

**BEFORE THE NORTHLAND REGIONAL COUNCIL**

**UNDER**

the Resource Management Act 1991

**AND**

**IN THE MATTER**

Resource consent applications by the  
Motutangi-Waiharara Water Users Group  
for new groundwater takes from the  
Aupouri aquifer subzones: Houhora,  
Motutangi and Wairarara

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**SUPPLEMENTARY SUBMISSIONS ON BEHALF OF  
THE DIRECTOR-GENERAL OF CONSERVATION**

**6 April 2018**

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## **MAY IT PLEASE THE PANEL**

1. On 27 March 2018 the Panel requested that the Director-General of Conservation respond on whether the Department of Conservation would support the grant of some individual applications north of the Kaimaumu wetland, as opposed to the collective application.
2. The purpose of these submissions is to provide the Panel with supplementary evidence in relation to this query and summarise the position of the Director-General of Conservation.
3. Attached as **Appendix A** to these submissions is a Supplementary Statement of Evidence of Shona Myers with respect to wetland ecology. Attached as **Appendix B** is a Supplementary Statement of Evidence of Timothy Baker concerning hydrology. The position of the Director-General is set out below.

## **Whether some individual takes would be acceptable**

4. The Director-General considers that there is still insufficient information upon which to properly determine the collective application or individual applications. Information upon which to properly assess those individual applications north of the Kaimaumu is still required. The Director-General would not oppose the individual applications if the results of further monitoring or further information confirms that effects will be less than minor.
5. If the Panel is inclined to grant the application in part, the evidence of Mr Baker and Ms Myers supports that, at face value, it may potentially be appropriate to approve the northernmost sites.<sup>1</sup> In particular five proposed abstractions in the north of the Houhora subzone.<sup>2</sup> The outstanding issue here is that no assessment of effects of each individual site has been provided for the Department to form a definitive view on these northernmost sites. Assessment of effects provided by the applicant to date has focused on the collective applications. The Department considers that further information on the potential effects of individual takes should be provided by the five applicants in question.

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<sup>1</sup> Supplementary Statement of Evidence of Shona Myers, at paragraph [5].

<sup>2</sup> Supplementary Statement of Evidence of Timothy Baker, at paragraph [6].

6. It would be appropriate for the Panel to seek further information, including an assessment of effects, from the applicants for the northernmost sites.

7. Section 41(4) of the RMA provides the Panel with the power to:

*... request and receive, from any person who makes a report under section 42A or who is heard by the authority or who is represented at the hearing any information or advice that is relevant and reasonably necessary to determine the application.*

8. Section 41C(3) also provides the Panel the power to request the applicant to provide further information.

9. In light of the supplementary evidence of Mr Baker and Ms Myers,<sup>3</sup> the Director-General still has concerns about the cumulative impacts of further water takes on the wetland, and also considers that baseline monitoring is still needed for individual water takes in respect of the northernmost sites.

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<sup>3</sup> Supplementary Statement of Evidence of Shona Myers, dated 6 April 2018, Supplementary Statement of Evidence of Timothy Baker, Dated 6 April 2018.

**Appendix A – Supplementary Statement of Evidence of Shona Myers for the Director-  
General of Conservation**

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**SUPPLEMENTARY STATEMENT OF EVIDENCE OF SHONA MYERS FOR  
THE DIRECTOR-GENERAL OF CONSERVATION**

**6 April 2018**

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## **Introduction**

1. My full name is Shona Claire Myers.
2. On 19 March 2018 I provided a Statement of Evidence concerning the resource consent application by the Motutangi Waiharara Water User Group to take groundwater. My Statement of Evidence focused on the potential adverse effects of the proposed water takes on the ecological values of the Kaimaumu wetland and whether there is sufficient information provided to assess ecological effects on the wetland.
3. On 27 March 2018 the Panel requested that the Director-General of Conservation respond on whether the Department would support the grant of some individual applications north of the Kaimaumu wetland, as opposed to the collective application.
4. This supplementary evidence addresses whether some individual water takes would be acceptable from an ecological point of view.

## **Ecological Effects of Individual Water Takes**

5. I am most concerned about the proposed new water takes on the western and southern boundaries of Kaimaumu wetland. The AEE maps (Figures 26 and 30<sup>4</sup>) showing simulated drawdown (Scenario 2) of the deep and shallow aquifers indicate that this could have significant impacts on the wetland. I am less concerned about the northernmost proposed takes as the simulated drawdown effects are not as close to the wetland.
6. If the Panel chooses to approve applications and assess effects on an individual basis I have significant concerns about the cumulative impacts of further water takes on the wetland. Effects of each application may only be considered on an individual basis without any analysis of the effects of the applications as a whole. An understanding of the function and relationship of the aquifer and the wetland is needed to assess effects of any proposed individual water take as well as collective water takes.

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<sup>4</sup> Maps provided in AEE by Motutangi-Waiharara Water Use Group.

