PROPOSED WAIKATO REGIONAL PLAN CHANGE 1

WAIKATO AND WAIPĀ RIVER CATCHMENTS

Waikato Regional Council
Te Kaunihera ā Rohe o Waikato

Submission form on publicly notified – Proposed Waikato Regional Plan Change 1 – Waikato and Waipā River Catchments.

Important: Save this PDF to your computer before answering. If you edit the original form from this webpage, your changes will not save. Please check or update your software to allow for editing. We recommend Acrobat Reader.

FORM 5 Clause 6 of First Schedule, Resource Management Act 1991

SubForm	PC12016	COVER SHEET	
FOR OFFICE USE ONLY			
		Submission Number	
Entered		Initials	
File Ref		Sheet 1 of	

SUBMISSIONS CAN BE

Mailed to	Chief Executive, 401 Grey Street, Private Bag 3038, Waikato Mail Centre, Hamilton 3240
Delivered to	Waikato Regional Council, 401 Grey Street, Hamilton East, Hamilton
Faxed to	(07) 859 0998 ***Please Note:*** *if you fax your submission, please post or deliver a copy to one of the above addresses*
Emailed to	healthyrivers@waikatoregion.govt.nz ***Please Note:*** *Submissions received by email must contain full contact details.*
Online at	www.waikatoregion.govt.nz/healthyrivers

We need to receive your submission by 5pm, 8 March 2017.

YOUR NAME AND CONTACT DETAILS

Full name: Andrew & Louise Sinclair

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Email: andrew@climbingjack.com

Phone: 021 268 1904 or 09 2363 647 Fax: _____

ADDRESS FOR SERVICE OF SUBMITTER

Full name: As above

Address for service of person making submission: _____

Email: _____

Phone: _____ Fax: _____

TRADE COMPETITION AND ADVERSE EFFECTS *(select appropriate)*

○ I could / ◉ could not gain an advantage in trade competition through this submission.

○ I am / ◉ am not directly affected by an effect of the subject matter of the submission that:

(a) adversely effects the environment, and

(b) does not relate to the trade competition or the effects of trade competition.

Delete entire paragraph if you could not gain an advantage in trade competition through this submission.

THE SPECIFIC PROVISIONS OF PROPOSED PLAN CHANGE 1 THAT MY SUBMISSION RELATES TO

Please state the provision, map or page number e.g. Objective 4 or Rule 3.11.5.1 (Continue on separate sheet(s) if necessary).

Our background is that we are landowners in the north west Waikato of not quite 20ha of hill country land. I am a current member of the Lower Waikato River subcommittee. Over 10 years ago we established the very successful Whakaupoko Landcare Group which we are still actively involved with and which continues to grow. Our land was once in predominantly weeds and pasture and is now approximately 1/3rd native bush and 2/3rds forestry with just a few sheep. we have a 25km mountain bike track that the local community have weekly access to.

In the first instance we would like to congratulate WRC and the Collaborative Stake Holder Group on the very inclusive way that this plan has been developed. This is especially with it being across the subject of Healthy Rivers / Waiora with many diverse views and seemingly strong negative correlations between economic and water health / community well being.

I SUPPORT OR OPPOSE THE ABOVE PROVISION/S

(Select as appropriate and continue on separate sheet(s) if necessary).

- (●) Support the above provisions
- ( ) Support the above provision with amendments
- ( ) Oppose the above provisions

MY SUBMISSION IS THAT

Tell us the reasons why you support or oppose or wish to have the specific provisions amended. (Please continue on separate sheet(s) if necessary).

I SEEK THE FOLLOWING DECISION BY COUNCIL

(Select as appropriate and continue on separate sheet(s) if necessary).

- ( ) Accept the above provision
- ( ) Accept the above provision with amendments as outlined
- ( ) Decline the above provision
- ( ) If not declined, then amend the above provision as outlined

PLEASE INDICATE BY TICKING THE RELEVANT BOX WHETHER YOU WISH TO BE HEARD IN SUPPORT OF YOUR SUBMISSION

- [x] I wish to speak at the hearing in support of my submissions.
- [ ] I do not wish to speak at the hearing in support of my submissions.

