Tabled at Hearing on 19 November 2015

IN THE MATTER OF	The Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2010
AND	Submissions and Further Submissions in relation to proposed Plan Change 3 to the Canterbury Land and Water Regional Plan.
AND	**South Canterbury Province of Federated Farmers of New Zealand** A Submitter and Further Submitter

Opening Legal Submissions of Counsel for

South Canterbury Province of Federated Farmers Inc

Dated 18 November 2015

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MAY IT PLEASE THE HEARING PANEL

INTRODUCTION

1. Federated Farmers of New Zealand is a voluntary organisation which advocates for the interests of farming and farmers in all areas of central and local government policy and regulation from free trade to health and safety. Membership is divided into seven farm interest groups: meat and fibre; grains and seeds; dairy; sharemilkers; high country; bees; goats; and rural butchers. Seventy-five percent of registered farms in New Zealand belong to Federated Farmers of New Zealand. Membership is by farm not individual. In addition Federated Farmers offers supporters memberships and membership categories for farm managers/workers.

2. The organisation is divided into 24 provinces, including South Canterbury. The South Canterbury Province of Federated Farmers of New Zealand (Federated Farmers), is a submitter and further submitter in relation to what is now PC 3 to the Canterbury Land and Water Plan (the Plan).

EVIDENCE

3. Federated Farmers is calling four expert witnesses at this hearing. Statements of evidence have been filed in advance for each of the expert witnesses. The expert witnesses, and a brief overview of what their evidence covers, are;

4. Dr L Hume. A soil and plant scientist, with particular expertise in relation to irrigation matters and nutrient discharges. His evidence discusses potential environmental impacts of farming, soil and water availability to plants, importance of reliability of water supply, fluctuation in nitrogen discharge from soils in response to climatic variations, the nature of Canterbury soils and its relevance for N discharge allowance, and the matrix of good management project.

5. Ms Diana Mathers. Ms Mathers is the Research Manager for Farm Systems at the Foundation for Arable Research. Ms Mathers' evidence discusses a review commissioned by the Foundation for Arable Research which highlighted a number of shortcomings in relation to Overseer 6.0 (the version used in the development of PC3) and its ability to model nutrient flows in arable crops. Ms Mathers' evidence also notes that compromises in

data entry can impact on modelled outcomes, and that this has implications for the robustness of environmental regulatory processes that use Overseer to measure farm performance.

6. Mr A Curtis. Mr Curtis is the Chief Executive of Irrigation New Zealand. You heard Mr Curtis' evidence earlier this week. Mr Curtis' evidence notes that the earlier version of Overseer (V6.0) used in the preparation of PC3 was not able to account robustly for differences in drainage, and thus nutrient losses, from differing irrigation application practices. Mr Curtis further notes that the Matrix of Good Management (MGM) rules for irrigation will result in differences, in both drainage and modelled nutrient loss outcomes, from the load and farm limits developed in PC3 using the earlier version of Overseer.

7. Dr R Williams. Dr Williams is the General Manager of Science (Sustainable Production) for Plant and Food Research, a Crown Research Institute. In his evidence he summarises the Matrix of Good Management project, and the further information of relevance to managing farmlands to minimise N and P losses that this is expected to deliver. Regrettably, Dr Williams is not able to present to the Hearing Panel today, and we have been unable to secure another time that he is available, which also fits within the Panel's schedule.

8. In addition three farmer witnesses will be, or have been called, by Federated Farmers. These witnesses are Mr J Gregan, Mr D Hewson (whom you heard from earlier this week), and Mr C Hurst. Each provides a short statement describing their respective farm properties, the type of farming activities undertaken, and how PC3 is expected to affect them and their farming operations.

OVERALL POSITION ON PLAN CHANGE 3

9. Federated Farmers supports the need to manage the effects of land uses on freshwater where those uses are causing adverse effects. Its members live alongside and enjoy the freshwater resources of the South Canterbury Sub Region and many rely on its aquifers for drinking and stock water as well as irrigation.

10. Federated Farmers is also aware of the requirement under the National Policy Statement for Freshwater Management (NPS FM 2014) for regional councils to identify water quality outcomes for catchments and to set limits for water quality and abstraction to ensure those

outcomes are met. Federated Farmers also acknowledges, in the Canterbury context, the vision and principles of the Canterbury Water Management Strategy. As its members live in, observe and work within the natural environment on a daily basis, and depend on natural resources for their economic prosperity, their affinity to, appreciation of and reliance on the natural environment is as strong if not stronger than any other community group.

11. In considering PC3, or any other regional plan prepared under the Resource Management Act (the Act)[1], Federated Farmers considers the following outcomes are necessary to both achieve the purpose of the Act and to accord with its environmental effects-based philosophy:

    - Water quality outcomes must be set that achieve the purpose of the Act and the NPS FM 2014 using robust information, in the timeframes and following the processes contemplated in the NPS, and having regard to environmental, social, cultural and economic matters.

    - Any regulation must relate to the functions of the council under the Act and be based on established, clear cause and effect relationships.

    - PC3 should be regulating land uses which affect water quality, not regulating farming per se. Not all farming affects water quality and certainly not to the same degree.

    - The more an activity contributes to the water quality issue, the more the regulatory regime should require. For example, where PC3 is managing the discharge of nitrogen-nitrates (N) a person should not be 'better off' for having a high N loss footprint than a low one.

12. Any regulations must be consistent between those activities having the same or similar effects:

    - All land uses in South Canterbury which discharge N need to be managed, not just farming.

[1] The Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2010 applies the provisions of the Resource Management Act 1991, as far as they are relevant, and except as expressly provided otherwise, to any proposed regional plan. Accordingly, unless otherwise stated, a reference in these submissions to 'the Act' is a reference to the RMA.

- Reductions in N loss should be based on how much N an activity is losing (with adjustments for natural variants such as soil type and rainfall).

