

**IN THE MATTER** of the Resource Management Act 1991

**AND**

**IN THE MATTER** The Proposed Waikato Regional Plan Change 1 –  
Waikato and Waipa River Catchments (Healthy  
Rivers)  
(Hearing Block 1)

**BETWEEN** New Zealand Institute of Primary Industry  
Management (NZIPIM)- Waikato Branch  
(Submitter ID: 73558)

**AND** Waikato Regional Council

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**STATEMENT OF PRIMARY EVIDENCE OF LEE ANTONY MATHESON**

**ON BEHALF OF THE NEW ZEALAND INSTITUTE OF PRIMARY  
INDUSTRY MANAGEMENT- WAIKATO BRANCH**

15 February 2019

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# 1. Executive Summary

- 1.1. In order for farm environment plans (FEPs) to meet the objectives of the Waikato Regional Council's Proposed Waikato Regional Plan Change 1 – Waikato and Waipa River Catchments (Plan Change) they need to be high quality and completed by the desired timelines. In order to do this, there needs to be enough suitable qualified farm environment planners who have capacity and desire to undertake FEPs.
- 1.2. The Waikato Branch of NZIPIM believes that finding enough suitable, and available, farm environment planners to undertake the number of farm plans that are required in the Proposed Plan Change will be a risk to the successful implementation of this Plan.
- 1.3. The Section 42A Officers Report recommends adjusting the priority of seven sub-catchments (four from Priority 2 and three from Priority 3) with no associated change in due dates. Given these recommended changes in the Section 42A Officers Report to the prioritisation of sub-catchments, the Waikato Branch of NZIPIM believes it is unlikely that the required FEPs will be completed by the due dates.
- 1.4. We note that there are three possible remedies for this:
  - 1.4.1. Some sub-catchments are removed from Priority 1 (so the resulting net change in farms requiring FEPs in each Priority band is close to zero); or,
  - 1.4.2. The due date for Priority 1 sub-catchments is extended (but not the overall due date of FEPs), or,
  - 1.4.3. The qualification to be a certified farm environment planner is lowered, opening up additional capacity from less specialised consultants.
- 1.5. We support the removal of some sub-catchments from Priority 1 and/or adjusting the due dates for Priority 1 and 2 sub-catchments. We do not support lowering the requirements around certification.
- 1.6. We recommend that this risk is further analysed by the Waikato Regional Council, to ensure that the risk around not having capacity to undertake FEPs by the required time is mitigated and offer our support in this process.
- 1.7. In addition, we would like to note that in the hearings for Block 2 and Block 3, if further sub-catchments are adjusted into higher priority bands, particularly priority 1, then this could further reduce the ability to complete these FEPs that are of high quality by the stated timeframes.

## 2. Scope of evidence

- 2.1. In this evidence I will provide information on the impact of altering the prioritisation of the sub-catchments on the ability for suitably qualified certified farm environment planners to complete these by the due dates.

- 2.2. In particular, I will provide expert evidence in relation to *Section B5.4.5. Staging and sub-catchment priority* in the Section 42A Officers Report as it pertains to the ability to complete FEPs and nitrogen reference points (NRPs) that are of high quality to meet the Plan Change objectives in the relevant timelines.
- 2.3. This evidence is limited to the material covered in the original submission by the Waikato Branch of NZIPIM as it pertains to the material covered in Hearing Block 1.
- 2.4. The Waikato Branch of NZIPIM will provide evidence for Hearing Block's 2 and 3 when required.

### 3. Introduction

- 3.1. My full name is **LEE ANTONY MATHESON**.
- 3.2. I am a registered member of NZIPIM and have been since 2011. I have been a North Island elected board member for NZIPIM since 2017. I am a member of the Bay of Plenty Branch, but a number of our advisory team are members of the Waikato Branch.
- 3.3. I am a Director and Shareholder of Perrin Ag Consultants Limited, an advisory and consultancy business providing a range of services to the pastoral agricultural sector, including the calculation of historic contaminant losses and the preparation of farm environment plans in a number of jurisdictions, and have been an employee of the company since August 2006, becoming a director in April 2008 and have been the managing director since 2015.
- 3.4. I have the following qualifications: Bachelor of Applied Science (Rural Valuation and Management) with First Class Honours (Plant Science) and an Advanced Certificate in Sustainable Nutrient Management in New Zealand Agriculture from Massey University. I am a Registered Member of the New Zealand Institute of Primary Industry Management. I also hold a Diploma in Financial Services from the Australian Financial Markets Association and have completed the OneFarm Governance Advisory Training Programme.

