BEFORE THE ENVIRONMENTAL PROTECTION AUTHORITY

IN THE MATTER of the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (the Act)

AND

IN THE MATTER of an Application under Section 38 of the Act for Marine Consent by Trans-Tasman Resources Limited (TTRL) in relation to the iron sand extraction and processing application (the Application)

JOINT STATEMENT OF EXPERTS IN THE FIELD OF

CONDITIONS AND PLANNING

Dated Thursday, 2nd March, 2017

INTRODUCTION

1. Expert conferencing of the "Conditions and Planning" witnesses took place in person and by video conference on Thursday, 2nd March, 2017.

2. The conference was attended by:

   a) Rob Lieffering (for the EPA) ("**RL**")
   b) Phil Mitchell (for TTR) ("**PM**")
   c) Daniel Govier (for TTR) ("**DG**")
   d) Helen Anderson (for the fisheries submitters) ("**HA**")
   e) Natasha Sitarz (for Forest & Bird) ("**NS**")
   f) Graham Young (for Ngati Ruanui) ("**GY**")
   g) Bruce Clarke (for the fisheries submitters ("**BC**")

IMPORTANT NOTE: Rob Lieffering participated in the joint conference, and was initially involved in post-conference discussions, but was unavailable for the remaining discussions and final agreement. Accordingly, he has not been able to sign this document.

CODE OF CONDUCT

3. We confirm that we have read the Environment Court's Code of Conduct 2014 and agree to comply with it. We confirm that the issues addressed in this Joint Statement are within our area of expertise.

SCOPE OF STATEMENT

4. In our conference we discussed the issues relevant to the Application which arise within our field of expertise. These comprised the questions posed to each of us by other parties, as well as key matters of disagreement, as recorded either in evidence, and/or the "EPA Conditions Report" dated 22 February 2017 prepared by Dr Lieffering.

5. Prior to attending the conference, we each read the relevant parts of the Application, the evidence and independent reports prepared by the other expert(s) and circulated.

THE ISSUES

6. The issues we discussed were:

a) Relevant questions posed of each us by other parties (as recorded in DMC Minute 21, dated 7 February 2017), noting that we have responded only once where the same question was put to more than one person..
b) Adaptive management, insofar as it relates to consent conditions.
c) Whether discharge standards/limits should be included in the conditions;
d) How conditions setting standards and the management plan conditions that specify how those standards are to be achieved are to be drafted.
e) Whether proposed condition 17, which provides for the recalculation of numerical values for "response limits" and "compliance limits", is appropriate or whether any such recalculation needs to go through a change of consent process under section 87 of the EEZ Act.
f) Whether those proposed conditions which set out a process for changing Management Plans are appropriate or whether any such changes needed to be made via a change of conditions.
g) Whether the various conditions proffered by TTR on an Augier basis, should be included, or addressed instead by side agreements between TTR and the relevant party(ies).
h) The sufficiency of the existing baseline programme and the appropriateness of using the proposed Baseline Environmental Monitoring Plan (BEMP) to collect further information prior to the commencement of mining operations.
i) How any "legacy issues" can be provided for in conditions and whether a bond is required instead of, or in addition to, the proposed condition requiring that public liability insurance be in place.
j) The matter of conditions generally.

MATTERS OF AGREEMENT AND DISAGREEMENT

A Questions Posed to us by the Parties

12. The following Table 1 sets out the points of agreement and disagreement in respect of the various questions posed to each of us, noting that the same, or similar, questions were provided to several of us and to other experts not part of our conferencing. We only record the question once in Table 1.

13. We also note that a number of the questions posed to Mr Young were specific to him and Ngati Ruanui. We did not discuss those questions.

14. Nor did we discuss a number of the questions posed to Ms Anderson and Ms Sitarz as they were not directly related to planning matters, nor to Mr Govier as they were operational matters, best addressed by others.

15. In order to be as concise as possible, where questions that were not discussed for the reasons set out above, they are not presented in this document.