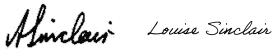
JOINT SUBMISSIONS

- [ ] If others make a similar submission, please tick this box if you will consider presenting a joint case with them at the hearing.

IF YOU HAVE USED EXTRA SHEETS FOR THIS SUBMISSION PLEASE ATTACH THEM TO THIS FORM AND INDICATE BELOW

- [x] Yes, I have attached extra sheets.
- [ ] No, I have not attached extra sheets.

SIGNATURE OF SUBMITTER

Signature:  Louise Sinclair

Date: 1/03/2017

Personal information is used for the administration of the submission process and will be made public. All information collected will be held by Waikato Regional Council, with submitters having the right to access and correct personal information.

PLEASE CHECK that you have provided all of the information requested and if you are having trouble filling out this form, phone Waikato Regional Council on 0800 800 401 for help.

ADDITIONAL SHEET TO ASSIST IN MAKING A SUBMISSION

Section number of the Plan Change:

Do you support or oppose the provision? ◉ Support ○ Oppose

Submission	Decision Sought
State in summary the nature of your submission and the reasons for it.	*State clearly the decision and/or suggested changes you want Council to make on the provision.*

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Submission	Decision Sought
State in summary the nature of your submission and the reasons for it.	*State clearly the decision and/or suggested changes you want Council to make on the provision.*

Background
Our background is that we are landowners in the north west Waikato of not quite 20ha of hill country land. Both of us gained degrees in Agricultural Science from Massey and our careers have included being farm advisors. Andrew is a current member of the Lower Waikato River subcommittee. Over 10 years ago we established the very successful Whakaupoko Landcare Group which we are still actively involved with and which continues to grow. Our land was once in predominantly weeds and pasture and is now approximately 1/3rd native bush and 2/3rds forestry with just a few sheep. We have a 25km mountain bike track that the local community have weekly access to. We have also been actively involved with the establishment of Patumahoe Village Inc that has a focus on the community and environment wellbeing in the local village and wider area.

Submission 1 - Overall support

In the first instance we would like to congratulate WRC and the Collaborative Stake Holder Group on the very inclusive way that this plan has been developed. This is especially with it having to consider the often conflicting impacts of the economic vs the environmental water health and community well being. We believe that the CSG has delivered an excellent plan that is way superior to the current status quo. It will be seen in our view as a key turning point not only in the Waikato but throughout the country, in finding a better balance to humans no longer continuing to further degrading the environment.

We strongly support the Vision and Strategy, the values and Mana Atua, the Objectives, the Policies and the proposed plan changes / rules. Also we acknowledge the overiding legal obligations of WRC for making the Waikato and Waipa Rivers swimmable and safe for food collection under the requirements of the agreed Vision & Strategy. We refer to the kep points below in Italics.

"Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010

s. 3

Overarching purpose of settlement

The overarching purpose of the settlement is to restore and protect the health and wellbeing of the Waikato River for future generations.

s. 11. Vision and strategy is part of Waikato Regional Policy Statement

(1)On and from the commencement date, the vision and strategy in its entirety is deemed to be part of the Waikato Regional Policy Statement without the use of the process in Schedule 1 of the Resource Management Act 1991.

V & S

Our vision is for a future where a healthy Waikato River sustains abundant life and prosperous communities who, in turn, are all responsible for restoring and protecting the health and wellbeing of the Waikato River, and all it embraces, for generations to come.

(3) In order to realise the vision, the following objectives will be pursued:

(a)the restoration and protection of the health and wellbeing of the Waikato River:

…

(f)the adoption of a precautionary approach towards decisions that may result in significant adverse effects on the Waikato River and, in particular, those effects that threaten serious or irreversible damage to the Waikato River:

Strategy

To achieve the vision, the following strategies will be followed:

(a) ensure that the highest level of recognition is given to the restoration and protection of the Waikato River:

(b) establish what the current health status of the Waikato River is by utilising maatauranga Maaori and the latest available scientific methods:

(c) develop targets for improving the health and wellbeing of the Waikato River by utilising maatauranga Maaori and the latest available scientific methods:

(d) develop and implement a programme of action to achieve the targets for improving the health and wellbeing of the Waikato River:"

Reason It is simply creating a better balance with identifying the full cost, including downstream, of various land use practises. The proposed plan links these costs with the land user, rather than the clean-up cost being a burden to the rate payer. Also it provides some form of safeguard on further environmental degradation that the existing plan cannot, and historically, has not delivered.

