

Before an Independent Hearings Panel

The Proposed Waikato Regional Plan Change 1

IN THE MATTER OF the Resource Management Act 1991 (**RMA**)

IN THE MATTER OF the Proposed Waikato Regional Plan Change 1, Block 3 hearings,
Topic **C2 Sub-catchment Planning**

**PRIMARY EVIDENCE OF DR GAVIN SHEATH
ON BEHALF OF MIRAKA LIMITED**

(Sub-catchment management)

5 July 2019

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1. EXECUTIVE SUMMARY

- 1.1 My full name is Dr Gavin Sheath. I am an Agricultural Systems Consultant and advisor to Miraka Limited. I have given evidence on the importance of practice change in achieving the outcomes sought by the Vision and Strategy and Plan Change 1.
- 1.2 My previous evidence outlined the importance of practice change for reducing the loss of all four contaminants to waterways and achieving the Stage 1 outcomes sought by Plan Change 1.
- 1.3 In Block 3, I focus on the importance of sub-catchment management to support practice change and achieve reductions in discharges.
- 1.4 Key components of the approach are to:
 - (a) Establish appropriate FMU/sub-catchment Units;
 - (b) Develop sub-catchment plans; and
 - (c) Develop, implement and audit FEPs by all land managers in the sub-catchment.

2. INTRODUCTION

- 2.1 My name is Dr Gavin Sheath. I am an Agricultural System Consultant and advisor to Miraka Limited (Miraka).
- 2.2 My qualifications and experience are outlined in the evidence that I provided in Block 1, dated 15 February 2019.
- 2.3 I have been part of the team at Miraka which has reviewed Plan Change 1, considered the impact on Miraka and the farming community and helped prepare Miraka's submissions and evidence. I am authorised to provide this evidence on behalf of Miraka.

3. SCOPE OF EVIDENCE

- 3.1 My previous evidence outlined the importance of practice change for reducing the loss of all four contaminants to waterways and achieving the Stage 1 outcomes sought by Plan Change 1. My evidence here in Block 3 focuses on sub-catchment planning as the spatial, community and information context to support practice change.

4. SUB-CATCHMENT PLANNING

- 4.1 Miraka's evidence in Block 1 described the importance of practice change as the most effective, efficient and equitable approach to achieving reductions in the first 10 years. Practice change requires clear targets, community ownership, guiding rules, incentives and monitoring, and is therefore best achieved through management at a sub-catchment scale.
- 4.2 Miraka therefore supports a policy focus on sub-catchments as the appropriate unit for management, planning, coordination, funding, analysis, modelling and other aspects of water quality improvement, in particular Policy 9 and the associated Method 3.11.4.5. At a minimum Plan Change 1 needs to be flexible enough to allow a sub-catchment management plan to be developed and then recognised in Farm Environment Plans, rules and assessment of resource consents.
- 4.3 However, I am concerned that the PC1 rules do not execute these policies and do not utilise sub-catchment scale management to its full potential. I suggest a more integrated approach to the provisions for achieving practice change and water quality improvement using sub-catchments as the key unit of focus. I note that the analyses and planning using sub-catchments have focussed on physical attributes, but in my view communities are a key consideration in order to achieve the anticipated practice changes that will be required to improve water quality.
- 4.4 In her Block 1 evidence Ms Addenbrooke proposed the aggregation of sub-catchments in order to form new Freshwater Management Units (FMUs). This amendment aimed to reduce the variation of biophysical attributes in the large FMUs and the inequity associated with the 75th percentile Nitrogen Reference Point (NRP) approach. It was also designed to facilitate a practice change approach, with scale and delineation to enhance socio-cultural identification and community ownership.
- 4.5 Ms Addenbrooke noted that merged sub-catchment / FMUs should be "the basis for identifying and prioritising contaminants of concern, for developing catchment profiles and objectives, for bringing communities together and engaging landowners, for requiring and incentivising practice change, for off-setting and larger scale mitigations, and for monitoring of both actions and water quality."
- 4.6 While this proposal remains an accurate summary of Miraka's position, my evidence below can be applied to either the proposed new FMU/sub-catchments, or to the original 74 sub-catchments in PC1. I suggest, however, that for reasons of

practicality, similarity of resource, identifiable community and resourcing, the Council may prefer to work with the aggregated sub-catchment/FMUs.

4.7 Miraka expects that changes in management practices will achieve the desired outcomes of PC1. Block 1 evidence provided by Dr Paine outlined some key principles that drive effective practice change. These include co-development of plans and actions, ongoing support of the change process and communities working together. If sub-catchments are to be the effective operative unit, these principles need to be addressed with land managers in the relevant communities. Change is a human endeavour.

