BEFORE PALMERSTON NORTH CITY COUNCIL

UNDER	the Resource Management Act 1991
IN THE MATTER OF	a proposed plan change to rezone land at 611 Rangitikei Line to establish the Whiskey Creek Residential Area

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JOINT WITNESS STATEMENT REGARDING INTEGRATION OF FLOOD RISKS

Joint witness statement regarding integration of flood risks

[1] Tim Preston, Philip Wallace, and Paul Mitchell ("we") met to confer in relation to questions asked by the Hearing Panel, regarding the integration of flood risks. We confirm that the statement below is given in compliance with our obligations as expert witnesses under the Environment Court's code of conduct for expert witnesses.

[2] In relation to the question as to whether further more detailed consideration is needed due to the risks associated with major outflows from the local development site, coinciding with major flood conditions in the floodway, we the undersigned jointly consider this is not necessary nor appropriate during the plan change process for the following reasons:

[3] We all accept the technical factual evidence on this subject provided by Paul Mitchell Stormwater Management Plan (21/4/21), section 7.3.

[4] A further common language explanation of this is that:

a) the conditions to produce major flood conditions in the floodway are quite rare and require a rain event with a substantial duration (>24hrs) to fill storages and mobilise flood flows in this large catchment.

b) the conditions to produce major flood flow conditions (and fill the detention pond) in proposed development are also quite rare and generally shorter and more intense (different) to the above type of rain event.

c) if the rain was synchronized in both the major Taonui and minor local catchments, the local runoff would be generated much more quickly and discharged generally before the major system flows peaked.

d) There is a possibility of both systems being flooded at the same time, but this is an exceptionally low probability in relation to the risks from each of the separate types of flooding.

[5] We would recommend that at the subdivision stage, the separate flood plain and stormwater modelling should be integrated as follows:

a) Phil Wallace will provide water level timeseries at the detention pond outlet for Paul Mitchell to use in his model to understand the local system behaviour including its discharges to the floodway.

b) Phil Wallace will then insert this pond outflow into the floodway model to illustrate the impacts from the development of a worst case scenario where 200 year flooding occurred in both local and flood plain at the same time.

c) Some iterations may be required to identify the worst case of timing coincidence.

d) At this stage we anticipate this will show that the resulting impacts on the floodway will be trivial.

3 June 2022

Tim Preston

Philip Wallace

Paul Mitchell

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