Technical Memo

Review of Contaminated Land Issues: Fast Track Consent Application – Maitahi Village (V2)

To: Monika Clark-Grill on behalf of Save the Maiti Inc

From: Simon Hunt

Date: 24 June 2025

Job No.: NZL.06879

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1 Introduction

EHS Support New Zealand Ltd (EHS Support) was retained by Save the Maitai Inc (STM) to undertake a technical review of contaminated land-related reports prepared to support a substantive application under the Fast-Track Approvals Act 2024 (Application FTA356) lodged on behalf of CCKV MAITAI DEV CO LP (CCKV) for a residential development (Maitahi Village), retirement village and contaminated soil repository located within Kākā Valley, Nelson.

STM has been invited to comment on the substantive application; therefore, the technical review aims to assist them with that input.

The EHS Support review was conducted under a short-form agreement signed by EHS Support and STM on 30 May 2025.

This review is set as follows:

- **Section 2 – Reports Reviewed** provides background and context to the reports reviewed and/or considered in this technical review.
- **Section 3 – Detailed Site Investigation (DSI) Review** provides review comments on the DSI work and identifies gaps in the work that have been undertaken.
- **Section 4 – Remedial Action Plan (RAP) Review** provides review comments on the RAP and considers the peer review of the RAP. The review identifies gaps and issues with the RAP and the supporting work deriving ecological screening values.
- **Section 5 – Discussion and Conclusions.**

Simon Hunt, a Technical Director at EHS Support, has principally undertaken the review; a summary of his technical background is presented in **Attachment A.** Andrew Rumsby, a Principal Environmental Chemist at EHS Support, has also supported this review.

This report is subject to the limitations presented at the rear of the report.

2 Reports Reviewed

A large number of technical reports (prepared by various technical specialists) have been prepared to support the Consent Application, these are listed in the Assessment of Environmental Effects (AEE – Fast-Track Approvals Act 2024 Application for Resource Consent Maitahi Village at 7 Ralphine Way, Nelson, prepared by CCKV, February 2025) and are listed on the Fast Track website - https://www.fasttrack.govt.nz/projects/maitahi-village/substantive-application.

The EHS Support technical review has principally focused on the following reports and associated documents (listed chronologically and referenced relative to the appendices listed in the AEE [Appendices 3.1, 8.1, 8.2 and 8.3]):

1. Detailed Site Investigation (DSI). Maitahi Subdivision. 7 Ralphine Way, Nelson. Envirolink Ltd (Envirolink). December 2021.
2. Addendum Contamination Assessment – Maitahi Subdivision – V4. Envirolink. 23 June 2023.
3. Excel Spreadsheet. Groundwater sampling results. 11 August 2023.
4. SPLP Results. 19 September 2023.
5. Ecological Recommendations for Contamination Management – Lower Kaka Hill Tributary Realignment, Maitahi Village (Stage 1) Development. Robertson Ltd (Robertson). 23 January 2025. [Appendix 3.2].
6. Site Contamination Specialist Review of Remedial Action Plan. Maitahi Subdivision, 7 Ralphine Way, Nelson. HAIL Environmental. 4 February 2025. [Appendix 8.2].
7. RAP Report Review HAIL Environmental. Maitahi Subdivision, 7 Ralphine Way, Nelson. Envirolink Response. Envirolink, 5 February 2025. [Appendix 8.3].
8. Remediation Action Plan (RAP). Maitahi Subdivision. 7 Ralphine Way, Nelson. Envirolink. February 2025. [Appendix 8.1]. This RAP is assumed to be Version 3, but there is no notation confirming this.
9. Attachment 1: Further Information Response Table. 13 June 2025.

EHS Support has also considered the information presented in the AEE, particularly the contaminated land-related issues noted in Sections 5.7 and 9, which discuss the proposed remedial works and suggested conditions of consent, respectively.

