

Community Liaison Committee
Botany Groundwater Cleanup Project
Briefing Paper for 17 March 2009 Meeting

1 INTRODUCTION

This briefing paper is prepared for the Community Liaison Committee (CLC), a community forum established for Orica's Botany Groundwater Cleanup (BGC) Project. It aims to update the CLC on the progress of the BGC Project, actions required of Orica as recorded at previous CLC meetings, as well as other matters of interest to the CLC. It covers the period from December 2008 until early March 2009.

The agenda for the upcoming CLC meeting is very full, so Orica has attempted to include a lot of background information for the meeting in this Briefing Paper. The paper includes the following sections:

1. Progress of BGC Project: a summary of key points from the recent quarterly report;
2. Proposal to regenerate carbon and treat waste waters from HCB Waste Stores G & H at the Groundwater Treatment Plant;
3. Former ChlorAlkali Plant mercury investigations;
4. Independent Monitoring Committee matters;
5. Review of the requirement for further independent environmental compliance audits;
6. Community communication update; and
7. Planned review of regulation of the BGC Project.

Orica welcomes discussion on any of the matters in this briefing paper or the Groundwater Cleanup Plan Progress Report No. 21 at the upcoming March meeting.

2 PROGRESS OF BGC PROJECT

Each quarter Orica provides a Groundwater Cleanup Plan Progress Report to the Department of Environment and Climate Change (DECC). The most recent report, No. 21, was submitted on 27 February 2009. The reporting period for Progress Report No. 21 is from 30 September 2008 to 31 December 2008. However, more recent information is included in the report where available. The report is distributed to stakeholders and regulators as requested.

2.1 Notice of Clean Up Action (NCUA)

Orica has achieved compliance with all ten conditions of the NCUA that had specific completion deadlines, and has also achieved ongoing compliance with 15 more conditions of the NCUA that typically relate to recurring or routine timeframes (e.g. progress reports).

The NCUA requires Orica to consider best practice technology in the remediation of DNAPL and groundwater containing dissolved phase contaminants and to provide an annual written report to DECC. The *DNAPL and Groundwater Remediation Technology Annual Review* was submitted with Progress Report No. 21 and is discussed in Section 2.5 below.

2.2 Environment Protection Licence (EPL)

Orica provides an annual return each September to report compliance with its Botany EPL. The EPL includes requirements for the BGC Project and other Orica legacy projects at Botany. The following points provide a summary of relevant EPL activity during the reporting period:

- The following matters were reported to the DECC:
 - Results of monitoring at the GTP stack during treatment of the diethyl aluminium chloride (DEAC) contaminated waste.
 - An update on the pollution reduction program for ammonia in discharge water from the GTP.
 - Options for addressing minor temperature exceedances in discharge water from the GTP that occurs in warm weather.

- Orica obtained NATA accreditation for some of the analyses undertaken in the GTP Laboratory in January 2009.
- Orica received a penalty infringement notice on 5 January 2009 for an exceedance of the total solid particulate limit for the GTP stack during the treatment of the DEAC contaminated waste.
- Licence variations were issued for technical matters in relation to monitoring at the GTP stack.
- Discussions have been held with the DECC to modify waste aspects of the licence to ensure its consistency with recent definition changes in waste classifications under the *Protection of the Environment Operations Act, 1997*.

It is also noted that the EPL requires the ongoing necessity for independent compliance audits to be reviewed by DECC in consultation with the IMC (refer to discussion in Section 6).

2.3 Hydraulic Containment

Botany Industrial Park (BIP) Containment Line

The primary purpose of the BIP containment line is to contain contaminated groundwater migrating from source areas located on BIP. If groundwater extraction is temporarily reduced due to periodic GTP capacity limitations, this reduction occurs at sections of the BIP containment line based on a predetermined order of priorities.

Data collected on deep groundwater flow infer that hydraulic containment was achieved around the central part of the BIP containment line, which is the first priority area, during the monitoring period. Containment was not achieved at the northern and southern portions of the BIP containment line during the monitoring period, due to capacity restrictions at the GTP. This groundwater will however be captured at the Primary Containment Area (PCA).

The BIP containment line will operate more effectively as capacity at the GTP increases over time.

Primary Containment Area (PCA) Containment Line

The primary purposes of the PCA containment line are mass removal and hydraulic containment on Block 2, Southlands. Hydraulic containment was achieved during the monitoring period.

