

**IN THE MATTER** of the Resource Management Act 1991  
**AND**  
**IN THE MATTER** of the hearing of submissions on Proposed  
Plan Change 5 (Nutrient Management and  
Waitaki Sub-region) to the Canterbury Land  
and Water Regional Plan

**BY** **WAITAKI IRRIGATORS COLLECTIVE  
LIMITED**

**AND** **MORVEN GLENAVY IKAWAI IRRIGATION  
COMPANY LIMITED**

**Submitters**

**TO** **CANTERBURY REGIONAL COUNCIL**

**Local authority**

---

**STATEMENT OF EVIDENCE OF ELIZABETH JANET CASWELL SOAL ON BEHALF OF  
THE WAITAKI IRRIGATORS COLLECTIVE LIMITED**

Dated: 22 July 2016

---

---

**Prudence Steven QC**  
Canterbury Chambers  
PO Box 9344  
Christchurch 8149

Telephone: (03) 343 9834  
Email: [pru@prusteven.co.nz](mailto:pru@prusteven.co.nz)

## **INTRODUCTION**

### **Qualifications and experience**

1. My name is Elizabeth Soal. I am employed by the Waitaki Irrigators Collective ("**WIC**") as their Policy Manager.
2. I hold the qualifications of a Bachelor of Laws, a Bachelor of Arts with Honours (First Class) and a Master of Arts in Politics, all from the University of Otago. I am a Member of the New Zealand Institute of Primary Industry Management and a former director of Irrigation New Zealand Incorporated.
3. In 2014, I was made a Churchill Fellow by the Winston Churchill Memorial Trust and spent time in Canada studying catchment-based freshwater management processes, associated environmentally-beneficial farm management practices, and integrated research programmes designed to improve water quality.
4. I am currently studying towards the degree of a Doctor of Philosophy in Geography from the University of Otago. My research is examining changes over the last fifty years in relation to freshwater management and governance in New Zealand. In particular, I am studying the developments in collaborative governance and what outcomes these new processes produce in comparison to earlier approaches.

### **SCOPE OF EVIDENCE**

5. My evidence will address the following matters:
  - (a) information regarding WIC and our members;
  - (b) information regarding the importance of irrigation in the Lower Waitaki catchment; and
  - (c) the proposed provisions of Plan Change 5 in relation to the Lower Waitaki, in particular their complexity and how they differ from the recommendations of the Lower Waitaki-South Coastal Canterbury Water Management Zone Committee ("**the Zone Committee**").

### **ABOUT THE WAITAKI IRRIGATORS COLLECTIVE LIMITED**

6. WIC is a company which represents the interests of six irrigation schemes as well as independent irrigators in the Lower Waitaki River catchment. Our shareholders take water from Lake Waitaki, the Lower Waitaki River, its tributaries, and

connected groundwater, and use that water to irrigate approximately 80,000 hectares of land across North Otago and South Canterbury.

7. The irrigators within WIC contribute approximately \$550 million per annum in gross income to the local and national economies, and represent a capital value of land (with infrastructure) in excess of \$2.5 billion.
8. WIC's role is not operational (although it may facilitate technical or operational projects), but is to lead the development of an integrated social contract between the irrigators and the wider Waitaki community of interest, whilst promoting the interests of its members. In this regard, WIC seeks to advocate on behalf of all irrigators in the Lower Waitaki River catchment on common issues.
9. The schemes and individuals within WIC use irrigation water for production across the primary sector, including the agriculture, horticulture, dairying, and viticulture industries. Some of the schemes also provide water for stock-drinking, industrial/commercial use, domestic supplies, sports clubs (for irrigation), and fire-fighting.
10. These are the shareholders of WIC.
  - the Kurow-Duntroon Irrigation Company Limited ("**KDIC**");
  - the North Otago Irrigation Company Limited ("**NOIC**");
  - the Morven, Glenavy, Ikawai Irrigation Company Limited ("**MGI**");
  - the Maerewhenua District Water Resource Company Limited ("**MDWRC**");
  - the Lower Waitaki Irrigation Company Limited ("**LWIC**"); and
  - the Waitaki Independent Irrigators Incorporated Society ("**WIII**"). The Haka Valley Irrigation Company Limited ("**HVIL**") is a member of WIII.
11. WIC represents around 600 farmers, as well as their families and employees across North Otago and South Canterbury. As a Collective entity we have fully engaged in the collaborative process which has brought us to this point, since the very formation of the Canterbury Water Management Strategy Zone Committees. WIC is presenting our submission to you by way of evidence from representatives of our member groups, who are speaking not only as farmers, but as community members and leaders.

## **THE ROLE OF IRRIGATION IN SUSTAINABLE RURAL DEVELOPMENT**

12. Irrigation is of vital importance to the economies of Otago, Canterbury, and New Zealand as a whole. Numerous studies have been undertaken which demonstrate the benefits that irrigation can provide, across all areas of wellbeing.

13. A paper presented to the New Zealand Association for Agricultural and Resource Economics Conference in 2001 showed that “the growth in population of irrigated areas...becomes significant...when compared with the fall in population of surrounding non-irrigated rural communities” and that “irrigation provides an economic climate in which entrepreneurial innovation flourishes, not only on the land, but also in the service towns”.<sup>1</sup> The same authors produced a further paper the following year which used quantitative data to determine the social impacts of irrigation. It found the following:
- the communities with irrigation had higher proportions of children in their population than the national average;
  - the communities with irrigation had a greater proportion of farmers and farm workers under the age of 30 than the national population;
  - since irrigation development commenced, there had been a steady increase in the proportion of residents with tertiary qualifications, and this proportion is higher than the national average;
  - the increase in the proportion of residents with “higher status” occupations is much higher than the national trend;
  - there was a higher proportional increase in the number of wage and salary earners and employers than the national trend;
  - there was an increase in available full-time employment above the national trend; and
  - household incomes have improved relative to the rest of New Zealand.<sup>2</sup>
14. It should be noted that one of the areas specifically examined by this study was the Waitaki Plains community and how it benefited from the presence of the LWIC.
15. A technical paper released in 2004 by the then Ministry of Agriculture and Forestry found that around 5,300 full-time equivalent positions have been created by irrigation net of the alternative dryland use, equating to \$158 million worth of wages and salaries. This paper also referred to the following social outcomes that are associated with irrigation development:
- Employment increases overall;
  - communities are sheltered from the worst impacts of dry periods;
  - there is an increase in the diversity of business activities, and therefore greater community security if there are sectoral downturns;

---

<sup>1</sup> McRostie Little, H. and Taylor, N. *Social and Economic Impacts Associated with Irrigated Land Use Change*, paper presented to the New Zealand Association for Agricultural and Resource Economics Conference, Blenheim, July 2001.

