IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the hearing of a resource consent application for the proposed upgrade and operation of the Martinborough Wastewater Treatment Plant, and all associated discharges to land, air, and water.

REBUTTAL STATEMENT OF EVIDENCE OF KERRY GEANGE

ON BEHALF OF SOUTH WAIRARAPA DISTRICT COUNCIL

(PLANNING)

1. INTRODUCTION

1.1 My name is Kerry Michael Geange. My qualifications and experience are set out in my Evidence-in-Chief dated April 21, 2015.

1.2 I have been asked to comment on the evidence of Dr Olivier Aussiel, Mr Robert Docherty, and Ms Nicola Arnesen from a planning perspective.

1.3 I have verbally conferred with Ms Arnesen and we concur following evidence exchange there are two principle issues remaining at question, being:

(a) The duration of consent (35yr v 25yr or lesser) term of consent); and

(b) Whether it is appropriate that in-stream monitoring be included within the Environmental Management Plan as a monitoring and management "baseline" (as the Applicant proposes) or included as absolute value on conditions of consent as proposed by GWRC as determinants of compliance (instream standards).

1.4 For completeness, I also comment on a statement made by Dr Aussiel on the assessment of potential adverse effects on surface

water bodies at Pain Farm resulting from proposed Stage 2A & 2B, and on the concerns raised in evidence by Mr Docherty, also in respect of Stage 2A & 2B. I have also been asked to comment on the proposed staging of consent, and the need to bring forward any stage.

2. DURATION OF CONSENT

2.1 Ms Arnesen has reconfirmed her opinion in evidence that a 25-year consent is appropriate, and that a 35-year consent is inappropriate.

2.2 In evidence, I have stated my opinion that:

(a) all expert evidence agrees that subject to conditions of consent the actual and potential adverse effects of the activity on the environment following the commissioning of Stage 2B will be no more than minor;

(b) the current proposal provides for the commissioning of Stage 2B no later than December 31, 2035;

(c) From 1 January 2036 to the end of the term of consent consented activities will therefore not have any adverse effects on the environment which are any more than minor;

(d) Given the above, there is no effects based reason that the term of consent should be limited to 25 years.

2.3 In evidence, Ms Arnesen states that "*It could be argued that, if at year 25, SWDC has an operational consent with no significant adverse effects occurring and no apparent shortcomings in the proposal, there may be valid justification to grant consent for a term longer than 25 years*". I concur with Ms Arnesen in this respect. Ms Arnesen then provides an analysis as to why in her opinion there are matters (other than effects), which lead her to conclude that a 35 year term is not appropriate. I respond to each of these in turn below.

a) <u>The discharge is predominantly a water discharge</u>

2.4 Ms Arnesen suggests (at page 50, bullet point 1) the proposed discharge programme is "predominantly … a discharge to water", and that as there is a discharge of effluent to water for a period of 20 years, suggests that determines that 35 years is too long for a "predominantly discharge to water consent".

2.5 I must admit I find it difficult to follow Ms Arnesen's logic in this conclusion. Ms Arnesen agrees that the effects of the discharge to water are acceptable to Year 25, from when the discharge will be to land. Therefore, there are no adverse effects associated with the discharge to water after year 25 to 35 years.

2.6 Irrespective of whether a discharge to water occurs in some form for a higher relative proportion of time over the proposed 35-year consent, a reduction of term by 10-years will have no actual impact on the volume or quality of discharge to water over the term of the consent, and in particularly over that subject 10-year period.

2.7 The other difficulty with this argument is that it appears to be based more on an informal management level view than any explicit policy. The relevant policy in the RPS, Regional Freshwater Plan and Regional Discharges to Land Plan is primarily targeted at encouraging land discharge and treatment of municipal wastewater, including specifically on a limited basis (RFP Policy 5.2.13) or progressively (RFP Policy 4.2.29) where there are financial constraints. The policy is primarily concerned with the consideration and management of associated adverse effects, and ensuring conditions of consent are reasonable for the context of the proposed activity and the application. It is the actual and potential effects of an activity which will therefore govern the consideration of duration. I have confirmed verbally with Ms Arnesen there is no relevant specific policy guidance on consent duration.

b) SWDC Compliance Record

2.8 Ms Arnesen has suggested that SWDC have historically had a poor compliance record, resulting in "significant adverse effects occurring in the river and continual breaches of consent conditions", and on that basis considers confidence in SWDC has fallen.

2.9 SWDC has acknowledged that there have been breaches of conditions of consent. There are reasons for this, which both Mr Crimp and Mr Allingham have considered in evidence.

