

FINAL MINUTES

Subject: Orica Botany Groundwater Cleanup (BGC) Project
Community Liaison Committee (CLC) Meeting No. 41

Date: 16 June 2009

Time: 1.30 pm - 4.50 pm

Venue: Committee Room, Botany Town Hall

Attendees

Name	Representative for
Lucy Archer	Orica
Laura Barendregt*	Orica (work experience student)
Sophie Berthelot	Orica
Rick Bevan	Solvay Interox Pty Ltd
Gary Blaschke	Botany Bay and Catchment Alliance (BBACA)
John Burgess	Aust. Nat. Sportsfishing Assoc.
Deana Burn*	Dept. of Planning (DoP)
Stephen Corish	Orica
Mehmet Dariverenli*	Southern Eastern Sydney Public Health Unit (SESPHU), NSW Health
Bronwyn Englaro	Randwick City Council
David Gathercole	Dept. of Environment and Climate Change (DECC)
Julia Gennissen	Botany Environment Watch & Third Ward Rockdale
Susan Hall	Australian Environmental School.com
Matthew Hart	DECC, Contaminated Sites
Nancy Hillier OAM	Botany Environment Watch
Niall Johnston	DECC, Contaminated Sites
Erika Kano-Hosoyama	Orica
John Kent	CLC Chair
Kathy Lloyd	Sydney Ports Corporation (SPC)
Len Mahony	Resident
Bob Marr	DECC, Sydney Industry
Lynne Neville*	DECC, Sydney Industry
Lynda Newnam	Botany Bay Explorers
Karin Nilsson*	Planager Risk Management Consulting
Warrick O'Brien	City of Botany Bay Council (CoBB)
William Peters	Resident
Graeme Richardson	Orica
Wendy Salkeld	Orica
James Stening	Orica

* New attendees

1 WELCOME AND APOLOGIES

The Chair welcomed everyone and noted new attendees (marked with * above). Apologies were noted from the following participants:

Name	Representative for
Ann-Maree Carruthers	DoP
Helena Cooke-Yarborough	Kellogg's
Coleen Greene	Resident
Kelvin Hawkins	Kellogg's
Christa Sams	SPC
Paul Shepherd	CoBB
Santo Cannata	SESPHU

2 MINUTES OF LAST ORDINARY MEETING

J Gennissen asked if the distribution list for the minutes is up-to-date, commenting that some listed past participants no longer reside in the Botany area. Orica advised that the last review of the list was carried out 18 months ago and another review may be warranted. It was agreed to perform a review prior to distribution of the minutes for this meeting.

Action Jun 09 # 1: Orica to review CLC minutes distribution list.

It was noted that the meeting number, No. 41, on the minutes from the last ordinary meeting is wrong and that it should be read as No. 40. The minutes were accepted by J Burgess and seconded by N Hillier.

3 MATTERS ARISING FROM LAST ORDINARY MEETING

W Salkeld reported on the status of non-ongoing actions as follows:

Reference	Actions	Status
Sept 08 #3:	The CLC requested that the Dept. of Water and Energy (DWE) undertake ongoing communication regarding the ban on bore water use by residents within the GEEA	Pending. G Russell from DWE has been contacted and reminded of this action. No further progress could be reported.
Dec 08 #1:	CoBB to provide feedback to the CLC following their bore water testing at Hensley Athletics Field	Completed. See details at Section 3.1 below.
Dec 08 #7:	Results of the 2008 Groundwater Treatment Plant (GTP) Hazard Audit to be presented to the CLC. Rescheduled for the June CLC meeting	Completed at Item 11.
Dec 08 #14:	Orica to confirm P Shepherd's availability and willingness to Chair the CLC meeting on 15 September	Completed. P Shepherd will be available to chair the September 2009 CLC meeting.
Dec 08 #15:	Members to consider the date for the December 2009 meeting, as the month is very busy for all	Completed. See details at Section 3.2 below.
Mar 09 #1:	W Salkeld to liaise with the Chair and N Hillier in order to discuss her ideas on how information relating to other projects can be more appropriately shared with the community. The outcomes are to be shared and discussed with the CLC	Completed. See details at Section 8.
Mar 09 #2:	W Salkeld and C Greene to discuss the review of the GTP Regulation Flow Chart and progress this matter	Completed. See details at Section 3.3.
Mar 09 #3:	Orica to consider how the mass of contamination and groundwater cleanup timeframes are reported in progress reports	Completed. See details at Section 3.4.
Mar 09 #4:	Prof Acworth to be asked to provide feedback to the CLC on the results of the assessment of maximising hydraulic containment	Pending. Prof Acworth has been asked to provide feedback to the CLC. This will occur following completion of the modelling and geotechnical work. The September CLC meeting will probably be the first opportunity.
Mar 09 #5:	L Archer to raise the CLC's view that the DoP should attend CLC meetings with A Carruthers	Completed. DoP has advised of its intention to attend CLC meetings and noted that circumstances could sometimes prevent a representative being available for every meeting. D Burn's attendance at the meeting was acknowledged.
Mar 09 #6:	Orica to finalise the draft Notification Protocols, and then distribute to CLC members	Completed.
Mar 09 #7:	Orica to distribute to the CLC copies of the email from K Ruddock, Environmental Defender's Office (EDO) to G Blaschke	Completed.
Mar 09 #8:	G Blaschke to provide K Ruddock with Orica's presentation on the proposed regulatory approach for the BGC Project	Completed.

