

Memorandum

To: Michael Campbell – Campbell Brown Planning Limited

From: Phil Fairgray

Date: 15 August 2022

Job No: 1628 M10

Subject: Proposed residential subdivision at 2182 East Coast Road, Silverdale, Stages 3 and 4

This Memorandum has been prepared to outline the stormwater and wastewater strategy for the proposed Build Rich Limited residential development at 2182 East Coast Road, Silverdale.

WASTEWATER

During the initial stages of this residential development, Build Rich Limited was informed by Watercare that there were capacity constraints with the discharge of wastewater into the existing public wastewater reticulation to the north of the development.

Build Rich Limited has worked with the neighbouring developer (The Botanic) to the west of the site to design a public wastewater pump station adjacent to Small Road, which is under construction. The pump station was to have a temporary rising main discharging into a manhole on Forge Road, as shown below.





The temporary rising main was to be replaced with a permanent rising main. Watercare had informed Build Rich Ltd that it would be expected to be operational in 2023.

Unfortunately, we have recently been told by Watercare that the permanent rising main may not be operational until 2028.

We met with Mark Iszard, Head of Major Developments from Watercare on 26th July 2022 to discuss alternative design solutions.

The initial options to be explored are as follows:

- Increase pumping rate in existing temporary rising main.
- Utilise existing storage in the pump station to buffer peak flows.
- Install a second temporary rising main (approx. 125mm dia) to Milldale (magenta line below).
- Install the permanent rising main (approx. 450mm dia) to Milldale (magenta line below).

The construction period for earthworks, roading, services and house building for Stage 3 & 4 of the development is estimated to be approximately 3 years (2025). This allows sufficient time for the best wastewater outcome to be achieved.



Overall, the proposed residential development is in keeping with its zoned purpose, it is our view that from an engineering perspective, there is a technical solution that can be designed to accommodate the intensity of development sought by this application.



STORMWATER

Stages 3 & 4 have a total area of 106,027m². The site is separated by a spur ridgeline extending east to west resulting with two sub-catchments. The northern area Catchment-1 of 73,112m² generally falling to the north and north west. The southern area Catchment-2 of 32,915m² generally falling to the south and west. Please refer to catchment areas below:



Stormwater runoff from Catchment-1 of 73,112m² will drain to an existing public stormwater wetland within the Park n Ride site. This existing stormwater wetland provides stormwater treatment and attenuation and does not require any upgrades and/or modifications.

Stormwater runoff from Catchment-2 of 32,915m² will discharge with scour protection into 53 Small Road, which is also owned by Build Rich Ltd. Each of the lots will have water tanks for stormwater detention and retention. Raingardens or similar will be utilised for treatment of the roads and will be confirmed as part of the Engineering Plan Approval process. No downstream stormwater devices require any upgrades and/or modifications.

Please feel free to contact us if you require any further information.