Table 1

Question	Response	Agreement	Disagreement
PM Questions PM1 Quantitative response limits and consent limits have been provided for suspended sediment concentrations. Should quantitative response limits and consent limits also be provided for sedimentation? If not, why not?	PM considers that the answer to this question relies on technical evidence. If sedimentation is insignificant and/ or so small as to be unmeasurable then no limit would be needed.		NS, HA, GY and BC reserved their position until such time as the technical position is finalised.
PM2 Can he please explain in more detail his statement in para 95 that there is no need to favour caution. The information provided might be the best available but that doesn't mean that there is no uncertainty in it, especially in respect of an activity in the sea, that has never been done before in NZ.	PM considers that: 1. The answer to this question arises from section 61(2) of the EEZ Act, which states: "*If, in relation to making a decision under this Act, the information available is uncertain or inadequate, the EPA must favour caution and environmental protection.*" 2. The answer to the question depends on the confidence the DMC has in quality and sufficiency of		None of the experts (HS, HA, BC, NS and GY) have changed their opinions, as stated in their respective evidence statements. RL has not formed an opinion on this issue, and reserves judgement / opinion until he reads all the evidence.

Question	Response	Agreement	Disagreement
	the information available to it. PM considers that there is sufficient information (ie. that information available is not uncertain or inadequate) to make a robust assessment of effects, therefore do not need to favour caution. PM draws this conclusion from scientific evidence prepared by TTR's experts.		
PM3 Relating to question [PM2], given that TTR's experts have relied almost entirely on computer models and simulations to identify and predict likely effects, can he also explain how, from a scientific perspective, it can be said that there is no uncertainty given that [list omitted for brevity]			As per PM2 above.
HA Questions Paragraph [48] Given that an oil spill contingency plan is required to be submitted and approved under the Maritime Transport Act, would you consider certification under that legislation to be sufficient?		HA, BC, NS, RL and GY agreed that 1. An oil spill contingency plan is required under the Maritime Transport Act. 2. The marine consents need not, and should not, duplicate processes required under other statutes, including the Maritime Transport Act. 3. Whether a condition on the marine consents requiring an oil spill contingency plan is needed depends on whether the DMC is satisfied by the evidence that	PM and DG consider that there is merit in having an Oil Spill Plan condition, because it is a clear and transparent signal to the public that the matter is being addressed, noting also that the proposed condition only requires that such a plan exists and that it is made available.

Question	Response	Agreement	Disagreement
		the requirements of the Marine Transport Act are robust enough to enable them to discharge their obligations under the EEZ Act.	
Paragraphs [73] – [74] Do you consider maximum sedimentation < 0.05-0.1 mm of deposition of fine material will have an adverse effect, and if so, what level of effect do you expect?		All agreed that the answer to this question depends on the technical evidence.	
Joint questions Could you explain your understanding of what monitoring TTR has undertaken to establish the existing environment? Could you explain whether you consider baseline monitoring for compliance purposes, serves a different function to that seeking to describe the existing environment? Could you explain when baseline monitoring to determine parameter values for compliance purposes should be undertaken and the impacts this timing will have on compliance monitoring? In what situations would you consider it appropriate to leave some baseline monitoring to after the grant of consent?		It was agreed that the available information on the existing environment is contained in Section 3 of the TTR Impact Assessment and in its various appendices, the documents referenced in the IA and the technical evidence. This is addressed in paragraph 38 below. Not discussed directly, but was part of the discussion in respect of "baseline" and "pre-commencement of activities" monitoring which is addressed in paragraph 38 below. See paragraph 38 below.	
Given that any revisions to SSC limits are simply to update the numerical values following completion of the baseline survey, what value would further consultation and public notification achieve?		Discussed separately below	
Joint question Given your concerns about potential legacy issues, why are you not satisfied that the condition requiring TTR to hold $100,000,000 in public liability insurance (which includes covering the costs of environmental restoration required as a result of an unplanned event) is sufficient to address legacy effects?		Discussed separately below	