Reference	Actions	Status
Mar 09 #9:	G Blaschke, Orica, DECC and K Ruddock to meet to discuss Orica's proposed approach	Meeting not required. EDO advised it cannot provide any further advice unless there is a specific legal question. Hence, no meeting was held. The information was shared with the CLC via e-mail/post on 26 May 09.
Mar 09 #10:	Feedback from the meeting between Orica, DECC, G Blaschke & K Ruddock to be shared with the CLC	
Mar 09 #11:	DECC to consider community feedback and feedback from the meeting with the EDO in reviewing the regulatory approach	Completed
Mar 09 #12:	DECC to distribute its proposed regulatory plan to the CLC two weeks prior to the June CLC meeting and present it at the June CLC meeting	Completed
Mar 09 #13:	G Blaschke to invite K Ruddock to the June CLC meeting	Completed. As the EDO cannot provide further assistance at this stage, K Ruddock is not required to attend the meeting.
Mar 09 #14:	Orica to seek a modification to the Environment Protection Licence (EPL) regarding the need for future audits as discussed at the CLC meeting	Completed. DECC has approved Orica's request to modify the EPL to remove the need for a compliance audit in 2009.
Mar 09 #15:	Orica to present results of the 2009 EPL Annual Return relevant to the BGC Project to the CLC	Pending. 2009 Annual Return results to be shared at the December 2009 meeting.
Mar 09 #16:	The CLC to discuss its communication processes, and to consider the need for communications independent of Orica, at the June CLC meeting	Completed at Item 9.
Mar 09 #17:	N Johnston to contact L Mahony to provide an update on the investigations and remediation plans for the Email site	Completed. M Hart has provided information to L Mahony.
	ONGOING ACTIONS	
June 06 #11	A brief written report will be prepared by the relevant IMC member and be provided to the CLC on any request by Orica for services by IMC members	Ongoing requirement
Dec 07 #2	Orica to report/distribute feedback received via the new Botany Transformation Projects website for the CLC at every CLC meeting	Noted & ongoing
Dec 07 #14	Orica to structure future CLC agendas so that the independent validation audit reports are presented before progress reports are made	Noted & ongoing
Dec 07 #17	IMC tasks (actions and outcomes) to be reported regularly in CLC newsletters.	Ongoing
Dec 07 #18	Orica Community Relations Team (as CLC secretariat) to avoid the use of acronyms in CLC Newsletters	Ongoing
April 08 #1	Orica to update the GTP Management Flow Chart, as required	Ongoing
June 08 #18	Advise the Chair of any thoughts on educating others on the CLC process or promoting the CLC	Ongoing
Sept 08 #16	Orica to allocate ten minutes at all future CLC meetings, for updates on Southlands	Ongoing

3.1 Bore Test Results – Hensley Athletics Field

W O'Brien reported that Hensley Athletics Field is irrigated using bore water from Qenos bores located on the field. Qenos arranges water quality testing and reports results to the DWE. W O'Brien noted that the last test was done on 15 January 2009 and that the results were provided to DWE.

3.2 Date for December Meeting

It was agreed that the December 2009 CLC meeting will be held on the 8th instead of the 15th. It was noted that this change would mean that the quarterly progress report may not be available to CLC members prior to the CLC meeting and in addition, the usual update on the BGC project will not be included in the CLC briefing paper and instead a presentation will be made at the CLC meeting.

3.3 Updating GTP Regulation Flow Chart

E Kano-Hosoyama advised of her discussions with C Greene on how the GTP Regulation Flow Chart can be improved so that a first-timer attendee of the CLC could refer to it to easily understand how the GTP is regulated. C Greene suggested including details on regulatory tools that govern each different facet of GTP operations and compliance (e.g. the specific section of legislation or the licence/permit number) as well as website details for those tools that are publicly accessible. W Salkeld stated that C Greene had invited the CLC to provide other suggestions and feedback on the matter. The CLC agreed that the suggestions made by C Greene were good and that the flow chart should be updated accordingly prior to the next meeting without reducing the existing font size.

Action Jun 09 #2: Orica to update the GTP Regulation Flow Chart to include details on regulatory tools and websites details for publicly accessible documents. The updated chart is to be distributed prior to the September CLC meeting.

3.4 Reporting on the Scale and Extent of the BGC Project

W Salkeld reported that Orica has given serious consideration to the CLC's request to include details on the estimated mass of contamination and groundwater cleanup timeframes when preparing the latest progress report and briefing paper for the June meeting. She explained that this was a difficult task as it is a complex matter that cannot easily be summarised in a few words. W Salkeld added that focussing on a precise timeframe or an exact contaminant quantity is misleading as the remediation strategy review was based on a lot of background information and a range of assumptions and the outcomes of modelling as presented to the CLC are estimates only. W Salkeld explained that Orica has attempted to respond to the CLC request by including the following paragraph in section 2.4 of the CLC briefing paper:

As discussed at the Strategy Review workshop held in March this year, work has been undertaken to estimate the total mass of contamination in the aquifer and the cleanup timeframes under a range of remediation scenarios. The mass of contamination removed from the aquifer to date is a small portion of the total, and the rate of contaminant removal will slow down as the concentrations gradually decrease. Until Orica is able to find suitable cleanup technologies, the current 'pump and treat' approach is considered to be the most effective way forward.