The review of contaminated land issues has been constrained, to some extent, due to the lack of integration of contaminated land data with issues, data and design information presented by other technical specialists relative to the proposed development. This may have occurred because of the timeline within which pieces of work were produced. However, for the contaminated land issues, the AEE does not fully collate and holistically discuss these issues. For example:

- The spatial distribution of contamination (horizontally and vertically) is not fully presented in a manner that enables the reader to understand where remediation (notably source removal) will occur, and the actual elevation of the development, particularly the Kākā Stream and Linear Reserve alignment.
- The approximate location of the contaminated soil repository is presented in the DSI, however, there is no geological or hydrogeological investigation data presented for the repository area or an engineering assessment to validate the suitability of the proposed repository location.

- There is no discussion on resilience issues (arising from climate change and geologic hazards), which would be expected within the AEE, particularly concerning the residual contamination being left in place within the Kākā Stream and Linear Reserve alignment.

It is acknowledged that this data may be contained within other supporting reports; however, it was beyond the scope of the EHS Support review (because of time and budget) to extrapolate this data and interpret it.

As noted in the Further Information Response Table, dated 13 June 2025, there is a holistic view (on specific issues) of the relationship between the various technical components and issues associated with the development, as noted by the explanation that the stormwater ponds will be lined (page 15 of the Information Table) to prevent the ingress of groundwater. However, this level of detail is not necessarily present in the contaminated land-related documents (as presented) or the overarching AEE.

Consequently, EHS Support considers these to be data gaps in assessing the effects of contaminated land. These issues are discussed further within this review letter.

3 Detailed Site Investigation Review

The DSI has focused on the key contaminated areas of the development site, as noted in the Preliminary Site Investigation (PSI) part of the report, namely the:

- Sheep treatment infrastructure.
- Paddocks adjacent to the treatment area.

The sheep treatment area is classified as being on the MfE Hazardous Activity and Industry List (HAIL – Category A8) (MfE, 2023). With minor HAIL activities comprising historic horticultural activities (namely, potential hop production on the paddocks – HAIL Category A10) and a house fire (HAIL Category I). Consequently, the investigation appears to have primarily focused on soil sampling within the area of the sheep treatment site, with a lesser amount of investigation work undertaken in the neighbouring paddocks and around the former house. Groundwater investigation work has been conducted within the sheep treatment area.

The DSI (as presented) has been undertaken in a staged manner, which is typical of contaminated land investigation work. Use has also been made of the groundwater monitoring wells installed by Tonkin and Taylor Ltd (T&T) within the area of the sheep treatment infrastructure (installed to support the groundwater and hydrology modelling work).

The DSI report has followed the Ministry for the Environment (MfE) Contaminated Land Management Guidelines No. 1 Reporting on Contaminated Sites in New Zealand (CLMG 1) and was signed off by a suitable, qualified, and experienced practitioner (SQEP).

The sheep treatment infrastructure has been identified as the key contaminated area within the development site, with contamination primarily comprising high concentrations of arsenic and dieldrin (an organochlorine pesticide (OCP)) detected in soil and groundwater. Elevated concentrations of other trace elements and OCPs are also present.

The Maitahi Village development proposal (as outlined in the AEE and the DSI/RAP – Appendix 8.1) indicates that the sheep treatment infrastructure is primarily located within the realignment of the Kākā Stream and Linear Reserve, with contamination also present in the Stage 1 area which we understand will be used for high density residential housing.

Given the nature of the development proposal, both in terms of the certainty needed regarding projected works and potential effects for a substantive application under the Fast Track and the possible issues associated with placement of a surface water course within a contamination source area, we consider the scope and breadth of the DSI to be inappropriate and not fit for purpose. Additional investigation work is required to finalise the RAP for the development project.

There are many data gaps, which Envirolink acknowledges [Appendix 8.3] and which have also been noted by HAIL Environmental (in their review of the RAP [Appendix 8.2], as discussed in **Section 4** below.