Secondary Containment Area (SCA) Containment Line

The primary purpose of the SCA is to minimise migration of groundwater contamination to Botany Bay. Data on shallow and deep groundwater flow at the SCA infer that hydraulic containment was achieved during the monitoring period.

2.4 Chemical Monitoring

Concentrations reported for offsite monitoring wells were similar to those previously reported with the exception of wells located at the leading edge of the Central Plume (which is continuing to slowly migrate towards the SCA) and sampling locations in the dune areas in Penrhyn Estuary.

In general, volatile chlorinated hydrocarbons (CHC) concentrations in pore water within Penrhyn Estuary were similar to or lower than historical concentrations.

The concentrations of volatile CHCs in all surface water sampling locations were less than the respective ANZECC (2000) Trigger Values. This is consistent with the monitoring rounds performed since the GTP commenced steady operation indicating the remediation is having a significant effect on the surface water quality in the estuary. The surface water quality of the estuary is likely to improve even further as extraction gradually increases on the BIP containment line.

Implications for Human Health Risk Assessment (HHRA)

Based on the data collected to December 2008, the conclusions presented within the Human Health Risk Assessment associated with exposures within the inner and outer estuary remain unchanged.

2.5 DNAPL and GROUNDWATER REMEDIATION TECHNOLOGY ANNUAL REVIEW - February 2009

The third *DNAPL and Groundwater Remediation Technology Annual Review* was submitted as Attachment B to Progress Report No. 21. This report discusses:

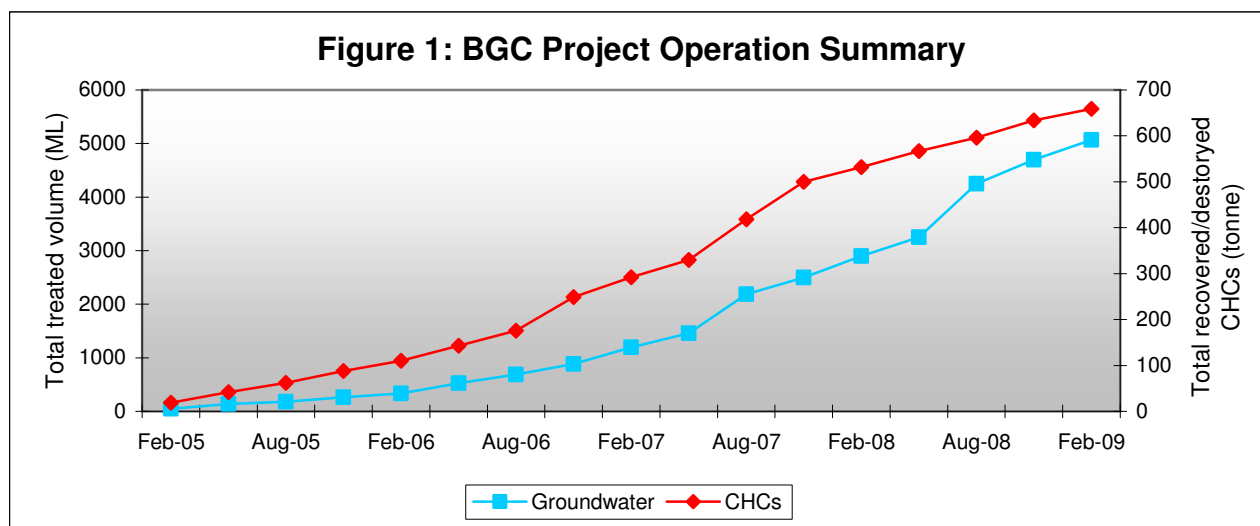
- Groundwater cleanup technologies that are currently being employed in full-scale applications (that is the technologies in use at the GTP). No cleanup technologies for dense non-aqueous phase liquid (DNAPL) source areas are currently being employed in full-scale;

- DNAPL cleanup technologies that are currently under review by way of desktop evaluations through to pilot-scale or field trials. This section of the report takes into account the BGC Project Strategy Review that has reshaped the process for evaluating these technologies. The Strategy Review is to be discussed further at a community workshop to be held on 31 March 2009;
- Information is also provided on technology improvements targeting the reliability of hydraulic containment and GTP operations. Ongoing work focused on developing enrichment cultures derived from microbial consortia (biomass) recovered from the bioremediation field trials conducted in Orica Southlands in 2004-2005 is also discussed. The enrichment cultures are intended to enable augmentation of full-scale bioremediation (i.e., injection and rapid build-up of biomass to degrade target contaminants) should it be employed as part of the BGC Project; and
- Ongoing investigations into innovative applications of existing technologies and emerging technologies. This is done by way of a review of technical journals, subscriptions to email-based technical discussion groups (e.g., regarding bioremediation and environmental health), networking and consultation with local and international specialists; and attendance at industry seminars and conferences.

