

24 February 2020

NSW Land and Housing Corporation
Level 5
219-241 Cleveland Street,
Strawberry Hills 2012

Via email: Nigel.Macdonald@facs.nsw.gov.au

Dear Nigel,

Re: Interim Advice 3 – Review of Available Information, 600-660 Elizabeth Street, Redfern, NSW.

1 Introduction

The NSW Land and Housing corporation has appointed Kylie Lloyd of Zoic Environmental Pty Ltd (Zoic), a NSW EPA Auditor accredited (No. 0302) under the Contaminated Land Management (CLM) Act 1997, to conduct an Audit at 600-660 Elizabeth Street, Redfern, NSW ("the site").

It is noted the site is subject to preparation of a submission for consideration as a state significant precinct (SSP) with the Department of Planning and Environment. Whilst provision of a site audit statement (SAS) was not required as part of the SSP submission, the RFQ states future planning system requirements would likely require an SAS prior to granting the construction certificate.

The aim of the engagement is to enable a site audit statement (SAS) and associated site audit report (SAR) to be prepared that confirms the suitability of the site for proposed redevelopment as social housing, in accordance with the NSW EPA (2017) Contaminated Land Management Guidelines for the NSW Site Auditor Scheme (3rd edition).

The purpose of this current interim advice (IA) is to provide a comment about the nature of the contamination identified at the site based on available information and if the site is capable of being remediated. It is understood that the IA is required to meet Section 17.2 of the Study Requirement for the site with respect of contamination, which states: "*Provide an assessment of the proposed land uses in accordance with State Environmental Planning Policy No 55 - Remediation of Land (SEPP 55)*" and to assist with DA approval.



2 Scope of Audit and Nature of Interim Advice

NSW EPA (2017) describes the site assessment and audit process as:

1. *Consultant is commissioned to assess contamination.* The contaminated site consultant designs and undertakes the site assessment and, where required, all remediation and validation activities to achieve the objectives specified by the owner or developer; and
2. *Site auditor reviews the consultant's work.* The site owner or developer commissions the Auditor to review the consultant's work. The Auditor then prepares a SAR and SAS at the conclusion of the review, which are given to the owner or developer.

Therefore, the contaminated land consultant and other relevant parties should be satisfied that the work to be conducted conforms to all appropriate regulations, standards and guidelines and is suitable based on the site history and the proposed land use.

It is understood that the Audit is currently non-statutory in nature. If Development Conditions are issued by Council, the Audit may become statutory in nature and require notification to NSW EPA.

3 Information Reviewed

The Auditor has reviewed the following information for the site:

- AECOM (2018) Sampling and Analysis Quality Plan, 600-660 Elizabeth Street, Redfern NSW (Ref: 60568920_SAP)
- AECOM (2018a) Phase 1 Environmental Site Assessment and geotechnical desktop study (Ref: 60568920_Phase 1 ESA & Geotech Desktop_20180522_B);
- AECOM (4 December 2012) Phase 1 Contamination Assessment, Redfern Waterloo Sustainable Servicing and Supporting Infrastructure (Ref: 60228493);
- Golder Associates (Golder) (June 2005) Site summary Audit report (Statutory) Stage 2 Environmental Site Assessment of Lot 1 & 2 in DP435765 and Lots 3,4 & 5 in DP456634 (Ref: 04623032/015).
- EMM (6 February 2020) Stage 2 Contamination Assessment 600-660 Elizabeth Street, Redfern (Ref: J190730 RPI, v1 Draft) ('SCA').

4 Summary of Investigations

The site was primarily used for a mixture residential, commercial and/or light industrial purposes with surrounding land use consisting of commercial/industrial to the north, south and west, and residential immediately surrounding the site.

Previous investigations and site audit of the site by Golder identified elevated PAH and heavy metals (chromium, copper, lead and zinc) across the site. The Audit also considered that potential groundwater impact as a result of leaching from soil was low. The Audit concluded that remediation is required to render the site suitable for the proposed medium residential landuse. It is noted that this Audit included a greater development area (including an area to the east - Lot 1 & 2 in DP435765).

Recent investigations by EMM (6 February 2020) SCA have the following outcomes, noting the investigations were conducted across the site:



- Concentrations of BaP and BaP TEQ exceeded the nominated criteria, primarily in surficial fill and natural peat layer.
- Lead was detected exceeding ecological investigation level (EIL) in one sample, but statistical calculation indicates lead concentration is below EIL.
- Total recoverable hydrocarbon (TRH) C₆-C₁₀ (F1) was detected exceeding health screening level (HSL) A/B in one sample. TRH C₁₆-C₃₄ was detected exceeding direct contact HSL B and management limits in 5 and 8 locations, respectively.
- ACM was detected at two locations (BH19 and MW20) in fill material at 0.5mbgl. EMM states that based on observations, asbestos was not widespread.
- Waste characterisation indicates the material meets general solid waste criteria, except in the vicinity of BH19 and MW20, which would classify as special waste.
- TCLP indicates leaching of lead and BaP did appear to be significant to result in groundwater impact.
- Potential acid sulfate soil (PASS) and acid sulfate soil (ASS) were widely distributed across the site and may be associated with the organic peat material beneath the fill.
- Groundwater depth was between 1 to 2mbgl and was observed to be present in an unconfined, shallow aquifer within fill and natural soil.
- Copper and zinc were detected above the adopted criteria at MW20 but was considered to be associated with background groundwater conditions.
- EMM considers that to make the site suitable for the proposed landuse, remediation is required and the following suite of remedial documents need to be prepared:
 - Remedial Action Plan
 - Acid Sulfate Soil Management Plan
 - Construction Environment Management Plan (including unexpected finds protocol)
 - Asbestos Management Plan

5 Auditor's Opinion

The proposed residential development (Reference Scheme) is understood to include excavation for construction of 2 level basement carpark. Based on the information reviewed to date regarding contamination, the Auditor considers:

- The results indicate there is low likelihood of groundwater being impacted as a result of historical or current site activities;
- The site has been adequately characterised, with the exception of asbestos, as the methodology for asbestos sampling presents uncertainty in the likely presence of asbestos at the site; and
- The suite of remedial documents recommended by EMM are appropriate for remedial activities at the site.

As a result, the Auditor considers the site is capable of being made suitable for the residential landuse, providing the proposed Remedial Action Plan includes a contingency for encountering asbestos and is endorsed by an Auditor prior to commencing remediation.



6 Closure

This interim advice does not constitute a SAS or a SAR, but rather is provided to assist the Client in the assessment and management of contamination issues at the site. The information provided herein should not be considered pre-emptive of the final Audit conclusions. It represents the Auditor's opinion based on the review of currently available information.

Should you have any queries or wish to discuss any points, please do not hesitate to contact the undersigned.

Yours sincerely,

Kylie Lloyd
Site Auditor
Zoic Environmental Pty Ltd