- If the ability to increase N loss is capped that limit should apply consistently. There should not be rules that allow some dryland farmers to uptake irrigation and increase N loss but not others.

13. Federated Farmers submission on what is now PC3 raised an over-arching concern regarding how the N Allocation framework agreed by the Nitrogen Allocation Reference group (or NARG) has been incorporated into the plan, and in particular the extent to which PC3 delivers on the intention of that group[2].

14. The submission notes that following a consultative process, the Lower Waitaki South Coastal Canterbury Zone Committee developed draft N load limits, and a draft N allocation framework, and published these in a draft addendum to its Zone Implementation Programme (ZIP Addendum).

15. A large number of farmers protested to the Zone Committee about the process and timeframe for developing the ZIP Addendum, and about the inequality between high and low N emitters in the N allocation framework.

16. In response, the Zone Committee and ECan set aside the original proposal for N allocation, and established the NARG which was tasked with working towards consensus on a nitrogen allocation framework. The NARG included a broad range of farming interests. It worked through its competing interests and arrived at a consensus position, known as the NARG Allocation Framework, which is appended to the Federated Farmers submission.

17. The NARG Allocation Framework contains flexibility caps for low N dischargers, to enable them a degree of flexibility to change land use in response to market and physical conditions, and maximum caps based on soil type, particularly focussed on high N emitters, to be achieved over time to improve the performance of high emitting activities. It expressly recognises that caps would be revisited for consistency of content when future versions of Overseer and MGM come into play.

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[2] See pages 3 – 5 of Federated Farmers original submission.

18. Specific concerns expressed by Federated Farmers in its submission regarding how PC3 incorporates the NARG Allocation Framework, and delivers on the intent of the NARG include;

- A failure to take into account updated soil information which substantially affects the appropriateness/achievability of the numbers in the PC, particularly the maximum caps. Further issues are identified as to how N discharge has been modelled for some soils, compared with how it will be estimated on farm using Overseer.
- A lack of ability to accommodate new information, including new versions of Overseer and updates to good management practice.
- The combined effect of soil mapping errors, modelling issues and a lack of ability to adjust to new versions of Overseer mean that the maximum caps specified may be unachievable and the flexibility caps may not allow effective flexibility for low N dischargers.

19. Consequently, the Federated Farmers submission notes that PC3 in its notified form is based on erroneous data, and does not give effect to the intention of the NARG, or to key aspects of the ZIP Addendum. Accordingly Federated Farmers submission opposed the nutrient management provisions of PC3, including Policies 15.4.1 – 15.4.17, Rules 15.5.1 – 15.5.14, and Tables 15(m) – 15(p).

20. Federated Farmers sought decisions that;

- Amend PC3 to give effect to the NARG recommendations and the ZIP Addendum
- Replace maximum cap numbers in PC3 with relevant good management practice benchmark N loss numbers from the MGM project
- Amend PC3 to enable N loads, flexibility caps and maximum caps to be adjusted to match new versions of Overseer so as to retain their purpose, consistent with the intentions of the NARG recommendations and the ZIP Addendum
- Amend PC3 to correct modelling errors (or inconsistencies), to accommodate S-map updates and align modelled estimates with on-farm estimates of N loss
- Align PC3 with the Nutrient Management Variation (which will incorporate MGM N loss benchmarks and good management practice into the LWRP) to enable the incorporation of MGM benchmarks and practices into PC3.

21. And Federated Farmers specifically sought a meeting of submitters for the purpose of clarifying and facilitating resolution of these issues.

22. Federated Farmers acknowledges, and appreciates the caucusing that has been directed by the Hearing Panel.[3] Federated Farmers intends to engage fully in caucusing as to both issues identified, being the complexity of the provisions of PC3, and the tools for nutrient management proposed for PC3. It was precisely this sort of process that Federated Farmers envisaged when it requested Environment Canterbury to convene a pre hearing meeting for the purposes of clarifying and facilitating resolution of issues raised in its submission.

23. I will return to the caucusing process later in these submissions. At this point, I note that Federated Farmers sees considerable merit in ECan technical advisers, particularly Mr Norton, attending the nutrient management tools caucus. This may be implicit in the directions in any event.

24. Before discussing some of the particular issues associated with PC3 from Federated Farmer's perspective, I wish to briefly discuss the place of farming related considerations within the broader scheme of the Act, and the more specific context of PC3.

FIRST PRINCIPLES

25. The purpose of the preparation, implementation and administration of a regional plan, is to assist a regional council to carry out its functions in order to achieve the purpose of the Resource Management Act 1991 (the Act).[4]

26. Additionally, and importantly in the context of Canterbury, Environment Canterbury must also have particular regard to the vision and principles of the Canterbury Water Management Strategy.[5]

27. The purpose of the Act is, of course, to promote the sustainable management of natural and physical resources.

28. I emphasise the word 'physical'. In the context of PC3, the 'physical resources' of the South Canterbury Sub Region include the farming properties, farming infrastructure, and farming improvements present in the sub-region, which have been developed by past and

[3] Minute 2 of the Hearing Commissioners, dated 9 November 2015.
[4] S 63(1) RMA.
[5] S 63 Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2010.

present generations. These physical resources, are themselves built upon, or rely upon, the natural resources of the sub region, in particular its land, soils and water.

29. That the Act requires the physical resources, as well as the natural resources of the sub-region, to be sustainably managed is underscored by s 5(2), and its references to enabling people and communities to provide for their social, economic and cultural wellbeing, and sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations. That land and soils of farming utility are a resource which must be sustainably managed under the Act, is well established.

30. There is long-standing recognition, in New Zealand planning law, as to the importance of the sustainable management, and prior to the passage of the RMA, the wise use, of soil resources capable of use for food production.

