

**BEFORE THE CANTERBURY REGIONAL COUNCIL**

**UNDER THE**

Resource Management Act 1991

**AND**

**IN THE MATTER**

of application CRC190445 to Canterbury Regional Council 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, into water and into coastal environments

**AND**

**IN THE MATTER**

of the submission by Ravensdown Limited

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**STATEMENT OF EVIDENCE OF ANNA MARY WILKES ON BEHALF OF RAVENSDOWN LIMITED**

**24 October 2018**

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## **1. INTRODUCTION**

- 1.1 My name is Anna Mary Wilkes.
- 1.2 I am employed by Ravensdown Limited (Ravensdown) as the Environmental Policy Specialist. I have worked in this role since February 2017. The purpose of my role is to ensure that Ravensdown participates in resource management processes where there is potential for the outcome of these processes to materially impact Ravensdown's farmer shareholders (eg nutrient management provisions relating to farming) and/or Ravensdown's own operations, namely the manufacture, storage and distribution of fertiliser, agrichemicals, animal health products and seed.
- 1.3 I was previously employed by Golder Associates (NZ) Limited (Golder) (and its predecessor Kingett Mitchell Limited) for 12 years in various environmental consulting roles. I was also previously employed by Marlborough District Council as an environmental consultant.
- 1.4 I have a Bachelor of Science in Microbiology (1997) and a Master of Science with Honours in Biochemistry (2000) from the University of Canterbury. I also have a Master of Resource and Environmental Planning with Honours (2018) from Massey University.
- 1.5 I am an Associate Member of the New Zealand Planning Institute and a member of the Resource Management Law Association.
- 1.6 I have over 15 years' experience in water quality, assessments of effects on the environment, resource consent applications, compliance monitoring and reporting, project management and resource management planning.
- 1.7 In my previous role at Golder, I was involved in the preparation of a number of the documents submitted as part of Christchurch City Council's (CCC) application for a comprehensive stormwater network discharge consent (CSNDC) lodged in June 2015 and subsequent responses to requests for further information. I was also involved in assisting CCC with the consent application for the South West Christchurch stormwater discharge consent (CRC120223) and the Styx Stormwater Management Plan Area discharge consent (CRC131249), and supporting documents.
- 1.8 I am presenting this statement of evidence as a representative of Ravensdown, and not as an expert witness. In preparing my evidence, I have reviewed aspects of the following documents that I consider to be relevant to Ravensdown's submission:
- (a) Application CRC190445 notified July 2018
  - (b) S42a Officer's Report
  - (c) Statements of evidence prepared by the Applicant: Graham Harrington, Paul Kennedy, Dale McEntee, Belinda Margetts, Brian Norton, Julia Valigore and Jane West.

## **2. SUMMARY OF EVIDENCE**

- 2.1 The Ravensdown manufacturing site on Main South Road, Hornby, is listed on Environment Canterbury's Listed Land Use Register (LLUR) as having a number of Hazardous Activities and Industries List (HAIL) activities occurring on site. The primary activity that occurs on site is fertiliser manufacture and bulk storage.
- 2.2 Ravensdown's Hornby manufacturing site has two sub-catchments for stormwater management. Stormwater from the highest risk areas on the site (intake, acid plant and urea despatch areas) is captured and either re-used on site in the manufacturing process or discharged to trade waste. Stormwater from the remaining roof and hardstand areas is discharged to the Christchurch City Council network via one of five discharge points, four along Main South Road, and one on Hanworth Avenue. The discharge to the CCC network is authorised under South-West Christchurch stormwater discharge consent CRC120223.
- 2.3 The fundamental premise of Ravensdown's submission is to highlight the regulatory challenges faced by Ravensdown in meeting the expectations of both CCC and Environment Canterbury in relation to stormwater discharges from the manufacturing site in Hornby, and to seek conditions on discharge permit CRC190445 that provide clear direction for both water quality and quantity targets, and associated lines of accountability for industrial sites in meeting those targets.
- 2.4 Ravensdown is committed to improving site stormwater management practices and implementing mitigations as necessary to reduce the contaminant load discharging from our site to the CCC network and thereafter to Haytons Stream. We do not contest that there is a need to improve the quality of stormwater discharges from our site. However, we seek clarity on the environmental outcomes being sought and expectations for discharge quality and quantity from our site.
- 2.5 Ravensdown is generally supportive of CCC's application for a Comprehensive Stormwater Network Discharge Consent, subject to appropriate amendments to conditions to provide the necessary clarity of accountability and expectations for industrial site stormwater discharges.

