

IN THE MATTER

of the Resource Management Act 1991

AND

IN THE MATTER

of applications for consents (APP-2005011178.01) by the **TARARUA DISTRICT COUNCIL** to the **HORIZONS REGIONAL COUNCIL** for resource consents associated with the operation of the Eketahuna Wastewater Treatment Plant, including a discharge into the Makahi River, a discharge to air, and a discharge to land via pond seepage, Bridge St, Eketahuna

**STATEMENT OF SUPPLEMENTARY EVIDENCE OF TABITHA MANDERSON (PLANNING) ON BEHALF OF
TARARUA DISTRICT COUNCIL**

5 April 2017

1. Scope of Evidence

- 1.1 My supplementary evidence addresses the following matters
- (a) My understanding of the areas of uncertainty that remain and an opinion on how these may be dealt with
 - (b) Further assessment in relation to s107
 - (c) Some further interpretation of policy based on evidence received from Mr Philip Percy, Mr Gregory Carloyn, Mr Adam Canning, Ms Kate McArthur and Mr Manahi Paewai and supplementary evidence of Dr Ausseil and Mr Crawford.
 - (d) Further commentary and amendments to recommended conditions; a table with a summary of the collective commentary is attached to this evidence.

2. Uncertainty

- 2.1 A number of the experts and submitters, and from its minute the panel, raise concern with regards to certainty as to what is to be done at the WWTP and resultant impacts on the receiving environment. In my opinion it is important that these uncertainties are acknowledged and that scientific and other types of uncertainty is managed in a risk based manner.

What is to be built.

- 2.2 The consent application as was notified specified a number of process upgrades, based on conceptual design work and a desire to allow for some commonality across the plants operated by the applicant (as discussed by Mr King and outlined in the consent application). It must be acknowledged that a number of changes have occurred, some in response to trying to find a solution to matters raised by submitters (in particular how to meet Policy 5-11).
- 2.3 The supplementary evidence of Mr Crawford outlines the 'Black Box' approach he recommends, which allows for detailed design to be completed once the required effluent performance standards are known, and the benefits this can provide. He has also provided a table which provides alternative treatment processes which could be considered in a detailed design process which treat the different wastewater components.
- 2.4 I am comfortable that while a detailed design has not yet been undertaken there is sufficient certainty that a design can be undertaken to ensure that the effluent standards proposed in the conditions can be met. The 'in general accordance' condition can be met, without getting in to the specificity of detailed treatment processes which would restrict potential design options. It is my opinion that the focus should be on the effluent quality rather than plant design. The additional condition I have recommended as condition 2a gives considerable guidance on when design steps would need to be undertaken (in effect detailing milestones targets that would need to be met). I discuss this further below in my discussion about recommended term of consent.

Discharge Location

- 2.5 There are currently two potential discharge locations. As noted in my original evidence, the receiving environment for both locations will be the same. Having two options for the

discharge location does not, in my opinion, extend the ambit of the consent sought and therefore can be considered.¹ As discussed in my original evidence, it is my understanding that Option 1 will create more challenges with regards to monitoring, but I have not seen evidence to suggest that the effects would be different. A larger constructed wetland (Option 2) may provide additional treatment but this is not relied on in the effluent standards that have been recommended by Mr Crawford.

- 2.6 The concern raised by Mr Percy in relation to potential changes to the discharge location and whether others may be affected has merit. However, the RMA does allow for consent to be applied for on any land, but obviously work cannot be undertaken without permission from the landowner. In this case the landowner is a private entity, the Eketahuna Golf Club, (who are also a submitter). The evidence presented by Mr King details what consultation has been undertaken with the landowner to date.
- 2.7 I do not pre-determine whether or not additional consents would be required, but agree that it is highly likely that an earthworks consent would be required. Earthworks consents can be undertaken subject to grant of a Controlled Activity consent (and Rule 13-2 states no party would be considered affected). In my experience providing a planning assessment with the specifics of the rule can assist with design, that is avoid designs that would trigger the need for a more restrictive consent category to be sought. However I acknowledge that other elements, such as a rock filter that may need to be constructed within the bed, would require consent as a discretionary activity. This does not automatically mean that parties would be affected.
- 2.8 Fundamentally however, a discharge to water would still be undertaken which is what was publically notified.
- 2.9 The water quality experts are in agreement that finding suitable monitoring locations, regardless of the final discharge location, will be critical. In respect of the downstream monitoring site I discuss this further in relation to the conditions below, taking on board the concerns raised by Ms McArthur and discussed in the supplementary evidence of Dr Ausseil.