31. The Town and Country Planning Act 1953 required, at s 3, that "every regional planning scheme shall have for its general purpose the conservation *and economic development* of the region to which it relates by means of the *classification of the lands comprised therein* for the purposes for which they are *best suited by nature or for which they can best be adapted* ..." (emphasis added).

32. In 1973, the Town and Country Planning Amendment Act, then introduced a new section 2B into the 1953 Act. The new section 2B introduced matters declared to be of national importance, one of which was "the avoidance of encroachment of urban development on, and *protection of, land having a high actual or potential value for the production of food*." (emphasis added).

33. The Town and Country Planning Act 1977 replaced the 1953 statute. It retained, in s 3, the contents of the old s 2B relating to land having high potential value for food production, and declared it, and other matters, to be "of national importance" to be "recognised and provided for".

34. The relevant legal landscape then changed dramatically with the enactment of the Resource Management Act 1991. While express reference to the national importance of soils of potential value for food production does not feature in s6, or Part 2 of the Act, it has been recognised that the Act continues to provide for the sustainable management of such resources.

35. For example, in *Canterbury RC v Selwyn DC* (1996) 2 ELRNZ 395, when considering the effect of urban expansion onto food producing soils of the Selwyn District, the Court observed;

> "... the RMA does not refer to versatile soils or land, but uses the more generic expression "resource". Soil is mentioned in s 5, but without the expression "versatile". Whatever may be the argument, it is perfectly clear to us that the resource represented by versatile soils, at this stage of scientific knowledge, can be regarded as an important resource for the well-being and survival of future generations, and its protection is a matter for a Regional Council to decide upon if they consider it a matter of regional significance."[6]

36. And further

> "The submissions that the sustainable management concept should not be seen in terms of supporting the economic lifestyle of farmers (that is primary production), to us is taking a slightly myopic view of the Act. In New Zealand primary production is part of the integrated community and has an important, although not primary, place within it. In saying that, we accept that the reference in s 5 to the life supporting capacity of soil does not mean, necessarily, the protection of those soils for the provision of food for human beings."[7]

37. While private property rights are subject to the sustainable management purpose of the Act[8], it is submitted that the sustainable management of natural and physical resources in both public and private ownership must nevertheless be provided for under this plan change.

38. A recurring theme of these submissions, is that enabling the sustainable management of the farming properties, and farming related infrastructure and improvements which are physical resources of the sub-region, as well as the sustainable management of the natural resources of the sub-region, will be essential in order for PC 3 to achieve the purpose of the Act.

39. As the Environment Court observed in *Canterbury RC v Selwyn DC*;

> "...s5 provides for the protection of resources for human beings as well as protection of the environment from human beings."[9]

40. It is acknowledged that the Act is concerned with community economic wellbeing, rather than protecting private business interests. As the Environment Court observed in *Westfield NZ Ltd v Wellington Regional Council* W44/2001;

> "The question of economic wellbeing does not mean protecting private business interests. The Tribunal in *Imrie Family Trust*[10] at pg 463 stated:

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[6] *Canterbury RC v Selwyn DC* (1996) 2 ELRNZ 395. At pg 17 – 18.
[7] *Canterbury RC v Selwyn DC* (1996) 2 ELRNZ 395, at pg 18 – 19.
[8] *Falkner v Gisborne DC* AP1/95 H Ct
[9] *Canterbury RC v Selwyn DC* (1996) 2 ELRNZ 395, at pg 10.

> "Although we need to consider the economic effects of a proposal on the environment, it is only to the extent that they affect the community at large, not the effects on the expectation of individual investors.""

41. In the present context, the economic wellbeing of the South Canterbury rural community as a whole is inextricably linked to the sustainable management of existing farming resources and infrastructure, and farm properties, and their continued ability to be utilised for reasonable farming purposes. It is submitted that in this context, the impact of PC3 on farming businesses within the South Canterbury Sub Region is relevant, and must be taken into consideration. An analogy can again be drawn from retail trade cases;

> "Economic effects certainly have to be taken into consideration, … that is to enable people and communities to provide for their social, economic and cultural wellbeing and for their health and safety. The economic welfare of individual businesses is relevant only in that context."[11]

42. Striking the right balance between the use, development and protection of natural and physical resources is, of course, critical. As the Supreme Court has recently confirmed in *Environmental Defence Society Inc vs NZ King Salmon Ltd*, a planning document may give primacy to preservation or protection in particular circumstances.[12] But that decision also importantly reiterates that "protecting the environment from the adverse effects of use or development is *an aspect* of sustainable management – *not the only aspect, of course*, but an aspect"[13] (my emphasis).

43. In my submission, recent amendments to s 32 of the Act highlight the importance of aspects of sustainable management in addition to protection of the environment, which also need to be given due consideration in the present context.

44. Assessments under s 32 are now specifically required to assess the benefits and costs of environmental, economic, social and cultural effects that are anticipated from the proposed plan provisions, including the opportunities for economic growth and employment that are anticipated to be provided or reduced, and if practicable quantify those benefits and costs.[14]

45. It is submitted that in some respects, the s 32 analysis prepared in relation to PC3, has fallen short of these requirements. While it is acknowledged that there has been some

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[10] *Imrie Family Trust v Whangarei District Council* (1994) NZRMA 70
[11] *Foodstuffs Ltd v Dunedin CC* W53/93 (Dunedin City Plan Change 6 references).
[12] See *Environmental Defence Society Inc v NZ King Salmon Ltd* [2014] NZSC 38. At para 149.
[13] At para 148.
[14] S 32(2) RMA.

attempt to quantify the economic cost implications of the N discharge limits proposed[15], this quantification appears questionable, with the extent of economic impacts downplayed. Mr Hurst, in his evidence, describes the effect of uncertainty caused by PC3 stalling irrigation development on his family cropping farm. This contrasts with the s 32 report which claims "*The most significantly affected land uses will be dairy and dairy support. Together these land uses account for almost all (99%) of the land requiring mitigation or land use change.*"[16]

PARTICULAR ISSUES

46. In this part of these submissions, I address some of the particular issues which arise out of Federated Farmer's submission and further submission.

