



**DairyNZ Submission on a Notified Application for Resource Consent by Invercargill City Council to operate a stormwater network for Invercargill City**

**To:** Chief Executive, Environment Southland by email:  
[service@es.govt.nz](mailto:service@es.govt.nz)

**Submitter:** DairyNZ

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I am authorised to make this submission on behalf of DairyNZ.

DairyNZ wishes to make a neutral submission on the application of Invercargill City Council (Application number: APP 20168843). We do **not** wish to be heard in connection with this submission nor do we want to be involved in any pre-hearing meeting(s) involving this application.

DairyNZ will not gain a trade competition advantage through this submission.

A copy of this submission has been served on the applicant.

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**Shaun Burkett**  
Regional Policy Manager  
27 October 2016

# 1 Introduction

- 1.1 DairyNZ is the industry good organisation representing New Zealand’s dairy farmers. Funded by a levy on milk solids and through government investment, our purpose is to secure and enhance the profitability, sustainability and competitiveness of New Zealand farming. DairyNZ’s work includes research and development to create practical on-farm tools, leading on-farm adoption of best practice farming, promoting careers in dairying, and advocating for farmers with central and regional government.
- 1.2 DairyNZ invests approximately \$13 million per year in environmental management programmes. Through their levy, New Zealand’s dairy farmers are investing in scientific research in next generation farm systems and studies which aim to advance our understanding of how to address the impacts of land use on water quality. Additionally, farmers are investing in research to explore the economic impacts of water quality and quantity limits on farm profitability and what this means for local and regional economies.
- 1.3 In Southland, DairyNZ has invested significantly in research programmes around farmer practices, water quality science, farm and regional-scale economics and environmental extension. The four-year Southern Wintering program has been focused on understanding and establishing best practice around wintering systems. A good practice wintering guide, which includes a planning tool for farmers to manage critical source areas and impacts on downstream water quality, has just been published. DairyNZ has also developed a “Southland Riparian Planting Guide” and Riparian Planner Tool kit to help support farmers with their obligations under the “Sustainable Dairying: Water Accord”. Both are integrated in a world-first, riparian planning tool developed with Environment Southland expertise, and in partnership with Landcare Research, for the implementation of riparian good practice on dairy farms (“Riparian Planner”).
- 1.4 DairyNZ’s on-going water quality science in Southland is focused on understanding the health and functioning of Southlands Estuaries (water quality analysis, hydrodynamic modelling New River estuary, sediment source tracking Jacobs estuary), Waituna lagoon and catchment management (catchment water quality modelling, soil leaching trials, constructed wetlands, filter pilot studies) and regional water quality state and trends. Many of these initiatives are being undertaken collaboratively with Environment Southland. In addition, the Southland Economic Joint Venture Project is currently examining the economic impact of future policy options for catchment water quality management.

# 2 Key submission points

- 2.1 DairyNZ has undertaken an assessment of the consent application from a predominantly water quality perspective, notably sections 1 to 5 of the application document, which cover the nature of the discharges; the monitoring of the discharges and of the infrastructure;

the receiving environment; and the assessment of the effects on the receiving environment from the proposed discharges; and the current and proposed mitigations measures by the applicant.

- 2.2 DairyNZ notes that the applicant has identified that the nature of the discharge encompasses sewage discharge resulting from illegal connections to the stormwater network, from regular (repeated months, over three years) cross-contamination between the sewage network and the stormwater network, and from sewage overflows into the stormwater network during storm events (Section 2.1, page 4).
- 2.3 Additionally, DairyNZ notes that the Invercargill City Council does not include the sewage components in this application, as the discharge of untreated sewage to surface or coastal water is a prohibited activity under the Southland Regional Water Plan, and, as such, resource consent cannot be sought or granted for that activity.
- 2.4 DairyNZ believe that this admission by the applicant that there is a disconnect between the activity being applied for and the ongoing actual activity that will take place (illegal sewerage discharge to the stormwater network) is an important factor for Environment Southland to consider. For instance, the applicant acknowledged that modelling had demonstrated sewerage piping networks had reached their end of reasonable use (100 years), requiring updating and that widespread failure (19 of 52 overflow connections) was predicted by independent experts.
- 2.5 In our opinion the assessment of the environmental impacts from the proposed activity by the applicant is flawed, and the proposed network overflow survey and monitoring programme is inadequate.
- 2.6 The applicant proposes to undertake very few samples per year (three) and from this, limited measures of both seasonal variations in discharge concentrations and/or loading as well as the varying effects this would then have on the receiving environments, can be determined (i.e., the basis of assessing ongoing and future impacts is not robust, nor will it be improved under the proposed lack of change to monitoring regime). More importantly, the applicant does not propose to undertake a sampling programme which encompasses the upstream and downstream areas of all the discharges to gauge the cumulative effects of the proposed activity.
- 2.7 Section 3.5 on aquatic ecology identifies that the Macroinvertebrate Community Index (MCI) determined during the 2012 and 2016 surveys varied between 69 and 82 at four locations in the Kingswell, Otepuni, Waihopai and Waikiwi catchments. This is indicative of degraded water quality at all survey sites, but in DairyNZ's opinion, incorrectly assumes that because the upstream reference sites are **presumed** degraded, that there is no conclusive evidence of stormwater discharges adversely affecting the benthic communities in the receiving water bodies. This is even though the Environment Southland Regional Water Plan calls for an MCI standard of at least 90 and therefore considerable improvement in insect health is required upstream of all discharges, making the impacts of

any continued or increased future discharge more severe without robust mitigation implemented by the applicant.