<sup>2</sup> McClintock, W., Taylor, N. and McCrostie Little, H. *Social Assessment of Land Use Change Under Irrigation*, Working Paper 33, November 2002.

Available from [http://www.tba.co.nz/pdf\\_papers/2002\\_wp\\_33\\_land\\_use\\_change.pdf](http://www.tba.co.nz/pdf_papers/2002_wp_33_land_use_change.pdf)

- there is better provision of services, which increases optimism and innovation in communities;
  - it is in the national interest in supporting rural communities to be stronger and more resilient than they would otherwise be.
16. The report went on to state: “for dryland farming areas, irrigation is the most realistic means to grow an inclusive, innovative local economy and therefore to create opportunities to reduce inequalities [these areas] experience in health, education, employment and housing.”<sup>3</sup>
17. In 2013, WIC commissioned a research report to examine the social and economic impacts of irrigation on the communities on the South Bank of the Waitaki River, between Kurow and Black Point.<sup>4</sup> The study compared outcomes between the land area under irrigation with the outcomes for the same area if it was reverted to dryland. This study concluded that irrigation on the (approximately) 6,500 hectares included in the study area provides the following direct financial benefits to the local economy:
- \$70 million per annum in increased revenue
  - \$41.8 million per annum in increased expenditure
  - \$36.7 million per annum of additional value added.
18. The study also found that irrigation in the area creates on-farm employment for around 140-150 additional people, and this enables the survival of community organisations, sports clubs, and other social institutions. The down-stream effects are also significant, creating employment and opportunities for the wider agricultural-service sector, processing industries, and so-on.
19. A 2010 Lincoln University project developed the River Values Assessment System which seeks to assess rivers based on a number of different value types. In relation to irrigation values, the Assessment System determined that the Waitaki River is the most significant river in Canterbury in relation to irrigation.<sup>5</sup> As Canterbury is the most significant region in New Zealand for irrigation, it is not a stretch to consider that the Waitaki is the most significant river in New Zealand for irrigation values.

---

<sup>3</sup> Ministry of Agriculture and Forestry, *The Economic Value of Irrigation in New Zealand*, Technical Paper, April 2004

<sup>4</sup> This research was undertaken as part of a wider strategic water management study which considered options and outcomes around future irrigation optimisation in the area and was partly funded by the Ministry for Primary Industries through the Irrigation Acceleration Fund.

<sup>5</sup> Harris, S. and Mulcock, C. Part A: Irrigation in Canterbury Region: Application of the River Value Assessment System (RiVAS) in Hughey, K.F.D., and Baker, M-A. (eds), *The River Values Assessment System: Volume 2: Application to cultural, production and environmental values*. LEaP Report No. 24B, Lincoln University, 2010.

## **WIC'S SUBMISSION**

20. WIC has submitted that an alternative rule framework be adopted for the Lower Waitaki, one which we believe maintains the basic construct that Environment Canterbury has developed, whilst better reflecting the recommendations of the Zone Committee and the wishes of the local communities affected by the rules. Planning evidence in relation to the proposed framework has been provided by Ms Louise Taylor.
21. As discussed in the evidence of Keri Johnston, Matt Ross, Geoff Keeling, Bob Sutton, Judith Neilson, and Craig Evans, all of the affected irrigation schemes (and also some of the independent irrigators) within WIC operate under water permits which include requirements for their shareholders to undertake farm environmental management planning, nutrient budgeting, and riparian management. Many of our shareholders are also required to undertake comprehensive water quality monitoring. Others are undertaking such work voluntarily, so that we have a good understanding of our environmental footprint, and can adapt our systems appropriately to respond to any issues which may arise.
22. The Lower Waitaki catchment has, in the main, been developed through the use of highly reliable irrigation and in a sustainable manner (as evidenced by its generally good water quality). It is one of the most intensively farmed areas in the South Island, capable of producing world-record yields.
23. This has been achieved without the need for overly complex, prescriptive rules, and WIC submits that the imposition of such a framework is not required. It will not lead to better environmental outcomes, it will drastically increase compliance costs (thereby reducing the level of discretionary spend available for practical on-farm improvements), it will create an excessive administrative burden on the Regional Council, and it will undermine any good relationships between the Council and land owners.

## **PLAN COMPLEXITY**

24. When Environment Canterbury first committed to the implementation of freshwater limits (as required by the National Policy Statement for Freshwater Management 2011 and 2014), the Land and Water Regional Plan for Canterbury ("**LWRP**") was something of a departure from "traditional" plans. The development of default rules for the region, with sub-regional rules (developed by local communities) to be overlaid over time, aligned Canterbury with international trends towards collaborative, catchment-scale governance and management of freshwater resources.

25. My recollection is that there was also a commitment from Environment Canterbury staff to making plans more accessible than they had been in the past. Specifically, it was widely acknowledged that the LWRP's predecessor, the Natural Resources Regional Plan was unwieldy, impenetrable, overly complex, and difficult to implement. The LWRP was much more streamlined and the regional 'default' rules were relatively easy for land managers and water users to understand.
26. I am not a planner, and therefore cannot profess any expert knowledge of plan drafting and rule crafting. However, I have spent my career interpreting and analysing regulations, policies, and legislation across various fields. I believe that my education and experience mean that I have a greater understanding of these matters than most lay-people, as I am well-used to reading and absorbing plans and rules on a regular basis.
27. I have been involved with numerous planning and consenting processes in the Waitaki. This has included analysing plan provisions, writing submissions, appearing at hearings, and having a good understanding of consent conditions as well as national level over-arching planning documents. This includes numerous annual and long term planning processes at the district and regional levels, Plan Changes 2 and 3 to the Waitaki Catchment Water Allocation Regional Plan, Plan Change 6A to the Otago Water Plan, the development of the original LWRP, Plan Change 4 to the LWRP, and the Regional Policy Statements for Canterbury and Otago.
28. However, even with my experience to assist me, and paid hours available to read and understand Proposed Plan Change 5, I have found this a very difficult task. In order to gain a better understanding of the rules (for my own benefit as much as anyone else's), I developed the flow charts attached to my evidence as Appendices A – E. These charts took many hours to produce over the course of several days – and they required amending several times as I read, re-read, and sought advice on the rules. Even now, I still advise anyone I give them to that I may be incorrect in my interpretation of the rules, and that they should seek their own independent advice about their own situations.
29. I distributed these to all of WIC's affected members as well as some dryland farmers, as I was contacted repeatedly by farmers who were at a loss to understand the Plan and did not get any such assistance from Environment Canterbury staff. From looking at the charts, it should be evident that the rule framework for the Lower Waitaki is extremely complex – and WIC submits that it is overly so, without necessarily improving any environmental outcomes.

