

10 May 2021

Central Hawkes Bay District Council

Attention: Robyn Burns
Customer and Consents Manager
Central Hawkes Bay District Council

RM210103- Detailed Site Investigation Springhill Farm Lifestyle Development, State Highway 50, Ongaonga, Central Hawke's Bay

Dear Robyn,

Introduction

Stantec New Zealand (Stantec) has been requested by Central Hawke's Bay District Council (CHBDC) to review a Detailed Site Investigation Report (DSI) prepared by Geosciences Limited with respect to the proposed 311 allotment rural residential subdivision and subsequent rural residential land use. The 214 ha site is encompassed by lots 1,152, 1,200, and 1,080 State Highway 50, and 604 and 612 Wakarara Road, Ongaonga, Central Hawkes Bay. The site has had a history of pastoral farming.

Content of the Detailed Site Investigation

The DSI document includes a desktop review of available information which was used to inform the history of the site. Items reviewed were the certificates of title, historical aerial photographs, and an interview with the past and present landowners. Additionally, a site inspection was completed to assess current conditions of the site. This review is in line with expected due diligence and should give a reasonable indication of the historical activities that have occurred or are occurring on the site.

The review indicated that various activities listed on the Ministry for the Environment's Hazardous Activities and Industries List (HAIL) have occurred on the site. These are listed below:

- HAIL A8; Sheep dip or spray race
- HAIL A17; Fuel storage tanks
- HAIL G3; Landfill site (farm dump)
- HAIL G5- Waste disposal to land (wastewater discharge)
- HAIL I; Accidental release of a hazardous substance (lead paint)

The activities above are associated with normal farming practices and rural residential land use and would generally be expected at a site with a long history farming. The area of the site affected by these activities was found to be confined to the general farmyard area which comprises approximately 4ha of land in the centre of the site.

The sheep dip spray race was assessed as potentially affecting soils adjacent to the race, across the pens where wet sheep were discharged and surrounding the wool shed where spray chemicals could have been stored. Contaminants of

Stantec New Zealand

Hazeldean Business Park
6 Hazeldean Road
Addington, Christchurch 8024

PO Box 13-052
Armagh
Christchurch 8141

TEL +64 3 366 7449
FAX +64 3 366 7780

Ref Nos., Parent: 310204515, Child: 100.010117

concern were identified as arsenic and organochlorine pesticides (OCPs). This is a reasonable conclusion in line with what would be expected for the sheep dip activity.

The discharge of lead paint was assessed as potentially affecting soils immediately adjacent to the various farm buildings and dwelling on the site. Contaminants of concern are lead only. This is a reasonable conclusion in line with what would be expected for the accidental release of lead-based paint.

The farm dump was assessed as affecting soils in and immediately below the farm dump. It was expected that the farm dump could be approximately 5m deep. It was noted that it is common for farm dumps to have a mixed variety of composition including empty chemical containers, structural timber, building products, end of life machinery, and domestic refuse. Due to the overgrown nature of the dump a definitive assessment wasn't made, and it was decided to not disturb the landfill until remediation. Given the complexity of assessment, the report states assessment of the composition and contamination associated with the dump should be completed at the time of remediation. This approach minimises the disturbance to the landfill material and is acceptable.

The above ground storage tanks were assessed as potentially affecting soils immediately adjacent the fuel tanks. Contaminants of concern listed in the report are listed as heavy metals and Polycyclic Hydrocarbons (PAH). While the heavy metals may indicate if certain fuels have been used, i.e. leaded petrol, it would be more appropriate to analyse the samples for Total Petroleum Hydrocarbons (TPH). TPH should be tested for at a future stage of remediation.

To investigate the soil across the identified HAIL areas a total of 51 samples were collected in a targeted soil sampling regime. Soil samples were collected from the top 150mm of soil. This is considered an appropriate number of samples given the 4ha farm-yard area in question. The contaminants of concern would likely be trapped in the uppermost layer of soil, so the depth of collection is also appropriate.

A total of 15 samples were collected within the sheep dip and barn area. Seven samples showed arsenic in exceedance the National Environmental Standard (NES) for rural residential land use. The highest exceedance is over 50x NES standard. This would be in line with what would be expected for samples collected near sheep dips and pens.

A total of five samples were collected from the fuel storage areas. Three samples showed lead in exceedance of NES standard. The highest exceedance was over 25x NES standard. The three samples showing lead exceedance happened to also be collected from near farm buildings. It would be possible that the lead exceedance is more due to lead based paint than fuel spillage. The two samples (SS50 and SS51) collected away from farm buildings showed no exceedance.

A total of 31 samples were collected from areas adjacent to the farm buildings and dwelling to assess for the effects of lead based paint. Eleven samples showed lead in exceedance of NES standard. The highest exceedance was over 25x NES standard. This would be in line with what would be expected for samples collected in the near historical buildings painted with lead-based paint.

Given the findings of the DSI the report concludes that the subdivision is considered a Restricted Discretionary activity. Given that laboratory analysis found various analytes in exceedance of NES rural residential land use standard this is an appropriate conclusion.

The report recommends various consent conditions be included. The report recommends areas of the site with lead and arsenic exceedances are delineated vertically and laterally. The report also recommends a Remedial Action Plan outlining remedial methodologies is submitted to Council, and upon remediation completion a site validation testing and reporting are completed to certify the site is now fit for rural residential land use. Given the nature of the proposed land use and high level of exceedances encountered during testing these conditions more than reasonable.

It should be noted that the report does not give any specific recommendations on how or when the farm dump should be assessed or remediated. Soils and material within the dump have potential to be contaminated and specifics for assessment and remediation should be included in any Remedial Action Plan submitted to council.

The report states in several places that a draft Remedial Action Plan is provided as an indication of what steps may be required for the remediation of the site. This draft RAP report has not been included with the DSI. While a RAP is generally not part of a DSI report it should be noted that while one is referenced it has not been submitted with this report. A RAP will be needed for this site to outline remedial methodologies. It is acceptable for the RAP to be evaluated at later date once it has been submitted to Council.

Conclusions and Recommendations

The Detailed Site Investigation Report is suitably comprehensive such that it can be concluded that the site has been appropriately assessed for historical and/or current HAIL activities. The potential for the identified activities to impact human health has been evaluated appropriately. The DSI report provides logical methods for assessing contamination levels at the site and gives a clear concise conclusion. Further work will be needed at the site to ensure the land is fit for a rural residential development. The next step in this process would be further delineation sampling and a Remedial Action Plan.

The report has been carried out in line with industry best practice. Given the information reviewed and the laboratory results provided the conclusions in the report are appropriate. No further information is required in regard to this Detailed Site Investigation report.

Yours sincerely



Scott Fellers
Environmental Scientist
BSc, CEnvP, SQEP

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