

Site Audit

**Suitability of Remediation Action Plan, Lot 9
in DP1205673, 28 McPherson Street,
Banksmeadow**

for Orica Australia Limited

May 2019

J1130.39R-rev0

The logo for C. M. Jewell & Associates Pty Ltd, featuring the letters 'CMJA' in a stylized, handwritten font.

C. M. Jewell & Associates Pty Ltd

Site Audit
Suitability of Remediation Action Plan, Lot 9 in DP1205673, 28 McPherson Street, Banksmeadow

May 2019

J1130.39R-rev0

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2	<i>Mr Jeffrey Lord</i> DBL Property Pty Limited Suite 2, Upper Ground Floor 437 Kent Street SYDNEY NSW 2000
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CHRIS JEWELL
Auditor

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NSW Site Auditor Scheme

Site Audit Statement

A site audit statement summarises the findings of a site audit. For full details of the site auditor's findings, evaluations and conclusions, refer to the associated site audit report.

This form was approved under the *Contaminated Land Management Act 1997* on 12 October 2017. For information about completing this form, go to Part IV.

Part I: Site audit identification

Site audit statement no. SA263/6

This site audit is a:

☒ statutory audit

☐ ~~non-statutory audit~~

within the meaning of the *Contaminated Land Management Act 1997*.

Site auditor details

(As accredited under the *Contaminated Land Management Act 1997*)

Name Christopher Jewell

Company C. M. Jewell & Associates Pty Ltd

Address 1/13 Kalinda Road

BULLABURRA

Postcode 2784

Phone 02 4759 3251

Email chris@cm-jewell.com.au

Site details

Address 28 McPherson Street

BANKSMEADOW

Postcode 2019

Property description

Lot 9 in DP1205673 in the Parish of Botany, County of Cumberland

Local government area: Bayside Council

Area of site (include units, e.g. hectares): 4.1 hectares

Current zoning: *SEPP (State Significant Precincts) 2005*

Regulation and notification

To the best of my knowledge:

- ☒ **the site is** the subject of a declaration, order, agreement, proposal or notice under the *Contaminated Land Management Act 1997* or the *Environmentally Hazardous Chemicals Act 1985*, as follows:
- ☒ Declaration No. 21074 dated 9 February 2005
 - ☒ Notice No. 20151711 dated 13 August 2015
 - ☒ Notice No. 20164428 dated 15 December 2016
 - ☒ Notice No. 20174415 dated 19 June 2017

☐ ~~the site is not~~ the subject of a declaration, order, proposal or notice under the *Contaminated Land Management Act 1997* or the *Environmentally Hazardous Chemicals Act 1985*.

To the best of my knowledge:

- ☒ the site **has** been notified to the EPA under section 60 of the *Contaminated Land Management Act 1997*
- ☐ ~~the site has not~~ been notified to the EPA under section 60 of the *Contaminated Land Management Act 1997*.

Site audit commissioned by

Name: Mr David Johnson
Company: Orica Australia Limited
Address: 16-20 Beauchamp Road
MATRAVILLE Postcode: 2036
Phone: 02 8278 7662 Email: david.johnson3@orica.com

Contact details for contact person (if different from above)

Name: Mr Jeffrey Lord of DBL Property Pty Limited
Phone: 02 8278 7662
Email: jlord@dblproperty.com

Nature of statutory requirements (not applicable for non-statutory audits)

☐ ~~Requirements under the *Contaminated Land Management Act 1997* (e.g. management order; please specify, including date of issue)~~

☐ ~~Requirements imposed by an environmental planning instrument (please specify, including date of issue)~~

- ☒ Development consent requirements under the *Environmental Planning and Assessment Act 1979* (please specify consent authority and date of issue)

Key issues of Secretary's Environmental Assessment Requirements (SEARs) issued by the NSW Department of Planning & Environment on 14 December 2018 in response to the Development Application for State Significant Development (SSD) SSD 9691

