

## **Appendix G**

### **Specialist's Evaluation – Contaminated Land**

# Memo

<b>To:</b>	Paul Ryan – Hamilton City Council		
<b>From:</b>	Alex Davies-Colley – Tonkin + Taylor	<b>Date:</b>	6 May 2025
<b>cc:</b>			
<b>Subject:</b>	Rotokauri Strategic Infrastructure Requirement – Technical Specialist Report for Section 42A Reporting		
<b>Technical Area:</b>	Land contamination		
<b>Version:</b>	Final		

## Purpose

1. This memorandum has been prepared to provide technical assessment under section 42A of the Resource Management Act 1991 (RMA) in respect of land contamination matters in relation to the Rotokauri Strategic Infrastructure Notice of Requirement (the Requirement).

## Introduction

2. My name is Alex Davies-Colley. I am a Senior Environmental Scientist with a BSc in Earth Science from the University of Waikato. I have more than 16 years' experience working in Tonkin + Taylor's environmental group, both in New Zealand and Australia, specialising in contaminated land management. I am a suitably qualified and experienced practitioner (SQEP) as defined by New Zealand contaminated land legislation. I have experience working on a wide range of project types for various clients including private sector companies, councils, and government agencies and departments. My work has included technical review and specialist advice for district and regional councils across Waikato and the Bay of Plenty and I have acted as the Contaminated Land Specialist on major roading projects in the North Island.

## Code of Conduct

3. I have read the Environment Court Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023 and agree to comply with it. I confirm that the opinions expressed in this memorandum are within my area of expertise except where I state that I have relied on the advice of other persons. I have not omitted to consider materials or facts known to me that might alter or detract from the opinions I have expressed.

## Acronyms and Abbreviations

4. A List of acronyms and abbreviations used in this memo is provided in Appendix A.

## Scope

5. This memorandum covers the following:
  - a. The relevant environmental effects of confirming the Requirement and whether any adverse effects will be acceptable.
  - b. Relevant matters raised, and relief sought, in submissions.
  - c. Relevant statutory considerations.

## Executive summary

6. This memorandum presents a technical assessment under Section 42A of the Resource Management Act 1991 (RMA), assessing land contamination matters in relation to a proposed designation of land for strategic infrastructure in Rotokauri. Beca Limited (Beca) has identified 14 sites within 100 m of the project area that could present a land contamination risk, and which are subject to the requirements of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS)<sup>1</sup>.
7. Beca recommends additional contamination investigation prior to any soil disturbance in these areas and notes that a Contamination Site Management Plan (CSMP) will be required to support ground contamination related resource consent(s) for the project. Beca states that *'these aspects are covered by the NES-CS and a separate consenting process, and therefore not conditioned as part of the Project'*. Beca concludes that *'Overall, based on the PSI<sup>2</sup> and subject to the DSI<sup>3</sup> taking place, the effects related to contaminated land can be managed and are assessed as minor.'*
8. I agree with Beca's approach and assessment. In my opinion, the works for which the designation is sought will have adverse effects on land contamination matters that are at worst minor.
9. The Requiring Authority may wish to undertake additional investigations and/or consider amending the designation route (slightly) to avoid potentially problematic and costly construction through the area of a suspected farm dump.

## Documents considered

10. I considered the following documents when preparing this assessment:
  - a. Rotokauri Strategic Infrastructure Designation: Notice of Requirement: Final Report 19 September 2024: Prepared by Beca Limited for Hamilton City Council, (the NOR).
  - b. Preliminary Site Investigation (Contamination) -Rotokauri Arterials: 30 June 2023: Prepared by Beca Limited for Hamilton City Council.

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<sup>1</sup> Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

<sup>2</sup> Preliminary site investigation (PSI) – involves gathering relevant information about a site to determine its history, and actual or potential sources of contamination.

<sup>3</sup> Detailed site investigation (DSI) – an investigation that is undertaken to obtain statistically reliable data about the nature, distribution and concentration of contaminants, sufficient to complete a robust risk assessment.

- c. Section 92 response letter (Part 2) dated 24 April 2024 from Tony Denton on behalf of the Requiring Authority.
- d. Rotokauri Strategic Infrastructure Designation - Preliminary Site Investigation (Contamination) 24 April 2024: Prepared by Beca Limited for Hamilton City Council.