Effects of proposed discharge on Water Quality

- 2.10 There is currently not agreement between the experts with regards to the level of effect from the proposed discharge. This is in part due to lack of information regarding potential effluent quality. However, recently provided data has allowed for some assessment to be undertaken. Mr Crawford has given an opinion on likely effluent standards and flow rate data has allowed for some analysis of contaminant loads from the WWTP and was discussed in the evidence of Dr Ausseil. The conceptual processes proposed should see improvements to E.coli, DRP and POM (discussed in para 3.6 of Dr Ausseil supplementary evidence).
- 2.11 There remains a question with regards to SIN however, given it is acknowledged that the conceptual upgrades will not address SIN. Whether this is a likely to be a significant

¹ Haslam v Selwyn DC (1993) 2 NZRMA 628 (PT)

contributor to the observed macroinvertebrate community effects (and if periphyton growth caused by nutrient input is the mechanism that is affecting macroinvertebrate communities) is not clear, based on the collective expert evidence. I discuss this further in the 107 discussion below.

Effects on Mauri

- 2.12 It is clear from the submissions and from the expert evidence provided by Mr Paewai that there will be an ongoing effect on Mauri.
- 2.13 The effects on Maori tikanga must be acknowledged. This is discussed in all the planning evidence presented. As I noted in my original evidence the conditions recommended go some way to addressing some of the matters, and addresses some of the constructive relief sought in submission from the various iwi. The forum proposed will allow the iwi submitters (and others) access to ongoing information with regards to the plant. In *Ngati Pikiao Ki Maketu v Bay of Plenty Regional Council* [2016] NZEnvC 97 the Court considered this type of 'parallel reporting' appropriate, stating that "Such a condition, enabling tangata whenua to monitor developments, would be consistent with the provisions of ss6(e), 7(a), and 8, provided also that the conditions make it clear who the reports must be given to."
- 2.14 It has been established through the Courts that despite the weight to be given to the concerns of tangata whenua on Part 2 matters, this does not give a right of exclusionary veto. I note the approach taken in *Paokahu Trust v Gisborne DC* EnvC A162/03 where it was acknowledged that the discharge (in that case to the Coastal Marine Area) violated Maori tikanga, and had a major adverse effect on the cultural and spiritual sensitivities on tangata whenua. Nevertheless, the community interest also had to be served and conditions were therefore imposed on the consent, including a limitation on the duration of the consent, rather than declining the consent outright. I note again, as I did in my evidence and in Ms Morton evidence that none of the iwi submitters sought a decline for the application. In recognition of the issues discussed above I have recommended a shorter term for the consent.

3. Dealing with Uncertainty - Role of an adaptive management approach

- 3.1 Firstly the applicant has acknowledged uncertainty with regards to information and impacts on the environment. There is a common concern from the experts and also raised in submissions around the lack of data and how this has added to uncertainty. I provide below an opinion on how uncertainty can be dealt with through the recommended conditions.
- 3.2 I am comfortable that the conditions recommended allow this uncertainty to be dealt with in a prudent manner. Essentially the recommended conditions are in-line with an adaptive management type approach, this is an approach that has been accepted by the Courts. I have attached the King Salmon Decision as this provides useful commentary about an adaptive management approach, as a suitable mechanism for dealing with uncertainty.

- 3.3 The recommended conditions will allow for the collection of good baseline data. The water quality experts are in agreement that the establishment of appropriate monitoring sites will be vital. Conditions have been recommended to achieve this.
- 3.4 I refer the panel to para 86 of the King Salmon decision where reasoning for a shorter term based on the higher degree of uncertainty is discussed. I have recommended a shorter term, which has been derived in the most part from the evidence of Mr Crawford and Dr Ausseil (as discussed in my original evidence and with further discussion below). It was also discussed during the pre-hearing (pre-hearing 1 in particular).
- 3.5 Reviews are also recommended which, in my understanding, is also a key component of an adaptive management approach. In addition to the reviews, a shortened term is also recommended which in my opinion is a form of mitigation.
- 3.6 What the conditions allow for and the applicant has agreed to is to undertake further investigative work based on the gathering of monitoring data. The proposed forum will allow for the ongoing sharing of information, a common concern raised in the submissions and during the pre-hearing meetings. A shorter term also means that the applicant will have to undertake adaptive management to ensure compliance with conditions of this consent, and in applying for future consents if the goal of securing a long term consent is to be achieved.

