

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
EFFECTS ON SEABIRDS**

Dated Thursday, 16th February, 2017

INTRODUCTION

1. Expert conferencing of the Effects on Seabirds experts took place in person on Thursday, 16th February, 2017.
2. The conference was attended by:
 - a) Dr. David Thompson (DT)
 - b) Dr. John Cockrem (JC)

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. 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.
5. The issues are:
 - a) The importance of the South Taranaki Bight (STB) for seabirds.
 - b) Increased turbidity and light attenuation resulting from the sediment plume and how these affect seabirds.
 - c) Artificial nocturnal light from mining vessels as an attractant for seabirds and the potential for vessel strike.
6. In relation to each issue we discussed points of agreement and disagreement:

Seabirds in the STB

- a) The experts agreed that the STB is within the Cook Strait Important Bird and Biodiversity Area and is, therefore, of international significance for the conservation of seabirds.
- b) The experts agreed that a number of 'threatened' and 'at risk' taxa (as defined by the New Zealand Threat Classification System) occur within the STB (conservatively ten and 24 taxa, respectively) year-round or seasonally.

- c) The experts agreed that there are reports of large numbers of seabirds present within the STB, for example 100,000 prions.
- d) The experts agreed that there have been no systematic and quantitative surveys of little penguins and other seabirds within the STB.
- e) The experts agreed that there have been no systematic surveys of the coastlines adjacent to the STB for the presence of breeding little penguins, that observations of penguin tracks on beaches near Hawera and near Opunake are strong evidence that little penguins breed along the Hawera and Opunake coastlines, that the full extent of breeding of little penguins in the region remains unknown and that it is likely that little penguins breed along the STB coastline.
- f) The experts agreed that little penguins swim up to 170 km from Motuara Island in the Marlborough Sounds to the STB and that little penguins breeding in the Marlborough Sounds are known to experience food shortages. JC's view was that the STB may be an important if not crucial feeding area for the continued survival of populations of little penguins that breed in the Marlborough Sounds. DT disagreed with this view.

Increased turbidity and light attenuation

- g) The experts agreed that the proposed mining of sand would produce sediment that in turn will increase turbidity and reduce light intensity within the water column.
- h) The experts agreed that the effects outlined in paragraph g above would affect seabirds.
- i) With respect to little penguins, which are visual foragers, JC's view was that reductions in light intensity and visibility in the water due to sand mining would reduce foraging opportunities for penguins. DT disagreed and was of the view that little penguins would be unaffected by relatively small reductions in light intensity and visibility in the water.
- j) With respect to little penguins, and with the proposal to mine sand for 35 years, JC's view was that mining over this period could cause declines or even extinctions of local populations. DT disagreed, arguing that any effect on penguins would be too small for population declines or extinctions to occur.
- k) The experts agreed that the proposed mining area is <100 km from Stephens Island, the most important breeding site for fairy prions in New Zealand. JC's

view was that while the extent to which mining would adversely affect fairy prions in the STB cannot be determined, any reduction in food availability due to mining could affect large numbers of prions. DT disagreed, taking the view that fairy prions would not be adversely affected by the proposed mining, primarily because the foraging range of fairy prions is very much larger than any area that would be affected by mining.

- l) JC's view was that the reduction in light intensity and visibility in the water would adversely affect the foraging of seabirds other than penguins. DT's view was that there would be no such adverse effect because the foraging range of seabirds is very much larger than any area that would be affected by mining.

Artificial nocturnal light

- m) The experts agreed that large numbers of seabirds may be present in the STB at night, including the proposed mining area, and that there is potential for significant mortality of seabirds attracted to mining vessel lights.

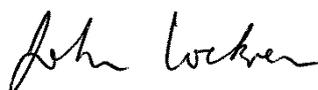
In summary

- n) Overall, it was JC's view that mining would have adverse effects on seabirds, including 'threatened' and 'at risk' taxa. DT's view was that there would be no adverse effects on seabirds.

Monitoring

- o) The experts noted that while seabirds were identified as part of proposed baseline monitoring, no details of how this was to be carried out were provided in TTRL's 'appendices to the impact assessment'.
- p) JC's view was that monitoring seabirds for two years would be insufficient to determine accurately the use of the STB by seabirds, to determine numbers of breeding birds and breeding success at colonies of seabirds that forage in the STB, and to determine the magnitude of the adverse effects from mining. DT's view was that two years of monitoring would be sufficient to confirm seabird taxa and numbers.

Signed:



John Cockrem



David Thompson