BEFORE COMMISSIONERS APPOINTED
BY THE WAIKATO REGIONAL COUNCIL

IN THE MATTER	of the Resource Management Act 1991
AND	
IN THE MATTER	of the First Schedule to the Act
AND	
IN THE MATTER	of Waikato Regional Plan Change 1- Waikato and Waipā River Catchments and Variation 1 to Plan Change 1
AND	
IN THE MATTER	of submissions under clause 6 First Schedule
BY	**FARMERS 4 POSITIVE CHANGE** **Submitter**

HEARING STATEMENT OF JAMES RICHARD BAILEY
17 May 2019

QUALIFICATIONS, BACKGROUND, AND EXPERIENCE

1. I am the Managing Director of two farming businesses J.S.Bailey ltd (JSB), and Momona Dairy Trust (MDT) which together operates a total of four farms in the Waikato Region, including two dry stock units and two dairy units respectively. I am a past Waikato Ballance Farm Environment Award winner. I am a past Chairperson for Sustainable Coastlines Charitable Trust and Officer for Puniu River Care. I was also the Sheep and Beef Sector representative on the Collaborative Stakeholder Group for the Healthy Rivers Wai Ora project.

2. For a further detailed background of my qualifications and experience please refer to the evidence I presented in Block One.

3. In this evidence for Block Two I will be referring to our farming system and farm planning background. Please find detailed background on our farm system development including published scientific research in my Block One Evidence.

4. I would like to also point out that while we have done a lot of work in addressing environmental issues on our farms over the last 10 years there is still much work to do, and innovations to be made.

INTRODUCTION

5. In Block One I presented as part of Farmers for Positive Change (F4PC) to outline the Collaborative Stakeholder Group (CSG) process. I also presented as an individual famer to outline the work we have done on our farms including farm system analysis, farm system and environmental design, and Land Use Capability (L.U.C) mapping and implementation. In effect, I believe I gave a comprehensive overview of evidence across various aspects of the plan.

6. In Block Two I am presenting with F4PC to focus more specifically on Nitrogen Management and Stock Exclusion. I have been asked to talk about how these parts of the Plan Change relate (or otherwise) to the progressive work we have been doing on farm to help do our part in getting our catchment on the track towards Te Ture Whaimana, the Vision and Strategy.

7. It is important to note that the other members of F4PC presenting in Block Two alongside me, have been my mentors for my farming career both in terms of farming business performance and environmental stewardship. It was through these farming leaders that I learnt that farm performance and environmental stewardship are inherently linked.

NITROGEN MANAGEMENT

PLAN CHANGE ONE (PC1) AND GRANDPARENTING

8. I have explained to you in Block One that despite the CSG explicitly stating that we would not allocate based on historical use rights or grand-parenting, we ended up with not only grand-parenting through the Nitrogen Reference Point (NRP), but also a No Land Use Change rule. This amounts to a very focused grand-parenting regime.

9. By now you would have heard repeatedly from various submitters that Grand-parenting penalizes those who have proactively tried to reduce their N footprint while rewarding those that have high leaching rates and that are contributing most to the issue.

10. Yes, the equity implications are controversial and divisive. But equally more concerning is the culture that this form of N management creates. Grand-parenting simply makes us look backwards at what we have been doing in the past, instead of looking forward at what we need to achieve.

11. To achieve Te Ture Whaimana, the Vision and Strategy we require transition and innovation, not protectionism and stagnation.

NATURAL CAPTIAL, LAND USE CAPABILITY, AND NITROGEN MANAGEMENT

12. The International Institute of Sustainable Development (IISD) describes Natural Capital as….

“Natural capital is the land, air, water, living organisms and all formations of the Earth's biosphere that provide us with ecosystem goods and services imperative for survival and well-being. Furthermore, it is the basis for all human economic activity.”

“Unfortunately, traditional measures to gauge economic performance, such as produced and human capitals, neglected natural capital leading to a depletion of natural environments and the loss of valuable ecosystem services.”