N Johnston pointed out that the primary focus of the BGC Project is the containment of contaminated groundwater for the protection of human health and the environment. He noted that whilst figures such as those derived from the strategy review may be useful in understanding the scale of the cleanup, it is important for the progress reports to focus on the level of containment achieved each monitoring period. He explained that the BGC project could be seen as having two different goals, one an aspirational goal i.e. cleaning up the aquifer and the other the current goal i.e. contaminant containment to manage potential risks. He went on to say that there are different key performance indicators for the two goals. Containment is currently a key goal and the volume of treated groundwater and total mass of contamination destroyed are much longer term performance indicators. N Johnston stated that DECC aims to reduce the length of cleanup timeframe by applying and enforcing appropriate regulatory tools, and explained that remediation technologies are evolving rapidly and the context of the 2007/2008 strategy review may quickly become outdated.

The CLC discussed the goals as described by DECC. Some community members expressed their disappointment that the aquifer cleanup is only considered an aspirational goal. G Blaschke expressed concern that the aquifer cleanup may never be achieved given the current estimated timeframes and the uncertainty over whether Orica would continue to exist throughout the estimated life span of the cleanup. N Johnston advised that there is a financial assurance for the BGC project, which has no time limit, and that it is in place until the issue is fixed. He added that it is a licence and corporate requirement for Orica to continue the groundwater cleanup to its end.

Orica advised that it is still aiming to improve the overall timeframe for the cleanup and will continue the investigation of potential remediation technologies over time.

J Burgess stated that although Orica's point is noted, there is still a need to adequately inform the wider community about the scale of the BGC Project and where we are at the moment. He specifically noted that the difference between the aspirational and current goals must be advised to the community through newsletters and other available means. He stated that the wider community needs to know that although the project is aimed at cleaning up the aquifer, it is currently focussing on containment because an aquifer cleanup has never been done before. He added that we also need to help the wider community understand that Orica is only in the early stages of the BGC Project.

Members agreed that it would be preferable to use qualitative terms to describe the BGC Project, such as: 'we are in the early stages', 'the cleanup is going to take a long time', 'it has never been done before' and 'in the meantime Orica is looking for ways to speed up the cleanup timeframe'. Orica advised that it will continue to include figures on the total volume of treated water and destroyed chlorinated hydrocarbons (CHCs) in the briefing paper as these values are measurable.

Action Jun 09 #3: Orica to include wording in future CLC newsletters that reflects the discussion at the 16 June 2009 CLC meeting, e.g. 'cleanup will take a long time and we are in the early stages', 'it has never been done before' and 'Orica will continue to look for ways to speed up the cleanup'. The aim of this action is to help the wider community understand the scale and timeframe of the BGC Project.

4 BGC PROJECT PROGRESS UPDATE – STEVE CORISH (ORICA)

S Corish presented an update on the BGC Project (refer to attached slides). CLC discussion on issues raised during the presentation is recorded below.

Containment and Treatment Volumes

J Burgess queried why the GTP is only treating up to a level to meet hydraulic containment (about 5 ML/day) when it has a capacity to treat more (up to 15 ML/day). Orica explained that groundwater treatment volumes at the GTP are limited due to ongoing fouling issues at both the Air Stripping Units and the Stripped Water Treatment Plant. Orica is continuing to work on resolving the fouling and progress is being made. DECC stated that optimisation of the hydraulic containment network, GTP operation and contaminant reduction in the aquifer are the key areas to focus on from a regulatory point of view and that DECC is working with Orica to achieve this. S Corish advised that Orica has applied for groundwater extraction licences for extraction of up to 9.5 ML/day and DWE is assessing the applications.

S Corish reminded the CLC that the original 15ML/day design capacity was found to be much higher than was needed and that it is now understood that the volume required to achieve full hydraulic containment is around 6-7 ML/day. He also pointed most of the mass extracted comes from the PCA line. He stated that chemical monitoring data is only likely to show significant changes over the long term (e.g. five or ten years).

Pollution Reduction Program on the Temperature of Treated Water Discharged to Bunnerong Canal

S Hall asked what is causing the increase in temperature of the treated groundwater. Orica explained that the water temperature at the completion of treatment at the GTP meets EPL requirements. The rise in temperature occurs through solar radiation of the water in the pipes that transfer the excess treated water to a drain in Perry Street that discharges to Bunnerong Canal. Orica advised that it is investigating options to address this matter.

Loss of Shallow Monitoring Wells at the Primary Containment Area (PCA)

The CLC noted that S Corish mentioned during his presentation that some monitoring wells had been lost near the PCA. CLC members asked how the monitoring wells were lost. S Corish explained that the wells were destroyed during earthworks for the redevelopment of the former Maritime Container Service site on McPherson Street. He explained that when Orica installs monitoring wells on property owned by others this can happen from time to time and that Orica arranges for replacement wells as required.

Human Health Risks

The CLC noted that the results of the chemical monitoring of the plumes were consistent with previous monitoring rounds and that whilst there had been several detects of vinyl chloride these are consistent with historical fluctuations. N Hillier asked if there is any risk to human health risk from the CHC plumes. Orica responded that the Consolidated Human Health Risk Assessment (CHHRA) conducted in 2005 looked at potential long-term effects (life-long exposures) for all Orica-related contaminants and that assessments were based on conservative scenarios. The CLC noted that every quarter monitoring results are compared with the data used in the CHHRA to see if any additional assessment is required.

Orica added that although improvements to groundwater quality may not be seen in the short-term, up to 800-fold improvement has been observed in the surface water quality at Penrhyn Estuary. This is due to the hydraulic containment, which has reduced the discharge of shallow groundwater into the drains and to the estuary.

