as the RTA to see if they are willing to participate.</p>
Are threatened species considered under Part 3A of the <i>environmental Planning and Assessment Act (NSW) 1979</i> ?	Yes.

## 6. Wrap Up & Next Steps – Lucy Archer

L Archer noted that traffic and flood issues were still a major concern to the community representatives at the workshop and suggested that more workshops would need to be held to discuss these local matters further with the relevant government agencies. She noted the possibility that community members may wish to also consult directly with representatives from the RTA to discuss issues concerning local traffic in general.

L Archer suggested that a future workshop could focus on a Q&A session with the various agencies to obtain their direct feedback on the RAP and the EA.

L Archer noted the following actions agreed to be followed up following the workshop:

- Orica to check the DA plan for 15 McPherson Street and confirm that adequate space is allowed for the Stage 2 link road.
- Orica to check the DA for 1 Exell Street to see whether the Southlands Remediation and Development Project was considered in its flood study.
- DoP to check whether the RAP has been referred to NSW Health as part of the adequacy review process.
- Orica to advise workshop participants of the outcome of the adequacy review process.
- Orica to organise further workshops to facilitate the exchange of information about the project between community members and the relevant government agencies that have a review/approval role for the project (RTA, DECC, NSW Health, CoBB, DoP).

L Archer thanked attendees for their time and interest in the project.

## 7. Close

Session closed at 5.45 pm.

## 8. Participants

The 27 January 2009 Southlands Workshop was attended by the following people:

Susan Hall	Aust. Environmental School.com
Derek Rogers	Aust. Rail Track Corporation
John Burgess	Aust. National Fishing Assoc.
Gary Blaschke	Botany Bay and Catchment Alliance (BB&CA)
Lynda Newnam	BB&CA
Julia Gennissen	Botany Environment Watch / 3 <sup>rd</sup> Ward Rockdale
Nancy Hillier	Botany Environment Watch
John Kent	Community Liaison Committee Chair
Chris Jewell	Contaminated Sites Auditor
Bob Marr	Dept. of Environment and Climate Change (DECC)
Matthew Hart	DECC
Ann-Maree Carruthers	Dept. of Planning
Jeff Lord	DBL Property (Project Manger working for Orica and Goodman)
Helena Cooke-Yarborough	Kellogg's
Tony Rohr	Hynlong P/L
Mark Rohr	Hynlong P/L
Lucy Archer	Orica
Stephen Corish	Orica
Erika Kano-Hosoyama	Orica
Graeme Richardson	Orica
Len Mahony	Resident
Paul Pickering	Resident
Rick Bevan	Solvay Interlox Pty Ltd

Apologies were received from the following people:

Beverly Pickering	Botany Environment Watch
Paul Shepherd	City of Botany Bay Council (CoBB)
Warrick O'Brien	CoBB
David Colpo	Goodman International
Simon Symeou	Matraville Public School
Ambrose Dune	Orica