13. In the CSG process the group acknowledged the principles of Natural Capital and agreed that allocation should be based on these principles through Land Use Suitability. Unfortunately, this wording has been pushed out to guidance for future plan changes effectively kicking the can down the road which is one of the primary reasons I objected to the plan change. This wording can now be found in Policy 7:

Any future allocation should consider the following principles:

a. Land suitability [(5)] which reflects the biophysical and climate properties, the risk of contaminant discharges from that land, and the sensitivity of the receiving water body, as a starting point (i.e. where the effect on the land and receiving waters will be the same, like land is treated the same for the purposes of allocation); and

14. “The Land Use Capability system has been used in New Zealand to help achieve sustainable land development and management on individual farms, in whole catchments, and at the district, region, and the national level since 1952” *(Manaaki Whenua, Landcare Research)*. It has a considerable amount of science behind it, further science is currently being developed, and it should be an integral part of all farm planning processes.

15. With regards L.U.C in terms of N allocation, I understand that it was not developed for such a task, much in the same way that Overseer was not developed as a regulatory tool. But like overseer, it is the best tool we have. Both L.U.C. and Overseer need to be further developed through innovative science and spatial mapping to help inform our resource management in the future. These tools are a starting point, PC1 must acknowledge this.

16. There simply needs to be a direction set by N management in PC1 to foster innovation that is based on resource management not historical use rights. Natural Capital is recognized around the world as a concept on which to base resource management methodology.

17. It is my opinion that Dairy farming sector advocates (not necessarily the farmers they represent) are rashly turning away from the LUC system entirely, simply because of the misplaced fear that if the tool was associated with N allocation it may cause them to rethink some farming systems. You will not find any LUC consideration in Sustainable Milk Plans. I believe that this omission has been taken purposely and is a reckless approach.

18. An approach to N management based on Natural Capital needs to be implemented with transitional timeframes to ensure that medium to high leaching farming systems have time to adapt and innovate. No one wants to see dairy farming businesses fall over. Medium to high N loss farm systems ≥ 25th percentile.

19. Dairy farming is a large part of our family farming business; I certainly do not want the 12 families that are involved in our dairy farms to be suddenly lose their livelihood as some advocates suggest would happen if we allocated based on anything other than Grand-parenting.

20. A farm planning process and allocation system based on Natural Capital and Land Use Suitability transcends PC1's flawed staged approach and provides a platform for adaptive management which fosters innovation.

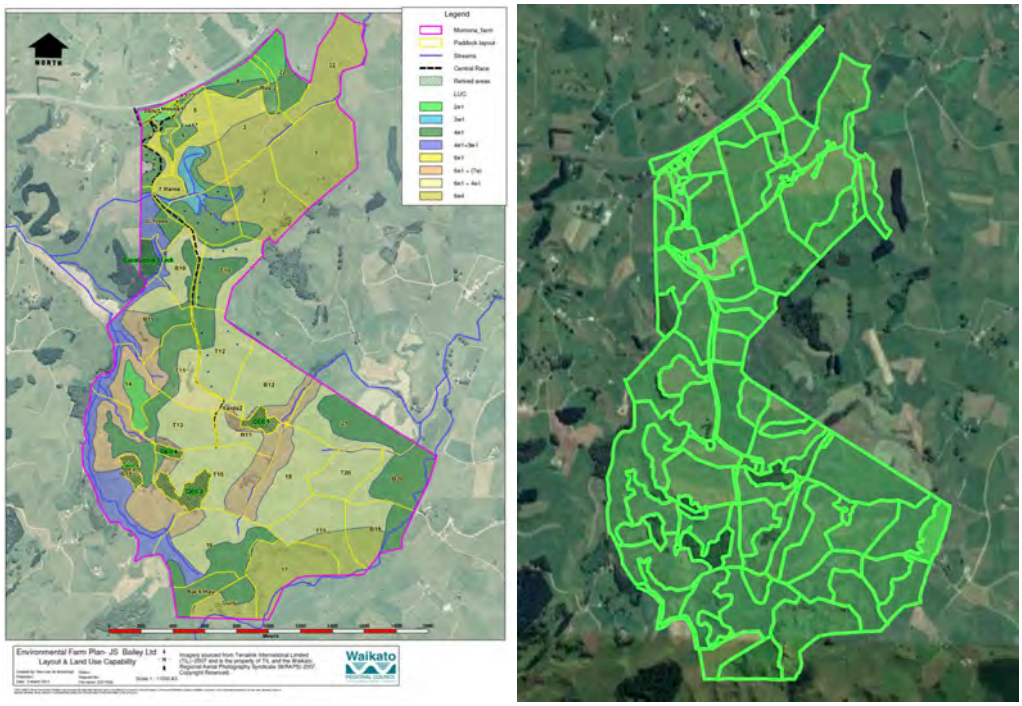
21. I would like to note that at the time of writing this evidence I am meeting with our Bank who now has a Sustainability Advisor whose role is now committed to Natural Capital. They are doing a case study on our farm which is indicative of the change in thinking that is happening in agri-business and validates this approach to investment and land use.

