

12 April 2022

Angela Jones
Resource Consents
Wellington City Council
c/o The Property Group

Dear Angela

Contaminated Land Assessment of Application - SR510418 - 110 Jervois Quay

1.0 Introduction

AECOM New Zealand Limited (AECOM) has been engaged by Wellington City Council (WCC) to undertake a technical peer review of the documentation related to contaminated land provided as part of a resource consent application (SR510418) for the MFC Development Limited Partnership (the applicant).

The applicant is proposing to construct a new Central Area building (for commercial and education purposes) on the former Michael Fowler Centre carpark, currently the site of a temporary building occupied by the Royal New Zealand Ballet.

The site is part of a wider lot, legally described as Lot 1 DP 4944594, which covers the whole of the Civic Centre Heritage Area/Te Ngākau Civic Precinct.

The advice contained in this letter relates solely to the assessment of contaminated land and the relevant resource consent status under:

- The Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (the NES-CS); and
- The WCC Operative District Plan (OWCDP) Chapter 32.

The review is based on the following documentation:

- *Assessment of Effects on the Environment – Proposed Central Area Building, Michael Fowler Centre Carpark, 110 Jervois Quay* prepared by Urban Perspectives Ltd; March 2022 (the AEE).

Relevant documents included in the Application that were reviewed included:

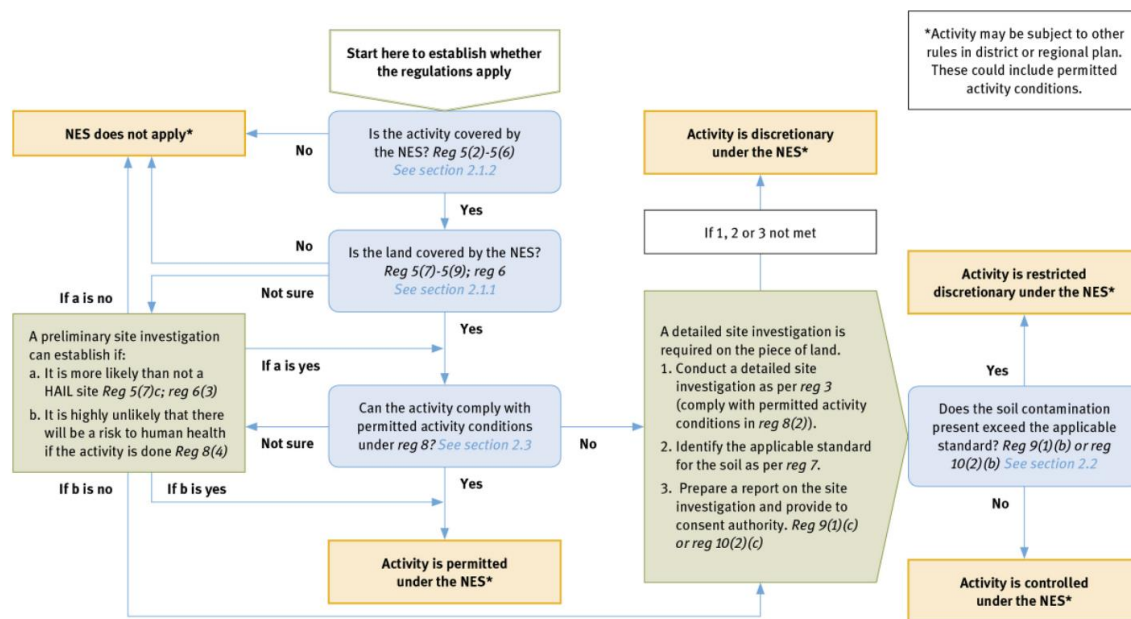
- *Michael Fowler Centre Carpark Site – Ground Contamination Assessment Draft Report*, prepared by Tonkin & Taylor Ltd for Willis Bond & Co, dated November 2016 (Ground Contamination Assessment) – appended to Appendix 17 of the AEE the Draft Construction Management Plan.

