

**BEFORE THE ENVIRONMENTAL PROTECTION AUTHORITY  
AT NEW PLYMOUTH**

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

**AND**

**IN THE MATTER** of an application for a marine discharge consent under section 38 of the EEZ Act by OMV New Zealand Limited to discharge harmful substances, as offshore processing drainage, from deck drains

**BETWEEN** **OMV New Zealand Limited (OMV)**  
Applicant

**AND** **Environmental Protection Authority (EPA)**

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**EXPERT SUMMARY STATEMENT OF EVIDENCE OF  
ROBERT EWOUT LIEFFERING  
ON UNCERTAINTY AND CONDITIONS  
Dated: 5 September 2018**

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## Qualifications and experience

1. My name is Robert Ewout Lieffering. I have a BSc and an MSc (Hons), both in Earth Sciences, from Massey University, and a PhD, also in Earth Sciences, from the University of Waikato. I am a full member of the New Zealand Planning Institute (NZPI) and an accredited hearings commissioner (Chair endorsement) under the Resource Management Act 1991 (RMA).
2. I currently work part-time for Stantec New Zealand (Stantec) as a Principal Environmental Consultant and a Discipline Lead. I also work privately as an independent hearings commissioner under the RMA. I have been appointed as sole commissioner and been on various hearings panels for a variety of resource consent applications, including for activities within the coastal marine area (CMA). My previous work experience includes holding the position of Consents Manager at the Northland Regional Council and also the Tasman District Council. I have assessed and made decisions on many hundreds of resource consent applications under the RMA.
3. I prepared the report entitled “Dealing with Uncertainty – OMV Marine Discharge Consent Application” dated July 2018 (**the Uncertainty Report**) and the report entitled “Conditions Report – OMV Marine Discharge Consent Application” dated August 2018 (**the Conditions Report**) for the EPA.
4. I have worked for the EPA (on contract through Stantec) on previous applications for marine consents and marine discharge consents, as follows:
  - (a) In 2014 I was the decision support writer for two marine consent applications associated with offshore exploratory drilling in the Taranaki Basin;
  - (b) During 2016-17 I was a Technical Advisor for the Trans-Tasman Resources Limited application to mine iron sand within the South Taranaki Bight. I prepared the EPA’s Key Issues Report (September 2016) and also the Conditions Report (February 2017) for that application. I took part in the Planning and Conditions Expert Conferencing and attended the hearing to present evidence; and
  - (c) In 2017 I was the decision support writer for the marine consent and marine discharge consent applications lodged by Shell Taranaki Limited. This application sought authorisation to discharge harmful substances from deck drainage systems of a drilling rig(s) within the Taranaki Basin.

5. I have recently completed a project for the EPA which involved reviewing the various conditions that have been imposed on all the marine consents issued since the EEZ Act came into force and to prepare a “Conditions Library”. The Conditions Library will be made available for applicants and DMCs for future marine consent applications. Using conditions from the Conditions Library will ensure that those imposed are better standardised and meet the principles of good condition drafting.
6. I have read OMV’s application form, the impact assessment (IA) and its appendices, the submissions, and the EPA Key Issues Report.

### **Code of Conduct**

7. I confirm that I have read the Code of Conduct for Expert Witnesses as contained in the Environment Court Practice Note dated 1 December 2014. I agree to comply with this Code. This evidence is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

### **Scope of Evidence**

8. My instructions from the EPA in respect of this Summary Statement of Evidence were to:
  - (a) Summarise the key points of the Uncertainty Report that I prepared; and
  - (b) Summarise the key points of Conditions Report that I prepared.

In addition, I address a number of matters raised by OMV and the DMC during the first day of the hearing, including OMV’s comments on my suggested changes to its proffered conditions.

### **Uncertainty Report – Summary**

9. OMV has applied for a marine discharge consent to discharge trace amounts of harmful substances, as offshore processing drainage, from the deck drains of one or more Mobile Offshore Drilling Unit(s) (**MODU(s)**). The MODU(s) will be used by OMV as part of its Exploration and Appraisal Drilling (**EAD**) programme which involves drilling up to nine exploration wells and three appraisal wells within six of the permit areas that OMV holds an interest in offshore Taranaki.
10. The discharges of harmful substances that are the subject of this application are not “intended” discharges. Rather, they are discharges of trace (residual) amounts of

harmful substances that may be entrained within discharges from deck drains from occasional drips and other minor spills to deck even after the clean-up of any spills of such substances.

