

Before the Hearing Commissioner appointed by Napier City Council

In the matter of the Resource Management Act 1991
(the Act)

And in the matter of an application by The Te Awa Land Development Company Limited to establish a comprehensive suburban commercial development at 35 Kenny Road, Napier

Statement of evidence of Johannes Petrus Ehlers

29 October 2019

Sainsbury Logan & Williams
Solicitors
Cnr Tennyson Street & Cathedral Lane
Napier
PO Box 41
Phone: 06 835 3069
Fax: 06 835 6746
Ref: Lara Blomfield
LJB-136562-4

INTRODUCTION

Qualifications and experience

1 My name is Johannes Petrus Ehlers. I hold the degree of Bachelor of Engineering (Honours) from the University of Pretoria. I am a chartered member of Engineering New Zealand and registered as a Chartered Professional Engineer. I am a Director of Infir, a civil engineering firm that specialises in civil infrastructure and land development design. I have worked in this field of engineering since graduating in 1989, a total of 29 years. I worked has been on projects in South Africa from 1990 to 1995 and New Zealand from 1995 to now.

Expert witness Code of Conduct

2 I have been provided with a copy of the Code of Conduct for Expert Witnesses contained in the Environment Court's Practice Note dated 1 December 2014. I have read and agreed to comply with that Code. This evidence is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

PURPOSE AND SCOPE OF EVIDENCE

3 In February 2019 I undertook an assessment of servicing solutions for Te Awa Land Development Company Limited's proposed commercial development at the intersection of Eriksen Road and Kenny Road, Te Awa. This work included the preparation of a drainage design to discharge stormwater in a way that avoids adverse effects on other properties, potable water supply and wastewater disposal.

4 The purpose of this evidence is to confirm my original assessment in respect of the effects of the stormwater discharge arising from the proposal.

TECHNICAL REPORT – SUMMARY OF CONCLUSIONS

- 5 My report J19105 – Servicing of the Eriksen Road Commercial Development, dated 15 February 2019 is at Appendix 3 of the resource consent application (which is Appendix A of the Section 42A Report).
- 6 The development will cause the volume of stormwater runoff during the 1 in 100-year, 24-hour duration event (the design event) to increase by 612m³. This storm event was selected because it was used by Beca consultants for the stormwater analysis that was done for the Te Awa Structure Plan Area stormwater design. The Te Awa Structure Plan shows a stormwater network for the Te Awa Structure Plan Area that consists of pipelines, open drains, a storage basin and a new pump station. When construction of this system is completed, all attenuation storage will be provided in the new stormwater system, not on private property. The Council has not yet completed construction of the proposed stormwater system. Attenuation storage must therefore be provided on site until the structure plan stormwater system can service the site. Attenuation storage will not be required when the Structure Plan stormwater system starts to service the site, because attenuation storage will then be provided in the Te Awa Structure Plan stormwater system.
- 7 On-site attenuation storage is needed because more water runs off from sealed areas than from unsealed areas. The development will add sealed area to the site, so the additional stormwater that runs off during a rain event must be stored on site. The water that is stored will be released when the peak of the storm has passed. During the design event, the volume of water in the storage area will reach a maximum at the end of the 24-hour period. The stormwater discharged from the site will be the same volume discharged pre-development, so other properties will not be affected. The on-site storage area will slowly empty in the period following the 24-hour rain event.
- 8 The pre-development runoff volume for the design event is 501m³. Post-development runoff volume is 1,114m³. The post development runoff will flow into storage areas (attenuation storage) and discharge from site at a rate of 501m³ per 24 hours. The storage will be provided in the following areas:

On the parking lot	28m ³
In a rain garden along the road frontage	278m ³
In a swale at the rear of the development	306m ³
Total storage	612m ³

- 9 When the Structure Plan stormwater system has been constructed the on-site attenuation storage will no longer be needed because the Structure Plan stormwater system will be able to convey the increased flow rate and dispose of the stormwater, as described in the attached Te Awa Structure Plan 3-waters report.

RESPONSE TO MATTERS RAISED IN THE SECTION 42A REPORT

- 10 I have reviewed the Council's section 42A report issued on 17 October 2019. Matters relating to stormwater drainage, water supply and wastewater disposal are addressed primarily under section 10.4 on page 19. The Council's reporting planner accepts as appropriate the conclusions of my technical report, including the on-site stormwater attenuation solution.
- 11 The Council's reporting planner has recommended that the on-site landscaping and rain garden be maintained in perpetuity, in the interests of low-impact development combined with the amenity effects generated. I cannot comment on the amenity effects, but the low-impact effects of the rain garden are irrelevant when the Structure Plan stormwater system becomes available because the system will provide the capacity that is required to discharge stormwater without any on-site attenuation.
- 12 I note that draft condition 5.8 requires all stormwater attenuation to be maintained in perpetuity on the site, which appears different to the Council's reporting planner's recommendation. The reporting planner has referred to the on-site landscaping and rain garden at page 19 of her report, which presumably excludes the proposed swale at the rear of the property.
- 13 Draft condition 5.10 states that the approved point of connection for stormwater is as defined in the Te Awa structure plan. I have not been able

to identify where that is. The proposed point of connection identified in the servicing report is the open drain at the southern end of the development's road frontage in Eriksen Road.

- 14 The draft conditions (5.12) state that the point of discharge for wastewater is the gravity pump station in Kenny Road, which is a significantly further from the development than the point of connection that was identified in the servicing report. A water main is needed to the Clutha Road intersection anyway, so the cost to install a sewer rising main to the Kenny Road pump station can be managed if the sewer rising main can be installed in the same trench as the water main.

RESPONSE TO MATTERS RAISED IN SUBMISSIONS

- 15 No matters were raised in submissions relating to my area of expertise.

CONCLUSIONS AND RECOMMENDATIONS

- 16 The technical solutions in the servicing report has been accepted by Council.
- 17 It is recommended that the attenuation storage provided by the swale at the rear of the property only be maintained until the Structure Plan stormwater system becomes available.

Johannes Petrus Ehlers

29 October 2019