LUC AND OUR FARM PLANNING PROCESS

22. On our farm, through the LUC approach, we have created Land Management Units (LMU's) to be managed differently with suitable stock classes throughout farming calendar. This has been the simple but effective central tool to our farm system redesign work over the past 10 years.

23. Steeper and wetter land classes have less capability to handle certain stock classes and by default have a lower N loss profile. Our easier country with deeper soils have the capacity to take heavier stock classes, produce more, and have more options in terms of cropping and diversification, and deserve more flexibility in N loss as it is highly productive land.

Figure 1: LUC Mapping with original paddocks done at the start of the farm planning process next to the most recent farm map.



24. I will acknowledge that each farm system is different, not all farming systems would need to approach it as aggressively as we have. These differentiations can be addressed through the Farm Plan. But LUC gives us a basis to develop a system that will minimize the contaminant loss to the receiving environment.

25. Matching LUC to stock classes is an important farm performance and environmental stewardship tool, especially in the winter months. Please see Figure 2 which depicts our cattle on easier country and sheep on the steep slopes during the winter, significantly reducing the risk of contaminant loss.

Figure 2: Matching stock class to L.U.C. in the winter months

26. In stark contrast Figure 3 below depicts a hill country dairy farm milking platform in the Waikato/Waipa Catchment. This milking system is intensively farming dairy cattle in the winter on land with low land use capability. In my system, I would be running sheep only on this class of land during the winter, and on top of this there are several critical source areas that, under a robust farm planning process, would need to be addressed.

Figure 3: Mismatched LUC and Stock Class

27. Under PC1 as it stands, the farmer in Figure 3 may take up the Dairy industry scheme which does not involve any consideration of Land Use Capability and the farms N loss will be grand-parented so effectively they

could carry on as they are under PC1. This is an environmental disaster, and illustrates clearly why Nitrogen allocation needs to be based on the Natural Capital of one's farm, not based on historical use rights. Under an LUC based allocation framework this farm would simply not have the N allocation to be able run such a system on this land. By transitioning this system off this type of land we will also be solving a massive sediment, e-coli, and phosphorous issue as well.

28. In Figure 4 below I have shown how a LUC based farm plan provides a considered approach to address Critical Source Areas (CSA's). Farming under a considered L.U.C approach is an environmental mitigation in itself, but it also enables the farmer to tie in treatments for CSA's into the whole farm plan requirements and the necessary investment planning. This is what I mean by meaningful farm planning and implementation. This is not a box ticking exercise, this is planning for change, this is well thought out investment in infrastructure, this is getting on the path towards the Vision and Startegy.

Figure 4: Opportunities to address Critical Source Areas through the LUC based farm plan.

AGNFORM MODELLING AND FARM SYSTEM DESIGN

29. As described in my evidence for Block One we have undertaken an innovative pilot project under the Local Indigenous Biodiversity Strategy (LIBS) alongside Waikato Regional Council (WRC), South Waikato District

Council (SWDC), AG Research, Waikato River Authority (WRA) and Waikato Catchment Environmental Enhancement Trust (WCEET).