2.10 I agree with Ms Arnesen that an Applicant's compliance record can be a matter for consideration when considering consent duration. However, this must be considered in context of the application, and

not in my opinion be considered determinative in the absence of context.

2.11 I understand from discussions with SWDC operations staff that the effluent quality standards contained within the 2011 variation conditions, as absolute standards, were always going to be very difficult to meet given the nature of this pond system. SWDC made a decision that financial resources would be put into the long-term solution, rather than reactive short-term responses to specific quality parameters. Unfortunately, this has taken longer than initially anticipated, due in part to issues with performance guarantees for an earlier "floating wetland" solution. Equally the delays caused technical non-compliances with other conditions of consent.

2.12 On balance, although there are some statistically significant localised adverse effects associated with the discharge, effects in the wider downstream environment have been less significant. Regional Council has also been aware of this non-compliance for many years, and worked with SWDC on the solution, rather than take a hard regulatory approach. This was appropriate in this case, in my opinion. It is unreasonable to now use this against the Applicant in determining the application intended to provide the long-term solution all stakeholders have been working towards.

2.13 More importantly however, the Applicant has specifically recognised the gaps in its compliance framework historically, and sought to rectify that with a comprehensive compliance framework through offered conditions of consent. I have outlined this in my Evidence in Brief. In addition, Mr Allingham and Mr Crimp have both stated in evidence that consent compliance is a priority for this Council. In addition, I also understand from discussions with Ms Arnesen that GWRC are considering a more collaborative approach to compliance management of major consents, working with consent holders. I would certainly support such a constructive approach.

2.14 It is inappropriate to assume that SWDC will intentionally breach conditions of consent. In addition, if there are operational or technical breaches of conditions, these will necessarily be dealt with swiftly under the proposed conditions of consent, including reporting to GWRC. Compliance systems will necessarily be established well

within the recommended 25-year term. If not, I expect that some form of enforcement and/or prosecution will have occurred.

2.15 In addition, it is unnecessary to reduce the term of consent on the basis that submitters have concerns regarding past performance. Those concerns will be met by the implementation of the revised compliance framework and from the early period of consent implementation. As a backstop measure the Regional Council also has its review powers as reflected in the proposed conditions of consent.

2.16 Based on the above, in my opinion, there is little (if any) value to be obtained in respect of non-compliance risk by limiting the consent term to 25 years rather than 35 years.

2.17 Furthermore, there is a clear desire from all parties for discharges to the river to be reduced as soon as possible. A 25 year term of consent will run counter to that because it is unreasonable and inefficient to expect SWDC to invest in Stage 2B of the proposal based on the remaining 5 years of consent or indeed Stage 2A based on a 2 year term of consent. My instructions are, that if the Panel does not find a 35-year consent to be appropriate, that SWDC would prefer not to proceed with the applications in relation to Pain Farm and would seek that the consent term be reduced to 15 years.

c) Potential policy changes

2.18 Ms Arnesen suggests that 25 years is a "long time" when considering potential changes in the planning framework; refers to the current regional plan review process; and confirms the plan review process is likely to increase the level of encouragement for the discharge of effluent to land. Ms Arnesen then concludes *"therefore granting this proposal which is predominantly a discharge to water is likely to be contrary to the aims of the emerging planning framework".*

2.19 The proposed activity is for a staged discharge to land consent where virtually full land discharge is achieved within the proposed term of consent. This is directly consistent with the policy level encouragement to land contained within the existing policy framework, and although any potential future policy framework, especially at an early draft stage, is of limited relevance in

determining this application. Should increased encouragement for sustainable discharge to land become a policy direction, which Ms Arnesen suggests is likely, then the proposed activity will already be giving it effect. If financial incentives become available then there is nothing to prevent stages 2B and/or 2A being brought forward under the current proposed conditions of consent.

2.20 In my opinion, the longer term of consent sought is equally, if not more consistent with the policy framework, providing additional certainty to all stakeholders. Furthermore, potential changes to the policy framework is not relevant to consent term. In addition, section 128 1B provides a mechanism to enforce higher water quality standards against existing consent holders.

d) Ensuring the proposal remains the Best Practicable Option

2.21 Ms Arnesen has also suggested that a reduced term of consent would ensure that the discharge to land aspect remains the best practicable option and is achieving the best environmental outcomes as technology evolves.

2.22 As discussed in the AEE and in my evidence, the annual reporting process under the proposed conditions includes a requirement for SWDC to comment on technological advances and ensure that the activity remains the BPO for the activity and the site.