4.8 While PC1 sets policy and rules, it should also be an instrument that enables, rather than frustrates, positive change. It should therefore look through the lens of practice change and consider the following issues:

- (a) Awareness. A sub-catchment approach, including the provision of Catchment Profiles detailing the biophysical attributes of a sub-catchment, will facilitate land managers' understanding of the importance of improving water quality and the role they play in that improvement. Land managers need to understand the processes involved in diffuse discharges of contaminants from farms in their own local context, if they are to accept and own the challenge of meeting water quality targets. The development of sub-catchment management plans can enhance a sense of community ownership and will outline the objectives and actions required.
- (b) Practices. The provision of guidelines of good farming practices that will reduce losses of contaminants relevant to the specific biophysical characteristics, land uses and farm policies within their own sub-catchment will increase farmer confidence in taking up such practices. This confidence will be strengthened when knowledge and experience is openly shared between land managers and technical expertise.
- (c) Monitoring. Sharing the results of local (sub-catchment) water quality monitoring with land managers may, over time, show that the changes they have made to management practices are worthwhile and lead to improved water quality, giving confidence to undertake further mitigations. Robust monitoring of practice changes and water quality and the communication of results is necessary to ensure all stakeholders are positively engaged.

5. WAIKATO REGIONAL COUNCIL RESPONSIBILITIES

- 5.1 Policy 9 of Plan Change 1 outlines the need for early engagement with land managers in a sub-catchment, the setting of targets and sub-catchment plans; and the support of actions being undertaken by land managers. I expect that the Waikato Regional Council (**WRC**) would undertake these responsibilities. However, I note that such activities currently do not sit within a regulatory framework. Miraka does not agree with this as it is important that WRC is committed to being engaged and supporting an evolving /adaptive change process.
- 5.2 Plan Change 1 also details the monitoring that WRC will be required to undertake for future allocation (3.11.4.7) and accounting (3.11.4.10) purposes. I consider that monitoring should also be undertaken explicitly for the purpose of re-enforcing confidence in the uptake of good management practices and mitigations. Robust monitoring and effective feedback to land managers of practice changes and water quality improvements is essential in a practice change process.
- 5.3 Miraka's original submission supported Method 3.11.4.5 Sub-catchment scale planning, supporting that scale (or similar) of planning, and that such planning will identify causes of water quality decline, identify measures and coordinate reductions at a property, enterprise and sub-catchment scale, and supported sub-catchment scale mitigations. We continue to support this, as sub-catchment scale planning and provision of information to catchment communities is an enabler for Practice Change.

6. SUB-CATCHMENTS AS A FOCUS FOR WATER QUALITY IMPROVEMENTS

- 6.1 Miraka proposes that the Stage One reductions in contaminant discharges be achieved through an integrated framework with FMU/sub-catchments as the key unit of focus underpinning the revised PC1 rules. As outlined in the evidence for Block 1 and 2, Miraka proposes that Good Management Practice (GMP) be required across all land uses, enterprises and properties. GMPs are baseline practices that everyone must apply. This is the base level of improvements that should apply to everyone throughout the region.
- 6.2 The next step-up of improvements should be determined at an FMU/sub-catchment level, with the specific contaminant(s) that require maintenance or reduction identified according to the water quality targets and current state. This information needs to be provided to the sub-catchment community by the Waikato Regional Council, along with other relevant sub-catchment data collated into a sub-catchment profile

document. This will inform the sub-catchment community group who will be tasked, with WRC support, to develop a sub-catchment management plan. This plan will provide direction, guidance and support for individual landowners within the sub-catchment, as well as opportunity for collective action.

- 6.3 FMU/sub-catchment key contaminant identification and profiles may then inform individual Farm Environment Plans (FEPs). FEPs will contain the relevant GMPs as a baseline. Then, depending on the priority contaminant(s), each FEP may be tailored to target the issue in the most effective, practical and cost-effective way, applying Farm-Specific Practices (FSPs) as needed. These FSPs will be selected from lists of practices that research and previous implementation have identified, relative to industry/sector. As is currently in PC1, Farm Environment Planners will be certified and any industry programmes will also be certified, with robust auditing schemes in place.

7. SUMMARY

- 7.1 Miraka proposes that the Stage One reductions in contaminant discharges be achieved through an integrated framework with sub-catchments as the key unit of focus underpinning the revised PC1 rules. FMU/sub-catchments should be the basis for identifying and prioritising contaminants of concern, for developing catchment profiles and objectives, for bringing communities together and engaging landowners, for requiring and incentivising practice change, for off-setting and larger scale mitigations, and for monitoring of both actions and water quality. A sub-catchment scale will be more responsive to change, provide better linkage between actions and results, and provide evidence of progress to inform the next stage and the decisions required there.

Dr Gavin Sheath

5 July 2019