30. I do not think that most farmers will have the time or planning knowledge required to quickly and easily understand how the Plan applies to them, and what they must do to comply with its provisions. Equally, creating an overly complex, impenetrable framework will result in farmers (unknowingly or otherwise) *not* using or consulting the Plan for guidance when making on-farm decisions. These outcomes are the opposite of what plans should achieve.

#### **ZONE COMMITTEE RECOMMENDATIONS**

31. It will be evident from various submissions filed that the proposed Plan provisions are perceived as being quite different to what the Zone Committee (and community members who participated in the collaborative process) believed had been recommended to Environment Canterbury. As someone involved with formal Schedule 1 and more informal consultation, I believe that there is a difference between the high-level, simplified “key messages” delivered by the Regional Council and the extraordinary level of detail within the Plan provisions.
32. I have reflected on my own role in this process, and can say that it was not until the Proposed Plan Change was formally released that the overwhelming complexity of it become apparent to me.
40. Communities across Canterbury have been asked by Environment Canterbury to commit to the collaborative approach for water management. The reasoning is that if communities are engaged with processes to identify their own values, determine the outcomes they wish to achieve, and craft the framework to enable such outcomes, the resulting rules will be more robust, achievable, and supported by greater commitment across the community. By and large, the communities within the Lower Waitaki have embraced these processes and have been actively engaged in them.
41. The communities’ identified outcomes were then turned into recommendations made by the Zone Committee to the Regional Council, which must be turned into a Plan.
42. However, in turning the Zone Committee recommendations into rules, in the case of the Lower Waitaki, the sub-regional rules appear to have been written in order to “fit” them into a framework intended to apply to all of Canterbury from now on. It is through this “fitting” process that some of the key concepts identified by the communities, and subsequently the Zone Committee, have been lost.
43. A table summarising the various recommendations of the Zone Committee is set out below. These recommendations should be compared to the complex flow diagrams



presented in the Appendices to this evidence. Of particular note are the following differences:

- In most areas, the Zone Committee recommended that resource consents should only be required when *changing* to a higher intensity land-use. There is an underlying theme of allowing activities to continue unless a clear link to deteriorating water quality is established.
- The dates for achieving certain Nitrogen (N) loss thresholds are different from what is required by the proposed rules (e.g. 2026 compared to 2020).
- Catchment loads were set to allow flexibility in landuse.
- The only reference to Good Management Practices (GMP) percentages and N numbers are in relation to changes to intensification, the Waikakahi Zone, and the sensitive near-river area in the Hakataramea.

Water Management Unit/Zone	What the Zone Implementation Programme (ZIP) says
All	Major pathways (simplified): <ul style="list-style-type: none"> <li>• Catchment groups</li> <li>• Direct actions</li> <li>• Farm Environment Plans</li> <li>• Good Management Practice</li> <li>• Simple frameworks</li> <li>• Monitoring system</li> </ul>
	Good Management Practice <ul style="list-style-type: none"> <li>• Sub-regional section requires GMP for all industries (for agriculture, based on MGM).</li> <li>• Sub-regional section requires auditable FEPs as part of consenting regime and investigates whether FEPs can be required as part of permitted activity.</li> </ul>
Waitaki Valley and tributaries	Outcomes: <ul style="list-style-type: none"> <li>• Maintain high water quality in Waitaki River</li> <li>• Protection of mauri</li> <li>• Reliable supply of water for irrigation</li> <li>• Flows at river mouth protect ecosystem health</li> <li>• Enhance wetlands in the Valley</li> <li>• Improve opportunities for Mahinga Kai across the catchments</li> <li>• Safe and secure drinking water is available across the catchments</li> <li>• Maintenance of existing electricity contribution</li> <li>• Enhancing recreational and amenity opportunities</li> <li>• Enabling opportunities for new and existing businesses and community services</li> </ul>
	Recommendations include: <ol style="list-style-type: none"> <li>1. GMP for all resource use</li> <li>2. Resource consents required for activities that <i>change to a higher intensity</i> threshold (e.g. equivalent to 20kg/N/ha/yr under OVERSEER 6.1) (emphasis added).</li> </ol> Description: <ul style="list-style-type: none"> <li>- Zone is highly developed and water quality outcomes being met.</li> <li>- There are natural development constraints limiting further intensification.</li> <li>- Simple regime proposed based on regional green zone rules.</li> </ul>
	Load limit to not be a defined number within the Plan, but rather would state a formula to be used to allow changes over time.
Hakataramea	Outcomes: <ul style="list-style-type: none"> <li>• Maintain water quality and recreational swimming opportunities</li> <li>• Maintain the significant recreational fishery</li> <li>• Improve opportunities for Mahinga Kai across the catchments</li> <li>• Native fish habitat is protected in the headwaters of the Hakataramea</li> <li>• Enhance wetlands and trees and protected native vegetation</li> <li>• Safe and secure drinking water is available</li> </ul>

	<ul style="list-style-type: none"> <li>• There are viable and diverse farming opportunities</li> <li>• Sustain farms for future generations; family ownership</li> <li>• Opportunities for further development available to all farms</li> <li>• Vibrant and stable community</li> </ul>
	<p>Recommendations include:</p> <ul style="list-style-type: none"> <li>• GMP for current land-use, and: <ul style="list-style-type: none"> <li>- Consent required for land-use <i>change</i> above a certain threshold</li> <li>- Consent for up to 15kg/N/ha/yr with a max. amount to be applied for, based (eg) on % of headroom or land area</li> <li>- Consents only granted up until catchment load limit</li> <li>- Consented headroom is only available for flat/rolling band.</li> </ul> </li> <li>• Max. caps required for near-river band: <ul style="list-style-type: none"> <li>- Expressed as % of GMP or a number</li> <li>- To be achieved by consent expiry</li> <li>- To balance [environmental] gain with [economic] pain</li> </ul> </li> </ul>
Northern Fan	<ul style="list-style-type: none"> <li>• Safe drinking water</li> <li>• Inclusive, multicultural and safe community</li> <li>• Strong local economy and growing community, able to retain health and education services</li> <li>• Local history and culture valued and remembered</li> <li>• Water quality maintained and improved</li> <li>• Waterways suitable for a range of recreational uses</li> <li>• Successful and sustainable farming on irrigated areas, with diversity of farming systems</li> <li>• Wetlands and springs protected</li> </ul>
	Whitneys Creek water quantity
	<p>Whitneys Creek water quality</p> <ul style="list-style-type: none"> <li>• Catchment load limit set to achieve 95% Nitrate-N toxicity, provide for existing consented activities, and provide flexibility for undeveloped land.</li> <li>• GMP for all land use based on MGM</li> <li>• Resource consent for land use change over a certain threshold</li> <li>• All users have FEP or other environmental management system (ie industry)</li> </ul>
	<p>Waikakahi/Elephant Hill/Waihuna</p> <ul style="list-style-type: none"> <li>• Load limit based on current land use operating at GMP</li> <li>• GMP for all use from 2017 (based on MGM)</li> <li>• 10% reduction in N loss below GMP for <i>high-emitting</i> land-use by 2026</li> <li>• Permitted flexibility for low intensity land-use (equiv. to the 10% gain) from 2016, or when Plan is operative</li> </ul> <p>All land managers use FEPs</p>