2.23 I do note however, as Ms Arnesen acknowledges, that sustainable discharge to land is likely to remain a BPO for the foreseeable future. This is a sound assumption in my opinion. If there is a step change in mainstream treatment technology, this is likely to come in the form of a significant reduction in treatment cost, in which case consent holders, including SWDC, will have an equally significant interest in adopting such a change. The only other likely "game changer" in this respect will be if some form of significant government subsidy is offered to implement mechanical treatment. If there is an incentive such as this, SWDC will be required to consider these as part of their annual reporting process.

2.24 In my view, requiring a consent holder to go through a re consenting process 10 years after a major upgrade and within 5 years of a further major upgrade is neither efficient nor reasonable. Furthermore, there

is no requirement (or policy) for the proposal to be or to remain the best practicable option.

2.25 Regarding achieving the "best environmental outcome", I note that the Act does not require a zero net effect outcome, but rather an appropriate balance considered on an effects basis. The monitoring, review, and reporting proposed by the Applicant and incorporated into the conditions of consent will in my opinion achieve this.

e) Uncertainties in relation to stage 2B

2.26 Ms Arnesen refers to concerns raised by Mr Docherty regarding discharge capacity at Pain Farm. In my view those issues are adequately addressed by the evidence on behalf of the Applicant.

2.27 To the extent that the panel has any residual concerns/uncertainty, those will not be resolved by a 25-year consent. Any uncertainties can be addressed by way of adaptive management with the review conditions being available as a last resort.

2.28 The case law suggests that a shorter term of consent is only appropriate to address uncertainty, where those uncertainties cannot be addressed by way of adaptive management. In the present case, if any issues were to arise as to capacity of the Pain Farm site, then the consent conditions would require irrigation application rates or volumes to be reduced via the Land Discharge Management Plan.

2.29 If the Panel were to conclude that the uncertainties are too great (or that it does not have sufficient information in relation to the Pain Farm components, then it that can be addressed by not granting consent for those components, rather than granting a very short term consent for stage 2B (effectively 5 years) and a modest term for stage 2A (effectively 10 years).

2.30 As outlined earlier I have been instructed that SWDC does not consider it appropriate to invest significant funds in stages 2A and 2B based upon short term consents for those stages. Accordingly, it seeks that the Panel reach a view as to term of consent and if that view is for less than 35 years that it decline consent for the Pain Farm components and reduce the term of the other consents to 15 or 20 years. Alternatively, if necessary that same outcome can be achieved

by the panel providing an interim view and SWDC can then amend its application if necessary. Advice from Mr Milne is that either option is clearly within the scope of the application.

Conclusion

2.31 In summary, I do not consider that any or all of the above reasons offered by Ms Arnesen justify a reduction in consent duration to 25 years as compared to 35 years. Furthermore, in my view such a reduction would reduce certainty for the community as to future outcomes.

3. IN-STREAM COMPLIANCE STANDARDS AND MONITORING

3.1 Ms Arnesen has recommended that instream compliance standards and monitoring be included as conditions of consent, rather than being addressed via the management plan framework, as I have recommended.

3.2 SWDC understands the importance of in-stream monitoring in determining the actual in stream effects of the discharge, where that monitoring has a clear purpose and benefit. However, in my view that does not need to be reflected in instream compliance conditions and associated monitoring. Furthermore, it is critical that there be certainty as to the ability of the consent holder to comply with any conditions of consent. The conditions as proposed do not provide that certainty and therefore pose the risk of non-compliance in situations where the effects in issue do not warrant enforcement action.

3.3 Dr Coffey for SWDC and Dr Aussiel for GWRC jointly agree on the potential effects of the proposed activity. The experts agree that:

(a) That there are some localised adverse effects associated with Stage 1A, and that these are temporary and on balance, acceptable;

(b) That Stage 1B will have a beneficial impact, but that some uncertainty remains around the effects of the non-deficit irrigation scheme on surface water quality; and.

(c) That the adverse effects on aquatic ecology in Ruamahanga River following the commissioning of Stage 2A and 2B will be no more than minor.

3.4 The joint statement also provides what both experts consider adequate numerical thresholds in relation to the ecological and recreational values of the River in the vicinity of the discharge (paragraph 4.5 of the joint statement). Dr Aussiel, in his evidence, confirms that there were no points of disagreement in that statement (at paragraph 2.4), and goes on to provide his opinion that "*the application of the QMCI change threshold at 250m versus 500m during stage 1B constitutes the key (and possibly the only) remaining material issue on these matters".*

3.5 QMCI is one of a number of indicators of stream health, but as Dr Aussiel identified, QMCI remains the only indicator of concern when considering the threshold at 250m rather than 500m. The experts agree that the remaining indicators can confidently be achieved.