The key data gaps noted by EHS Support are as follows:

1. No background quality data has been collected, with reliance placed on the documented soil data for the Nelson area compiled by Landcare Research (trace elements) (Landcare, 2015) and research undertaken by Sally Gaw for the Tasman District Council (OCPs) (Gaw, 2003). This data is needed for soil within the development area (to assist in defining clean fill disposal requirements) and for surface water and sediment within the Kākā Stream to support the assessment of ecological risk and to benchmark contamination levels before remediation commences.
2. The full vertical and lateral extent of the contamination within the source area and beyond has not been fully defined. This complicates the assessment of effects from the in situ contamination and how much soil will need to be removed to achieve the remedial objectives (i.e., meet the proposed cleanup criteria).
3. The former Kākā Stream channel is stated as passing through the sheep treatment area and has not been investigated. As noted in the HAIL Environmental review [Appendix 8.2], this could be acting as a preferential pathway for the contaminant migration or a sink for contamination.
4. The investigation of OCP contamination has utilised a “screen” limit of detection in the laboratory testing. In contrast, the proposed ecological cleanup criteria require a lower level of detection than was used in the DSI (namely, a “trace” limit of detection). This discrepancy was also noted in Appendix 3.2. Consequently, the area or extent of OCP contamination requiring cleanup or remediation may be greater than estimated. Envirolink acknowledges this in Appendix 8.3.
5. The conceptual site model (CSM) presented in the DSI (Section 6) has assumed that the paddock area investigated was subject to horticultural activities, not sheep treatment, and so the soils in this area have only been tested for trace elements (not OCPs). The investigation results detected some slightly elevated concentrations of arsenic and zinc above the projected background, suggesting possible anthropogenic contamination. Consequently, it is not clear why OCPs were noted to be tested in this area, particularly given the need to meet a trace concentration clean-up level. What is interesting to note is that CSM in the RAP [Appendix 8.1 – Table 4] has reclassified the HAIL activity within the

southeastern paddock to be a mix of possible horticulture and a sheep treatment runout area. This would require testing for OCPs.

6. The DSI infers that the OCPs (namely, dieldrin) will preferentially bind to organic matter within alluvial sediments underlying the site. Although this might be the case, no total organic carbon (TOC) analysis has been conducted to validate this assumption. Similarly, there is a lack of discussion on the effect that the grain size and texture of the underlying soils have on the contamination levels detected. The TOC data would also be needed to assess potential ecological risks, as the ANZG (2018) sediment guidelines (that are proposed to be used as cleanup criteria) use a normalised TOC concentration. Consequently, it will be necessary to adjust the guideline value based on the organic content of the soil.
7. The groundwater contamination assessment is rudimentary, as it utilises only a limited number of groundwater monitoring wells and wells with a screened interval that is below the groundwater table and the zone where soil contamination has been recorded. Consequently, the level of groundwater contamination at the site (particularly given the sampling techniques deployed (namely a bailer)) may be underreported. Alternatively, the sampling technique used and the absence of total suspended solids data from the analysis may mean that the organic analysis also included sediment-laden contamination, which would potentially increase the level of contamination present. Ideally, additional groundwater monitoring wells should be installed at the site to better characterise the extent of groundwater contamination, the results of which would also assist in validating soil contamination within the site area.
8. The DSI assumes that the Eco-Soil Guideline Values (SGVs) presented in the Landcare ecological soil screening value reports (Cavanaugh, 2016 and 2019) are protective of surface water, which is incorrect. This assumption was corrected in the RAP [Appendix 8.1] with the suggested surface water and sediment risk screening values.

4 Remedial Action Plan Review

The RAP [Appendix 8.1] is understood to be Version 3, which was updated following a review of draft Version 2 undertaken by HAIL Environmental in early February 2025 [Appendix 8.2]. The Further Information Response Table (dated 13 June 2025) indicates that the Version 3 RAP is a "final working document" but acknowledges that it will require updating following completion of additional investigation work. It is a moot point whether the RAP is draft or final, given the amount of extra work needed to scope the remedial work fully.