With accurate and comprehensive science we are becoming increasingly aware that what landowners do on their land has considerable downstream affects influencing the whole catchment. There needs to be a better balance between the rights of a landowner and the rights of the wider community, native biodiveristy and downstream environment.

We fully support the Plan Change in its entirety and look forward to it being adopted. We understand that there is no perfect system at this stage and can accept some minor plan changes. This is providing that the overall improvements to the environment are not compromised in any way.

In particular we would like to support 4 parts of the plan change and also offer comments / suggestions for the future.

Submission 2 **Stock Exclusion - Strongly Support**

Provision Policy 1, 3.11.3 c. 3.11.5.2 – 2 . Also schedule C.

Reason

It works and provides fantastic results. You need look no further than the results of the past 20 years with the Whaingaroa Harbourcare riparian plantings around Raglan Harbour.

Microbial Pathogens

The vision is to have the Waikato and Waipa river swimmable all year around along the entire length. The main constraint on this goal is microbial pathogens such as E coli. Our understanding is that the science says over 60% of E coli in the river systems comes from diffuse inputs via stock access to waterways. Twelve years of research at Whatawhata showed that when the feet of cattle touch water they are 40 times more likely to pooh. In summer cattle will invariably congregate in stream gully areas during the heat of the day. The solution for this reason alone is obvious - exclude cattle, deer, horses and pigs from waterways. The research at Whatawhata in a 12 year study also showed that stock exclusion reduced pathogen risk by 4 - 5 times. Cattle create 15 times more effluent thank humans. The 6.7 million cattle in NZ equate to the equivalent of over 100 million people. We no longer allow human effluent to directly enter waterways even with just our 4.5 million population.

We agree at this stage with not adding sheep & goats to this list. It allows low cost single wire electric fence as an option for fencing off streams and drains. Also sheep and goats do not congregate in streams to the extent that the likes of cattle do.

Sediment loading and P

Stock exclusion from waterways and drains will also help in other areas. Much of the sediment loading (and as a result phosphorous that lies in the soil) is directly related to erosion along stream and drain edges. Stock disturbance of sensitive soil greatly adds to this. There is a mountain of evidence worldwide to show that stock access to waterways greatly adds to sediment loading of waterways. One river (the Waiapu River), for instance on the East Coast of New Zealand now has a sediment loading 7 x greater than the muddy Mississipi, simply because much of the upper catchment was cleared from bush and converted to pasture. The sediment loading is a mammoth 35 million tonnes / year. The Waikato is 370,000 tonnes/year. This is still considerable and way beyond what it would have been prior to human clearing of native bush. New Zealand is far from 'Pure' on this score with our rivers on average carrying 10 times more silt than the average of rivers around the world. Some of this is due to the fact that we are relatively steep country with relatively high rainfall. However much is also due to the fact we allow stock access to steeper sensitive soils.

At Whatawhata the 12 years of research showed that pines or natives along stream edges combined with stock exclusion greatly reduced sediment loading of waterways by at least 400 - 500%. Major erosion events were also greatly reduced. Approximately 45% of the steeper land was planted in forestry and natives. A 100mm plus single rain event resulted in only 1 significant slip on the planted area but 14 slips on the easier contour land that remained in pasture.

The cost of single hot wire fencing is not prohibitive at just $2 - 3.00/metre and there are plenty of resourceful solutions that farmers have and will come up with, to provide alternative drinking water supplies.

Submission 3 **Nutrient Budgeting / Environmental Plans - Strongly Support**

Provision Policy 1, 3.11.3 a & b. Policy 2. 3.11.4.2 & 3.11.4.3 3.11.5.2 4 & 5 Also Schedule B

Reason
There is a strong, well documented, negative correlation between intensification and environment degradation, (N, P, E coli & sedimentation). While there are some steps that can be taken to improve pollution within an existing land use practise there is no silver bullet on the horizon at this stage. The trend has been more intensification and more pollution. This trend has to be turned around and nutrient budgeting combined with limiting intensification is a key step in our opinion towards bringing about a positive change.

