

STATEMENT OF PRIMARY EVIDENCE

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PC1 Hearings Block 2 - Nutrient management and the nutrient reference point, stock exclusion, cultivation, and land use change;

In the Resource Management Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being.

The vision and strategy for Waikato River, under the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 also requires the restoration and protection of the relationships of the Waikato Region's communities with the Waikato River, including their economic, social, cultural, and spiritual relationships yet it is my firm belief that PC1 has failed to take into account the social and economic wellbeing alongside the environmental and cultural outcomes.

All of the issues that I will cover in this submission have a major effect on the social and economic wellbeing of the Waikato region's communities and also further quite likely on the national economy.

1. Emphasis on Nitrogen

PC 1 places emphasis on managing N, almost to the exclusion of all the other contaminants – P, sediment and pathogens.

39 per cent of Nitrogen and 55 per cent of Phosphorus come from other sources than farming. The facts are that, yes, farming is a contributor, but it is not alone. What about these other sources?

From the council figures, we know that 7 per cent of the N and 18 per cent of the P comes from point sources and the balance (32 per cent N and 37 per cent P) is from natural sources.

We also know that only fourteen of the current 74 sub-catchments don't currently meet the PC1 standards for Nitrogen discharge and from this statistic we can obviously tell that nitrogen is not the primary limiting contaminant in most of the sub-catchments.

WRC have spent approximately \$30 Million and at least five years on PC1 and to this date judging from the submission and hearings processes, still have not identified what the problem is in each catchment, what is the major cause of that problem and therefore how to fix it.

Under PC1 no provision is made for the control of Koi Carp or other pest fishes even though this is a clear requirement under both the Vision (Part 3; Subparts I, J & K) and the Strategy (Section K) of the **Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010**.

Koi Carp particularly in the lower Waikato and Waipa Rivers have a huge impact on the amount of sediment in the water and this then has the effect of significantly raising the P levels through release of P from the sediment created by the feeding methods of the Koi Carp.

There are many sub-catchments where the levels of Nitrogen is not the limiting contaminant, but in fact the levels of P and sediments are of much greater significance and these are hugely influenced by the increasing spread and concentration of Koi Carp.

But the emphasis on managing N, almost to the exclusion of all the other contaminants – P, sediment and pathogens, introduces (Rules 3.11.5, Section 3.11.5.3 (2) and Schedule B) into the Plan the need for farm-level “Nitrogen Reference Points” (NRP), “Grand parenting” and the use of the “Overseer” nutrient management model (or any other approved model).

Plan Change 1 cannot hope to achieve the statutory expectations of the Waikato Settlement Act’s ‘vision & strategy’ because the V&S assumes reduction in impact, whereas PC1 motivates property owners to maximise their use of grand parented ‘rights’ in relation to Nitrogen discharges.

Plan Change 1 rewards the most those who have done the least to reduce their environmental impacts up to the present point in time.

It is noted that within the Section 32 analysis, estimated Nitrogen losses from non-dairy pastoral land use had increased by only 4% over the period 1972 to 2012.

Overseer was developed as an expert system to inform nutrient management decisions at the farm level. As with any model attempting to describe biological processes, it’s predicted outputs are subject to errors. For example the minimum error (CV, coefficient of variation) in the predicted rate of nitrogen leaching from Overseer is about 30% but it can be much higher (>100%) if the incorrect input data is used, inadvertently or otherwise.

PC 1 proposes to set absolute discharge limits for N (Nitrogen Reference Points, NRP) for each farm. The ‘errors’ in Overseer mean that there will always be uncertainty as to whether the specific N discharge limit is met or otherwise. Litigation is a likely outcome.

PC 1 proposes to use ‘grand parenting’ to allocate N loadings at the farm level. These will be based on the predicted N leaching losses from Overseer for the two seasons 2014/15 and 2015/16, taking the higher of the two estimates (Schedule B). This system is crude, unfair and inequitable because it rewards in perpetuity the least efficient N users.

Applying a one size fits all rule to nitrogen loss through the Nitrogen Reference Point (‘NRP’) is not the most appropriate approach as it fails to take into account the significant differences that apply compared to other parts of the catchment and as a result the different costs and benefits compared to elsewhere. The effect of enforcing existing NRP’s will place a ‘cap’ on rural production and development, effectively discouraging the unrealized potential of the area. This will have the following negative impacts and costs:

- a) Locking farms into their current production levels

- b) Consequently locking farm business values
- c) Discouraging potentially environmentally sustainable farm business growth, which in turn drives economic and employment growth
- d) Consequential negative economic impacts on small rural towns, which have already suffered significantly from rural depopulation and the erosion of community and social services.
- e) The demise of smaller rural communities within the affected catchments, as farmers are forced off their land through a lack of financial sustainability;
- f) Increased pressures and stress;
- g) Closure of community facilities and schools;
- h) Closure of community stores that support local communities;
- i) Loss of local sports teams;
- j) Loss of community spirit.
- k) Last but not least – failure to secure a supply of fresh fruit and vegetables therefore requiring importation of supply with the accompanying cost to the environment of the transport and possibly poorer quality growing methods.