The RAP follows the format presented in CLMG No. 1 and has been signed off by a SQEP.

The remedial strategy proposed involves source removal but leaves some contamination in place, which Envirolink deems not to pose a risk. The remediation principally comprises:

- Excavation and removal from the site of the very highly impacted soil (namely, dieldrin-contaminated soils with a concentration >50 mg/kg and arsenic concentrations >140 mg/kg). The soils with this concentration of dieldrin and above are captured by the HSNO Act Basel Convention threshold guidelines (low persistent organic pollutants (POPs) content threshold) (EPA, 2023).

- Excavation and on-site encapsulation and/or off-site disposal of significantly impacted soils (i.e., dieldrin concentrations of <50 mg/kg and arsenic concentrations of <140 mg/kg).
- Excavation and re-use of low-level contaminated soil in the broader development (that meets the land use risk levels).
- Leaving very low-level contaminated soil within the impacted area that meets the respective human health and ecological risk cleanup values.

This approach is typically used, particularly for a limited area or volume of soil contamination, and is a standard remedial measure. The strategy employs a risk-based approach and offers a potentially sustainable solution. However, given the uncertainties noted in **Section 3** above, it is difficult to fully consider the potential adverse effects of the proposed remedial approach. The uncertainties also pose a commercial risk to the project due to the unknown cost of remediation (particularly the volume of soil requiring removal and on-site and off-site disposal).

The HAIL Environmental review of the RAP (Version 2) noted that the remedial approach is feasible and understandable [Appendix 8.2]. EHS Support would concur with this statement because the approach follows proven remedial techniques. In theory, the effects should be minimal if the work is designed and undertaken correctly and supported by appropriate assessments of risk (human health, environmental, resilience and geological hazard). However, EHS Support agrees with HAIL Environmental that the limitations of the RAP pose significant risks to the integrity of the RAP and its development. Additional investigations are needed, and this work should support an improved assessment of ecological risk to inform the derivation of appropriate cleanup criteria.

HAIL Environmental identifies several data gaps and notes that their review was limited to the RAP, not the supporting DSI. This is a flaw in the review, because the HAIL Environmental review conclusions may well have differed if they had also reviewed the supporting documents.

The suggested consent conditions are presented at the rear of the RAP (Section 7) [Appendix 8.1] and repeated in the AEE.

The following key issues with the RAP identified by the EHS Support review are listed below. Noting that many of these were raised by HAIL Environmental [Appendix 8.2], and responded to by Envirolink [Appendix 8.3]:

1. The spatial distribution of contamination (both horizontally and vertically) is not fully documented. Therefore, it is not possible to determine the areas and depths of contamination that require removal, particularly when the proposed ecological cleanup levels may be inappropriate and further investigation work will be needed to undertake OCP testing at trace levels.
2. The RAP states that within the Kākā Stream and Linear Reserve alignment, the impacted soils will be removed to the proposed stream invert (maximum depth of 1.5 m below ground level). However, the investigation locations need to be level-surveyed, and the relative excavation levels stated so that the remedial work can be documented and verified (through survey and soil sampling). Ultimately, the RAP will need to include detailed plans for a contractor to use to undertake the remedial excavation work, rather than the small figures presented in the RAP.
3. The CSM presented within the RAP is very simplistic, particularly in terms of contaminant fate and transport in relation to ecological risk. There is no discussion of the

environmental/ecological setting and the species/receptors at risk, both on site and downstream. The CSM does not address the re-use of excavated contaminated soil within the broader subdivision, nor does it consider the contaminated soil repository.