2.0 NES-CS Assessment

The process AECOM has followed in assessing the status of the application under the NES-CS is provided in the following flow chart from the NES-CS Users Guide¹.

¹ *Users' Guide, National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health*, April 2012. Ministry for the Environment.

Figure 1 Determining resource consent requirements under the NES-CS



2.1 Is the Activity covered by the NES-CS? Regulation 5 (2)-5(6)

The AEE does not clearly state which activity under the NES-CS will be undertaken as part of the proposed redevelopment of the Site. However, the AEE does state that the volume of excavation is expected to be approximately 3,200 m³. Therefore, the activity under the NES-CS to which the proposed redevelopment of the Site is considered to relate, appears to be “disturbance of soil”. It does not appear that the activities of subdivision, a change in land use or removal of an underground storage tank apply.

Therefore, the following activity applies:

Regulation 5(4): *An activity is disturbing the soil of the piece of land, which –*

- a. *means disturbing the soil of the piece of land for a particular purpose.*

2.2 Is the Land covered by the NES-CS? Regulation 5(7)-5(9);

Regulation 5(7) states: *The piece of land that is described by 1 of the following:*

- a. *an activity or industry described in the HAIL is being undertaken on it.*
- b. *an activity or industry described in the HAIL has been undertaken on it.*
- c. *it is more likely than not that an activity or industry described in the HAIL is being or has been undertaken on it.*

The Ground Contamination Assessment completed by Tonkin & Taylor identifies that HAIL activities were or are likely to have been undertaken at the Site.

Therefore the ‘piece of land’ to which this application relates is covered by the NES-CS Regulation 5(7).

2.3 Can the activity comply with the permitted activity conditions under Regulation 8?

The relevant permitted activity conditions for disturbing soil are provided for in Regulation 8(3). Disturbing the soil of the piece of land is a permitted activity providing certain requirements are met including an allowance for soil disturbance and removal based on the size of the piece of land (25 m³ per 500 m² for soil disturbance and 5 m³ per 500 m² for soil removal).

The Tonkin & Taylor Ground Contamination Assessment indicates that the site area is 2,180 m². The AEE indicates the volume of excavation to be 3,200 m³. The volume of excavation clearly exceeds the

permitted activity limits. Therefore, consent is required under the NES CS in relation to the proposed development.

The applicant has assessed that the proposed redevelopment of the Site should be a discretionary activity in accordance with Regulation 11 of the NES CS.

The Tonkin & Taylor Ground Contamination Assessment indicates that the “report meets the general requirements of a preliminary site investigation (PSI) and detailed site investigation (DSI) as outlined in the NES Soil User’s Guide²”.

As a DSI has been completed for the Site and it is stated that soil contamination exceeds NES CS Soil Contaminant Standards, the activity could potentially be completed as restricted discretionary activity as follows:

Regulation 10 (2) *The activity is a restricted discretionary activity while the following requirements are met:*

- (a) *A detailed site investigation of the piece of land must exist;*
- (b) *The report on the detailed site investigation must state that the soil contamination exceeds the applicable standard in regulation 7;*
- (c) *The consent authority must have the report;*
- (d) *Conditions arising from the application of subclause (3), if there are any, must be complied with.*

The Tonkin & Taylor Ground Contamination Assessment is limited in terms of soil sampling and testing with the majority of boreholes unable to reach target depths. Two locations were advanced to target depths of 3 and 5 m below ground level (bgl), whilst the remainder were advanced to between 0.5 m and 1.4 m bgl. The concentration of benzo(a)pyrene equivalent in one sample and the concentration of arsenic in one sample exceeded the NES CS Soil Contaminant Standard for high-density residential and commercial land uses. Asbestos was present in four of ten samples analysed for presence/absence of asbestos. As semi-quantitative analysis for asbestos of samples was not undertaken, it was unable to be determined if asbestos concentrations complied with BRANZ Guidelines³ and what level of asbestos controls are required for the redevelopment works.