11. Harmful substances are stored and used on the MODU(s) during the EAD programme and the selection of which substances will be used is driven by operational requirements of the MODU, the design of the well to be drilled, and the geology of the formation being drilled. Because not all of these are currently known, the application has not specified exactly which harmful substances may be discharged via the deck drainage system. Further, because the MODU(s) has not yet been contracted the exact details of the deck drainage system, including its treatment system layout and ability, is not currently known. These two uncertainties have the potential to influence the impacts of the discharges for which a marine discharge consent is sought by OMV. In my opinion of these two uncertainties it is not knowing the exact harmful substances which poses the greatest environmental uncertainty.

12. All activities have some level of uncertainty associated with them. Dealing with uncertainty is commonplace under the Resource Management Act 1991 (**RMA**) and how uncertainty is dealt with under that Act can, for the most part, be applied to similar considerations under the EEZ Act. In my Uncertainty Report I set out a recommended approach for the DMC to follow to deal with the uncertainties in the OMV application, summarised as follows:

- (a) Define the uncertainty;
- (b) Determine how critical/important the uncertain information/evidence is in determining the of magnitude of potential adverse effect(s);
- (c) Where uncertainty exists in respect of critical/important information, ask if it is possible for the potential adverse effects to be assessed for a “worst case scenario”.
- (d) When assessing potential impacts the DMC should consider: spatial scale, temporal scale, magnitude of ecological impact, value of environment that will be subject to harm, connectivity (e.g. bioaccumulation), and reversibility of potential harm;
- (e) If the information is critical then ask whether more certainty can be provided through provision of further information or studies.
- (f) If any of the potential adverse effects are irreversible and/or significant then the DMC must favour caution and environmental protection.
- (g) Consider whether conditions can be imposed to address the uncertainty.

13. I consider that the uncertainty associated with not knowing the exact details of the deck drainage system is not critical as OMV has proffered a condition (Condition 7) which outlines minimum requirements which are, in my opinion, appropriate and reflect the “typical” system on most MODUs and on which the IA is based. I consider proffered Condition 7, with minor modification, is sufficient and appropriate to deal with the uncertainty of not knowing the details of the deck drainage system.
14. In my Uncertainty Report I provide an analysis of the uncertainty of not knowing which harmful substances may be used and stored on the MODU(s) using my recommended approach described in paragraph 12 above. My assessment includes a summary of how OMV has assessed the risks associated with a “worst case scenario” discharge. In addition, I provide information on the risks associated with a previous application processed by the EPA to *deliberately* discharge similar harmful substances at the Maari field – the risks associated with the Maari application were deemed to be negligible even though the volume of that discharge and the concentration of the harmful substance being orders of magnitude greater than that predicted to be discharged as part of OMV’s current application.
15. Based on both the information contained in OMV’s IA and the information provided to me by EPA staff<sup>1</sup> for the Maari application, I conclude that, while some impacts may be possible on some marine organisms in the immediate vicinity of the point of discharge, the impacts of such a small volume discharge containing relatively low concentrations of harmful substances will be limited both spatially and in time. I also conclude that the risks associated with the current application are *de minimis* (trivial) at and beyond the zone of reasonable mixing (referred to by OMV as the zone of influence).
16. I conclude that the potential adverse effects of the discharges sought by the current application are not irreversible or significant and, as such, for this application I do not consider that the DMC needs to “*favour caution and environmental protection*” as directed by section 61(2) of the EEZ Act.

## Conditions Report – Summary

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<sup>1</sup> Contained in Appendix A of my Uncertainty Report.