30. This project involved putting our farm system through the AGINFORM Optimization Model and a report on this study is now published in the journal **"Science of the Total Environment"**. This process Identified areas for restoration, reducing effective hectares (in the traditional sense) while delivering an overall environmental benefit and retaining profitability. This is essentially the same effective farm design process as used by my mentors in F4PC.

31. Modelled results included 15% reduction in P loss, 20% reduction in erosion and run off, significant increase in Biodiversity with 42 ha to be planted in Manuka, Totara, and Wetland Species. Overall N loss would reduce, but not as acknowledged by Overseer. Overseer models an increase from 17 kgN/ha/yr to 18.

32. All of this farm system change is based on a grass only system, no Palm Kernel, no Urea N, just the grass that is grown on the farm. Efficiencies are gained through Land Optimization not Intensification.

33. Despite being in a Priority 3 sub catchment, PC1 has rendered WRC unable to grant a resource consent to me to farm as per this proposal due to the slight lift in the NRP.

34. Evidently though, there is the ability under PC1 for high leaching dairy farm operations to gain a consent to purchase neighboring low leaching dry stock properties and spread the N leaching across the two properties as was the case for Taumata Farms Ltd who have been granted such a consent.

35. So, from what I can see as a farmer, under a staged approach based on grand parenting N, PC1 is basically telling me that if I have high N leaching I will be rewarded with more flexibility in the future and hence greater land value. If I have reduced my N leaching prior to PC1 then I have devalued my farm and I can be bought out by my neighbor to help spread out their N loss.

36. We have two dairy units and a grazing block in the Waihou Catchment. I can only assume that the grand-parenting nature of the PC1's staged approach will be rolled out into this part of the Waikato Region also. How should we as a farming business that supports 12 families across our different farms prepare for this staged approach? Should we ramp up our N loss to gain some farm value that we have lost in the Waikato Catchment?

37. The answer is no. I will personally not ramp up our N loss to gain farm value. But I know a lot of farmers will and are. I will continue to manage and transition our farming systems based on a Natural Capital approach. However, I will not comply with a grand parenting regulatory regime.

TAKING RESPONSIBILTY FOR CONTAMINANT LOSS

38. I would like to acknowledge the sheep and beef sector contributes significantly to contaminant loads in the catchment. My farm planning process and implementation on our dry-stock farm is just one small example that illustrates how we can significantly reduce our contaminant loss.

39. It is paramount that we address the contaminants we are responsible for. In Mr Dooles evidence and rebuttal for Dairy NZ I note that he has taken exception to the contaminant loss from the sheep and beef sector. The difference between my perspective, and Mr Dooles, is that I am innovating and adapting to address the contaminant loss I am responsible for. I am not asking to grand- parent sediment or e-coli loss. That would be ridiculous.

40. Mr Doole implies that the Dairy Industry is too important to the economy to make any further reductions in N loss. This is consistent with the messages we heard from the CSG Dairy Members and from Mr Doole himself in his role on the Healthy Rivers Wai Ora Technical Leaders Group when he told us that there was little that the dairy industry can do to reduce N loss.

41. As someone who is heavily invested in the Dairy Industry, I find this rhetoric deeply concerning, as over time, this mantra will put more pressure

on other sectors of the community to offset the impact of the Dairy Industry, and put more pressure on our dairy farmer's social license to operate.

42. Meanwhile there are plenty of dairy farmers getting on with great environmental work, and reducing their N and other contaminant loss through better effluent management, wetland developments, farm system analysis, and now even bringing in technologies being used overseas like wood chip denitrification bio reactors. Perhaps the Dairy advocacy organizations could focus more on helping us find and develop innovative solutions instead of employing economists to tell us how 'important' they are.

RELEIF SOUGHT NITROGEN MANAGEMENT

43. Delete the requirement to manage property level discharges to a nitrogen reference point based on historic profiles

44. Amend the plan to apply land use suitability and natural capital now by including allocation based on the Natural Capital of soils through a Land Use Capability based approach.

