

BEFORE THE WAIPĀ DISTRICT COUNCIL

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of Proposed Plan Change 20 – Airport Northern
Precinct Extension to the Operative Waipā
District Plan

REBUTTAL STATEMENT OF EVIDENCE OF SCOTT DEAN KING

THREE WATERS INFRASTRUCTURE

10 March 2023

Counsel acting:
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INTRODUCTION

1. My name is Scott Dean King. I am the Regional Manager at Harrison Grierson, based in Hamilton.
2. My qualifications and experience were set out in my Primary Statement of Evidence dated 28 February 2023. I repeat the confirmation in my Primary Statement of Evidence that I have read and agree to comply with the Code of Conduct for Expert Witnesses.
3. In this statement of rebuttal evidence, I respond to the evidence of:
 - (a) Mr Bruce Cuff on behalf of Joan and Robin Cuff.
 - (b) Denzil Govendar on behalf of Hamilton City Council
4. The fact that this rebuttal statement does not respond to every matter raised in the evidence of a submitter within my area of expertise should not be taken as acceptance of the matters raised. I have focussed this rebuttal statement on the key points of difference that warrant a response.
5. In Bruce Cuff's statement of evidence, he raises a number of points directly related to the proposed 3 waters infrastructure servicing of the Northern Precinct site.
6. My Primary Statement of evidence responded to the initial general concerns raised in the Cuff submission, however I expand below on some specific stormwater servicing concerns raised in Mr Cuff's evidence.
7. Mr Cuff's evidence raises concerns over stormwater soakage potential across the site, especially if earthworks on the site result in material from the two existing hills being spread across the surface of the site. Mr Cuff's evidence notes that excavation of the two hills could generate 400,000m³ of material, and that compaction of the upper surface of the site may be required which could also affect soakage potential.
8. I note that development of the site only proposes to use material from one of the existing hills on the site. However, even if Mr Cuff's estimate of 400,000m³ of material used as fill was correct, this would only equate to an average fill depth of approximately 300mm if spread across the entire Northern Precinct site. As such, the base of any soakage system would be located beneath any fill material, into the underlying natural soils, which have been tested for soakage potential as part of the initial site investigations.

9. Additionally, engineering best practice, which will be followed during the detailed design process for the works, is to avoid locating soakage systems in areas of unsuitable fill, and to design soakage systems such that only soakage from the base (and not the sides) is accounted for. Furthermore, a reduced design soakage rate is adopted, based upon site specific soakage testing data, to provide a factor of safety in the design of any soakage system.
10. Mr Cuff's evidence also states that soakage systems are difficult to maintain and prone to clogging, which could lead to system failure and inundation of downstream properties.
11. I note that poorly designed soakage systems can be difficult to maintain, which can result in clogging and bypassing. However, I consider that, along with best practice design, WDCs Engineering Approvals Process, which includes review of design information for a development site, should prevent such poor design outcomes from occurring as part of the development.
12. In addition, as set out in my Primary Statement of Evidence, the design proposal is to provide for stormwater detention basins on the site in addition to the at-source soakage systems. As such, should any soakage system clog and bypass flows, then the on-site detention basins will act as a back-up safety measure. These basins will collect, store and slowly release flows to the offsite watercourses that surround the site at a controlled rate that doesn't exceed the existing situation. This back-up measure will mitigate any potential inundation of downstream properties.
13. Mr Cuff also states that stormwater detention systems will naturally pond water and attract bird life.
14. I note that the design intention of the stormwater detention basins is to provide them with small diameter outlet pipes at the bottom of the basins. As noted previously, these outlet pipes will be designed to discharge flows from the basins to the existing watercourses that surround the site at a controlled rate. These pipes will also allow the basins to drain to empty in-between rainfall events that generate runoff in excess of the capacity of the soakage systems. As such, any ponding water will be temporary and short-term in nature. The avoidance of attracting birdlife to the ponds has been considered in the design given the proximity to Hamilton Airport.
15. From my review, the balance of Mr Cuff's evidence relates to a request to consider incorporating the Rukuhia Neighbourhood Zone land into PC20, which is a matter for the Planning experts to respond to.

16. In Denzil Govendar's statement of evidence on behalf of Hamilton City Council, he notes that there are indications within the PC20 documentation which indicate that the Airport and surrounding precincts are committed to connecting to the future proposed Metro wastewater scheme when it is available.
17. I can confirm that this statement is correct.
18. Mr Govendar then states that he considers that these commitments need to be strengthened, and that the Northern Precinct development should be staged, with 'triggers' added to the plan regarding the requirement to connect to a public wastewater treatment solution. He states that this is essential to both the sustainability of the Precinct and the future proposed Metro wastewater scheme.
19. My Primary Statement of evidence responded to this point previously when it was raised in the original Hamilton City Council submission. I reconfirm my position that, whilst it is noted that servicing the Northern Precinct with a public wastewater solution (namely connection to the Metro wastewater scheme) is the preferred outcome, it has also been demonstrated (with specific reference to the existing scenarios in use for the adjacent Southern and Central Precincts) that until (or in the absence of) a public wastewater solution is available, then suitable alternative non-public wastewater solutions are able to service the site.
20. As such, I do not consider that development of the Northern Precinct needs to, or should be, conditioned, or staged, on the availability of the future proposed Metro wastewater scheme public wastewater solution.

Scott Dean King
Harrison Grierson

10 March 2023