## **3. GENERAL COMMENTS**

- 3.1 As highlighted in our submission, Ravensdown supports CCC's application for the CSNDC. It is efficient and logical to address stormwater management across the city in an integrated manner in order to prioritise the placement and upgrade of treatment facilities to achieve improvements in water quality and ecological health of the receiving waterways. Improvements in the management of stormwater discharges from existing industrial sites into the CCC network is key to achieving improvements in receiving waterways.

- 3.2 Mr Hay has addressed the regulatory challenges from an operational perspective. I will expand further on our submission points and comment on the s42a Reporting Officer's report and the applicant's evidence.
- 3.3 As stated by Mr Hay, in October 2017 the site was audited as part of Christchurch City Council's Industrial Site Audit Programme. We received a report detailing relative risk areas on the site and a table of actions required to be completed by specified timeframes. The CCC report did not conclude an overall status of 'acceptability' with respect to being able to continue to discharge under the consent however it was noted that written approval of 'acceptability' would be provided on completion of the specified actions.
- 3.4 Earlier in 2017 (March), Ravensdown was visited by Environment Canterbury Pollution Prevention Staff (as a follow up to a 2012 site visit). The site visit was followed up with a report which highlighted the need to discharge "*only clean water*" during wet weather and detailing a number of actions required on site with timeframes for completion. The report made no mention of any specific environmental outcomes that were being sought, nor any assessment of the contribution that implementing the actions specified would achieve in relation to environmental outcomes. Similarly, there was no acknowledgement of the CCC South-West stormwater discharge consent (CRC120223) and any obligations that Ravensdown might have under it.
- 3.5 This two-pronged approach to regulation of the same issue is challenging for industry. Through the CSNDC Ravensdown would prefer to see a coordinated, consistent approach to the management of industrial stormwater discharges. I acknowledge that the scope of this hearing pertains only to CCC's application for the CSNDC however I consider it is important to provide the broader context behind Ravensdown's submission and the amendments sought to the proposed consent conditions.

#### **Industrial Site Audits**

- 3.6 Details of the industrial site audit programme are set out in Ms Valigore's evidence, including copies of template letters and the accompanying reports that industrial site owners will receive following an audit.
- 3.7 I consider that the framework for the industrial site audit programme is relatively robust but that the follow-up reporting process could be improved to allow discussion of the actions proposed and agreement on appropriate timeframes for implementation. Issuing a draft report for discussion at a follow-up meeting would ensure that there is a full and mutual understanding of the issues to be resolved, the environmental outcomes sought, the steps to be implemented and timeframes for achievement. The industrial site audit report should also set out any monitoring requirements that either CCC already undertakes in relation to the specific site or its immediate receiving environment, or considers necessary for the industrial site owner to carry out to monitor the discharge quality entering the CCC network. If the site owner is to carry out its own discharge quality monitoring then the industrial site audit report should include a list of the parameters and appropriate detection limits.

Agreement on methods and frequency of reporting the data should also be documented.

