

Before the Commissioners appointed by Canterbury Regional Council

IN THE MATTER OF The Resource Management Act 1991

AND

IN THE MATTER OF Application CRC012011.1 by Christchurch City Council to change/cancel conditions of the discharge permit CRC012011 to discharge treated wastewater from the Christchurch Wastewater Treatment Plant into the Avon Heathcote Estuary/Ihutai

Submission from the Avon Heathcote Estuary Ihutai Trust



Summary

In our submissions we have:

1. Identified the advice and reports that led to the Council offering the ammonia conditions at the 2001 hearing
2. Questioned why the Council has not undertaken the research and investigation advised in the last ten years to understand the effects of the CWTP discharge on the ecology of the Estuary
3. Noted increasing ammoniacal nitrogen levels since the pond upgrade, and the effects of ammonia on aquatic life
4. Explained that fish may not be the organisms most sensitive to ammonia and that some invertebrates may be more sensitive.
5. Questioned the definition of a mixing zone
6. Demonstrated that the current status of the Estuary is uncertain, and that it is not possible to define the effects of the discharge in the past, or to quantify any incremental changes for elevated ammoniacal N levels. The precautionary principle must apply
7. Described why there are no sound guidelines appropriate for the Avon-Heathcote Estuary to be derived from the ANZECC publication.
8. Recognised that the Council has prioritised reduction of indicator organisms and in BOD load through the CWTP without being cognizant of the effects on the whole treatment system, especially the biological functioning of the ponds
9. Identified the pond influent BOD is far below the optimum of 84kgBOD/ha.day

10. Agreed that the low organic loading on the pond system means there is a deficit of inorganic carbon available for both nitrification and for ammoniacal N removal by algal photosynthesis and assimilation.
11. Identified the discharge from the ponds should not begin before high tide (high tide at the discharge point) and that the discharge rate is now high enough to allow for this.
12. Tracked the changes in the ammoniacal N condition through the ECan hearings and appeal to the Environment Court.
13. Noted that the Commissioners in the Estuary Discharge hearing set stringent conditions with the intention to minimise the adverse effects of ammonia on the Estuary ecosystem. They gave the Council a number of opportunities to confirm the predicted nitrogen and ammonia concentration reductions following plant and ponds upgrade.
14. Commented that a decision under S107(2) must be consistent with the purpose of the RMA, and that S107(3) allows for conditions for undertaking works to improve the discharge characteristics
15. Explained the limitations of the Discharge Audit Group

We ask that:

1. The variations to conditions 16(a) and 16(b) and cancellation of 17(a) are not approved.
2. If the Commissioners were to approve the applied for variations we would oppose the standard value for TN being greater than the 40g/m³ applied for. (Refer Tipler paragraph 25)
3. That the condition on discharge timing be changed to begin discharge at high tide rather than one hour before high tide.
4. No reliance is put on the ANZECC guidelines for the Estuary
5. The Council is required to make changes to the treatment system to reduce the ammonia levels being discharged into the Estuary. Subsequent changes in other conditions may be required.
6. Under S107(3) of the RMA impose conditions requiring the Council to undertake such works in such stages throughout the term of the permit to ensure that upon the expiry of the permit the holder can meet the requirements of S107(1) and of the relevant rules in the RCEP
7. In future when reporting of ammonia levels in samples taken from the Estuary the pH, temperature and salinity of the sample is also reported.