N Hillier asked if the prevention of groundwater release to the estuary has caused any impact to the estuary's ecology. Orica replied that monitoring has been conducted and no impacts were identified.

Application of Chloramine at the GTP

G Blaschke queried whether any studies have been conducted to monitor potential impacts of chloramine release to the marine ecology at Brotherson Dock. Orica replied that no chloramine is being discharged to the environment. Chloramine is added to the treatment process at the GTP to control biological fouling at Stripped Water Treatment Plant. Orica chemically eliminates chloramine in discharged treated water by using sodium bisulphite. This process produces ammonia in the discharged treated water, and Orica is currently following a Pollution Reduction Program to manage the level of ammonia.

Can Groundwater Reinjection Help Flush DNAPL?

W O'Brien asked if it is possible to speed up the DNAPL dissolution process by locating reinjection wells for the Groundwater Injection & Recovery System directly upgradient of a contaminant source mass. S Corish responded that although it can help the dissolution process it is not effective in reducing the cleanup timeframe as only limited mobilisation of contaminant mass would occur. S Hall asked for further clarification as she understood that increased water flow could help speedup the cleanup process. S Corish explained that at Botany, the groundwater is very shallow so the unsaturated soil depth is not great enough to allow for the injection of large volumes of water without causing flooding.

5 DECC UPDATE – NIALL JOHNSTON/BOB MARR (DECC)

N Johnston and B Marr presented an update on the regulation of BGC Project (refer to attached slides).

5.1 New Regulatory Tool for the BGC Project - Voluntary Management Proposal

N Johnston provided background information on its review of the approach it took for the regulation of the BGC Project. The CLC noted DECC's briefing paper explaining DECC's suggested way forward.

N Johnston advised that DECC has determined that a Voluntary Management Proposal (VMP) under the *Contaminated Land Management Act 1997* (CLM Act) is an appropriate tool for the ongoing regulatory management of the BGC. He added that a remediation area has been declared under this Act and this allows further action under this legislation.

The CLC noted that the process to be followed is that a VMP is submitted by Orica for review by DECC, amendments are made as required and then the VMP is approved by DECC. The CLC noted that a management order could be issued by DECC if Orica does not meet the commitments of the VMP. G Blaschke enquired what a 'management order' is and how it would work. DECC replied that a management order is a directive from DECC that would be issued to Orica that would clearly define what investigation, monitoring or remediation activity Orica must do, it is similar to a Notice of Cleanup Action (NCUA).

When J Burgess asked what would be the benefits to Orica to change from a NCUA to a VMP, N Johnston responded that it reflects Orica's commitment to the project. He explained that a NCUA is

more targeted to a quick clean up and that a VMP is a better regulatory tool for managing a long-term remediation project.

G Blaschke noted that the declaration area extends down to Penrhyn Estuary and asked which entity is responsible for the remediation of the Botany Golf Course and Penrhyn Estuary. N Johnston responded that Orica is responsible for the remediation of its CHC contamination and advised that DECC is pursuing other entities that are also responsible for contamination in the Botany declaration area.

Explanation of the Term ‘Voluntary’

L Newnam expressed concern over the use of the word ‘voluntary’ in the new regulatory tool. She said that community members on the CLC all “volunteer” their time and that she couldn’t understand why this word is used for a party responsible for large-scale contamination. DECC and Orica explained that the word ‘voluntary’ is used in the CLM Act which specifically refers to VMPs.

DECC clarified that ‘voluntary’ is used because the Act is aiming for polluters to volunteer or come forward with proposals for remediation for consideration by DECC. N Johnston explained that it is better to have parties submit their own remediation proposals and the department review the viability and effectiveness of the proposal. He explained that the Act is based on encouraging more parties to proactively remediate contamination. He explained that when many of these contamination events occurred people did not have an understanding of the environmental implications and that now corporate responsibility is encouraged.

5.2 Financial Assurance for the BGC Project

S Hall sought clarification on the financial assurance, asking if it is set aside for the GTP or for the BGC Project as a whole. She said she had understood that it is available for the GTP only. N Johnston explained that the EPL requires financial assurance towards the ongoing operating costs of the GTP and associated groundwater extraction network until a time the department is satisfied that the groundwater is environmentally secure. He advised that the provision for financial assurance will remain with the EPL after the regulatory change and will act like insurance for the clean up. N Johnston also noted that there are other facilities that could be applied under the amended CLM Act for example, establishing an offset agreement.

5.3 New Chemical Storage Tanks for the GTP

J Gennissen queried whether the chemicals that would be stored in the new tanks to be constructed at the GTP are dangerous. Orica answered that the tanks will be used to store sodium hypochlorite and sodium chlorite and are classified as a Dangerous Goods Stores and will be managed in accordance with the guidelines for the storage and handling of oxidising agents.

5.4 Potential Health Impacts of the Destruction of Diethyl Aluminium Chloride (DEAC) Waste

L Mahony raised a question regarding DECC’s role in Orica’s destruction of DEAC waste at the GTP in early November 2008 and asked why Orica was not fined for the activity. DECC responded that Orica had followed appropriate approval channels for treating the waste by notifying the department of its intentions to destroy DEAC waste with a proposal that included scientific information and that stack emission monitoring was conducted during the destruction. He explained that fines or appropriate prosecution under criminal law could have occurred if Orica had failed to notify DECC and obtain approval from DECC. N Johnston added that Orica’s communication with community on this matter was not undertaken in a timely manner.

