

To: David Schwartzfeger, Kiwi Property Holdings No.2 Limited

From: Alastair Kent-Johnston Blue Barn Consulting Ltd

Subject: **Wastewater / Water Supply / Stormwater and Utility Servicing for Drury Metropolitan Town Centre**

Date: 16-Feb-21

1 INTRODUCTION

Kiwi Property Holdings No.2 Limited ("Kiwi Property") propose to lodge an application for a referred project under the Covid-19 Recovery (Fast-track Consenting) Act 2020 (the "Act") to utilise the fast-track consenting process via an expert consenting panel. This application relates to the development of a contiguous landholding bounded by Fitzgerald and Flanagan Road in Drury which includes 139, 155, 173 and 189 Fitzgerald Road; 108, 116, 120, 124, 128 and 132 Flanagan Road; and 61 Brookfield Road ("the site"). This landholding forms part of a larger land area within Drury East that is currently subject to a private plan change process described as the Drury Centre Precinct Private Plan Change ("PC48") to rezone the land from Future Urban to a combination of Business – Metropolitan Centre, Business – Mixed Use and Open Space – Informal Recreation under the Auckland Unitary Plan ("AUP") which will enable quality urban development and well-functioning urban environments.

This proposal for a referred project will give effect to the purpose of the Act to promote employment and New Zealand's recovery to the economic and social impacts of Covid-19 through the enabled construction and delivery of a comprehensive development that offers employment opportunities and an accelerated supply of quality housing choice and diversity.

To support the application for a referred project, this memo provides a high-level overview of the wastewater water supply and stormwater infrastructure that would be required to service the intended level of development as shown on the masterplan, and solutions available to achieve this.

- Summary of the proposal and site description;
- Summary of work completed to date;
- High level assessment of proposal; and
- Overview of works required to achieve the proposal.

2 SITE DESCRIPTION

2.1 Site Description

The project area comprises approximately 26.2 hectares of land bound by Fitzgerald and Flanagan Road in Drury which is currently zoned Future Urban Zone ("FUZ") under the AUP.

The recently constructed trunk water and wastewater reticulation to service the Kiwi Property land holding and the adjacent Drury South development is shown on the aerial photograph below.