4. The cleanup levels presented in the RAP [Table 5 – Appendix 8.1] are partly based on the assessment work undertaken by Robertson Environmental Ltd [Appendix 8.4 – they have derived the ecological cleanup levels for the stream realignment]. There are flaws in the derivation of the ecological cleanup levels, which will need to be addressed as part of future updates to the RAP and in conjunction with additional investigation work to ensure the remedial objectives are met. Some of our concerns are listed below. Consequently, a more robust set of ecological cleanup criteria needs to be derived (based on standard ecological risk assessment procedures). Completing this work as soon as practical is necessary because it underpins the scope of the earthworks within the stream realignment area.
    a. The Appendix 8.4 report is not an ecological risk assessment; rather, it comprises an assessment of readily available Tier 1 ecological risk criteria that can be applied to the Kākā Stream and Linear Reserve alignment (sediment and surface water). However, in assessing the Tier 1 criteria, while dieldrin is acknowledged as a bio-accumulative contaminant, the report fails to recognise that there is uncertainty with the toxicity data used by ANZG 2018 to generate the surface water and sediment default guideline values (DGVs).
    b. The report states that the DGVs used are of low reliability, but has not assessed other available eco-toxicity data to substantiate or challenge the cleanup criteria presented. In particular, low-reliability data should not be used to define cleanup criteria.
    c. The dieldrin ANZG 2018 DGV for sediment has been used; however, this DGV is not protective against bioaccumulation. This is particularly significant when OCP-contaminated soil is being left in situ within the stream alignment and could be transported downstream as sediment. Lead and cadmium could also potentially bioaccumulate; therefore, the revised assessment work should not be limited solely to arsenic and dieldrin.
    d. The work presented in Appendix 8.4 also includes an assessment of contaminated groundwater migration into the realigned stream and effects (following allowable mixing). This assessment should be repeated once additional groundwater data has been collected and the reassessment of ecological risk has been completed.
    e. It is not clear from the cleanup criteria presented in the RAP Table 5 which ecological soil criteria need to be applied, because a range of values is presented for arsenic and dieldrin.
5. The remedial options assessment identifies a single set of options to address the contaminated soil within the development area (which indirectly should address the groundwater contamination through source removal). The remedial options are proven to work, namely excavation and removal/disposal or encapsulation, with risk assessment used to justify leaving low-level contamination in place. Alternative options are not presented or discussed, with the obvious alternative being a different route for the Kākā Stream away from the contaminated area.
6. There is no discussion on resilience issues (due to climate change and geologic hazards), particularly with residual contamination being left in place within the Kākā Stream and Linear Reserve alignment (which may be subject to erosion) and the repository (which may be subject to geologic hazards). This issue is not discussed in RAP as part of the remedial options assessment or design requirements.
7. The excavation and off-site management of the high-concentration dieldrin and arsenic-contaminated soil (i.e., soil with dieldrin concentrations > 50 mg/kg) is described in the RAP;

however, the applicant has yet to confirm the preferred management approach. This issue must be thoroughly documented in any consent conditions to ensure that the highly contaminated soil is managed correctly and does not result in any off-site environmental or human health impacts.

8. The location of the proposed contaminated soil repository is illustrated in the RAP (Figure 6), and an outline description of the engineering requirements for the repository is provided in the RAP [Appendix 8.1]. The construction of a repository/containment cell is a proven technology, and if sited and constructed correctly, it will contain the deposited contaminated soil. It must be acknowledged that the cell will sterilise the land and pose a long-term liability for whoever owns the land. There is no evidence that the repository location has undergone a geological or hydrogeological investigation to assess its suitability for the proposed location. In terms of constructing the repository, a complete engineering design will be needed, supported by verification work during construction.
9. The management controls listed within the RAP, while earthworks are occurring within contaminated areas, will need to be strengthened to address issues such as the disposal of contaminated sediment (held by silt fences or within temporary soakage pits), dewatering (if necessary), and how the abstracted water will be managed (including any discharge consent requirements). More information is needed on worker health and safety during work, particularly when excavating soils with high concentrations of arsenic and dieldrin, such as in the source area.
10. Section 7 of the RAP outlines the validation testing requirements; however, there is no discussion on discharge monitoring during the remedial works (sediment and surface water), nor on the longer-term monitoring of groundwater and sediment/sediment porewater to validate that remedial targets have been met. The Further Information Response Table, dated June 13, 2025, presents additional information on long-term environmental monitoring beyond what is detailed in the RAP. Consequently, it is not clear what long-term ecological performance monitoring will be undertaken. This needs to be documented.
11. The RAP [Section 9 Appendix 8.1] and the AEE both present draft consent conditions for the remedial works. A robust set of prescriptive resource consent conditions will be required to set the standards to be achieved by remediation works, particularly given the high-level nature of the RAP.