- 2.8 Instead of the applicant stating that the discharge will have a minimal impact on the receiving environment DairyNZ believe that the focus for assessing current and future impacts, should be placed on the MCI-monitored discharge stations, that **all fail the Regional Water Plan standards of  $\geq 90$** .
- 2.9 DairyNZ also consider that the assessment of environment effects provided by the applicant does not fairly compare the impacts on the receiving water bodies both, relative to the un-impacted upstream reaches, and in particular for dissolved oxygen and *E.coli* levels. For instance, of the three reference sites selected, only two are technically upstream of sewerage discharge and both of these are degraded with no reference to their state in equivalent unimpacted waterways across Southland, nor (as above) to their intended state (e.g., MCI  $\geq 90$ ). In terms of dissolved oxygen effects, the applicant has produced evidence but failed to note in its assessment that discharge locations regularly fail minimum national requirements of point-sources under the National Objectives Framework (e.g.,  $< 4$  mg/L), meaning there is widespread persistent stress at discharge locations causing the extinction of keystone species and loss of ecological integrity (MfE, 2014).

2.10

Lastly, DairyNZ notes that the existing and proposed mitigation measures proposed by the applicant are inadequate given the scale and nature of the proposed discharge. Most notably the maintenance measures proposed for sewage overflows and failures are insufficient to ensure that these do not occur. The applicant has acknowledged failures are not being consented for, but has failed to address the likelihood of those failures which is high and widespread in future (more than third of overflow sites), as well as high and localised now (e.g., illegal sewerage discharge into stormwater for more than 6 months in every three years, at two sites since 2013, with no assessment of the actual load this represents nor the impacts this would present from a severely extremely limited ongoing and proposed monitoring programme).

- 2.11 Further to this point, the applicant proposes no remediation of the already elevated Copper and Zinc concentrations that currently breach the ANZECC (2000) trigger values for 80% protection of ecosystem community health; nor is there any proposed remediation measures to address the widespread depressed MCI and widespread depressed DO; nor is there any proposed remediation measures for the elevated  $\text{NH}_4\text{-N}$  at three stations despite their breaching the NOF bottom line values for toxic effects on ecosystem health thereby presenting unacceptable risk of death for sensitive species (MfE, 2014).

- 2.12 Also, importantly, the applicant has not incorporated a projection of future growth in the consented area within the requested consent term, nor is there an assessment of the effects of added population on the wastewater treatment network, further adding to concerns in (2.10) that the maintenance and mitigation of risk for illegal discharge is poorly

addressed by the applicant (e.g., increasing the maintenance budget to 1% - which is not linked to any estimate of how much sewerage piping replacement this would extend to, nor whether that would cover the replacement of the network over the consent lifespan, recognising the Applicant has acknowledge it is currently at the end of its feasible life expectancy)

- 2.13 DairyNZ would like to thank Environment Southland for the opportunity to provide comments on the Invercargill City Council resource consent application to operate a stormwater network for Invercargill City.

### **3 Nature of decisions requested**

- 3.1 DairyNZ recommends that this resource consent application is placed under further scrutiny by Environment Southland to ensure that the matters raised above are addressed by the applicant to a level acceptable by the community.

## Bronwyn Auckram

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**From:** Courtney Keen on behalf of Facility Manager  
**Sent:** Monday, 31 October 2016 8:17 a.m.  
**To:** Bronwyn Auckram  
**Subject:** FW: DairyNZ submission for consent application APP-20168843 (ICC discharge permit)  
**Attachments:** DairyNZ submission to Environment Southland for the ICC consent application to discharge water and contaminants to water 28 October 2016.docx

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**From:** Shaun Burkett [<mailto:Shaun.Burkett@dairynz.co.nz>]  
**Sent:** Friday, 28 October 2016 4:44 p.m.  
**To:** Facility Manager  
**Subject:** DairyNZ submission for consent application APP-20168843 (ICC discharge permit)

Good afternoon,

Thank you for the opportunity to provide comments on the Invercargill City Council resource consent application APP-20168843 to operate a stormwater network for Invercargill City.

I have attached a submission from DairyNZ with this email.

Kind regards

**Shaun Burkett**  
Regional Policy Manager

***DairyNZ***

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