

Engineering Servicing Memorandum

Site Address: 44 Gresham Street, Geraldine

Legal Description: Lots 2 & 3 DP 68947

Prepared for: Timaru District Council

Prepared By: Selwyn Chang (Principal Civil Engineer (Timaru Lead))

Date: 10 September 2025

1. Water Supply

Water supply to the proposed development at 44 Gresham Street can be provided via several feasible servicing options. These include:

- Extension of the watermain from Darby Street to the development site, incorporating the existing Hewling Street pump station;
- A direct connection to the existing watermain in Huffey Street;
- A direct connection to the existing watermain in Gresham Street.

Council's preferred option is the extension from Darby Street to the site utilising the existing Hewling Street pump station, which aligns with their broader network servicing strategy. This solution, however, requires the establishment of an easement for the watermain extension through private land to the subject site.

Hydraulic modelling, as detailed in the WSP Capacity Assessment Report (Nov 2022), confirms that connection via Darby Street with associated pipe upgrades (notably to DN180 PE100 PN12.5) can service the development without adversely affecting the performance of the wider water network.

Alternatively, should the site connect directly to Huffey Street, a local booster pump station will be required to overcome the elevation difference to provide approximately 25 m head to meet pressure requirements for both level of service and fire fighting requirements.

The final servicing option and pipe sizing will be confirmed and design during the engineering approval stage, in consultation with Timaru District Council.

2. Wastewater Disposal

Kevin Kemp (Timaru District Council) has confirmed that there are no capacity issues within the existing downstream wastewater network for this stage of the development. While local surcharging and one minor overflow were identified during modelling of peak storm events, these are not directly attributable to the proposed development and are within the expected performance range of the existing network.

Wastewater from the development is proposed to be serviced via a combination of low-pressure and gravity wastewater systems, discharging into the existing Council wastewater reticulation network in Huffey Street and/or Gresham Street. Majority of the proposed wastewater network would be gravity system. Design will be in accordance to Timaru District

Council Infrastructure Design Guidelines and NZS 4404 which will be designed during the engineering approval stage, in consultation with Timaru District Council.

3. Stormwater

Stormwater from the development will be managed in accordance with best practice source control, conveyance, and attenuation methods, consistent with Timaru District Council and Canterbury Regional Council (ECAN) requirements.

Stormwater will be collected, conveyed, and discharged via a network of proposed pipes, swales, and detention facilities. In addition, each allotment will have on-site detention tank (10m³) with 20mm internal diameter orifice outlet that discharges to the proposed stormwater system that eventually discharges to Geraldine Downs Creek.

ECAN consent for operational stormwater discharge is currently being applied for, and the design will comply with the consent conditions. This includes appropriate treatment for water quality and hydraulic neutrality to ensure that discharge rates do not exceed pre-development flows during storm events for all rain events up to 50yr 24hr duration.

The proposed stormwater infrastructures and consent will be transfer to Council. The final stormwater design will be confirmed as part of the engineering approval process and the associated ECAN consenting process.