IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the Proposed Waikato Regional

Plan Change 1: Waikato and Waipā

River Catchments

STATEMENT OF EVIDENCE OF ROBERT JAMES DRAGTEN

For the Waikato Regional Council

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Introduction

- My name is Robert James Dragten. I am a director of DW Professional Services Limited, which trades under the name Rob Dragten Consulting, providing professional advice related to regulatory design and implementation, as well as compliance monitoring and enforcement strategic planning. I have been providing these services since 2015.
- 2. I have the qualifications and experience set out in my statement of evidence for block two of the hearings.
- 3. I confirm that I am familiar with the Code of Conduct for Expert Witnesses as set out in the Environment Court Practice Note 2014. I have read and agree to comply with the Code. Except where I state that I am relying upon the specified evidence or advice of another person, my evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

Scope of Evidence

- 4. The purpose of this statement is to:
 - a. Introduce the revised schedule 1 that is proposed in the Section 42A report.
 - b. Describe the regulatory strategy behind the revised schedule 1 and how the recommended amendments to schedule 1 will assist with achieving the farm management change required to deliver the PC1 objectives
 - c. Propose a basis for baselining contaminant losses from commercial vegetable production that does not rely on the model Overseer.

S42A report

5. I confirm that I am the principal author of the report "Proposed Revisions to Schedule 1 to incorporate Good Farming Practice into Farm Environment Plans", reproduced at page 52 of the S42A officers' report for Block 3. Hereafter I refer to this report as "the Schedule 1 report".

6. I was engaged by Waikato Regional Council (WRC) to prepare the Schedule 1 report.

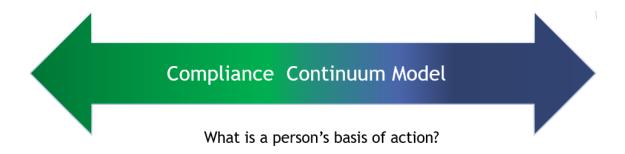
Achieving Compliance

- 7. The Schedule 1 report includes supporting information about the conceptual approach the Council has proposed to implement Farm Environment Plans (FEPs). This approach has been developed after careful consideration of the most appropriate regulatory strategy to achieve the farm management change sought by PC1.
- 8. In its current recommended form, PC1 will require between 5000 and 6000 farmers to develop an FEP, not to mention the PC1 requirements to register, obtain an NRP, and obtain a resource consent. As such, the scale of implementation for PC1 is unprecedented, and in my opinion, achieving broad scale compliance will require the Council to implement this plan differently to how it may have implemented other plans in the past.
- 9. One of the key questions that has occupied my mind while advising Mr McCallum- Clark on revising Schedule 1 has been how to maximise levels of compliance with the PC1 regulatory requirements, given the size and scale of the implementation task.
- 10. While there is often much pressure on regulators to "make" regulatees¹ comply, ultimately compliance is a choice by the regulatee. A regulator cannot force a person to act in a particular way it can encourage, educate, make it easy to comply, apply a wide range of interventions to influence peoples' choices, and of course, deliver consequences on behalf of the community if individuals continue to choose to act inconsistently with the community's expectations as recorded in the plan.
- 11. A key success factor in regulatory implementation is adopting the right mix of approaches to achieve the best compliance outcome for the particular issue the regulation is trying to solve. An important question therefore in regulatory design is "what is the best regulatory strategy to maximise compliant behaviour among this population of regulatees?".

¹ Regulatees is a phrased coined to describe "a party subject to a regulatory requirement", as distinct from the regulator