### Site visit

- 11. I have not undertaken a site visit as part of my assessment in respect of land contamination matters. The majority of the proposed alignment is rural farmland which typically has lower risk of land contamination (compared to areas with a history of industrial activity), and where contamination is often the result of sprays or sub-surface (buried) material, showing little or no surface evidence. My own evaluation of Beca's assessment and approach, supplemented by a high-level review of recent imagery available from Google Earth and Google Street View, revealed nothing to suggest that a site visit was necessary in my role as technical assessor. Additionally, Beca has stated that a comprehensive site inspection, including previously inaccessible portions of the alignment, will be undertaken at the detailed investigation and scoping stage. Therefore, in the context of these circumstances, it was decided that a site visit for the land contamination technical assessment under section 42A of the RMA was not warranted.

### Analysis

- 12. The Requiring Authority requires land to be designated in Hamilton City for the construction and operation of a key transportation network and strategic infrastructure corridors to support future growth and development in Rotokauri, in the north-west of Hamilton. The 'proposed Rotokauri Strategic Infrastructure Designation,' ('the Project') comprises a combined 5.8 km length of corridors, which is located primarily within existing 'greenfield' areas.
- 13. Beca states that, while the exact design and associated soil disturbance volumes have not been confirmed at the time of their assessment, earthworks are expected to exceed 2 months in duration. The Project will involve a change in land use from pastoral farmland to a road corridor and existing roads will be widened through commercial/industrial land in the east of the Project area.
- 14. The Ministry for the Environment (MfE's) Hazardous Activities and Industries List (HAIL) is a compilation of activities and industries that are considered to have the potential to cause land contamination. If a HAIL activity is being, or has been, undertaken on a site, there may be implications for future development of a site. In particular, the requirements of the NESCS applies to the soil disturbance and land use change of HAIL sites.
- 15. To identify potential HAIL sites that could have impacted the Project area, Beca prepared a PSI involving a walkover of selected areas of the alignment and review of the following sources:
  - a. Historical aerial photography.
  - b. The Waikato Regional Council (WRC) Land Use Information Register (LUIR).
  - c. HCC HAIL register information.
  - d. WRC's resource consent information.

16. Properties were categorised, based on level of risk indicated from the findings on the above tasks. The properties with highest risk (Category 1 and 2) were selected for further assessment involving:
  - a. Review of property files.
  - b. Review of records of title.
17. This general approach is consistent with industry practice for a preliminary site investigation and Beca states *'This assessment has been undertaken and reported in general accordance with the Ministry for the Environment (MfE) Contaminated Land Management Guidelines No. 1 – Reporting on Contaminated Sites in New Zealand (2021) and MfE Contaminated Land Management Guidelines No. 5 – Site Investigation and Analysis (2021).'*
18. Beca provided further land contamination related information as part of the Section 92 response letter (Part 2). In summary Beca:
  - a. Obtained further useful information for previous identified HAIL properties.
  - b. Provided details around the proposed approach to further assessing land contamination risks at identified HAIL sites.
  - c. Provided details around a proposed site walkover of previously inaccessible areas.
  - d. Confirmed the extent of the refined Project area which resulted in the reduction in the total number of HAIL sites identified.
  - e. Included an additional HAIL site within the Project area and provided justification for why two other properties have not been considered as HAIL sites.
  - f. Prepared an updated version of the PSI report to reflect above.
19. The NESCS and the Contaminated Land Management Guidelines (CLMG) require contaminated land investigations and reports to be overseen by a SQEP. Beca has stated that a SQEP has reviewed the PSI and that a SQEP will confirm further investigation requirements at the time detailed design is confirmed.
20. I acknowledge that it is not always possible to identify all sources of ground contamination through a PSI exercise, particularly on a large rural site. There is potential for unidentified sources of land contamination (such as farm dumps, offal pits, asbestos pipes) to be present within the project area which could be encountered (i.e. as an 'unexpected contamination discovery') during earthworks.
21. The key land contamination issue for the project is the designation (and therefore subsequent disturbance and development) of known or unexpected contaminated land resulting in potential risks to human health and/or the environment through exposure to, and discharges of, contaminants.