5 Conclusions and Summary

A combined PSI and DSI has been undertaken within the contaminated areas of the Maitahi Village development, identifying very high levels of arsenic and dieldrin contamination (along with other contaminants of concern) within the former sheep treatment area. These legacy activities have contaminated soil and groundwater within an area of the development site that will require remediation to support the proposed development.

The high levels of arsenic and dieldrin contamination complicate the remediation, principally because of the:

- Need to construct an on-site repository for disposal of contaminated soil and the off-site management of significantly contaminated soil (particularly the persistent POPs); and
- Realignment of Kākā Stream through the sheep treatment area.

A high-level RAP has been prepared outlining the proposed remedial works; however, a significant amount of additional investigation, assessment and design work is needed before the RAP can be finalised.

EHS Support has identified several significant data gaps in both the DSI and RAP submitted with the substantive application. The applicant has acknowledged these data gaps, and it is intended to undertake supplementary work to address them (as a condition of consent). Once the additional work has been conducted, the RAP will be updated accordingly. Given the significance of some of these data gaps, key works should be addressed before issuing a Fast Track consent to ensure that potential adverse effects can be appropriately considered and managed.

The proposed remedial works take a standard approach used throughout New Zealand and elsewhere internationally. However, due to the key gaps in the investigation data and proposed cleanup criteria, it is not possible to fully assess the nature of any potential adverse effects from the proposed remediation and long-term management of contamination remaining on-site.

The key issues of concern to EHS Support comprise the following:

- The spatial distribution of contamination (both horizontally and vertically) is not fully documented. This may have implications on the scale and effects of the remedial works and the associated.
- Only a crude groundwater investigation has been undertaken, and so the level of contamination is currently not fully documented.
- The ecological sediment cleanup values appear not to consider contaminant bioaccumulation. Consequently, the extent of remediation may be greater than initially projected. This situation has been exacerbated by the choice of detection limit for OCPs used in the DSI relative to the ecological cleanup criteria that will be required.
- The location of the contaminated soil repository has not been investigated, nor has a detailed design been prepared.
- Resilience issues (due to climate change and geologic hazards), particularly with the residual contamination left in place within the Kākā Stream and Linear Reserve alignment (which may be subject to erosion) and the repository (which may be subject to geologic hazards), have not been considered.
- Only a high-level RAP has been prepared and will need to be updated and made more prescriptive once additional investigation/design information is available.

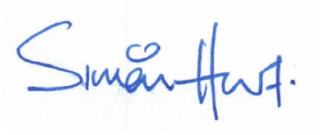
It is understood that for a Fast Track Consent Application, the data and reports presented must be as complete as possible. As noted above, the identified data gaps raise questions about the completeness of the documents presented regarding the management of contaminated land. Key outstanding investigation and outline design work should be undertaken before issuing consent, rather than the work being undertaken as a condition of consent. This would provide greater certainty in assessing potential effects.

