

IN THE MATTER OF the Resource Management Act 1991

AND

IN THE MATTER OF 24 applications by the Aupouri  
Aquifer Water User group to the Northland regional Council  
to take groundwater from the deep shell bed aquifer of the  
Aupouri Peninsula (REQ.596300).

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**Joint Witness Statement  
(relating to shallow aquifer monitoring in relation to potential surface water impacts)  
from Expert Conferencing  
held on 01 December 2020.**

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**Attendance:** Conferencing occurred as set out below.

Name	Party	Attendance: 01 Dec 2020.
Jon Williamson	Applicants	Online (10am – 11:15am)
Dave West	DOC	Online (10am – 11:00am)
Brydon Hughes	NRC	Online (10am – 11:15am)
Tom Drinan	DOC	Online (10am – 11:15am)

1. This document was drafted by Jon Williamson after the close of conferencing and circulated to all participants for finalising and signing. The Final version was circulated for signing on 11 December 2020.
2. The conferencing was in relation to Task 1 – Surface Water and MALF, and specifically the points raised at paras 24 to 30 in the draft JWS statement from 27 November 2020.
3. The objective of the conferencing was to discuss the adequacy of the monitoring proposed in the GMCPs for the protection of surface waters, and in particular using shallow aquifer groundwater level monitoring as a proxy for surface water impacts given that pumping occurs in the underlying deep aquifer.
4. The discussion utilised the overview map (filename: Overview.pdf) prepared by WWLA of the shortlisted Areas of Interest entitled “Land Cover and Wetland Risk-Excluding High Producing Grassland” and provided to the experts on the previous day (30/11/2020).
5. During canvassing of each area of interest it was recognised that some of NRC’s long-term SoE monitoring bores were missing from the map. It was agreed that WWLA would add these and re-circulate the map today, but for the purpose of this discussion it would not hold things up.
6. There was discussion on the frequency monitoring and method of data collection. Jon indicated that in groundwater systems, which respond more slowly to rainfall than surface water systems, monitoring at a frequency of at least monthly intervals provides an appropriate dataset for analysis of long-term seasonal trends that can assist in defining changes that are pumping induced. Nevertheless, the proposed GMCP proposes continuous groundwater level monitoring

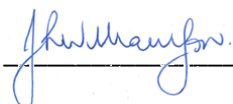
in the shallow sentinel piezometers. Brydon indicated a preference for data transmittal via datalogger and telemetry. Tom Drinan also preferred that proposed monitoring wells be telemetered with dataloggers. It was also noted that shallow groundwater levels across the Aupouri Peninsula may be affected by a range of factors including changes in land cover (esp. plantation forestry);

7. After discussing the existing and proposed monitoring in and around each area of interest, the following were the key outcomes:
  - a. The experts agreed that shallow aquifer monitoring is a pragmatic means by which to establish potential effects of deep groundwater pumping on surface water bodies.
  - b. DOC experts (Tom & Dave) require further time to consider the location of shallow aquifer monitoring and what is currently proposed in the draft GMCPs. Dave indicated that this consideration will be intricately linked to the wetlands discussion that is due for resolution on 11 December (as per para 19 of the 27 November draft JWS);
  - c. After Dave left the conferencing at 11:00 am, the three remaining participants discussed confirmation of a timeframe for DOC experts to give further consideration to the shallow aquifer monitoring, and agreed that since it was linked to the other wetland task (Task 6), the timeframe of 11 Dec 2020 would also serve here.
  - d. To enable this JWS to be signed off without bringing in new issues Tom and David will provide separate comment on shallow aquifer monitoring proposed on 11 Dec.

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**Signed:**

Jon Williamson

  
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Brydon Hughes

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Dave West

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Tom Drinan

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