4. Will the proposed discharge meet s107?

- 4.1 Mr Carlyon has stated an opinion that the proposed discharge would not meet s107g of the Act and the panel have asked for specific commentary around this. Mr Percy has also questioned whether the proposal will pass s107 and that is not simply a case of imposing a condition if it cannot be met (my wording).
- 4.2 Whether the future discharge is likely to result in a significant adverse effect on aquatic life is unclear. The first step will be to physically separate the discharge from the tributary. This way, the actual effects of the discharge itself can be measured, and the activity can be considered on its own merit, exactly the same way as every other discharge in the Region is considered. This is not to say that cumulative effects are not being considered, but rather to allow for better determining the effects of the discharge itself.
- 4.3 Dr Ausseil has discussed the ecological effects and whether the proposed upgrades are likely to address the existing observed effects on aquatic life (change in QMCI), he discusses the potential mechanisms known to impact on macroinvertebrate communities. Of the three mechanisms (DRP, POM and SIN), if it is found that SIN from the discharge is the key driver of increased periphyton growth then the current proposed upgrades do little to address this. It is important to note here that the discharge currently contributes the smaller proportion of SIN. Separating the discharge from the tributary will enable an assessment of the effects of the SIN component of the discharge on periphyton growth. I note Dr Ausseil concludes that there is no clear evidence that periphyton is the main driver of the changes in the macroinvertebrate communities, based on the ecological data.

- 4.4 If the panel are of the opinion that the proposed discharge, once the upgrades are designed and in place, will cause a significant adverse effect on aquatic life then it is appropriate to consider whether any of the tests set out in s107(2) will be met, as this still allows for grant of a permit. Specifically whether 107(2)(a) or s107(2)(b) can be satisfied and whether it is consistent with the purpose of the Act to allow a discharge that may allow the effects described in s107(1).
- 4.5 The test under section 107 (2)(a) requires something out of the ordinary, in terms of significance and historical duration of the activity and the consequence of refusing consent. This approach was upheld in the High Court in *Te Rangatiratanga o Ngati Rangitahi Inc v Bay of Plenty RC* (2010) 16 ELRNZ 312 (HC). In that it was emphasised that it is appropriate to be informed by historical factors, and that exceptional circumstances can be as the result of a combination of different factors.
- 4.6 The next question is whether there are exceptional circumstances. Applying the test above it is clear that the discharge has been in existence for some time (I understand the ponds were built in the 1970s). It is also clear that to refuse a consent would have consequences on the health and wellbeing of the Eketahuna Community. The applicant has responsibilities under other legislation to provide for the disposal of wastewater. In this situation I think the panel should consider the role that Ngatahaka Creek may be having in regards to SIN inputs and how this, in addition to the inputs from the WWTP which may be affecting macroinvertebrate communities in the Makakahi River. On a factual basis, and in my opinion, the panel cannot ignore the SIN contribution from the Ngatahaka Creek.
- 4.7 The existing discharge point and monitoring that has been undertaken has compounded the uncertainty. The monitoring location was, as I understand it, determined under the previously held consent. The fact that not all monitoring data (flow data in particular) has not been captured until relatively recently does not assist in considering this application.
- 4.8 On balance, I do consider that there are exceptional circumstances when considering a number of factors. If the panel do consider that there would be a significant adverse effect on aquatic life, once the upgrades are complete, there is still a mechanism to grant through 107(2)(a).
- 4.9 The existing acknowledged, but not understood, observed change in macroinvertebrate communities is likely to occur until the upgrades are in place. In this circumstance I consider that the discharge can still be granted using the pathway of both 107(2)(a) and (b). In that the current discharge is more temporary because upgrades are proposed and would be implemented in accordance with the condition I have proposed (Condition 2a).
- 4.10 In the suite of conditions proposed the final report looking in to the BPO for the site is to address, among other things, further examination of adverse effects on One Plan Schedule B Values. This then contributes to the feasibility study required by Condition 5. In my opinion this is consistent with s107(3) which can require works to be done throughout the permit such that the permit holder can meet the requirements of s107(1) and any relevant regional rules. The cost of installing additional processes that would directly address nitrogen removal is discussed in the original evidence of Mr Crawford, and given the significant costs associated with that I would not consider it reasonable to impose conditions requiring

nitrogen removable be contemplated at this stage, given the discussion above regarding the relative contribution of nitrogen (SIN in particular) from the WWTP.