47. An over-arching issue, from Federated Farmers perspective, is the adequacy of information relied on by E Can in preparing PC3. This manifests itself in two particular key points of concern which can be summarised as follows;

    -Suitability of the Overseer model used for development of PC3, and implications of subsequent model upgrades.

    -Suitability of soil mapping data, and the implications of changes in soil mapping for the sub-region.

48. These two key points of concern in turn have implications across the proposed Plan Change, and in particular, in relation to a number of matters of interest to Federated Farmers. These matters include;

    -Achievability of the maximum caps

    -Extent of flexibility provided by the flexibility caps

    -Application of the Matrix of Good Management

[15] See for example at 7 -16, 7 – 20 of s 32 report.
[16] S 32 report, at 7 – 19.

-Nitrogen Allocation Reference Group (NARG) and implementation of its recommendations

-Use of the Nitrogen baseline

Suitability of the use of the Overseer Model for development of PC3, and the implications of subsequent model upgrades.

49. The s 42A report confirms that the flexibility caps (Table 15(m)), maximum caps (table 15(n)) and catchment loads (Table 15(p)) included in the notified PC3 were "based largely on OVERSEER Version 6.0"[17]

50. The evidence however, confirms that there are problems with Overseer 6.0. This is particularly so with regards to how it calculates nitrogen loss attributable to arable and mixed arable farming operations.[18]

51. Mr Norton's technical memorandum[19] illustrates an almost two fold increase in estimated N loss (kg/ha/yr) in some circumstances.[20] It is understood that this increase was largely due to adjustments for soil types, not simply due to a change in the model version.

52. However, Mr Norton also notes that he is uncertain of what Overseer 6.2 results might be for other land uses that could not be modelled in the timeframe available to prepare his memo. Furthermore, catchment loads were not able to be recalculated using version 6.2 because fully updated look up tables for version 6.2 were not available. In particular, Mr Norton notes that the look up table is;

> "a table of the many different combinations of landuse, soil and rainfall classes, and their associated nitrogen loss rate numbers. Such a table is in preparation as part of the technical work being undertaken in the Matrix of Good Management (MGM) project but is not available in time for this memo."[21]

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[17] S 42A report, Appendix 2, pg 298.
[18] See for example the evidence of Ms Mathers at para 10, and 13.
[19] Appendix 2 to s 42A report, pg 298.
[20] 20kg/ha/yr under version 6.0, for 5 cows/ha wintered off on Pdl soils with 650mm of rainfall per year, compared with 37 kg/ha/yr under version 6.2. See table 1, pg 300 of s 42A report.
[21] S 42A report, pg 299.

53. While Mr Norton considers that the recalculated flexibility and maximum caps using the updated version of Overseer;

> "is unlikely to result in appreciably different environmental effects or different level of attainment of catchment water quality outcomes from those that would arise under the notified version of PC 3 … principally because the same amount and intensity of land use would be enabled as anticipated by the notified PC 3",

this, in my submission, misses the point from a plan users perspective, and at a farm scale.

54. Dr Dennis notes in his evidence, that;

> "the modelled leaching loss for a farm is likely to change with the release of new versions of OVERSEER as it has with past updates, and the plan needs to allow for this. Updates to OVERSEER do not change the actual loss from the farming system, just improve our understanding of this loss.[22]

55. Plan users need certainty when planning their activities, and in particular, when planning their business activities. They need to know, in prior years, that the farming operations they are preparing to undertake, will comply with any regulatory requirements set out in the plan, in the coming years. Changes in modelled outcomes will not change the environmental effects, or attainment of water quality outcomes, because a model is simply that, a model. But when the model is used as a regulatory compliance tool to determine whether a farming operation complies with the relevant rules, or does not, then changes in the model, and the adequacy of the information used in developing and applying it, can have profound implications for the users of that plan.

56. Overseer is widely recognised as "*the best tool currently available*[23]", but that does not mean its limitations should be ignored, or that it should be used in ways for which it was not designed. The limitations of Overseer have been acknowledged previously, - for example the *Final Report and Decisions of the Board of Inquiry into the Tukituki Catchment Proposal* recorded;

> "*Some submitters questioned the use and validity of Overseer given the acknowledged +/- 30% prediction error associated with the various versions of the model. However*

[22] EIC of Dr Samuel Dennis, at para 94.
[23] See for example the evidence of Ms Mathers, at para 10.

Overseer was acknowledged by all of the experts in the farm management field as the best tool currently available to predict nutrient losses at the farm scale level (particularly where the model applies the same parameters to pre and post intensification scenarios so that the relative change can be ascertained)."[24]

57. In the context of PC3, however, there are serious questions as to how Overseer has been utilised. Not only has the model changed between plan preparation and implementation, thus reducing Overseer's ability to assess relative change in nutrient losses from those calculated during the baseline period and reflected in the plans flexibility and maximum caps, but further as the evidence of Dr Dennis notes;

> *The Overseer models used to define the flexibility caps, as provided by ECan in the online FAQ on variation 3, are overly simplistic and do not reflect real-world farming systems*[25]

58. Dr Dennis provides a detailed analysis of errors contained in the models used, before concluding;

> *The Overseer models behind the flexibility caps are therefore completely unsuitable and need to be, at the very least reviewed, to ensure they are actually representative of real- world farming systems.*[26]

59. Within the Resource Management context, it is well recognised that accurate information is fundamental to informing sound, robust decisions.

