

Appendix 14: Assessment of Canterbury Land and Water Regional Plan

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 and water.	The Site has no natural water bodies. The Operative District Plan identifies no sites of significance or resources to Ngai Tahu. The Mahaanui Iwi 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 28 ha immediately adjoining Prebbleton 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 for abstraction while supporting base flows or levels in surface water bodies, springs and wetlands and avoiding salt-water intrusion.	The proposal is for full urban development for 25 ha and large lots for about 3 ha. Full urban reticulation will protect groundwater.
3.23 Soils are healthy and productive, and human-induced erosion and contamination are minimised.	The Site presently is not used for primary production notwithstanding the quality soils on site. 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 sources of contamination. A PSI study highlighted small and isolated spots of contamination to be remediated. (Appendix 7)
3.24 All activities operate at good environmental practice or better to optimise efficient resource use and protect the region's fresh water resources from quality and quantity degradation.	The development will be subject to subdivision and land use resource consents. 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	There are no surface water bodies on the Site. All discharges will be to a reticulated system, discharging to off-site drainage channels. A Servicing Report and a stormwater assessment sets out the system design.

e. untreated industrial or trade waste.	
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 reticulated to off-site points of discharge after management through a Stormwater Management System of on-site ponds Both elements will be subject to ECan consents, and have been assessed in a Servicing Report, and in a Stormwater Assessment. (Appendix 4) 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 b. 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, 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	The management of stormwater has been assessed in a Servicing Report and a specific Stormwater Assessment. (Appendix 9 and Appendix 4 respectively) There are no hazardous installations on site, nor any hazardous substances being used on site. The reticulated stormwater system will become part of the Council system and will meet Council standards.

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 assessment (at Appendix 4) confirms that the proposed management of stormwater will meet the policy direction; the Stormwater Management System will ensure post-development peak flows match pre-development levels and intensities.
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: 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.	The site will be developed subject to subdivision consent(s) that will impose necessary conditions about earthworks during construction including sediment control plans.
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 from seismic activity and liquefaction. (Appendix 6)

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.