5. Term

- 5.1 Both Ms Morton and Mr Percy have discussed whether a term of 5 years would be appropriate. The rationale for my recommendation of a 7 year term is based on the evidence of Mr Crawford who outlines the steps involved with regards to designing and commissioning a plant. Following on from that comprehensive monitoring of the receiving environment for a number of seasons (3 years) to allow for a range of seasons to be captured, as discussed by Dr Ausseil. I have attached a timeline of all the steps that would be undertaken should the panel adopt the conditions I have recommended which include a 7 year term.
- 5.2 The additional Condition that I have drafted in relation to milestones was done to give certainty and ensure that works are done in a timely manner to enable data to be collected and used as the basis for a future consent application. This is a similar approach to what was recently imposed on the Whanganui WWTP 'short term consent' where a new plant was to be built within a defined time period.

6. Comments on planning issues raised.

- 6.1 I agree with Mr Carloyn that Policy 3-1 recognising the benefits of infrastructure does not provide for immunity from addressing statutory requirements. However, in relation to Policy 3-3(c)(iii) I would draw the Panels attention to the fact that alternatives were considered (preliminary land investigation prepared by WaiWaste provided as further information) and earlier report prepared by Opus in 2011 which looked at options. On the site visit the Panel will no doubt be able to observe the limited physical space of the land owned by TDC on which the site is located. Mr King has discussed some of the challenges associated with looking at alternative discharge locations given the site of the existing WWTP. TDC have also entered in to discussion with the Golf Club regarding an alternative discharge location.
- 6.2 In my opinion the conditions drafted already go a considerable way to addressing the concerns raised in para 64 of Mr Percy's evidence. The combination of the milestone condition, wastewater forum condition and using the collected monitoring data to assist with the alternative options report (as noted by Mr King TDC wish to continue to find the BPO for the site).

7. Conditions

- 7.1 I have attached an updated conditions table. The first two columns provide a comparison with the conditions attached to Ms Mortons evidence with the conditions I have recommended. In the third column there is commentary from myself, Dr Ausseil and Mr

Crawford to draw the panels attention to why I have made recommended changes to the conditions.

- 7.2 The panel will of course be aware of the requirement for consent conditions to be fair and reasonable and for a resource management purpose. In some cases, as discussed below, I question the reasonableness of some of the Conditions attached to Ms Mortons section 42A report.
- 7.3 I would draw attention to the effluent standards condition, the standards proposed are based on the expert evidence of Mr Crawford. I note the Ms McArthur prefers the 'tighter' standards detailed in Ms Morton's evidence. While not discussed it is my understanding that a number of these figures were "place holders" and the reporting officers were, understandably, waiting on expert evidence from the applicant. Accordingly, as noted above the standards in the condition I have recommended are taken from the evidence of Mr Crawford.
- 7.4 I have drafted an additional milestone condition (condition 2a), based on the evidence of Mr Crawford of what can reasonably achieved with a design process and that can easily be included in a future tender process. The condition is such that it details what milestones should be included in any RFP.
- 7.5 Additional changes have been made to receiving water standards, these are based on a combination of understanding when the effluent quality improvements can realistically be expected (again based on the opinion of Mr Crawford) and appropriate measureable standards as recommended by Dr Ausseil. Guided by the opinions of Dr Ausseil and Mr Crawford in particular I consider the conditions are achievable and reasonable.
- 7.6 A monitoring location plan would be confirmed using expert opinion to . This approach has been used on other consents (example provided in Dr Ausseils supplementary evidence), and I consider it to be an appropriate approach here. Ms McArthur raised concerns with regards to the location of downstream monitoring site and Dr Ausseil has recommended a suitable downstream monitoring distance as well as how monitoring sites should be determined.
- 7.7 I have recommended deleting the requirement for an expert panel (Conditions 28 and 29). This condition appears to be from the Feilding WWTP consent. It is submitted that this condition is not reasonable nor commensurate with the effects being discussed here. The Feilding situation was one where a greater number of the One Plan targets were not met, and there is no policy that I am aware of that would direct such a condition. I still consider that a report should be prepared and this be used to help assist with the alternatives options report, but this can be achieved without a panel. My understanding is that once the discharge site is moved it is not a complex assessment (compared to the Feilding situation).

8. Conclusion

- 8.1 I remain of the opinion that consent can be granted. I consider that the conditions recommended bring an appropriate level of certainty, a clear process for undertaking the detailed design process and achievable effluent standards are recommended. The applicant has agreed to further work to determine the BPO for the community, seeking a solution that is affordable for a community serving 440 people while balancing this against the interests of the wider community.



Tabitha Manderson

5 April 2017