44. It may be that Environment Canterbury staff considered the Zone Committee recommendations to be aspirational statements, whereas the Committee and community considered them to be clear directions.
45. One specific example of the difference in Regional Council messaging and the resulting rules is the requirement for all farms with anything more than very limited irrigation to obtain a resource consent to continue their current activities, even when the farm is already undertaking comprehensive farm environmental management planning.
46. At a presentation to the Zone Committee on 17 September 2014, Environment Canterbury staff stated that in the Valley and Tributaries Zone, in terms of groundwater quality there were “generally low nitrate-N concentrations compared with the Canterbury average”, and for surface water, there were very low Dissolved Inorganic Nitrate and Dissolved Reactive Phosphate concentrations. As stated in the evidence of Ms Johnston for WIC, the Valley and Tributaries Zone is very highly developed already. These good water quality outcomes are being met even with very intensive land-use. In fact, the Environment Canterbury staff considered that the key issues for the mainstem area were “river encroachment” and “gorse”.<sup>6</sup>
47. As a result, the Zone Committee discussed possible rule frameworks and agreed that existing landuse operating at GMP, even if it was above 20kg/N/ha/year was “OK.” Consents would only be required for land-use *change* to activities above 20kg/N/ha/year.<sup>7</sup>
48. The evidence of Matt Ross and Judith Neilson sets out our concerns in relation to what we consider to be this unnecessary layer of consenting. Not only do we believe that it will increase costs and compliance obligations on farmers, but also that it will not account for or even encourage farm practices to adapt over time - and there may well be a time in the future when we can better quantify farm’s environmental effects and outputs than just a modelled N-loss number.
49. This issue was specifically raised by Ms Johnston and me in formal consultation with Environment Canterbury, as well as by Mr Ross and me during other discussions with Environment Canterbury, and we were repeatedly informed by the staff present that these provisions would be amended.
50. However, they have not been amended, and (as per the Section 42A Report) - seemingly out of step with the advice provided by ECan to the Zone Committee -

---

<sup>6</sup> <http://ecan.govt.nz/publications/Council/lwzc-agenda-20141119.pdf>

<sup>7</sup> <http://ecan.govt.nz/publications/Council/lwzc-agenda-20150318.pdf>

Council officers are now arguing that a complex, inflexible consenting regime is required to address water quality issues which do not exist, and (as discussed in the evidence of Ms Johnston for WIC) are extremely unlikely to occur in the future.

51. Another example of the Plan departing from the Zone Committee approach is in relation to the Hakataramea. At the Zone Committee meeting held on 18 December 2015, it was stated that the Hakataramea community wanted an “uncomplicated” system.<sup>8</sup> The farmers in the Hakataramea, as described in their submissions and evidence, certainly do not feel that the proposed rules are uncomplicated.
52. Similarly to the issue relating to the Valley and Tributaries Zone, at another Zone Committee meeting, the chair of the Hakataramea catchment group recommended to the Committee that some areas of steep land in the Valley are controlled by climate, and therefore there was no need to change the current rules in place there, that is, that no resource consents were required – which has not been reflected in Plan Change 5.<sup>9</sup>
53. A further example is in relation to the community’s perception of who is a “high (nitrogen) emitter” and the Plan definition of this in the Greater Waikakahi area. This issue is addressed in the evidence of the Waikakahi Farmers Group, who state that nearly all farmers in the area now find themselves subject to significant reduction requirements in modelled nitrate leaching, which was never their intention.

## **GENERAL COMMENTS**

54. Farm systems are complex. Farmers are constantly adapting their processes to meet changing weather, climate, markets, technology, knowledge, animal needs, and pests, as well as regulations and social expectations. The proposed rule framework assumes that environmental effects of farming (essentially physical processes) can be modelled and controlled through planning rules – rules that are essentially static provisions which are difficult to change. As stated by Mr Ross for WIC, reducing the complexity of a farm system to a single modelled N-loss number could have the potential to “lock-in” practices that we may wish to change or move away from in the future. This approach will stifle innovation and potentially prevent people from taking “risks” in the field, especially if the outcome of changed practices cannot be accounted for readily in the OVERSEER model.
55. It is my understanding that the “GMP” stated repeatedly in the Zone Committee ZIP Addendum was to encompass a broad range of practices, many of which cannot be

---

<sup>8</sup> For example, in relation to the Hakataramea catchment at the meeting held on 18 December 2015.

<sup>9</sup> <http://ecan.govt.nz/publications/Council/lwzc-agenda-20150415.pdf>

modelled or accounted for in OVERSEER. These include such things as wide riparian buffer strips, riparian plantings, capture dams/silt traps, managed grazing (e.g. managed for slope, backfencing), direct drilling, pesticide management, pest control (e.g. gorse (N loss) and crack willow (water takes)), the full range of benefits derived from wetlands, biodiversity and habitat protection and enhancement, stock access to waterways, set-back distances from waterways for fertiliser and effluent spreading, and fertiliser and feed storage (e.g. leachate from silage).

56. The framework we are now operating under is predicated on the idea that planning mechanisms can be used to resolve issues created by complex biophysical processes. We need to change physical practices to address these issues, and these changes will not occur so long as our sole focus is modelled N-loss numbers. Unless Environment Canterbury is committed to a process of education and outreach that seeks to incentivise a broad range of GMP practices, the N-loss numbers are likely to end up being cutting grades for compliance purposes, with the full range of GMP practices being relegated in importance.
57. FEPs are included in the Plan, and WIC is committed to the FEP and auditing process as a means to improving practices and water quality. Indeed, we are the home of irrigation scheme FEPs in New Zealand. Therefore, it is submitted that another layer of consenting will not add anything to the processes already in place across the Waitaki.
58. The irrigation schemes within WIC have maintained that the imposition of a nutrient cap and subsequent within-scheme management of nutrient allocations is not required or appropriate in *all* circumstances. This is particularly so in areas where water quality outcomes are being met and there is not great scope for further widespread intensification.
59. The application of a 'cap' is much simpler and easier for a brand new irrigation scheme than attempting to attach one to an operating scheme which will have very different land use, irrigation systems, and farming types within the scheme. This is particularly challenging for schemes that may wish to expand in the future.
60. It has always been my understanding that the approach to be taken by Environment Canterbury was to "enable" schemes to manage to a fixed nitrogen loss number, rather than to require it.
61. However, rather than "enabling", the proposed rules in Plan Change 5 "encourage" to the point of "requiring" by necessitating all farmers with (essentially) any irrigation to gain a further resource consent. The only way this activity can be permitted is if the scheme obtains a discharge permit with a nutrient cap.

