I'm Ian Taylor and I've been a dairy farmer at Puketaha, 10 km NE of Hamilton for 30 years. The land I farm has been in my family for 114 years so my bond with the land is strong. I know that myself and my generation have a level of awareness about the impact that our farms can have on the environment that my father's generation barely even though about. This isn't a criticism of our pioneers, but just reflection on how attitudes have changed as the world has become more populated and the environment more scrutinised.

I have been following the Healthy Rivers process with interest. I am also chairman of the Waikato Focus on Peat Group which includes dairy farmers, scientists, nutrient advisors and WRC regulators. Our project is new research, looking at the way dairy effluent moves through peat soils, to come up with the best management for farmers on these soils. I would like your group to note the considerable improvement in effluent management that has occurred in our area as a result of moving to land based application rather than various pond systems. We do however continue to have a small minority of farmers who let us down badly by flaunting the regulations.

I support the broad direction of PC 1, but do have concerns about some of the detail behind what is being proposed. Starting with Rule 3.11.2.

This talks about 'vibrant communities' but I see risks to these communities from these changes as I will outline.

- 1 The longer term financial impact of these changes are likely to become more negative as the plan moves through each stage. The first 10 year stage will capture the easiest and most cost effective improvements. Subsequent improvement will be smaller and more expensive.
- 2 There will be an immediate drop in dairy farm productivity when the 25% of farmers above the 75th percentile for nitrogen loss have to change their farm systems to fall below the 75th percentile target. The scale of this productivity drop is unknown as many of the farmers concerned won't even

know that they're in this group – let alone how they will deal with it. Also when this group who are the highest nitrogen loss contributers drop down to the required level, what's the next step? - will the 25th percentile rule again apply sqeezing farm systems more.

- 3 These system changes will probably result in less disposable income to spend in rural towns, so impacting employment in these towns and on farm.
- 4 Most of these rural towns are beside rivers, so may require serious capital works to deal with point source discharge from aging and undersized wastewater infrastructure, into these rivers. These towns all have small ratepayer bases so major challenges here.

I would like to see more flexibility introduced into the process so that when these policies are being implemented, there is monitoring happening at the same time for the communities affected. Modelling of the impact will provide a guide, but as we are moving into new territory realtime monitoring is crucial.

Section3.11.3 Policy 1c

I totally support the fencing of all flat/rolling land waterways. A buffer zone to filter nutrients before they enter waterways can only be beneficial to what we trying to achieve. But the challenge here becomes how big the fencing setback becomes. It needs to be close enough to allow diggers access to clean drains if necessary. There is also the issue of weeds such as blackberry taking over the waterway bank if the setback is too large.

I am less comfortable with the same fencing requirements on steep hill country, based on the high capital cost involved and as most of these farms are low nitrogen fertiliser users they will have low leaching. I would prefer to see nutrient filtering areas used with riparian planting before the waterways leave each individual farm. This would also have the additional benefit of reducing sediment run-off. Strategic riparian planting should also be the best way to reduce sediment runoff in high rainfall events, which is their biggest contaminant challenge.

Many farmers are already moving in this direction, but as we know the biggest challenge is getting commitment to change from the bottom 25%. The problem here is partly attitude, but also that many in this group are amongst the least profitable of farmers, so don't have the discretionary income to put into these sort of projects. I feel that targeting the area of greatest gain for least cost is the best place to start.

Section 3.11.3 Policy 2c

As I alluded to earlier the Nitrogen Reference Point or NRP will be the figure used to determine where farmers sit on the Bell curve of nitrogen loss numbers. The NRP will be calculated using the Overseer nutrient management programme. The problem here is that it is a modelling programme that produces a number that may be up to 30% inaccurate. This may lead to the situation that a farmer with a high NRP will do his own nutrient loss measurements with good scientific process. If he then gets figures that are lower than the Overseer number, the credibility of the whole Overseer model will be challenged. This may then lead to a legal challenge to NRP model and if successful where does that leave the model?