#### **Background**

- 3.5. I am familiar with the proposed Plan Change with respect to the FEPs, the NRPs, the people certified to undertake FEPs and NRPs, including the required qualifications, the timeframes and auditing processes.
- 3.6. I have not been involved in the development of the Plan Change. However, our firm, Perrin Ag Consultants Ltd, has made an independent submission on this Plan Change and we have been engaged on separate occasions by both Beef+Lamb NZ and the Fonterra Cooperative Group Limited to undertake modelling, analysis or reviews on third-party work that may have been used to inform the CSG process or ultimately submissions on this Plan Change by those organisations. We have also been previously engaged by the Waikato Regional Council to provide advice on elements

of the proposed implementation of Plan Change 1, none of which is related to this evidence.

3.7. In March 2018 Graham Parker and Carla Muller, on behalf of the Waikato Branch of NZIPIM, met with Waikato Regional Council representatives to discuss the Waikato Branch’s submission.

3.8. The National office for NZIPIM has been undertaking a programme with regional councils around the country, as well as central government, which is looking at creating a national certification scheme for farm environment planners. This would allow regional councils the opportunity to use nationally certified farm environment planners if they chose.

**Code of Conduct**

3.9. I have read the Environment Court’s Code of Conduct for Expert Witnesses contained in the Environment Court’s Practice Note 2014, and I agree to comply with it. In that regard, I confirm that this evidence is within my area of expertise except where I state that I am relying on the evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in this evidence.

## 4. Background

4.1. The Waikato Branch of NZIPIM is attending the first Block of hearings for the Plan Change to provide expert evidence in relation to *Section B5.4.5. Staging and sub-catchment priority* in the Section 42A Officers Report as it pertains to the ability to complete FEPs and NRPs that are of high quality to meet the Plan Change objectives in the relevant timelines.

4.2. For clarification the timelines listed for NRPs and FEPs has changed between the Original Plan Change 1 and Variation 1. The Waikato Branch of NZIPIM understands the background for this. The timelines referenced for the remainder of this evidence relate to the timelines listed under Variation 1 in Table 1 below.

*Table 1: FEP and NRP dates*

	<b>Original Plan Change</b>	<b>Variation 1 Plan Change</b>
NRP Date	1 July 2020	30 November 2020
FEP Priority 1 sub-catchment	1 July 2020	1 March 2022
Properties with an NRP greater than 75th percentile nitrogen leaching value.	1 July 2020	1 March 2022
FEP Priority 2 sub-catchment	1 July 2023	1 March 2025
FEP Priority 3 sub-catchment	1 July 2026	1 July 2026

4.3. The Waikato Branch of NZIPIM acknowledges that between Variation 1 of the Plan Change and the Original version, while the timelines changed, no sub-catchment’s priority ranking changed.

4.4. Table 2 summarises the changes in sub-catchment prioritisation based on the Section 42A Officers report. This table is truncated to only include the sub-catchments which changed in the Section 42A Officers Report. The prioritisation and staging framework was originally set out in Policy 8, the prioritisation of each sub-catchment is set out in Table 3.11-2.

Table 2: Sub-catchment priorities

Sub-catchment identifier	Sub-catchment number	Original	Variation 1	Section 42A
Waikato at Port Waikato	6	2	2	1
Waikato at Rangiriri	15	2	2	1
Awaroa (Rotowaro) at Sansons Br	19	2	2	1
Waikato at Narrows	33	3	3	1
Waipā at SH23 Br Whatawhata	34	2	2	1
Waiootapu at Campbell	58	3	3	1
Waikato at Ohaaki	73	3	3	1

## 5. Impacts of sub-catchment prioritisation on FEP completion

5.1. The Waikato Branch of NZIPIM has undertaken some preliminary analysis on what the recommended changes to Table 3.11-2 might mean for the ability to deliver the FEPs by the required dates. This is based on a number of assumptions which are detailed below. We recommend that further analysis is undertaken, or made public by Waikato Regional Council, and offer our support in this process.

5.2. Table 3 summaries the estimated number of land parcels greater than 20-hectares which are likely to require FEPs<sup>1</sup>. A full break down by land use type is provided in Appendix 1.

