

**BEFORE THE WAIMAKARIRI DISTRICT PLAN REVIEW HEARINGS PANEL**

**IN THE MATTER OF** the Resource Management Act 1991

**AND**

**IN THE MATTER OF** the hearing of submissions and further submissions on the Proposed Waimakariri District Plan

**AND**

hearing of submissions and further submissions on Variations 1 and 2 to the Proposed Waimakariri District Plan

**Hearing Stream 12E: Rezoning Requests**

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**SUPPLEMENTARY STATEMENT OF EVIDENCE OF DR AMIR MONTAKHAB  
(FLOOD RISK ASSESSMENT – BLOCK A AND B)  
FOR RICHARD AND GEOFF SPARK  
(PDP SUBMITTER 183 / VARIATION 1 SUBMITTER 61)**

Dated 2 August 2024

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## **Introduction**

1. My name is Amir Montakhab.
2. My area of expertise, experience, and qualifications are set out in my First Statement of Evidence dated 5 March 2024 for this hearing stream.
3. The purpose of this supplementary evidence is to respond to matters raised in the Officer's Report dated 22 July 2024 relevant to my evidence.

## **Code of Conduct**

4. I have read the Code of Conduct for Expert Witnesses (contained in the Environment Court Practice Note 2023) and I agree to comply with it. Except where I state that 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.

## **Response to Officer's Report**

5. The Officer's report does not refer to any specific flood risk related matters relating to my primary evidence that I need to respond to.
6. Instead, I have responded to one other "larger catchment" issue that has been raised in the evidence of Mr Aramowicz, which is provided in a memo (dated 15 July 2024), paragraph 99, appended to the Officer's Report, namely:
  - (a) Impact of Post-Development on Silverstream/West Kaiapoi Area

## **Impact of Post-Development on Silverstream/West Kaiapoi Area**

7. The Waimakariri District Council (WDC) requirements for flood hazard assessment, as outlined in Section 4 of the flood assessment report dated 22 February 2024, generally include:
  - (a) Hydraulic neutrality for a 50-year storm event with climate change.
  - (b) For a 200-year storm event with climate change, the flood level around any habitable dwelling should not increase by more than 20mm. An increase of less than 20mm is considered a minor effect under the RMA. This guidance is based on advice from Chris Bacon, Network Planning Team Leader at WDC, in his email dated November 21, 2023.

8. On-site stormwater attenuation for the development site has been provided and is detailed in Section 7.3 of the Infrastructure Assessment Report, dated 1 March 2024. This report confirms that all stormwater from the site is attenuated to achieve hydraulic neutrality up to a 50-year storm event, including climate change.
9. The on-site attenuation device, a communal wetland/pond, is included in the flood modelling, as outlined in Section 6.4 of the flood model report.
10. Section 7-9 of the flood report presents the results for the 200-year storm event, showing:
  - (a) The development will have no impact on flood levels or flows where the Northbrook, Middlebrook, and Southbrook merge.
  - (b) The peak flood levels surrounding habitable dwellings both upstream and downstream of the site are not increased by more than 20mm.
11. Although the flood model for this study does not extend to the Silverstream/West Kaiapoi Area, the results indicate that there is no post-development impact on stream flood levels at the confluence of Northbrook, Middlebrook, and Southbrook. This conclusion is based on the 50-year on-site attenuation device included in the model for the 200-year storm event with climate change. Consequently, it is anticipated that there will be no impact on the downstream Silverstream/West Kaiapoi Area.

**Amir Montakhab**

2 August 2024