Remedies:

- *That Overseer should not be used as a regulatory tool but can be used to undertake qualitative what-if-analysis if required for a given sub-catchment where N is identified as a limiting nutrient in either, that sub-catchment or the wider Waikato/Waipā Rivers.*
- *That other methods should be explored to establish NRPs if they are required in a given sub-catchment.*
- *That any required reduction in emissions from farming operations be made on the basis of the total percentage emitted from farming (i.e. 61%N & 45%P) as a part of the total reduction required for all waterways*
- *Identify other other off-farm solutions to reduce N and P loadings on the rivers that are reasonable and equitable?*
- *Put in place a strategy to identify on a sub-catchment basis, the scale of the Koi Carp biomass in the river systems and identify the true effects of the increasing levels of Koi Carp on the water quality and consequently on the native flora and fauna.*

2. Implementation

A staged approach to implementation is proposed (3.11.2, Objective 3) with an initial 10-year plan to achieve 10% of the long-term (80 year) goal. PC 1 will be reviewed after this 10-year period.

However, PC 1 (3.11.3, Policy 2e) requires that the stock exclusion requirement is to be completed before July 2026 (i.e. within the 10-year goal interim goal). From the financial analyses I have seen, the fencing required to achieve 'stock exclusion' particularly for hill country farmers, is a major cost in implementing PC 1. Thus, while the staged 10 year period sounds reasonable, it makes it financially very difficult and in some cases impossible for farmers to implement because all these costs are 'up-front' in the first 10 years.

Although the plan has an eighty year timeframe for some farmers (e.g. hill country farmers) 100% of the costs of stock exclusion and water reticulation are to be born in the first ten years of the PC1 implementation so in effect for these farmers PC1 has actually only a ten year timeframe.

These costs will affect the farmers ability to comply with the requirements of PC1 due to the effects on overall financial viability and the ability of the land to support further borrowing to allow for the water reticulation and fencing of steep areas that is required as evidenced by the comments in the ANZ-AgriFocus newsletter of December 2016.

The higher the costs of fencing and water reticulation and the greater the reduction in capital value of the land through inability to intensify land usage, the lower the chances of banks' lending more capital for this work and also the higher the possibility that the banks may call in loans due to lowering of capital land values.

The stock exclusion and water reticulation requirements have to be completed in the first ten years and after that they will have virtually nothing else to do but wait for the next seventy years (if they can still afford to own the property) to see if the mitigation effects of the exclusion requirements have actually delivered the modelled results in their catchment.

Remedy:

- *That 3.11.2, Objective 3 be deleted and a staged approach is planned and implemented based on a sub-catchment model. (I will cover this sub-catchment approach in greater depth during my submission to the block three hearings)*
- *That the NPSFWM standard of fencing for stock exclusion on slopes be adopted instead of the proposed 25°, as an interim measure to allow time for further research to prove the effectiveness or otherwise of the greater slope angle.*

3. An Alternative Approach

The Waikato Regional Council has failed to provide leadership by developing a clear and forward-looking implementation plan. This lack of a clear and inclusive implementation plan means that people have been prevented from making an **"informed"** submission.

The implementation plan should identify the highest priority sub-catchments and focus effort in the areas where the benefits are greatest and this would also aid in building a constructive working relationship between the land users and the Waikato Regional Council rather than the current excessively regulatory approach inherent in PC1.

Applying the same approach to contaminant loss across the whole catchment does not take into account sub-catchment differences and is inequitable as it discriminates against those sub-catchments with the most untapped development potential (and often the lowest contaminants) and favours those that are intensively developed (and have the highest contaminant discharges).

A more effective and refined approach would be to focus on sub-catchment planning and management and alongside that focus on implementing the ***"BEST PRACTICABLE OPTIONS"*** to maintain current water quality levels or to reduce the levels of discharges of contaminants below the minimum standards currently set by WRC.

The cumulative effect of the submissions 1, 2, & 3 above, is that PC 1 should be re-configured around Policy 9 – a sub-catchment approach, based on collaboration between the sub-catchment community and the Waikato Regional Council. This is exactly the model that was proposed by the Land and Water Forum Report No 3.