Orica clarified that Orica did receive a fine related to an exceedance of the total solid particulate limit at the GTP stack during the DEAC waste treatment. L Mahony expressed concern that the DEAC treatment or the total solid particulate exceedance could have affected community health. Orica suggested that the CLC may wish to request advice from the Independent Monitoring Committee on this topic. G Blaschke highlighted the importance for the community to have faith that no human health impact has occurred from the destruction of the DEAC waste. The CLC agreed to establish a new task for Prof B Priestly, as the human health risk assessment expert on the Independent Monitoring Committee (IMC), to assess whether the treatment of DEAC waste is likely to have affected the health of the local community.

Action Jun 09 #4: Establish a new IMC task (Task No. 24) for Prof Priestly to review information available and determine whether the treatment of DEAC

waste at the GTP is likely to have affected the health of the local community.

Action Jun 09 #5: The Chair or P Shepherd to issue IMC Task 24 to Prof Priestly and ask him to provide his feedback in a written report prior to the September CLC meeting.

5.5 Mercury Groundwater Contamination at the Former ChlorAlkali Plant

N Hillier queried whether the mercury contaminated groundwater plume (caused by the operations of the former ChlorAlkali Plant) flows under commercial properties only. DECC replied that the delineation of the mercury plume shows that no domestic bores are affected. Orica offered to include a figure of the delineation in the next briefing paper.

Action Jun 09 #6: Orica to include figures on delineation of mercury groundwater contamination from the former ChlorAlkali plant in the briefing paper for the September CLC meeting.

5.6 Mutch Park

L Mahony asked for an update on Mutch Park¹. The DECC reminded the CLC that the last update on Mutch Park was provided at the May 2007 combined IMC and CLC meeting where URS Australia gave a presentation on the human health risk assessment undertaken for Mutch Park and the surrounding areas. The assessment concluded that there were no adverse health effects to council workers in Mutch Park or the general public from CHCs found in bore water. Taking these conclusions into consideration, Sydney Water, as the landowner of Mutch Park, has concluded that with proper management there is no need to conduct a clean up. CoBB workers using bore water in the area have been provided training on how to handle contaminated bore water.

N Johnston explained that the concentration of contamination in the groundwater at Mutch Park is very low compared to the Orica groundwater plumes and that the focus at Mutch Park is on management of the issue.

6 COMMUNITY FEEDBACK

W Salkeld stated that this is a new agenda item that has been added based on feedback received, including from Prof Bill Boyd of Southern Cross University (who attended the last CLC meeting as part of a research project), to improve the two-way consultation processes for the committee. The Chair welcomed feedback from the floor.

L Newnam stated that she receives a fair amount of feedback from the community in response to her newsletters, and noted she often finds herself defending Orica for the work it has done in consulting with the community. J Burgess added that he too feels that there is a great awareness on the Botany groundwater contamination issue but there is a plethora of misunderstanding around the cleanup in the community.

The Chair gave his thoughts that the concept of DNAPL and the difficulties with DNAPL remediation are difficult for anyone to fully understand. He provided feedback that he thought the community workshop on the Remediation Strategy Review held in late March 2009 was the best session he has ever attended. He said that it greatly assisted him and other workshop participants in understanding the core of the groundwater contamination and challenges surrounding its remediation for the first time. He further noted the importance for the workshop documents, especially the presentation given by Prof Bernie Kueper, to be publicly accessible.

Orica advised that it is currently developing a broadcast version of Prof Kueper's presentation to load onto the website, and the other presentations are already available as pdf's on www.oricabotanytransformation.com Orica advised that it is preparing a report on the workshop for distribution to attendees.

The Chair asked if members were happy to keep this item for future meeting agendas. J Gennissen stated that it gives a good opportunity for members to share information about feedback obtained from their community/correspondents. It was agreed to include this agenda item in future meetings.

¹ Mutch Park was historically used for sand mining and subsequently backfilled with waste material. The Park is owned by Sydney Water and managed by CoBB.

7 FORMER CHLORALKALI PLANT (FCAP) MERCURY INVESTIGATIONS UPDATE – JAMES STENING (ORICA)

J Stening presented updates on the FCAP mercury investigations (refer to attached slides). The CLC noted that the report on the BIP boundary air monitoring conducted in May will be uploaded on to the website when available. The CLC discussed the following matters.

7.1 Soil Washing

L Mahony queried what Orica would do with the end product, sludge soil, from the soil washing process, which will contain mercury that cannot be further separated from soil particles. Orica responded that the sludge soil will be transported by trucks to a dedicated securely managed cell in a landfill in Kemps Creek for disposal. G Blaschke asked how the landfill is lined and Orica made a commitment to provide details at the next meeting.

Action Jun 09 #7: Orica to provide information on the lining of the landfill in Kemps Creek where sludge soil from the soil washing process will be disposed.

7.2 Scale and Extent of the Soil Remediation

N Johnston asked how long the remediation works will take. Orica responded that it would depend on the outcome of the trials and the rate of excavation, but would probably be around five months. N Johnston further asked what volume of soil is to be extracted and treated, and Orica replied that this is not yet known.

G Blaschke asked what level the soil will be remediated to, and Orica answered that the scope of remediation would be determined based on a risk-based concentration assessment, which will be derived specifically for the site, and noted that the area will be remediated suitable for commercial/industrial land use. L Newnam asked if the area will be sold off following remediation and if remediation would be done to a higher standard if the land was to be used for another purpose. Orica noted that there are no current plans for future use or sale, but that the site is zoned for commercial/industrial use and has to be remediated for that use.