Question	Response	Agreement	Disagreement
DG Questions DG2 Why has sufficient baseline data to quantify the sensitivity of the receiving environment not been undertaken as part of the impact assessment process? How does this lack of baseline data affect the level of certainty in the predicted level of environmental effects?		It was agreed that the answers to these questions depend on the technical evidence, and hence weren't discussed in any detail.	None of the experts changed their opinions, as stated in their respective evidence statements.
DG3 What happens if the BEMP identifies sensitive areas or additional endangered species within and outside the proposed mining area, and as a result that mining should not proceed? How is this scenario addressed under the proposed consent conditions and what reviews will be put in place to ensure transparency of results and findings from the proposed BEMP programme?		It was agreed that the answers to these questions depend on the technical evidence, and hence weren't discussed in any detail.	None of the experts changed their opinions, as stated in their respective evidence statements.
DG4 Your evidence at paragraph [60] states that cadmium (Cd) mercury (Hg), copper (Cu) and nickel (Ni) are to be tested for in water. Appendix 1 of your evidence does not specify which contaminants are to be tested for in sediments. This potentially leaves a gap in the understanding of any linkages between sediment resuspension and changes in water quality. Do you consider along with Cd, Hg, Cu and Ni that lead (Pb), chromium (Cr VI & CrIII) and zinc (Zn) along with tributyl tin (TBT) and arsenic (As) should also be screened for in water and sediment in order to determine if sand mining is having any influence on the ambient concentrations in the PPA and surrounding areas?	The inclusion of these metals, along with other recommendations following expert conferencing have been included within the BEMP and EMMP. The rebuttal evidence of DG also addresses the testing of these contaminants within the sediments and water column.	It was agreed that these matters had been resolved by other expert conferencing and should be reflected in updated conditions.	
DG7 What monitoring is planned to identify the location of reefs present within the area of the sediment plume?		DG explained how the proposed monitoring programme was intended to operate, but the matter was essentially a technical one and wasn't discussed.	

Question	Response	Agreement	Disagreement
NS Questions Paragraph [33] What is your view on TTR's proposed condition 12 and the degree of protection it will provide to marine mammals in the area?	NS considered that the degree of mitigation is dependent on technical evidence.		PM did not agree to changing this condition, on the basis that it was agreed with DoC and reflects the expert witness conferencing from the previous application.

B Matters Raised in Evidence – see paragraphs 6 b) to 6 i) above

Adaptive Management

16. After a lengthy discussion, it was agreed that:
    a) The EEZ Act stipulates that an adaptive management approach is not available for marine discharge consents.
    b) It is extremely difficult, perhaps impossible, to separate those matters that would be conditioned on a marine consent from those on a marine discharge consent.
    c) The matter was the subject of legal submissions - noting that the DMC had requested counsel for the EPA to prepare a memorandum on the topic – and until that was available none of the witnesses changed their opinions, as stated in their respective evidence statements.

17. PM, DG, HA and BC considered that the conditions proposed constituted environmental management, rather than adaptive management. RL considered that the conditions framework (in particular conditions 5 and 6) essentially represent 'operational response' conditions rather than what is normally understood to be 'adaptive management' under the RMA. NS and GY reserved their opinions.

Whether discharge standards/limits should be included in the conditions

18. It was clarified by PM, and accepted by the others present, that the evidence before the DMC made it clear that sediment extracted from the seabed was not subject to any grinding and that only the magnetically separated ore was subject to grinding.

19. It was agreed that discharge standards/limits should be imposed as conditions of consent, except that:
    a) PM and DG considered it not strictly necessary (but did not oppose this) given the controls already proposed to control the volume and fines content of the in-situ sediments to be extracted, and that TTR would not, for operational reasons, mine sediments with high fines content;
    b) RL, PM and DG considered that if discharge standards/limits were imposed for both fines and ultra-fines, receiving environment sediment standards, including the "response limits" and "compliance limits" would not be needed – provided the DMC were satisfied that the discharge standards/limits were set to ensure environmental protection within the receiving environment – the actual 'numbers' for the discharge standard/limit. RL, PM and DG agreed that using a discharge standard/limit approach would not obviate the need to undertake environmental monitoring within the receiving environment to confirm effects were as predicted.
    c) HA, BC, GY and NS considered that both discharge standards/limits and the receiving environment standards should be applied.