The full report will be made available on the project website with Progress Report No. 21.

2.6 Groundwater Treatment Plant Operation Update

Since commencing the BGC Project, Orica has treated over 4.85 GL of contaminated groundwater and has recovered and destroyed 642 tonnes of chlorinated hydrocarbons (CHCs) in the thermal oxidiser. Figure 1 provides a graph over time of the volume of groundwater treated and tonnes of CHCs destroyed.



The following table summarises the key operating matters at the GTP that Orica has worked on during this reporting period. These matters have been previously reported to the CLC and the table below provides a status update.

Updates for reporting period	Progress	Comment
Biological fouling in air stripping unit.	<ul style="list-style-type: none"> • The addition of chlorine dioxide (a disinfectant used in water treatment) was trialled and found to be successful. Orica is investigating expanding this process. 	<ul style="list-style-type: none"> • With routine cleaning the air stripping system is working effectively.

Updates for reporting period	Progress	Comment
Stripped Water Treatment Plant	<ul style="list-style-type: none"> • All five Biological Aerated Filter (BAF) units are working well. • Following the November 2008 annual shutdown, the GTP experienced some temporary capacity limitations following some unexpected fouling of the stripped water treatment plant pre-filters. At the time of writing, these issues had been largely resolved and daily average capacities were again approaching pre-shutdown figures. 	<ul style="list-style-type: none"> • Further improvements are being considered through the use of finer filter media (zeolite).
Chloramine in GTP discharge water.	<ul style="list-style-type: none"> • Orica engaged URS Australia Pty Ltd (URS) to review procedures and develop refresher training for all GTP staff on compliance and reporting requirements. Training is to be conducted in 2009. 	<p>Orica is undertaking a review to update procedures in advance of this training to ensure that the training is based on current requirements and best practices.</p>
Ammonia Pollution Reduction Program. Ammonia is resulting from chemically eliminating chloramine in discharged treated water, by using sodium bisulphite.	<ul style="list-style-type: none"> • A progress report was provided to DECC in mid December 2008. • Orica has committed to providing a further update by 1 July 2009. 	<ul style="list-style-type: none"> • Ongoing efforts to reduce the chloramine concentration should lead to a reduction of the ammonia in the discharge water. • Maximising water reuse to minimise discharge.

2.6.1 Beneficial Reuse of Treated Water

The GTP began supplying the Orica ChlorAlkali Plant with treated water in December 2006. Qenos is regularly receiving treated water for use in cooling towers. Solvay Interlox continues to receive and utilise treated water. To date 985 ML of treated water have been supplied for reuse. Orica has works underway to improve the quality and reliability of the treated water supply to users.

In coming months Orica will apply for operator and retailer licences for the sale of treated water from the GTP. These licences are now required under the *Water Industry Competition Act, 2006*. Licence applications are to be lodged with the Independent Pricing and Regulatory Tribunal (IPART).

In this reporting period, Orica commenced an investigation in order to determine the maximum sustainable volume of groundwater the aquifer could provide to the GTP from the existing groundwater extraction network and assess the impacts that this extraction will have on the built and natural environments (e.g. subsidence). The additional extraction above and beyond what is required for containment alone will provide significant benefits to the project including:

1. The potential to increase contaminant removal;
2. Further long-term improvement to the surface water quality of Penrhyn Estuary and Springvale Drain and subsequent improvements to the ambient air quality in the vicinity of the drain;
3. A substantial increase in the ability to use recycled water *in lieu* of towns water for industrial purposes on and adjacent to the BIP; and
4. A small part of the cost of operating the GTP could be offset.

Consistent with these objectives, Orica has submitted licence applications to the Department of Water and Energy (DWE) requesting allowances for increased extraction above and beyond what is required for containment alone.

Al Laase from A D Laase Hydrologic (Colorado, USA) has been engaged to perform the groundwater modelling assessment in order to determine the maximum long-term extraction rates.

