

Minute from the Hearing Panel – regarding:

Questions to the Experts who were not able to attend the Hearing on Table 3.11.1 and the Joint Witness Statement on the 18 July 2019.

The Hearing Panel (Panel) was aware that a number of the experts who participated in the expert conferencing sessions on Table 3.11.1 and were signatories to the Joint Witness Statement would not be able to attend the hearing on the 18 July 2019. The Panel agreed that if it had questions for any of those experts, it would pose them in writing.

The Panel's questions to the named experts are set out below:

Dr Neale:

- 1 You previously stated in evidence that you considered there to be a number of 'anomalies' in Table 3.11-1. For example, at paragraph 85 of your Block 1 evidence in chief, you noted three sites that have either a 95th percentile or maximum concentration threshold that is lower than the median concentration threshold for the same contaminant.

Are you satisfied that these anomalies have now been addressed, and if so in what respect, or do you consider they are no longer relevant given the recommended changes to Table 3.11-1 that the majority of the experts have agreed to at conferencing? In particular, the experts' recommendation for nitrate and ammonia toxicity thresholds in the mainstream and tributaries (page 20 of the Joint Witness Statement) and Approach Option 1C for Total Nitrogen in the Waikato River mainstem?

Dr Ausseil:

- 1 In your Block 1 evidence in chief, you expressed concern about the way NPSFM "GRADING" had been undertaken and presented in Table 3.11-1. You cite the Whatawhiriwhiri Stream at Edgecumbe Street (Sub-catchment 28) as an example (paragraph 79). In paragraph 81, you identified what you considered as another issue in Table 3.11-1 relating to the freshwater objectives for chlorophyll-a, TN and TP, which you stated appeared to have been determined individually, without regard for their interconnection

Following expert conferencing, are you satisfied that these issues have now been addressed, and if so in what respect, or do you consider they are no longer relevant given the recommended changes to Table 3.11-1 that the majority of the experts, including yourself, have agreed to at conferencing? In particular, the experts' recommendation for nitrate and ammonia toxicity thresholds in the mainstream and tributaries (page 20 of the Joint Witness Statement) and Approach Option 1C for TN and Approach 2C for TP in the Waikato River mainstem?

- 2 In relation to e.coli, at page 124 of the Joint Witness Statement, you supported a limit that, among other things, excluded flows greater than 3 times median in Tukituki PC6. Please explain the reasons for your shift in position?
- 3 In relation to temperature, at page 131 of the Joint Witness Statement in relation to the Daniel paper, your response implies support for the Operative Waikato Regional standards related to temperature change. Please confirm, or otherwise?

Dr Robertson:

- 1 In relation to Table 1, on page 97 of the Joint Witness Statement, why are bottom line (i.e., bottom of the C band) annual median thresholds for riverine and peat lakes 750 (stratified) and not 800 mg/m³ (polymictic) as found in the NPS-FM?
- 2 In relation Table 1, what data is the 625 mg/m³ threshold for TN in Volcanic lakes based on?
- 3 In relation to macrophytes, at page 192 of the Joint Witness Statement, what do you mean by your comment regarding "light attenuation effects on native macrophytes"?

Mr Kessels:

- 1 In relation to macrophyte nuisance, at page 173 of the Joint Witness Statement, should the suggested bottom line be less than 50% cover (rather than greater than 50%)?
- 2 Also in relation to macrophyte cover, what evidence do you have in relation to the current state, relative to the suggested bottom line?

The Panel directs that written responses are provided to the Council's Independent Hearing Coordinator by the 5 August 2019 if possible, otherwise no later than the 9 August 2019.

It is the Panel's view that the answers to the questions posed will not necessitate further comment or response from the other experts. However, the Panel gives leave for any party who considers they are prejudiced by the answers to apply for leave for their expert to respond; setting out a brief explanation of why they consider they are prejudiced by the answers.



Greg Hill

Chairman of the Hearing Panel.

24 July 2019