

Before Independent Commissioners appointed by the West Coast Regional Council

In the matter of the Resource Management Act 1991 (**the Act**)

And

In the matter of an application for resource consent under sections 88 and 127 of the Act

And

In the matter of Discharge to land consent (RC-2024-0122) and variation of resource consent (RC2021-0097-V10) to enable the exercise of the discharge consent where that could lead to the discharge of contaminants off-site at Taylorville Resource Park, Taylorville.

Summary of evidence of Laura Ellen Drummond for Taylorville Resource Park Limited

Dated: 3 September 2025

Andrew Schulte (andrew.schulte@cavell.co.nz)
Counsel for applicant

CavellLeitch >
LIMITED

Level 3, BNZ Centre
111 Cashel Mall
PO Box 799, Christchurch
T: +64 3 379 9940 F: +64 3 379 2408

Summary of Laura Ellen Drummond

1. I prepared a brief of evidence in writing dated 19 August 2025 and my evidence can be summarised as follows.
2. I am a senior freshwater and coastal ecologist at Bioresearches, and have practised as a consultant ecologist for the past five years. I specialise in freshwater and coastal ecology.
3. I hold a Bachelor of Science from the University of Otago and a Master of Science from the University of Auckland. I am a member of the New Zealand Freshwater Sciences Society and the Environment Institute of Australia and New Zealand.
4. I was engaged by Taylorville Resource Park Limited in October 2024 to provide advice on freshwater ecology in relation to the proposed discharge to land consent. I have prepared the ecological reports for Taylorville Resource Park applicable to this consent.
5. Two perennial streams were assessed with regards to ecology during my investigations of Taylorville Resource Park, undertaken on the 2nd and 3rd of October 2024. These streams are Noname Creek and the Grey Tributary, which were identified as water bodies which may intercept water from the proposed discharge to land.
6. Qualitative assessments of the waterbodies were undertaken, which included in-stream habitats for fauna and stream characteristics such as substrate type, hydrological variation, and riparian vegetation composition. Fauna communities were assessed in Noname Creek and Grey Tributary, which included macroinvertebrates and fish, upstream and downstream of the point of potential interception of the discharge.
7. Macroinvertebrate communities within Noname Creek was indicative of hard-bottomed watercourses with pollutant sensitive species, whereas macroinvertebrate communities within the Grey Tributary represented soft-bottomed watercourses with pollutant tolerant species.
8. Two longfin eels were captured in the Grey Tributary during the fish survey. No fish were captured or observed during the fish survey within Noname Creek.
9. Noname Creek and the Grey Tributary were considered to be of moderate ecological value when assessing against the EIANZ guidelines. Roadside drains, present around the site, were considered to be of negligible ecological value.
10. Noname Creek 2, located to the south of Taylorville Resource Park was not subject to ecological investigations as ENGEO reporting indicates this waterbody should not

intercept water from the discharge due to the discharge flow path moving downgradient and away from this waterbody.

11. The temporary discharge and soakage pit is located at least 100 m away from Noname Creek. Hydrogeological modelling undertaken by ENGEO indicate small volumes of water may daylight within Noname Creek and the roadside drains, and subsequently the Grey Tributary, if groundwater mounding intercepts the catchment.
12. As modelled and reported by ENGEO, residual contaminants within the discharge should disperse and absorb into the ground prior to intercepting and daylighting in the surface water systems. Were this to occur, contaminant loading models show the contaminants should be below trigger levels, and within the 95% species protection limit.
13. As such, the discharge to land should not result in alterations or degradations of aquatic communities and habitats within the surface water systems as the discharge should be magnitudes below trigger levels which would cause ecological harm.
14. Discharge contaminants where they may enter the Grey Tributary via Noname Creek or the constructed drains should be well below the 95% species protection level, and should not result in reduction in water quality within the stream or result in ecological harm.
15. Plume modelling undertaken by ENGEO following the discharge shows ammonical plumes may intercept the headwaters of Noname Creek two years following the discharge, in which concentrations, at this point in time, will be below the 95% species protection limit. Long term modelling then shows this plume migrating away from the headwaters with contaminant concentrations further reducing overtime. Therefore, no long-term ecological effects to surface water systems should occur.
16. The proposed discharge has been assessed against the guidelines for protection of aquatic ecosystems, and concludes that no adverse effects to water quality or stream health should occur within the surface water systems. Under the EIANZ guidelines, this equates to a low magnitude of effect and an overall low level of effect for moderate value streams.
17. As noted in the Ecology - Joint Witness Statement, prepared by myself and Jarred Arthur, we acknowledge differences in ecological effects and conclusions is resultant on differing opinions and reports provided by hydrogeologists of which we have based our evidence and ecological effects opinions.

Conclusions

18. My conclusions are;

- 18.1. The ecological value of Noname Creek and Grey Tributary are of moderate ecological value. The macroinvertebrate communities within Noname Creek indicate a good level of habitat quality, whereas the Grey Tributary macroinvertebrate communities indicates a lower level of habitat quality.
- 18.2. The proposed discharge to land is located at least 100 m from Noname Creek, however there is the potential for the discharge to intercept Noname Creek and the constructed drains. The level of contaminants within this intercepted discharge is shown, by ENGEO, to be within the 95% species protection level, and below the trigger limits that would cause harm to freshwater values and ecosystems. Therefore, the proposed discharge should not result in changes to water quality, habitat suitability or ecological health of the waterbodies.
- 18.3. The ecological effects of the proposed discharge result in an overall low level of effect to freshwater ecosystems and ecological health of the waterways.

Dated: 2 September 2025

Signed:

A handwritten signature in black ink, appearing to read 'L. Drummond', with a large loop at the end.

Laura Ellen Drummond