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**Draft summary of evidence to be presented**

My evidence relates to providing understanding of Auckland Council guidelines and sediment removal performance related to the proposed Huia Water Treatment Plant replacement (Project) and risk of the kauri dieback pathogen *Phytophthora agathidicida* transfer from the Project site to the broader Armstrong and Yorke stream catchments.

I make no technical judgement regarding the assessment of environmental effects of the Project nor suitability of the site; rather I highlight expected performance and associated residual risk when considering the ability to capture the kauri dieback pathogen at the Project site via sediment and stormwater control measures.

Auckland Council's *Stormwater management devices in the Auckland region* (GD01) and *Erosion and sediment control guide for land disturbing activities in the Auckland region* (GD05) specify control measures to reduce sediment discharge from sites. These guidelines represent a negotiated/agreed level of control and practice in the Auckland region.

If employed correctly, the standard methods from these guidelines remove the bulk of sediment yet allow a residual portion of sediment to discharge from sites (even when employed in a treatment train approach), predominantly comprising the smallest fraction of sediment (fine sediment). The kauri dieback pathogen dimensions are small and on par in size with fine sediment. If kauri dieback is present in the rainfall-runoff at the Project site utilizing GD01 and GD05 control measures, it is likely that some pathogen will discharge from the Project site.

Stormwater and sediment hydrologic standards in the Auckland region include from the 95<sup>th</sup> percentile to the 1% annual exceedance probability (AEP) rainfall event. Over an eight year construction period, for example, there is a 57% probability of a 10% AEP (i.e., 1 in 10-year event) rainfall event occurring or being exceeded. Sediment and stormwater control measures contain bypasses and emergency spillways. Sediment (and pathogen) laden water would bypass treatment in the case that a rainfall event exceeds the design standards.