

13 July 2026

Hawkes Bay Regional Council
Private bag 6006
Napier 4142

Attn: James Park

Statement Regarding use of Contaminated Soil

Suitably Qualified and Experienced Practitioner

Jason Strong is a Suitably Qualified and Experienced Practitioner (SQEP) in the field of contaminated sites. He has undertaken literally hundreds of contaminated site assessments and remediation projects over the past 20 years. He has an MSc in Environmental Science where his thesis was based around trace metal contamination of soils/sediment.

Background

Hawke's Bay Regional Council (HBRC) is undertaking upgrades of the Awatoto and Pākōwhai Pump Stations as a result of inundation during Cyclone Gabrielle. As part of these upgrades, it is proposed that soil is to be excavated from the sites to build secure foundations for the new pump stations as follows:

- Awatoto - approximately 1000m³ of cut – see **Figure 1**,
- Pākōwhai – approximately 290m² of cut and 1163m³ of fill – see **Figure 2**.

It has been proposed that the soil from the Awatoto Pump Station be disposed of at the Pākōwhai Pump Station site.

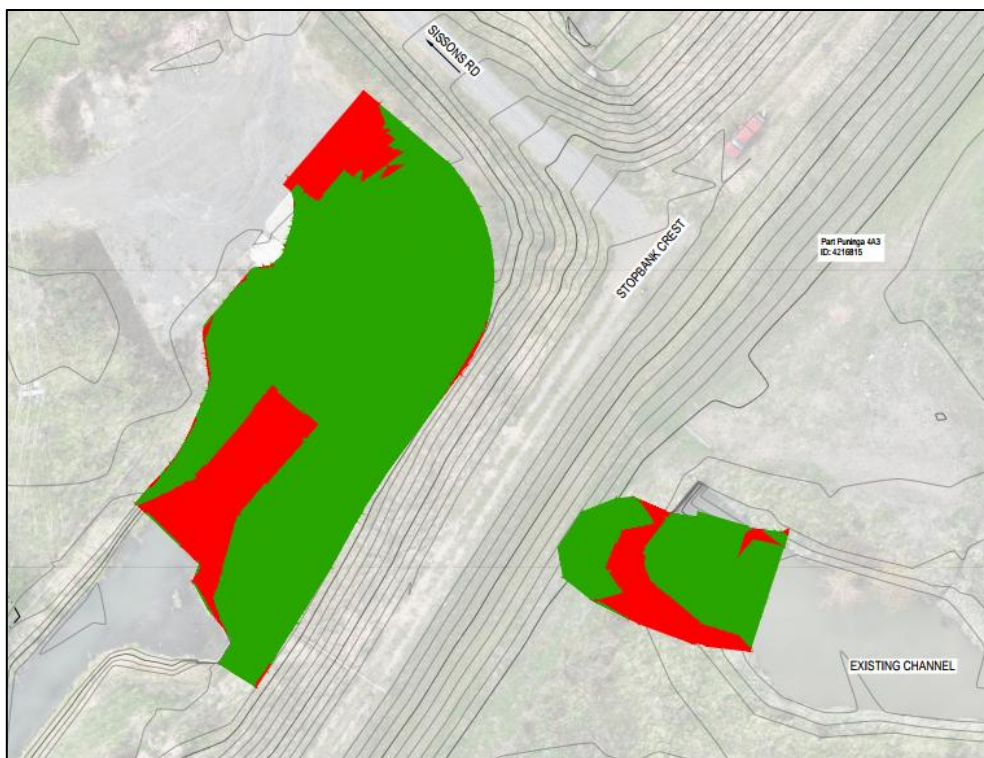
Pattle Delamore undertook (PDP) a Preliminary & Detailed Site Investigation (PSI/DSI) for the Awatoto site and PSI for the Pākōwhai site. The findings of these are detailed below.



Figure 1: Awatoto



Figure 2: Pakowhai





PSI/DSI - Awatoto Pump Station

Based on the historic review, two HAIL activities were identified at the site as follows:

- HAIL reference G3 - for the imported fill associated with filling the flood channel after Cyclone Gabrielle, and
- HAIL reference H – associated with the movement of materials from the adjacent Awatoto Industrial Area and agricultural/horticultural sites by wind (dust) and by flood waters.

Based on the findings of the PSI a DSI was undertaken within the proposed excavation area. The findings of the DSI were as follows:

- The PDP DSI identified site soils with elevated concentrations of cadmium, Σ DDT, phosphate, fluoride, and sulphate (fertilizer related contaminants) above local background concentrations at a range of depths across the assessment area (up to 1m depth).
- The HAIL reference G3 was no longer considered applicable for the site based on findings of soil sampling.
- All recorded contaminant concentrations were below the NES-CS Soil Contaminant Standards for the land use scenario of industrial/commercial outdoor worker (unpaved).
- Based on the results of analysis it was determined that the soil to be removed could not be classed as 'cleanfill'.

PSI - Pakowhai Pump Station

As with the Awatoto PSI, the historic review identified two HAIL activities as follows:

- HAIL reference G3 - for the imported fill associated with filling the flood channel after Cyclone Gabrielle, and
- HAIL reference H – associated with the movement of materials from the adjacent Awatoto Industrial Area and agricultural/horticultural sites by wind (dust) and by flood waters.

Accordingly, these two possible HAIL activities require confirmation through a soil sampling investigation (DSI). Currently the proposed DSI has not been completed.

Risk Assessment for Disposal of Awatoto Pump Station Soils to Pakowhai Site

The DSI findings for the Awatoto Pump Station show that the recorded metal and Σ DDT concentrations are below the Soil contaminant Standards with respect to the NES-CS land use scenario of industrial/commercial outdoor worker (unpaved). As such, these soils are considered suitable for use at the Pākōwhai site as the land use is considered the same.

Phosphate, fluoride, and sulphate concentrations have been identified as being significantly above background soils and are currently a potential risk to surface water migration vertically (to groundwater) and horizontally to surface water at the Awatoto site. Moving these soils to the Pākōwhai site would present the same issues.

It is recommended that if the Awatoto soils are to be used at the Pākōwhai site they should be placed in areas where they can be sealed (capped) with concrete/asphalt. Additionally, it is advised that they are not buried at a depth below the water level of nearby drains.



It is noted that the DSI for the Pākōwhai pumpstation has not yet been completed. Although it is unlikely that these soils will be significantly contaminated (due to their location) it should be considered that if they are, there could be a significant volume of contaminated overburden that would still need to be dealt with if the volume of soil is more than required at the site. If this were the case it may be more cost effective to simply remove the Awatoto soils to a Class 3 landfill, of which there are two operating locally.

The findings of further sampling at the Pākōwhai site should be taken into account in considering this matter further – noting the final solution pertaining to the use of soil from the Awatoto pump station construction should be subject to assessment and design by a suitability qualified expert practitioner.

Sincerely,

Jason Strong (MSc)
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