Orica also reported that the recovered elemental mercury from the soil washing process will be sold for reuse and the concrete removed from the site would also be sent to the landfill for disposal.

7.3 Community Participation & Review Committee (CPRC) Matters

L Mahony asked what happened to the emptied drums that stored waste by-products from the former solvents plant, which lead to the contamination of the underlying soil that was contained in the Car Park Waste Encapsulation. J Stening responded he will find it out and report at the next CPRC meeting, which will be held on 11 August.

Action Jun 09 #8: Report to the August CPRC meeting on how the emptied drums that stored former solvent plant's waste by-product were disposed of.

8 COMMUNITY CONSULTATION ON ORICA PROJECTS

W Salkeld reminded members that this agenda item arose from an action from the last CLC meeting (Action Mar 09 #1). W Salkeld reported that she had discussed consultation approaches with N Hillier and J Kent and asked N Hillier if she would like to present her suggestions.

N Hillier stated that there seems to be various activities happening at Botany but the information on associated human health or environmental risks is not always available. N Hillier listed the following projects occurring at Botany:

- BGC Project and the GTP
- Car Park Waste Encapsulation Remediation Project
- All Orica-related waste stored at BIP (as Orica listed at the December 2008 meeting)
- Mercury contamination of groundwater associated with FCAP activities
- Planned soil washing of mercury contaminated soil associated with FCAP
- Repackaging and planned export of stored Hexachlorobenze (HCB) Waste
- Cleanup of HCB contaminated soils from underneath the HCB stores
- Southlands Remediation & Development Project

- Pacific National stockpile in the rail corridor adjacent to BIP
- Perchloroethylene (PCE) and trichloroethene (TCE) groundwater plumes associated with the former Email site at Page Street, Pagewood
- Sydney Ports Expansion
- Other developments in the area

N Hillier advised that she feels that information on each project, including health and environmental risks, time frames, remediation plans, end product, and disposal plans for the end product would be helpful to the community.

N Hillier asked the CLC if it thought that a combined meeting or a forum was necessarily to lay out a master plan for Botany that describes all current and future plans for the area to ensure protection of the environment and human health. It was noted that a meeting to develop a master plan would require the attendance of the community, local councils, all state agencies, Sydney Ports, Sydney Airports Corporation and all local industries, including RailCorp and Orica. J Burgess was doubtful whether other people beyond the usual CLC attendees would attend such a meeting.

Orica provided feedback that it could provide information regarding the targets, potential human health and environmental impacts, procedures and timeframes for all its Botany Transformation Projects. However, Orica pointed out that although a holistic approach to the Botany region may be a good idea from the community's point of view, it may be beyond the scope of the CLC or Orica. The CLC agreed that there was no value in establishing another community forum for other Orica projects. Orica offered to create a table that details the scope, timeframes, and targets and lists human health/environment risk assessments for all Botany Transformation Projects.

Discussions followed on the idea for a master plan for Botany. G Blaschke suggested that a forum for the region of Botany Bay, including its catchment areas, which would involve all government agencies and stakeholders to evaluate cumulative environmental impacts of all activities conducted in the region would be beneficial and called for assistance from Orica.

D Burn suggested considering this issue in two parts,

- a) a request to establish a master plan for all Orica Botany Transformation Projects, and,
- b) a request to establish a master plan for Botany.

The CLC agreed for Orica to create a summary table with details on the Botany Transformation Projects as a start.

Action Jun 09 #9: Orica to create a table summarising details on all Botany Transformation Projects, including scope, targets, timeframes and listing the human health/environmental risk assessments undertaken.

9 CLC INDEPENDENT COMMUNICATIONS

The CLC noted the document by S Hall that was circulated prior to the meeting outlining her thoughts on the action raised at the March CLC meeting.

S Hall explained that she feels it is important to establish a process to communicate with the wider community on CLC activities that is independent from Orica. She questioned how the committee could pass on its achievements and progresses made to date and its ongoing issues to the future generation for it to carry on the BGC Project until the cleanup is finished. She noted her concern that information on the CLC and the BGC Project can only be obtained from Orica presently and said that a documented history on the CLC and the BGC Project written by an independent party could be a beneficial public resource. S Hall added that the history could draw upon the knowledge of CLC members that have been present since the establishment of the CLC. She felt that the author would need to hold expertise in public communication, so the committee could consult the person in the future when necessary.

J Burgess noted that it is a difficult task to record a committee's history as the CLC is always evolving and the issues it discusses changes with time and progress of the BGC Project. J Gennissen noted that herself and several members of the CPRC had compiled a similar document on the history of the CPRC with substantial help from the University of NSW, and indicated that it is difficult to create a record of history without such resources.

The Chair commented that recording the history of legacy projects is commonly done for either academic or public interest purposes, however, it is an expensive process because it must be continuously reviewed and updated to keep it relevant. He asked members to consider the value of proceeding with the idea. J Gennissen suggested that a historical record of the CLC could be compiled by drawing information from previous committee chairs. J Burgess also suggested that a student with interest in environmental issues and community consultation could perhaps facilitate the creation of such document.

It was agreed that further discussions be held at the September CLC meeting. The Chair asked members to further consider this and to discuss suggestions at the next meeting.