20. It was also agreed that discharge standard/limit conditions needed to set limits on both typical and maximum levels, noting that maximum levels needed to use an appropriate averaging period.

21. In the event that the DMC consider that receiving standards be imposed, RL stated that they should be based on 'hard' environmental effects thresholds, or alternatively, that no 'significant' (to be defined) change in the SSC 'bell curve' (distribution statistics) should be more explicitly stated in the conditions as compliance limits (discussed in detail in the EPA Conditions Report).

How conditions setting standards and the management plan conditions that specify how those standards are to be achieved are to be drafted

22. It was agreed that the standards to be achieved needed to be considered separately from management plan conditions which could only be used to set out how compliance with the standards needed to be achieved. RL pointed out that the noise conditions were an example where specific limits and monitoring locations were specified and the EMMP outlines how this is to be achieved, but that a similar approach had not been taken in relation to benthic ecology.

23. It was also agreed that the required contents of management plans needed to be clearly set out.

24. BC, HA and GY considered that the management plans need to be prepared under an environmental management system framework, so that it was clear how the management of the management plans was to be achieved.

25. The wording of specific conditions was not discussed in any detail and further caucusing would be necessary.

26. RL considered that management plans that specified matters covered by other statutes or which were the responsibility of other agencies need not be specified in conditions. He also stated that the EPA did not wish to enforce conditions of this type. Specific examples cited were matters related to marine mammals, seabirds, collision/loss of position, and biosecurity.

27. PM and DG agreed with that statement, in principle, but did not agree that conditions relating to marine mammals (condition 11), seabirds (condition 10), and biosecurity should be amended or removed as they were fundamentally important to both the Department of Conservation (marine mammals and seabirds) and Sanford (biosecurity) and had been the subject of extensive negotiations with them.

28. NS, HA, GY and BC had no particular position on this issue, although NS considered that these matters are relevant under a number of clauses in s59 of

the EEZ Act, including s59(2)(h). NS also considered that if the DMC determines that conditions are needed to address any effects of the activity on these matters then conditions should be consistent with the nature of other marine management regimes. NS considered that this would not necessarily constitute a statutory duplication in situations where approvals prior to an incident (i.e. section 63B of the Wildlife Act 1953 - Reporting of accidental or incidental death or injury) are not required under that other regime.

Whether proposed condition 17 (which provides for the recalculation of numerical values for "response limits" and "compliance limits") is appropriate or whether any such recalculation needs to go through a change of consent process under section 87 of the EEZ Act.

29. It was agreed that the answer to this question depended on the detail of how the conditions were drafted. It was agreed that:
    a) If the recalculation only involved recalculating a specified statistic (e.g. 80th percentile SSC) based on additional monitoring data, and used a specified formula, then this did not require a change of conditions.
    b) In any other circumstances, a change of conditions was required.

30. Whether the currently proposed wording was appropriate was not discussed in detail and was not agreed. In this regard, NS considered that such conditions need to set out objectives (including limits where relevant) for each key element to enable certification and compliance.

Whether those proposed conditions which set out a process for changing Management Plans are appropriate or whether any such changes needed to be made via a change of conditions

31. It was agreed that a change of a management plan need not be achieved via a change of conditions provided the conditions specified that the final management plans needed to be generally in accordance with the current drafts (as at the time of the decision) – and that all the key elements of the management plans are included as stand-alone conditions meaning that the management plan outlines how the condition(s) will be met.

Whether the various conditions proffered by TTR on an Augier basis, should be included, or addressed instead by side agreements between TTR and the relevant party(ies).

32. It was agreed that if conditions were offered by TTR and imposed by the DMC, then those were conditions that needed to be complied with and were enforceable conditions.
33. RL considered that the various Augier conditions are best dealt with by way of side-agreements with the respective third parties and should not be included. The EPA does not consider that it should be required to enforce such conditions as they do not deal with matters that are directly relevant to the marine consents.