## **CONCLUSION**

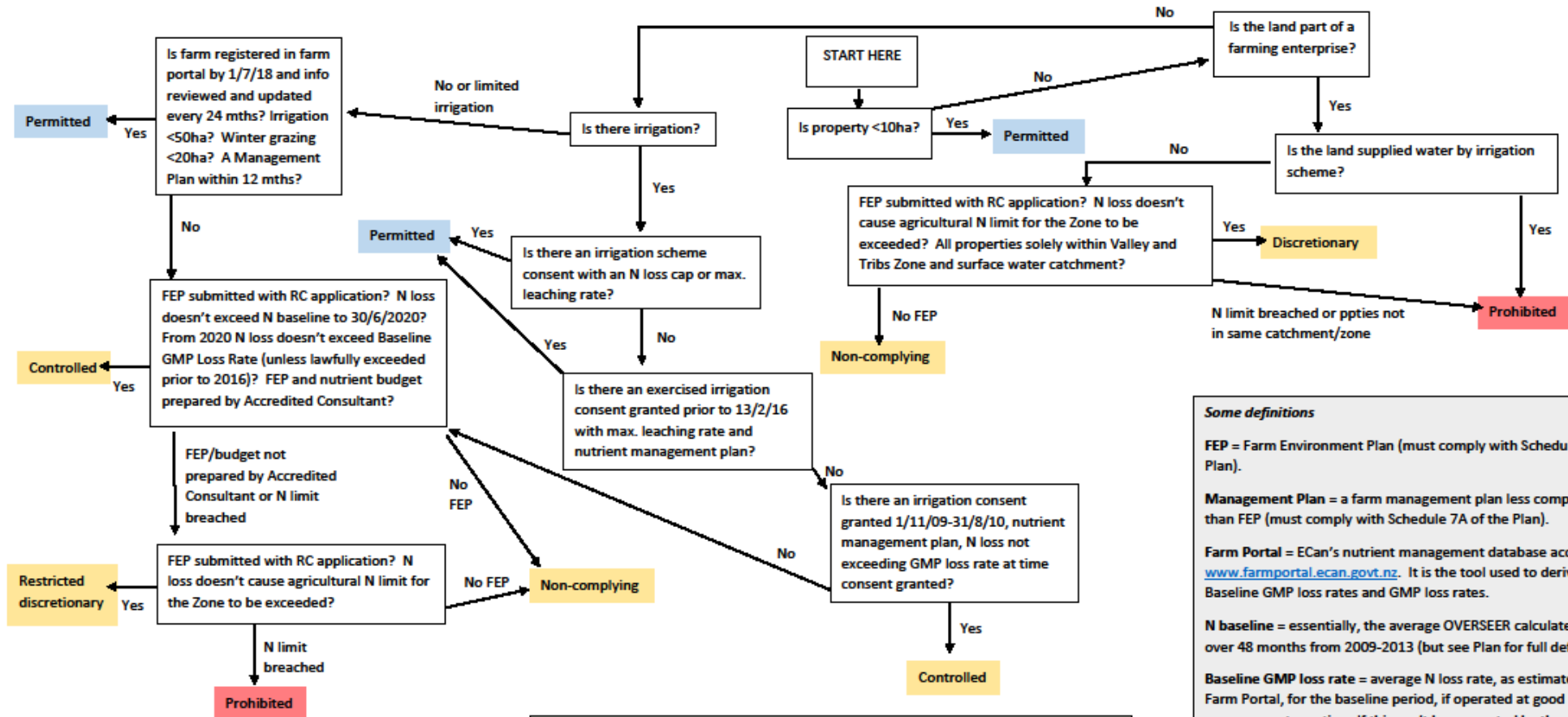
62. It is WIC's submission that the rules and policies for the Lower Waitaki in Proposed Plan Change 5 to the Land and Water Regional Plan for Canterbury are unwieldy and overly complex. They will be difficult to implement and monitor, will not result in positive environmental outcomes, and do not reflect the aspirations and goals of the community or the Zone Committee.
63. We have proposed an alternative framework, and would urge the hearing panel to consider this as a viable proposal which will still result in the freshwater outcomes sought.
64. As stated by all our witnesses, the complex layers of consenting and the focus on numbers-driven planning created by this Plan Change has left farmers feeling confused, angry, and disappointed.

**Elizabeth Soal**

22 July 2016

# Appendix "A"

## Proposed ECan LWRP rules for Valley and Tributaries Zone



**Some definitions**

**FEP** = Farm Environment Plan (must comply with Schedule 7 of the Plan).

**Management Plan** = a farm management plan less comprehensive than FEP (must comply with Schedule 7A of the Plan).

**Farm Portal** = ECan's nutrient management database accessed at [www.farmportal.ecan.govt.nz](http://www.farmportal.ecan.govt.nz). It is the tool used to derive Baseline GMP loss rates and GMP loss rates.

**N baseline** = essentially, the average OVERSEER calculated N loss over 48 months from 2009-2013 (but see Plan for full definition).

**Baseline GMP loss rate** = average N loss rate, as estimated by the Farm Portal, for the baseline period, if operated at good management practice. If this can't be generated by the portal, it's the N baseline.

**GMP loss rate** = average N loss rate, as estimated by the Farm Portal, for farming activity carried out over most recent 4 year period, if operated at good management practice. These practices are defined in the document to be found at [http://www.ecan.govt.nz/publications/General/Industry\\_Agreed\\_GMPs\\_A5\\_Version2\\_Sept2015\\_FINAL.pdf](http://www.ecan.govt.nz/publications/General/Industry_Agreed_GMPs_A5_Version2_Sept2015_FINAL.pdf)

**Farming enterprise** = an aggregation of parcels of land held in single or multiple ownership that constitutes a single operating unit for the purpose of nutrient management.