☐ ~~Requirements under other legislation (please specify, including date of issue)~~

Purpose of site audit

☐ ~~A1 To determine land use suitability~~

~~Intended uses of the land:~~ _____

OR

☒ ~~A2 To determine land use suitability subject to compliance with either an active or passive environmental management plan~~

~~Intended uses of the land:~~

OR

(Tick all that apply)

☐ ~~B1 To determine the nature and extent of contamination~~

☒ B2 To determine the appropriateness of:

☐ ~~an investigation plan~~

☒ a remediation plan

☐ ~~a management plan~~

☐ ~~B3 To determine the appropriateness of a site testing plan to determine if groundwater is safe and suitable for its intended use as required by the Temporary Water Restrictions Order for the Botany Sands Groundwater Resource 2017~~

☐ ~~B4 To determine the compliance with an approved:~~

☐ ~~voluntary management proposal or~~

☐ ~~management order under the Contaminated Land Management Act 1997~~

☒ B5 To determine if the land can be made suitable for a particular use (or uses) if the site is remediated or managed in accordance with a specified plan.

Intended uses of the land: commercial / industrial

Information sources for site audit

Consultancies which conducted the site investigations and/or remediation:

JBS&G Australia Pty Ltd

JBS Environmental Pty Ltd

Environmental Risk Sciences Pty Ltd

Golder Associates Pty Ltd

URS Australia Pty Ltd

HLA Envirosiences Pty Ltd

AGC Woodward-Clyde Pty Limited

AGEE Environmental Engineers

Orica Australia Pty Ltd

Titles of reports reviewed:

Remediation Action Plan, 28 McPherson Street, Banksmeadow NSW, prepared by JBS&G Australia Pty Ltd (ref. 54709/119224 Rev0), dated 15 May 2019

Southlands Block 1 HHRA Revision: Development of Flood Detention Basin, prepared by Environmental Risk Sciences Pty Ltd, dated 24 January 2019

Assessment of Potential for Accumulation of Ground Gases Associated with Proposed Warehouse Distribution and Office Development, Lot 9, 28 McPherson Street, Banksmeadow NSW, prepared by JBS&G Australia Pty Ltd (ref. 54709-119907 rev2), dated 7 February 2019

Asbestos and Vapour Assessment, Lot 9 in DP1205673, 28 McPherson Street, Banksmeadow, prepared by JBS&G Australia Pty Ltd (ref. 54709/114803 Rev A), dated 14 August 2018

Conceptual Site Model, Orica Botany, prepared by Orica Australia Pty Ltd, dated 20 September 2017

Human Health Risk Assessment, Southlands Block 1 Development, prepared by Environmental Risk Sciences (ref. O/15/SDB1R001-revB), dated 31 July 2015

Soil Hotspot Validation Report, Block 1, Southlands, 28 McPherson Street, Banksmeadow NSW, prepared by JBS&G Australia Pty Ltd (ref. 43499/100797 Rev0), dated 31 July 2015

Delineation of Remediation Areas, Southlands, McPherson Street, Banksmeadow, NSW, prepared by JBS&G Australia Pty Ltd (ref. 43499-57915), dated 24 July 2014

Review of Groundwater-Surface Water Interaction at Springvale Drain, Southlands Development Site, Banksmeadow, NSW, prepared by JBS Environmental Pty Ltd (ref. JBS 42049-54480), dated 23 May 2013

Review of Risk Issues – Groundwater Discharge to Springvale Drain, prepared by Environmental Risk Sciences, dated 1 June 2012

Shallow Contaminated Soil/Fill Delineation and Waste Management Report, Orica Southlands, prepared by Golder Associates Pty Ltd (ref. 117623028-002-Rev1), dated 16 March 2012

Conceptual Site Model – Botany, prepared by URS Australia Pty Ltd (ref. 43217627, revision 0), dated 23 November 2007