Table 3: Estimated number of land parcels greater than 20-hectares which are likely to require FEPs

Priority	Sub Catchments	Variation 1	Section 42A	Variation 1-75 <sup>th</sup> ile	Section 42A-75 <sup>th</sup> ile
1	All Priority 1	3557	6482	3964	6813
2	All Priority 2	6263	4429	5992	4220
3	All Priority 3	4171	3080	4034	2958
Grand Total	All catchments	13991	13991	13991	13991

5.3. Assumptions used for Table 3 include:

5.3.1. All land parcels over 20-hectares could need a FEP.

5.3.2. The Variation 1 scenario includes 34 Priority 1 sub-catchments, 22 Priority 2 and 18 Priority 3. The Section 42A scenario includes 41 Priority 1 sub-

<sup>1</sup> Data sourced from Agribase.

catchments, 18 Priority 2 and 15 Priority 3. The catchments included in each Priority are included in appendix 2.

5.3.3. The 75<sup>th</sup>ile scenarios are a proxy for including how many additional FEPs need to be done by 1 March 2020 based on the 75<sup>th</sup> percentile rule. This is calculated by taking 25% of the dairy farms in Priority 2 and Priority 3 sub-catchments and including them in Priority 1. We understand this is unlikely to be accurate, but it provides an indicative number. In addition, while the exact number may not be accurate for these scenarios, it is the relativity between the Variation 1-75<sup>th</sup>ile and Scenario42A-75<sup>th</sup>ile scenario that is important.

Table 4: Percentage change estimated FEPs between Variation 1 and Section 42A scenarios

Priority	Sub Catchments	Variation 1 & Section 42A	Variation 1- 75 <sup>th</sup> ile and Section 42A- 75 <sup>th</sup> ile
1	All Priority 1	82%	72%
2	All Priority 2	-29%	-30%
3	All Priority 3	-26%	-27%

5.4. We recognise that farm enterprises may comprise a number of different land parcels and that the number of FEPs could be less than that estimated using land parcel as the method of delineation. However, larger enterprises will likely require more comprehensive FEPs (with a commensurate increase in the time for delivery) so the aggregate time requirement, which ultimately determines the number of farm planners required, is likely to be similar.

5.5. Table 5 estimates how many certified farm environment planners will be needed for the scenarios in Table 3.

5.6. Assumptions used in Table 5 include:

5.6.1. The time taken per FEP is assumed to be 4 days. This is based on the average time taken in the report commissioned by Waikato Federated Farmers (Journeaux, 2016) (24.75 hours) assuming there are 6 chargeable hours per day (see 5.6.5 below). This average is applied to all land parcels over 20 hectares, regardless of type. It is likely that there is a big range about this (Journeaux, 2016). This includes calculating an NRP.

5.6.2. In my professional opinion this is likely to be a conservative estimate and it will take longer to complete FEPs on many farms.

5.6.3. The start date for Priority 1 sub-catchments is 1 January 2020. It is possible that some farms will have started now or start between now and then. However, this is a reasonable assumption given that current Plan Change hearing process and that some farms will leave this to the last minute, meaning the demand for farm consultant time is not split evenly throughout and across years. There is no way to estimate the flow of this demand and therefore this is assumption was used as a starting point.

- 5.6.4. Priority 2 sub-catchments start once the due date for Priority 1 sub-catchments finishes and Priority 3 sub-catchments start when Priority 2 sub-catchments finish.
- 5.6.5. A consultant is assumed to have 1200 chargeable hours in a year. This is based on a recent NZIPIM survey '*Survey of the Rural Profession*' (NZIPIM, 2018). Each day has six chargeable hours, which equates to 200 work days per year for a consultant doing full time FEPs. This is prorated for consultants spending half their time on FEPs and when the due dates fall within a year.
- 5.6.6. Within Table 5, "consultants" refers to a certified farm environment planner.



