

**BEFORE INDEPENDENT HEARING COMMISSIONERS APPOINTED BY THE
WAIMAKARIRI DISTRICT COUNCIL**

IN THE MATTER OF

The Resource Management Act 1991 (**RMA** or
the Act)

AND

IN THE MATTER OF

Hearing of Submissions and Further
Submissions on the Proposed Waimakariri
District Plan (**PWDP** or **the Proposed Plan**)

AND

IN THE MATTER OF

Hearing of Submissions and Further
Submissions on Variations 1 and 2 to the
Proposed Waimakariri District Plan

AND

IN THE MATTER OF

Submissions and Further Submissions on the
Proposed Waimakariri District Plan by **Mark
and Melissa Prosser**

**EVIDENCE OF AARON JOHN GRAHAM
ON BEHALF OF MARK AND MELISSA PROSSER**

DATED: 5 March 2024

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INTRODUCTION

- 1 My name is Aaron John Graham.
- 2 I am a Lead Contaminated Land Consultant in Aurecon's Tauranga Office. I hold the qualifications of Bachelor of Science in Geography and Post Graduate Diploma in Environmental Science. I am also a member of the Australasian Land and Groundwater Association (ALGA), including a current member of the ALGA Bay of Plenty organising committee.
- 3 I have 16 years of experience in environmental management and assessment including air quality assessment, regulatory compliance and specialist input, and technical consulting including 10 years as a senior contaminated land practitioner.
- 4 My experience includes environmental management encompassing risk assessment, consenting, investigation, environmental due diligence, compliance, case management, remediation, reporting, sampling and analysis including 10 years in a senior advisory position. Phase I Environmental Site Assessments, Preliminary and Detailed Site Investigations (PSI & DSIs) (in accordance with the MfE Contaminated Land Guidelines 1-5 and NESCS) across a wide range of industries, development and implementation of remedial option assessments (ROAs), remediation management plans (RAPs) and programmes, contaminated site management plans (CSMPs) and site validation and monitoring programmes (SVRs) to satisfy the requirements of the NESCS and Regional Authorities.
- 5 I have read the Environment Court's Code of Conduct and agree to comply with it. My qualifications as an expert are set out above. The matters addressed in my evidence are within my area of expertise, however where I make statements on issues that are not in my area of expertise, I will state whose evidence I have relied upon. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in my evidence.

SCOPE OF EVIDENCE

- 6 In my evidence I present the findings of an assessment of the contaminated land considerations of Mark and Melissa Prosser's rezoning submission (Prosser rezoning submission) under the Proposed Waimakariri District Plan

(pWDP). Specifically, this is an overview of the contaminated land peer review and data gap analysis of a Preliminary Site Investigation (PSI) report prepared by Eliot Sinclair and Partners Limited (Eliot Sinclair) attached at Appendix 5 of the Prosser rezoning submission, and additional recommendations. My evidence is based on my role as Contaminated Land Technical Lead and supervisor, and technical reviewer of the assessment undertaken.

7 In preparing my evidence, I have reviewed the following documents and evidence:

- (a) Eliot Sinclair & Partners Limited, 2021. Preliminary Site Investigation (PSI), 2 Ashworths Road and 9 Aschens Road, Ohoka Prepared for Ohoka Farm Holdings Ltd, dated 19 July 2021 (Reference: 502044).
- (b) Contaminated Land Peer Review and Data Gap Analysis Memorandum prepared by George Wood of Aurecon New Zealand Ltd on 31 October 2023.
- (c) Ministry for the Environment Contaminated Land Management Guidelines No 1: Reporting on Contaminated Sites in New Zealand (Revised 2021) Guidelines, specifically table A2.
- (d) A review of readily available current and historical aerial imagery for 2 Ashworths Road and 9 Aschens Road, Ohoka.
- (e) Environment Canterbury Listed Land Use Register (LLUR) information for 2 Ashworths Road and 9 Aschens Road, Ohoka.

CONTEXT

8 Mark and Melissa Prosser (the submitters) are seeking the rezoning of an approximately 73ha block of land situated directly north of Mandeville as part of the Waimakariri District Plan Review.

9 The site has been zoned Rural Lifestyle Zone (RLZ) in the proposed the proposed Waimakariri District Plan (pWDP) with the submitters seeking it to be zoned Large Lot Residential (LLR).

SUMMARY OF EVIDENCE

10 The proposed rezoning of 2 Ashworths Road, Mandeville (Lot 6 DP 2038) from RLZ to LLRZ in the pWDP is suitable for residential rezoning and subsequent

subdivision from a contaminated land perspective. No significant risks have been identified as part of the PSI and gap analysis that would preclude development associated with the new LLR zoning proposed.

