

3 May 2018

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New Plymouth District Council
Liardet St, Private Bag 2025
New Plymouth 4342

Dear Rachelle

Mt Messenger Alliance, Ground Contamination - Preliminary Site Investigation

AECOM New Zealand Limited (AECOM) has been engaged by New Plymouth District Council (NPDC) to undertake a technical peer review of the land use consent application by NZ Transport Agency for improvements to the Mount Messenger section of SH3 (the Project).

The advice contained in this letter relates solely to the assessment of contaminated land issues 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 (referred to here as the NES-CS).

The application is documented in, and our review is based on:

Mt Messenger Bypass, Assessment of Effects on the Environment, dated December 2017; submitted by the Mt Messenger Alliance (the AEE).

The application incorporates the following:

Ground Contamination - Preliminary Site Investigation, Mt Messenger Alliance Technical Report 12 dated December 2017 (the PSI), prepared by Tonkin & Taylor Limited (T&T); and

Draft Construction Environmental Management Plan dated December 2017 (the CEMP), prepared by the Mt Messenger Alliance.

1.0 The Activity

The Project comprises a two lane highway, approximately 6 kilometres (km) in length, located to the east of the existing SH3 alignment. The Project is anticipated to take four years to construct.

According to Section 5.13 of the AEE approximately 960,000 m³ of excavated (cut) material will be generated from the Project. Of this, 890,000 m³ is to be placed in fill embankments on-site and an excess of approximately 70,000 m³ structural fill will be disposed of within the designation boundaries either in spoil disposal site or embankments. A further 75,000 m³ of unsuitable material is expected and will likely be disposed in spoil disposal sites.

Two spoil disposal sites are proposed in the southern construction regional where earthworks will generate surplus material. Spoil disposal sites have also been identified in the northern construction region. These spoil disposal sites could be used for the permanent placement of spoil, temporary storage of topsoil, for spoil stockpiling on-site until alternative fill sites become available or for spoil conditioning.

Section 9.15.4 of the AEE states that the contaminated land investigation indicates the following potential activities which could have resulted in ground contamination along the Project alignment:

- Fly tipping along parts of existing SH3;
- Waste disposal to land associated with potential farm dumps at the northern and southern ends of the proposed alignment;
- Storage of fuels, chemical and wastes associated with farming operation;
- Possible structures containing asbestos containing materials (ACM); and
- Spills along existing SH3 where accidents have happened.

A draft Contaminated Land Management Plan (CLMP) has been prepared (as an appendix to the CEMP) to manage the potential for adverse effects relating to the disturbance of potentially contaminated land during the construction of the Project.

Section 11.3.4.1 of the AEE notes that the NES-CS is applicable to the Project; however, doesn't specifically go through the process of determining resource consent requirements under the NES-CS (see Figure 3 of the Users' Guide: NES for Assessing and Managing Contaminants in Soil to Protect Human Health). The 'piece of land' isn't defined (HAIL activities have only occurred on limited portions of the Project alignment), the activity covered by Regulation 5 isn't identified, and assessment of whether the activity can comply with the permitted activity requirements under Regulation 8 has not been completed.

2.0 The Preliminary Site Investigation

2.1 The Draft PSI

A draft PSI dated 19 September 2017 provided at the Project meeting 19 September 2017 was initially reviewed.

AECOMs feedback (via email 7 November 2017) was that the NES-CS consenting approach proposed in the draft PSI report appeared reasonable. A condition of the consent is likely to refer to the Site Management Plan which is to be appended to the PSI report but was still in progress and not attached to the draft. The figures for Appendix A of the PSI were also missing from the draft.

It was noted that the draft PSI was lacking information on local hydrogeology. While the NES-CS is focussed on soil, it is appropriate to consider all potential exposure pathways related to disturbance of contaminated soil such as impacting water supply. There will be site specific geology/hydrogeology information available from the geotechnical works completed and information of the farm water supplies should be included for completeness. This was not addressed in the final PSI submitted with the application but should be in the Detailed Site Investigation (DSI) proposed by the applicant.

2.2 The Final PSI

The PSI identified that activities list on the HAIL have potential been carried out isolated areas along the alignment, namely waste disposal to land associated with potential farm dumps at the northern and southern ends of the proposed alignment and fly tipping along parts of existing SH3. Therefore, it was deemed that the NES-CS applied to the Project.

The PSI stated that a DSI would need to be carried out to characterise the impact (if any) of the identified potentially contaminating activities that have occurred with isolated locations along the alignments and that this requirement has been included in the CLMP.

Given the proposed adoption of the procedures in the CLMP, T&T concluded that the potential for environmental effects from contaminated land will be less than minor.

Section 6.1 of the PSI provides the NES-CS assessment and indicates the activity is disturbing soil and changing the use of the land. It was assessed that the volume of soil requiring removal for the Project is unlikely to meet the provisions of a Permitted Activity under the Regulation 8 (3). In the absence of a DSI the soil disturbance will be a Discretionary Activity under Regulation 11.