Table 5: Estimation of certified farm environment planners required for various scenarios

Scenario: Variation 1- 75 <sup>th</sup> ile								
Sub Catchments	Land parcels >20ha	Time/ FEP	Days required	Start date	Due date	Work days/ consultant	Number of consultants required	
							Full time	Half time
All priority 1 (+ those above 75 <sup>th</sup> ile)	3,964	4	16,353	1-Jan-20	1-Mar-22	450	36	73
All priority 2	5,992	4	24,719	1-Mar-22	1-Mar-25	600	41	82
All priority 3	4,034	4	16,641	1-Mar-25	1-Jul-26	250	67	133
Scenario: Section 42A- 75 <sup>th</sup> ile								
Sub Catchments	Land parcels >20ha	Time/ FEP	Days required	Start date	Due date	Work days/ consultant	Number of consultants required	
							Full time	Half time
All priority 1 (+ those above 75 <sup>th</sup> ile)	6,813	4	28,105	1-Jan-20	1-Mar-22	450	62	125
All priority 2	4,220	4	17,406	1-Mar-22	1-Mar-25	600	29	58
All priority 3	2,958	4	12,202	1-Mar-25	1-Jul-26	250	49	98
Scenario: Variation 1								
Sub Catchments	Land parcels >20ha	Time/ FEP	Days required	Start date	Due date	Work days/ consultant	Number of consultants required	
							Full time	Half time
All priority 1 (+ those above 75 <sup>th</sup> ile)	3,557	4	14,672	1-Jan-20	1-Mar-22	450	33	65
All priority 2	6,263	4	25,834	1-Mar-22	1-Mar-25	600	43	86
All priority 3	4,171	4	17,206	1-Mar-25	1-Jul-26	250	69	138
Scenario: Section 42A								
Sub Catchments	Land parcels >20ha	Time/ FEP	Days required	Start date	Due date	Work days/ consultant	Number of consultants required	
							Full time	Half time
All priority 1 (+ those above 75 <sup>th</sup> ile)	6,482	4	26,739	1-Jan-20	1-Mar-22	450	59	119
All priority 2	4,429	4	18,269	1-Mar-22	1-Mar-25	600	30	61
All priority 3	3,080	4	12,705	1-Mar-25	1-Jul-26	250	51	102

- 5.7. Table 5 demonstrates that, based on the data available, upgrading 7 sub-catchments to Priority 1 results in a significant increase (approximately 70%, including the 75<sup>th</sup> percentile rule) of land parcels greater than 20-hectares which are likely to require FEPs.
- 5.8. There has been no additional change in timeframes related to the delivery of FEPs in Priority 1 sub-catchments (maintaining the final due date for Priority 3 sub-catchments but reallocating more time to Priority 1), nor a resultant 'downgrade' in sub-catchments to ensure a minimal net change in FEPs required by 1 March 2020.
- 5.9. We believe that the most realistic scenario that farm consultants spend closer to half their chargeable hours on this work as oppose to working full time on FEPs (this also accounts for times when farmers and land owners are not available etc.). Based on this and using the Section 42- 75<sup>th</sup> percentile scenario, approximately 125 certified farm environment planners will be needed.
- 5.10. There appears to be no accurate census of who is suitably qualified, available and desires to undertake FEPs in the Waikato. The Waikato and Bay of Plenty Branches of NZIPIM have approximately 242 members, and in February 2017, to support the Branch's submission on the Plan Change, we undertook a survey of these members. 93 responded, a 38% response rate. A full copy of survey results was included in the Waikato Branch's initial submission on this Plan Change.
- 5.11. Of these respondents, only 35 (38%) indicated they planned to do FEPs. Of those who indicated they wanted to undertake FEPs (35 members) the following data levels were recorded:
- 5.11.1. 16 (47%) would meet the current requirements as a Certified Farm Environment Planner
  - 5.11.2. 21 (62%) would meet the current requirements as a Certified Farm Nutrient Advisor
  - 5.11.3. 19 (59%) plan to gain certification as a Certified Farm Environment Planner by June 2020
  - 5.11.4. 21 (64%) plan to gain certification as a Certified Farm Nutrient Advisor by June 2020
  - 5.11.5. 21 (64%) have completed advanced training in sustainable nutrient management
- 5.12. Of those planning to complete FEPs available time and other work priorities are identified as the key constraints, indicating that not all those who could technically do FEPs had the capacity available.
- 5.13. If we assume that these responses are typical of the non-respondents in our membership, then 38% of members indicating that they plan to complete FEPs equates to 93 members from all the Waikato and BOP branch membership. This

is likely to be a generous assumption as those most motivated to respond to the survey were likely to be those most impacted by the Proposed Plan Change.