Prof Ian Acworth (University of New South Wales and member of the Independent Monitoring Committee) and Dr Noel Merrick (formerly of University of Technology, Sydney) recently attended a scoping meeting to determine the most appropriate approach. Geotechnical consultants Pell Sullivan Meynink were also engaged to assess subsidence risk.

The results of these assessments will be compiled into a report and provided to DWE in June 2009 as a supplement to the licence application to DWE.

2.7 Groundwater Injection and Recovery System (GIRS, formerly Temporary Aquifer Storage and Recovery [TASR])

As previously reported, Orica is proposing to replace the Steam Stripping Unit (SSU) with GIRS as a backup for the GTP in the event of a significant GTP shutdown. A planning application, incorporating a Review of Environmental Factors (REF), was submitted to DECC in July 2008. Earlier this year, DECC provided feedback regarding monitoring and approval aspects of the proposal.

The next step is a trial injection of groundwater extracted from the SCA. New injection and monitoring wells will be installed upgradient of the GTP for this purpose. Orica is seeking bore licences from the DWE and a modification to its EPL for the trial that is planned to commence in the next month. The results of the trial will be shared with the CLC.

2.8 ENVIRONMENTAL MONITORING

2.8.1 Residential Bore Monitoring

Of the 17 residential bores sampled in November 2008, 10 had detection of volatile CHCs (eight of them are located in Spring and Collins streets, Pagewood). The most pervasive contaminants present in the sampled bores are Trichloroethene (TCE) and Perchloroethylene (PCE). These compounds are used as industrial and commercial solvents for the cleaning of dirt, grease, resins, glues and clothing.

Generally decreasing trends in concentrations of TCE and PCE in bores sampled along Collins and Spring Streets indicate that the contaminants appear to be migrating to the south (following the general groundwater flow direction).

The source of contamination under the Collins and Spring Streets area is considered to be unrelated to BIP.

3 PROPOSAL TO REGENERATE CARBON AND TREAT WASTE WATERS FROM HCB WASTE STORES G & H AT THE GTP

Orica is seeking to regenerate and reuse the absorbent carbon used in the vapour emission control (VEC) system at Stores G & H rather than having to replace the beds with new carbon each time. It is likely that the carbon beds at this store will require changing frequently and Orica considers regeneration of the carbon from the VEC system more efficient and environmentally sound than sending the used carbon to landfill.

A similar regeneration process was used at the SSU to remove contaminants from the carbon beds in the SSU VEC system. Steam would be used to remove the organics (mostly EDC) from the carbon, and the vapourised CHCs would then be destroyed at the GTP.

In addition to the regeneration of carbon, Orica is investigating the option of treating some EDC contaminated material from Stores G & H at the GTP. This material includes:

- Stormwater with dissolved EDC contamination;
- Waters contaminated with EDC; and
- Separated EDC.

The water could be added to the groundwater feed at the GTP, and the separated EDC would need to be injected directly into the thermal oxidiser (like the EDC condensate from the SSU was).

Orica will make a presentation on the carbon regeneration and water and separated EDC treatment proposal, alternatives, and environmental and safety considerations at the upcoming CLC meeting. A presentation was also made at the February 2009 HCB Community Participation and Review Committee meeting.

Orica has submitted a proposal to the DECC and Department of Planning (DoP) to outline the carbon regeneration and liquid waste treatment approach. The appropriate assessment and planning pathway is yet to be confirmed. This proposal relates to one aspect of the repackaging process at Stores G & H. The bulk of the waste in Stores G & H will be placed into shipping containers as part of the HCB waste export applications.

4 FORMER CHLORALKALI PLANT MERCURY INVESTIGATIONS

As previously reported, mercury was detected in groundwater and soil at the site of the now demolished former ChlorAlkali Plant at the BIP. Orica has conducted soil investigations on the BIP site, and groundwater investigations both on and off the site. These investigations have detected mercury in groundwater at off-site monitoring wells. All off-site wells included in these investigations are situated on industrial properties and Orica has confirmed with property occupiers that groundwater is not used at these sites.

Reports on groundwater and soil investigations, including test pitting, the hydrogeochemical conceptual model (for the fate and transport of mercury in the soil and groundwater) and the Human Health and Environmental Risk Assessment (HHERA) were submitted to DECC in 2008.