Southern Plumes Source Area Delineation Investigation - February 2006, prepared by URS Australia Pty Ltd (ref. 43346038.07901), dated 19 June 2006

Factual Report on Preliminary Soil Investigation, Orica Botany – Southlands, NSW, prepared by HLA-Envirosciences Pty Limited (ref. S4039401_RPT_25Aug05), dated 25 August 2005

Orica Botany Environmental Survey Stage 4 – Remediation, 2004 DNAPL Source Area Investigation, prepared by URS Australia Pty Ltd, dated August 2004

Orica Botany Environmental Survey Stage 4 – Remediation, Full Scale Reactive Iron Barrier - Data Gaps - Module 2a, prepared by URS Australia Pty Ltd (ref. 46160-005/R010_A), dated 12 May 2004

Block 2 Southlands DNAPL Investigation, prepared by AGC Woodward-Clyde Pty Limited (ref. R004-A), dated August 1996

State Pollution Control Commission, ICI Botany Environmental Survey, Stage 1 Preliminary Investigations, prepared by A G Environmental Engineers in association with Woodward-Clyde Consultants (USA), dated May 1990

Other information reviewed, including previous site audit reports and statements relating to the site:

Regional geological and topographic mapping

Regional hydrogeological data

Site Audit Statement SA263/6

Site Audit - Remediation, Validation and Ongoing Management, Lot 101 in DP1123909, 28A McPherson Street, Banksmeadow, prepared by C. M. Jewell & Associates Pty Ltd, ref. J1130.33R-rev0, dated 11 January 2018 and accompanying Site Audit Statement SA263/5

Site Audit – Remediation, Validation and Ongoing Management, Lot 100 in DP1223909, 28A McPherson Street, Banksmeadow, prepared by C. M. Jewell & Associates Pty Ltd, ref. J1130.29R-rev0, dated 27 February 2017 and accompanying Site Audit Statement SA263/4

Site Audit – Suitability of Remediation Action Plan, Part of Block 1 Southlands, 28 McPherson Street, Banksmeadow, prepared by C. M. Jewell & Associates Pty Ltd, ref. J1130.23R-rev0, dated 4 August 2015 and accompanying Site Audit Statement SA263/3

Site Audit – Validation of Part of Block 2 Southlands, 26 McPherson Street, Banksmeadow, prepared by C. M. Jewell & Associates Pty Ltd, ref. J1130.22R-rev0, dated 13 May 2015 and accompanying Site Audit Statement SA263/2

Site Audit – Suitability of Remediation Action Plan, Block 2 Southlands, McPherson Street, Banksmeadow, prepared by C. M. Jewell & Associates Pty Ltd, ref. J1130.17R-rev0, dated January 2014 and accompanying Site Audit Statement SA263/1

Draft Site Audit – Suitability of Remediation Action Plan, Southlands, 1 McPherson Street, Banksmeadow, prepared by C. M. Jewell & Associates Pty Ltd, ref. J1130.10R-rev0, dated November 2008 and accompanying Site Audit Statement SA263

Site audit report details

Title: Suitability of Remediation Action Plan, Lot 9 in DP1205673, 28 McPherson Street, Banksmeadow

Report no. J1130.39R-rev0

Date: 16 May 2019

Part II: Auditor's findings

Please complete either Section A1, Section A2 or Section B, not more than one section. (Strike out the irrelevant sections.)

- Use **Section A1** where site investigation and/or remediation has been completed and a conclusion can be drawn on the suitability of land uses **without the implementation** of an environmental management plan.
- Use **Section A2** where site investigation and/or remediation has been completed and a conclusion can be drawn on the suitability of land uses **with the implementation** of an active or passive environmental management plan.
- Use **Section B** where the audit is to determine:
 - (B1) the nature and extent of contamination, and/or
 - (B2) the appropriateness of an investigation, remediation or management plan¹, and/or
 - (B3) the appropriateness of a site testing plan in accordance with the *Temporary Water Restrictions Order for the Botany Sands Groundwater Source 2017*, and/or
 - (B4) whether the terms of the approved voluntary management proposal or management order have been complied with, and/or
 - (B5) whether the site can be made suitable for a specified land use (or uses) if the site is remediated or managed in accordance with the implementation of a specified plan.

