

SUBMISSION

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Name of Submitter: Federated Farmers of New Zealand
Federated Farmers of New Zealand (Waikato Region) 1999
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Federated Farmers of New Zealand – Rotorua Taupo Province
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Federated Farmers of New Zealand (Auckland Province) Incorporated

This is a submission on the following proposed change to a plan:

Waikato Regional Plan: Proposed Plan Change 1 (Waikato and Waipa
River Catchments)

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

SUBMISSION TO WAIKATO REGIONAL COUNCIL ON:

PROPOSED CHANGE 1 (WAIKATO AND WAIPA RIVER CATCHMENTS) TO THE WAIKATO REGIONAL PLAN

1 INTRODUCTION

- 1.1 Federated Farmers of New Zealand, Federated Farmers of New Zealand (Waikato Region) 1999 Incorporated, Federated Farmers of New Zealand – Rotorua Taupo Province Incorporated and Federated Farmers of New Zealand (Auckland Province) Incorporated (together, “Federated Farmers” or “the Federation”) thank the Waikato Regional Council (“the Council”) for the opportunity to make submissions on Proposed Change 1 (Waikato and Waipa River Catchments) to the Waikato Regional Plan (“the Proposal” or “the Proposed Plan Change”).
- 1.2 In regard to this submission, Federated Farmers has engaged in a considerable amount of consultation with its members with interests in the Waikato Region.
- 1.3 Federated Farmers looks forward to further consultation with the Waikato Regional Council about the Proposal, as well as continued participation in the overall development of the Waikato Region.
- 1.4 Accordingly, Federated Farmers would appreciate the opportunity to discuss this submission in greater detail. Federated Farmers seeks the opportunity to participate when the relevant hearings are held.

2. GENERAL COMMENTS

2.1 Introduction

- 2.1.1 Federated Farmers acknowledges and supports the intent of the Proposal which, it is understood, is to amend the Waikato Regional Plan to restore and protect water quality in the Waikato and Waipa Rivers by managing discharges of nitrogen, phosphorus, sediment and microbial pathogens to land in the catchment, where it may enter surface water or ground water and subsequently enter the rivers, or directly into a water body.
- 2.1.2 Federated Farmers notes that the Proposal states that there are three River Acts that establish co-governance arrangements for the Waikato and Waipa Rivers and catchment. These are: Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, Ngati Tuwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010 and Nga Wai o Maniapoto (Waipa River) Act 2012. The Proposal refers to iwi partners who have participated in the development of the Proposed Plan Change as being Maniapoto, Raukawa, Ngāti Tūwharetoa, Te Arawa River Iwi and Waikato-Tainui.
- 2.1.3 The Proposal describes the processes for preparing, reviewing, changing or varying the regional plan, in terms of River Iwi involvement in the process, as being set out in the legislation, and as including a requirement for Council to establish a Joint Working Party with each of the River Iwi, the purposes of which include making joint recommendations to the Council regarding the Proposed Plan Change. It is stated that the three River Acts established the Vision and Strategy for the Waikato River/Te Ture Whaimana o Te Awa o Waikato (Vision and Strategy) as the primary direction

setting document for the Waikato and Waipa Rivers. The Vision and Strategy is said to prevail over any inconsistencies in a national policy statement or the New Zealand coastal policy statement, and is deemed to be part of the Waikato Regional Policy Statement.

- 2.1.4 The Proposal records that the co-governance partners agreed to adopt a collaborative approach to investigate and develop fresh water management approaches that would be implemented in the Waikato and Waipa River Catchments, and that a key feature of the collaborative approach was the Collaborative Stakeholder Group (the “CSG”), which represented stakeholders and the wider community in Healthy Rivers: Plan for Change/Wai Ora: He Rauaki Whakapaipai. The CSG is stated as having been the central channel for stakeholder and broader community collaboration in the project, and that it intensively reviewed and deliberated on technical material from a group of external technical experts from a range of disciplines and sought input from their sectors and from the community, and ultimately proposed the contents of the Proposed Plan Change to decision makers.
- 2.1.5 Federated Farmers has a number of difficulties with the description of the way in which the River Acts have been interpreted in the Proposal. Firstly, the sections of the three pieces of legislation which provide for the change of RMA planning documents are in the sections of the River Acts which describe the co-management arrangements, not the co-governance arrangements. Secondly, the role of the joint Working Party is limited to making recommendations on the process for the development of, and on the general form and content of, the Proposed Plan Change, but not to making recommendations on the detailed content of the Proposed Plan Change. Thirdly, any decision regarding the use of a collaborative approach recorded as having been adopted must have been a decision of the Council, not the “co-governance partners”, acting on the recommendation of the Joint Working Party. Fourthly, it is apparent from the legislation that the driving planning instrument for the preparation of the Proposed Plan Change is the National Policy Statement on Freshwater Management (“NPSFM”), with the Vision and Strategy being relevant where there is any inconsistency between it and the NPSFM, or any other national policy statement. Federated Farmers is not aware of any such inconsistency.
- 2.1.6 Federated Farmers is concerned to see that the NPSFM is properly implemented in the Waikato Region, and it is of concern that the Proposed Plan Change is being progressed with insufficient regard being paid to the development of the Region’s response to the NPSFM framework. There is also a concern that the Waikato Regional Policy Statement is not given effect to by the Proposed Plan Change.
- 2.1.7 There is also a concern regarding the make up of the body that is described as the “the local authority and the Trust” in the River Acts. It appears that this body has been constituted as a formal committee of the Council, the Healthy Rivers: Plan for Change/Wai Ora: He Rautaki Whakapaipai Committee, with equal numbers of councillors and River Iwi representatives. While the River Acts provide that the Committee makes the final recommendation to the Council on certain matters, including the content of the Proposed Plan Change, in practice the operation of the law is such that the Council is not able to change that content, without reference back to, and the approval of, the Committee. Another implication is that River Iwi should not make submissions or further submissions on the Proposed Plan Change, because of the potential for conflicts of interest or perceived conflicts of interest.¹

