

11 June 2021

Frasers Property Australia

Level 2
1C Homebush Bay Drive
Rhodes NSW 2138

Attention: **Chris Koukoutaris**
Senior Development Manager

Update to Detailed Site Investigation for Stage 1A, Telopea NSW

1 INTRODUCTION

Environmental Earth Sciences NSW was commissioned by Frasers Property Australia (Frasers) to undertake a review of the detailed site investigation (DSI) prepared by Environmental Earth Sciences NSW in 2020 as part of redevelopment of Stage 1A within the suburb of Telopea, NSW.

2 BACKGROUND / PREVIOUS INVESTIGATION

2.1 Site walkover

A site walkover was undertaken by Environmental Earth Sciences NSW representatives on 3 April 2020. During the site walkover, fragments of potential asbestos-containing material (PACM) were observed in the northern portion of site (IDs: PACM-2 – PACM-4).

2.2 Intrusive investigation

The intrusive soil investigation was undertaken on 6 April 2020. In accordance with the NSW EPA *Sampling Design Guidelines* (1995) for a site of approximately 2.1 hectares (ha), 31 soils samples (IDs 1- 28 and BH-1 – BH-3) were collected:

- Environmental Earth Sciences (2020), *Detailed Site Investigation for Stage 1A, Telopea NSW, Frasers Property Australia* (ref: 1120034_V3; dated 27 August 2020).

Refer to **Figure 1** for site features and sampling locations.



2.3 Laboratory analysis

31 soil samples were chemically analysed – at a ratio of one sample each location.

14 soil samples were analysed to determine presence or absence of asbestos in soil.

Four fragments of potential asbestos-containing material (PACM) were analysed.

2.4 Results

2.4.1 Chemical contamination

All recorded chemical concentrations were below the acceptable criteria for high density residential and open space and recreational land use.

2.4.2 Asbestos

All results for asbestos testing in soil were returned absent for asbestos except for one sample (ID: 12/0.2-0.4) whereby fragments of fibre cement / bonded ACM were located within the soil at shallow depth. Laboratory analysis confirmed the presence of chrysotile, amosite and crocidolite asbestos.

All four PACM (ID: PACM1 – PACM4) samples were confirmed to contain bonded asbestos, with PACM1 and PACM4 containing chrysotile, amosite and crocidolite asbestos and PACM2 and PACM3 containing chrysotile asbestos.

2.5 Conclusion

Based upon the DSI assessment the following contaminated site features were observed:

- ACM was located on the ground surface and within stockpiled fill material in the northern fenced off area of site (IDs: PACM-2 – PACM-3). Building rubble located here is likely due to the demolition of two historic buildings noted in aerial photographs.
- Poor quality fill including the presence of bonded ACM encountered in the south-western corner of site up to 0.5 m depth (IDs: 12 and PACM-1).

3 REVIEW OF DSI REPORT

Based on updated drawings of Stage 1A *Teloopa Masterplan, Lot 5-7 Teloopa 2117, Stage 1A Residential* (reference: 20320 210604 Teloopa Stage 1A _ For Information Rev 02) a review of the DSI was undertaken.

From a review of the drawings, the Stage 1A residential properties are proposed for development in the area corresponding to sampling locations 1 – 22.

Environmental Earth Sciences understands that the northern portion of the site is to be redeveloped as public open space / recreational land use and this area corresponds to sampling locations 23 – 28, and BH1 – BH3.

4 RECOMMENDATIONS

Environmental Earth Sciences NSW considers there to be a **Moderate 1** risk to human receptors in identified areas of the site due to bonded asbestos present both on the ground surface and within shallow soils.

It is recommended that prior to the proposed development works, surficial ACMs (ID: PACM-2 – PACM-4) be removed by a suitably licensed contractor. As part of the development works, the poor quality fill material in southwest of the site area (ID: 12 / PACM-1) will require excavation and assessed for either onsite reuse or offsite disposal. Following the removal of these ACMs, the land would be considered **Low Risk** and suitable for the proposed high density residential and recreational, open space land use.

Environmental Earth Sciences recommends the preparation of an Asbestos Management Plan (AMP) for the removal of the ACM impacted fill material in both the northern portion of site and the south-western corner. Following this an inspection and validation of surrounding residual soils prior to development works to ensure bonded fragments are removed from both areas.

5 Limitations

This report has been prepared by Environmental Earth Sciences NSW ACN 109 404 006 in response to and subject to the following limitations:

1. The specific instructions received from Frasers Property Australia;
2. May not be relied upon by any third party not named in this report for any purpose except with the prior written consent of Environmental Earth Sciences NSW (which consent may or may not be given at the discretion of Environmental Earth Sciences NSW);
3. This report comprises the formal report, documentation sections, tables, figures and appendices as referred to in the index to this report and must not be released to any third party or copied in part without all the material included in this report for any reason;
4. The report only relates to the site referred to in the scope of works being located at Stage 1, Teloopa NSW (“the site”);
5. The report relates to the site as at the date of the report as conditions may change thereafter due to natural processes and/or site activities;
6. No warranty or guarantee is made in regard to any other use than as specified in the scope of works and only applies to the depth tested and reported in this report;
7. Fill, soil, groundwater and rock to the depth tested on the site may be fit for the use specified in this report. Unless it is expressly stated in this report, the fill, soil and/or rock may not be suitable for classification as clean fill, excavated natural material (ENM) or virgin excavated natural material (VENM) if deposited off site;

8. This report is not a geotechnical or planning report suitable for planning or zoning purposes; and
9. Our General Limitations set out at the back of the body of this report.