¹ For simplicity, this statement uses the term 'plan' to refer to both plans and reports.

Section A1

I certify that, in my opinion:

The ~~site is suitable~~ for the following uses:

(Tick all appropriate uses and strike out those not applicable.)

- ☐ ~~Residential, including substantial vegetable garden and poultry~~
- ☐ ~~Residential, including substantial vegetable garden, excluding poultry~~
- ☐ ~~Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry~~
- ☐ ~~Day care centre, preschool, primary school~~
- ☐ ~~Residential with minimal opportunity for soil access, including units~~
- ☐ ~~Secondary school~~
- ☐ ~~Park, recreational open space, playing field~~
- ☐ ~~Commercial/industrial~~
- ☐ ~~Other (please specify):~~

OR

- ☐ ~~I certify that, in my opinion, the site is not suitable for any use due to the risk of harm from contamination.~~

Overall comments:

Section A2

I certify that, in my opinion:

Subject to compliance with the ~~attached~~ environmental management plan² (EMP), the site is suitable for the following uses:

(Tick all appropriate uses and strike out those not applicable.)

- ☐ ~~Residential, including substantial vegetable garden and poultry~~
- ☐ ~~Residential, including substantial vegetable garden, excluding poultry~~
- ☐ ~~Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry~~
- ☐ ~~Day care centre, preschool, primary school~~
- ☐ ~~Residential with minimal opportunity for soil access, including units~~
- ☐ ~~Secondary school~~
- ☐ ~~Park, recreational open space, playing field~~
- ☐ ~~Commercial/industrial~~
- ☐ ~~Other (please specify):~~

EMP details

Title: _____

Author: _____

Date: _____ No. of pages: _____

EMP summary

This EMP (attached) is required to be implemented to address residual contamination on the site.

The EMP: (Tick appropriate box and strike out the other option.)

- ☐ ~~requires operation and/or maintenance of active control systems³~~
- ☐ ~~requires maintenance of passive control systems only³.~~

Purpose of the EMP:

Description of the nature of the residual contamination:

² Refer to Part IV for an explanation of an environmental management plan.

³ Refer to Part IV for definitions of active and passive control systems.

Summary of the actions required by the EMP:

How the EMP can reasonably be made to be legally enforceable:

How there will be appropriate public notification:

Overall comments:

Section B

Purpose of the plan⁴ which is the subject of this audit: To render the site suitable for commercial and industrial use

I certify that, in my opinion:

(B1)

- ☒ The nature and extent of the contamination **has** been appropriately determined
- ☐ ~~The nature and extent of the contamination has not been appropriately determined~~

AND/OR (B2)

- ☒ The investigation, remediation or management plan **is** appropriate for the purpose stated above
- ☐ ~~The investigation, remediation or management plan is not appropriate for the purpose stated above~~

AND/OR (B3)

- ☐ ~~The site testing plan:~~
- ☐ ~~is appropriate to determine~~
- ☐ ~~is not appropriate to determine~~

if groundwater is safe and suitable for its intended use as required by the *Temporary Water Restrictions Order for the Botany Sands Groundwater Resource 2017*

AND/OR (B4)

- ☐ ~~The terms of the approved voluntary management proposal* or management order** (strike out as appropriate):~~
- ☐ ~~have been complied with~~
- ☐ ~~have not been complied with.~~
- *voluntary management proposal no. _____
- **management order no. _____

AND/OR (B5)

- ☒ The site **can be made suitable** for the following uses:
- (Tick all appropriate uses and strike out those not applicable.)
- ☐ ~~Residential, including substantial vegetable garden and poultry~~
- ☐ ~~Residential, including substantial vegetable garden, excluding poultry~~
- ☐ ~~Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry~~
- ☐ ~~Day care centre, preschool, primary school~~
- ☐ ~~Residential with minimal opportunity for soil access, including units~~
- ☐ ~~Secondary school~~
- ☐ ~~Park, recreational open space, playing field~~

⁴ For simplicity, this statement uses the term 'plan' to refer to both plans and reports.