3.6 Dr Aussiel's evidence is that there is uncertainty as to whether the threshold will be met for QMCI change threshold at 250m, which Ms Arnesen has recommended as an absolute condition of consent. Dr Coffey agrees there is uncertainty remaining in this respect. It follows that compliance with the condition recommended by Ms Arnesen in this respect is also uncertain.

3.7 Dr Aussiel advises in evidence that he was specifically asked by GWRC to consider the potential impact of the scenario where significant effects persist at 250m downstream of the discharge and where conditions of consent would require these effects to be reduced. Dr Aussiel concludes that of the two options available to mitigate these effects (improved mixing at the point of discharge; and/or treatment process upgrades), in his experience both "*would require further investigations and detailed design, and would be associated with significant costs*".

3.8 Given that there is uncertainty regarding ability to comply, retrospective upgrade could therefore likely be required, and at significant cost to the Applicant. In my dealings with Dr Aussiel through this consent process he has been consistent in his pragmatic approach that the benefits of the removal of effluent from the river as quickly as possible and the proposed staged discharge to land is of higher value and should be higher priority than short-term

retrospective treatment upgrades to reduce localised effects in the short term below a specified threshold.

3.9 In the context of the proposed activity and the significant benefits to be achieved through early implementation of Stage 1B and going to land within the proposed timeframe, it is my opinion that the numerical monitoring thresholds should be included within the Environmental Management Plan as management thresholds for comparative assessment, not absolute limits for the purpose of compliance. Compliance should be based upon the proposed end of pipe standards. That is what SWDC is proposing to achieve. Its proposal is not to achieve any particular level of reduction in QMCI at any particular point in the stream.

3.10 The alternative (but in my view unnecessary) approach would be to shift the QMCI threshold monitoring location to 500m downstream. However, even at that point SWDC cannot guarantee compliance.

3.11 It seems that the underlying rationale for the suggested QMCI threshold is that this is necessary in order to ensure that the discharge does not cause any significant adverse effects on aquatic life after reasonable mixing (s107). However, in my view the evidence does not establish that 250m downstream of the existing discharge point is a reasonable mixing zone. The Applicant advances 500m as a reasonable mixing zone within the context that the discharge to land will be diffuse and will reach the water some distance downstream of the current discharge point from the ponds, likely exceeding 250m. There then needs to be allowance for the reasonable mixing of that diffuse discharge with the stream water.

3.12 Furthermore, the evidence does not support the conclusion that non-compliance with the suggested QMCI standard at 250m or even at 500m confirms that a “significant adverse effect on aquatic life” is occurring. The QMCI standard is not included within the Water Quality Guidelines at Appendix 8 of the Regional Freshwater Plan. Whether the breach of such a standard amounts to a significant adverse effects on aquatic life is debatable and would depend upon the frequency, duration and extent of any non-compliance and the sensitivity of the receiving environment. (I also note that the Horizon’s

One Plan uses QMCI as a target not a compliance standard or a threshold for a non-complying or prohibited activity.)

3.13 The legal advice from DLA Phillips Fox also suggests that instream compliance standards may be necessary to keep the proposal within the scope of the application. That is incorrect. The application did not propose instream quality monitoring, but rather the monitoring or water quality data against baselines within the management plan framework. The subsequent assessment by Dr Coffey proposed a 500m mixing zone and did not suggest that any particular level of reduction in change to QMCI could necessarily be achieved. It is the Applicant's position that at least once stage 1B is implemented that the discharge will not cause any significant adverse effects on aquatic life after reasonable mixing (which it proposes as 500m). It does not however accept that breach of the suggested QMCI even at 500m would amount to an immediate significant adverse effect on aquatic life.

3.14 The proposed management plans will be prepared by an independent and appropriately qualified person. Each management plan must then be approved by GWRC before adoption. I would expect that each of the water quality thresholds determined by Dr Coffey and Dr Aussiel will be included within the management plan framework, in addition to those recommended by Ms Arnesen, as would the necessary management response framework should those thresholds not be achieved. I therefore expect the management plans will provide a robust and appropriate framework for monitoring and managing adverse effects. A regulatory approach to this should be the last resort, rather than the default management tool.

