

STORMWATER EVIDENCE SUMMARY

1. My name is Constantinos Fokianos.
2. I hold a Master in Civil Engineering degree from the Democritus University of Thrace, Greece. I also had post-graduate studies on Hydraulic Engineering at the same university. I have been working in the water resource engineering field since 2005. I currently hold the position of Water Resource Engineer Manager at Bloxam Burnett & Olliver (**BBO**). I have been working for BBO since 2017. I have participated on a wide range of consulting, design, and modelling services for infrastructure and development projects. I have also provided peer reviewing services for Waikato Regional Council (**WRC**) and Waikato District Council (**WDC**).
3. I have been engaged by Shand Properties Limited (**Shand**) to provide a Stormwater Management Report to support its submission on the Waikato Proposed District Plan (**PDP**).
4. Through its submission on the PDP, Shand is seeking to rezone approximately 30.5 ha of land located in Huntly North from the current rural zoning to a mix of industrial (approximately 13 ha) and residential (approximately 17.5 ha) zoning.
5. I prepared a Stormwater Management Report to assess the stormwater aspect of the proposed zoning. The report is **Attachment 1** to my evidence. It addresses matters regarding hydrology, flood regime, drainage, conveyance, treatment, attenuation, and discharge. It also refers to the residual risk from flooding due to a potential stopbank breach.
6. The report's purpose is to support the rezoning submission by providing a high-level stormwater management plan/layout for the proposed zones. An overall catchment hydrology investigation was conducted to determine maximum flood levels and the corresponding minimum floor levels for the proposed zones. Appendix B to the

Stormwater Management Report gives more information regarding the assumptions and methodology that was followed.

7. Further investigation has been conducted on the proposed industrial area as it is located within the Kimihia catchment floodplain, it is adjacent to the railway and Great South Road, it is located close to the Kimihia rural stopbank and there are no discharge points located within the boundaries of the proposed industrial area.
8. A preliminary level layout has been developed to provide a solution that addresses these challenges and demonstrates the feasibility of the proposed area to be developed for industrial use while meeting all the criteria related to stormwater management. A residual risk assessment memorandum was prepared to address matters regarding potential flooding due to a breach on the Kimihia stopbank. This memorandum is Appendix D to the Stormwater Management Report.
9. The proposed residential area faces fewer challenges as it is set on higher ground and there is an existing watercourse that can be used as a discharge point for the post-development treated and attenuated runoff. The major challenge is its proximity to an existing wetland and how the development stormwater management layout can be implemented to improve the wetland, especially within the context of the recently updated Resource Management (National Standards for Freshwater) Regulations, 2020.
10. Overall, the areas proposed in the plan change are suitable to be zoned for residential and industrial activity. The Stormwater Management Report presents the principles by which the future developments should be configured in terms of stormwater and flood management.
11. Detailed investigation of the identified stormwater issues can be conducted at the subdivision stage of the future development, with suitable conditions imposed as part of any subdivision resource consent.

12. I also prepared a supplementary statement to respond to specific matters raised in the technical peer review statement by Mr Roger Seyb from Beca Ltd, and to a comment made by Waikato Regional Council (**WRC**) regarding stop bank breach assessment.
13. The supplementary statement sets out the questions raised by Mr Seyb and WRC and provides a response to each of the matters raised.
14. In my opinion, all of the matters raised by the technical peer reviewer have been satisfactorily addressed through my primary and supplementary evidence. I confirm my view that the proposed rezoning can be serviced within the local, regional, and national requirements regarding stormwater management.
15. On this basis, I confirm that in my professional opinion there is no stormwater management reason why the proposed plan provisions should be approved.