

**BEFORE THE ASHBURTON DISTRICT
COUNCIL HEARING COMMISSIONER**

IN THE MATTER of the Resource Management
Act 1991

AND

IN THE MATTER of Plan Change 7 to the
Ashburton District Plan

**BRIEF OF EVIDENCE OF ANDREW JAMES TISCH (PRINCIPAL
ENGINEER, FOR ASHBURTON DISTRICT COUNCIL)**

Dated: 26 November 2025

QUALIFICATIONS AND EXPERIENCE

1. My name is Andrew James Tisch and my qualifications are BE, CPeng (Civil and Environmental), DipTch. I have 30 years' experience as a professional civil engineer specialising in 3 waters engineering and land development.
2. I have been a Principal Engineer at e2Environmental Ltd since 2004. I have worked as a consulting engineer at the Ashburton District Council (ADC) since 2021 assisting the Council with stormwater approvals for subdivision, commercial and industrial applications.
3. My relevant professional experience also includes providing expert evidence at several plan change applications for private clients in Canterbury and writing and delivering evidence for both Christchurch City Council and Environment Canterbury.

CODE OF CONDUCT

4. I confirm that I have prepared this evidence in accordance with the Code of Conduct for Expert Witnesses contained in Part 9 of the Environment Court Practice Note 2023. The issues addressed in this statement of evidence are within my area of expertise except where I state that I am relying on the evidence or advice of another person. The data, information, facts and assumptions I have considered in forming my opinions are set out in the part of the evidence in which I express my opinions. I have not omitted to consider material facts known to me that might alter or detract from the opinions I have expressed.

SUMMARY OF EVIDENCE

Stormwater

5. In preparing this evidence, I have reviewed:
 - a. The original servicing report provided with the application (contained in Annexure 8 to the final application);
 - b. The Council's request for further information, dated 2 September 2024;
 - c. The response from David Ogilvie of 2 May 2025 dated 2 May 2025 (contained in Annexure 12 to the final application);

- d. The Council's response to this (contained in Annexure 13 to the final application);
 - e. The applicant's further response to this (contained in Annexure 13 to the final application); and
 - f. The Council's response to this (contained in Annexure 14 to the final application).
6. As a result of the further information requests and responses, Ashburton District Council (ADC) has provided written approval in principle to the applicant's consultant Davis Ogilvie & Partners Ltd (DO) and confirmed that the proposed stormwater management is technically feasible subject to detailed design.
7. The initial DO design in December 2023 included two hybrid first flush/attenuation basins with soakage below the basin invert to discharge stormwater to land.
- a. The 'first flush' volume was based on capturing the runoff from 18mm rainfall depth as required by the relevant ADC design guidelines.
 - b. The first flush basins were infiltration basins where water infiltrates through an engineered sand-soil filter bed to provide treatment.
 - c. The attenuation basins were designed to capture runoff exceeding the first flush volume. This was combined with a soakage system to minimise discharges to the surface waterways.
 - d. The original design proposed combining the first flush and attenuation basin into a single basin combined with soakage to ground in a separate gravel soakage bed.
8. Table 1 below summarises the issues noted in ADC correspondence with DO, and the evolution of the design changes to the stormwater management areas (SMA).

Table 1. Summary of design correspondence between ADC and DO

Item	Initial Design December 2023	Issue / ADC response	Revised Design July 2025
a	Designed for the 2% Annual Exceedance Probability (AEP) ¹ storm event including the effects of climate change	ADC hold a global stormwater discharge resource consent (CRC186263) for the urban area of Ashburton and Tinwald, which includes this site. Typically, under a resource consent stormwater is assessed against a 2% AEP event. However, the applicant was notified at a meeting with Andrew Guthrie ADC Assets Manager (16/10/2024) that assessment against a 1% AEP event is an ADC requirement for land subject to plan change applications, as the site is not within residential zones where the infrastructure is designed for development of this scale.	The revised design in July 2025 assesses stormwater against the 1% AEP event.
b	Stormwater neutrality not adequately addressed	This subdivision is required to ensure stormwater neutrality in all 1% AEP events, for all critical durations. This means that the proposed post-development runoff from the site is no greater than in the pre-development state.	The revised design conceptually addresses stormwater neutrality in the 1% AEP event.
c	Soakage underneath attenuation basins	The original soakage test results showed poor infiltration rates for underlying gravels throughout the site, including within the SMA.	The revised design no longer includes soakage to land. The attenuation and soakage basins have been changed to extended detention basins and enlarged.
d	No separation to high groundwater	The original design showed a groundwater level above the invert of the proposed soakage. ADC generally requires 1 m separation to the seasonal high groundwater table, and at least some separation from the highest ever recorded groundwater level.	The revised design shows that the inverts of the proposed basins are now above the groundwater level, and soakage below the basins is no longer proposed.
e	Swale from neighbouring subdivision possibly being cut off	The swale from neighbouring subdivision treats and conveys stormwater along Farm Road towards Wakanui Creek. The initial design will reduce the effectiveness of this swale and needs to be addressed.	The revised design proposes two options for ensuring the treatment and conveyance capacity of the swale is not undermined. They include shaping an appropriate swale with a combination of pipes to discharge to Wakanui Creek or diverting the flow to the other side of Farm Road close to Argyle Park. This can be addressed at the detail design stage.
f	Size of the proposed attenuation basins are inadequate	The proposed attenuation basins in the original design did not have the required storage capacity, especially when the freeboard, shaping factor and maintenance track was accounted for.	The revised design proposes extended detention ponds that are significantly larger than the originally proposed SMAs. I am confident that the SMAs can be adequately sized during detailed design.