7. Baseline monitoring is essential to provide information on the hydroecological characteristics of the wetland, whether it is connected to the aquifers, and to understand short and long-term changes to the hydrology of the wetland.
8. I would recommend establishment of baseline ecological/vegetation monitoring following NZ wetland ecological condition methodology (see list of references in Appendix 1), in conjunction with hydrology monitoring. This is needed to assess potential effects on wetland condition such as drying out of the wetland, invasion of fire resistant dryland weed species, and changes to wetland types and patterns in the wetland.
9. This baseline ecological monitoring would be consistent with the recommendations in the MfE “Guidelines for the Selection of Methods to Determine Ecological Flows and Water Levels<sup>5</sup>”. These guidelines recommend wetland hydrological condition assessment and a full ecohydrological assessment for high value wetlands.
10. I would recommend that baseline monitoring is also needed for individual water takes including for the northernmost sites, so that there is better understanding of the potential effects on the wetland, including cumulative effects.

**Shona Myers**  
6 April 2018

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<sup>5</sup> Beca. 2008. Draft Guidelines for the Selection of Methods to Determine Ecological Flows and Water Levels. Report prepared by Beca Infrastructure Ltd for MfE. Wellington: Ministry for the Environment.

## Appendix 1: References (NZ wetland condition monitoring and delineation)

- a. Boffa Miskell 2012. Kapiti Water Supply Project. Potential Ecological Impacts on Wetlands associated with the River Recharge with Groundwater Option (RRwGW). Prepared for Kāpiti Coast District Council.
- b. Boffa Miskell (undated) Kapiti Water Supply Project Proposed Wetland Monitoring and Adaptive Management Programme (Revised 20130521 (6).docx)
- c. Clarkson B. R. 2013. A vegetation tool for wetland delineation in New Zealand. Landcare Research. Report prepared for Meridian Energy Limited.
- d. Clarkson BR, Champion PD, Rance BD, Johnson PN, Bodmin KA, Forester L, Gerbeaux P, Reeves PN 2013. New Zealand wetland indicator status ratings. Landcare Research, A vegetation tool for wetland delineation in New Zealand, Landcare Research Hamilton. <http://www.landcareresearch.co.nz/science/plants-animals-fungi/ecosystems/wetland-ecosystems>.
- e. Clarkson B.R., A. Hicks, H.A. Robertson, B.D. Rance, G. Ledgard 2013. A monitoring approach for Southlands wetlands: Stage 1. Envirolink Advice Grant: 1257-ESRC257. Prepared for Environment Southland.
- f. Clarkson B.R., J.M. Overton, A-G.E. Ausseil A-G.E, H.A. Robertson 2014. Towards quantitative limits to maintain the ecological integrity of freshwater wetlands: Interim report. Prepared for Department of Conservation. Landcare Research Contract report LC1933.
- g. Clarkson B.R., B.K. Sorrell, P.N. Reeves, P.D. Champion, T.R. Partridge, B.D. Clarkson 2003. Handbook for Monitoring Wetland Condition. Co-ordinated Monitoring of New Zealand's wetlands. A Ministry for the Environment Sustainable Management Fund Project (5105).

**Appendix B – Supplementary Statement of Evidence of Timothy Baker for the  
Director-General of Conservation**

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**SUPPLEMENTARY STATEMENT OF EVIDENCE OF TIMOTHY BAKER  
FOR  
THE DIRECTOR-GENERAL OF CONSERVATION**

**6 April 2018**

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## **Introduction**

1. My full name is Timothy Michael Baker.
2. On 19 March 2018 I provided a Statement of Evidence concerning the resource consent application by the Motutangi Waihara Water User Group to take groundwater. My Statement of Evidence focused on several uncertainties as to whether the wetland is hydraulically linked to the shallow groundwater system and the absence of a baseline assessment of the hydrology of the Kaimaumu Wetland.
3. On 27 March 2018 the Panel requested that the Director-General of Conservation respond on the following query:
  - a. Whether the Department would support the grant of some individual applications north of the Kaimaumu wetland, as opposed to the collective application.
4. This evidence responds to that question.

## **Consideration of the individual applications unlikely to affect wetland**

5. The AEE provides an assessment of drawdown of all proposed takes as a whole, not of individual takes. However, looking at the drawdown predicted in Figure 30 of the AEE, it appears that there are distinct areas of drawdown around clusters of proposed takes and I have used this to infer the effects of some individual takes.
6. At face value (based on the review of the groundwater drawdown maps provided in the AEE, in particular Figure 30) there are five proposed abstractions in the north of the Houhora subzone that have been modelled to have a low degree of effect on groundwater drawdown, primarily because they are relatively small volume takes. These are Thomas, Brien (Lamb Road), McLarnon, Brien (Hukatere Road) and Valadares.
7. My interpretation of the model outputs is that it suggests these five abstractions may have a predicted drawdown beneath the wetland of less

than <0.1 m. I recommend this is confirmed by assessing these takes individually using the model.

8. At this stage, all other takes are located closer to the wetland system, and the concerns around baseline monitoring and degree of impact noted in my primary evidence still holds for all other takes.
9. Given the above, should the Panel be inclined to grant individual applications, I would recommend that the Panel request individual effects are confirmed though running the model before any final decisions are made.

### **Requirement for monitoring**

10. If the Panel chooses to grant consents on an individual basis I would still be concerned about the cumulative impacts of the individual takes on the wetland. As such, I believe that there is still a requirement for both baseline and ongoing monitoring of the wetland, regardless of how the consents may be granted.
11. In addition, if takes are granted individually, or in part, there is still a requirement to undertake saline intrusion monitoring and the responsibility for undertaking this would need to be addressed by the Panel.

**Timothy Baker**  
6 April 2018