## Environmental Effects

22. Beca has identified 144 sites within 100 m of the Project area which are indicated to have had HAIL uses and therefore have the potential for land contamination. These sites have been listed under 11 different HAIL categories (noting some of the sites have more than one HAIL category) and mapped spatially with respect to the Project area. I agree with this approach and assessment.
23. Beca obtained information from WRC which included soil testing results for four of the 14 HAIL sites. In particular, asbestos fibres were detected in three samples from 'HAIL Site 7', but subsequent 'bulk sample' assessment did not identify any further asbestos in soils. While the results generally indicate a low risk, Beca state that *'some areas have had soil sampling but not all'* and that *'further investigation is required to understand risk'*. I agree with this assessment.
24. Beca's Conceptual Site Model (CSM) highlights that the identified HAIL activities/sites could present a risk to construction workers and the general public during site redevelopment and to future site users on completion of the development. The CSM states that further investigation is required to understand these human health risks as well as and potential impacts to groundwater and surface water. I agree with this assessment.
25. Beca states that the identified HAIL sites are subject to the requirements of the NESCS and that consent under the NESCS is likely to be required. Two consenting options are proposed by Beca: staged consenting, and global consenting. I agree with this assessment and consider that either option would be appropriate for the project with respect to managing potential land contamination effects.
26. Beca recommends additional contamination investigation (DSI) prior to any soil disturbance and that a CSMP will be required to support a ground contamination related resource consent(s) for the works. However, Beca state that *'these aspects are covered by the NES-CS and a separate consenting process, and therefore not conditioned as part of the Project.'* Beca further recommends that *'a full review of Regional Plan rules with respect to land contamination issues is undertaken by a planner.'* I agree with this approach and assessment and note that it would be prudent for the CSMP to cover the entire Project area, at least in regard to managing unexpected ground contamination discoveries. It is expected that the CSMP would be prepared and/or certified by a SQEP, in accordance with CLMG guidance.
27. Beca states that *'Overall, based on the PSI and subject to the DSI taking place, the effects related to contaminated land can be managed and are assessed as minor.'* I agree with this assessment.

## Matters raised in submissions

28. No submissions have been received regarding land contamination matters.

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<sup>4</sup> Twenty-two (22) HAIL sites identified in previous (2023) version of PSI and in AEE. Reduced to 14 based on a refined Project area.

## **Statutory Considerations**

29. I have reviewed the discussion in Section 9 of the NOR (pages 82, 83, 87, and 93) on the provisions in the NESCS, Waikato Regional Policy Statement, and Hamilton District Plan relating to land contamination matters and agree with the comments on those provisions. In my opinion, based on that analysis, the Requirement is consistent with those provisions.

## **Conclusions**

30. In my opinion, the designated works will have adverse effects on land contamination matters that are at worst minor.

## **Recommendations**

### **Modifications to the Requirement**

31. I recommend that the Requiring Authority considers whether further investigation of a suspected farm dump and/or waste/burn pile area (located within HAIL Site 12, would be prudent to inform whether there is merit in modifying the designation route slightly to avoid potentially problematic and costly construction through the area.

### **Designation conditions**

32. Given that separate resource consent will be required for the project under the NESCS, no designation conditions are recommended with respect to land contamination matters.

6-May-25

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## Appendix A – Acronyms and abbreviations used in this memo

<b>BSc</b>	Bachelor of Science degree
<b>CLMG</b>	Contaminated Land Management Guidelines: published by Ministry for the Environment (updated 2021)
<b>CSM</b>	Conceptual Site Model: <i>A representation of the site that shows the possible relationships between contaminants, exposure pathways and receptors</i>
<b>CSMP</b>	Contamination Site Management Plan
<b>DSI</b>	Detailed site investigation <i>An investigation that is undertaken to obtain statistically reliable data about the nature, distribution and concentration of contaminants, sufficient to complete a robust risk assessment.</i>
<b>HAIL</b>	Hazardous Activities and Industries List <i>A compilation of activities and industries that are considered to have the potential to cause land contamination, as published by Ministry for the Environment in 2011.</i>
<b>MfE</b>	The Ministry for the Environment
<b>NESCS (or NES-CS)</b>	Resource Management ( <i>National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health</i> ) Regulations 2011
<b>NOR</b>	Notice of Requirement
<b>PSI</b>	Preliminary site investigation. <i>An investigation that involves gathering relevant information about a site to determine its history, and actual or potential sources of contamination.</i>
<b>RMA</b>	Resource Management Act 1991 (RMA)
<b>(SQEP)</b>	Suitably qualified and experienced practitioner. as defined by the NESCS Users' guide (MfE, 2012)