4.1 Air Monitoring

DECC reviewed the HHERA in December 2008 and has subsequently asked Orica to conduct air monitoring near the former ChlorAlkali Plant. DECC visited the site in mid January to discuss the scope of monitoring required. Orica engaged URS to develop a monitoring proposal for the first stage of this monitoring work, which includes:

- Sampling of soil gas and ambient air at six locations adjacent to paved areas in the vicinity of the former ChlorAlkali Plant;
- Sampling of indoor air at two nearby BIP office locations; and
- Sampling of outdoor/ambient air at two locations east of the former ChlorAlkali Plant area and inside the Denison Street fence line of the BIP.

The monitoring is planned to occur over seven days and will require the use of specialised equipment from the USA. The monitoring proposal will be submitted to DECC for comment and monitoring will proceed once the scope is confirmed and equipment is sourced.

It is likely that the results from this additional monitoring will be considered in a review of the HHERA. Further updates will be provided to the CLC once results are available.

4.2 Soil Washing Trials

As previously reported, in August 2008 Orica commenced soil washing trials in order to assess whether this technology could be used to remediate the mercury-contaminated soil within BIP. Results of the trials were encouraging and a technical assessment is being prepared. The report will be submitted to DECC and the City of Botany Bay Council (CoBB), and made available to the community.

Further laboratory based trials will be undertaken to better understand how low-density mercury contaminated material would be treated. It is anticipated that these laboratory trials will occur in June 2009.

4.3 Remediation Action Plan

Orica will proceed with remediation of the former ChlorAlkali Plant area at the BIP to render the site suitable for future industrial/commercial use. Work on a Remediation Action Plan (RAP) for full-scale soil cleanup will be started following the completion of the air monitoring discussed above.

As mercury vapours increase with warm weather, soil remediation works will best be conducted during cooler months. At this stage Orica aims to conduct the soil remediation in winter 2010. Detail about the remediation approach will be shared as plans progress.

4.4 Updating Stakeholders and the Community

A new dedicated webpage has been developed for this project, as part of the www.oricabotanytransformation.com website. Information and reports will be uploaded as available.

5 INDEPENDENT MONITORING COMMITTEE (IMC) MATTERS

As noted in Section 2.6.1, Prof Acworth has been engaged by Orica to contribute to the project to determine the maximum sustainable groundwater extraction volume. Prof Acworth has also been invited to attend the Remediation Strategy Review Workshop scheduled for 31 March 2009.

The IMC's involvement in a review of the requirement for further compliance audits is discussed in Section 6.

5.1 Task 21

Following on from IMC Task 21, in which Dr John McCracken reviewed results from monitoring conducted by Orica in connection with its EPL, Trade Waste Service Agreement and Ammonia Pollution Reduction Program, DECC asked Orica to conduct a scan of GTP feed and product water for semi-volatile compounds (SVOCs).

Dr McCracken was concerned that there might have been some contaminants (specifically SVOCs like phenols and chlorophenols) that were being discharged from the GTP without regulation.

Sampling and analysis was conducted at the end of 2008. The results indicate that while low concentrations of SVOCs are present in the feedwater to the GTP, there were no SVOC's detected above the relevant ANZECC Trigger Values in treated water discharged from the GTP. This indicates excellent contaminant removal in the GTP.

It has, however, been identified that some compounds had detection limits greater than the relevant ANZECC Trigger Value. Orica will repeat the sampling at lower detection limits if available to better compare those SVOCs with the relevant ANZECC Trigger Values. Orica will provide a complete set of results to DECC once this is additional monitoring has been done.

5.2 IMC Contract Renewal/Extension

As the CLC is aware, members of the IMC have a contract for their service to the CLC with Orica. Under the contract, each IMC member was appointed for a three-year term commencing in early 2006. With the exception of Dr Mark Hibberd, the IMC members' contracts are automatically extended for another year until early 2010. Dr Hibberd's contract will expire on 17 March 2009, which coincides with the CLC March meeting date.

Clause XV of the IMC Terms of Reference specifies that the period of appointment of the experts can be extended in agreement between Orica and the CLC. In liaison with the CLC Chair, Orica has undertaken preparations to extend Dr Hibberd's contract for another year, subject to the agreement of the CLC at the March meeting.

If Dr Hibberd's extension is approved, then all IMC contracts will be subject to a review by the CLC before their expiry in early 2010 (see table).