34. PM, DG and GY considered that the Augier conditions (relating to tangata whenua and local relationships) should be imposed by the DMC.

35. GY considered that the Augier conditions (33 – 41) relating to Ngati Ruanui address (at least in part) existing interests and cultural impacts for Tangata Whenua, and provide for kaitiaki responsibilities relating to the proposed activities. The linkage to other proposed monitoring conditions is also important for the kaitiaki role. Inclusion in conditions also meant there was a high degree of certainty for tangata whenua for an inclusive role. GY also noted that the acceptance of such a condition should not be seen as any agreement by Ngati Ruanui. GY noted that a condition of this nature was preferable to a "side agreement" that would sit outside the consent proper; especially given the long duration of consent sought and the underlying need to achieve certainty for tangata whenua if consent was granted.

36. NS considered that the Tangata Whenua conditions appeared to be relevant as conditions rather than the other Augier conditions which do not appear relate to adverse effects.

37. NS, HA and BC had no position on whether the Augier conditions were retained.

The sufficiency of the existing baseline programme and the appropriateness of using the proposed Baseline Environmental Monitoring Plan to collect further information prior to the commencement of mining operations

38. It was agreed that:

a) There is a difference between baseline environmental information needed to inform the assessment of environmental effects and make a decision and the information required once consent is granted in order to assess compliance. NS agreed in terms of the sediment monitoring approach proposed by the applicant but considered that in most cases baseline environmental information prior to granting of consent should be sufficient to assess compliance.

b) A decision-maker needed to be satisfied that it has enough baseline information on the existing environment (eg. the adequacy of baseline data with respect to seasonality and natural variability) to make a robust decision as to the effects of the proposal – noting that this was a technical issue and not a planning one.

c) Undertaking "pre-commencement" monitoring should not introduce additional uncertainty into the on-going process – if this were to arise then it could result in the original decision being flawed. GY noted that that pre-commencement monitoring of this nature could not be used to off-set uncertainty as part of the decision making framework.

d) The principle of undertaking additional monitoring to benchmark environmental conditions at specific monitoring locations after a consent was issued and before an operation started was appropriate provided it was detailed and defined.

e) To address HA, GY and BC's concern that the use of the word "baseline" when referring to the "Baseline Environmental Monitoring Plan" created confusion, this should be renamed as the "Pre-commencement Environmental Monitoring Plan", (or similar). GY noted that the structure of such a condition would need to be seen before he could agree with it.

How any "legacy issues" can be provided for in conditions and whether a bond is required instead of, or in addition to, the proposed condition requiring that public liability insurance be in place.

39. There was no agreement on whether a bond condition was needed or not.

40. It was agreed that this was primarily a legal issue and one which the DMC was seeking further legal advice on.

The matter of conditions generally

41. It was agreed that the final form and content of consent conditions depended largely on technical issues, a number of which were still being discussed by various witnesses.

42. PM advised that the proposed conditions are likely to be amended to address the outcomes of joint witness statements and that there will be some changes to structure and ordering. He advised of his intention to circulate a revised set of conditions.

43. It was also agreed to offer to undertake further conferencing, if directed by the DMC, and that this might best be undertaken once all technical evidence and further technical conferencing had been completed and once TTRL had tabled its final set of proffered conditions.

SPECIFIC MATTERS FOR THE DMC'S CONSIDERATION

44. We refer the DMC in particular to paragraph 43 immediately above.

CONFIRMATION OF THE ACCURACY OF THIS CAUCUSSING STATEMENT

45. We confirm that the above is an accurate record of the matters discussed.

Signatures:

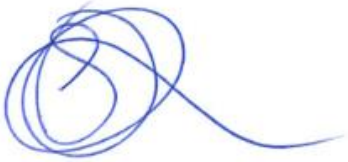
Rob Lieffering

Phil Mitchell 

Daniel Govier 

Helen Anderson 

Natasha Sitarz 

Graham Young 

Bruce Clarke