As with any resource consent application that may have significant adverse effects, consideration of alternatives is necessary. This appears not to have been considered for the management of the contaminated land; in particular, it is not clear why it is essential to realign Kākā Stream through the contaminated area. There would be a lower environmental risk and a reduced potential for adverse effects if an alternative route were taken. It can only be concluded that the proposed alignment yields the most favourable outcome for the development. However, given the uncertainty regarding the nature and extent of the contamination and management design requirements, it may be more sensible to consider an alternative route.

Leaving contamination on the development site poses a long-term liability for those parties who own the land on which the contamination is located and/or where recycled contaminated soil is placed. While this issue, particularly concerning the repository, has been noted in the RAP, as with

any landfill site, the landowner needs to have sufficient financial means available to deal with the liability should it arise. It is unclear from the provided documents who will be responsible for this liability.

Sincerely,



Simon Hunt
Technical Director

EHS Support New Zealand Ltd

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Limitations Statement

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The methodology adopted and sources of information used by EHS Support are outlined in this document. EHS Support has made no independent verification of this information beyond the agreed scope of works and EHS Support assumes no responsibility for any inaccuracies or omissions. No indications were found during the preparation of this document that information contained in this document as provided to EHS Support was false.

This document was prepared on the issue date and is based on the information available at the time of preparation. EHS Support disclaims responsibility for any changes that may have occurred after this time.

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Where conditions encountered at the subject site are subsequently found to differ significantly from those anticipated in this document, EHS Support must be notified of any such findings and be provided with an opportunity to review the recommendations of this document.

Whilst to the best of our knowledge information contained in this document is accurate at the date of issue, subsurface conditions, including groundwater levels and flow direction can change in a limited time, as well as natural processes or works of man at the subject site or on adjacent properties. Changes in applicable standards may also occur as a result of legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond our control. Therefore, this document and the information contained herein should only be regarded as valid at the time of writing, unless otherwise explicitly stated in this document.

Attachment A – Simon Hunt Background

Simon Hunt is a geo-hydrogeologist and an environmental scientist, and is an owner of EHS Support New Zealand Ltd. He holds a BSc (Hons) majoring in Geology (UK, 1985) and an MSc and DIC in Environmental Technology (specialising in mining and the environment, UK, 1987). He is a Chartered Geologist (Geological Society, UK) and a Certified Environmental Practitioner – Site Contamination Specialist (New Zealand and Australian certification).

Simon has over 35 years of practical, hands-on experience performing and managing environmental, health, and safety (EH&S) projects in New Zealand and around the globe. Working on highly complex projects involving multi-disciplinary teams, he strives to provide clients with the most practical and commercially focused solutions. Simon has worked as an international environmental consultant, EH&S manager (international oil company), and environmental contractor.

Simon is one of New Zealand's leading practitioners in contaminated land and has been intimately involved in preparing contaminated land regulations, policies, and guidance for central and local government agencies.

Simon has extensive experience working on large facilities/sites and managing complex remedial projects, including:

- ICI Lostock Chemical Works – Investigation, human health and ecological risk assessment, and remediation (UK).
- Batangas Refinery – Investigation and decommissioning (Philippines).
- Lyttelton Harbour – 1 million litre jet fuel loss emergency response (NZ).
- Cape Foulwind Cement Works – Assessment and remedial scoping (NZ).
- Wynyard Quarter – High Court expert witness representing Mobil Oil New Zealand Ltd (NZ).
- Moanataiari Subdivision – Lead and Arsenic Human Health Risk and Community Engagement (NZ).
- Tiwai Point – NZAS aluminium smelter. Marine receiving environment environmental investigations, ecological and human health risk assessment. Resource consent review for renewal of landfill consents. Stakeholder engagement (NZ).
- PuhiPuhi Mercury Mine – Environmental investigation and assessment of ecological and human health risk. Stakeholder engagement (NZ).

Many of Simon's NZ-based projects have involved complex issues associated with significant environmental and human health impacts, regulatory compliance, community and iwi consultation, etc.