- 5.14. Based on these factors, we are concerned that the ability to source enough suitably qualified and available consultants to become certified farm environment planners will mean the ability to complete the required priority 1 FEPs by 1 March 2020 is seriously compromised.
- 5.15. We note that there are three possible remedies for this:
  - 5.15.1. Some sub-catchments need to be removed from Priority 1 (so the resulting net change in farms requiring FEPs in each priority band is minimal); or,
  - 5.15.2. The due date for Priority 1 sub-catchments is extended (but not the overall due date of FEPs), or,
  - 5.15.3. The qualification to be a certified farm environment planner is lowered, opening up additional capacity from less specialised consultants.

## 6. Further discussion

- 6.1. Any further changes which increase the number of farms or sub-catchments in Priority 1 would exacerbate the challenges detailed in section 5 of this evidence. One possible mechanism to alleviate this, would be to maintain the net number of farms requiring FEPs in each priority sub-catchment. Meaning that if a sub-catchment moves up in priority, another should move down. Alternatively, dates could be extended, however, this would compromise the overall ability of the Plan Change to meet the overall Vision and Strategy. Reducing the threshold for farm environment planners would be another alternative, however, this would also compromise the overall ability of the Plan Change to meet the overall Vision and Strategy.
- 6.2. It is also worth noting that this compliance is not the only work that farm consultants are undertaking, nor is it the only work that farm consultants are undertaking with farmers. There is also ongoing and increasing work in health and safety, human resources, animal welfare and greenhouse gasses. In addition, there are up and coming challenges for farmers, including the potential inclusion of agriculture in the Emissions Trading Scheme.
- 6.3. There is also the consideration of auditing of the FEPs which is scheduled for Hearing Block 3. However, there is likely a role for farm consultants in this space, which could further reduce the capacity available to meet FEP requirements.

## 7. Specific responses to comments in the Section 42A Officers Report

- 7.1. *Paragraph 632 in the Section 42A Officers Report states: “Overall, the TLG and CSG considered it most effective to prioritise action based on those sub-catchments with the largest gap between the current water quality and the desired water quality”.*

The Waikato Branch of NZIPIM agrees with this intent. However, it needs to be balanced by the capacity to complete the FEPs in order to make the desired changes in water quality.

- 7.2. *Paragraph 634 in the Section 42A Officers Report states: “The implementation dates for Priority 1 and 2 sub-catchments were recognised as being unrealistic and were modified as a part of Var1. The final implementation date, for Priority 3 sub-catchments was maintained as 2026”.*

We agree that the implementation dates in the Original Plan Change were unrealistic, however, Variation adjusted this to account for the delay in processes. Variation 1 did maintain the end due date which did shorten the time frames for completing FEPs in Priority 3 sub-catchments. This needs to be considered in analysing the capacity of farm environment planners.

- 7.3. *Paragraph 636 in the Section 42A Officers Report states: “A number of submitters seek a different prioritisation in Table 3.11.2. A common reason is that it triggers FEP and stock exclusion provisions which are, in the view of some submitters, cost prohibitive and labour intensive<sup>2</sup>”.*

The cost of actions associated with FEPs is beyond the scope of the Waikato NZIPIM submission. However, what is worth noting is that if there is a limited capacity of farm environment planners, or they are all busy due to the short timeframes, then the price could potentially increase. This is based on underlying supply and demand principles.

- 7.4. Various paragraphs in the Section 42A (such as paragraphs, 636, 638 and 639) seek additional sub-catchments be increased to Priority 1 status. The Section 42A Officers report rejects some of these and accepts some (paragraphs 645), resulting in 7 sub-catchments (from Priority 2 and 3) being moved to Priority 1.

While the related water quality issues for these requests are outside of the scope of the Waikato Branch’s submission, these increases in prioritisation for any catchment needs to be considered in conjunction with the change in FEPs required. It is not clear that this has been done and based on our analysis (section 5 above) this is likely to jeopardise the ability for FEPs in Priority 1 sub-catchments to be completed by the due dates due to the significant increase in land parcels requiring FEPs by 1 March 2020.

For example, sub-catchment 34 (Waipa at SH23 Br Whatawhata) (recommended to be moved from Priority 2 to Priority 1 in the Section 42A Officers Report) has a total of 985 land parcels that are over the 20-hectare threshold and are likely to require an FEP.

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<sup>2</sup> G & A Dixon, G. Findlay, G., Jefferies, J. Bailey, J & GJ. Briggs, Rotor Work Ltd, M&R Coleman

- 7.5. Fonterra seeks all references to the prioritisation of sub-catchments be deleted, with all FEPs being required by 1st of July 2020 (Paragraph 640 in the Section 42A Officers Report).