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☒ Commercial/industrial

☐ Other (please specify): _____

IF the site is remediated/~~managed~~* in accordance with the following plan (attached):

*Strike out as appropriate

Plan title: Remediation Action Plan, 28 McPherson Street, Banksmeadow NSW

Plan author: JBS&G Australia Pty Ltd

Plan date: 15 May 2019

No. of pages: 95

SUBJECT to compliance with the following condition(s):

1. A construction environmental management plan (CEMP) must be prepared to manage any risk associated with contamination in soil, groundwater and ground gas that may be encountered during remediation and construction activities. The CEMP must be submitted to a site auditor for review.
2. A validation report must be prepared which demonstrates that site work has been completed in accordance with the RAP and CEMP, and includes verification of placement of the contact barrier and confirmation of the construction of the deck, void and associated foundations. The validation report submitted to a site auditor for review prior to construction of any permanent buildings on the site.
3. A long-term environmental management plan (LTEMP) must be prepared for the site. The LTEMP must provide a legally-enforceable mechanism to document the presence of residual contamination by asbestos and hazardous ground gases at the site and manage the risks associated with that contamination. In this context the term hazardous ground gases includes vapours. The LTEMP must be provided to a site auditor for review
4. A site audit statement confirming that the site is suitable for commercial and industrial use must be issued by a site auditor prior to occupation of any permanent buildings constructed on the site.

Overall comments:

Part III: Auditor's declaration

I am accredited as a site auditor by the NSW Environment Protection Authority (EPA) under the *Contaminated Land Management Act 1997*.

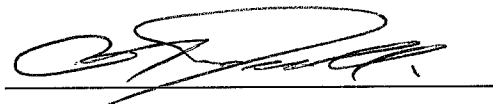
Accreditation no. 9810

I certify that:

- I have completed the site audit free of any conflicts of interest as defined in the *Contaminated Land Management Act 1997*, and
- with due regard to relevant laws and guidelines, I have examined and am familiar with the reports and information referred to in Part I of this site audit, and
- on the basis of inquiries I have made of those individuals immediately responsible for making those reports and obtaining the information referred to in this statement, those reports and that information are, to the best of my knowledge, true, accurate and complete, and
- this statement is, to the best of my knowledge, true, accurate and complete.

I am aware that there are penalties under the *Contaminated Land Management Act 1997* for wilfully making false or misleading statements.

Signed



Date

16 May 2019.

Attachment:

Title: Remediation Action Plan, 28 McPherson Street, Banksmeadow NSW

Author: JBS&G Australia Pty Ltd

Date: 15 May 2019

No. of pages: 95

Part IV: Explanatory notes

To be complete, a site audit statement form must be issued with all four parts.

How to complete this form

Part I

Part I identifies the auditor, the site, the purpose of the audit and the information used by the auditor in making the site audit findings.

Part II

Part II contains the auditor's opinion of the suitability of the site for specified uses or of the appropriateness of an investigation, or remediation plan or management plan which may enable a particular use. It sets out succinct and definitive information to assist decision-making about the use or uses of the site or a plan or proposal to manage or remediate the site.

The auditor is to complete either Section A1 or Section A2 or Section B of Part II, **not** more than one section.

Section A1

In Section A1 the auditor may conclude that the land is *suitable* for a specified use or uses OR *not suitable* for any beneficial use due to the risk of harm from contamination.