IMC Member	Contract expiry date
John McCracken	6 Feb 2010
<i>Mark Hibberd</i>	<i>17 Mar 2009</i>
Brian Priestly	10 Apr 2010
Chris Clunies-Ross	6 Feb 2010
Ian Acworth	20 Feb 2010

The CLC may wish to schedule a future agenda item to discuss and review skills and areas of expertise needed and membership for both core and auxiliary IMC members.

6 REVIEW OF THE REQUIREMENT FOR FURTHER INDEPENDENT ENVIRONMENTAL COMPLIANCE AUDITS

When the GTP was approved in 2005 DECC included a requirement for independent compliance audits to be conducted during the first two years of operation. As the CLC is aware, Ken Holmes from KMH Environmental conducted these audits in 2006 and 2007.

Last year DECC required the need for future audits to be assessed in consultation with the IMC. This was discussed at the May 2008 combined meeting of the IMC and CLC and most IMC members had no opinion on the need for further audits (compliance auditing is not their area of expertise). John McCracken suggested that a third audit be conducted in 2008. Ken Holmes conducted the third additional audit in October 2008 and the results were presented at the December 2008 CLC meeting.

Orica's EPL requires the need for further independent compliance audits to be again reviewed in consultation with the IMC, taking into account the successes of the performance of the GTP.

Orica does not see the need for further independent compliance audits based on the following information:

- An additional audit has been conducted on top of the two initially required by DECC;
- These audits have focussed on the approvals for the GTP issued by the various regulatory bodies (DECC, DWE, DoP, Sydney Water, Sydney Ports, Department of Primary Industries). With the exception of the EPL (which has ongoing requirements for operation of the GTP) and the finalisation of bore licences from DWE, all other approvals have either been complied with and no further action is required, or relate to ongoing routine matters such as maintaining an incident register;
- Only 5 non-compliances (from 77 audit items) were identified in the 2008 audit;
- A GTP hazard audit was recently conducted (with results to be presented at the June CLC meeting); and
- Orica is required to conduct engineering audits at the GTP every five years commencing in September 2012.

Environmental performance of the GTP is now primarily regulated by Orica's EPL. Orica is required to submit an annual return each year to demonstrate compliance with its EPL. The annual return is made publicly available. Orica is happy to present results for GTP matters to the CLC and suggests that this would be more useful than further compliance audits.

This matter can be discussed with the CLC under the IMC agenda item at the March meeting.

7 COMMUNITY COMMUNICATION UPDATE

7.1 Community Workshops & Informal CLC meeting

A Southlands workshop was held 27 January to discuss the RAP and the HHRA. A workshop report will be uploaded to the project website.

Orica has arranged a BGC Project Remediation Strategy Review/DNAPL technology investigations workshop for 31 March 2009.

Orica plans to hold further community workshops on Water Recycling initiatives as those plans develop further over time.

7.2 Newspaper Columns

- Three newspaper columns were published in the *Southern Courier* since the last quarterly Progress Report. A column was also published in the *St George and Sutherland Shire Leader*. The columns incorporate information on a range of Orica projects and are made available on the Botany Transformation Projects website.

7.3 Website

The following material has been posted on the website during the reporting period:

- Groundwater Cleanup Plan Progress Report No. 20;
- Recent newspaper columns;

- The December CLC newsletter;
- The Briefing Paper, and all presentations to the CLC December 2008 meeting; and
- The Site Conceptual Model.

There were 1,345 visits to the Botany Transformation Projects website from 17 December to 22 February 2009 and 21% of the page views in this period were of the BGC Project pages.

The webpage for the Former ChlorAlkali Plant Mercury Investigations went live on 13 February 2009.

7.4 1800 Number

Orica continues to operate the free-call number – 1800 025 138. Some of calls during this reporting period related to the boundary of the GEEA and the now complete rainwater tank rebate program. Enquiries placed through the 1800 line are generally responded to within 24 hours.

7.5 Email Feedback

Several e-mails were received in this reporting period from browsers of the Botany Transformation Projects website. These included requests for information about the groundwater contamination, technical details relating to operations of the GTP operations and the mercury soil washing trials. Two emails related specifically to the functionality of the website (difficulties accessing archived files). Orica also received emails from UTS researchers who are undertaking a research project on community views on remediation projects.

There were no emails received via the CLC feedback facility in this reporting period.

