

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of a submission in respect of the **PROPOSED WAIKATO DISTRICT PLAN** by **AMBURY PROPERTIES LIMITED** pursuant to Clause 6 of Schedule 1 of the Act seeking the rezoning of land at Ohinewai

SUMMARY STATEMENT OF CARL VERNON O'BRIEN

1. My full name is Carl Vernon O'Brien. I am General Manager at Geosciences Ltd ("GSL"), a specialist contaminated land advisory consultancy. I prepared a statement of evidence dated 9 July 2020. The purpose of this document is to summarise that statement.
2. I outlined my qualifications, experience and commitment to comply with the Environment Expert Witness Code of Conduct in my evidence in chief ("EIC").
3. As a result of APL's proposal to develop the Site for a mixture of commercial / industrial, medium to high density residential and recreational / reserve land uses, GSL undertook a preliminary site investigation across the proposed development footprint to identify any actual or potential contaminating activities. The PSI formed a Tier 1 risk assessment in accordance with the Ministry for the Environment Contaminated Land Management Guidelines.
4. The PSI identified the following potential contamination consistent with farming activities and aging infrastructure and concluded that regulations of the NES-CS would be applicable to the piece of land:
 - (a) Bulk storage of fertiliser (HAIL Item A.6);
 - (b) Above ground bulk storage of petrochemicals (HAIL Item A.13);
 - (c) Asbestos products in deteriorated condition (HAIL Item E.1);
 - (d) Dairy effluent wastewater treatment (HAIL Item G.6);

- (e) Burning and burying of refuse and waste materials (HAIL Item I);
 - (f) Potential release of lead to soil from lead-based paint (HAIL Item I);
and
 - (g) Bulk application of phosphate fertilisers to pasture grass potentially resulting in elevated concentration of cadmium (HAIL Items A.1 and I).
5. As a result of the identification of potentially contaminating activities, the PSI recommended that detailed investigations be undertaken. To account for the proposed development approach, staged investigation was considered appropriate to coincide with each applicable stage.
6. A detailed site investigation of the Stage 1A earthworks footprint was then undertaken to assess whether any of the above potentially contaminating historical activities had actually adversely impacted soil on the Site. The investigation involved the collection and analysis of 22 soil samples from within the Stage 1A earthworks area targeted at the potentially contaminated areas identified during the PSI.
7. The findings of the DSI were as follows:
- (a) No soil sample returned any concentrations of the identified priority contaminants in excess of the NES-CS Soil Contaminant Standard for Commercial / industrial workers on an unpaved site (the applicable land use standard for the proposed development plan);
 - (b) All four composite soil samples from areas identified as subjected to bulk application of phosphate fertilisers returned elevated concentrations of cadmium in soil above the expected naturally occurring background ranges for the underlying geology, but not to a degree considered to present any risk to human health or the environment; and
 - (c) All eight discrete soil samples collected from within the footprint of historic buildings returned concentrations above the expected naturally occurring background ranges for the underlying geology, with one sample returning a concentration sufficiently elevated to be considered a potential environmental discharge risk, but not at a level considered to present a risk to human health.
8. Based on the findings of the DSI, it was concluded that one discrete area of the Stage 1A Earthworks Footprint presented a potential risk to ecological

receptors and would require remediation. A remediation action plan was prepared that contemplates a remedial approach of vertical mixing followed by placement within the landscape planting bunds required by the proposed development.

9. The identification of HAIL (“MfE Hazardous Activities and Industries List or “HAIL”) activities has resulted in recommendations for further detailed site investigation(s) to be undertaken as part of the staged development to characterise the exact risk and inform the most appropriate management practices to ensure that the requirements of the NES are met. That is, where necessary, all soils will be remediated to a level that complies with the applicable soil contaminant standard for the specific urban development scenario identified within each stage (be it commercial/industrial, residential or reserve / recreational land).
10. While no risks to groundwater have currently been identified, should those recommended investigations identify a gross risk to groundwater or offsite discharge, the requirement to remediate would still exist and appropriately scaled investigations would be triggered to inform remedial options.
11. Where remediation is required on the Site, it is expected that onsite management options will be given precedence. That is, where soils assessed as unsuitable for residential land use will be excavated and incorporated into commercial / industrial or reserve footprints as permitted by the differential risk scenarios and permissible standards set under the NES. Where soil cannot be readily remediated or managed on site, offsite disposal to suitably licensed landfills proximate to the Site can be readily achieved.
12. While potentially contaminating activities have been identified, I do not consider any of these identified risks present an issue that cannot be readily managed using conventional contamination management practices. Any further contamination identified during progressive site investigations will be appropriately remediated and managed to ensure compliance with the NES to ensure protection of human health and associated regulations for the protection of environmental receptors.

Carl Vernon O’Brien
9 September 2020