The current rules and plans do not address this issue as for instance dairy cow numbers/ha and production/cow have continued to increase.

With livestock farming we like to think that most nutrients are cycled. However reality says with our current systems we are far from achieving this. Our dominant pasture species (ryegrass & clover), are shallow rooting and almost all but a small percentage of nitrogen for instance, excreted in cow urine, passes beyond the root system into the ground water system. While some of this nitrogen has been generated from sustainable clover species, much has been generated from nitrogen fertilisers which are primarily generated from fossil fuels.
The story of Phosphate in our history shows we still have a long way to go. A typical sheep & beef farm will be recommended to needing around 30 kg of P/ha per year as a maintenance application. However only around 1kg of P leaves the property as meat or wool product. Where does the other 29kg magically go? Some ends up in our river systems with the remainder stored in the soil awaiting to be eroded into our waterways at some future date. The current 'maintenance' practises are simply not long term sustainable.
With nitrogen we have to err on the side of caution as there is a very long lag phase of over 50 years in some catchments.

Submission 4

Restricting Land Use Change - Strongly Support

Provision Policy 6, 3.11.5.7

Reason
How land is used has a huge impact on downstream effects from Nitrogen, Phosphates, Sediment and E coli. Also other factors such as peak flood flows and seasonal spread of river flows. The environment is modified considerably and in many productive land use types almost all native biodiversity is eliminated. There are considerable issues around carbon emissions world wide. New Zealand has for instance doubled it's dairy cow numbers since 1990 and increased milk production by 2.5 times. This alone has resulted in an increase in our CO2 emissions equivalent to 2 million more cars each travelling an average of 15,000km/year.

Restricting land use change is essential for this plan change to achieve meaningful positive trends in water quality. For instance the science shows that forestry converting to dairying will provide a 5 - 10 times loading/ha in the likes of N, P sediment and E coli.

Native trees and forestry are good for the environment when compared to other land use options. Japan reached this conclusion 300 years ago and despite having 20 times more people / km2 they have 68.5% of their land remaining in native bush or forestry. New Zealand has just 38.5%. Both countries have a similar % of privately owned land of around 65%. Are we slow learners? This plan change should be congratulated for trying at last to address this key issue.

The Waikato is in line with the NZ pattern with just 27% in native bush and 12.7% in forestry to give a total of just under 40%. Of the native bush at least half of this land is government or local government owned. With private ownership of land the historical trend has been for removal of

more and more trees despite much of the land being steep and very prone to the likes of erosion and / or nitrates entering ground water. This trend needs to be reversed now.

General Comments

Trade benefits
Much has been made of the cost around improving our water quality. Perhaps more should also be made of the potential savings / added income. As a country and region we are very dependent on trade and outdoor / adventure tourism. Tourism is ahead of even dairy income. Around 85% of our dairy produce is exported. We put a lot of emphasis on our NZ 'Pure' brand. It is important, we believe, to start walking the walk and not just talking the talk. If we don't walk the walk - will tourists still come to 'Pure' NZ once there is wider knowledge of how not so pure we are? With trade such as dairy it is likely that the future trade barriers will be based around level of environment care etc. If we have continually degrading water systems this will be an easy target for a trade barrier.

Other benefits
Flood Control
While the focus of the plan change is just on sediment loading, microbial pathogens, N & P there are many wider benefits from stock exclusion combined with more planting of trees. Whatawhata research showed that peak flood flows were reduced by around 30%. WRC spend considerable sums of money each year on flood control of around $20,000,000 annually. Some of this could be saved with less intensification and more stock exclusion.

Biodiversity
Shading from trees provided a much more stable environment for native biodiversity with for example more constant temperatures, more nooks and crannies, less pest plants and less sediment in stream beds. Stock exclusion especially when combined with trees, greatly adds to all native biodiversity potential with both habitat creation and corridors of access.
Where stock exclusion is combined with tree planting a much more appealing environment is created for both humans and livestock with shelter and shade from the extremes of summer and winter weather.
Again when combined with tree planting other benefits such as reducing our carbon footprint accrue. With the plan change it will be important that a holistic approach is taken. There will potentially be corridors established for weed and animal pests. However with good education around weed & pest control, this can be transformed into corridors of native biodiversity.