60. For example, recently in *Sutton v Canterbury Regional Council and Ors*,[27] the High Court set aside decisions (relating to non-notification and as to the grant of consent involving water takes in the Hakataramea River within the Waitaki catchment) where;

> "*In terms of scope and reliability, the information possessed and relied upon by the Council was outdated, it contained readily ascertainable errors, it was contrary to earlier inventory reports from around 2008 and 2010 the Council itself had, and it failed to address in any real way the potential effects on the applicants.*"

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[24] Tukituki Board of Inquiry decision, at [465].
[25] Evidence of Dr Dennis, at para 102.
[26] Evidence of Dr Dennis, at para 103.
[27] [2015] NZHC 313

61. In reaching the conclusion that there were "*red flags that the Council ignored*"[28], the High Court affirmed a passage from an earlier High Court decision *Ferrymead Retail Ltd v Christchurch City Council*[29]

> *[103] Any suggestion that consent authorities are under a rigid obligation to check all the raw data accompanying resource consent applications (such as the sales figures used in the traffic generation model in this case) is untenable. No authority was cited in support of such a far reaching proposition. Any such obligation would impose unrealistic and unworkable administrative burdens upon consent authorities, not to mention the cost implications. Whether or not such raw data needs to be tested will depend on the particular application. For example, if there is some reason to doubt the integrity or reliability of the data then further enquiry might be expected, with the nature of the enquiry being a matter of judgment for the consent authority, subject to appeal rights.*

62. While the *Sutton* and *Ferrymead* decisions discuss the importance of accurate information in the context of decisions concerning applications for resource consent, it is submitted that the principles are equally applicable to decisions made in the context of a plan change.

63. Indeed, it is a fundamental principle of administrative law that;

> "*no discretion may be lawfully exercised unless essential facts are known*"[30]

64. Or, as described by the Court of Appeal in *CREEDNZ Inc v Governor General* [31]

> "*If relevant considerations are to be taken into account it is obvious that the decision maker should not be misinformed as to established and material facts, including in that expression incontrovertible expert opinion; and as Lord Diplock put it in the Tameside case he must take reasonable steps to acquaint himself with the relevant information. The emphasis must be on what is reasonable in all the circumstances and that obligation does not, of course, require the decision maker to ascertain and consider the views of everyone who may have an opinion on the point.*"

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[28] *Sutton*, at [58]
[29] [2012] NZHC 358
[30] *Minister of Conservation v Maori Land Court* [2008] NZCA 564. At [114] Per Baragwanath J
[31] [1981] 1 NZLR 172, at 200 per Richardson J.

65. In the present instance it is submitted that PC3 has been prepared using information which is now known to be inaccurate. Overseer 6.0 is not considered by the experts to be the appropriate model for estimating nitrogen loss from farming properties, in particular mixed cropping and arable farming properties, within the South Canterbury Sub Region. Dr Dennis provides an analysis of a number of flaws in the Overseer modelling used. He describes the models as "*overly simplistic*", "*completely unsuitable*", and in need of review "*to ensure they are actually representative of real-world farming situations.*"[32] These errors have a compounding effect. In these circumstances, these are "red flags" which ought not to be ignored.

66. There are several steps which it is respectfully submitted can and should be taken going forward. Firstly it is submitted that the situation is not of such urgency that an immediate decision is required that precludes the gathering of the correct, relevant information so as to enable PC3 to proceed on a properly informed basis.

67. As noted earlier, the Hearing Panel's directions regarding caucusing are acknowledged and appreciated by Federated Farmers. The present issues are particularly suited to caucusing amongst experts and submitter parties, as has been directed.

68. Mr Norton notes that in order to update the N loss numbers in PC3 using the same input parameters, but run through overseer 6.2, he would need;

> "*A fully updated look-up table (for OVERSEER v6.2); i.e. a table of the many different combinations of landuse, soil and rainfall classes, and their associated nitrogen loss rate numbers. Such a table is in preparation as part of the technical work being undertaken in the Matrix of Good Management (MGM) project but is not available in time for this memo*"[33]

69. Dr Williams refers in his evidence to the work being undertaken as part of the Matrix of Good Management project. So too does Mr Curtis. South Canterbury Federated Farmers submits that it is appropriate that if at all possible this work should inform PC3, and the use of Overseer V6.2, within PC3. In this respect it is noted that the caucusing directions specifically provided, as an example of another matter that might be caucused by the parties, "*a suite of transitional provisions leading up to the incorporation of the Matrix for Good Management Practice project into this sub-region section of the Land and Water Regional Plan.*" Federated Farmers supports such caucusing.

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[32] See EIC of Dr Dennis at para 102 103.
[33] S 42A report, pg 299.

70. Mr Norton also considers that in order to address the impact of changes in Overseer versions;

> "*the best available option is to provide for a new policy in PC3 that references how the catchment loads in Table 15(p) were calculated and acknowledges that OVERSEER version changes should be taken into account when testing exceedance of the load limits*"

71. South Canterbury Federated Farmers supports the inclusion of policy which acknowledges the impact of version changes of Overseer and ensures that such version changes can-not work punitively against farmers.

72. However, as rules are included in a regional plan for the purpose of achieving the objectives and policies of the Plan[34], it is also essential that the relevant rules reflect such Policy, and ensure it is able to be achieved.

73. Mr Norton has not suggested the wording of the policy which he recommends as the "*best available option*". However the s 42A report sets out a proposed policy at 10.42. [35]

74. The scope for that new policy is attributed to Federated Farmers' submission. In this respect, Federated Farmers' submission sought that policy made provision for the amendment of load targets/limits and relevant thresholds, including flexibility caps and maximum caps, as new versions of Overseer are released, to ensure that the loads, caps and thresholds continue to serve their intended purpose. However, the new policy proposed in the s 42A report is limited to catchment load limits only, and does not extend to the flexibility and maximum caps as sought by Federated Farmers.

