

SUMMARY OF EVIDENCE OF TOM RUSSELL CHRISTIE

- 1 In my evidence I largely agree with the planning objectives and policies that Ms Letica considers relevant, with some exceptions, including:
 - The provisions of the 2020 National Policy Statement Freshwater Management.
 - The Resource Management (National Environmental Standards for Freshwater) Regulations 2020.
- 2 Due to the timing of the Government gazetting these documents, Ms Letica would not have had the opportunity to consider them (in her primary evidence).
- 3 The NPSFM (2020) is more specific than the NPSFM 2014 in relation to:
 - the protection of wetlands (Policy 6); and
 - the habitats of indigenous species (Policy 9).

NZCPS and the coastal environment

- 4 I consider that all areas that are influenced by coastal processes are within the 'coastal environment', for the purpose of the NZCPS. This is based on the *Burgoyne* Environment Court decision. As in the *Burgoyne* case, it may not be absolutely necessary to draw the exact boundary of the coastal environment. But Policy 11 of the NZCPS is directly applicable to these applications.
- 5 Both Mr Hughes and Mr Williamson acknowledge that we do not *fully* understand interconnections between the groundwaters of the Aupouri Aquifer and surface waters. Therefore we must rely heavily on modelling.
- 6 My evidence acknowledges that these systems are "likely largely independent of one another" (based on the evidence of Mr Baker). However, I consider that due to uncertainty, a precautionary approach is required, under:
 - Policy 3 NZCPS
 - Policy D.2.18 PRPN
 - Clause 1.6 NPSFM (2020).
- 7 The evidence of Dr West shows there is also a lack of understanding around the presence of surface waters that may be affected, and the potential ecological values they may hold.
- 8 I consider that all possible steps to reduce uncertainty need to be taken. I generally support the proposed adaptive management regime that stages the rate of abstraction for each take to enable monitoring, reporting and analysis to be undertaken. This staged

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approach goes some way toward addressing uncertainty. The ability of trigger levels to be reviewed and/or remedial actions taken is crucial in the effective management of this system.

- 9 But without surface waters and areas of wetness being appropriately mapped, surveyed and recorded - especially within the areas of significant drawdown - it is not possible to be assured that the monitoring will occur in the correct locations to provide for early indication of adverse effects of the proposed takes.
- 10 Mapping of these systems, and consideration of those that may be more vulnerable to increased draw down, has not been made available.
- 11 Of particular concern are ephemeral wetlands, springs and small streams because these waterbodies are more vulnerable to non-natural fluctuations. Dr West's evidence describes the potential ecological values that may be present including that of indigenous Black mudfish, which is recognised as being At Risk due to widespread wetland habitat loss. Many threatened plants also occur in turf communities, and small alterations in drying and wetting conditions can change such communities.
- 12 In the context of the current consent applications, many of these values and habitats are not able to be confirmed as they have not been identified or recorded.
- 13 My evidence concludes that there is a strong policy theme throughout the planning framework towards avoiding the over-allocation of ground water resources, safeguarding and protecting the life supporting capacity of freshwater ecosystems, and taking a precautionary approach where not all aspects of an application may be fully understood. Relying on the evidence of DOC's technical experts, I do not consider the applications can be said to be consistent with this Policy framework.