- 3.8 Ms Valigore has addressed the industrial site audit programme in detail as part of the applicant's evidence.
- 3.9 Ms Valigore (para 46) considers that Council's Bylaw needs to be updated to establish point source stormwater discharge trigger levels to clarify expectations for businesses. Ms Valigore (para 47) then acknowledges that despite undertaking reasonable endeavours, not all industrial sites will be able to meet Council's stormwater discharge triggers. It is not clear from Ms Valigore's evidence what process will be used to determine such point source trigger levels, nor a reasonable timeframe for an industry to be required to implement any necessary mitigations to comply with them. However, I support Ms Valigore's approach that site-specific objectives (which could include discharge quality triggers) for industrial sites, beyond good management practices, are appropriate for improved management of industrial stormwater discharge quality.
- 3.10 I oppose Ms Valigore's view (para 47) that site-specific approvals for industrial stormwater discharges should not be transferable if the site owner changes. This restriction should apply only if the nature of the *activity* changes, and as a result there are any changes in effects on the environment.
- 3.11 I do not support Ms Valigore's suggestion (para 50) that there should be a delegation of enforcement powers from Environment Canterbury to CCC to give CCC "*more enforcement options than prosecution for breach of the Bylaw and/or RMA*". While I understand her inference, passing the baton of enforcement authority through delegation is unhelpful to both industry and managing the issue. I consider that the Joint Christchurch City and Environment Canterbury Stormwater Management Protocol is the appropriate vehicle for addressing these situations.
- 3.12 I agree with Mr Norton's comments (para 168-169) in response to our submission that he supports the concept of CCC retaining the ability to set maximum limits on contaminant concentrations and that any such limits should be site specific to reflect both the industry characteristics and receiving environment sensitivity.
- 3.13 Ravensdown remains unclear as to whether we are considered by either CCC or Environment Canterbury as a high risk site. I appreciate both councils' desire to see changes to on site actions on Ravensdown's site that will result in a reduced contaminant load entering the CCC network. However, the continued focus on 'quick wins' in my view amounts to band-aiding of the bigger issue which warrants a whole-site assessment, planning and implementing a stormwater treatment upgrade that will achieve significant long term improvements in the stormwater discharge quality leaving the site. We are working with Aurecon and PDP to complete this project in a tight timeframe.
- 3.14 I note for completeness that the applicant has given appropriate regard to the transitional arrangements for industrial sites that currently hold their own discharge consents that on expiry or 2025 (whichever is the later) will be authorised by the

CSNDC. These transitional arrangements do not impact Ravensdown or change our concerns as Ravensdown's stormwater discharge is currently authorised by CCC's South West Christchurch stormwater discharge consent and will therefore be incorporated into the CSNDC, should it be granted.

### **Water Quality Targets**

- 3.15 The water quality targets outlined in Schedule 4 are focussed on typical urban stormwater contaminants, namely zinc, copper and lead. While Ravensdown has no opposition to the use of these targets as indicators of performance for the CSNDC, it is important to note that the contaminant profile for stormwater discharges from industrial sites will be different, depending on the nature of the industrial activity. Mr Hay has provided some data and discussion on the contaminant profile in Ravensdown's stormwater.
- 3.16 Dr Margetts comments (para 4.3 in Appendix A) that stormwater does not appear to be a major contributor of nitrogen within Christchurch city waterways and refers to low reported concentrations of nitrogen parameters in stormwater. Dr Margetts also reported (para 3.3 in Appendix A) that the Land and Water Regional Plan Schedule 8 nitrate limit was achieved at all monitoring sites. However Dr Margetts also noted (para 3.6) that Haytons Stream recorded the lowest water quality in the Ōpāwaho/Heathcote River catchment, which was the poorest quality catchment in the city.
- 3.17 Ravensdown recognises the toxicity of ammoniacal-nitrogen to instream biota and the impact that high concentrations of ammoniacal-nitrogen may have on the ecological health of Haytons Stream. I also acknowledge Mr Kennedy's comment (para 35) that exceedance of a trigger value does not imply significant adverse effects. However, I consider that an instream trigger value for contaminants that aligns with an industry's contaminant profile, provides a robust basis for CCC to engage with the site owner and agree on a set of appropriate actions.
- 3.18 I therefore maintain Ravensdown's position that there needs to be a clear pathway for collaboration and agreement on appropriate discharge limits or receiving environment triggers as part of the industrial site audit process. Such a pathway would provide clear expectations to industrial site owners, and resolve the current ad hoc approach by both councils to achieve improvements in industrial stormwater discharge quality. This would result in better environmental outcomes for the receiving waterways.
- 3.19 I believe that industry has both the capability and willingness to respond, if challenged in a consistent and informed manner.