7.6 Community Air Monitoring

The results of the third and final stage of the community air monitoring program have been compiled into a report that incorporates comment on the whole program. Results for Stage 3 were generally consistent with results for the previous two stages. VOC detections did not exceed the ambient air criteria¹ adopted for this assessment. The results across the three stages of the monitoring program show that, for the chemicals investigated, local air is similar in quality to air in other urban/light industrial locations in Sydney and throughout Australia. Furthermore, there was no significant difference in the sampled air quality parameters before and after GTP operation. The report has been forwarded to all those involved in the air monitoring program and will be made available on the Orica Botany Transformation Projects website. The March CLC newsletter reports on the results of the program.

8 PLANNED REVIEW OF REGULATION OF THE BGC PROJECT

At the December 2008 CLC meeting, DECC advised that the regulation of the BGC Project is currently being reviewed to take into account cleanup progress and recent developments. Orica's remediation of contaminated groundwater at Botany is currently administered under the NCUA first issued in 2003. The majority of the tasks outlined in the NCUA and its subsequent Variation Notices have now been completed. Certain aspects of the Project are also administered under Orica's EPL (EPL2148).

8.1 Regulatory Options

At the December 2008 meeting the CLC asked for more information about the regulatory options available. On 27 February, the CLC was sent a document prepared by Orica and DECC outlining DECC's planned review of regulation for the BGC Project and an objective comparison of how regulation could occur under the *Protection of the Environment Operations Act, 1997* and the *Contaminated Land Management Act, 1997*.

As actioned at the December CLC meeting, Gary Blaschke is seeking comment from the Environmental Defender's Office on these regulatory options and will provide a summary at the CLC meeting.

¹ National Environment Protection Measure Air Toxics, and World Health Organisation guidelines

There will be opportunity to discuss this topic at the March CLC meeting.

8.2 Background

Orica has given a lot of thought to which aspects are working well under the current regulation of the BGC Project and to the areas that could be improved. Some of the drivers and key points that Orica has considered may also be helpful for the CLC in preparation for discussion at the March meeting, and these are listed below. Orica has written to the DECC outlining its preferred regulatory approach and Orica can present this approach during the discussion at the meeting.

8.2.1 Need for Change

Orica agrees that, whilst an EPL will always be required, the broader regulatory framework for the BGC Project needs to be reviewed, to set a clear pathway for regulation of the project over coming years. Orica sees the need for the regulatory focus to shift from one of 'immediate response' to one of 'long-term management'.

The following aspects of the existing NCUA and requirements of EPL2148 remain relevant and require inclusion in the revised or new instrument:

- pump and treat groundwater at the GTP;
- maintain a comprehensive monitoring program;
- prepare regular comprehensive reports and make them easily accessible to the public;
- review the need to revise the HHRA in light of monitoring results;
- maintain the CLC and other established communication tools;
- service the IMC;
- continue the established financial assurance requirements; and
- maintain GTP operational conditions outlined in EPL2148.

The current regulatory review provides an opportunity to simplify and streamline the administrative approach to the BGC Project (to the benefit of DECC, the community and Orica). Some of the areas that need reviewing are:

- components of the NCUA that are complete;
- the consideration of best practice technologies for remediation of DNAPL and groundwater containing dissolved phase contaminants – as discussed as part of the Strategy Review Process;
- overlapping requirements for a groundwater monitoring program in the NCUA and EPL2148; and
- ensuring a focus on operational matters in the EPL (with non-operational requirements, such as the IMC, merged into the new consolidated BGC Project regulatory instrument).

8.2.2 Objectives

Orica has identified the following objectives for ongoing regulation of the BGC Project. The CLC may have thoughts about additional objectives that should be considered as part of the regulatory review process.

- That the BGC Project is regulated as a defined project separate from the other investigation and remediation projects that Orica has at Botany;
- That all of, and only, the operational aspects are administered under EPL2148;
- The most appropriate regulatory tool is applied with due consideration of the nature of the project and its duration; and

- That administrative efficiency is maximised for both DECC and Orica.

8.2.3 Matters for Consideration

Regardless of the selected regulatory tools, allowance needs to be made for the following items in the content of the regulatory text:

- ongoing two-way communication with the community;
- cost effectiveness and relevance to the protection of human health and the environment;
- periodic review as required; and
- a program for regular activities (reports, CLC meetings, strategic technical workshops).

These matters, and any other points of interest to the CLC, can be discussed at the March meeting. Orica will outline its preferred regulatory approach going forward to the March CLC meeting to provide a basis for further discussion.