17. In my Conditions Report I outline that conditions may be imposed on marine consents<sup>2</sup> under section 63 of the EEZ Act and the scope of what conditions can be imposed is very broad. However, section 63(2)(b) of the EEZ precludes conditions that together amount or contribute to an adaptive management approach being imposed on marine discharge consents. Such an approach is not proposed by OMV so this section is not relevant in this case.
18. In my Condition Report I provide best practice guidance and principles regarding drafting of conditions – these being based on extensive case law established under the RMA and are equally applicable to conditions imposed on marine consents under the EEZ Act. The DMC will be familiar with these and I do not repeat them here.

### *Submissions*

19. A total of 44 submissions were received during the notification period. Of these, four include reference to conditions, including some which request specific conditions be imposed should the marine discharge consent be granted.
20. The submission from K Hunt seeks that the consent be granted '*with conditions*', however there is no specific discussion provided in the submission on what conditions the submitter considers should be imposed.
21. Te Ohu Kaimoana Trustee Limited requests:
- (a) that OMV's proffered Condition 9 should specify that the Emergency Spill Response Plan (**ESRP**) also be required to specify the hazardous substances that will be used.  
*My response:* ESRPs are required under Regulation 24 of the Exclusive Economic Zone and Continental Shelf (Environmental Effects—Discharge and Dumping) Regulations 2015 (**D&D Regs**). An ESRP must include, *inter alia*, information about the harmful substances on board the offshore installation, including a list of harmful substances stored on the offshore installation and the maximum volumes of the substances likely to be stored. In any case, I recommend that proffered Condition 9 be deleted and replaced with an advice note – I discuss this later in this Summary Statement of Evidence.
  - (b) maximum discharges should be limited within the parameters specified in the testing carried out for the IA, including toxicity levels, discharge volumes and

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<sup>2</sup> The use of the term 'marine consent' in the EEZ Act includes marine discharge consents.

frequency. Limits set should ensure the worst case scenarios modelled are not exceeded.

*My response:* I do not consider this is necessary or appropriate given the minor nature of the activity for which consent is being sought. This application seeks to discharge trace (residual) amounts of harmful substances that may be entrained within discharges from deck drains following the clean-up of any spills of such substances. Even if a limit(s) was to be imposed by way of a condition(s), it would be difficult, if not impossible, to accurately measure the rate of discharge or mass of harmful substance discharged given that they will be present in trace quantities. Assessing compliance with such limits would be very difficult.

- (c) that the Ministry for Primary Industries (MPI) and fishing industry bodies should be included in OMV's proffered Condition 11(a) as persons who may be notified after a spill.

*My response:* I agree and have recommended a change to this condition accordingly.

- (d) testing of fish flesh prior to drilling and again afterwards.

*My response:* The IA concludes that the potential effects on fish are negligible<sup>3</sup>, I agree and as such no monitoring of fish flesh is, in my opinion, warranted.

22. Te Korowai o Ngaruahine Trust request that OMV provide full disclosure of the hazardous (harmful) substances that will be used along with an assessment of the effects. OMV has explained why it cannot, at this stage, specify which harmful substances will be stored and used - that is, the selection of these is driven by operational requirements of the MODU, the design of the well to be drilled, and the geology of the formation being drilled. The ESRP that is required to be submitted and approved by the EPA under Regulation 24 of the D&D Regs must include, *inter alia*, a list of the harmful substances stored on the offshore installation and the maximum volumes of the substances likely to be stored.

23. Te Korowai o Ngaruahine Trust also request a number of conditions requiring OMV to:

- (a) develop an engagement agreement with Ngāruahine iwi and hapū;
- (b) fund marine mammal and fish population surveys;

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<sup>3</sup> IA, Section 7.2.2.5.

- (c) develop and introduce a comprehensive five year post-activity monitoring programme in addition to baseline monitoring that should be required (details to be supplied by iwi);
- (d) invest in environmental actions within Taranaki that can support restoration and improvement to the waiora of the marine and coastal environment; and
- (e) commit to ensuring all of its senior management team and staff involved in operations undertake cultural training.

24. Based on the very minor scale of the activity and the negligible potential adverse effects of the activities that this marine discharge consent relate, I do not consider that conditions should be imposed to address the matters outlined in paragraph 23 (a) to(e) (above).

25. Te Runanga o Ngati Ruanui requests a number of conditions including that a zero discharge MODU be used and also a number of conditions which relate to imposing restrictions which reflect the assumptions, details, examples, and calculations provided by OMV in its IA.