**Activity classifications**

**Permitted** = no resource consent required

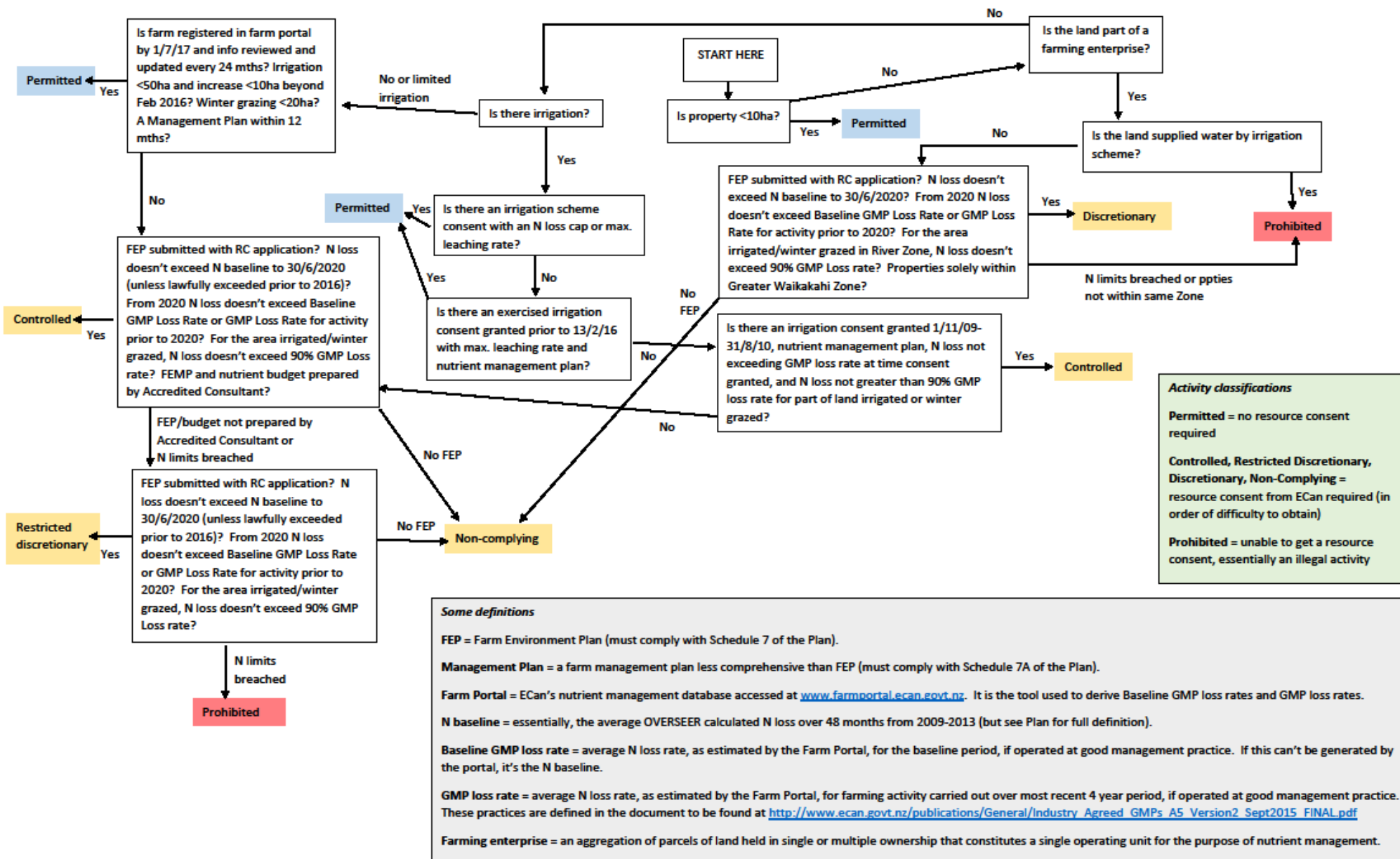
**Controlled, Restricted Discretionary, Discretionary, Non-Complying** = resource consent from ECan required (in order of difficulty to obtain)

**Prohibited** = unable to get a resource consent, essentially an illegal activity



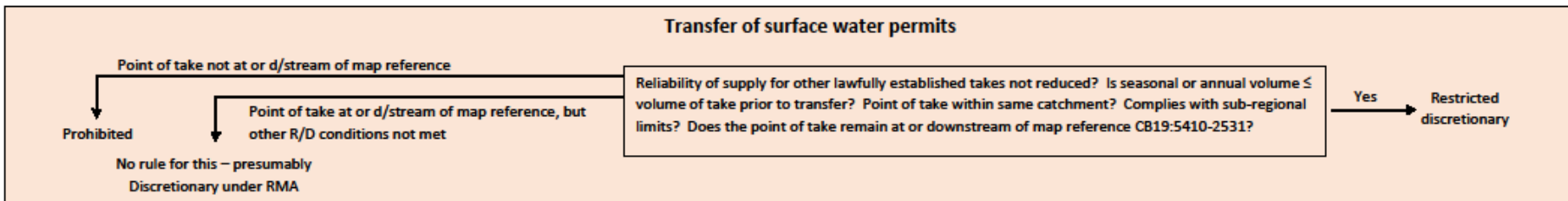
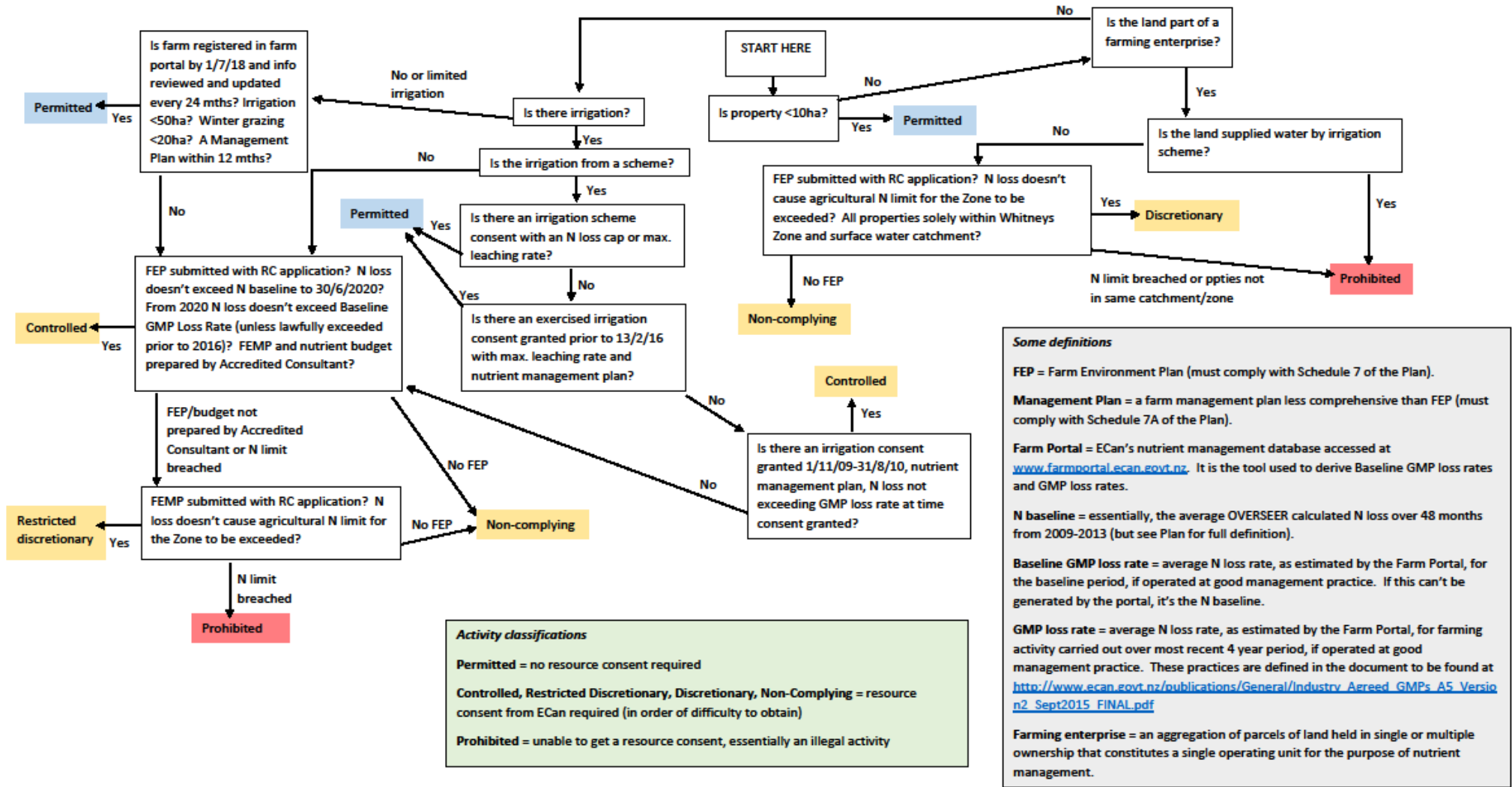
# Appendix "B"