¹ It is noted that the legislature’s intent in providing a management role for River Iwi in the development of RMA planning documents, rather than a governance role, would seem to be that the recommendations made by “the local authority and the Trust” in terms of the relevant provisions of the River Acts were intended to be recommendations made in an advisory capacity, and not recommendations that would, legally, be mandatory on the local authority. Nevertheless, it is recognised that it is within

- 2.1.8 Each of the River Acts provides for the preparation of an “integrated river management plan”, to achieve an integrated approach between Iwi, relevant departments, relevant local authorities, and appropriate agencies to the management of aquatic life, habitats, and natural resources within the Waikato River. The legislation provides for the integrated river management plan to include a number of components, including a component on issues related to the resource management under the RMA. Yet, despite the mandatory nature of the relevant provisions in the River Acts, it appears that at least one of the integrated river management plans has never been prepared. Federated Farmers is concerned that the Proposed Plan Change has been developed and has been allowed to progress in the absence of all of the mandatory integrated river management plans.
- 2.1.9 Concerns about the CSG process are discussed in greater detail below, but it seems that the CSG was anything but “... the central channel for stakeholder and broader community collaboration in the project ...”, with the farming community that is represented by Auckland Federated Farmers, as well as other farming communities, feeling they were excluded from the process, having never been invited to participate in the process, nor contribute to the process, at any stage. The fact that part of the Proposed Plan Change was withdrawn soon after notification because of a lack of consultation with Iwi seems also to provide good evidence that the CSG process was seriously flawed.
- 2.1.10 There is also concern about the lack of a clearly defined linkage between the aspirations of the Proposal, the state of the Waikato and Waipa Rivers and the Vision set out in the Vision and Strategy, particularly in that there are seeming inconsistencies between: the Vision and Strategy; the Proposed Plan Change, which sets out to restore and protect water quality in the Waikato and Waipa Rivers; and the recorded state of the Rivers, as reported by the Waikato River Authority. The Vision and Strategy sets out the Vision as being:

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

Objective k. of the Vision and Strategy is that:

The restoration of water quality within the Waikato River so that it is safe for people to swim in and take food from over its entire length.

A number of Strategies are set out in the Vision and Strategy to achieve the Objectives, including the development of targets for improving the health and wellbeing of the Waikato River, and developing and implementing a program of action to achieve those targets. The “ultimate measure” of the Vision and Strategy is stated as being:

... that the Waikato River will be safe for people to swim in and take food from over its entire length.

- 2.1.11 Yet, taking the Lower Waikato reporting area as an example, the Waikato River Authority’s “Report Card” for March 2016² records an overall grade of “C” for the Mainstem and “C-“ for the tributaries, but that:

the Council’s powers under the Local Government Act to structure the Healthy Rivers: Plan for Change/Wai Ora: He Rautaki Whakapaipai Committee in the way in which it has been structured.
² Available at: <<http://versite.co.nz/~2016/19099/#>>.

The water clarity degrades swimming all year, but bug level is safe in the swimming season; diverse native fish (whitebait and eel fishing), but pest fish prevalent; extensive drainage and flood control degrades ecological integrity; large wetlands present.

2.1.12 Federated Farmers readily acknowledges that there is ample scope for improvement, but three things are apparent from this material: firstly, that Objective k. appears to have already been achieved, at least in the Lower Waikato; and secondly, that some of the concerns about water quality in the River have nothing to do with land use in the surrounding catchments. This evaluation seems to be borne out by the fact that the NPSFM attribute states for the Nitrogen attributes³ are mostly “A”.⁴

2.1.13 A third point that is apparent from the “Report Card” is that the evidence available as to the actual state the Waikato River is sought to be restored to is sparse, with a set of ideals seemingly aspired to, at least as regards the Report Card. This proposition is supported by the “Predictions Report”, which states that modelling has been relied on to estimate the state of water quality in 1863. As is noted in that Report:⁵

... there has been no structured assessment of the state of water quality within these catchments when the *New Zealand Settlements Act 1863* was passed and substantial tracts of land were confiscated from local iwi. This is problematic since it increases the uncertainty around how successful current actions will be in restoring and protecting the water ways of the Waikato Basin, as outlined within the Vision and Strategy for the Waikato River.