4. PAIN FARM – SURFACE WATER

4.1 Dr Aussiel has raised concerns regarding surface water bodies on Pain farm in respect of Stage 2A & 2B. Dr Aussiel also notes that Dr Coffey's assessment did not include these water bodies.

4.2 Ms Beecroft has considered these water bodies in her preliminary design and determined the likelihood of adverse effect on surface

water quality from discharge at Pain Farm during either Stage 2A or Stage 2B to be nom ore than minor.

4.3 To put some context around this, at full development and a maximum discharge event (9mm) the site can receive 7 days flow in one pass. That means at Stage 2B there is a need for about 50 passes per year across the site, i.e. less than one a week. For Stage 2A there is only about 23 passes per year required to the full site, or alternatively around 50 passes to a smaller area if infrastructure development on site is staged. The proposed discharge regime is also regulated by soil and environmental conditions, and provides for a 20m buffer from the drainage paths on site. On this basis, I consider the potential effects of contamination of surface water from Stage 2A or 2B irrigation likely to be very low.

5. EVIDENCE OF ROBERT DOCHERTY

5.1 I have read the evidence of Mr Docherty, and note his conclusions that:

(a) the proposed land irrigation will have a positive effect on the Ruamahanga River (including Stage 1B – MWWTP Adjacent); and

(b) that there is insufficient information to ensure that Stage 2 will function as expected.

5.2 I have spoken to Ms Katie Beecroft specifically in respect of point b) above, and am satisfied that the methodology adopted by Ms Beecroft is sufficiently conservative to minimise the risk of those concerns raised by Mr Docherty. Ms Beecroft has also reconfirmed that monitoring of Stage 2A performance and detailed investigation for Stage 2B design will together provide a high level of confidence in the irrigation regime. I am of the view that the proposed adaptive management, including review conditions can adequately address any residual uncertainties. If it did become necessary to reduce irrigation rates at Pain Farm that would necessitate additional storage, additional land discharge area, or additional discharge to the river. If either of the latter two alternatives was required, that would necessitate either an application to vary the conditions of the discharge to river permit or a supplementary application at the time.

5.3 In my view these mechanisms are sufficient to deal with any residual uncertainty. Alternatively if the Panel is not satisfied in relation to Pain Farm, then it has the option of declining consent for discharges at Pain Farm (or SWDC can withdraw that part of the application).

6. STAGING OF CONSENT

6.1 I have been asked to comment on the need to "fast track" the land treatment programme.

6.2 Although not a point of rebuttal, I note that a number of submitters are requesting the staging be brought forward. There is no dispute among experts or Council Officers on the appropriateness of staging, which is accepted in Ms Arnesen's recommendations, and has not been challenged in evidence by submitters. The only related question still remaining is the duration of consent, and the relative certainty a reduced duration provides. This has been assessed above.

6.3 In addition, on balance, the evidence presented supports the proposed staging of capital investment and effects mitigation as appropriate. In my opinion this is particularly the case when this proposal is considered in the context of the other two plant upgrades proposed, and the catchment based approach SWDC has adopted in its wastewater strategy.

6.4 I do not consider that any change in the proposed staging of upgrade from the current proposal as outlined in evidence is necessary.

7. CONCLUSION

7.1 In conclusion, I have reviewed the evidence of Dr Aussiel, Mr Docherty, and Ms Arnesen. Nothing in their evidence has caused me to change my opinion that the applications for the MWWTP upgrade and operation shouldn't be granted for 35 years, subject to the conditions outlined in my evidence-in-chief.

7.2 In the event that the Panel is not comfortable with the level of information in relation to Pain Farm, SWDC seeks that consents for those aspects be declined and will if necessary modify its application to withdraw those components. In that event, I consider that a 20 year

consent for the discharge to river would be appropriate. However, if the panel considers that this takes the proposal beyond the scope of the application, then a 15 year consent would be appropriate. The advice from Mr Milne is that a 15 year term is clearly within scope. That is because, the effects during that term would be no greater than what was proposed in the application during that same period (stage 2A was not proposed until 2030).

7.3 The Applicant has proposed discharge quality standards (end of pipe standards) to reflect what is achievable by way of treatment. This approach provides clear and certain compliance measures for the Regional Council and certainty for the consent holder as to what it needs to achieve. It would not be appropriate to impose instream standards which may require a higher level of treatment. That is inconsistent with the approach which has been adopted by the Applicant of focusing on progressive reduction in direct discharge to the river. It would almost certainly bring the focus back to short term treatment quality rather than land disposal and ultimately land treatment.

Kerry Geange
22 May 2015