By certifying that the site is *suitable*, an auditor declares that, at the time of completion of the site audit, no further investigation or remediation or management of the site was needed to render the site fit for the specified use(s). **Conditions must not be** imposed on a Section A1 site audit statement. Auditors may include **comments** which are key observations in light of the audit which are not directly related to the suitability of the site for the use(s). These observations may cover aspects relating to the broader environmental context to aid decision-making in relation to the site.

Section A2

In Section A2 the auditor may conclude that the land is *suitable* for a specified use(s) subject to a condition for implementation of an environmental management plan (EMP).

Environmental management plan

Within the context of contaminated sites management, an EMP (sometimes also called a 'site management plan') means a plan which addresses the integration of environmental mitigation and monitoring measures for soil, groundwater and/or hazardous ground gases throughout an existing or proposed land use. An EMP succinctly describes the nature and location of contamination remaining on site and states what the objectives of the plan are, how contaminants will be managed, who will be responsible for the plan's implementation and over what time frame actions specified in the plan will take place.

By certifying that the site is suitable subject to implementation of an EMP, an auditor declares that, at the time of completion of the site audit, there was sufficient information satisfying guidelines made or approved under the *Contaminated Land Management Act 1997* (CLM Act) to determine that implementation of the EMP was feasible and would enable the specified use(s) of the site and no further investigation or remediation of the site was needed to render the site fit for the specified use(s).

Implementation of an EMP is required to ensure the site remains suitable for the specified use(s). The plan should be legally enforceable: for example, a requirement of a notice under the CLM Act or a development consent condition issued by a planning authority. There should also be appropriate public notification of the plan, e.g. on a certificate issued under s.149 of the *Environmental Planning and Assessment Act 1979*.

Active or passive control systems

Auditors must specify whether the EMP requires operation and/or maintenance of active control systems or requires maintenance of passive control systems only. Active management systems usually incorporate mechanical components and/or require monitoring and, because of this, regular maintenance and inspection are necessary. Most active management systems are applied at sites where if the systems are not implemented an unacceptable risk may occur. Passive management systems usually require minimal management and maintenance and do not usually incorporate mechanical components.

Auditor's comments

Auditors may also include **comments** which are key observations in light of the audit which are not directly related to the suitability of the site for the use(s). These observations may cover aspects relating to the broader environmental context to aid decision-making in relation to the site.

Section B

In Section B the auditor draws conclusions on the nature and extent of contamination, and/or suitability of plans relating to the investigation, remediation or management of the land, and/or the appropriateness of a site testing plan in accordance with the *Temporary Water Restrictions Order for the Botany Sands Groundwater Source 2017*, and/or whether the terms of an approved voluntary management proposal or management order made under the CLM Act have been complied with, and/or whether the site can be made suitable for a specified land use or uses if the site is remediated or managed in accordance with the implementation of a specified plan.

By certifying that a site *can be made suitable* for a use or uses if remediated or managed in accordance with a specified plan, the auditor declares that, at the time the audit was completed, there was sufficient information satisfying guidelines made or approved under the CLM Act to determine that implementation of the plan was feasible and would enable the specified use(s) of the site in the future.

For a site that *can be made suitable*, any **conditions** specified by the auditor in Section B should be limited to minor modifications or additions to the specified plan. However, if the auditor considers that further audits of the site (e.g. to validate remediation) are required, the auditor must note this as a condition in the site audit statement. The condition must not specify an individual auditor, only that further audits are required.

Auditors may also include **comments** which are observations in light of the audit which provide a more complete understanding of the environmental context to aid decision-making in relation to the site.

Part III

In **Part III** the auditor certifies their standing as an accredited auditor under the CLM Act and makes other relevant declarations.

Where to send completed forms

In addition to furnishing a copy of the audit statement to the person(s) who commissioned the site audit, statutory site audit statements must be sent to

- the **NSW Environment Protection Authority**:
nswauditors@epa.nsw.gov.au or as specified by the EPA
AND
- the **local council** for the land which is the subject of the audit.