## **4. COMMENTS ON THE S42A OFFICER'S REPORT**

- 4.1 The S42a Reporting Officer agrees (para 303) with the premise of Ravensdown's submission in that there is a lack of detail around management of sites authorised under the CSNDC where there is a possibility of contaminant entrainment and

migration to receiving waterways. The Reporting Officer refers to comments by Mr Freeman highlighting the need for clarification from the applicant on an appropriate benchmark for 'on-site pre-treatment.' The provision of such a benchmark by CCC would greatly assist Ravensdown in informing its approach to site stormwater management improvements.

- 4.2 I agree with Ms Stevenson's acknowledgement (para 120) of the importance of involving a wide range of stakeholders, including industry, in the development of Stormwater Management Plans (SMPs). I concur that strong engagement in the process of developing the SMPs will greatly enhance the chances of successful implementation.

## 5. CONDITIONS

- 5.1 The following comments are based on the Working Draft version of conditions attached to Mrs West's evidence that include a column of possible changes for discussion.

### Condition 1

- 5.2 In Ravensdown's submission I noted that the scope of discharge permit CRC190445 differed from the current South West Christchurch consent (CRC120223). In relation to industrial site stormwater discharges, CRC120223 limits discharges to stormwater that *"enters the CCC stormwater network and is subsequently discharged onto or into land or into surface water or groundwater"* (Condition 1(a)). Roof water discharges onto or into land from zone 10 (i.e., industrial sites) are not included in Condition 1(b) and therefore, if Ravensdown was to consider discharging its roof water onto or into land within its site then it would require a separate consent from Environment Canterbury.
- 5.3 Under discharge permit CRC190445, the discharge of roof water from industrial sites is included in Condition 1(c) which permits the discharge of stormwater which *"is generated from roofs of individual existing sites... and is discharged onto or into land within the site"*.
- 5.4 A suggested amendment to Condition 1 clarifies that the consent *"does not authorise existing discharges into land from non-residential hardstand areas via private stormwater systems."* This means that should Ravensdown seek to discharge stormwater into land, as part of its improvements to site stormwater management, then roof water discharges would be permitted under the CSNDC but hardstand discharges would require consent from Environment Canterbury.
- 5.5 In highlighting this scenario, the point is simply to raise the complexity of the point of obligation to the regulatory authority. Environment Canterbury would hold the compliance monitoring role for the discharge of hardstand stormwater to land and yet conceivably the same stormwater management system would also receive roof water which would fall under the CSNDC.

