

Before the Independent Commissioners appointed by the Waimakariri District Council

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

And

In the matter of Proposed Waimakariri District Plan

And

In the matter of the submission by Alistair John Dugald Cameron (#180)
seeking the rezoning of land at 2 Auckland Street, Ashley
Village.

Brief of evidence of Ian Daniel Lloyd on behalf of Alistair Cameron

Dated: 4 March 2024

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Counsel for respondent

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LIMITED

AJS-635532-164-41-V1-e

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Evidence of Ian Daniel Lloyd:

Introduction

1. My name is Ian Lloyd. I am a Principal Water Engineer in the Christchurch office of Davis Ogilvie and Partners Limited, a privately owned Engineering, Surveying and Planning Consultancy.
2. I hold the qualifications of Master in Science (Environmental Science), Bachelor of Engineering (Civil) and Bachelor of Science (Geology), all obtained from Canterbury University (Christchurch). I am a Member of Engineering New Zealand (MEngNZ) and a member of the New Zealand Hydrological Society.
3. I have 30 years professional experience as an environmental scientist and water engineer including projects in Africa and New Zealand. I specialise in catchment water studies, groundwater and surface water assessments, and have a particular interest in issues associated with efficient irrigation. I have undertaken flood assessments for numerous rivers and catchments throughout New Zealand.
4. I have visited the site of the proposed subdivision and am familiar with both the surrounding area and the Ashley / Rakahuri River.

Code of conduct

5. In preparing my evidence I have reviewed and agree to comply with the Code of Conduct for Expert Witnesses contained in Part 9 of the Environment Court Practice Note 2023. This evidence has been prepared in compliance with the Practice note. I confirm that the issues addressed in this statement of evidence are within my area of expertise, except where relying on the opinion or evidence of other witnesses, which I will specify. I have not omitted to consider any material facts known to me that might alter or detract from the opinions expressed.

Scope of evidence

6. Following a request by Mr Cameron, I have prepared a memorandum containing a Flooding Assessment for 2 Auckland Street, Ashley. The Flooding Assessment has been included as Appendix 6 to the planning evidence of Peter Lloyd Glasson.
7. This evidence summarises the conclusions of the Flooding Assessment and the potential for flooding of the proposed subdivision.

8. This evidence is within my area of expertise and has relied upon publicly available information and information provided by Environment Canterbury in the form of a Flood Hazard Assessment they prepared for 2 Auckland Street.

Summary of evidence

9. The report at Appendix 6 constitutes my evidence and includes my methodology, assumptions and conclusions.
10. In summary my conclusions are:
 - 10.1. Ashley township including 2 Auckland Street lies on the floodplain of the Ashley / Rakahuri River. When assessing flooding risk at the site there is need to assess both the potential for flooding from the Ashley / Rakahuri River and local flooding associated with the unnamed tributaries / drains that cross or border the site.
 - 10.2. Numerous flood investigations have been undertaken for the Ashley / Rakahuri River floodplain and there is a good understanding of the flood risk. Given the protection provided by the Ashley / Rakahuri River Control Scheme stopbanks the overall flood hazard risk for 2 Auckland Street, Ashley, is considered very low and no specific flood hazard mitigation measures are likely to be required when constructing dwellings on or servicing the property.
 - 10.3. Current expectation is that finished floor level for any dwellings constructed on 2 Auckland Street, Ashley will need to be at least 400 mm above undisturbed ground around the dwelling footprint. It is recommended that finished floor level requirements are confirmed with Environment Canterbury and Waimakariri District Council during detailed design of the subdivision.



Date: 4 March 2024

Ian Lloyd.