

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of an Application by PROPERTY  
SEVEN LTD

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**STATEMENT OF EVIDENCE OF GRANT HAMMOND  
ON BEHALF OF THE APPLICANT  
Dated 28 June 2019**

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**1. INTRODUCTION**

- 1.1 My full name is Grant Michael Hammond. I am a Civil Engineer and Director of Technologyworks Ltd, which is a Civil and Structural Engineering Consultancy located in Tauranga.
- 1.2 I am a Chartered Professional Engineer registered under the Chartered Engineers of New Zealand Act 2002 and a Chartered Member of Engineering New Zealand. I am registered with the Bay of Plenty Regional Council (BOPRC) as a suitably qualified and experienced person (SQEP) for on-site wastewater design.
- 1.3 I have over 25 years' experience in the design, review and construction observation of on-site wastewater systems.
- 1.4 I appear here as an expert witness on behalf of Property 7 Limited ("the Applicant") and their application to establish an eco-community and restored wetland – Matuku Moana - on land at Pukehina Beach. The details of the application in terms of land use etc. have been given in other evidence.
- 1.5 I have been involved with this matter since 15 April 2019.

- 1.6 I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Courts 2014 Practice Note, and I agree to comply with it.
- 1.7 I confirm that I have considered all material facts that I am aware of, that might alter or detract from the opinions I express and that this evidence is within my area of expertise.

## **2. SCOPE OF EVIDENCE AND METHODOLOGY**

- 2.1 I was engaged by Property Seven on 17<sup>th</sup> April 2019 to carry out a review of the on-site wastewater design aspects presented in the subdivision application, and to provide additional technical and design information in response to the Bay of Plenty Regional Council's (BOPRC) submission on the subdivision resource consent application submitted to Western Bay of Plenty District Council (WBOPDC) in September 2018.
- 2.2 This assessment was provided in the form of a report titled: "Assessment of On-Site Effluent Treatment and Land Disposal" and dated 17/5/2019, hereafter referred to as the "Technologyworks report".
- 2.3 My statement of evidence responds to the evidence of Terry Long dated 24/6/2019 as it relates to matters in my earlier report.

## **3. MR LONGS STATEMENT OF EVIDENCE**

- 3.1 Paragraph 8.2 of Mr Long's statement says the Technologyworks Report does not address options for a reticulated community wastewater treatment system of the issues raised in Policies 13, 14 and 15 and Method 1 of the BOPRC On-Site Effluent Treatment Regional Plan (OSET).

This is correct. Assessing options for a reticulated community wastewater treatment system were outside my terms of engagement.

- 3.2 Paragraph 8.5 of Mr Long's statement expresses his opinion that there is a level of uncertainty category 3 soils can be obtained or constructed on site, and that if the deposited and compacted soils are category 4 or 5, then a larger land application area will be required that may not fit within the available land on each proposed lot.

- 3.3 I am in agreement with Mr Long. Section 3.4.3 of the Technologyworks report highlights the possibility of this engineering constraint and recommends earthworks compaction trials, and permeability testing as a condition of the subdivision consent.
- 3.4 Paragraph 9.2 proposed a condition of consent requiring the installation of an InnoFlow Advantex AX20 Aerated Wastewater Treatment system. The Technologyworks report also recommended a similar consent condition to specify the Advantex AX20 system.
- 3.5 The Technologyworks report recommended the Vericomm Panel be included as part of the wastewater treatment system specification to ensure that each properties system has remote monitoring and alarm notification capability.
- 3.6 I recommend the condition in paragraph 9.2 of Mr Long's statement be extended to include provision for specifying an automated alarm notification system.
- 3.7 Paragraph 9.3 proposed a conditions setting a maximum gross floor area of buildings and occupancy limit that are consistent with the Technologyworks reports recommendations.
- 3.8 Paragraph 9.4 proposed a condition setting a minimum land application areas consistent with the Technologyworks reports recommendations.
- 3.9 Paragraph 9.5, 9.6 and 9.7 proposed conditions requiring earthworks compaction trials, permeability testing and a minimum permeability rates that are consistent with the Technologyworks reports recommendations.
- 3.10 Paragraph 9.8 condition for setback distances are consistent with the Technologyworks reports recommendations.
- 3.11 Paragraph 9.9 condition requires a Site and Soil Evaluation to be prepared for each lot and supplied in support of application for 224 (c) certification. This is consistent with Technologyworks reports section 3.4.3 recommendation for certification in conjunction with the subdivisions geotechnical completion report.
- 3.12 Section 5 of the Technologyworks report recommends consent condition 2 that would make it conditional that each rural lifestyle property owner enter into a service agreement with the Advantex AX20 suppliers subsidiary

maintenance servicing company (S3 Ltd) to service the wastewater system and manage alarm notifications.

- 3.13 This condition has not been included in Mr Long's draft conditions. I recommend this condition be included in the subdivision approval.

#### 4. **CONCLUSION**

- 4.1 I am in agreement with Mr Long that robust and enforceable consent conditions should be imposed to ensure suitable ground conditions will be achieved to meet the requirements for the proposed on-site wastewater treatment system.
- 4.2 I consider the draft conditions proposed by Mr Long are appropriate subject to the inclusion of the additional conditions I have described in paragraphs 3.6 and 3.13

#### 5. **OPINION**

- 5.1 I consider compliance with the consent conditions proposed by Mr Long, and the additional consent conditions I have proposed will ensure a suitable area with appropriate ground and subsoil conditions are provided within each proposed rural lifestyle lot that will meet the requirements of Rule 12 of the BOPRC OSET Plan as a permitted activity.



**Grant Michael Hammond**

**28 June 2019**