26. I rely on the evidence of Mr Hollinger, for OMV, regarding the matter of zero discharge MODUs and whether they are more stable than conventional MODUs<sup>4</sup>.

27. It is my opinion that it is not appropriate to impose specific conditions that restrict OMV to the assumptions, details, examples, and calculations it presents in its IA. The IA is based an example MODU (being the largest MODU that responded to the OMV invitation to tender in 2017) and a selection of harmful substances it has used in previous drilling campaigns. However, the actual MODU(s) that will be used and the exact substances that will be used are not currently known so it is not appropriate or necessary in my view to impose conditions which reflect this part of the IA given the very minor scale of the activity and negligible potential adverse effects.

#### *OMV Proffered Conditions*

28. OMV has proffered a set of conditions, included as Appendix A of the IA, and in my Conditions Report I provide an analysis of these. I consider that many of the conditions are appropriate, albeit with minor modifications to reflect EPA preferred drafting. However, I recommend that some of the proffered conditions be deleted, additional

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<sup>4</sup> Hollinger, EIC, paragraph 63.



(new) conditions be imposed, and two advice notes included. I discuss my more significant recommended changes in the following paragraphs. I do not discuss the minor typographical changes, those changes that do not change the intent of OMV's proffered conditions, or new conditions which relate to minor matters. All the changes are shown in Table 8-1 of my Conditions Report. Note that where I consider additional conditions should be included, I have inserted them where I think they best fit within OMV's numbering and have given the new conditions suffixes (e.g. 2A) rather than attempting to renumber the entire set of conditions.

#### *New Condition 6A*

29. I recommend a new Condition 6A be included which requires OMV to ensure that any harmful substances that have a reasonable potential for discharge from hazardous and non-hazardous deck drains on-board any MODU are stored within a secondary containment system. The condition also defines what constitutes a secondary containment system and this definition is from Regulation 3 (Interpretation) of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

#### *Deletion of OMV Proffered Conditions 8 and 9*

30. OMV's proffered Condition 8 would require it to ensure there is an approved ESRP for any MODU and proffered Condition 9 specifies some of the matters that must be included in the ESRP. In my view the implementation and compliance with the ESRP required under Regulation 24 of the D&D Regs is the single most important measure for OMV's application to ensure the discharge of harmful substances in the deck drainage system are avoided and/or minimised. However, because an ESRP is a mandatory requirement under Regulation 24 of the D&D Regs I do not consider it necessary duplicate this requirement by including it as a condition on this marine discharge consent. Accordingly, I have recommended that OMV's proffered Conditions 8 and 9 be deleted and that an advice note be included reminding OMV that it may not operate an offshore installation without an ESRP approved by the EPA as required by Regulation 24 of the D&D Regs. This advice note is included as 'Advice Note 1' in Table 8-1 of my Conditions Report. Advice notes are commonly included on consents to remind consent holders of other standards and/or requirements relating to the proposed activity and I consider this is the appropriate approach in this case.

#### *Deletion of Proffered Condition 12*

31. OMV's proffered Condition 12 appears to be a standard 'review' condition which would enable the EPA to serve notice on the Consent Holder to review the conditions of the consent. The ability for the EPA to review conditions under sections 76 and 77 of the EEZ Act does not need to be imposed as a numbered condition on the consent. The reason for this is that it is only the EPA that can instigate a review and such reviews are not a condition that a Consent Holder can (or must) comply with. Despite this, in the event that the DMC wishes to specify any purpose(s) for a review then this needs to be specified in the consent (but not as a numbered conditions) – refer to section 76(1)(a) of the EEZ Act. This differs from the matters specified in section 76(1)(b) to (e) which the EPA can initiate a review for at any time it considers necessary.
32. The wording I have recommended would allow the EPA to review the conditions and duration of the marine discharge consent quarterly or within 20 working days of notification of any spill.