- 12. The compliance literature describes two counterbalancing logics of human behaviour that motivate compliance, the logic of consequences vs the logic of appropriateness (Figure 1). These two logics drive quite different regulatory strategies to maximise compliance.
- 13. Rationalist theories are based on the belief that people will only comply if the consequences of not complying outweigh the costs of complying. It assumes that regulatees are entirely rational and make conscious rational decisions about whether to comply or not. The inference of rationalist theory is that regulatees will actively weigh the cost of complying with the risk and consequences of getting caught, and then make a rational decision to choose the approach that is the most beneficial to them. The logic implicit within this theory is that compliant behaviour is motivated principally a regulatee's perception of the risk of getting "caught", and the anticipated consequences of not complying. If this is accepted, then the rational response from a regulator seeking to improve compliance would be to increase the number and frequency of inspections to increase the likelihood that non-compliance is detected, to increase the size of the penalties for non-compliance and to increase the speed with which the penalties are applied. In fact, it may be enough to simply increase a regulatee's perception of these to motivate compliance.
- 14. Normative theory, at the opposite end of the spectrum, suggests that regulatees are not always rational, and that compliance is much less of a conscious decision, and is more about attitudes, knowledge, access to resources and capability. It assumes that regulatees typically want to do the "right" thing, and that they will voluntarily choose to comply provided that the compliant behaviour is perceived as "normal", and that they have the knowledge and resources they need to comply is available to them. The inference of normative theory is that regulatees are more motivated by behaving "appropriately" according to social norms and will adopt behaviours that are considered "normal" by their peers. If that logic is accepted, then the rational response from a regulator to improve compliance is to influence the social norms of appropriate behaviour within the regulatee's peer groups and to reduce barriers, make it easy to comply, and increase the regulatee's knowledge.
- 15. In very general terms individuals tend to behave more normatively, while corporate entities tend to behave more rationally. Of course, the deterrence value of enforcement action will help drive improved compliance among individuals, but it is debateable whether that improved compliance is a normative response to the publicity

signalling community norms about what is "acceptable" behaviour, or a response to a rational analysis of the risks and consequences.



Model	Normative	Deterrence
Belief	People will act in good faith	People will act rationally
Inference	People want to comply but don't have knowledge or resources	People will only comply if the cost outweighs the benefit
Driver	Logic of appropriateness	Logic of anticipated consequences
Strategy	Education, support, assistance	Enforcement
Typical Entity	SMEs	Corporates

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Figure 1 The compliance continuum, describing two models of why people comply.

16. In my experience, farmers tend to be much more strongly normative in their behaviour. In my opinion, achieving widespread compliance with PC1 requirements will require a normative regulatory strategy that focuses on influencing the rural sector's perception of normal and good farming.

Regulatory Approach

17. There are three broad regulatory approaches that could have been recommended in Schedule 1. The first is a "rules-based" regulatory (RBR) approach, which would have to prescribe in some detail all the farm management actions that were acceptable or unacceptable under PC1. In my opinion, the farm management decisions that farmers make are so varied and interdependent that it is not possible to prescribe rules to describe them that would be appropriate on every farm, and in every situation, at the time the plan is drafted. Further, an RBR approach lends itself to a deterrence-based compliance strategy, and a singular focus on compliance with the rule, rather than the overall objective of reducing contaminant loss and improving water quality. A rules-based approach to defining farm management actions is, in my opinion, not the best

approach for Schedule 1, although I do consider such an approach is useful in individual consents, where farmers have shown an unwillingness to farm according to GFP (see paragraph 24 below).

- 18. The second regulatory approach that could have been used is a "process-based" approach. The notified version of Schedule 1 adopted a process-based approach. In effect, instead of defining the farm management actions that are acceptable or unacceptable, the Schedule set out a process that farmers were to follow, on the expectation that following that process would inevitably lead a farmer or advisor to a tailored set of actions for their farm that would be congruent with the PC1 objective of reducing contaminant losses. The Schedule 1 report outlines the WRC's concerns with that approach.
- 19. The third approach, and the one that is recommended, is an "objectives-based" regulatory (OBR) approach. This approach defines the achievement of a series of objectives as the key regulatory requirement but leaves wide discretion to individual regulatees as to how to achieve those objectives. In my opinion, this approach offers considerable advantages over the two alternative approaches discussed above.
- 20. The key advantage of the OBR approach is that it shifts the focus away from a mechanistic focus on "tick box" compliance with a particular rule (which can create incentives to "find the loopholes") towards a focus on how best to achieve the regulatory objective, given a regulatee's individual farming context. The approach enables flexibility as to how to farm, flexibility as to how to reduce contaminant losses, and the flexibility to be innovative, and to find efficiency gains. In my opinion, it is this flexibility which will lead to iterative improvement over time.
- 21. Farmers will require individualised assistance to evaluate their farming systems and compare these to the objectives in Schedule 1. The proposed Schedule 1 includes the facility for regular reviews of a farmer's farming practice against the objectives and principles in Schedule 1, by expert farm environment planners who have been certified as competent and knowledgeable (CFEPs). An initial CFEP review is required before submitting the first farm environment plan (FEP) with the initial consent application, a compulsory follow-up review is then required within 12 months of the resource consent being granted, and then subsequent reviews are required at frequencies based on the farm's performance at the previous review. In this way, good performance can be recognised by requiring less frequent reviews, and increased attention is given to those