I feel that a better approach is to use Farm Environment Plans to encourage and implement better environmental management on farms. The big thing about Farm Environment Plans is that it focuses on all four contaminants as well as the physical attributes of each farm. The biggest risk factors on a farm are identified and there is a strong expectation that the farmer will be addressing these most critical issues as a priority. Because the Farm Environment Plan isn't number based regulation, improvements in contaminant loss won't be assessed or measured. To counter this, with the most critical risks being dealt with initially there can be total confidence that the contaminant and sediment load leaving the farm is reducing. I believe that the FEP is the best pragmatic approach to what's trying to be achieved because it will get the industry heading in the right direction of a **reducing trend** in contaminants.

A significant challenge for this whole process is the farmers who have medium to steep farms with a lot of permanent waterways. They will be the group who will be faced with the highest mitigation costs and for the highly leveraged, low profitability farmers some will be unable to meet their requirements and will have to sell.

Section 3.11.3 Policy 6

This talks about land use change and how it might operate.

My concern is around the land use change table and how the rules around it will be applied. My understanding is that if a farmer wants to change use and move up the intensity scale a consent will be required, and there is no guarantee the land use change will be approved. This proposal will stifle the innovation and entrepeneurship that farmers have become renowned for, because generally the consent process is slow, complex and expensive.

I have examples of how this could be an issue-

If the Nitrogen Reference Point strategy for nitrogen loss management is adopted, the 25% highest N –loss farmers who have to change their farm systems may have issues here.

Many northern North Is farms have been impacted by Fonterra's decision to discourage them from using above moderate levels of PKE. These farmers are looking different feeds to replace PKE, with maize being the most likely. This will require greater areas of maize to be grown, and if this is off farm the consent required to allow this will cause issues.

I have three farms close to me in prime dairying country that have ceased being dairy farms for life-style and motivation reasons. If these owners, or new owners have a change of heart and want to return to dairying the proposed rules won't allow it by right. One of the big drivers of the dairy industry has been young motivated sharemilkers buying 'run down 'farms with potential. Many of the proposed changes will make this difficult because it will be hard to increase resource inputs to increase productivity.

Another major challenge comes about from the amount of horticultural land in Pukekohe that is being lost to houses. This isn't going to stop so alternative land for horticulture needs to be identified. Matamata seems to be the most likely area for this change to happen. Once again the land use change going up the nutrient intensity scale is going to require consent, which will be expensive , slow, and complex. If the horticulturists find this process too difficult they may well give up on it. This will leave NZ in the situation of having to source

more produce from overseas. This will result in NZ importing more food from China which most Kiwis will not be happy about, as some food from China has a poor reputation.

In summary I am totally supportive of the drive to improve our waterways, but this needs to happen working alongside New Zealands agriculture and horticulture. If the conditions imposed are too onerous the regulators will lose the support of the primary sector which I believe is sympathetic towards realistic change.

A trend of reducing contaminant loss to waterways by improved management will be more effective than a number based system. We are operating in a biological environment where the averages used in models are often made inaccurate by the vagaries and extremes of nature.



FARM ENVIRONMENT PLAN

FARM NAME / PLAN OWNER	The Bannatyne Trust		
SUPPLIER NUMBER	72696		
PLAN EXPORT DATE	20/10/2017		
PLAN LAST EDITED DATE	20/10/2017		
FARM ADDRESS	91 Reid road, Gordonton		
REGIONAL COUNCIL	Waikato Region		
CATCHMENT / FMU	Komakorau Stream: 148.79 ha - 100.00 %.		
LAND PARCELS	Fee Simple, 1/1, Lot 2 Deposited Plan 443066, 770,349 m2, Fee Simple, 1/1, Lot 1 Deposited Plan South Auckland 35403, 171,100 m2, Fee Simple, 1/1, Lot 1-2 Deposited Plan South Auckland 5979, 547,312 m2		



SUMMARY MAP

The map below presents a summary of your farm showing key points of interest as well as your management blocks





Effluent system

50005 1965K

Non-Accord Defined Stock Excluded Waterway



Compliant Crossing



New pond site



Farm Dairy

SUMMARY OF OPEN ACTIONS

This table includes all open or ongoing actions you have agreed to carry out as part of this Farm Environment Plan. They are organised in date order with the 'risk rating' of the feature they relate to on your farm indicated in the far right hand column

