

**BEFORE THE HEARING COMMISSIONERS
APPOINTED BY CANTERBURY REGIONAL COUNCIL**

UNDER THE Resource Management Act 1991

AND

IN THE MATTER of application CRC190445 by the Christchurch City Council for a comprehensive resource consent to discharge stormwater from within the Christchurch City area and Banks Peninsula settlements on or into land, water and into coastal environments

**SUMMARY OF SECTION 42A OFFICER REPORT OF Zeb Etheridge
FOR CANTERBURY REGIONAL COUNCIL**

14 November 2018

INTRODUCTION

- 1 My name is Zeb Etheridge. I summarise key points of my Section 42A Officer Report, highlighting areas of agreement and disagreement between my opinion and that expressed by or on behalf of the Applicant and submitters.

KEY POINTS RAISED

1. Stormwater management has the potential to cause adverse effects on both groundwater quantity and groundwater quality. Previous studies and investigations have shown that interception of rainfall by impervious surfaces and discharge of this water to surface waterways can reduce groundwater recharge, groundwater levels and baseflows in spring-fed streams. Discharge of stormwater to infiltration basins can cause localised mounding and groundwater inundation of the land surface in some circumstances. Stormwater from roads, roofs and urban areas can contain elevated concentrations of dissolved metals and microbial contamination. Stormwater from industrial hardstand areas where hazardous substances are used and/or stored can potentially contain a wide variety of organic and inorganic contaminants.

KEY AREAS OF AGREEMENT

2. The applicant has proposed a set of consent conditions and provided an Environmental Monitoring Programme which together aim to address potential effects on groundwater. In my evidence-in-chief I concluded that the provisions needed to be strengthened and expanded in some areas to reduce the potential for effects on groundwater to an acceptable level. Some of these matters have been resolved through discussions between myself and Mr Callander. The remainder have been addressed via consent conditions proposed by the applicant such as:
 - Inclusion of maps of spring locations in the SMPs so that potential effects on these waterbodies can be considered in stormwater planning (condition 6j)
 - Ensuring that the results of the detailed investigations into groundwater quality effects of stormwater discharges proposed by the applicant feed back into future stormwater planning (condition 6 h)
 - Adequate separation between infiltration basins and contaminated land (6e)
 - Protection of drinking water supply wells (condition 30)
3. Information provided by the applicant suggests that currently expected future land development is unlikely to cause a significant reduction in groundwater quantity in the shallow aquifer. I have undertaken my own independent calculations to assess whether this is likely to be the case and agree that significant effects are unlikely. I have worked with Mr Callander to develop a consent condition (Condition 6t) which, together with other conditions proposed by the applicant, require that the

cumulative impacts of urban development on groundwater recharge will be evaluated and avoided, remedied or mitigated as required throughout the duration of the consent.

RECOMMENDED ADDITIONAL CHANGES

4. In my opinion the most important matter to be addressed regarding groundwater effects is management of sites with hardstand areas where hazardous substances are used and/or stored, and where stormwater discharges to ground via infiltration basins owned/maintained by CCC.

5. Conditions 2 and 3 include measures to manage sites on the Listed Land Use Register. The Listed Land Use Register (LLUR) identifies sites where hazardous activities and industries have been or are located throughout Canterbury. I note that CCC will maintain the right to exclude stormwater discharges to land for facilities that pose an unacceptably high risk to groundwater.

6. Condition 41 requires desktop-based identification of industrial sites, ranking sites for stormwater discharge risk and identification of those industrial sites that pose the highest risk. Whilst this provides a good mechanism for managing sites with known HAIL activities, there is some uncertainty in my mind around how information on where these activities are occurring will be captured. The main challenge is maintaining up to date information on sites where new tenants undertake HAIL activities which were not undertaken by previous land users. This could potentially be addressed if CCC required property owners (perhaps as part of their approval to discharge stormwater to CCC infrastructure) to inform them when site occupiers are using and/or storing hazardous substances, assuming that such provisions are not already in place. This would mean that CCC are kept informed of those high-risk activities which could compromise their ability to avoid contaminant discharges to ground. The Memorandum of Understanding between Environment Canterbury and CCC might be the most appropriate place to capture such a requirement.

Concluding comment

7. Overall, I consider that the consent conditions and associated management regime presented by the applicant provide a means by which the risks to groundwater quality and quantity can be maintained at an appropriately low level.

Zeb Etheridge

14 November 2018