- with the poorest performance. WRC's current proposal for how an FEP would be developed is set out in detail in the Schedule 1 report and is not repeated here.
- 22. A major strength of the OBR approach is its flexibility. Many submitters have talked about the need for the FEP process to provide flexibility. However, of course other submitters strongly put the case for ensuring that the PC1 provisions provide certainty that change will occur. These submitters may be concerned that the approach set out in Schedule 1 is too vague or uncertain to be certain that farmers will complete the actions necessary to reduce losses of contaminants from their land.
- 23. There is an inherent tension between the need to provide flexibility to accommodate the inherently variable nature of farming, while providing certainty to the community. Satisfying both these expectations is challenging, as providing high levels of certainty tends to require severely constraining flexibility, and vice versa.
- 24. To solve this dilemma, the recommended changes to Schedule 1 enable an OBR approach for farmers who demonstrate they are farming in a manner consistent with GFP and schedule 1, through engaging a CFEP to undertake reviews of farm practice against the schedule 1 objectives. However, if a farmer falls short of the GFP and Schedule 1 requirements, the WRC proposes to retain the ability to impose an individualised RBR approach at an individual farm level through a s128 review of the farmer's resource consent. This individualised RBR framework would enable a prescriptive set of conditions tailored to that farm to be imposed.
- 25. It should be noted of course, that the WRC's current regional plan rules continue to apply, and any breaches of those rules will continue to be responded to in accordance with the WRC's current compliance activities.
- 26. It is expected that every farmer would have the option of participating in the OBR system initially, and only those who fail to demonstrate engagement or progress towards meeting the Schedule 1 objectives would be subject to the more onerous requirements of the more prescriptive RBR approach. Of course, if performance improved, an application could be made under s127 to review the consent conditions again to return to operating under the GBR system.
- 27. There are considerable financial disincentives to operate in a manner that is inconsistent with the objectives and principles of Schedule 1. These include the cost of more frequent FEP reviews by the CFEP, and (if performance does not improve)

ultimately the cost of a section 128 consent review, subsequent regular compliance inspections from the Council, and any costs associated with any enforcement action that may occur.

- 28. I consider the revised Schedule 1, in combination with a resource consent, can allow PC1 to provide for considerable flexibility for farmers to decide how meet GFP, but also provides for enforceability in the circumstances where it is required. I consider that this approach is likely to result in the greatest level of uptake among farmers.
- 29. While I recommend that you accept the revised Schedule 1 which promotes a less prescriptive, objective-based regulatory approach, I also must acknowledge that like any other regulatory approach, this approach is not risk free.
- 30. The most obvious of these risks is that the approach is highly reliant on the availability and competence of independent third parties, the CFEPs. In terms of availability, the general consensus is that the number of people who can currently undertake that role is limited. I understand that you have received evidence on this point from others. My understanding of that evidence is that it is a bit of a "chicken and egg" situation there is a risk of putting regulation in place that is reliant on third party experts when there are not enough experts, but companies who might provide that service are unwilling to start increasing their staff until there is certainty about the regulations that create the market for the companies to get a return on providing the services.
- 31. My response to this is to consider the alternatives. If the regulatory framework does not use third party experts such as CFEPs, the other alternative is for WRC to recruit and train staff. In my opinion, if the rural professional companies cannot build capacity to meet demand, it is even less likely that the Council could do so, and even if they could, it is hard to imagine that farmers would consider farm systems advice from Council staff to be as credible as from a rural professional.
- 32. Another option might be to reduce the level of judgement that would need to be exercised by the CFEP. In my opinion, that would require more prescriptive descriptions of "good" and "bad" practice, which moves us back towards a rules-based approach which undermines the value of the flexible approach as proposed. It is likely that some FEPs will be relatively straightforward and these farms will not necessarily require a CFEP with extensive farm system expertise. I anticipate that some companies will use staff under the supervision of a CFEP to assist with the more straightforward FEP reviews, which will assist with overall capacity.