## Proposed ECan LWRP rules for Greater Waikakahi Zone



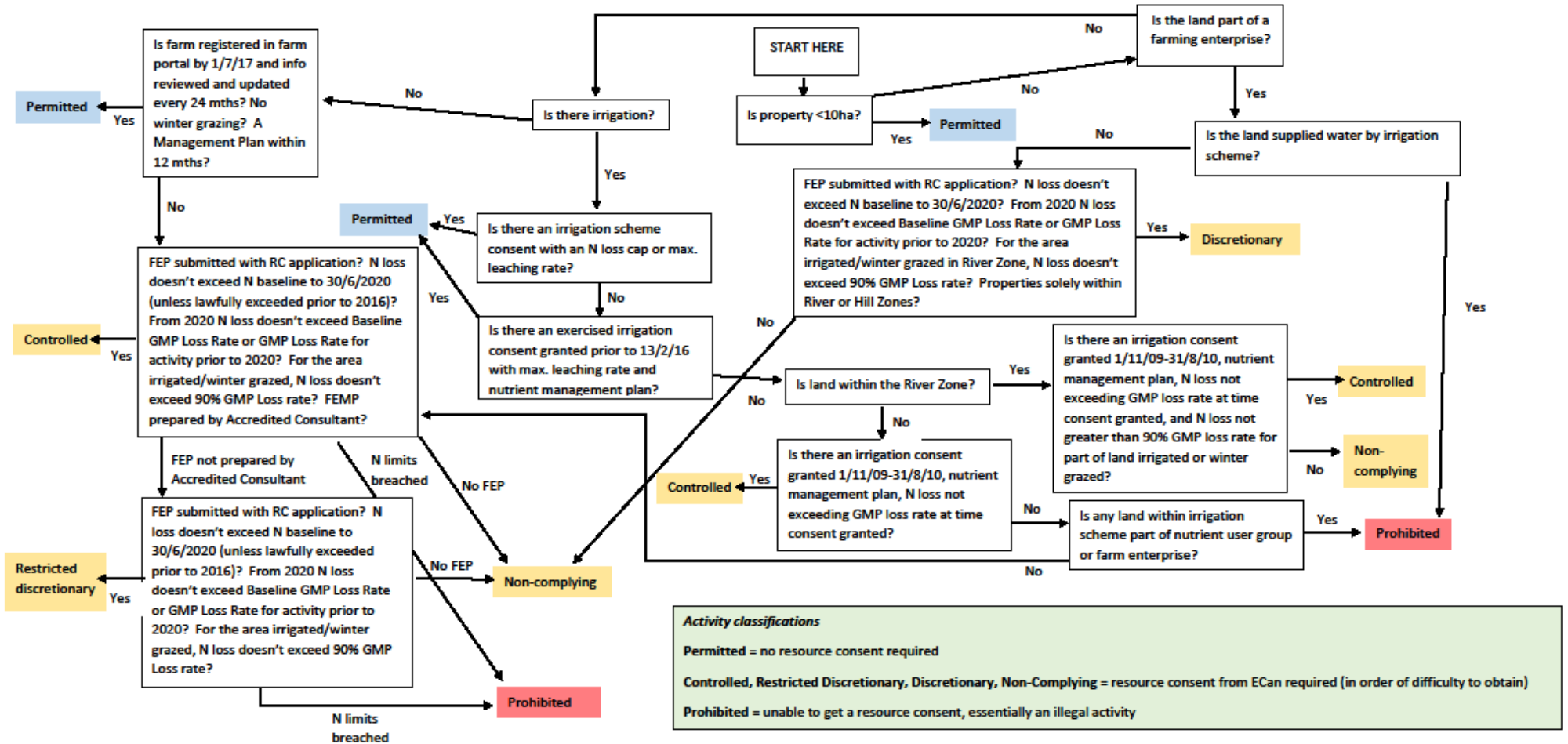
# Appendix "C"

## Proposed ECan LWRP rules for Whitney's Creek Zone



# Appendix "D"

## Proposed ECan rules for Hakataramea River and Hill Zones



**Some definitions**

**FEP** = Farm Environment Plan (must comply with Schedule 7 of the Plan).

**Management Plan** = a farm management plan less comprehensive than FEP (must comply with Schedule 7A of the Plan).

**Farm Portal** = ECan's nutrient management database accessed at [www.farmportal.ecan.govt.nz](http://www.farmportal.ecan.govt.nz). It is the tool used to derive Baseline GMP loss rates and GMP loss rates.