- 11 It is considered that any human health and environmental risk presented by the potential HAIL activities listed above could be effectively mitigated at the time of subdivision, physical land use change and/or soil disturbance under the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS) and relevant Regional Council Regulations.

THE EXISTING ENVIRONMENT

- 12 2 Ashworths Road Mandeville is currently irrigated production land utilised for grazing and cropping.

THE PROPOSAL

- 13 The submitters seek to rezone 2 Ashworths Road to LLR in the pWDP, with an outline development plan (ODP) applied to the site. The rezoning would enable development of the land down to a minimum allotment area of 2,500m², with an average allotment area of 5,000m². Accounting for the space required for civil infrastructure including roading, stormwater facilities and greenspace, an approximate yield of 115 households is anticipated.
- 14 No actual land use change, subdivision or soil disturbance is proposed as part of the rezoning.

RELEVANT PLANNING PROVISIONS

- 15 The National Environmental Standard for Assessing and Managing Contaminants in Soil for the Protection of Human Health (NESCS) would to any future subdivision, land use and earthworks on site. Further, Chapter 17 'Contaminated Land' of the Canterbury Regional Policy Statement (CRPS) requires the protection of people and the environment from both on-site and off-site adverse effects of contaminated land.

CONTAMINATED LAND ASSESSMENT

Existing Contaminated Land Documentation

- 16 Elliot Sinclair, on behalf of the submitters, previously completed a PSI to support subdivision consent of the site summarised in the document

'Preliminary Site Investigation (PSI), 2 Ashworths Road and 9 Aschens Road, Ohoka Prepared for Ohoka Farm Holdings Ltd), dated 19 July 2021.

Reference: 502044'.

- 17 The report is attached as Appendix 5 to the Prosser rezoning submission and summarised below:
- (a) At the time of publication of the PSI, the site was irrigated and utilised for grazing and cropping. The PSI notes that the site has been used for similar purpose dating back to 1940. Key development changes identified by Eliot Sinclair through their historical aerial review were as followed:
- 1970-1974: A borrow pit and associated access to the borrow pit was excavated near the central eastern boundary;
- 1975-1979: The borrow pit and access area to the borrow pit was backfilled (potentially HAIL G3);
- 1990-1994: A horse racetrack is present in the south-eastern corner of the site (potentially HAIL I); and
- 28 February 2019: The horse racetrack has been removed. A pond surrounded by a bund has been excavated near the central eastern boundary, adjacent to the north of the backfilled borrow pit.
- (b) Eliot Sinclair completed a review of available information from WDC Property File, ECan's LLUR and ECan's Resource Consent Database- No information in relation to contamination (HAIL activities) was identified.
- (c) A site walkover and a site interview (letter supplied by Gilchrist brothers Ltd) confirmed that when the horse racetrack was removed and the paddock was re-levelled, no coal dust was evident. The racetrack was formed from sand and crusher dust, therefore ruling the activity non-HAIL.
- (d) An investigation comprised of three test pits within the backfilled borrow pit area. Material exposed consisted of river-run gravel (TP01) and sandy gravel (TP02 and TP03), both being described as 'visually clean'. No olfactory or visual signs of contamination were identified,

and the excavated material did not comprise anthropogenic material. As such the material observed was assessed as 'non-HAIL'.

- (e) The risk assessment completed identified no information to suggest that the site had been used for a HAIL activity or may have been affected by HAIL activities on neighbouring land. Within the limitations of the Accidental Discovery Protocol, the PSI considered that the likelihood of any activity or industry described in the HAIL having been undertaken is low.
- (f) The PSI concluded it is considered highly unlikely that there would be a risk to human health if the activity (subdivision) proceeded. As such, Eliot Sinclair concluded that the NESCS does not apply to the site and the land is suitable for future residential use.

Aurecon Contaminated Land Peer Review

- 18 The review of the Eliot Sinclair PSI was undertaken with the view of ensuring that the report and its findings remain appropriate to support the proposed rezoning of the site from rural to rural residential.
- 19 To achieve this, I consider that the following questions needed to be addressed:
 - (a) Does the PSI meet the requirements of CLMG No. 1?
 - (b) Has the report been prepared by or certified by a Suitably Qualified and Experienced Practitioner (SQEP) as defined by the National Environmental Standard for Assessing and Managing Contaminants in Soil for the Protection of Human Health (NESCS) Users' Guide (MfE, 2012)?
 - (c) Are there any data gaps or outstanding risks not addressed?
 - (d) Is the PSI sufficient as is to support the proposed rezoning?
 - (e) What further work needs to be done to fulfill its purpose as a PSI under the NESCS regulations?
 - (f) Are there any other considerations associated with contaminated land risk not addressed by the report that the client may need to be aware of?

Each of these questions are discussed further below.