## Condition 2

- 5.6 I note the proposed amendment to Condition 2(a) constrains the restriction on unacceptably high risk discharges from sites on the LLUR to only new activities or redevelopments on those sites.
- 5.7 The amendments to Condition 2 do not address Ravensdown's submission point (insert ref) in relation to Condition 2(a) where it is unclear what Council might consider to be 'an unacceptably high risk' in relation to discharges from sites on the LLUR.
- 5.8 As outlined by Mr Hay, Ravensdown has embarked on a significant upgrade to its site stormwater management system, with the primary intent of reducing the contaminant load discharged via the Council network into Haytons Stream. Given Ravensdown's reliance on the CCC network to convey stormwater from the site, and the limitations imposed by Policy 4.16A (ie Environment Canterbury will no longer issue separate discharge consents to the CCC network from 2025), it is important that design specifications and treatment efficiencies for a treatment system meet CCC expectations and comply with the conditions of the CSNDC.
- 5.9 I acknowledge and accept CCC's desire to retain some degree of flexibility and this is reflected in the opening clause of Condition 2 i.e., "*no discharge... unless expressly authorised by Canterbury Regional Council and Christchurch City Council.*"
- 5.10 However, for Ravensdown's existing discharges from a site on the LLUR, concerns with Condition 2 remain:
- (a) What is the pathway through which 'express authorisation' by both councils can be obtained?
  - (b) In what situations might 'express authorisation' be granted, or equally, withheld?
  - (c) Referring to Condition 2(a), what are the design and/or treatment criteria to avoid being considered by CCC as 'an unacceptably high risk' and therefore excluded from the CSNDC?
- 5.11 I consider that removing clause (a) from Condition 2 and inserting a new Condition X would provide clarity for sites on the LLUR that discharge stormwater into the network both in an existing and new activity or redevelopment capacity:
- Condition X*
- There shall be no discharge to land or surface water from any site or development area on the Canterbury Regional Council's Listed Land Use Register unless expressly authorised by Canterbury Regional Council and Christchurch City Council, and if requested by the consent holder, the site owner demonstrates that stormwater discharges from the site will meet the consent holder's obligations in Conditions 20-25 [water quality and quantity standards].*
- 5.12 I note that including the condition above places some onus on LLUR site owners to assess the risk of their site discharges on the surface and groundwater receiving environment and potentially to retrofit stormwater mitigation measures on existing discharges. However, I support an integrated approach to effects based management



of contaminants and consider that for industry such an assessment could form part of the actions arising from the industrial site audits completed as part of Condition 41. The Memorandum of Understanding referred to in Mr Norton's evidence (insert para ref) could address residential and commercial sites where the risk is deemed to be low. Alternatively, the new condition could be confined to industrial sites only.

### **Condition 3**

- 5.13 Ravensdown supports the amendments to Condition 3 that provide clarity of the pathway through which consented discharges will fall within the scope of the CSNDC from 2025 or on consent expiry. However, from that date, those activities that are occurring on sites listed on the LLUR will fall under the subjective provisions of Condition 2(a). This would seem to provide additional weight to the need to review and improve the wording to Condition 2.
- 5.14 The advice note to Condition 3 requires 'approval' from CCC as owner and operator of the network, for these sites. Use of the various terms 'approval', 'expressly authorised' and 'considered by Council' create uncertainty for businesses such as Ravensdown in that it is unclear whether there is one or several pathways and/or sets of criteria to navigate in order to receive the endorsement.

### **Condition 14**

- 5.15 I support Mr Norton's suggestion to delete Condition 14 on the basis that such detail (i.e., maximum stormwater contaminant concentrations accepted into the network) is more appropriately addressed elsewhere.

### **Conditions 20 and 22**

- 5.16 Ravensdown supports the approach for the consent holder to use reasonable endeavours (or equivalent eg all reasonably practicable steps, as proposed by the applicant for consideration) to mitigate the effects of stormwater discharges on the basis that the same pragmatic approach is afforded to industrial sites when addressing the effects of their stormwater discharges into the CCC network.

### **Condition 45**

- 5.17 Ravensdown supports the intent of Condition 45 to ensure that the method for calculating Attribute Target Levels for copper, lead and zinc can be adjusted in line with current science and reviewed on a regular basis.

## **6. CONCLUSION**

- 6.1 Ravensdown supports CCC's application (CRC190445) for a comprehensive resource consent to discharge stormwater, subject to the amendments to conditions outlined above, to provide suitable clarity and direction for industrial sites to meet both councils' expectations for stormwater management on industrial sites.
- 6.2 Ravensdown seeks a clear line of accountability for its management of stormwater to enable us to focus on making improvements to site stormwater management.

- 6.3 Ravensdown is committed to a programme of improvements to site stormwater management to reduce the contaminant load discharging into the CCC network. Given the significant investment required to achieve this, we need clear expectations from CCC to ensure that any treatment system(s) proposed for our site will perform to a suitable standard that enables us to continue to discharge stormwater into the network in accordance with the conditions of CRC190445. Ideally, these expectations would be endorsed and recognised by Environment Canterbury.



**Anna Mary Wilkes**

**24 October 2018**