Action Jun 09 #10: CLC to provide suggestions for discussion at the September CLC meeting about how it can communicate with the public so that the committee's issues and goals are passed on to future generations for the span of the BGC Project.

10 IMC MATTERS

The quarterly financial report was noted and endorsed. It was noted that IMC Task 21 has now been completed and it was agreed that no further action was required. The CLC agreed that there was no need to hold a combined IMC/CLC meeting in the second half 2009.

10.1 Membership Review

The Chair guided members' attention to the expiration of IMC contracts in early 2010 and explained that though it is not an urgent matter to be decided at this meeting, it is important to keep in mind that this gives a good opportunity for the CLC to review the IMC membership. He suggested that core membership could be reviewed to include a human health risk assessment expert, hydrogeology expert, and air expert(s), which have been the focus of concern for the committee in the recent years. He stated that expertise in process engineering may have been necessary in the early stages of the GTP operation, but may no longer be so important to the CLC. He called for other suggestions.

S Hall noted she would like a person in the IMC who could provide advice on communication with the wider community. L Mahony added that he would like a community representative on the IMC in addition to the representative from CoBB. It was agreed that further discussions on IMC membership would be held at the next meeting.

Action Jun 09 #11: CLC to discuss IMC membership at the September CLC meeting.

11 GTP HAZARD AUDIT – KARIN NILSSON (PLANAGER RISK MANAGEMENT CONSULTING PTY LTD)

K Nilsson presented the findings of the GTP hazard audit conducted in October 2008 (refer to attached slides). The CLC noted that this was the first hazard audit for the GTP and that one is required to be conducted every 3 years. G Blaschke queried if she found any environmental issues concerning air. K Nilsson replied that she found no hazardous environmental issues relating to air or water. N Johnston asked if she assessed for reliability. K Nilsson advised that she did look at reliability and she reported that she found that the documentation of electrical maintenance procedures and unusual incident reporting procedures were in place but could be improved, which is not unusual for a first audit. N Johnston further asked how she would rate the performance of the GTP, and K Nilsson responded that for a plant this size it is good and work to overcome fouling difficulties is complicated but going well.

12 OTHER BUSINESS

12.1 Change of Meeting Times

L Mahony had asked that the timing of CLC meetings be reviewed to make it easier for people working daytime hours to attend. J Gennissen stated that changing meeting times to a later hour has been tried various times in the past but did not result in increased community participation. She voiced her disagreement with the idea. L Newnam noted that changing meeting hours does not necessarily attract more people to the committee, and suggested that those who are unable to attend current meeting times must be able to obtain information via other means, such as the website, newsletters, etc. It was noted that the CLC meeting minutes are not uploaded on the

website by request of the committee, however, a CLC feedback mechanism on the Orica website does exist. It was agreed that the meeting minutes would be uploaded onto the website after its endorsement by the CLC, commencing from the minutes from this June meeting. It was agreed that the meetings continue to be held from 1.30 - 4.30 pm..

Action Jun 09 #12: Upload meeting minutes after CLC endorsement onto www.oricabotanytransformation.com, commencing with the June 2009 meeting minutes.

12.2 Southlands Remediation & Development Project Update

L Archer provided an update on the Southlands project, and the CLC noted that the Environmental Assessment (EA) is close to public exhibition. She advised that she has drafted a letter to the participants who attended the community workshop in January 2009 providing details on the outcomes of the EA adequacy review by the DoP. L Archer explained that she was awaiting the public exhibition of the EA before sending the letter but as the exhibition has been delayed she will now send the letter.

13 NEXT MEETING/CLOSE

The meeting closed at 4.50 pm. The next CLC meeting will be held on 15 September at Botany Town Hall from 1.30 pm and will be chaired by P Shepherd.

Attachments

1. Presentation handout: BGC Project update by Orica
2. Presentation handout: Update on Regulation of Orica Groundwater Contamination by DECC
3. Presentation handout: Former ChlorAlkali Plant Mercury Investigations Update by Orica
4. Presentation handout: GTP Orica Botany Site, Hazard Audit, by Karin Nilsson, Planager Pty Ltd

Summary of Outstanding & Ongoing Actions

Meeting and Reference	Actions	Status	Responsibility
Sept 08 #3	The CLC requested that DWE undertake ongoing communication regarding the ban on bore water use by residents within the GEEA	Pending	G Russell (DWE)
Mar 09 #4:	Prof Acworth to be asked to provide feedback to the CLC on the results of the assessment of maximising hydraulic containment	Pending	Chair/P Shepherd
Mar 09 #15:	Orica to present results of the 2009 EPL Annual Return relevant to the BGC Project to the CLC. Include as an agenda item for the December CLC meeting.	Pending	Orica
Jun 09 #1	Orica to review CLC minutes distribution list	New	Orica
Jun 09 #2	Orica to update the GTP Regulation Flow Chart to include details on regulatory tools and websites details for publicly accessible documents. The updated chart is to be distributed prior to the September CLC meeting.	New	Orica
Jun 09 #3	Orica to include wording in future CLC newsletters that reflects the discussion at the 16 June 2009 CLC meeting, e.g. 'cleanup will take a long time and we are in the early stages', 'it has never been done before' and 'Orica will continue to look for ways to speed up the cleanup'. The aim of this action is to help the wider community understand the scale and timeframe of the BGC Project.	New	Orica
Jun 09 #4	Establish a new IMC task (Task No. 24) for Prof Priestly to review information available and determine whether the treatment of DEAC waste at the GTP is likely to have affected the health of the local community.	New	Prof Priestly (IMC)
Jun 09 #5	The Chair or P Shepherd to issue IMC Task 24 to Prof Priestly and ask him to provide his feedback in a written report prior to the September CLC meeting.	New	Chair/P Shepherd
Jun 09 #6	Orica to include figures on delineation of mercury groundwater contamination from the former ChlorAlkali plant in the briefing paper for the September CLC meeting.	New	Orica
Jun 09 #7	Orica to provide information on the lining of the landfill in Kemps Creek where sludge soil from the soil washing process will be disposed.	New	Orica
Jun 09 #8	Report to the August CPRC meeting on how the emptied drums that stored former solvent plant's waste by-product were disposed of.	New (CPRC)	Orica (CPRC)
Jun 09 #9	Orica to create a table summarising details on all Botany Transformation Projects, including scope, targets, timeframes and listing the human health/environmental risk assessments undertaken.	New	Orica
Jun 09 #10	CLC to provide suggestions for discussion at the September CLC meeting about how it can communicate with the public so that the committee's issues and goals are passed on to future generations for the span of the BGC Project.	New	CLC
Jun 09 #11	CLC to discuss IMC membership at the September CLC meeting.	New	CLC

