

**BEFORE THE HEARING PANEL**

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

**AND**

**IN THE MATTER** of Proposed Plan Change 17 to the Waipā District Plan –  
Hautapu Industrial Zones

---

**SUPPLEMENTARY STATEMENT OF EVIDENCE OF MICHAEL GEORGE CHAPMAN**

**(STORMWATER)**

**Dated 26 May 2023**

---

---

**LACHLAN MULDOWNEY**  
BARRISTER

**P** +64 7 834 4336 **M** +64 21 471 490

**Office** Panama Square, 14 Garden Place, Hamilton

**Postal** PO Box 9169, Waikato Mail Centre, Hamilton 3240

**[www.lachlanmuldowney.co.nz](http://www.lachlanmuldowney.co.nz)**

## **INTRODUCTION**

1. My name is Michael George Chapman. I previously provided a statement of evidence dated 13 March 2023 in relation to Plan Change 17 (**PC17**) on behalf of Kama Trust (**primary evidence**).
2. My primary evidence was prepared at a time when the submission on behalf of Hautapu Landowners Group (**HLG**) seeking the inclusion of their land as 'deferred industrial zone' was deemed outside the scope of PC17. Accordingly, it did not address the evidence filed on behalf of HLG.
3. Since preparing my primary evidence, that relief has been deemed within scope. Accordingly, this supplementary statement of evidence addresses the evidence filed on behalf of HLG, provides an update of my position after attending expert conferencing, and sets out my final conclusions in respect of the stormwater elements of PC17.

## **CODE OF CONDUCT**

4. I am familiar with the Code of Conduct for Expert Witnesses (Environment Court Practice Note 2023) and although I note this is a Council hearing, I agree to comply with this code. The evidence I will present is within my area of expertise, except where I state that I am relying on information provided by another party. I have not knowingly omitted facts or information that might alter or detract from opinions I express.

## **PURPOSE OF EVIDENCE**

5. The purpose of my evidence is to address matters relevant to stormwater management raised in the statement of evidence of Mr Dickey dated 13 March 2023 and the supporting Three Waters Report for the HLG site

prepared by BTW Ltd dated 13 March 2023 which is appended to his evidence, and provide my final recommendations.

## **EXECUTIVE SUMMARY**

6. Kama Trust seeks the ability to be able to develop its land within Area 6 in a manner that is independent of the HGL deferred zoning. There is no three waters engineering reason why this is not possible.
7. HLG seeks deferred industrial zoning for its land, and with that, the ability to the necessary three-waters infrastructure with the three waters infrastructure provided to support Areas 5 and 6 in the structure plan.
8. I am aware that the s42A report confirms that potable water and wastewater infrastructure can be extended without any significant engineering issues. As a stormwater expert, I confirm that stormwater infrastructure can also be extended to enable the deferred zoning.
9. For stormwater, the HLG preferred option is an integrated wetland with controlled discharge (at existing flow rates) to Mangaone Stream as per Figure 1 in Mr Dickey's evidence.
10. The preferred option by HLG will require a direct outlet to the Mangaone stream resulting in significantly higher discharge volumes to the stream across a range of return period storm events. A new outlet requires discharge consent approval from Waikato Regional Council. This gives rise to risks around 'consentability'.
11. Communal footprint areas for either a soakage basin or wetland are relatively comparable at this stage in the design process for both sites. Accordingly, I do not agree that the HLG solution represents an 'improved land use outcome' as they claim.

12. For this reason, and the other factors identified in my evidence, I do not support this option.
13. I agree with Mr Dickey's statement that stormwater management options for the HLG site into the PC17 area can be either standalone or integrated.
14. I consider that there is no stormwater engineering barrier to enabling the Kama Trust and Areas 5 and 6 land to proceed to be urbanised as a first stage (**Stage 1**), with a standalone stormwater solution, and ensuring it can extend and integrate with the HLG land if the deferred industrial zoning is uplifted.
15. There are design elements that need to be addressed by HLG before we can begin to consider an integrated solution, but I am confident that any Stage 1 stormwater configuration can be engineered to ensure integration is possible.

