

**Before the Hearings Panel
At Hutt City Council**

Under	Schedule 1 of the Resource Management Act 1991
In the matter of	The Proposed Lower Hutt District Plan
Between	Various
	Submitters
And	Hutt City Council
	Respondent

**Statement of evidence of Alistair Osborne on behalf of Hutt City Council
(Flood Hazard Modelling)**

Date: 12th August 2026

INTRODUCTION:

- 1 My name is Alistair Mark Osborne. I am employed as a Principal Stormwater Modeller at Tiaki Wai (previously Wellington Water).
- 2 I have prepared this statement of evidence on behalf of the Hutt City Council (**Council**) in respect of technical matters arising from the submissions and further submissions on Hutt City Council's District Proposed District Plan (PDP) in relation to flooding hazard modelling and mapping.
- 3 I have been providing input into the flood hazard mapping for the PDP since 2023. This input includes managing the hydrological and hydraulic modelling, peer review programme, and development of flood hazard mapping based on model output.
- 4 In preparation of this evidence, I have reviewed the Natural Hazards chapter of the PDP, and the Submissions and Further Submissions referred to in Section 22.
- 5 I am authorised to provide this evidence on behalf of the Council.

QUALIFICATIONS AND EXPERIENCE

- 6 I hold the qualification of a Master of Science (with Honours) from Victoria University, Wellington.
- 7 I have 21 years' experience in hydraulic and hydrological modelling in New Zealand. I have worked for both Engineering Consultancies and Councils.
- 8 I am a member of the New Zealand Hydrological Society and Water New Zealand.

Code of conduct

- 9 I have read the Code of Conduct for Expert Witnesses set out in the Environment Court's Practice Note 2023. I have complied with the Code of Conduct in preparing my evidence and will continue to comply with it while giving oral evidence before the Hearings Panel. My qualifications as an expert are set out above. Except where I state I rely on the evidence of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

SCOPE OF EVIDENCE

- 10 In addition to my statement of evidence submitted on 21 July, this statement covers additional material submitted by the following parties:

10.1 Statement of Evidence of Philip Lawrence Wallace on behalf of Te Karerea Limited and Waste Management NZ Limited (Hearing Stream Five). Flooding. 5 August 2026.

10.2 Statement of Evidence of Louis Freeland.

11 Submission Responses

11.1 Statement of Evidence of Philip Lawrence Wallace (447/461)

- I have read the evidence submitted by Mr Lawrence.
- I agree that the difference in flow is likely to be, in part, due to the difference in climate change allowance applied to the rainfall used in the model simulations.

- I note that the design flow of 55 m³/s from the Dry Creek calculated in the Tiaki Wai model does not include the adjacent catchments.
- I believe that the remaining difference between the design flow from the Dry Creek catchment is likely due to a difference in hydrological parameters applied in the models and potentially a difference in the event duration and rainfall temporal profile.
- The Tiaki Wai hydraulic model has adopted the hydrological methodology set out in the Wellington Water Reference Guide for Design Storm Hydrology. It is unclear if Mr Wallace has followed this approach.
- However, as has been shown in Mr Wallace's evidence, the proposed, and partially constructed, modelled design (culvert, earthworks, and channel) is able to convey the 55 m³/s of design flow through the site without flooding.
- As a result, I agree that it is acceptable to remove the flood hazard overlays from the site, with the exception of the stream corridor for Benmore Stream.

11.2 **Statement of Evidence of Louis Freeland (448)**

- I have read the evidence submitted by Mr Freeland.
- Mr Freeland recommends the use of 20% rainfall uplift, instead of 35% uplift, to align the stormwater models for the Hutt City catchments with the those used for the remainder of the Wellington metropolitan councils. However, as outlined in my previous statement of

evidence, the 35% rainfall uplift aligns with MfE Guidance and was adopted following discussions with Greater Wellington Regional Council and HCC.

- Mr Freeland has undertaken site-specific modelling of 3A Nikau Gr using the existing Tiaki Wai with stormwater model and updated topographical information.
- Based on this modelling and the site visit I undertook on 17 July 2026, I believe it is acceptable to change the flood hazard overlays on the property to Low Hazard. This reflects the level topography observed on site and the small, disconnected areas of medium hazard shown in the updated modelling.