It is noted that the Tonkin & Taylor Ground Contamination Assessment was completed in 2016 and states that the Site is not on the Greater Wellington Selected Land Use Register (SLUR, HAIL register). However as of April 2022, the Site is listed on the SLUR as *Chemical manufacture, application and bulk storage, Cemeteries and waste recycling, treatment and disposal, Cemeteries and waste recycling, treatment and disposal; HAIL Sub: Storage tanks or drums for fuel, chemicals or liquid waste, Waste disposal to land (excluding where biosolids have been used as soil conditioners), Waste recycling or waste or wastewater treatment*. The listing may have been added following the Tonkin & Taylor Ground Contamination Assessment, but the HAIL categories listed appear slightly different to those detailed in the Tonkin & Taylor Ground Contamination Assessment and should be further assessed (e.g. whether there are fuel tanks on site).

The Tonkin & Taylor report also states “*More characterisation is required to better define the nature of the contamination to inform development of the site including potential for groundwater impacts. Soils excavation at the site would be best undertaken using an excavator to dig test pits or a sonic drill rig and monitoring wells would be required for a groundwater assessment. Contamination sources identified to date do not indicate the need to design and install measures to protect the building from volatile contaminants but the assessment has been limited and the possibility of the need for building protection measures, although unlikely, cannot be ruled out.*”

Based on the above, AECOM concur with the applicant’s assessment that the works should be completed as a discretionary activity in accordance with Regulation 11 of the NES CS.

² Ministry for the Environment. 2012. *Users’ Guide: National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health*.

³ BRANZ. 2017. *New Zealand Guidelines for Assessing and Managing Asbestos*.

3.0 OWCDP Rule 32

Rule 32.2 of the OWCDP is outlined below;

32.2.1 Except as provided for the remediation, use, development and subdivision of any contaminated land, or potentially contaminated land (unless it has been confirmed as not being contaminated through investigations in a report forwarded in accordance with Rule 32.1.3.1), is a discretionary activity (restricted) in respect of:

32.2.1.1 The level, nature and extent of contamination in relation to the proposed use, development or subdivision

32.2.1.2 The methods to address the risks posed by contaminants to public health and safety

3.2.1.3 The effects of contamination on built structures, ecological and amenity values, soil quality and the wider environment

3.2.1.4 The approach to the remediation and / or on-going management of the contaminated land and the mitigation measures (including monitoring) proposed to avoid adverse effects on public health, safety and the environment including the provision of a Remediation Plan or Site Management Plan.

AECOM notes that matters of discretion relating to human health are now superseded by the NES-CS, and therefore discretion under this rule relates only to the effects of contamination (if any) on built structures and the environment (soil quality, water, ecological effects).

Rule 32 of the OWCDP will need to be addressed by the completion of a Contaminated Land Management Plan (CLMP) and/or Remedial Action Plan (RAP) prior to the works commencing.

4.0 Recommended Conditions

The soil disturbance constitutes a discretionary activity under the NES-CS and a restricted discretionary activity under Rule 32 the OWCDP.

AECOM recommend the proposed conditions with regards to contamination as outlined below:

- Additional soil quality sampling shall be completed to supplement the Ground Contamination Assessment already completed by Tonkin & Taylor in 2016. The additional soil quality sampling shall be completed under the guidance of a suitably qualified and experienced practitioner (SQEP). The additional soil quality sampling shall be carried out in accordance with the *Ministry for the Environment's (MfE) Contaminated Land Guidelines No.5 (CLMG 5), June 2021* and the *New Zealand Guidelines for Managing and Assessing Asbestos in Soil (Building Research Advisory Council New Zealand, 2017)*.
- A report summarizing the additional soil quality sampling should be prepared by SQEP in general accordance with *MfE Contaminated Land Guideline No. 1 (CLMG 1), June 2021*. The additional soil sampling report must be submitted to the WCC Council Officer for approval prior to earthworks commencing.
- If the additional soil quality sampling confirms a risk to human health for the proposed land use, a remediation action plan (RAP) shall be prepared by a suitably qualified and experienced practitioner.
- A Contaminated Land Management Plan (CLMP) for the proposed development will be completed by a SQEP and submitted and approved by the WCC Council Officer prior to earthworks being undertaken at the site. The CLMP should include the following:
 - Date and version control.
 - A summary of soil sampling results including the further soil sampling undertaken as part of the additional soil quality sampling.
 - A summary of the proposed redevelopment works.
 - Roles and responsibilities and contact details for the parties involved, including the SQEP.
 - Health and safety and environmental management procedures for implementation during the works including but not limited to:

