

**SUMMARY STATEMENT OF HUGH BLAKE-MANSON**  
**Variation 2 Foodstuffs (South Island) Properties Limited, 157 Levi Road, Rolleston**

---

**Introduction**

- 1 My full name is Hugh Maxwell Blake-Manson. I prepared the Statement of Evidence dated 20<sup>th</sup> February 2025 with respect to Variation 2 Foodstuffs (South Island) Properties Limited. My qualifications and experience are set out in that Statement.
- 2 This Summary of Evidence to that Statement, covers the assumptions, methodology and resulting conclusions arrived at with respect to water supply, wastewater, and stormwater services. I have also identified where I agree or otherwise with the applicant's approach to demand requirements for these services.
- 3 I have read the Statement of Evidence provided by Mr. Thielmann (7<sup>th</sup> March 2025) and provide a response to this below.

**Basis of Design - Allowances**

- 4 There are several factors and values which I have relied on when determining water supply and wastewater flows, loads and demand. These are:
  - Peak water supply demand for a domestic household of 0.23 litres per second per household connection in accordance with Selwyn District Council Engineering Code of Practice (CoP) s7.4.1 and a minimum point of supply 'at boundary' pressure of 310 kPa.
  - Peak wastewater discharge of 0.34 litres per second per hectare in accordance with Councils Wastewater Master Plan.
  - That the existing network has sufficient capacity to provide for domestic household water supply demands and receive domestic wastewater discharges and trade waste within Councils Trade Waste Bylaw (2021)
  - Existing design basis of 110 household units based on a site area of 7.3 hectares at 15 households per hectare

## **Methodology**

- 5 I have compared, where appropriate, the existing design basis against that for a commercial development of the ~~over~~ a 7.3 hectare site.
- 6 I have reviewed the Mr Theilmann's Statement of Evidence and noted where I agree or otherwise with this in the matters of water supply and wastewater.
- 7 I have considered stormwater treatment and disposal, identifying a potential future matter related to the proposed Broadlands Drive and Lincoln Rolleston Road intersection design (as illustrated in the concept plans contained in Council's submitter evidence). Otherwise stormwater conveyance, treatment and disposal can be considered via resource consent.

## **Water Supply (Drinking Water)**

- 8 Council is required to take a prudent approach to managing connections to its network to ensure supply remains in accordance with consent limits and levels of service statements
- 9 Council has allowed for a domestic drinking-water demand of 25.2 litres per second for the site based on 7.3 hectares x 15 household units x 0.23 litres per second per household unit (peak).
- 10 Staying within this demand limit is essential, as demand from adjacent land must also be met to ensure levels of service are achieved.

## **Wastewater**

- 11 Council is required to take a prudent approach to managing connections to its network and ensure that its centralised Pines wastewater treatment plants treatment and disposal comply with all consents
- 12 Council has allowed for a domestic wastewater demand of 2.48 litres per second for the site base on 7.3 hectares x 0.34 litres per second per hectare.
- 13 Staying within the design density and equivalent discharge is critical, as receiving network pipes, pumping systems and the Pines wastewater treatment plants treatment and disposal systems are designed, constructed and operated against these factors.
- 14 Trade waste discharges are permitted, and Councils Trade Waste Bylaw provides details on the loads and flows acceptable to it.

## Assessment

### Water Supply

- 15 Mr. Thielmann's Statement [7a] notes that the land will be developed as a 'commercial activity'. Where land is an 'industrial or commercial zone' then it must be developed in accordance with the CoP – see 7.4.2 'Business zones in on-demand water supply areas'. This specifies that a minimum flow rate of 1.0 litres per second per hectare be provided. This equates to a minimum demand of 7.3 litres per second over the site.
- 16 Mr. Theilman notes in [23] that the 'estimated daily water use' is 20 cubic metres per day, however it is not clear how this was arrived at. I have therefore undertaken an assessment independently of Mr Theilmann.
- 17 I have referred to the Watercare Code of Practice (v2.4) for guidance. The design water flow allowance for the proposed activity is 15 litres per day per net square metres of floor area – see Table 6.1.c 'Wet retail'. I have estimated the gross floor area to be 18,417 m<sup>2</sup>.
- 18 I have calculated the net floor area to be 2,763 m<sup>2</sup> based on an adopted net floor area of 15% of the gross floor area.
- 19 I have calculated a water demand of 41.5 cubic metres per day, based on 2,763 m<sup>2</sup> x 15 litres per day per m<sup>2</sup>. This is greater than Mr Theilmann's assessment [15] above but is sensitive to the extent of net floor area.
- 20 My derived value is double that of Mr Theilmann's value.

### Wastewater

- 21 I agree that use of ASNZS 1547 (Table H4) at 50 litres per person per day is appropriate in this matter.
- 22 Mr Theilmann's Statement provides estimates of wastewater discharges as follows:
- 22.1 Domestic wastewater discharge from the property (95 staff, 50 litres per person per day) equating to 4.75 cubic metres per day; and
- 22.2 Trade waste discharge of 5.0 cubic metres per day excluding the Mitre10 café domestic wastewater component.
- 23 Mr. Theilmann concludes that the total average flow is 0.113 litres per second excluding domestic wastewater discharged from the café.

- 24 I do not agree that provision of average sewer flows provides sufficient clarity for Council to assess the effect of the proposed discharge on its network. Assessment of peaking factors must be applied to account for operating hours and impact of rainfall on the wastewater system.
- 25 I have applied peaking factors in accordance with Council's CoP - see the design flows equation [6.4.1 Equation 1]:
- Peak average ratio of 2.5 (dry weather diurnal peaking ratio); and
  - Storm peaking factor of 1.6 (deep ground water table) or 2.4 (shallow groundwater table).
- Please note that no future densification has been allowed for.
- 26 I have calculated the peak wet weather flow as 0.678 litres per second based on Mr. Theilmann's provided 0.113 litres per second, a peak average ratio of 2.5, and shallow ground water peaking factor of 2.4. This is equivalent to  $0.678/7.3$  or 0.093 litres per second per hectare.
- 27 On this basis, the applicants' commercial discharges can be accommodated within the existing Council network, however the applicant should provide further information related to additional flow from the café.

### **Stormwater**

- 28 I have noted that stormwater conveyance, treatment and disposal can be addressed through resource consent and at a later stage.
- 29 I have been made aware of the Council submission to Variation 2 (Lawn, A., 14.3.2025) where it has identified a possible location for the extension to Broadlands Drive – refer concept design drawing SDC-J087-C104 (4 of 6) bisecting the area identified in the applicants information pack as their stormwater treatment and disposal area.
- 30 Without undertaking a more detailed assessment, I am concerned that the location and scale of Broadlands Drive in this concept design could make stormwater management unfeasible.

### **Conclusion**

- 31 Council can provide a boundary connection to water supply and wastewater which allows for the commercial purposes identified by the applicant.

- 32 Council has provided for access to its water supply and discharge of wastewater up to a density of 15 households per hectare (domestic). The applicant has in turn identified that the site is to be used for commercial purposes.
- 33 The water supply and wastewater demand placed upon Council's network from the proposed commercial activity is no greater than the design of the originally anticipated domestic development.
- 34 On the basis of the calculations above, there is capacity in Councils network for wastewater discharges. This does not however allow for café wastewater discharges, though these are accepted as likely to be minimal.
- 35 Stormwater management including conveyance, treatment and disposal may be negatively affected by Councils current proposal for the Broadlands Drive extension. A sufficiently detailed assessment would be required to confirm if this is the case, and the extent.is .

**Hugh Blake-Manson**

**17 March 2025**