#### *New Advice Note*

33. The IA includes a commitment that “*Wherever possible the least harmful substance that is technically capable of performing the specific role will be selected*”. Mr Govier has clarified that this statement should, in fact, read (my emphasis) “*wherever practicable*”<sup>5</sup>. Given Mr Govier's clarification, OMV's commitment, if implemented, will result in the environmental risks being lowered to “As Low As Reasonably Practicable” (**ALARP**) – this being a term used a number of times in the IA in respect to environmental risks. In my Uncertainty Report I noted that no condition had been proffered by OMV to reflect this commitment and suggested that the DMC may wish to explore whether it could be codified in the conditions. Having considered this matter further, I do not consider it necessary that this commitment be codified by way of a condition given the minor scale of the activity being consented (the discharge of trace amounts of harmful substances) and the negligible potential adverse effects of such discharges. I have, instead, recommended that an advice note be included which reinforces OMV's commitment in this regard.

#### *Concluding Statement on Conditions*

34. Subject to the changes to the conditions recommended in Table 8-1 of my Conditions Report, I consider the OMV conditions to be generally acceptable and appropriate for the marine discharge consent being sought. If imposed and complied with I believe

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<sup>5</sup> Govier, EIC, paragraph 93.

that the conditions appropriately deal with the adverse effects of the proposed activities on the environment and on existing interests.

### **Day One of the Hearing**

35. In its opening legal submissions OMV provided the DMC with comments regarding the amendments that I have suggested to its proffered conditions. Those comments are set out in Appendix A to the opening legal submissions. Appendix A repeats Table 8-1 from my Conditions Report and includes an extra column with OMV's comments.
36. As stated in paragraph 49 of the opening legal submissions, OMV largely accepts my suggested amendments and acknowledges that, in places, they are an improvement over the proffered set contained in its IA. However, OMV disagrees with some of my suggested amendments. I discuss those matters in the following paragraphs.
37. OMV accepts my suggested new Condition 2A regarding the lapsing period but requests that the fixed date be changed to 31 December 2024 instead of my 2023. I agree with this amended date for the reasons stated by OMV.
38. OMV considers that my suggested new Condition 5A, which would require OMV to provide the EPA with advance notice of commencing the activities authorised by the Marine Discharge Consent, is unnecessary and that it is better suited for the "substantial" exploration activities. I agree and consider that Condition 5A can be deleted. However, the basis for me recommending this condition was because OMV has made a conscious and deliberate decision to apply separately for the various marine consents and marine discharge consents that it needs for its EAD programme and my new condition 5A was included on that basis – that is, this Marine Discharge Consent is being assessed independently of the other consents and it would be normal and appropriate to include an advance notice type condition on a standalone consent that is issued separately from the other authorisations.
39. OMV disagrees with my suggested amendments to Condition 7. I agree with OMV's reasons that new clause (a) and my proposed opening words are not needed and these can be deleted with the text reverting back to the original OMV proffered text (subject to some changes discussed below).
40. In respect to clause (d) of Condition 7, OMV correctly notes that this application is not for the discharge of oil and as such it considers that "*measuring the oil-in-water prior*

to the discharge is not relevant to the proposed activity”<sup>6</sup>. This statement seems at odds with OMV’s proffered condition on which my suggested changes are based – that is, OMV’s original proffered condition required “A mechanism for analysing oil-in-water content prior to discharge from the oil-in-water separator system” and my suggested amendments sought to require such analyses to be made on a continuous basis and to define what ‘continuous’ means – the definition being based on discussions with EPA staff. OMV has revised its proffered Condition 7 and I agree with it, but make the following suggested changes to it:

*~~Any~~ All deck drains from a hazard areas shall, as a minimum, include the following design requirements:*

- (a) Full containment of deck drainage runoff directed to a settlement tank(s);*
- (b) Settlement tanks shall have a minimum combined capacity of at least 5 m<sup>3</sup> cubic metres; and*
- (c) All deck drainage runoff shall pass through ~~A~~n oil-in-water separator system prior to discharge to the sea.*

41. I note that my suggested amendment to Condition 11 should read “Ministry for of Primary Industries”.

42. OMV considers that my suggested new Condition 11A is unnecessary for the proposed activity. I have suggested this condition as it is commonly imposed on not only marine consents but also resource consents under the RMA. However, having reconsidered this condition further, I agree with OMV that it is not required in this case and can be deleted.