- Personal protection and monitoring.
- On site soil management practices including stockpile management and stormwater and sediment controls.
- Off site soil transport and disposal.
- Asbestos in soil removal procedures in accordance with the approved code of practice *Management and Removal of Asbestos*, November 2016 and Building Research Association of New Zealand, November 2017. New Zealand Guidelines for Assessing and Managing Asbestos in Soil (BRANZ Guidelines).
- Contingency measures in the event of accidental/unexpected discovery including the discovery of asbestos and asbestos related controls.
- Post development controls on the management of remaining contamination in soils.
- Soil disturbance works are to be undertaken in accordance with the approved RAP and/or CLMP.
- If unexpected soil conditions, such as staining, odorous material or evidence of potential asbestos containing materials are encountered during the soil disturbance works, work in that area shall cease and the Council notified. Any unexpected contamination and contingency measures shall be overseen and assessed by a SQEP.
- All soil material with contaminant concentrations above background concentrations that requires removal from the site shall be disposed of at a licensed facility that holds a consent to accept the relevant level of contamination.
- If remedial works are required, a Site Validation Report will be prepared in general accordance with *MfE CLMG No. 1* and shall be provided to WCC within 3 months of completion of the soil disturbance activities. The Site Validation Report should include the following:
 - The location and dimensions of the excavations carried out, including a relevant site plan.
 - Records of any unexpected contamination encountered during the works.
 - Soil validation results, if applicable (i.e. if remediation is carried out or unexpected contamination is encountered).
 - Copies of the disposal dockets for the material removed from the site and any clean fill imported onto the site.
 - Specify the requirements for ongoing monitoring and management (if required).
 - The report should outline the site's suitability for the intended use (commercial/residential).

Advice Note

AECOM notes that the applicant has indicated that consent will be sought for a water take and potentially discharge to contaminated land from Greater Wellington Regional Council. The Tonkin & Taylor Groundwater Assessment indicates that groundwater monitoring and assessment are required. An assessment of groundwater quality is outside the scope of the NES-CS; however it is considered that groundwater quality monitoring and assessment should be completed.

5.0 Closing

If you require any further information please do not hesitate to contact the undersigned.

Yours faithfully



Suzanne Lowe
Principal Consultant - Environment
suzanne.lowe@aecom.com

Mobile: +64 29 496 3766

Direct Fax: +64 4 896 6001

Suzanne Lowe is a Principal Environmental Consultant in the Geoscience and Remediation Services team at AECOM New Zealand Ltd. She holds Bachelor of Science and Technology (BSc (Tech)) from the University of Waikato, majoring in Earth Science. Ms Lowe is an experienced contaminated land professional who has provided advice and expertise in respect of contaminated land assessment and remediation for over 17 years.

© AECOM New Zealand Limited (AECOM). All rights reserved.

AECOM has prepared this document for the sole use of the Client and for a specific purpose, each as expressly stated in the document. No other party should rely on this document without the prior written consent of AECOM. AECOM undertakes no duty, nor accepts any responsibility, to any third party who may rely upon or use this document. This document has been prepared based on the Client's description of its requirements and AECOM's experience, having regard to assumptions that AECOM can reasonably be expected to make in accordance with sound professional principles. AECOM may also have relied upon information provided by the Client and other third parties to prepare this document, some of which may not have been verified. Subject to the above conditions, this document may be transmitted, reproduced or disseminated only in its entirety.