

**BEFORE THE HEARING COMMISSIONERS
AT WAIKATO DISTRICT COUNCIL**

IN THE MATTER of the Resource Management Act 1991 (RMA)

AND

IN THE MATTER of submissions and further submissions on the Proposed
Waikato District Plan

**REBUTTAL STATEMENT OF EVIDENCE OF CONSTANTINOS FOKIANOS
ON THREE WATERS INFRASTRUCTURE FOR
SUBMITTER [658]: THE KONING FAMILY TRUST AND MARTIN KONING**

5 May 2021

Introduction

1. My full name is Constantinos Fokianos.
2. I am a Civil Engineer employed by Bloxam, Burnett and Olliver (BBO). I currently hold the position of Water Resource Engineer Manager. I have been working for BBO since 2017.
3. My qualifications and experience are set out in my primary statement of evidence.¹ I confirm I have read the Environment Court Practice Note 2014 and repeat my earlier evidence in relation to compliance with it.

Scope

4. This rebuttal statement of evidence relates to the Waikato District Council's Section 42A Report for Hearing 25: Zone Extents Raglan, as it relates to the submission and further submission made by The Koning Family Trust and Martin Koning ("the Submitter"). Those submissions concern the zoning that applies to the Submitter's landholdings at 339 Wainui Road, 145 Te Hutewai Road, 146 Te Hutewai Road and 151 Te Hutewai Road ("the Koning land"), Raglan, under the Proposed Waikato District Plan (PWDP), seeking that their land be zoned Residential rather than Rural.
5. The purpose of this evidence is to respond to specific matters raised in the technical peer review statement by Mr Roger Seyb from Beca Ltd in Appendix 3 to the s42A report for Hearing 25: Zone Extents Raglan (s42A report).

Responses to peer reviewer comments

Wastewater

6. Mr Seyb refers to the option of buffering wastewater storage that has been proposed in my evidence². I would like to clarify that this could only be an interim option until the upgrade of the wastewater treatment plant (WWTP) is completed, it is therefore not considered a long-term permanent solution. I agree that if that option was to be pursued, further consideration would need to be given to how it could be implemented. In the long-term, wastewater from the development would be able to be accommodated by the planned upgrades to the WWTP.

¹ Statement of Evidence of Constantinos Fokianos, Submitter: Koning Family Trust and Martin Koning, Topic: Extent of residential zoning at Raglan, dated 15 February 2021.

² Memorandum from Roger Seyb, subject title "Technical Specialist Review, Three Waters – Koning, Raglan", dated 14 April 2021, page 2-3.

Water

7. Mr Seyb refers to the proposed water storage within the development and states that any on-site storage would need to be filled within only 8 hours per day, as that is when the consumption is below average.³ I believe that that is not correct as:
- Only the mid-size town and city profiles (Appendix of the 3 Waters Infrastructure Report attached to my evidence) have about 8 hours of below average consumption. The rural village and small-town profiles indicate larger periods of low demand. Furthermore, these profiles are indicative, and, in my evidence, I recognise the need of using Raglan's consumption data.
 - Filling of the storage does not necessarily happen only during the low consumption periods. Tables in Appendix A of the 3 Waters Infrastructure Report provide a range of different scenarios (12-hour, 16-hour and 24-hour inflow). The tables provide calculation of the minimum required balancing storage that is needed to cater for each consumption profile (rural, small town, mid-size town, and city).
8. This method effectively provides a solution for supplying the water quantities for the development without compromising existing town supply.
9. Mr Seyb also comments that there is no discussion over the pressure within the existing network or the effect of the proposed development on that pressure.⁴ In section 5.2 of my 3 Water Infrastructure Report, I state that "*additional information regarding Raglan's water supply scheme daily demand profile will be required to model the intake/uptake function of the proposed tank over a 24h, 48h period or more and its effect to the daily peak of the existing network*". Pressure is an essential part of water modelling and hence is included in the additional work that the report suggests is required. Alternative connection options could also be considered, such as a dedicated connection directly to the existing storage tank to eliminate any effects (head losses) in the existing water trunk main and avoid any adverse effects on the existing town network pressure.

³ Ibid., page3.

⁴ Ibid.

10. Overall, I consider there to be the potential for development on the Koning site to be appropriately serviced with water supply without compromising the existing town supply.
11. I note Mr Seyb raises the question of certainty for long term supply post 2034, which is when the existing water take consent held by the Council is due for renewal.⁵ This is a matter that the Council will need to address irrespective of the Koning development.

Stormwater

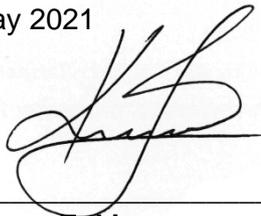
12. Mr Seyb comments that the proposed minimum lot size that would apply to residential development is small (I note that he states the minimum to be 400m², where the actual minimum lot size requirement in the Proposed Waikato District Plan for residential development is 450m²) and may be insufficient to provide enough area for on-site stormwater management. I would like to clarify that the low impact design referred in my report is a combination of on-lot, on-road and other treatment and attenuation devices. A treatment chain could allow small lot sizes to exercise partly on-lot treatment while linked to other devices/ layouts located within the non-developable parts of the Structure Plan Area. These additional devices could supplement the treatment and/or attenuation needs of the development. I would also like to clarify that rain-tanks are considered only as one of the on-lot options and other alternatives could be considered, like soak pits, raingardens etc. Cluster development and alternative lot configuration are also mentioned my report as other ways to practise low impact development.
13. I also note that the Draft Structure Plan has been updated to incorporate a requirement for a Stormwater Management Plan to be prepared to guide the manner in which stormwater is to be managed across the Structure Plan area.
14. Overall, Mr Seyb's comment does not reduce my confidence in the ability for development on the Koning land to be able to implement means to appropriately manage stormwater on the site.

⁵ Ibid., pages 2-3.

Summary of Conclusions

15. In my opinion, all of the matters raised by the technical peer reviewer are relevant matters that have been satisfactorily addressed through my primary evidence and as explained above. I confirm my view that the proposed rezoning can be serviced within the local, regional, and national requirements regarding 3 waters infrastructure and that there are technical solutions to the matters raised.

Date: 5 May 2021



Constantinos Fokianos