Income from trees
Stock exclusion now does not have just negative cash flow implications. There is the cost of a single hot wire with some innovative alternative stock water supply solutions. Many should find this reasonably manageable. There are low cost options for forestry establishment especially with pines. From this carbon credits of value can be claimed from year 1. Current carbon prices are closing in on $20/tonne. There is a healthy manuka / kanuka honey industry that continues to gain strength and potentially provides land owners with up to $150/ha return. Trees can produce excellent timber value. For example I know of a landowner in the Waikato who harvested 3ha of 23 year old pines on a steep face from which he netted $35,000/ha. This far exceeds what can be earn't from the likes of beef over the same time period even with today's beef prices.
The research at Whatawhata showed that the % land area excluded from stock did not equate to the same % decrease in ruminant income. Land excluded from stock was typically the least profitable with lower returns and higher maintenance costs with the likes of fencing, tracking and weed control.

WRC Simple Suggestion - Lead the way with stock exclusion and help land owners learn

WRC has ownership of a lot of land along rivers most of which is leased out. Our son walked Te Araroa and we walked with him for a section south of Mercer along the banks of the Waikato. His comment was that of the whole length of the country this was the least attractive with a lot of pugged land, no trees for shelter and a lot of weed species such as blackberry, gorse and woolly nightshade. Perhaps WRC could lead the way with demonstration sites and at the same time create a better community environment as part of Te Araroa and a cycle way. Exclude stock and plant trees with a focus on well planned, keeping costs down, alternative income options and at the same time enhancing community access. At the moment WRC along with many Councils in NZ tend to promote very high cost native tree plantings / ha. Planting and maintenance can often exceed $50,000/ha. Many land owners need to learn more skills and gain more knowledge. Here is a chance for WRC to help lead the way.

Perhaps think long term of say 200 years to trend more towards natives but in the meantime include options such as:

1. Pines for 1 or 2 rotations for carbon credits & timber value. (Only cost around $2,000/ha to establish).
2. Longer rotation timber species such as redwoods or totara where the wood does not require to be treated. Slightly higher cost / ha although totara may have advantages where deer / rabbit / sheep grazing as they are non palatable. Long rotation totara could fit very well with Iwi aspirations for timber as well. (Whatawhata had success with establishing totara at 2 x 2m spacing and little after care requirement).
3. Establishing Manuka & kanuka for honey production.

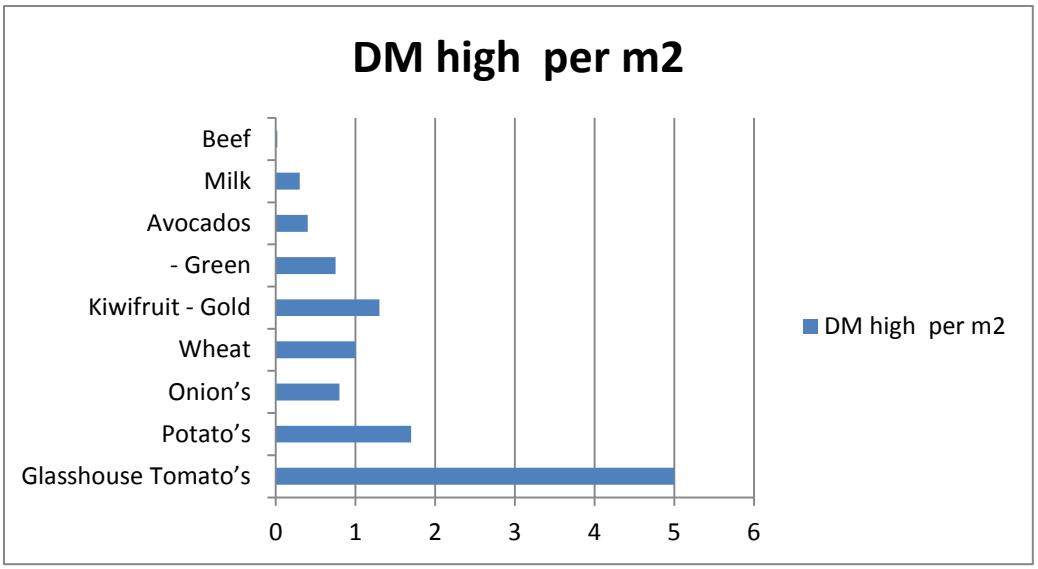
Environmental Impact Per Unit of food as well as Per Ha