**N baseline** = essentially, the average OVERSEER calculated N loss over 48 months from 2009-2013 (but see Plan for full definition).

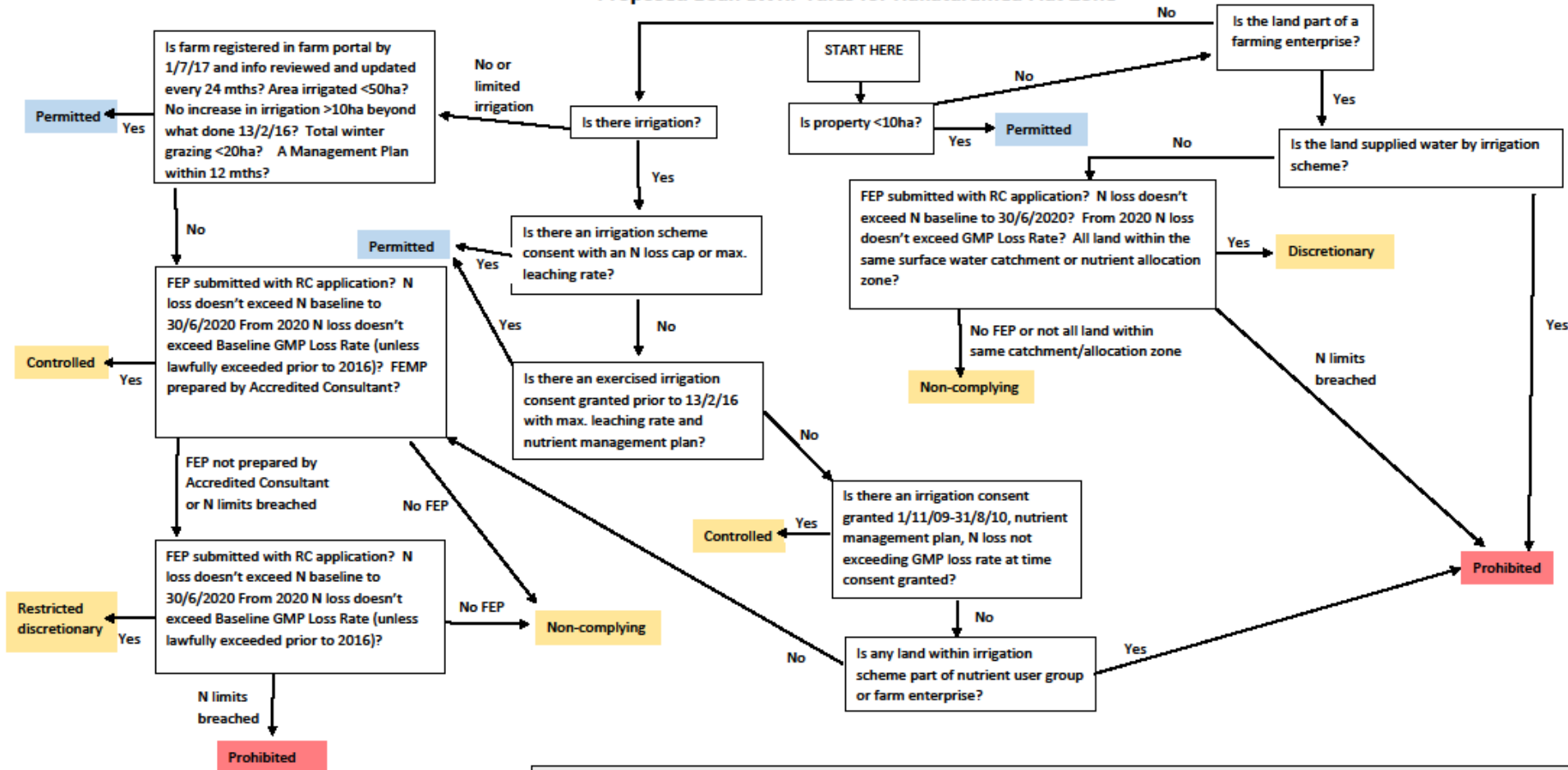
**Baseline GMP loss rate** = average N loss rate, as estimated by the Farm Portal, for the baseline period, if operated at good management practice. If this can't be generated by the portal, it's the N baseline.

**GMP loss rate** = average N loss rate, as estimated by the Farm Portal, for farming activity carried out over most recent 4 year period, if operated at good management practice. These practices are defined in the document to be found at [http://www.ecan.govt.nz/publications/General/Industry\\_Agreed\\_GMPs\\_A5\\_Version2\\_Sept2015\\_FINAL.pdf](http://www.ecan.govt.nz/publications/General/Industry_Agreed_GMPs_A5_Version2_Sept2015_FINAL.pdf)

**Farming enterprise** = an aggregation of parcels of land held in single or multiple ownership that constitutes a single operating unit for the purpose of nutrient management.

# Appendix "E"

## Proposed ECan LWRP rules for Hakataramea Flat Zone



**Activity classifications**

**Permitted** = no resource consent required

**Controlled, Restricted Discretionary, Discretionary, Non-Complying** = resource consent from ECan required (in order of difficulty to obtain)

**Prohibited** = unable to get a resource consent, essentially an illegal activity

**Some definitions**

**FEP** = Farm Environment Plan (must comply with Schedule 7 of the Plan).

**Management Plan** = a farm management plan less comprehensive than FEP (must comply with Schedule 7A of the Plan).

**Farm Portal** = ECan's nutrient management database accessed at [www.farmportal.ecan.govt.nz](http://www.farmportal.ecan.govt.nz). It is the tool used to derive Baseline GMP loss rates and GMP loss rates.

**N baseline** = essentially, the average OVERSEER calculated N loss over 48 months from 2009-2013 (but see Plan for full definition).

**Baseline GMP loss rate** = average N loss rate, as estimated by the Farm Portal, for the baseline period, if operated at good management practice. If this can't be generated by the portal, it's the N baseline.

**GMP loss rate** = average N loss rate, as estimated by the Farm Portal, for farming activity carried out over most recent 4 year period, if operated at good management practice. These practices are defined in the document to be found at [http://www.ecan.govt.nz/publications/General/Industry\\_Agreed\\_GMPs\\_A5\\_Version2\\_Sept2015\\_FINAL.pdf](http://www.ecan.govt.nz/publications/General/Industry_Agreed_GMPs_A5_Version2_Sept2015_FINAL.pdf)

**Farming enterprise** = an aggregation of parcels of land held in single or multiple ownership that constitutes a single operating unit for the purpose of nutrient management.