75. Mr Willis in his Evidence in Chief (farming) discusses this issue at paragraphs 85 – 95. Mr Willis refers to the evidence of Mr Neal, who has highlighted that changes in Overseer modelling can have significant impact for *individual* farms, and that;

> "new versions, or sub versions, of the model are released on a frequent basis, and it is likely within the life of PC3 a number of further updates will be made".[36]

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[34] S 68(1)(b) RMA.
[35] At pg 115.
[36] See EIC of G Willis at para 94. Also EIC of M Neal, at paras 36 – 45.

76. Mr Willis proposes an amendment to the new policy proposed by the Council officers in response to the Federated Farmers submission. The amended policy proposed by Mr Willis goes beyond remodelling for catchment load, and extends also to the flexibility and maximum caps as sought in the Federated Farmers submission. Federated Farmers supports the amended policy as proposed by Mr Willis, and adopts paragraphs 85 – 95 of Mr Willis' evidence in this respect.

77. It is also important to consider the rules, in light of this policy. In particular, will the rules achieve the policy, as required by s 68(1) of the RMA?

78. Ultimately, PC3 proposes to use Overseer as a regulatory enforcement tool. Federated Farmers is not opposed to regulation *per se*, provided it is applied equitably, and in a consistent manner. Regulation should be certain, and plan users should be able to ascertain, in advance, whether their proposed actions will be in accordance with, or contravene, the regulatory requirements. Regulation, and the costs of compliance, should also be proportionate to the outcomes sought to be achieved by the regulation. Regulation can be most effective when used in combination with non-regulatory incentives, and voluntary compliance measures.

79. Overseer was not developed as a tool to measure, or enforce, regulatory compliance. There are a number of issues associated with its use for this purpose. Some of these are touched on in the evidence of Dr Dennis and Ms Mathers. The Overseer evidence highlights the significant variation in modelled output results that can result depending on how model inputs are entered. This raises fundamental questions as to the appropriateness of the model as a basis for any prosecution or enforcement action. In short, while it may be the best model available, the variability of the model's outputs means that its use as the foundation for enforcement action is likely to be challenging.

Nitrogen Baseline

80. Federated Farmers concern here is that, given the way the nitrogen baseline was calculated as an average, specifying it as an absolute maximum will mean that lawfully established, or approved farming activities will, on occasion, be likely to be discharging outside their baseline. This may be the case even where there has been no change in farming activity on the relevant property, from that undertaken during the baseline period. That PC3 proposes

that in some circumstances farming above the nitrogen baseline (or flexibility cap) be a prohibited activity, only compounds the concern on this point.

81. First, I need to refer to the definition of "nitrogen baseline", and explain how a farming activity undertaken consistently with the activity undertaken during the period of calculation of the nitrogen baseline, can nevertheless exceed that baseline.

82. The proposed Plan defines nitrogen baseline at 2.10 as;

> *(a) the discharge of nitrogen below the root zone, as modelled with OVERSEER® (where the required data is inputted into the model in accordance with OVERSEER® Best Practice Data Input Standards), or an equivalent model approved by the Chief Executive of Environment Canterbury, averaged over the period of 01 July 2009 - 30 June 2013, and expressed in kg per hectare per annum, except in relation to Rules 5.46 and 5.62, where it is expressed as a total kg per annum from the identified area of land; and*
>
> *(b) in the case where a building consent and effluent discharge consent have been granted for a new or upgraded dairy milking shed in the period 01 July 2009 - 30 June 2013, the calculation under (a) will be on the basis that the dairy farming activity is operational; and*
>
> *(c) if OVERSEER® is updated, the most recent version is to be used to recalculate the nitrogen baseline using the same input data for the period 01 July 2009 – 30 June 2013.*

83. The evidence of Dr Hume explains that nitrogen discharge is not a constant. It fluctuates between years, and in particular with rainfall.[37] Accordingly, the nitrogen baseline, calculated as it is as an average across four years (2009 – 2013), reflects an averaging of discharge rates, as influenced by climatic conditions which prevailed across those four years. But climatic conditions are not constant, and in a future year, a farmer might still be farming in precisely the same manner as during the baseline period, yet the nitrogen discharges from his or her property might be greater than the averaged 'baseline'. The farming activity has remained constant, but the climatic inputs (beyond the farmers control) have altered, and as a consequence, the nitrogen discharge may now exceed the calculated nitrogen baseline.

[37] See EIC of Dr Hume, at para 22.

84. These variability's are graphically illustrated in the attachment at footnote 2 of Dr Hume's evidence[38]. This illustrates that in coastal Canterbury annual rainfall can vary by as much as threefold in extreme years.

85. Simple maths illustrates the point. The average of, for example, 3, 6, 4 and 7, is 5. Yet, if the figures represent nutrient discharges from a property per year, then in two of the years the average was exceeded.

86. The evidence of Dr Dennis[39] describes how the nitrogen baseline definition also fails to recognise land and irrigation development which has occurred during or after the baseline period.

87. To the extent that proposed rules 15.5.2 1(a) or 15.5.2 1(c) and 15.5.5 are intended to, or will have the effect, of transforming lawfully established and operating farming activities or enterprises into prohibited activities, it is submitted that it is inappropriate, unjustified, and contrary to the scheme and purpose of the Act. It is submitted that this is particularly so given the issues that have been identified as to the unreliability of the modelling and figures underlying this prohibition.

88. The Court of Appeal considered the circumstances in which describing activities as 'prohibited' in a district or regional plan was appropriate in *Coromandel Watchdog of Hauraki Inc v Ministry of Economic Development* CA 285/05[40]. The Court found that;

> *"... if a local authority has sufficient information to undertake the evaluation of an activity which is to be dealt with in its district plan at the time the plan is being formulated, it is not appropriate use of the prohibited activity classification to defer the undertaking of the evaluation required by the Act until a particular application to undertake the activity occurs. That can be contrasted with the precautionary approach, where the local authority forms the view that it has insufficient information about an aspect of an activity, but further information may become available during the term of the plan."*

89. In my submission, PC3, and rules 15.5.21(a) or 5.5.2(1c) and 15.5.5, are an example of the former, rather than the latter, of the two circumstances described by the Court of Appeal.

