Appendix 9:

Plan Change Application - Assessment of Canterbury Land and Water Regional Plan

Dunweavin 2020 Limited

Objectives	Assessment
3.1 Land and water are managed as integrated natural resources to recognise and enable Ngāi Tahu culture, traditions, customary uses and relationships with land	The Site has no natural water bodies. An existing water race will be blocked off or piped at the Site's northern boundary.
and water.	Stormwater will be managed by discharge to ground.
	The Operative District Plan identifies no sites of significance or resources to Ngai Tahu.
	The Mahaanui lwi Management Plan is assessed in the application.
3.5 Land uses continue to develop and change in response to socio-economic and community demand.	The Plan Change seeks re-zoning of 13 ha immediately adjoining Rolleston to provide significant additional housing capacity for a fast-growing town.
3.13 Groundwater resources remain a sustainable source of high quality water which is available	The proposal is for full urban development for 13 ha providing appx. 155 lots.
for abstraction while supporting base flows or levels in surface water bodies, springs and wetlands and avoiding salt-water intrusion.	Full urban reticulation for sewage will protect groundwater.
ŭ	Discharge to ground of stormwater is enabled by the subsurface geology of free-draining gravels.
3.23 Soils are healthy and productive, and human-induced erosion and contamination are minimised.	Much of the Site presently is not used for primary production. The soils are not Class 1-3. The Site contains Lismore stony and shallow silt loam soils. These soils have limited ability to retain moisture and are considered to have severe limitation for food production even with irrigation.
	The Plan Change proposes a fundamental shift in land use from low intensity lifestyle activities, to full urban development supplemented by some reserves. The soil resources will be lost to primary production, but the land conversion involves no major sources of contamination.
	A PSI study highlighted small and isolated spots of potential contamination that require DSI to determine the exact nature of any contamination and to recommend any remediation necessary.
3.24 All activities operate at good environmental practice or better to optimise efficient resource use and	The development will be subject to subdivision and land use resource consents.
protect the region's fresh water resources from quality and quantity degradation.	The above and below ground built utility assets will meet Council standards.

Policies

4.12

There are no direct discharges to surface water bodies or groundwater of:

- a. untreated sewage, wastewater (except as a result of extreme weather related overflows or system failures) or bio-solids;
- b. solid or hazardous waste or solid animal waste:
- c. animal effluent from an effluent storage facility or a stock holding area;
- d. organic waste or leachate from storage of organic material; and
- e. untreated industrial or trade waste.

There are no surface water bodies on the Site other than a water race that will be decommissioned.

All sewage discharges will be to a reticulated system, and stormwater will discharge to ground.

An Infrastructure Report sets out the servicing proposals.

4.15

In urban areas, the adverse effects on water quality, aquatic ecosystems, existing uses and values of water and public health from the cumulative effects of sewage, wastewater, industrial or trade waste or stormwater discharges are avoided by:

- a. all sewage, industrial or trade waste being discharged into a reticulated system, where available; ab. all stormwater being discharged to land or into reticulated system, where a reticulated system is available;
- c. all stormwater being discharged in accordance with a stormwater management plan, where one has been consented;
- d. the implementation of contingency measures to minimise the risk of a discharge from a wastewater reticulation system to surface water in the event of a system failure or overloading of the system beyond its design capacity; and e. any reticulated stormwater or wastewater system installed after 11 August 2012 is designed and managed to avoid sewage discharge into surface water.

This is a full urban development

- sewage will be in a reticulated system built to Council specifications.
- Stormwater is discharged to ground.

Both elements will be subject to ECan consents as required, and have been assessed in an Infrastructure Report.

No adverse effects on water quality and values are expected.

4 16

Any reticulated stormwater system for any urban area is managed in accordance with a stormwater management plan that addresses the following matters:

- a. the management of all discharges of stormwater into the stormwater system; and
- for any reticulated stormwater system established after 11 August 2012, including any extension to any existing reticulated stormwater system, the discharge of stormwater being subject to a land-based or designed treatment system,

The management of stormwater has been assessed in an Infrastructure Report.

There is no reticulated stormwater system other than collection of stormwater from roads.

There are no hazardous installations on site, nor any hazardous substances being used on site.

or wetland treatment prior to any discharge to a lake or river; and c. how any discharge of stormwater, treated or untreated, into water or onto land where it may enter water meets or will meet, the water quality outcomes and standards and limits for that waterbody set out in Table 1, Schedules 5 and 8 and Sections 6 to 15,(whichever applies); and d. The management of the discharge of stormwater from sites involving the use, storage or disposal of hazardous substances, and e. Where the discharge is from an existing local authority network, demonstration of a commitment to progressively improve the quality of the discharge to meet condition (c) as soon as practicable but no later than 2025.	
4.17 Stormwater run-off volumes and peak flows are managed so that they do not cause or exacerbate the risk of inundation, erosion or damage to property or infrastructure downstream or risks to human safety.	The stormwater system for road run-off will address this matter. The site will be developed subject to subdivision consent(s) that will impose necessary conditions.
4.19 The discharge of contaminants to groundwater from earthworks, excavation, waste collection or disposal sites and contaminated land is avoided or minimised by ensuring that:	The site will be developed subject to subdivision consent(s) that will impose necessary conditions about earthworks during construction including sediment control plans.
 a. activities are sited, designed and managed to avoid the contamination of groundwater; b. existing or closed landfills and contaminated land are managed and monitored where appropriate to minimise any contamination of groundwater; and c. there is sufficient thickness of undisturbed sediment in the confining layer over the Coastal Confined Aquifer System to prevent the entry of contaminants into the aquifer or an upward hydraulic gradient is present which would prevent aquifer contamination. 	
4.96 The consequential effects of seismic activity are recognised and timely and appropriate responses to such activity are facilitated.	A geotechnical assessment assessed the Site as not being at risk form seismic activity and liquefaction.

Land and Water Regional Plan definition

Reticulated stormwater system means a network of pipes, swales, drains, kerbs and channels owned or operated by a network utility operator that collects stormwater within areas used or proposed to be used for urban-

residential, commercial or industrial purposes and conveys that stormwater to any device, wetland, retention or detention pond or infiltration basin for the treatment of stormwater, prior to a discharge to land, groundwater or surface water. It excludes any drainage system that has been constructed for the primary purpose of collection, conveyance or discharge of drainage water.