Should you have any queries, please do not hesitate to contact us on (02) 9922 1777.

For and on behalf of
Environmental Earth Sciences NSW

Project Manager

Linda Lenihan
Senior Environmental Scientist

Project Director / Internal Reviewer

James Barwood
Manager NSW

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6 References

Environmental Earth Sciences (2020), Detailed Site Investigation for Stage 1A, Telopea NSW, Frasers Property Australia (ref: 1120034_V3; dated 27 August 2020).

Telopea Masterplan, Lot 5-7 Telopea 2117, Stage 1A Residential (reference: 20320 210604 Telopea Stage 1A _ For Information Rev 02)

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ENVIRONMENTAL EARTH SCIENCES GENERAL LIMITATIONS

Scope of services

The work presented in this report is Environmental Earth Sciences response to the specific scope of works requested by, planned with and approved by the client. It cannot be relied on by any other third party for any purpose except with our prior written consent. Client may distribute this report to other parties and in doing so warrants that the report is suitable for the purpose it was intended for. However, any party wishing to rely on this report should contact us to determine the suitability of this report for their specific purpose.

Data should not be separated from the report

A report is provided inclusive of all documentation sections, limitations, tables, figures and appendices and should not be provided or copied in part without all supporting documentation for any reason, because misinterpretation may occur.

Subsurface conditions change

Understanding an environmental study will reduce exposure to the risk of the presence of contaminated soil and or groundwater. However, contaminants may be present in areas that were not investigated, or may migrate to other areas. Analysis cannot cover every type of contaminant that could possibly be present. When combined with field observations, field measurements and professional judgement, this approach increases the probability of identifying contaminated soil and or groundwater. Under no circumstances can it be considered that these findings represent the actual condition of the site at all points.

Environmental studies identify actual sub-surface conditions only at those points where samples are taken, when they are taken. Actual conditions between sampling locations differ from those inferred because no professional, no matter how qualified, and no sub-surface exploration program, no matter how comprehensive, can reveal what is hidden below the ground surface. The actual interface between materials may be far more gradual or abrupt than an assessment indicates. Actual conditions in areas not sampled may differ from that predicted. Nothing can be done to prevent the unanticipated. However, steps can be taken to help minimize the impact. For this reason, site owners should retain our services.

Problems with interpretation by others

Advice and interpretation is provided on the basis that subsequent work will be undertaken by Environmental Earth Sciences NSW. This will identify variances, maintain consistency in how data is interpreted, conduct additional tests that may be necessary and recommend solutions to problems encountered on site. Other parties may misinterpret our work and we cannot be responsible for how the information in this report is used. If further data is collected or comes to light we reserve the right to alter their conclusions.

Obtain regulatory approval

The investigation and remediation of contaminated sites is a field in which legislation and interpretation of legislation is changing rapidly. Our interpretation of the investigation findings should not be taken to be that of any other party. When approval from a statutory authority is required for a project, that approval should be directly sought by the client.

Limit of liability

This study has been carried out to a particular scope of works at a specified site and should not be used for any other purpose. This report is provided on the condition that Environmental Earth Sciences NSW disclaims all liability to any person or entity other than the client in respect of anything done or omitted to be done and of the consequence of anything done or omitted to be done by any such person in reliance, whether in whole or in part, on the contents of this report. Furthermore, Environmental Earth Sciences NSW disclaims all liability in respect of anything done or omitted to be done and of the consequence of anything done or omitted to be done by the client, or any such person in reliance, whether in whole or any part of the contents of this report of all matters not stated in the brief outlined in Environmental Earth Sciences NSW's proposal number and according to Environmental Earth Sciences general terms and conditions and special terms and conditions for contaminated sites.

To the maximum extent permitted by law, we exclude all liability of whatever nature, whether in contract, tort or otherwise, for the acts, omissions or default, whether negligent or otherwise for any loss or damage whatsoever that may arise in any way in connection with the supply of services. Under circumstances where liability cannot be excluded, such liability is limited to the value of the purchased service.

FIGURE



- Legend**
- ▭ Stage 1A Site Boundary
 - Sample Locations
 - Asbestos-Containing Material Locations



Title: Site Features and Sample Locations

Client: Frasers Property Australia

Location: Stage 1A Telopea, NSW

Project Manager: LL

Scale: As Shown Job No: 120034

Drawn By: LL

Date: June 2021

Figure 1