

Waikato Regional Theatre Project site – Soil Contamination Assessment Memo
Prepared by: Carmel Mangan, Contaminated Land Officer, Environmental Health Unit (EHU)

1. INTRODUCTION

Resource consent is sought from Hamilton City Council (HCC) by the Waikato Regional Theatre Governance Panel for the establishment of the Waikato Regional Theatre facility at 170-206 and 208-218 Victoria Street, Hamilton Central.

The proposal includes a 1,300-seat auditorium and associated theatre facilities, a conference centre, hotel and other retail/hospitality tenancies. Construction of the proposal requires, amongst other activities, the following:

- The partial removal of, and external and internal alterations to, the Hamilton Hotel; a 'A' Ranked Built Heritage Item;
- The removal of three Significant Trees;
- Works within Embassy Park to create a large plaza and level access to the main theatre entrance and access to the riverfront promenade; and
- The installation of 5m wide riverfront promenade which will include works within a 'Group 2' Significant Archaeological Site and the Waikato Riverbank and Gully Hazard Area.

The purpose of this report is to provide a technical review of the soil contamination aspects of the proposal which will support the section 42A officers report prepared on behalf of HCC.

2. PROPOSAL

- The applicant provided a Preliminary Site Investigation Report (PSI) prepared by Lysaght Consultants Limited (LCL) that confirmed historical HAIL land uses have occurred within the project works area.
- The HAIL land uses have been identified because of their potential to be a source of hazardous substances that may inevitably pose a risk to human health. Of particular concern is the risk posed by exposure to soil contamination during the course of the development as well as during future daily operation of the site.
- The potential risk to human health from the Regional Theatre proposal going ahead is therefore a matter for assessment under the RMA (National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health) (NESCS) Regulations 2011.

3. POLICY CONTEXT

- The proposal involves changing the use of and disturbing the soil at a SLUR site which are two of the five activities regulated by the NESCS.
- The effects of these two activities on human health and the environment are part of the investigation process that is required by the NESCS.
- The mitigation or management of any effects is also part of the investigation process, and based on the appropriate approach being adopted no effects (or unacceptable risks) are likely to be present.

- The District Plan seeks to ensure that any land affected by soil contaminants is identified and made safe for its intended use before any change of use, development or subdivision¹.
- The NESCS is a nationally consistent set of planning controls and soil contaminant values which ensures that land affected by contaminants in soil is appropriately identified and assessed before it is developed - and if necessary, the land is remediated or the contaminants contained to make the land safe for human use.

4. ASSESSMENT

- The PSI could not conclude Human Health Risk Highly Unlikely as required under NES regulation 8(4) therefore recommended undertaking a Detailed Site Investigation (DSI) to establish contamination conditions across the site and to understand the implications associated with the proposed future development.
- This approach is consistent with NESCS requirements for ensuring the magnitude of any real risk is investigated prior to the site being developed. Therefore, the proposal can proceed as a discretionary activity subject to controls similar to those defined under regulations 9 & 10.
- The controls are to be based on the PSI content and recommendations. However, uncertainties as to how the investigation was going to be done and in turn how the conditions could resolve the uncertainties needed clarity from LCL.
- Information was requested from LCL (Item 58 of the section 92 request for further information) to which they responded with more detailed information that has addressed the matters raised and made way for appropriate/specific conditions to be prepared.
- In accordance with the NESCS, further investigation must be done to determine if any piece of land is required to be remediated or managed accordingly.
- EHU is satisfied that LCL have clarified the focus of the DSI includes that:
 - *The likely location of the Dry Cleaner (if present) is within the main building of the former Hamilton Hotel. Current development plans indicate that this structure is to remain on-site and is to be refurbished.*
 - *That soils across other areas of the site may have been impacted by the previous fires destroying the previous two hotel buildings so will be investigated to assess soil quality in terms of potential contaminants.*
 - *That they will be adopting the appropriate investigative approach to the whole site.*
 - *That the subsurface material is a potential unknown source of contamination and that as such adequate site management and disposal requirements must be achieved.*
 - *That they anticipate having a SQEP undertake regular site inspections on behalf of the consent holder during the site earthworks stages and ensure consent compliance.*
- Based on the response provided by LCL, EHU has recommended a set of conditions of consent (and explanatory advice notes) that will provide a suitable framework upon which to ensure a DSI is prepared and implemented in accordance with Regulation 3 of the NESCS.

