

Hawke's Bay Regional Council  
Private Bag 6006  
Hawkes Bay Mail Centre  
Napier 4142  
New Zealand

18 September 2025

**Attention: Cam Drury**

Dear Cam

**HBRC Consequential Flood Risk - Wairoa Floodway**

The WSP Consequential Flooding Assessment report (dated 5 September 2025) addresses the issues, that I considered in the Flood Consequences reports that I prepared for Whirinaki, Waiohiki and Ohiti. Therefore, I haven't duplicated that effort to prepare a separate report. Rather, this letter summarises my involvement reviewing WSP's report and incorporates a response from WSP to a question raised by Graeme Hansen (HBRC) on 8 September 2025.

The timeline of my involvement is as follows:

- 29 July 2025: Meeting with WSP and HBRC to discuss the format and contents of the Consequential Flooding Assessment (CFA) report being prepared by WSP for the proposed Wairoa Floodway.
- 31 July 2025: First draft of the CFA report received from WSP. Reviewed and comments returned by 4 August 2025.
- 11 August 2025: 'For Peer Review' version of CFA report received from WSP. Reviewed and comments returned on 12 August 2025.
- 5 September 2025: 'Hydraulic model update' version of CFA report received from WSP.

I have reviewed the 5 September version of the report.

The proposed Wairoa Floodway and stopbank on the true right bank of the Wairoa River opposite the Floodway outfall will reduce the flood hazard for large areas of land and many buildings in the 100-year ARI (1% AEP) design flood event. The amount of land and number of buildings benefitting from the Floodway and Stopbank is far greater than the 20ha of land and four buildings that will be subject to increased flood risk, with the numbers documented in the CFA report. Those areas and building adversely affected are subject to only minor increases in flood hazard.

Following the 5 September CFA report being issued, Graeme Hansen requested further detail on the location of the 20 ha of mostly rural land and four buildings that are subject to greater flood depths. On 8 September, WSP provided the following information:

*"The orange areas in the map below show the ~20ha. Comments:*

- *There is ~2.1ha of land within the stopbanks*
- *Buildings within the floodway footprint are not represented in any counts*

- *Affected buildings (yellow) are reliant on the accuracy of the LINZ Building Outlines dataset and it is difficult to verify from aerial imagery whether these are still in use. Only the bottom left building on SH2 still appears in good condition on aerial photos. The other three either appear to be missing or are in bad condition.”*



*Email from Petra Burns [WSP] to Graeme Hansen [HBRC] on 8 September 2025*

This information confirms that about 90% of the land with higher flood risk is alongside the Wairoa River upstream of the outlet from the Floodway. This is due to backwater effects from the water being discharged from the Floodway and water being confined within the channel by the Townside stopbank. The four affected buildings (yellow dots in the image) are on the margins of the land with higher risk of flooding.

Based on the information provided in the CFA report and on 8 September, I agree with the conclusion drawn by WSP that the overall consequences of the proposed works are beneficial in reducing flood hazard overall.

Yours sincerely

**Michael Law**

Technical Director - Hydrology and Water Resources

on behalf of

**Beca Limited**

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Petra Burns, WSP