The Waikato Branch of NZIPIM disagrees with Fonterra's submission on this point. As the Officers set out *"While Fonterra's reduced timeframe and removal of prioritisation is potentially realistic for the dairy industry, the analysis undertaken would suggest that if it were applied to all farms, it would cause significant immediate resourcing issues for farm consultants, farmers, fencing contractors and the WRC itself, and is therefore not supported by Officers."* (Paragraph 648 in the Section 42A Officers Report). The Waikato Branch of NZIPIM agrees with the reasoning set out by the Officers to not support this submission point.

- 7.6. *Paragraph 642 in the Section 42A Officers Report states: "the three priority tranches proposed are based on the relative scale of the water quality issues in the particular sub-catchment. The sub-catchment priority is a best estimate approach between the current and desired water quality state across the four contaminants. Officers consider that this is a logical approach and that extending the timeframes in which improvements are required would only postpone the water quality response times. As discussed in Section B1 of this Report, that is likely to contradict the Vision and Strategy and the objectives of PC1. Therefore, the Officers do not agree that there are sufficient reasons to generally extend sub-catchment timeframes."*

While water quality is beyond the scope of the Waikato Branch's submission given that timeframes are not being extended we advocate that better consideration is given to reprioritising sub-catchments within the time frames to ensure that the required amount of FEPs can be delivered to a high standard.

## 8. Conclusions

- 8.1. The Waikato Branch of NZIPIM supports the underlying principles behind the prioritisation of FEPs across sub-catchments and supports the overall timelines associated with delivering FEPs.
- 8.2. However, we are concerned that the recommended changes in the Section 42A Officers Report, in respect to the submissions provided by affected parties, results in a net gain of 7 Priority 1 sub-catchments.
- 8.3. We have demonstrated that, based on the data available to us, this results in a significant increase (approximately 70%, including the 75<sup>th</sup> percentile rule) of land parcels greater than 20-hectares which are likely to require FEPs. There has been no additional change in timeframes related to the delivery of FEPs in Priority 1 sub-catchments (maintaining the final due date for Priority 3 sub-catchments but reallocating more time to Priority 1), nor a resultant 'downgrade' in sub-catchments to ensure a minimal net change in FEPs required by 1 March 2020.
- 8.4. Based on these factors, we are concerned that the ability to source enough suitably qualified and available consultants to become certified farm environment planners will mean the ability to complete the required priority 1 FEPs by 1 March 2020 is seriously compromised.

8.5. We note that there are three possible remedies for this:

8.5.1. Some sub-catchments are removed from Priority 1 (so the resulting net change in farms requiring FEPs in each priority band is minimal); or,

8.5.2. The due date for Priority 1 sub-catchments is extended (but not the overall due date of FEPs), or,

8.5.3. The qualification to be a certified farm environment planner is lowered, opening up additional capacity from less specialised consultants.

8.6. We recommend either removing sub-catchments from Priority 1 or extending the due dates for Priority 1 and possibly Priority 2 sub-catchments, or some combination of these two options.

8.7. We are strongly opposed to 'lowering the bar' for certifying farm environment planners as this will result in lower quality FEPs which is likely to compromise the ability to achieve the Vision and Strategy. The certification for farm environment planners will be explored in more detail in subsequent hearing blocks.

8.8. We recommend that this is further analysed by the implementation group at Waikato Regional Council and offer our support in this process.

## References

Journeaux, P. (2016). Farm Environment Plan Project. Report Commissioned by *Waikato Federated Farmers*. Retrieved from <https://www.far.org.nz/assets/files/blog/files/eb1879f6-9c20-4d50-a809-87d6deaea782.pdf>

NZIPIM. (2018). Survey of the Rural Profession. Retrieved from [https://www.nzipim.co.nz/Folder?Action=View%20File&Folder\\_id=76&File=!2018%20Report%20of%20rural%20professional%20survey.pdf](https://www.nzipim.co.nz/Folder?Action=View%20File&Folder_id=76&File=!2018%20Report%20of%20rural%20professional%20survey.pdf)

