

IN THE MATTER of the Resource Management
Act 1991

AND

IN THE MATTER of the hearing (Stage 1) by the
Waikato District Council on the
Proposed Waikato District Plan

SUMMARY OF EVIDENCE BY Michael Carter

Raglan Geotech

16 June 2021

INTRODUCTION

- 1.1 My name is Michael Carter. I provided evidence in chief (**EIC**) dated 17 February 2021 for Terra Firma Resources Ltd (TFR) in relation to TFR's rezoning submission for its land at Puketirini.
- 1.2 In my EIC, I outlined my qualifications, experience and commitment to comply with the Environment Court Expert Witness Code of Conduct.

SUMMARY OF EVIDENCE

- 1.3 I summarise my evidence as follows:
- 1.4 In 2020 I was engaged by Terra Firma Resources Limited to conduct geotechnical assessments at 2 locations that they refer to as being Puketirini Block and Weavers Crossing Block.
- 1.5 This resulted in separate reports being compiled for each location.
- 1.6 It was decided that the scope of these reports should be at a preliminary level to identify if there were fundamental constraints that would indicate that the concept of residential and/or commercial development was not feasible.
- 1.7 In the case of the Puketirini Block the fundamental requirements for building construction, bearing capacity and influence of groundwater, were chosen as the first step to be investigated. This was in recognition that only settlement monitoring over time could address mine debris stability and until this was implemented a comprehensive geotechnical assessment was not justified.
- 1.8 In the case of the Weavers Crossing Block a more comprehensive assessment was undertaken including hazards and stability. This was possible given that this block is comprised of original residual soils.
- 1.9 In both cases the assessments concluded that further investigation is justified.

- 1.10 As a result of my assessment, I consider the Weavers Crossing Block to be highly suited to development as proposed by Terra Firma Resources Limited.
- 1.11 In the case of the Puketirini Block I find that the bearing capacity over the larger portion of the area to be adequate for building construction, but that settlement and lateral displacement monitoring over an appropriate period of time should be implemented.
- 1.12 My assessment of the Puketirini Block included research on the Weavers Mine and other sources of information relating to the stability of the mine debris. Given the lithological properties of the debris, plus the time over which it was deposited I am now of the view that it is probable that settlement monitoring will show that a larger portion of the Puketirini Block is suitable for residential and/or commercial development.