

### Attachment 3: Assessment of Canterbury Land and Water Regional Plan

#### 25 Ashley Gorge Road: LLRZ

Objectives	Assessment
<p>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.</p>	<p>The Site has water bodies in the form of two Council drains. The ecological values of the drains has been assessed in an expert report. There is an opportunity to enhance their ecological by naturalisation of the drains including riparian planting.</p> <p>Stormwater will be managed by discharge to ground and to the drains with stormwater management areas being used to attenuate peak flows.</p> <p>The PWDP identifies no sites of significance or resources to Ngai Tahu.</p>
<p>3.5 Land uses continue to develop and change in response to socio-economic and community demand.</p>	<p>The submission seeks re-zoning of 50 ha immediately adjoining Oxford to provide additional housing capacity (around 80 lots) to meet a future community demand identified in the Rural Residential Strategy (RRDS).</p>
<p>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.</p>	<p>The proposal is for large lot development for 50 ha providing around 80 lots.</p> <p>Discharge to ground of stormwater and to existing drainage channels and via stormwater basins will support the existing functioning and values of those waterways. The ODP shows a 10m buffer to the drainage channels to provide an ecological buffer to those waterways.</p>
<p>3.23 Soils are healthy and productive, and human-induced erosion and contamination are minimised.</p>	<p>Much of the Site presently is used for low intensity primary production as grazing/pasture harvesting notwithstanding the quality soils on site.</p> <p>The re-zone proposes a fundamental shift in land use from low intensity rural production activities, to large lot residential development. The soil resources be largely lost to low level primary production, but the land conversion involves no major sources of contamination.</p> <p>A PSI study recommends that potential/actual HAIL areas be further investigated and remediated, as necessary, as part of enabling (pre-construction) works prior to any bulk earthworks or other soil disturbance activities.</p>
<p>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.</p>	<p>The development will be subject to subdivision and land use resource consents.</p>

Policies	
<p>4.12 There are no direct discharges to surface water bodies or groundwater of:</p> <ul style="list-style-type: none"> <li>a. untreated sewage, wastewater (except as a result of extreme weather related overflows or system failures) or bio-solids;</li> <li>b. solid or hazardous waste or solid animal waste;</li> <li>c. animal effluent from an effluent storage facility or a stock holding area;</li> <li>d. organic waste or leachate from storage of organic material; and</li> <li>e. untreated industrial or trade waste.</li> </ul>	<p>Two drainage channels on the Site will be used to take stormwater discharges from impervious surfaces.</p> <p>All sewage discharges and stormwater discharges will be to the Council Oxford sewerage scheme.</p>
<p>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:</p> <ul style="list-style-type: none"> <li>a. all sewage, industrial or trade waste being discharged into a reticulated system, where available;</li> <li>ab. all stormwater being discharged to land or into reticulated system, where a reticulated system is available;</li> <li>c. all stormwater being discharged in accordance with a stormwater management plan, where one has been consented;</li> <li>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</li> <li>e. any reticulated stormwater or wastewater system installed after 11 August 2012 is designed and managed to avoid sewage discharge into surface water.</li> </ul>	<p>This is not a full urban development in an urban area. It is a large lot development adjacent to the urban area of Oxford where reticulated potable water and sewage disposal are proposed.</p> <p>No adverse effects on water quality and values are expected.</p>
<p>4.16 Any reticulated stormwater system for any urban area is managed in accordance with a stormwater management plan that addresses the following matters:</p> <ul style="list-style-type: none"> <li>a. the management of all discharges of stormwater into the stormwater system; and</li> <li>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,</li> </ul>	<p>The stormwater system will comprise discharge to ground for most roof water, and to existing stormwater drains and to stormwater detention areas.</p> <p>There are no hazardous installations on site, nor any hazardous substances being used on site.</p>

<p>or wetland treatment prior to any discharge to a lake or river; and</p> <ul style="list-style-type: none"> <li>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 <a href="#">Table 1</a>, Schedules 5 and 8 and Sections 6 to 15,(whichever applies); and</li> <li>d. The management of the discharge of stormwater from sites involving the use, storage or disposal of hazardous substances, and</li> <li>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.</li> </ul>	
<p>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.</p>	<p>The large lots with discharge from impervious surfaces to stormwater detention areas mitigates any issues with peak run-offs.</p>
<p>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:</p> <ul style="list-style-type: none"> <li>a. activities are sited, designed and managed to avoid the contamination of groundwater;</li> <li>b. existing or closed landfills and contaminated land are managed and monitored where appropriate to minimise any contamination of groundwater; and</li> <li>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.</li> </ul>	<p>The Site will be developed subject to subdivision consent(s) that will impose necessary conditions about earthworks during construction including sediment control plans.</p>
<p>4.96 The consequential effects of seismic activity are recognised and timely and appropriate responses to such activity are facilitated.</p>	<p>A geotechnical assessment assessed the Site as not being at risk from seismic activity and liquefaction and is suitable for the proposed land use. The risks associated with the Starvation Hill fault has been identified and a recommended action is included in the expert evidence and the report.</p>

**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.