¹ Objective 25.1.2.3

5. CONCLUSIONS AND RECOMMENDATIONS

On the basis that the recommended conditions (see below) define what the appropriate approach is to investigate/remedy/manage the soil contamination issues, and provided the consent holder ensures they are compliant, the potential for site workers & future users to be exposed to soil contamination, will be minimal.

Recommended Contaminated Soil Conditions:

1. *That prior to any soil disturbance works commencing on or within the Waikato Regional Theatre Project site, the consent holder must arrange a pre-commencement meeting to discuss soil contamination requirements. The objective of the meeting will be to ensure all relevant parties are clear on the implementation of the human health-related controls. The matters for discussion will include (but not be limited to) and confirm:*
 - I. *The investigative approach to characterising the unknown nature of the soil being disturbed specific to land where HAILs are alleged to have been undertaken.*
 - II. *The approach to site management including identifying unknown hazards and implementing mitigation methods specific to human health-related requirements.*
 - III. *The approach to meeting compliance monitoring requirements with regard to timing, staging, notification and communication.*

In attendance must be:

 - I. *The Suitably Qualified and Experienced Practitioner (SQEP) nominated to oversee the works/address soil contamination matters*
 - II. *HCC's Contaminated Land Officer and Compliance Monitoring Officer*
 - III. *All contractors and sub-contractors supervisory staff who are carrying out any works associated with human health-related requirements.*
2. *Prior to the commencement of any soil disturbance works occurring, a Detailed Site Investigation (DSI) must be done for the **piece(s) of land** where HAIL activities are alleged to have been undertaken, as identified in the the Preliminary Contaminated Site Investigation for 170 Victoria St, Hamilton Report prepared by Lysaght Consulting Ltd, (dated August 2018), and as explained in Section 58 of the Waikato Regional Theatre Section 92 Request for Information Response.*
3. *The DSI must be done and reported on by a Suitably Qualified and Experienced Practitioner (SQEP) in accordance with the RMA (National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health) (NESCS) Regulations 2011, in terms of regulation 3.*
4. *Prior to the commencement of any soil disturbance works occurring, a copy of the DSI report must be provided to Council's Environmental Health Manager for acceptance.*
5. *The DSI report must contain sufficient and appropriate information to enable suitable action by regulators and compliance monitoring officers.*
6. *The report must include all evidence the SQEP has relied upon to form their concluding opinions and recommendations. The discretion exercised by the SQEP must be sufficiently*

detailed, and any departure from the framework provided in MfE's CLMGs must be appropriately justified.