#### **HLG APPROACH**

16. Two options are presented in the BTW Three Waters report for HLG:
  - a) Option 1: Constructed wetlands with controlled discharge to Mangaone Stream (subject to downstream flood hazard assessment). This option involves limited soakage from hard surfaces onsite to manage retention volume (pre-development initial abstraction); and
  - b) Option 2: Soakage to ground (centralised or decentralised) up to 10-years as per current PC17 Structure Plan with a 100-year spillway.
17. The HLG preferred option is an integrated wetland with controlled discharge (at existing flow rates) to Mangaone Stream as per Figure 1 in Mr Dickey's evidence. This option does not include runoff from Area 5 in C9.

18. The Area 5 (Basin 4) volume has been removed from the HLG Option 1 with the presumption being Basin 4 can be relocated back to its original proposed location as per Waipā District Council's (WDC) C8-C9 Master Plan. HLG state other alternatives to this can be explored in future design phases.
19. WDC and Kama Trust have agreement to locate Basin 4 within the Kama Trust site given the limited land availability within C9.
20. The preferred option by HLG will require a direct outlet to the Mangaone stream resulting in significantly higher discharge volumes to the stream across a range of return period storm events. A new outlet requires discharge consent approval from Waikato Regional Council. This gives rise to risks around 'consentability'.

#### **INTEGRATION OF HLG WITH KAMA TRUST AND WDC (AREA 5 BASIN 4)**

21. I refer to paragraph 10 in Mr Dickey's evidence which states that the preferred option "reduces the footprint and size of the system required to manage post development flows, and therefore provides an improved land use for PC17". I do not agree with this statement, particularly in the absence of further detailed stormwater assessment covering a range of design elements including, but not limited to:
  - a) Meeting discharge consent requirements from Waikato Regional Council for a direct connection to the Mangone Stream. The HLG preferred solution is not aligned to the C8-C9 structure plan;
  - b) Onsite soakage testing;
  - c) Optimising depth of each soakage basin; and
  - d) Confirming a solution to accommodate runoff peak flow and volume from Area 5 (C9).

22. My review of the Three Waters report suggests the preliminary wetland footprint is in the order of 6-7% of the catchment area (11,500m<sup>2</sup> wetlands 1&2 from the 17ha HLG site).
23. The Kama Trust soakage basin area to manage runoff from 16ha is in the order of 5-6% (8,000m<sup>2</sup> basin from 16ha).
24. Communal footprint areas for either a soakage basin or wetland are relatively comparable at this stage in the design process for both sites. Accordingly, I do not agree that the HLG solution represents an 'improved land use outcome' as they claim.

**CAPABILITY FOR FUTURE INTEGRATION OF HLG WITH KAMA TRUST AND WDC  
(AREA 5 BASIN)**

25. I agree with Mr Dickey's statement that stormwater management options for the HLG site into the PC17 area can be either standalone or integrated.
26. Having reviewed the Three Waters report and evidence from Mr Dickey, I consider that there is no engineering barrier to enabling the Kama Trust and Area 5 land to proceed to be urbanised as a first stage (**Stage 1**), with a standalone stormwater solution, and ensuring it can extend and integrate with the HLG land if the deferred industrial zoning is uplifted.
27. There are design elements that need to be addressed by HLG before we can begin to consider an integrated solution, but I am confident that any Stage 1 stormwater configuration can be engineered to ensure integration is possible.
28. The Stage 1 standalone option for Kama Trust has favourable soakage rates resulting in a feasible stormwater solution that aligns to the C8-C9 Master Plan.

**CONCLUSION**

29. I am aware that Kama Trust seeks to operate independently of HLG to progress and implement its stormwater design as per the s 42A Report.
30. I am confident that if Kama Trust proceeds on this basis, its design will be capable of integration with the HLG development in the future. The design will not sterilise that opportunity.

**Michael George Chapman**

**26 May 2023**