Summary of Outstanding & Ongoing Actions

Meeting and Reference	Actions	Status	Responsibility
Jun 09 #12	Upload meeting minutes after CLC endorsement onto www.oricabotanytransformation.com , commencing with the June 2009 meeting minutes.	New	Orica
	ONGOING ACTIONS		
June 06 #11	A brief written report will be prepared by the relevant IMC member and be provided to the CLC on any request by Orica for services by IMC members	Ongoing requirement	Orica / IMC members
Dec 07 #2	Orica to report/distribute feedback received via the new Botany Transformation Projects website for the CLC at every CLC meeting	Noted & ongoing	Orica
Dec 07 #14	Orica to structure future CLC agendas so that the independent validation audit reports are presented before progress reports are made	Noted & ongoing	Orica
Dec 07 #17	IMC tasks (actions and outcomes) to be reported regularly in CLC newsletters.	Ongoing	CLC
Dec 07 #18	Orica Community Relations Team (as CLC secretariat) to avoid the use of acronyms in CLC Newsletters	Ongoing	Orica
April 08 #1	Orica to update the GTP Management Flow Chart, as required	Ongoing	Orica
June 08 #18	Advise the Chair of any thoughts on educating others on the CLC process or promoting the CLC	Ongoing	CLC
Sept 08 #16	Orica to allocate ten minutes at all future CLC meetings, for updates on Southlands	Ongoing	Orica

Distribution of Minutes*: Attendees and apologies, plus:

Name	Representative for
Ms Raelene Oliver	Amcor
Mr Tony Murray	Asciano
Mr John Owen	Banksmeadow Public School
Mr Pat Williams	Botany & Eastern Region Environmental Protection Agency (BEREPA)
Ms Laurel Wolfram	BEREPA
Mr Bernie Clarke	Botany Bay Planning & Protection Council
Mr Glen Brindley	Botany Public School
Mr John Taylor	CCB Rockdale
Mr Erwin Benker	Dept of Environment and Climate Change (DECC)
Ms Patricia Fabiano	DECC
Ms Carla Gannasin	NSW Fisheries, Dept of Primary Industries (DPI)
Ms Querida Hutchinson	NSW Fisheries, DPI
Mr Peter Turnell	NSW Fisheries, DPI
Mr Nick James	NSW Fisheries, DPI
Mr Scott Jeffries	Dept of Planning
Mr George Gates	Dept of Water and Energy (DWE)
Mr Greg Russell	Dept of Water and Energy (DWE)
Ms Elizabeth Jefferys	EAJ Consultants/resident
Mr John Tullis	Eastlakes Community Group
Dr Kate Hughes	Econeco
Mr Peter Wood	Gazal Corporation Limited
Mr Jason Prior	Institute for Sustainable Futures, UTS
Ms Rebecca Andrews	John Brothie Nursery School
Mr Andrew Scott	JP Morgan
Mr James Chown	Linfox
Ms Alicia Ferreira	Maritime Container Services
Mr Simon Symeou	Matraville Public School
The Hon. Kristina Keneally, MP	Member for Heffron, Minister for Planning, and Minister for Redfern Waterloo
The Hon. Michael Daley, MP	Member for Maroubra, Minister for Police
Mr Adam Capon	NSW Department of Health
Mr Graeme Dunlavy	NSW Maritime Authority
Ms Sharelle Payne	NSW Office of Water
Mr Marwan El-Charmy	NSW Office of Water
Mr Domenic Cappelli	Orica
Mr James Fairweather	Orica
Mr Ross Fraser	Orica
Mr Peter Hunt	Orica
Mr John Lear	Orica
Mr Peter Lucas	Orica
Mr David Reed	Orica
Ms Lily Roberts-Everett	Orica
Mr Michael Selleck	Orica
Ms Michelle Skehan	Orica
Ms Lisa Walters	Orica
Mr Colin Wiley	Orica
Mr Jasper Childs	Roads & Traffic Authority
Mr Mark Rohr	Rohr Group/Hynlong Pty Ltd
Mr Tony Rohr	Rohr Group/Hynlong Pty Ltd
Mr Adam Capon	Southern Eastern Sydney Public Health Unit, NSW Health
Ms Jessica Berry	Sydney Ports Corporation

* This list has been updated as per Action Jun 09 #1.