- 33. If the Panel remains concerned about the availability of CFEPs, it may wish to consider whether that risk can be further reduced by phasing the timing when FEPs are required, so as to give rural professional companies sufficient time to build capacity between the time the plan becomes operative, and when the first FEPs are required.
- 34. The proposed FEP system also relies on the expertise and competence of CFEPs. In my opinion, this risk can be also be effectively managed. The WRC proposal to develop a manual to guide CFEPs through the review process, and to audit CFEPs to ensure they are following the review process, minimises the risk of widely variable decisions from CFEPs. Also, the WRC has proposed regular calibration workshops where CFEPs would get together and review case study farms, to advance commonality of approaches.

Commercial Vegetable Production

- 35. I now turn to the matter of achieving a reduction in contaminant loss from commercial vegetable production.
- 36. I attended the caucusing sessions that sought answers to three key questions raised by the Panel related to commercial vegetable production. These questions were:
 - (a) How best to describe nutrient losses, given known issues with Overseer's applicability to CVP?
 - (b) Should the proposed cap on total area of CVP be retained, and if not, what constraints/limits on new CVP should apply (if any)?
 - (c) How to provide for crop rotation/leasing land/moving CVP from site to site while ensuring no increase in losses of the four contaminants?
- 37. The caucusing sessions did not result in agreed responses to these questions.
- 38. I was one of the authors of the two WRC position papers that proposed various options to answer these questions. I have set out my opinion on the answers to question (a) and (b) below.
- 39. In terms of question (a), I agree that there are difficulties with using Overseer for estimating nutrient losses from commercial vegetable production. These difficulties may justify removing the Overseer-based NRP requirement for CVP.

- 40. However, in my opinion, it is still essential that some way be found to establish a starting baseline of some kind for nitrogen loss from CVP, as the ability to determine whether reductions in contaminant losses have occurred over the life of PC1 relies on being able to assess progress against a known starting point.
- 41. What alternatives to the NRP exist? It is not possible to <u>measure</u> actual nitrogen losses, and the S42 report concludes that there are no other models currently available that would be suitable for a rule framework. If baseline nitrogen loss cannot be measured, and there is currently no suitable model to estimate nitrogen loss, in my opinion, the only other option is to use nitrogen input and output data to establish the baseline.
- 42. As I understand it, in commercial vegetable production, at any particular location, the amount of nutrients available to be leached is largely dependent on the difference between nutrient inputs (most often fertiliser inputs) and crop uptake. In effect, the larger the difference between the inputs and the crop uptake, the larger the pool of surplus nutrients that are available to leach. This relationship would not be quantifiable, but the logic would be that at a given location, a greater surplus would be likely to result in a greater loss than a smaller surplus at the same location, given the soil and the climate effects at a particular location are effectively constants. It is worth noting that in my opinion, this approach is only likely to be valid for CVP, as in pastural farming the effect of an N surplus on N leaching is likely to be significantly complicated by the heterogenous nature of grazing animal urine spots.
- 43. In my opinion, this nutrient surplus could offer an alternative to the NRP as a baseline nitrogen indicator for CVP, against which improved nitrogen practice could then be measured. This approach would translate to a requirement for CVP to not exceed a specified nutrient surplus (as opposed to an NRP).
- 44. Of course, PC1 currently also proposes to require CVP to prepare FEPs according to Schedule 1. So, while the actions and management practices on CVP farms are likely to be different, the same requirements of Schedule 1, including the GFP objectives and principles would, where relevant, apply to CVP as they do to pastoral farming. This would mean that for a CVP property to give a CFEP a high level of confidence that the CVP was consistent with objective 2 (to minimise nutrient losses to water while maximising nutrient use efficiency) and objective 3 (to farm in accordance with the nitrogen management requirements of PC1), the grower would need to be able to demonstrate that their N surplus has either decreased, or at least not increased (for a particular crop).

45. In terms of question 2, in my opinion, in the absence of another method of limiting overall sector losses, the area cap is required to retain control over the cumulative nutrient losses from CVP as a whole. As discussed in the Schedule 1 report, GFP will drive efficiency per hectare of CVP land, but without some limitation on the overall losses from CVP, an increase in the total area of albeit more efficient CVP operations could still result in an overall increase in contaminant losses from the sector, While I accept the area cap is possibly a fairly "blunt" tool, I am not aware of any other approach currently available that is better.



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5 JULY 2019