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

AND

IN THE MATTER of a Decision-Making Committee appointed by the Environmental Protection Authority to consider a marine consent application by Trans-Tasman Resources Ltd to undertake activities in the South Taranaki Bight restricted by the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012

STATEMENT OF EVIDENCE OF DR MARK TURNER GIBBS (COMMERCIAL FISHERIES)

27 March 2014
INTRODUCTION

1. My name is Dr Mark Turner Gibbs.

2. I am a Technical Director at AECOM. AECOM is a global technical consulting organisation with around 45 thousand professionals located in 150 countries.

3. I have been engaged by the Environmental Protection Authority (“EPA”) to:
   (a) prepare a peer review report of the effects assessment in the Trans-Tasman Resource Ltd marine consent application and impact assessment (“the application”) relating to commercial fisheries;
   (b) prepare, at a later date, a supplementary report considering submissions and further information received; and
   (c) participate in expert conferencing, and the hearing of the marine consent application, if directed to do so by the Decision-Making Committee.

4. I have prepared:
   (a) a report entitled Trans-Tasman Resources Ltd: Review of Technical Report on Commercial Fisheries dated December 2013; and
   (b) a supplementary report entitled Assessment of effects on the physical environment from the Trans-Tasman Resource Ltd Marine Consent Application dated February 2014.

5. A link to that those reports are provided in Annexure A to this statement of evidence.

6. Since preparing those reports I have read the evidence of Ms Nici Gibbs (on behalf of Trans-Tasman Resources Ltd) and Mr Douglas Gordon (on behalf of McDonald and Brown Limited, New Zealand Federation of Commercial Fishermen, Southern Inshore Fisheries Management, Talley’s Group Limited), and attended expert conferencing and authored a joint statement in the field of effects on commercial fisheries and fishing (dated 26 March 2014).
QUALIFICATIONS AND EXPERIENCE

7. I have the following qualifications and experience relevant to the evidence I have provided.

- BE (Civil), University of Melbourne, 1987.
- PhD (coastal physical and biological oceanography), Mathematics Oceanography Laboratory, University of New South Wales, 1996.
- MBA Australian Maritime College/University of Tasmania, 2006.
- New Zealand Coastal Master (Shipping).

(a) In my present role at AECOM I have oversight over AECOM's coastal and marine project portfolio in Australia and New Zealand, but also work on projects around the globe.

(b) In my present role as an adjunct Associate Professor at the University of Queensland Centre for Applications in Natural Resource Mathematics I have oversight over marine ecological modelling programs undertaken at the University.

(c) In my present role as an Editor for the ICES Journal of Marine Science, published by Oxford University Press, I have editorial oversight over new marine fisheries and environmental research initiatives. In this role I am presently co-ordinating a Special Issue on the global application of risk assessment to marine fishery and impact assessment projects.

(d) Prior to joining AECOM in 2011, my previous role was Deputy Chief, CSIRO Division of Marine and Atmospheric Research (CMAR). CMAR is consistently rated in the top 1% of global marine research organisations. This role included leadership of CSIRO's fishery research and consulting capability.
Prior to joining CSIRO, I held the role of Principle Coastal Scientist at the Cawthron Institute in Nelson, prior to which I was a lecturer at the Department of Marine Science at the University of Otago.

I continue to maintain both an active research program and commercial impact assessment consulting portfolio.

My research over recent decades has focused on developing improved methodologies and approaches for understanding and predicting interactions between human activities and the coastal and marine environment with particular emphasis on the management of competing uses in the marine environment.

My most recent research publication, published in the *Marine Pollution Bulletin* in late 2013, was titled “Environmental perverse incentives in coastal monitoring”.

In 2013 I was invited as one of a small number of global fishery specialists to provide a viewpoint on the issue of whether fishery catch shares are compatible with ecosystem-based management. These viewpoints were published in the December 2013 edition of *Marine Ecosystems and Management* have published 52 research papers, the majority of which I am the first author, on a range of fisheries and coastal and marine environmental management issues. My research has been published in the three most prestigious global scientific journals; *Science, Nature, and Proceedings of the National Academy of Sciences*.

With particular relevance to spatial management of fisheries, I have authored a number of research papers on this subject, including:


(k) My contribution to global marine environmental research has recently been recognised with the following awards:


(ii) NG Alexander Medal 2012 (Engineers Australia).


(iv) AECOM Global Excellence Award (Thought Leadership) 2013.

(l) I am currently the technical lead for the major consent application for the Port of Townsville capital dredging program, adjacent to the Great Barrier Reef marine Park.

(m) I am presently providing advice to Abbot Point Port on implementing the consent approval conditions for a major capital dredging program within the Great Barrier Reef Marine Park.

(n) In 2013 I wrote the marine environmental management procedures for Arrow Energy, a subsidiary for Shell Oil.

(o) I was a member of the technical advisory committees charged with assessing the potential marine environmental impacts of the groundings of the *MV Pacific Adventurer* on Moreton Island in 2009 and *MV Tai Ping* in Bluff harbour in 2002.
(p) During the period 1997-2006 I led a major monitoring and consent application program that investigated the impacts to the marine environment and commercial fishers from the tailrace discharge from the Manapouri power station in Fiordland.

(q) For the period 2000-2006 I led a number of consent application studies for mussel farms in the Marlborough Sounds, Firth of Thames and Bay of Plenty. As a result of these projects, we developed a set of methods for predicting the impacts to fisheries. These have been published in the international research literature and have global uptake, including:


(r) I have authored and contributed to technical studies for dredging operations for the Port of Nelson, Port Otago and Port Lyttleton.

(s) I have provided expert witness services for the NZ Environment Court previously for mussel farm applications in the Marlborough Sounds, Bay of Plenty and Firth of Thames.

(t) I am a member of a number of relevant associations and hold registrations including the AMSA (Australian Marine Sciences Association), Australian Coastal Society, and I am a former President of the New Zealand Marine Sciences Society.
8. I recognise that TTR has made the following statement in the hearing transcript for day 1.

"We note that it appears on the AECOM website, the author of the report, Dr Mark Gibbs, is a civil engineer with expertise in coastal management as opposed to fish ecology."¹

9. As outlined above, I hold an engineering degree in addition to my postgraduate qualifications, and I have expertise in coastal management, in addition to marine resource and fisheries management, science and ecology (as demonstrated through my research publications record).

10. I also note that my contribution to this hearing is to provide input on the impacts to commercial fishing as stated at paragraph 3, rather than to consider the science of fish ecology.

CODE OF CONDUCT

11. I confirm that I have read, and agree to comply with, the Code of Conduct for Expert Witnesses as contained in Schedule 4 of the Judicature Act 1908 and the Environment Court Consolidated Practice Note 2011.

12. In particular, unless I state otherwise below, this evidence is within my sphere of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

SCOPE OF EVIDENCE

13. When authoring the reports described at paragraph 4 above, I relied upon:

(a) The TTR Commercial Fisheries Report, the NIWA Fish and Fisheries Report, and the Sediment Deposition and Resuspension Behaviour of Tailing Report contained in the application and

(b) the list of references provided in my reports.

14. At that time I had not reviewed the evidence provided by the parties to the application and further information requested by the EPA, and had not attended expert conferencing or contributed to the drafting of a joint statement.

Dr Mark Gibbs

27 March 2014
ANNEXURE A

REPORTS PREPARED FOR THE EPA