TARGET DATE	CATEGORY	FEATURE TYPE	ACTION NAME	RISK RATING
30 Oct 2017	Effluent	Sand trap	Solids management	Critical
31 Dec 2017	Land	Farm Dump	Re-locate farm dump	High
02 Mar 2018	Land	Race Management	Increase buffer distance	High
30 Mar 2018	Land	Race Management	Race management	High
30 Sep 2018	Land	Silage Storage	Leachate containment	High
30 Sep 2019	Effluent	Effluent Irrigation	New Irrigator	Medium
30 Sep 2019	Effluent	Effluent Storage	New effluent pond	Low
30 Sep 2019	Effluent	Effluent Storage	New effluent storage system	Critical
30 Sep 2019	Effluent	Sand trap	Solids Bunker	Critical
30 Sep 2019	Land	Farm Dump	Skip Bin	High
30 Sep 2022	Waterways	Riparian Management Unit	Riparian planting	High
30 Sep 2026	Waterways	Riparian Management Unit	Riparian planting	Medium
Ongoing	Effluent	Storm water diversion	Diversion management	Medium
Ongoing	Nutrient	PKE storage area	PKE bin management	Medium
Ongoing	Effluent	Effluent Irrigation	Irrigator management	Medium
Ongoing	Land	Silage Storage	Silage stack base	High
Ongoing	Waterways	Riparian Management Unit	Grass Buffers	Medium
Ongoing	Effluent	Effluent Storage	System management	Critical
Ongoing	Land	Stock yards	Yard management	Low
Ongoing	Effluent	Effluent Storage	Pond gravity feed to sump	Low
Ongoing	Land	Silage Storage	Silage wilting	High
Ongoing	Nutrient	Cropping	Cultivation	Medium
Ongoing	Land	Race Management	Culvert management	Medium
Ongoing	Nutrient	Nutrient Management	N fert use	Medium
Ongoing	Nutrient	Soil fertility	Phosphate Fertiliser	Not Applicable
Ongoing	Nutrient	Cropping	Crop Grazing	Medium
Ongoing	Farm	Water meter	Water use monitoring	Low
Ongoing	Nutrient	Nutrient Management	Fertiliser spreader	Medium

I support the broad direction of PC1, but do have concerns about some of the detail in the proposal.

The areas I will cover are - Rule 3.11.2 Objective 2 Vibrant Communities

- Rule 3.11.3 Policy 6 Land Use Change
- Rule 3.11.3 Policy 2c Use of the Nitrogen Reference Point

Vibrant Communities – The plan talks about the need to maintain" vibrant communities", but I see the following risks to this objective.

- The longer term financial impact of these changes on rural towns are likely to be more negative as the plan moves through each stage.
- The drop in farm productivity when the 25% of highest nitrogen leachers change their farm systems to comply, will impact on spending and employment in these towns.
- These towns may require large capital expenditure to manage point source discharge from aging and undersized systems feeding into the rivers.

Result - There needs to be actual monitoring of the impact on these towns.

Land Use Change – I see issues here around farmers potentially needing consents to move land up the nutrient intensity table.

- Consents are usually slow, complex and expensive.
- Dairy farms near me have left dairying in the last three years should circumstances or ownership change can these farms return to dairy easily?
- Horticultural land near Pukekohe is being lost to houses. The demand for vegetables will only increase so where will this land for intensification be found?

Use of the Nitrogen Reference Point – Is it the best tool to be achieving the result?

- Its proposed to use the Nitrogen Reference Point [NRP] as the tool to bring the highest nitrogen leachers back to the 75th Percentile and cap everyone else.
- The NRP is based on Overseer which does not claim complete accuracy, so may be open to scientific and legal challenges.
- Farm Environment Plans [FEP] may be a better tool because they focus on physical attributes and infrastructure as well as nutrient management.
- This means the FEP has a wider focus on all four contaminants.
- The FEP will tackle the most critical issues first, so even though it isn't measured, contaminant risk will reduce through improved infrastructure and management.
- I believe the FEP can deliver a reducing trend in the losses of all four contaminants, rather than the narrow focus of the Nitrogen Reference Point.

In summary I believe most of the primary sector is supportive of the drive to improve our waterways. However, if the conditions imposed are too onerous the regulators will lose the support of this sector which I believe is sympathetic towards realistic change.