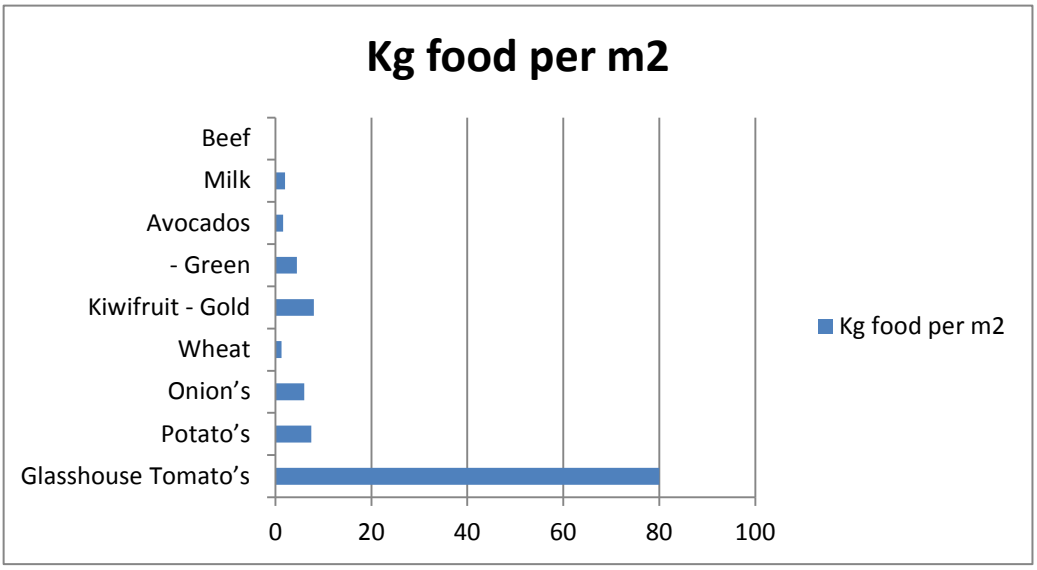
Finally we suggest that WRC stay well informed not only of the impact/ha of various production systems but also the environmental impact per unit of food produced. This is an interesting area and it seems likely there will be many new developments. Enclosed are some graphs that show the production of various land use options. It highlights for instance that glasshouse tomato's can produce over 1,000 times more food / m2 than the likes of intensive beef. Almost everything, (apart from energy for heating), is cycled including nutrients. Tree crops such as kiwi fruit and avocados for instance have much deeper root systems than pasture for better nutrient cycling and much higher yields. It would suggest that the environmental footprint for some systems is much lower / unit of food than with some others. Potato's for instance produce 100 times more food /m2 than beef, (8kg vs 70grams). Per ha there is more environment degradation but what about per unit of food? Already in the Netherlands cultured meat is being produced for Euro 12/kg after just a short time. Where will this lead? What is the land area and energy required?

It is an exciting future and we wish WRC all the best with the Healthy River / Wai ora plan change.

Food Production of different systems - Production / ha and also /m2

Food	Average kg/ha	High kg / Ha	Dry Matter% (DM)	DM/ha Average	DM/ha High
Glasshouse Tomato's	500,000	800,000	6%	30000	50,000
Potato's	50,000	75,000	23%	11500	17,000
Onion's	45,000	62,000	13%	6000	8,000
Wheat	8,000	12,000	84%	6700	10,000
Kiwifruit - Gold	45,000	80,000	16.50%	7500	13,000
- Green	30,000	45,000	16.50%	5000	7,500
Avocados	8,000	16,000	25%	2000	4,000
Milk	14,000	20,000	15%	2000	3,000
Beef	350	700	30%	100	200





DM high per m2	Kg food per m2
5	80
1.7	7.5
0.8	6
1	1.3
1.3	8
0.75	4.5
0.4	1.6
0.3	2
0.02	0.07