45. As an interim measure, there is an acute need for low N loss farm systems to have a flexibility cap as we transition towards the V and S. Farmers with an NRP below this Nitrogen Reference Point will have some flexibility to adapt to market and climate. I refer you to Graeme Gleeson to explain further in detail what the flexibility cap would entail.

STOCK EXCLUSION

46. While the staged approach of PC1 is telling me to stand still through a grand parenting N regime it is also telling me to rush to get riparian fencing up. Rushing to meet broad stroke fencing rules, takes resources away from a considered farm plan that focuses on Critical Source Areas (CSA's) which

would give a better bang for our buck, and set us up to be able to achieve the Vision and Strategy.

47. I would like to note that I have had experience in rushed broad stroke riparian fencing on our farms through the Dairy Clean Streams Accord, I am not knocking the great intentions of this initiative but I can tell you that I am now about to embark on pulling most of these fences out and redoing them because they were misplaced and do not fit into the overall farm plan. Please refer to Figure 5 below to see the results of this.

Figure 5: Results of Rushing Mitigations

48. Figure 5 depicts the result of rushing to meet a broad stoke riparian fencing policy. What has happened is that over time the vegetation in the fenced off area has grown and slowed the flow of the stream to the point where the stream has diverted to the sides, creating an ineffective mitigation and waste of money. Indeed, the issue has now become a lot worse because of misplaced infrastructure.

49. We have just finished re fencing the area shown in Figure 5. Due to the misplaced investment in the first instance it has now become a CSA within

our farm plan. Hence I have used a much more comprehensive and expensive mitigation as detailed in Figure 6 below:

Figure 6: How it should have been done in the first place

50. Figure 6 shows this wetland area treated as a CSA with wide setbacks and you can see the pre-spray marks for the riparian planting that will be going in next week.

51. My point is fencing needs to be carefully considered as part of the overall farm plan. It is expensive and needs to last a long time. We need to do it once and do it right. In the above example, I followed a prescriptive broad stoke fencing policy not giving enough consideration to the dynamic relationship between land and water. I was punished by paying for it twice. In the meantime, (7 years) the water quality of the stream in fact deteriorated as the correct mitigation was delayed.

52. In certain places where the stream and stream bed is incised enough to ensure that the flow of the stream stays in the original path, the fencing used in Figure 1 can be effective. See Figure 7 below.

Figure 7: Some situations can be simple and low cost

53. Water reticulation is often an afterthought to any stock exclusion rule policy discussion and while it is a mitigation tool itself, it is also very expensive and careful planning is needed. Sometimes it is just not cost effective in hard hill country.

54. If we were to fence all our streams as per PC1 we would be fencing off streams in some flood prone valley floors that are areas I have ear marked for retirement and restoration. If I am made to erect fences in these areas, it will only delay/prohibit a more comprehensive mitigation in the future as per our farm plan based on Natural Capital.

55. A meaningful farm plan sets the farm up to be able to achieve the Vision and Strategy, not appeasing current social pressure to erect fences that when misplaced can actually exacerbate the issue.

RELIEF SOUGHT STOCK EXCLUSION

56. Place a strong emphasis on identifying and addressing critical source areas and other high-risk activities through the farm planning process. I again defer to Graeme Gleeson to explain how a more targeted stock exclusion policy should be adopted in Plan Change 1.

57. Give realistic timeframes for farmers to give a considered approach to their fencing mitigations, water reticulation requirements. Let's do it once and do it right.

58. Use the Sub Catchment approach by incentivizing the development of catchment groups to work alongside the regional council and other stakeholders to identify and target contaminant hotspots.

Interim target state of water quality year - 2050

59. I have explained the detailed planning process we are using to redesign our farm business. What is missing from this process which Plan Change 1 provides no guidance or certainty is what state of water quality we need to achieve. I appreciate the 80-year target is provided but it is too distant and obscure. There is urgency to place a more visible target perhaps an interim target in the year – 2050 so we can measure progress going forward. I refer you again to Graeme Gleeson to provide more detail about putting in place an interim target.

60. Thank you again for your time and consideration.