COMPARISON OF THE PSI AGAINST THE MINISTRY FOR THE ENVIRONMENT CONTAMINATED LAND MANAGEMENT GUIDELINES NO 1

- 20 The report has been prepared in general accordance with the Contaminated Land Management Guidelines No 1.

PRELIMINARY SITE INVESTIGATION GAP ANALYSIS

- 21 A review of readily available information was undertaken (current and historical aerial imagery and ECan's LLUR) to confirm the findings of the PSI or identify if there are any gaps in the information provided.
- 22 The review identified the following activities on site, or adjacent to the site that were not identified or considered as part of the Eliot Sinclair PSI and have the potential to cause the Site (or part of the Site) to be considered HAIL land. These include:

- (a) *Associated HAIL A.1/10: Agrichemicals, including commercial premises used by spray contractors for filling, storing or washing out tanks for agrichemical application, and persistent pesticide bulk storage or use, including sports turfs, market gardens, orchards, glasshouses or spray sheds. Potential contaminants of concern (PCoC): Metal and metalloids, acidic herbicide, organophosphates (OPPs) and organonitrogens, organochlorines.*

The Eliot Sinclair PSI identified the site has been used for cropping (alongside grazing) presenting a risk for the persistent use of agrichemicals and pesticides use on the site since the 1940s until present. The PSI has not addressed the potential for contamination associated with this activity and therefore the HAIL status of any areas where this may have been undertaken.

- (b) *Associated HAIL - H- Any land that has been subject to the migration of hazardous substances from adjacent land in sufficient quantity that it could be a risk to human health or the environment. PCoC: Heavy metals (particularly arsenic and lead), organophosphates, organonitrogens, and organochlorines (particularly aldrin, dieldrin, DDT and lindane).*

ECan's LLUR identifies a potential sheep dip (LLUR No. ACT169664) at 126 Ashworths Road (HAIL A.8). This has been confirmed through historic aerial review with the potential presence from 1970-1974. The potential former sheep dip has been identified approximately 75m east of the site in the neighbouring property. There is the potential for the migration of contaminants from the dip activity location, and the potential for the migration of contaminants from sheep following dipping activity and moving around the wider farm area (dripping) which originally included the site.

(c) *Associated HAIL - HAIL G - Waste disposal to land. PCoC: Metal and metalloids*

Multiple soil stockpiles were identified across the site (1940-1955) as part of the historic aerial review. These were not included in the PSI and no information was provided to determine if it was site won or has been imported.

SUITABILITY OF THE PSI

- 23 The report meets the requirements of a PSI.
- 24 The report states that it has been prepared by a SQEP. Aurecon has not made any determination on whether the individuals involved in preparation of the report meet the requirements of a SQEP.
- 25 The data gap analysis identified multiple potential HAIL activities that were not identified, nor investigated by the Eliot Sinclair PSI (refer to paragraph 22 above). It is considered that any human health and environmental risk presented by the potential additional HAIL activities identified above can be effectively mitigated/managed and would not prevent the sites suitability to undergo land use change or subdivision.
- 26 The PSI is considered suitable for the purposes of rezoning and no significant risks have been identified as part of the PSI and additional gap analysis work that would preclude development associated with the new zoning proposed.
- 27 It is considered that any human health and environmental risk presented by the potential HAIL activities could be effectively mitigated at the time of physical subdivision, landuse change and/or soil disturbance under the NESCS and relevant Regional Council Regulations.

CONCLUSION

- 28 In my professional opinion, I conclude from a contaminated land perspective the site is suitable for residential rezoning and subsequent subdivision.
- 29 Despite the peer review and data gap analysis of the previously completed PSI identifying multiple potential HAIL activities not identified, nor investigated by the Eliot Sinclair PSI (HAIL A 1/10 associated with potential cropping; HAIL H associated with a sheep dip; and HAIL G associated with uncertified fill); it is considered that any human health and environmental risk presented by the potential HAIL activities listed above can be effectively mitigated/managed and would not prevent the sites suitability to undergo land use change or subdivision.
- 30 Due to the likely presence of HAIL activities on the site, the NESCS regulations are considered to apply to the site. Future subdivision or physical change of land use or soil disturbance activities will trigger the requirements of the NESCS, at time of these activities occurring, the potential HAIL activities will require further assessment to:
- (a) Confirm the applicability of the NESCS in relation to Regulation 5(9) (allows for sites where a DSI shows all soils concentrations are below background levels to be exempt);
 - (b) Confirm the associated risk to human health and/or the environment;
 - (c) Confirm the status of the proposed activity to be undertaken (Regulations 8 to 11); and
 - (d) Where contaminated land risk is confirmed to be present provide the appropriate management to ensure that the risks are effectively mitigated.
- 31 Thank you for the opportunity to present my evidence.

Aaron Graham
5 March 2024