Adopting this approach would require:

- Calculating the amount of N, P and sediment that needs to be removed from the Waikato River in order to reach the water quality goals.
- Allocating these loadings to each sub-catchment taking into account the amounts of N, P and sediment currently leaving each sub-catchment.
- Allowing the sub-catchment community, working with the Regional Council, using ***"Best Practicable Options"***, to decide the most cost-effective means to reach the required sub-catchment goals after taking into account and prioritizing which contaminants are most limiting water quality in the sub-catchment.

If this were done it would:

- Ensure community involvement and commitment and hence ensure that Objectives 1 & 2 are achieved.
- Reduce the uncertainty introduced by Objective 3 (the 10 year sub-goal).
- Reduce the amount of uncertainty introduced by the use of Overseer as a regulatory tool, due to errors and version changes.
- Remove the inequity of Grandparenting based on NRPs (N is not the limiting nutrient in many sub-catchments).
- Reduce costs (other more cost-effective method rather than fencing could be considered to reduce contaminants reaching significant waterways such as wetlands, riparian planting and 'hot-spot' management).

Remedy: That PC 1 be rewritten and configured around a sub-catchment approach.

4. Management

PC 1 proposes (3.11.3 Policy 9) that “.... a prioritized and integrated approach to sub-catchment water quality management.... “will be adopted. Then at “Implementation 3.11.4.5” it states that the “Waikato Regional Council will work with others to develop sub-catchment scale plans....”

The purpose for these sub-catchment plans appears to be to prioritize which of the 4 contaminants or combination of contaminants, is the cause for the poor water quality and to plan the appropriate mitigation options reflecting the biophysical properties of the sub-catchment.

This policy appears to contradict the pan-regional approach currently adopted in PC 1, which proposes to mitigate losses of all contaminants in all reaches of the Waikato River catchment area.

The best approach to water quality management would be to place more emphasis on using “**BEST PRACTICABLE OPTIONS**” to maintain or exceed minimum water quality standards, at a sub-catchment level, as this would allow flexibility for individual farm operations and develop ownership of the solutions while achieving the required water quality management outcomes.

The WRC stated that they considered the average costs of PC1 in relation to FEP’s to be approximately \$4,000 per farm but did not take into account any of the other financial effects (i.e. Reduction in capital value of land from restrictions on ability to change uses, Actual costs for fencing of riparian areas, actual costs for managing the fenced off riparian areas to control pests [both flora and fauna] and to maintain access for recreational users, Impacts on local rural communities from decrease in local off farm spending and possible reduction in numbers of residents from farmers and their families being forced off their land, The inability of the commercial growers to provide the current level of supply of vegetables and the need for imported goods to make up the shortfall etc.)

Remedy:

- *That PC 1 be re-written to reflect a sub-catchment approach to water quality management and reflect the fact that some sub-catchments may not require the mitigation of N.*

5. Stock Exclusion

The costs under PC1 are estimated to be \$500-\$600 m per annum for 80 years (Section 32, C.2.2.11.1, scenario 1).

PC1 is focused on rural land use only within the specified catchments. This means that the cost of achieving improvements in water quality is spread very unevenly across the region.

The majority of the costs, both in terms of compliance, mitigation works and farm management are in the short term borne by only a small sector of the farming industry and the costs are spread unevenly with some of the highest costs falling on hill country dry stock farmers.

These economic and social impacts on rural communities have in my opinion, not been fully assessed.

The cost estimates contained in the section 32 analysis are very selective and have not included the full range of economic effects from the implementation of PC1. I believe that when the full costs are made public they will show that the implementation of PC1 in its current format will cripple the economy of the Waikato Region.

For this reason Objective 2 of PC 1 (Section 3.11.2) will not be achieved and in fact I believe it will have the perverse outcome of actually destroying the social and economic wellbeing of many small communities within the PC1 catchment areas.

The requirement to fence off all water bodies on slopes up to 25° will have huge costs for compliance and in many cases has the potential to cause farmers to walk off the land. Waikato Federated Farmers commissioned a study testing the implications of the plan change and this showed projected costs ranging from \$0 to over \$780,000 for AG First farms.

Five out of seven Dry stock farmers faced costs in excess of 100K (113k, 210k, 385k, 425k, 785k.) and therefore *PC1 is simply unaffordable for the majority of drystock farmers.*

Once areas have been fenced off from grazing then it becomes the WRC's problem in terms of maintenance for eradication of pests (both flora and fauna) and in some areas there will be major costs involved in maintaining access for recreational use such as swimming and fishing as well.

Remedy:

- *That the Federated farmers proposal for stock exclusion be adopted as an interim measure.*
- *That an in depth analysis of the total costs of implementation of PC1 be undertaken and that consideration be given to a more strategic and staged approach to implement PC 1 based on that analysis, so that Objective 2 can be realized.*

6 Cultivation & Land Use Change

The non-complying activity status for land use intensification is excessively conservative and will have unintended consequences.