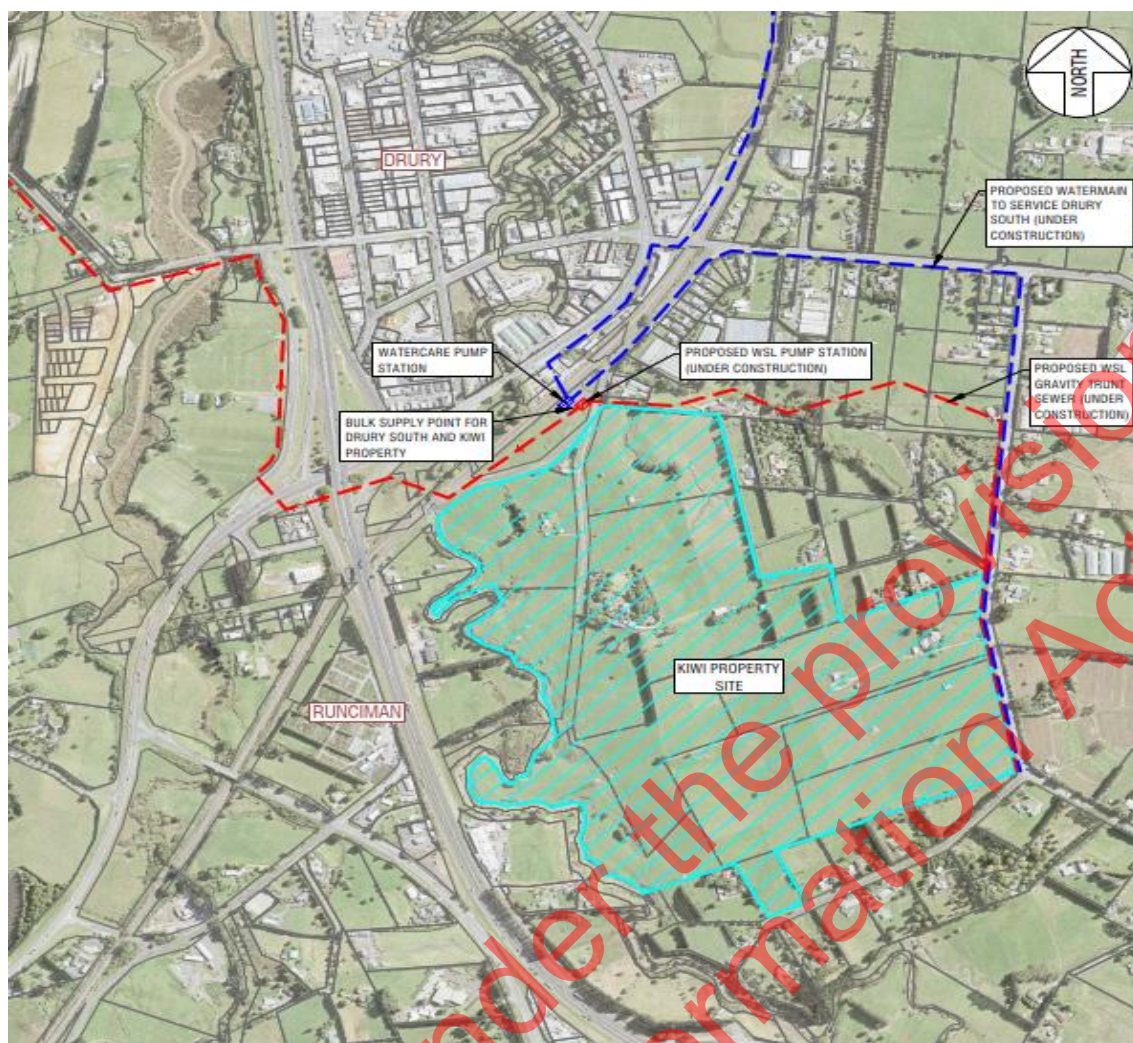


Figure 1: Plan showing Recently constructed water supply and wastewater works

3 THE MASTERPLAN

Kiwi Property are proposing the subdivision and development of this land as the first stage of Drury Centre which will include large format retail (LFR) and superlots enabling residential development. A total of six superlots for large format retail amounting to 45,200m² GFA is proposed on the western portion of the site and surrounding the ancillary car parking areas for this retail space. Planned immediately to the east of the LFR are 13 superlots totalling 7.597ha of land for residential development which will enable the construction of 400-600 dwellings. The proposal also includes the creation of a 4.14 hectare open space area in the form of Hingaia Reserve directly adjacent to the Hingaia Stream and a series of roads to vest.

In terms of civil infrastructure, all the proposed superlots shown on stage one of the masterplan for the intended uses will be able to be serviced by local water and wastewater reticulation that will connect to the trunk infrastructure for these services provided by WSL. This will involve liaison with Veolia and Watercare Services Limited in due course.

4.4 Power and Telecommunications

Power and telecommunications services are currently available to the Kiwi Property development and the balance of the Drury Metropolitan Town Centre Plan area by overhead reticulation in Flanagan Road, Waihoehoe Road, Fitzgerald Road and Brookfield Road.

There will be a need for network upgrades for both power and telecommunications services by the respective Utility Authorities to provide an adequate level of service for the development as shown on the masterplan. Initial discussions with the Utility Supply Authorities have indicated that there are no fundamental constraints to upgrading power and telecommunication services to fully service the extent of development proposed by Kiwi Property as shown on the masterplan and the balance of the Drury Metropolitan Town Centre area.

4.5 Gas

There is piped underground gas reticulation available in Flanagan, Waihoehoe, Fitzgerald and Brookfield Roads with all reticulation having a pressure level of MP4 (210-410kPa). There is a 160mm dia PE100 main in Flanagan Road, a 100mm dia ST main in Fitzgerald Road and a 50mm dia PE main in Brookfield Road.

Initial discussions with the Utility Supply Authority have indicated that there are no fundamental constraints to upgrading the gas services to fully service the extent of development proposed by Kiwi Property as shown on the masterplan and the balance of the Drury Metropolitan Town Centre area.