- 7. The DSI investigative objectives and subsequent sampling design strategy must be capable of determining if any **piece of land** is impacted in such a way that poses an unacceptable risk to human health or the environment (on-site or off-site) given the intended use, the associated soil disturbance and any on-site reuse and off-site disposal.*
- 8. The DSI must confirm the suitability of the land for the intended land use, and the suitability of the soil for on-site re-use or off-site disposal by clearly demonstrating compliance with the applicable NESCS Soil Contaminant Standards for Health and the appropriate disposal facility acceptance criteria.*
- 9. In the event that the investigation results indicate contaminants of concern exceed the applicable NESCS standards, a Remedial Action Plan (RAP) must be developed that includes remedial and management works that are appropriate to mitigating the risk posed by the contaminants. The RAP must specify the proposed process in sufficient detail to show how it can be successful and must specify the sampling necessary to validate that the resultant soil is safe for the intended use. The appropriateness of the proposed methodology will be determined by the degree of certainty provided by the SQEP that the actions undertaken will eliminate or sufficiently reduce the hazard to an acceptable level. A copy of the RAP must be provided to Council's Environmental Health Manager for acceptance prior to any remedial works being done.*
- 10. The implementation of the accepted RAP methodology must be supervised by the SQEP, or suitable persons nominated by the SQEP, to ensure contractors and surrounding population and environments are not exposed to contaminants, and to ensure that the human health risk is eliminated or sufficiently reduced to acceptable levels on completion. Council must be notified of any proposed variations to the accepted RAP and any alternative methods must be proven to be consistent with the appropriate remediation standard prior to their implementation.*
- 11. After completing any remedial activities on site, site validation must be undertaken to demonstrate the approved remediation targets have been achieved. A Site Validation Report (SVR) must be prepared that adequately demonstrates no unacceptable risk to human health or the environment remains on any piece(s) of land at the completion of the remedial works. The SVR must include confirmation that all the consenting requirements have been met, and compliance approved before further soil disturbance works can commence. The adequacy of the SVR will be determined by the weight of evidence documenting the effectiveness of the remediation against the remedial goals set. A copy of the SVR must be provided to Council's Environmental Health Manager for acceptance as soon as practicable after remedial validation is completed.*
- 12. In the event that the DSI determines site-specific soil management is required a Contaminated Site Management Plan (CSMP) must be prepared and the content must serve as a framework for managing soil disturbance on a piece(s) of land by identifying hazards and recommending mitigation methods relevant to actual site conditions. The CSMP must include the necessary designs, actions, procedures and controls that restrict and prevents exposure and avoid human health implications on-site and off-site discharges. The Plan must include the appropriate transport and disposal options to avoid human health and environmental exposure from off-site removal of soil. The Plan must include appropriate*

contingency measures for any previously unidentified contamination being discovered, and an acceptable method for works completion reporting. Any alternative methods or measures must be proven to be consistent with the objective of the approved SMP prior to their implementation. The adequacy of the CSMP will be determined by the inclusion of industry accepted best practice management controls in accordance with (but not limited to) Soil and Erosion Control: guidelines for Soil Disturbing Activities, Waikato Regional Council (2009), Good Practice Guide for Assessing and Managing Dust, Ministry for the Environment (2016), Guidelines for Assessment and Managing Asbestos in Soil, BRANZ (2017). A copy of the CSMP must be provided to Council's Environmental Health for acceptance prior to any soil disturbance occurring on land that requires human health-related controls.

- 13. The relevant human health-related controls outlined in the CSMP must be implemented under supervision of the SQEP or suitable persons nominated by the SQEP for the duration of the soil disturbance works. Any alternative management methods or measures must be notified to Council and must be proven to be consistent with the objective of the CSMP prior to their implementation. The alterations must be consistent with the human health risk-based approach of the CSMP to ensure the same level of protection is afforded to site workers, and future site users.*
- 14. Works Completion reporting must be provided **within two months of soil disturbance works being completed** to confirm that the methods outlined in the CMMP were enforced for the period of the soil disturbance works, and that the measures were successful in ensuring the potential risks were adequately managed.*
- 15. In the event that any previously unidentified contamination (including but not limited to asbestos) is discovered in any exposed or excavated soil, works are to cease immediately, and Council must be notified of the discovery. The SQEP must assess the risk and determine what actions are appropriate for reducing the potential risk to site workers, future site users and the environment given the extent of the discovery. The details of the discovery and the action taken must be reported either in the SVR or the works completion reporting.*
- 16. Any soil exceeding the applicable NESCS standard must be removed under controlled conditions to a licensed waste facility or landfill for disposal in accordance with the requirements of the disposal site and the relevant authority. Receipts of transport and disposal must be included in the Site Validation Report or Works Completion Report.*
- 17. That pursuant to section 36 Resource Management Act 1991, the following fees and charges be paid:
 - (a) Payment of additional Environmental Health fees for assessing consented reporting will be charged on a time-cost recovery basis in accordance with Hamilton City Council's Schedule of Fees and Charges, with adjustments coming into effect at the beginning of each financial year. The fees will be levied at the completion of the consent review process and will be payable to the Environmental Health Unit upon notification that compliance has been achieved.**

Advisory notes

- a) In terms of piece(s) of land - the PSI report and S42A report have indicated that the likely location of the alleged HAIL (A.5 Dry Cleaner) is within the main building of the former Hamilton Hotel, but that soils across the wider site may have been impacted by fires destroying the previous two hotel buildings. Also, that post demolition and removal of buildings/concrete hardstand, inspection and soil sampling needs to be undertaken; that assessment, inspection and soil*

sampling may be required at any other stages of the development when previously inaccessible soils (suspected of being impacted/pieces of land) are exposed.

