

**BEFORE THE INDEPENDENT HEARING COMMISSIONERS
IN CHRISTCHURCH**

TE MAHERE Ā-ROHE I TŪTOHUA MŌ TE TĀONE O ŌTAUTAHI

IN THE MATTER OF Resource Management Act 1991

AND

IN THE MATTER of the hearing of submissions on Plan Change 14
(Housing and Business Choice) to the Christchurch
District Plan

JOINT STATEMENT OF HAZARDS EXPERTS

21 September 2023

INTRODUCTION

1. This joint witness statement relates to expert conferencing on the topic of **Hazards**.
2. The expert conferencing was held on **21 September 2023**, facilitated by **Don Turley**.
3. Attendees at the conference were:
 - (a) **Jesse Dykstra**, for Christchurch City Council. Jesse is the author of a statement of evidence dated 11 August 2023.
 - (b) **Marie-Claude Hébert**, for Christchurch City Council. Marie-Claude is the author of a statement of evidence dated 11 August 2023.
 - (c) **Emily Lane**, for Christchurch City Council. Emily is the author of a statement of evidence dated 11 August 2023.
 - (d) **Brian Norton** for Christchurch City Council. Brian is the author of a statement of evidence dated 11 August 2023.
 - (e) **Stephany Pandrea**, for **Cashmere Park Ltd, Hartward Investment Trust, Robert Brown**. Stephany is the author of a statement of evidence dated 20 September 2023.
 - (f) **Antoinette Tan**, for **Cashmere Park Ltd, Hartward Investment Trust, Robert Brown**.
 - (g) **Andrew Hurley**, for **Glenara Family Trust**. Andrew is the author of a statement of evidence dated 20 September 2023.

CODE OF CONDUCT

4. This joint statement is prepared in accordance with sections 9.4 to 9.6 of the Environment Court Practice Note 2023.
5. We confirm that we have read the Environment Court Practice Note 2023 and agree to abide by it.

PURPOSE AND SCOPE OF CONFERENCING

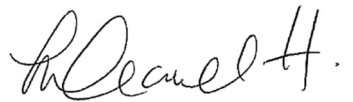
6. The purpose of conferencing was to identify, discuss, and highlight points of agreement and disagreement on **Hazards** issues relevant to Plan Change 14.

7. Conferencing proceeded in line with the agenda agreed to by all relevant parties and experts.
8. All attendees reviewed the relevant s32 reports, evidence, s42A reports, other reports in advance of the conferencing.
9. **Annexure A** records the agreed issues, areas of disagreement and the reasons, along with any reservations.

Date 5 October 2023



Jesse Dykstra



Marie-Claude Hébert



Andrew Hurley



Brian Norton



Stephany Pandrea



Antoinette Tan

ANNEXURE A – EXPERT CONFERENCING ON [TOPIC]

Participants: Jesse Dykstra, Marie-Claude Hébert, Andrew Hurley, Emily Lane, Brian Norton, Stephany Pandrea, Antionette Tan,

Issue	Agreed Position	Disagreements or reservations, with reasons
<p>Liquefaction - Land Stability in Specific Purpose Otakaro Avon River Corridor Zone</p>	<p>Marie-Claude Hébert and Jesse Dykstra for ChChCC were in agreement with the evidence of Andrew Hurley for Glenara Family Trust which noted the relevant site was acceptable for one to two storey structures and also more significant buildings of between three and six storeys with suitable foundations and/or ground improvement.</p>	
<p>High Flood Hazard Areas</p>		<p>Brian Norton for ChChCC noted his concern about any proposed development in high flood hazard areas. In particular he was concerned that the Cashmere Development proposals could result in unacceptable ponding and / or water leaving the site in the Henderson basin area. Brian Norton raised a number of questions concerning the evidence for Cashmere Park and it was agreed that Cashmere Park will provide Brian Norton with additional data to answer these questions.</p> <p>Brian Norton also noted that a new flood overlay map is necessary to be updated in the Chch District Plan.</p>

		<p>Eliot Sinclair will review basin design and compensatory storage and edit the design as required. DHI will re-run the flood modelling to provide an updated flood report prior to the hearing.</p> <p>According to Ms. Pandrea the proposed stormwater basins/compensatory storage design includes excavations in excess of 1m depth in an area which is known to have high groundwater (in some cases, above the ground surface). This may be overstating the amount of storage able to be provided within the designated footprint. Please review local groundwater data, including data from piezometers placed at various locations within the site, and confirm the range of expected seasonal high groundwater.</p> <p>These questions by Brian Norton included the following questions concerning the Greg Whyte statement of evidence of 20 September 2023:</p> <ul style="list-style-type: none">• Para 20 Whyte evidence – The Council has always considered Hendersons Basin to have a 36 hour critical duration (ref. South-West Christchurch SMP – Appendix E Water Quantity Assessment (Technical Report No. 4, Golder 2011), however this modelling done has been done for a 24 hour duration. What “previous modelling” is referred to in paragraph 20? Does this evidence take into
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		<p>account the latest Heathcote modelling done in July 2023?</p> <ul style="list-style-type: none">• Para 22 Whyte evidence - The modelling shows a 10mm (+) reduction in peak water levels over the whole of the northern Hendersons Basin Area. The basin is about 1.25M square meters which amounts to 12,500m³ of water. Where has this flood storage gone?. Council policy is to protect the natural ponding area and not shift its flood waters downstream.• Para 23 Whyte evidence - The modelling shows increases in peak discharge of 50 l/sec into Stillwells pipe. This indicates a potential transfer of flow and flood storage from Henderson's basin to Cashmere Stream as a result of the works, potentially adding to downstream flood peaks, noting that the Council is required by consent to reduce peak flood levels in the Heathcote River at Fernihurst Street to pre-1991 state. Please demonstrate how the proposed development will prevent increases of downstream peak water levels (of any kind) so as to not compromise the Council's consent compliance.
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Liquefaction		Jesse Dykstra for ChChCC noted that a new overlay map for liquefaction is necessary as the existing 2019 overlay map for liquefaction is not suitable for use as a qualifying matter.
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