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[38] Refer Annexure 1 to these submissions.
[39] Evid of Dr Samuel Dennis, paras 34 – 28.
[40] *Coromandel Watchdog of Hauraki Inc v Ministry of Economic Development* CA 285/05 [2007] NZCA 473.

Because of the way the 'nitrogen baseline' has been defined, rule 15.5.2 will, due to climatic changes, capture, and render prohibited, some existing farming activities, even where they have not changed from the activities undertaken during the baseline period of 2009 – 2013. It is submitted that Council currently has sufficient information to assess the effects of N discharges that would be caused by the continuation of existing farming activities undertaken in the baseline period. The reason they are potentially rendered 'prohibited' relates back to how the nitrogen baseline has been defined as an average across a number of years, but expressed as a maximum in any given year, compounded by the use of what are now regarded as outdated models in setting the relevant flexibility caps.

90. In my submission, there is no effects based reason as to why the regional council could not, now, assess the effects of consenting applications to continue farming activities undertaken during the baseline period, where those activities maintain the <u>average</u> N discharge level for that property during the baseline period, notwithstanding that they might, from time to time, exceed the baseline in any given year. Accordingly, this is, in my submission an instance where;

> *"... a council which could have assessed the effects of an activity which was likely to occur in its territory simply chose to give it prohibited activity status to defer the consideration of those effects until a specific proposal came before it."*[41]

91. In the event that the use of prohibited activity status is not found to offend against the findings of the Court of Appeal in *Coromandel Watchdog*, then in my submission that should not be the end of your consideration of this issue. Even if prohibited activity status is a lawfully available method, it does not necessarily follow that it is the most efficient and effective method to give effect to the policies and objectives of relevance to PC3. In my submission, it is not.

92. A number of regional objectives in the Plan also envisage consideration of the effects of land use activities, and the enabling of economic use while managing adverse effects.[42] Prohibited activity status does not give effect to such objectives.

93. The evidence of Dr Hume discusses how nitrogen discharge levels can-not simply be 'turned off', like a tap. He notes that N-loss varies according to biophysical factors that are

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[41] *Coromandel Watchdog of Hauraki Inc v Ministry of Economic Development* CA 285/05, at para 40.

[42] See for example; Objective 3.5, Land uses continue to develop and change in response to socio-economic and community demand; Objective 3.9, Abstracted water is shown to be necessary and reasonable for its intended use and any water that is abstracted is used efficiently; Objective 3.11, Water is recognised as an enabler of the economic and social wellbeing of the region; or Objective 3.23, Soils are healthy and productive, and human induced erosion and contamination are minimised.

often difficult to control, and which should be recognised in any regulatory regime to manage N loss.[43]

94. If the effect of the nitrogen baseline definition, flexibility caps, and the rules 15.5.21(a), 15.5.21(c) and 15.5.5 is to render existing farming activities to be prohibited, then it is submitted that there are unfortunate parallels with the creation of the red zone in post-earthquake Christchurch, notwithstanding the very different processes which led to these two outcomes.

95. As the High Court observed in *Fowler Developments Ltd v The Chief Executive of the Canterbury Earthquake Recovery Authority (Quake Outcasts)* [2013] NZHC 2173.

> *[63] The RMA governs how property owners may use their land. Section 9 provides a negative definition, that no-one may use land in a manner that contravenes a national standard, or a regional or district rule. Most important in this instance is the district plan, which prescribes conditions for the use and development of residential sections by reference to zoning. The applicants' land was zoned residential, but subject to different building criteria depending upon the permitted intensity of residential development. The property owners had a right to establish and live in their homes subject to compliance with the plan.*
>
> *[64] It is the function of the City Council under s 31 of the RMA to manage and control "the effects of the use, development or protection of land and associates natural and physical resources ..." In doing so, the Council before bringing down or changing a plan is required to make an evaluation of "alternatives, benefits and costs". Hence as Elias CJ has stated:*
>
> > *The district plan is key to the (RMA's) purpose of enabling "people and communities to provide for their social, economic, and cultural well being". It is arrived at through a participatory process, including through appeal to the Environment Court. People and communities can order their lives under it with some assurance." (emphasis added)*
>
> *That was no longer the case in the red zone."*

96. While *Fowler* was considering a district plan, in my submission the Court's observations, and those of the Chief Justice in *Discount Brands* which were given emphasis by the High Court, are equally applicable to a regional plan. Farmers in the South Canterbury sub-region have a right to establish farming enterprises, subject to compliance with the regional plan, just as property owners in urban Christchurch had a right to establish and live in their

[43] EIC of Dr Hume, at paragraphs 22 – 23.

homes subject to compliance with the district plan. And just as the Christchurch community was entitled to order their lives under the district plan with some assurance, so too is the farming community of South Canterbury entitled to order their lives under the existing regional plan with some assurance. Consequently, in reliance on the assurance provided by the regional plan, existing land use farming practices have been established. However, the effect of PC3, as it is proposed, will be to render some of those existing farming practices unlawful.

97. The scheme of the Act also, it is submitted, suggests that rendering lawfully established activities to be prohibited activities is inappropriate.

98. Section 20A(2) expressly preserves the ability of existing lawful activities to continue operating, despite a rule in a regional plan becoming operative and requiring a resource consent for an activity.