Restricting land use change on a broad scale across the Waikato and Waipa catchments is unjustified and should be removed from the plan. Land use flexibility is fundamental to sustainable primary production enterprises and especially in relation to food production, where the enterprise must be able to respond to the demands of an increasing population.

It is considered that where Stage 1 targets are met, as required by Table 3.11-1, each sub-catchment should have the flexibility to manage finite resources accordingly as a permitted activity.

Where the sub-catchment has been identified as a high priority, it is my opinion that restricted discretionary land use change consents could be utilised to manage that sub-catchment.

In relation to horticulture the result of the proposed changes means that effectively there is no expansion of any horticultural production within the Waikato/Waipā catchments from the point at which the plan was publically notified.

This will (due to expanding population) eventually have the end result of transferring food production (and the consequent effects) to other areas outside of these catchments.

This also has the effect of adding to the environmental costs, the detrimental effects of transporting this supply into the region from elsewhere.

An effects based approach more consistent with the RMA would be to allow intensification where contaminant discharges are maintained or reduced using "**Best Practicable Options**".

The non-complying activity status is inconsistent with this approach as it essentially assumes that consent is inappropriate and will only be granted in exceptional circumstances. A *permitted activity* status based on strict criteria would be a better fit with the RMA and the need to produce food for an expanding population.

Remedy:

- **Remove Non-Complying Land Use Change Rule from PC1.**
- **Enable change in land use in sub-catchments that meet Table 3.11-1 attribute targets as a Permitted Activity.**
- **Introduce a new Restricted Discretionary Activity consent to manage change in land use in high priority sub-catchments.**
- **That Horticulture be a permitted activity based on strict criteria that ensure discharges are maintained or reduced.**

7. Treaty Settlement and Multiple Ownership Maori Land

PC1 has two policy statements that directly refer to both multiple owned Maori land and treaty settlement lands (Policy 6 & Policy 16) that refer to land use intensification which together result in differential treatment which will cause material disadvantage to non-Maori landowners.

Policy 6: Restricting land use change

Except as provided for in Policy 16, land use change consent applications that demonstrate an increase in the diffuse discharge of nitrogen, phosphorus, sediment or microbial pathogens will generally not be granted.

Land use change consent applications that demonstrate clear and enduring decreases in existing diffuse discharges of nitrogen, phosphorus, sediment or microbial pathogens will generally be granted.

Policy 16: Flexibility for development of land returned under Te Tiriti o Waitangi settlements and multiple owned Māori land

For the purposes of considering land use change applications under Rule 3.11.5.7, land use change that enables the development of tangata whenua ancestral lands shall be managed in a way that recognises and provides for:

- a. *The relationship of tangata whenua with their ancestral lands; and*
- b. *The exercise of kaitiakitanga; and*
- c. *The creation of positive economic, social and cultural benefits for tangata whenua now and into the future;*

Taking into account:

- i. *Best management practice actions for nitrogen, phosphorus, sediment and microbial pathogens for the proposed new type of land use; and*
- ii. *The suitability of the land for development into the proposed new type of land use, reflecting the principles for future allocation as contained in Policy 7, including the risk of contaminant discharge from that land and the sensitivity of the receiving water body; and*
- iii. *The short term targets[^] to be achieved in Objective 3.*

Policy 6 is in my opinion only included to allow for the link to Policy 16.

Policy 16 establishes a method of flexibility for development of land (intensification) based on race. It also provides for another different standard for management of contaminants (i.e. Best Management Practice) which depending on the interpretation of this BMP standard, may make it harder to get flexibility for development of land returned under Treaty settlements and multiple owned Māori land.

Notwithstanding any of the above it is a requirement of the proposed plan change that the water quality in the rivers is either **maintained or improved** by management of contaminant discharges.

Therefore for Iwi to get flexibility to develop their land as set out in Policy 16 this means that there must be a consequential reduction in the levels of contaminant discharge from other sources which in effect means that those other sources are subsidising the development of land returned under Treaty settlements and multiple owned Māori land.

It is my firm belief that this is not only inequitable but also unjust, to expect a small group of private land users to fund a treaty settlement obligation which in effect amounts to the theft of private capital.

I have no problem with Iwi receiving the right to develop their land under treaty settlement obligations etc. but it is my opinion that this should be funded by the central government not by a small group of rural land users.

Remedy:

- **Remove Land Use Change Policy 6 that provides for race based differential treatment and change Policy 16 to make it apply to all applications regardless of race.**
- **Central Government to provide any relief in regard to development of land returned under Treaty settlements and multiple owned Māori land.**
- **Where it is identified that there is a need to reduce current levels of discharges to allow for development of land returned under Treaty settlements and multiple owned Māori land, then a fair and equitable level of compensation be paid to those rural land users that are affected by the reductions.**

