

SUMMARY OF EVIDENCE OF MARY WOOD

PROPOSED PLAN CHANGE E – ROXBURGH CRESCENT

A. INTRODUCTION

- [1] My full name is Mary Wood, and I prepared a s42A report dated 22 April 2025 and Statement of Reply Evidence dated 16 May 2025 on Stormwater on behalf of the Palmerston North City Council for proposed Plan Change E to the Palmerston North District Plan (**PCE**). My experience and qualifications are set out in my s42A Report.

B. OVERVIEW

- [2] The Plan Change area is not impacted by local flooding but sits in proximity to the stopbank system along the Manawatū River. The existing pipe capacity in the area is undersized for both current and future climate adjusted events.
- [3] Recognising that that there is uncertainty on the timing of wider catchment improvements (in particular, upgrades to the outfall to the Manawatū River -refer to Figure 1) two development scenarios were considered: Specifically:
- (a) Stage 1 is before increased capacity improvements are made to the outfall. Development would require a higher pervious component for residential lots (set at 45%) while there is still 100% impervious coverage of the remaining industrial land.
 - (b) Stage 2 is applied once wider capacity improvements are in place, and allows for residential development with 30% permeability provided on lots. As noted below, this is reflected in the outfall design.
- [4] Considering the ability to increase the capacity of the outfall, initial engagement with Horizons Regional Council indicated that wider catchment benefit would need to be demonstrated as part of the approval process. The improvement option considered a design basis of:
- (a) 30% pervious residential lots in the Roxburgh PC area,
 - (b) Sized to convey the 10% AEP + CC event,
 - (c) No surcharging in the new network due to pipe capacity, and

- (d) As far as practicable, reduce and resolve spilling in the existing network serviced by the upgraded network in the 10% AEP +CC event.
- [5] The permeability limits are used to manage runoff from the Plan Change area in a manner that aligns with the available pipe capacity depending on whether the pipe outfall upgrade is in place or not.
- [6] The overall stormwater management approach utilises water sensitive design which includes retaining permeable surfaces, promotion of infiltration to ground, retention of stormwater volumes and treatment through the use of systems such as bioretention (rain gardens, bioretention swales), filter strips, and tree pits. This aligns with the requirements of the One Plan.
- [7] In terms of wider flood hazard associated with flooding of the river, the stopbanks adjacent to the Plan Change area are part of the Lower Manawatū Flood Control Scheme operated by Horizons Regional Council. These stopbanks are designed to provide a level of protection to the urban area in a 1 in 500 year (0.2% AEP) flood event plus climate change to RCP 6.

C. ISSUES RAISED THROUGH SUBMISSIONS

- [8] A number of submissions were made in regard to stormwater, with the bulk relating to the requirements for permeable surfaces for residential land as well as more broad concerns relating to flooding from the stopbank failure.
- [9] Permeability limits have been set as part of a wider strategy to manage network capacity, reduce runoff and implement WSUD, not because the change in land use will generate additional runoff. These limits, combined with local upgrades have been identified to enable opportunities for partial redevelopment while more extensive and larger network capacity improvements can be undertaken, subject to consent being granted by Horizons Regional Council. Greater overall pipe capacity does not remove the need for permeability limits within the Plan Change area (refer to item 4).
- [10] In terms of flooding from the Manawatū River, the proposed change in land use will not impact the likelihood of the stopbank overtopping or breaching. The risk, however, will change as a result of the land use enabling increased residential population - this results in an increase in

the consequences from any event. While there is a change in risk as a result of the change in land use, the risk is the same as for other nearby residential areas.

D. RECOMMENDATIONS

- [11] I recommend the proposed amendments by PNCC be adopted (submission points 9-001-9-005, inclusive), along with revised wording on the road cross-sections to: “*270m² contributing catchment*” to account for driveways and accessways that could drain towards the road.
- [12] I do not recommend removal of permeability limits or associated guidance as requested by some submitters.
- [13] I recommend that the use of permeable pavers be removed as a method of achieving the permeability standards as requested by some submitters.
- [14] I do not consider additional measures such as stormwater management plans or higher levels of flood protection to be necessary in this area and I do not recommend they are adopted as requested by some submitters.

19 May 2025

Mary Wood