The change in used was assessed to meet the provisions of a Permitted Activity under regulation 8(4). AECOM concur with this assessment of the activities under the NES-CS and note it would have been useful for this to assessment to have been carried through to the AEE.

Appendix B provides the historical information review. It would be typical to append some of relevant historical sources, particularly the historical aerial photos, to the PSI report.

3.0 The Construction Environmental Management Plan

The following is noted with respect to the CEMP:

- Table 3.1 listing key legislative requirements, regulation and standards, is missing The Health and Safety at Work Act 2015 (HSWA).
- Table 3.2 listing plans, standards and guidelines associated with environmental aspects, lists out of date documents with respect to asbestos. The correct references should be:

- Health and Safety at Work (Asbestos) Regulations 2016.
- WorkSafe New Zealand Approved Code of Practice: Management and Removal of Asbestos November 2016 Amended December 2016.
- Section 5.4 on Contaminated Land states previous testing of soil in the Project area has indicated that the majority of the Project area is not susceptible to ground contamination above an acceptable threshold. No information on previous testing of soils has been provided in the application documentation.

3.1 The Draft Contaminated Land Management Plan

The following is noted with respect to the CLMP:

- The glossary defines CLMP and states that ‘also referred to as a Remediation Action Plan’ however, a remediation action plan has a different purpose to a management plan. This definition appears in the PSI also.
- Section 2.2 refers to Health and Safety at Work Act 2016, the correct year is 2015.
- Section 3 contains an error with the cross reference to the table.
- Figure A 2 referred in Section 4 showing areas where DSIs are to undertaken is very general. Once access to properties is obtained an updated plan showing the specific areas to be investigated would be appropriate.
- Section 4.2 refers to Contaminated Land Management Guidelines No. 5; however, some indication of sample intensity and how depth of sampling required will be determined would be useful.
- Section 4.3 if any petrol sources (e.g. car bodies) are identified total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, xylenes (BTEX) would be also appropriate.
- Section 4.4 should detail the specific sources of criteria to be used. As the intention is to relocate most soil on site, what is the criteria for determining suitability to remain? Spoil disposal areas won’t be used for commercial / industrial purposes at the end of the project.
- The bullet above also applies to Section 5.3. Managing impacted soil on site could be appropriate but would depend on the contaminants and the site setting and would need to be subject to approval.
- The CLMP should be updated once the sampling outlined in Section 4 is complete i.e. once contaminant conditions are known.
- There is an expectation in Section 7.3 regarding material amendments of the CLMP for NPDC to comment or certify within 10 working days of an amended plan being submitted.

4.0 Proposed Conditions

Resource consent conditions are proposed by the applicant in Appendix D of the AEE. Conditions 1 to 36 are identified as relating to the activity of earthworks under the NES-CS. Conditions 1 to 5 are “general conditions” and are not considered here. Condition 6 relates to incidents, conditions 7-19 relate to the management plans generally, condition 20 and 21 related to the overarching CEMP and conditions 22 and 23 are specific to the CLMP and are detailed below:

22. The Consent Holder shall finalise the Contaminated Land Management Plan (CLMP) to establish the procedures for handling potentially contaminated soils, and contaminated materials excavated on site, including the discovery of unexpected contaminated material.
23. The CLMP shall include procedures for the following events (this is not an exclusive list):
 - a. triggers and methods for further testing and monitoring of potentially contaminated material;
 - b. procedures for contaminated soil classification, management and disposal of contaminated soil/material;
 - c. how the placement of re-used contaminated soil/material will be recorded and tracked;

- d. unexpected discovery of contaminated material; and
- e. procedures for managing the potential risks to human health, in accordance with the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

The timing relating to the CLMP is provided in condition 9:

- a. The Consent Holder shall provide the CLMP to the NPDC Manager, at least 30 working days before the commencement of Works. The Consent Holder shall consider any comments received from the NPDC Manager when finalising the CLMP. If the Consent Holder has not received comments from the NPDC Manager within 15 working days of providing the CLMP, the Consent Holder may finalise and implement the CLMP accordingly.
- b. The Consent Holder shall provide the final CLMP to the NPDC Manager at least 5 working days before the commencement of Works.

The nature and scale of contamination (if any) is currently unknown. To address this it would be appropriate to have a two-step certification process of the CLMP. One prior to works commencing addressing comments in Section 3.1 of this letter and a second following an update of the CLMP based on the findings of the DSI. Certification /approval of the CLMP should be a requirement so it recommended that the text 'If the Consent Holder has not received comments from the NPDC Manager within 15 working days of providing the CLMP, the Consent Holder may finalise and implement the CLMP accordingly' is removed from proposed condition 9.

Condition 22 should specifically refer to the CLMP providing the DSI requirements.

5.0 Closing

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

Yours faithfully



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