All the proposed superlots shown on the masterplan for these uses will be able to be serviced by local water and wastewater reticulation that will lead to the trunk infrastructure for these services provided by WSL. New local stormwater reticulation to discharge to the Hingaia Stream can be provided to service the proposed development.

5 ASSESSMENT

5.1 Wastewater

Watercare Services Limited (WSL) have proposed a solution capable of servicing the Kiwi Property development area in this referral application in conjunction with the Drury South development and the Drury East development by Fulton Hogan Land Development Ltd. This solution involves WSL laying a rising main from the Drury South pump station up to a manhole at the intersection of Brookfield Road and Fitzgerald Road. A gravity transmission main extends northwards from this manhole, along Fitzgerald Road and then westwards generally following the east west permanent watercourse that traverses the wider masterplan area to the pump station that is currently being constructed on the WSL site on Flanagan Road adjacent to the existing WSL water pump station for the Waikato River supply main. The solution is agreed to by the various developer parties and WSL have already commenced construction of these works which are substantially complete as at February 2021.

WSL have confirmed that the extent of development proposed by Kiwi Property in this application can be fully serviced by establishing local gravity reticulation (managed by Veolia) connecting to this WSL trunk transmission gravity main and the new pump station.

We understand there are no further external wastewater infrastructure works required to be provided by WSL or Veolia to enable this development by Kiwi Property to be delivered.

5.2 Water Supply

WSL has confirmed that a new Bulk Water Supply Point (BWSP) can be provided adjacent to the existing Waikato water pump station with sufficient flows and pressures to service this proposed development by Kiwi Property. Local reticulation constructed to WSL and Veolia standards can be provided from this BWSP to enable all sites within the development area to be provided with an adequate supply of potable water for domestic and firefighting purposes. This local reticulation would be fully funded by the developers.

We understand there are no further external trunk water supply infrastructure works required to be provided

by WSL or Veolia to provide water supply for the extent of development as proposed.

5.3 Stormwater Reticulation

All stormwater flows for the Stage One area generated by a 10 year ARI storm event will be conveyed to the receiving environment of the Hingaia Stream via a piped reticulation network that will be designed in accordance with the Auckland Council Stormwater Code of Practice. A “pass forward flow” approach will be adopted for calculation of flows. The piped network will be located within the road network wherever possible for ease of access and maintenance.

Flows in excess of the 10 year ARI storm event will be conveyed by overland flowpaths located within public areas such as roadways and drainage reserves or by dedicated overland flow channels where required.

The downstream receiving environment of the Hingaia Stream will be protected from erosion by the use of green outfalls and vegetated channels to dissipate energy.

5.4 Utilities (Power, Telecommunications and Gas)

Discussions with Chorus and Counties Power have indicated there are no fundamental constraints to upgrading the telecommunications, power and gas infrastructure to service the proposed development.

6 CONCLUSION

The agreement with Watercare Services Limited has ensured that the land owned by Kiwi Property, upon completion of the completion of the works described in this application, will be provided with a suitable water supply from the existing Bulk Water Supply meter in Flanagan Road with sufficient flows and pressure to service both domestic and firefighting needs.

The recently constructed transmission wastewater line and the new wastewater pump station in Flanagan Road also provides confirmation that the nature and extent of works described in this application can be provided by a wastewater connection with sufficient capacity.

The local stormwater reticulation to be installed as part of the Stage One works will convey the primary flows generated by the 10 year ARI storm event for the Stage One area by a piped network to the Hingaia Stream where the receiving environment will be protected from erosion by the use of green outfalls and vegetated channels to dissipate energy.

Flows in excess of the 10 year ARI storm event will be conveyed to the Hingaia Stream by overland flow through the roading network, drainage reserves and dedicated overland flow channels.

The utility supply authorities for power, gas and telecommunications have also all indicated that whilst some external upgrades will be required depending on predicted demands there are no fundamental constraints to supplying the Kiwi Property Development with these utility services.

These upgrades will be delivered by Counties Power and Chorus with a proportion of the costs recovered from Kiwi Property and any other benefitting landowners. The extent and cost of external upgrades will depend on the anticipated loading and the timing of the proposed Kiwi Property development.