



1 May 2009

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Attention to: Mr Daniel Murray

Dear Mr Murray

Request for further information - CRC092692

Thank you for your resource consent application to discharge water and contaminants to water from overflow points in the Christchurch wastewater network as a result of wet weather events. Before your application can be processed further, we request the following information¹ from you. This information will allow us to better understand the proposed activity, its effects on the environment and the ways any adverse effects on the environment might be mitigated.

1. Hydraulic Model

Please provide further information on:

- The expected accuracy of model predictions in terms of overflow frequencies, peak flow rates, contaminant load profiles and overflow volumes.
- How the model takes account of possible changes in asset performance with time.
- Other inputs to the model, including:
 - a. Whether the model takes population growth into account and if so, how the population growth was determined.
 - b. Whether the model takes into account rainfall patterns including travel paths of high intensity rainfalls related to the network layout that may influence "first flush" effects.
 - c. Whether the model allows for climate variations and if so, how these variations were determined.
 - d. Whether predictions related to future stormwater inflow and groundwater infiltration levels are taken into account.
- Whether the expected removal of Selwyn District Council flows has been considered, including how this may affect overflows.

2. Planned Works Programme

You have advised that you propose to meet a six month ARI at 23 overflow points by 2017. Please provide further information on how the six month ARI will be progressively achieved. This information should include details of the planned works programme.

3. Monitoring

Please provide copies of overflow monitoring results for the overflow sites and for the monitoring sites located upstream and downstream of the overflow locations.

¹ in accordance with Section 92(1) of the Resource Management Act 1991

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4. Effects in and around local drains

Please provide information on the flow rates, durations, volumes and quality of the proposed indirect discharges via local drainage channels. Please also supply an assessment of the short and long term effects of the discharges on those channels, their margins and neighbouring occupied properties.

5. Ecological effects in the estuary and short term effects in the rivers

Please provide further information on the short and long term ecological effects from the discharge on the estuary. Please also provide further information on the short term effects of the discharge on the rivers. This information should include further information on ecosystems in the waters and on the margins. .

6. Changes in relative impact of the proposed wastewater discharges on the drains, streams and estuary as stormwater improvements are made

- Please provide further information on any proposed upgrades to Christchurch's stormwater system by CCC. We note that if the baseline river and estuary water quality is to be improved that this may increase the impact of future overflows on water quality. Please provide an assessment of the overflow impacts as the baseline water quality improves overtime.
- The application and AEE includes an assessment of river flows vs. ARI at 2 locations on each river. There is no information on 6 month ARI river or drain flows. We note that if the proposal is consented at a 6 month ARI there will be more frequent overflows, into lower dilution flows of stormwater, in the drains and rivers, than those that would occur at the currently consented 2 year ARI.

Please provide further information to enable the 6 month ARI proposal to be considered relative to the consented 2 year ARI, on the predicted:

- a. Flows for each ARI in the drain channels and rivers at each overflow location.
 - b. Overflow peak flow rates and volumes at each overflow location for each ARI .
 - c. Water quality, after mixing, downstream of each proposed overflow location for each ARI.
 - d. Short and long term changes on ecology and health risks over the proposed term of the consent as a result of the increased frequency and reduced dilutions for the proposed 6 month ARI overflows, compared to achieving the current 2 year consented ARI overflow.
- Please provide further information on what ecological parameters and indices will be appropriate as the water quality is improved. We note these may change as the existing water quality improves.

7. Cultural Effects

The application and AEE contains limited information on the effects of the discharge on cultural matters. Please supply a cultural impact assessment (CIA) related to cultural matters. We note Te Runanga o Ngai Tahu's freshwater strategy policy 31, seeks prohibition of direct discharge of human effluent to waterways and encourages discharges to land.

Please also provide further information on alternative methods and locations for discharges that have been considered in order to avoid effects on tangata whenua.

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8. Effects on Estuary Water Quality

Please provide further information on the short and long term effects of the proposed discharges on estuary water quality.

9. Health Effects

Please provide a health risk assessment. This health risk assessment should include all surface water bodies and neighbouring land areas potentially affected by the proposed discharges, i.e. the drains, rivers and estuary and their margins including adjacent neighbourhoods. The health risk assessment should include discussion of the incremental effects of the 6 month ARI proposal compared to the present 2 year ARI consent.

10. Access and Recreation

Please provide further information on the effects of the proposed increased discharge frequency and associated reduced river flows on access and activities.

11. Cumulative effects on water quality

Please provide further information on the location and frequency of the discharges from the overflow points in the CCC wastewater network that do not form part of this resource consent application. Please also provide an assessment of the effects of the proposed 23 overflow point discharges on water quality when combined with the overflow discharges from the overflow points that are not the subject of this application.

12. RMA S107

The application states that "Any adverse effects on the water quality of the receiving environment will be avoided, remedied or mitigated" without giving a full explanation as to how this will occur or to what extent. Additional information on clauses 1(c) to 1(g) of section 107 of the RMA is requested to support this statement.

In addition to providing a response to the above information request, you may wish to consider providing further details on the below matters. These matters have been identified by one of the external auditors involved in the auditing of this resource consent application as information that may be useful to submitters and the resource consent decision makers. Please note these matters do not form part of Environment Canterbury's request for further information under s.92 of the RMA and hence it is therefore optional as to whether CCC provides this information.

A. Advanced warning of overflow events

Please advise whether the hydraulic model, together with groundwater levels, heavy rainfall weather forecasts, prior rainfall records and sewer system flow rates, could be used to provide advanced warning of overflow events to enable water users to plan their activities.

B. Christchurch City Council long term strategies:

Details of CCC's long term strategies for:

- wastewater reticulation;
- wastewater treatment and disposal;
- waterways; and
- land drainage

and how they have been coordinated and integrated.

This is to allow the application to be set in and understood in context.

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Your application will be placed on hold and will not proceed further until we receive a response to the information requests numbered 1 to 12 in this letter². Please respond to this request by 25 May 2009³.

Your options are:

- (a) Supply the requested information by 25 May 2009;
- (b) Agree in a written notice to supply the requested information⁴ and advise of a date as to when this information will be supplied; or
- (c) Refuse in a written notice to supply the information requested.

If we do not receive a written response from you by 25 May 2009, or the information you supply is insufficient so as to determine the application, we may recommend declining your application. Please note that you have the right to object to the above request for further information⁵.

If you have any questions regarding this letter please contact Bruce Apperley at Maunsell AECOM who is one of the external auditors on this application on ph 943 0654 during working hours, or email 'bruce.apperley@maunsell.com'.

Yours sincerely



Philippa Lynch
SENIOR CONSENTS INVESTIGATING OFFICER

cc. Network Planning Manager
Christchurch City Council
PO Box 237
Christchurch 8140

Attention: Simon Collin

² In accordance with Section 88B(a) of the Resource Management Act 1991

³ in accordance with Section 92A(1) of the Resource Management Act 1991

⁴ in accordance with Section 94A(2) of the Resource Management Act 1991

⁵ in accordance with Section 357(A) of the Resource Management Act 1991

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