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Our Ref: 23076-2A/DJ/DJ

12 October 2023

Nathan Mercurio Email: nathanmercurio@rrmh.com.au

Dear Nathan

# Watervale Code Amendment Stormwater Advice

We have reviewed the proposed Code Amendment with respect to surface water management and provide the following advice.

#### Scope

The scope of our advice is limited to the following:

- > Desktop assessment of site stormwater management issues relevant to the site
- > Preparation of advice:
  - Defining site / catchment context
  - Outline of on-site stormwater management measures to minimise downstream impacts
  - Supporting GIS based map figures

### **Code Amendment**

The Watervale Code Amendment (Humby Consulting, April 2023) describes the details of the proposed change in land use and rezoning (from 'Rural' to 'Township' zone). A Concept Plan for the



CA Concept Plan (Humby Consulting, 2023)

preferred arrangement of allotments demonstrates the arrangement of 11 allotments (ranging between 2080m<sup>2</sup> and 2560 m<sup>2</sup>), at the northern end of the subject land, on which residential development could be established.

# **Catchment Context**

The subject land, along with the Watervale township, is drained by open swales that wind through private properties and the road network within the township, ultimately discharging to Eyre Creek immediately east of Main North Road. The alignment of this network through the township is shown in the Plan below.

A rural catchment west of the subject also drains through the subject land, as delineated by the flow path on the Concept Plan and as shown in the Plan below. A farm dam adjacent to the Riesling Trail currently serves to intercept flows from this catchment.

The total catchment area of the south-western drain that feeds through the town is shown in the Plan below.



**Subject Land Catchment Context** 

# **Recommended Stormwater Management Measures**

Given the catchment context, the following stormwater management measures are proposed to mitigate against any adverse impacts on downstream landowners:

All new roof areas to be drained to a rainwater tank on the site. Rainwater tank storage is to be provided for this purpose (with capacity increasing according to roof area, at a rate of 20kL per 100m<sup>2</sup> of roof area, minimum 45 kL), with the rainwater tank to comply with the South Australian Building Rules in all other respects, including being plumbed into the dwelling to a toilet, water heater or laundry cold water outlet(s). This measure is proposed to both mitigate against increased discharge volume, rate and frequency from the subject land, while also facilitating beneficial reuse of stormwater.

- All impervious surface areas (i.e. hard paved areas) are to be directed into garden beds or other vegetated areas that have been shaped in a manner that would enable capture and soakage of this runoff, rather than creating runoff that discharges from the site.
- Driveways extending from new dwellings to Sheoak Road are to be gravel or similar, and not sealed (i.e. not asphalt, concrete, paved or similar). This measure is proposed to reduce runoff discharged from the subject land.

Please contact this office should you require any further assistance with this matter.

Yours sincerely

Drew Jacobi BEng (Hons) FIEAust CPEng NER Director

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