## Appendix 1- Land use in each group of priority sub-catchments

Table 6: Land use by priority group in Variation 1 of Proposed Plan Change

Priority	Sub-catchments	Total	Dairy	Mixed SnB	Beef	Dairy grazing	Deer	Sheep	Grazing	Other farmed	Horses	Vege	Hort	Arable/seed	Lifestyle	Forest	Other not farmed
1	All priority 1	3557	803	292	441	64	19	40	142	63	37	27	46	33	1466	60	26
2	All priority 2	6263	1082	224	740	115	36	49	274	134	95	42	79	83	3175	84	53
3	All priority 3	4171	548	217	500	79	55	44	187	83	74	27	52	45	2162	50	51
Grand Total	All catchments	13991	2432	733	1680	258	109	133	602	280	205	96	177	160	6802	194	130

Table 7: Land use by priority group in Section 42 Officers Report

Priority	Sub-catchments	Total	Dairy	Mixed SnB	Beef	Dairy grazing	Deer	Sheep	Grazing	Other farmed	Horses	Vege	Hort	Arable/seed	Lifestyle	Forest	Other not farmed
1	All priority 1	6482	1107	383	800	108	55	60	278	113	93	56	89	58	3124	98	60
2	All priority 2	4429	837	175	482	91	27	36	176	98	75	22	52	68	2194	63	34
3	All priority 3	3080	488	175	397	60	27	37	148	70	37	19	36	35	1485	33	35
Grand Total	All catchments	13991	2432	733	1680	258	109	133	602	280	205	96	177	160	6802	194	130

## Appendix 2- Sub-catchments in each priority group

Sub-catchment identifier	Sub-catchment number	Variation 1	Section 42A
Mangatawhiri	1	3	3
Mangatangi	2	1	1
Whakapipi	3	1	1
Waikato at Tuakau Br*	4	2	2
Awaroa (Waiuku)	5	3	3
Waikato at Port Waikato*	6	2	1
Ohaeroa*	7	3	3
Whangamarino at Jefferies Rd Br	8	1	1
Waikato at Mercer Br*	9	3	3
Whangamarino at Island Block Rd*	10	1	1
Opuatia	11	1	1
Waerenga	12	1	1
Waikare*	13	1	1
Matahuru*	14	1	1
Waikato at Rangiriri	15	2	1
Whangape	16	1	1
Mangawara*	17	1	1
Awaroa (Rotowaro) at Harris/Te Ohaki Br	18	1	1
Awaroa (Rotowaro) at Sansons Br	19	2	1
Waikato at Huntly-Tainui Br	20	1	1
Firewood	21	2	2
Komakorau	22	2	2
Kirikiroa	23	1	1
Waipā at Waingaro Rd Br	24	2	2
Waikato at Horotiu Br	25	1	1
Ohote	26	3	3
Waikato at Bridge St Br	27	1	1
Waitawhiriwhiri	28	1	1
Mangaonua	29	3	3
Mangakotukutuku	30	1	1
Mangaone	31	2	2
Karapiro	32	3	3
Waikato at Narrows	33	3	1
Waipā at SH23 Br Whatawhata	34	2	1
Mangawhero	35	1	1
Kaniwhaniwha	36	2	2
Mangauika	37	3	3
Mangapiko	38	2	2
Mangaohoi	39	3	3



Puniu at Bartons Corner Rd Br	40	2	2
Waikato at Karapiro	41	3	3
Moakurarua	42	1	1
Waipā at Pirongia-Ngutunui Rd Br	43	2	2
Little Waipā	44	1	1
Pokaiwhenua	45	1	1
Waitomo at SH31 Otorohanga	46	2	2
Mangatutu	47	3	3
Mangamingi	48	1	1
Whakauru	49	2	2
Puniu at Wharepapa	50	3	3
Waipā at Otorohanga	51	1	1
Waitomo at Tumutumu Rd	52	1	1
Mangapu	53	1	1
Tahunaatara	54	2	2
Mangarapa	55	1	1
Whirinaki	56	3	3
Mangaharakeke	57	1	1
Waiotapu at Campbell	58	3	1
Otamakokore	59	2	2
Waipā at Otewa	60	2	2
Mangarama	61	1	1
Kawaunui	62	2	2
Mangaokewa	63	1	1
Waikato at Waipāpa	64	1	1
Waiotapu at Homestead	65	1	1
Waikato at Ohakuri	66	3	3
Waikato at Whakamaru	67	2	2
Waipā at Mangaokewa Rd	68	1	1
Mangakara	69	2	2
Waipāpa	70	1	1
Mangakino	71	2	2
Torepatutahi	72	1	1
Waikato at Ohaaki	73	3	1
Pueto	74	3	3