¹ Equivalent to a 50-year average recurrence interval (ARI). When AEP is noted in this evidence it includes the effect of climate change.

OTHER STORMWATER MATTERS

9. I am satisfied that the impacts of increased density on stormwater quality and quantity have been adequately addressed. I note that first flush treatment and attenuation for the 1% AEP event have been conceptually designed, which is appropriate for the increased density resulting from the rezoning.

FURTHER CONSIDERATIONS FOR DETAILED SUBDIVISION DESIGN

10. The sizing of the stormwater basins assume a free outfall to the Wakanui Creek during a significant flood event. During the detailed design phase, the applicant will need to provide flood analysis that details any potential tailwater effect and size their SMA accordingly. i.e., if the Wakanui Creek level is raised at the time the basin is full, it will limit the flow out of the orifice which may require an increase to the SMA size.
11. The upstream catchment of the site is located outside the 2015 ADC flood maps (WSP for ADC) so I cannot assess the localised flood risk.
12. Environment Canterbury has modelled two breach scenarios on the Hakatere/ Ashburton River North Branch for a 500-year average recurrence interval (ARI) event. The Jessops Bench breach scenario indicates there are minor overland flows paths on the north-eastern side of Wakanui Creek on-site, but most of this breach flows north-east of Racecourse Road. The Rawles Crossing breach causes an overland flow path through most of the site that is south-west of Wakanui Creek.
13. These breach scenarios are predicted to occur only during a very significant flood event; much larger than the required assessment against a 100-year ARI event. There is limited detail of flooding on-site for a 50-year, 100-year and 200-year ARI event.
14. The stormwater storage and attenuation provided in the revised design mitigates the effects of the stormwater in the plan change area. During the detailed design phase overland flow paths and the flood storage capacity of the land will need to be maintained to mitigate effects on other land within the catchment.

REVIEW OF SUBMITTER'S COMMENTS

15. Submitter's comments are provided in **Appendix A**.
16. G Barrett (S4) and C Crozier's (S7.1) concerns relate to ponding they have noticed on the site. They believe that this development will worsen the flood risk. I have noted in this evidence that the consultant's conceptual design for stormwater attenuation will mitigate their additional runoff produced by the development. I am also satisfied that flood risk from a North Branch breakout can, and needs to be, mitigated at the detailed design stage.
17. G & R Tait (S1) have noted that existing flow paths must be maintained. I agree that any flow path which provides drainage utility must be retained as-is, or if changed, must provide similar or better utility. This can be accommodated and needs to be addressed at the detailed design stage.
18. J Kingsbury (S5.1) – I partly agree with the submitters comments and note that based on my assessment of the contours on-site, when the Wakanui Creek is at capacity, exceedance flows will run across Farm Road and continue down Wakanui Creek and will not flow across the site towards Racecourse Road. Detailed design by the applicant will be needed based on flood modelling to ensure overland flow paths are not being obstructed. Although I cannot comment specifically on reasoning for past Council decisions, partial site flooding does not necessarily preclude the site from being able to be rezoned if stormwater is adequately accommodated.

Water

19. I am satisfied that there is no fundamental impediment to water supply servicing for the plan change area. The actual demand will depend on the ultimate number of lots to be serviced. If further upgrades are required Council has noted that adding additional pumps at Argyle Park or upgrading trunk mains feeding the area to bring in more water from the other water treatment plants is feasible.

Wastewater

20. I am satisfied that there is no fundamental impediment to wastewater servicing for the plan change area. The Council has noted that Allens Road wastewater pump station and the network have capacity required to meet the expected demand.

APPENDIX A – SUBMITTER’S COMMENTS

- G & R Tait (S1) - note that there is a ditch running along the west side of Farm Road to Wakanui Creek from the Racecourse Road end. They are concerned that the proposed filling of this ditch will increase the risk of flooding to neighbouring properties given that the ditch is relied on to capture flood waters. They question how it is planned to mitigate this.
- G Barrett (S4) states that the site is subject to flooding and therefore unsuitable for housing.
- J Kingsbury (S5.1) states that they are aware that stormwater flows into the plan change site and ponds after rain. The submitter states that at the time of the adjoining subdivision, they were advised that stormwater from that subdivision would flow through to the farmland and into Wakanui Creek, with any overflow of the Creek flowing on through the paddocks to Racecourse Road. They are concerned that due to the contour of the land, stormwater from either side of the Creek will flow into Wakanui Creek during a flood and impact home owners further downstream, as far as the Netherby area. The submitter further states that between 2007-2010 Council staff and Councillors made a decision not to re-zone the plan change site “due to flooding expectations”, given their familiarity with the land and its issues and farming knowledge.
- C Crozier (S7.1) states that they have noticed an area within the plan change site where water pools during heavy rain and that taking into account the drainage from the Coniston Waters area, they consider that there is enough housing in this area already. They express concerns about adding more housing in a flood risk area and seek that the land remains as farmland.