- b) In terms of in accordance with NESCS regulation 3 DSI (a) – verification of SQEP credibility will be determined by the certifier being a Contaminated Land Specialist, who has relevant capabilities that are supported by a professional profile, or who ultimately is a certified practitioner registered with EIANZ CEnvP or CEnvP-SC scheme. This information must be submitted with any reporting done under the NESCS.*
- c) In terms of in accordance with NESCS regulation 3 DSI (b) & (c) - any investigation, remediation, validation and soil management works must be done and reported on in accordance with current editions of the Ministry for the Environment Contaminated Land Management Guidelines No. 5 – Site Investigation and Analysis of Soils, No.1 - Reporting on Contaminated Sites in New Zealand, and The Methodology for Deriving Standards for Contaminants in Soil to protect Human Health (2011).*
- d) In terms of “in accordance” with NESCS regulation 3 HAIL - will be determined by the SQEP demonstrating the approach adopted meets the requirements of the relevant regulations and guidance that governs the assessment, management and remediation of land affected by hazardous substances typically associated with the specific activities and industries listed in the current edition of the Hazardous Activities and Industries List (HAIL), Wellington, Ministry for the Environment (MfE).*
- e) In terms of NESCS regulations - “suitability” of any land will be determined by the SQEP adopting the appropriate approach to investigation, remediation and validation as outlined in the relevant MfE’s Guidelines incorporated by reference in the NESCS. A best practice approach will also include meeting any specific requirements of other relevant regulations and guidance that governs the assessment, management and remediation of other contaminants of concern, and guidance documents that provide statements of good practice (be that they have or not have the status of law but that sit within/align with the contaminated land framework).*
- f) Verification of “in accordance” will be determined by the SQEP demonstrating the investigative approach adopted adequately meets the requirements of the relevant regulations and guidance that governs the assessment, management and remediation of land affected by hazardous substances typically associated with the specific activities and industries listed in the current edition of the Hazardous Activities and Industries List (HAIL), Wellington, Ministry for the Environment (MfE).*
- g) The adequacy of the investigation(s) will be determined by the report(s) content(s) clearly demonstrating best-practice has been applied to the investigation and reporting process. And by an investigative approach involving a robust risk-based assessment that includes a sufficient weight of evidence clearly capable of demonstrating the appropriateness of the conclusions.*
- h) The appropriateness of a proposed RAP methodology will be determined by the degree of certainty provided by the SQEP that the actions undertaken will eliminate or sufficiently reduce the hazard to an acceptable level.*
- i) The adequacy of an SVR will be determined by the weight of evidence documenting the effectiveness of the remediation against the remedial goals set.*

- j) *The adequacy of a CSMP will be determined by the inclusion of industry accepted best practice management controls in accordance with (but not limited to) Soil and Erosion Control: guidelines for Soil Disturbing Activities, Waikato Regional Council (2009), Good Practice Guide for Assessing and Managing Dust, Ministry for the Environment (2016), Guidelines for Assessment and Managing Asbestos in Soil, BRANZ (2017).*

- k) *The off-site disposal of any potentially contaminated soil may qualify as a discharge of contaminants under the Waikato Regional Plan in which case Waikato Regional Council would need to be contacted.*

QUALIFICATIONS AND EXPERIENCE - CARMEL MANGAN

Education

2007

Master of Science – Chemistry (Hons), University of Waikato

2005

Bachelor of Science – Biology, University of Waikato

2003

Diploma in Science & Technology, Waikato Institute of Science and Technology

Professional experience

June 2010 – to Present

Contaminated Land Officer, Hamilton City Council

Jan 2008 – to Jan 2010

Environmental Scientist (Freshwater and Ecology), Tonkin & Taylor