> ***20ACertain existing lawful activities allowed***
> *(1)If, as a result of a rule in a proposed regional plan taking legal effect in accordance with or 149N(8), an activity requires a resource consent, the activity may continue until the rule becomes operative if,—*
> *(a)before the rule took legal effect in accordance with section 86B or 149N(8), the activity—*
> *(i)was a permitted activity or otherwise could have been lawfully carried on without a resource consent; and*
> *(ii)was lawfully established; and*
> *(b)the effects of the activity are the same or similar in character, intensity, and scale to the effects that existed before the rule took legal effect in accordance with section 86B or 149N(8); and*
> *(c)the activity has not been discontinued for a continuous period of more than 6 months (or a longer period fixed by a rule in the proposed regional plan in any particular case or class of case by the regional council that is responsible for the proposed plan) since the rule took legal effect in accordance with section 86Bor 149N(8).*
> *(2)If, as a result of a rule in a regional plan becoming operative, an activity requires a resource consent, the activity may continue after the rule becomes operative if,—*
> *(a)before the rule became operative, the activity—*
> *(i)was a permitted activity or allowed to continue under subsection (1) or otherwise could have been lawfully carried on without a resource consent; and*
> *(ii)was lawfully established; and*
> *(b)the effects of the activity are the same or similar in character, intensity, and scale to the effects that existed before the rule became operative; and*
> *(c)the person carrying on the activity has applied for a resource consent from the appropriate consent authority within 6 months after the date the rule*

became operative and the application has not been decided or any appeals have not been determined.

99. Section 20A(2) envisages that, where permitted activities have been lawfully established, and then become subject to a rule in a regional plan, persons carrying out the activity will be able to apply for a resource consent for those activities.

100. Of course, by describing an activity as a prohibited activity, no application for a resource consent may be made for the activity, and the consent authority must not grant a consent for that activity[44].

101. Environment Canterbury has acknowledged that "full compliance with the nitrogen baseline may be challenging".[45] Consequently, a staggered, or transitional approach to compliance is being implemented.

102. Furthermore, different types of farming operation are treated differently. Farms that have converted to dairy during the baseline period are able to calculate their nitrogen baseline as if the farm were fully operational at the maximum number of cows specified on their dairy effluent consent. However, for other farming operations that underwent development during the baseline period, such as conversion of dryland sheep or beef to irrigated beef, there is no similar latitude provided. Such an approach is not effects based management, which is central to the RMA. Rather, it is iniquitous, favouring one industry sector over others. As the Environment Court accepted in *Westfield NZ Ltd v Wellington Regional Council*[46];

> *"the role of decision makers [when preparing plans under the Act] is to provide a framework within which the market can operate to find the highest and best use of resources."*

103. In practical terms, the effect will be that (non dairy) farmers who developed their properties '*with some assurance*' under the operative regional plan of the time, will find that operation of those properties exceeds the nitrogen baseline, and is rendered, by rules 15.5.21(a) or 5.5.21(c) and 15.5.5, to be a prohibited activity unless they can remain within the flexibility cap and this is greater than the baseline. An example of this is Mr Hurst's family farm[47], where irrigation development has stalled due to uncertainty regarding the

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[44] See s 87A(6) RMA.
[45] E Can, Nitrogen Baseline Compliance Note April 2014.
[46] *Westfield NZ Ltd v Upper Hutt CC* EnvC A41/2001 at para 94.
[47] Farm A described in the evidence of Dr Dennis at paras 24 – 28. See also the evidence presented by Mr Hurst.

effect of PC3. Indeed, even where no development has occurred, the method of calculating the nitrogen baseline as an average, will mean that simply continuing the same farming activity as undertaken during the baseline period, is likely to result in an annual nitrogen discharge above the nitrogen baseline for that property in some years. Again, the effect of rules 15.5.21(a) or 5.5.21(c) and 15.5.5 is to render continuation of such farming activity prohibited unless the property remains within the flexibility cap.

104. The implications are not only economic. Lawfully established activities are being rendered unlawful. The penalties are substantial, up to 2 years imprisonment or a fine not exceeding $300,000 in the case of an individual, and a fine not exceeding $600,000 in the case of a company.[48]

105. It is submitted that the identified problems with the proposed implementation of the nitrogen baseline are real, and need to be addressed. While the flexibility caps seek to address these issues, there are real concerns that the numbers have not been set at the appropriate levels to provide actual flexibility for many farming operations, and that the use of Overseer to monitor and enforce compliance in a regulatory sense is inappropriate.

CONCLUSIONS

106. South Canterbury Federated Farmers thanks the Hearing Panel for the opportunity to present these legal submissions, and the evidence called in support today. Federated Farmers also acknowledges and records its appreciation for the Panel's flexibility in hearing the evidence of Mr Curtis and Mr Hewson earlier in the week.

107. Federated Farmers will engage in the caucusing process, and anticipates that, given the breadth of issues in respect of which caucusing has been directed, substantive and highly relevant further evidence will result in the form of the two caucusing statements to be filed by 9 December. Federated Farmers is also supportive of the suggested caucusing on transitional provisions leading to the incorporation of MGM practices into the sub-region section of the Plan.

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[48] S 339(1) RMA. The relevant offence would be under s 338(1), being contravention of s 9 of the Act, which provides that no person may use land in a manner that contravenes a regional rule unless expressly allowed by a resource consent …, except that no resource consent can be granted for a prohibited activity.

108. In these circumstances, leave is sought to present closing legal submissions following the completion of caucusing. At this stage it is unclear whether the Hearing will be reconvened, either for the purposes of further legal submissions on matters arising out of caucusing, or the hearing of further evidence. Until caucusing has occurred, and parties have an opportunity to consider the caucus statements, Federated Farmers respectfully reserves its position as to the appropriate next steps.

D van Mierlo

Counsel for South Canterbury Province of Federated Farmers New Zealand

18 November 2015

Annexures

1 E Can State of the Environment Monitoring. Rainfall.

2 E Can Nitrogen Baseline Compliance Note, April 2014.