43. In respect of OMV’s proffered Condition 12, which relates to the ability for the EPA to review the conditions and duration of the consent, OMV incorrectly suggest that I consider it should be imposed as a condition of consent (with amendment). That is not the case – my underlined text in Table 8-1 makes it very clear that my position is that such a condition is not needing to be imposed and I explain the reason for that in paragraph 31 (above). OMV considers no condition, or reference in the consent to the EPA’s ability to review the duration of consent or its conditions, is needed as it duplicates section 76 of the EEZ Act and that “...*the EPA may initial* [sic] *a review of*

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<sup>6</sup>OMV opening legal submissions, page 23.

*the duration of consent or any conditions at any time to deal with any adverse effect on the environment*<sup>7</sup>.

44. Section 76 of the EEZ Act outlines the circumstances whereby the EPA may review the duration or conditions of consent. I note that reviews under subsections (1)(b) to (e) can be initiated whenever the circumstances stated in those clauses arise, however reviews under subsection (1)(a) can only be instigated ‘*at any time or times specified for that purpose in the consent*’. While this wording can be interpreted (as OMV has done) as providing the EPA with an open-ended opportunity to review the conditions, the wording is identical to section 128 of the RMA. Case law under that statute confirms that such reviews cannot be open-ended<sup>8</sup>, and the consent must specify the time or times that such reviews can be instigated. The consent holder must have certainty of when a review might occur. This is why I have recommended the wording in Table 8-1 and I remain of the view that it needs to be included in the consent (but not as a condition).
45. I agree with OMV’s suggested amendments to my recommended Advice Note 2.
46. Yesterday the Chair of the DMC asked a question of OMV whether the New Zealand Coastal Policy Statement (NZCPS) is of relevance in this case as a Marine Management Regime (MMR). The Chair made reference to the recent High Court decision on the Trans-Tasman Resources Limited (TTRL) appeals. I was involved in the TTRL hearing but not the High Court appeals.
47. Consideration of the NZCPS falls under section 59(2)(h) of the EEZ Act which obliges the DMC, in assessing the effects on the environment, to “take into account” the nature and effect of marine management regimes.
48. In the case of TTRL’s application, it was located immediately adjacent to (seaward of) the Coastal Marine Area (CMA) boundary but the potential adverse effects included the CMA so the question of the applicability of the NZCPS, and how much weight should be given to its provisions (as well as section 107 RMA matters), was traversed a number of times during the DMC hearing.
49. In the TTRL High Court decision Churchman J concludes at para [160]:

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<sup>7</sup> OMV Opening legal submissions, pages 26 and 27.

<sup>8</sup> Essentially if it were to be interpreted as being an open-ended ability the word “anytime” would have been used.

*For the purposes of s 59(2)(h) of the EEZ Act, my conclusion is that the obligation to take into account the nature and effect of other marine management regimes was not an obligation to implement or give effect to those regimes, but to pay attention to those regimes and to weigh the nature and effect of them in addressing any effects on the environment or existing interests of allowing the activities for which consent was sought.*

50. There was a difference in the weighting that the majority and minority decision gave to both the NZCPS and the RMA but the High Court decision confirmed that because the majority decision clearly considered (and to that extent took into account) both the RMA and NZCPS, it could not be said that they made an error of law.

51. In my opinion the NZCPS is a relevant MMR that the DMC must take into account under section 59(2)(h) of the EEZ Act. However, in my opinion the weighting to be given to the provisions of the NZCPS, and the RMA for that matter, comes down to the potential effects that an activity may have within CMA waters. Such effects will normally decrease with increasing distance from EEZ/CMA boundary and also the nature and scale of the activity. For OMV's current application, the discharges of trace amounts of harmful substances will occur a large distance from the CMA boundary (the closest being Well I which is >15 km from the CMA boundary<sup>9</sup>) and the adverse effects within the CMA will be undetectable. For these reasons I consider very little weight, if any, should be given to the NZCPS provisions in this case.



Dr Rob Lieffering

5 September 2018

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<sup>9</sup> Scaled off Figure 1 of OMV's IA.