So, while there is ample scope for improvement in water quality in the Waikato River catchment, the Report Card suggests that care needs to be taken to ensure that any resources put into improving water quality in the catchment are focussed on addressing those water quality attributes that are problematic. Given that the Report Card demonstrates that water quality issues differ in different parts of the catchment, it also seems likely that water quality issues would best be addressed on a sub-catchment basis.

2.1.14 Further, the lack of a linkage between the Vision, the present state of the Waikato and Waipa Rivers, and the community’s aspirations indicate that, at this stage, the Proposal should put in place no more than an interim set of “good practice” requirements, pending the development of sub-catchment approach to addressing such water quality issues as do really exist in each freshwater management unit. Indeed, this is the approach that is foreshadowed in the NPSFM, and this forms the theme of the detail of this submission.

2.1.15 To summarise this introductory section, Federated Farmers acknowledges and supports the intent of the Proposal, but considers that it does not address the issues that it sets out to address in an appropriate fashion. Federated Farmers is of the view that the Proposal should better reflect that its principal provisions are strictly interim in nature, and that the Region should instead, through the Proposed Plan Change, ready itself to progress the implementation of the changes to the Regional Plan that need to be made in response to the requirements of the NPSFM, noting in particular that the government has put in train a process to make further changes to the NPSFM to address issues regarding livestock access to waterways. Firstly, though there are some general matters that warrant discussion under individual heads.

³ ie Total Nitrogen, Nitrate (toxicity) Ammonia (Toxicity).

⁴ Graeme Doole, Neale Hudson & Sandy Elliot, *Prediction of Water Quality within the Waikato and Waipa River Catchments in 1863*, 10 June 2016 (the “Predictions Report”).

⁵ Ibid, page 3.

2.2 Federated Farmers' general approach to the preparation of plans such as the Proposed Plan Change

- 2.2.1 As a general proposition, Federated Farmers considers that all normal farming activities in rural areas should be permitted activities. Federated Farmers is particularly concerned at the potential for the Proposed Plan Change to give rise to substantial compliance costs when the provisions in it come to be put into effect. The Federation is aware of many cases where the costs of obtaining consent for a normal farming activity outweighs the cost of undertaking the activity, in some cases by several multiples. In some cases, the activity is the sort of activity that is regularly undertaken as part of normal farming enterprise. Federated Farmers considers that, in general terms, it should be possible to undertake normal farming activities without having to obtain a resource consent.
- 2.2.2 Federated Farmers is concerned to see that there is sufficient flexibility in local authority planning instruments to enable those who might wish to establish a new activity in rural areas to do so with the minimum of bureaucratic fuss. Federated Farmers supports the use of performance standards as a basis of permitted activities. It is important that the facility exists to allow new activities to become established without having to undertake unnecessary resource consent processes, or unnecessarily difficult resource consent processes. It is considered that the Proposal should facilitate the on-going both carrying out of existing activities and the establishment of new activities.
- 2.2.3 It is also Federated Farmers' view that, as their individual perceptions of factors such as market demand change, farmers need to have the facility to enable them to make changes to their land use. Federated Farmers contends this should also generally be able to take place without the necessity of obtaining a resource consent.
- 2.2.4 To the extent that rules are necessary, Federated Farmers considers that it is incumbent upon Council to ensure that the objectives and policies in local authority planning instruments lead to rules that are minimal, understandable and workable. Federated Farmers considers that local authorities also have the responsibility of ensuring that the provisions in their plans are properly communicated to interested parties.
- 2.2.5 Thus Federated Farmers considers that, as it stands, the thrust of the Proposal will result in excessive emphasis being placed on locking land within the catchment into particular productive uses. This outcome is at odds with the basic productive purposes for which the land is zoned, and for which it is held in private ownership.
- 2.2.6 Federated Farmers is also concerned that the regime that is established in the Proposed Plan not only pays insufficient attention to private property rights but it also pays insufficient attention to the legitimate expectations of the land owners of private land in the Region. Federated Farmers is strongly opposed to any diminution of property rights without proper compensation being paid. It is considered that one of the major principles on which the country's economy is based is that property owners have security over their property rights, which will not be taken arbitrarily by others, notably the state. Federated Farmers considers that one of the principal functions of Government, both local and national, is to protect the security of its citizens, including minority groups. Investors must have the confidence that their assets and goods are safe from confiscation if they are to invest, or alternatively that they will be properly compensated if property is required by Government or other requiring agencies in the public good.

2.2.7 Further, Federated Farmers considers that the Resource Management Act provides that statutory local authority instruments should not contain provisions that compromise the ability of residents in the Region to safeguard their economic well being. Federated Farmers considers that the Proposal should place at least as much emphasis on this "economic" aspect of the RMA, as on the cultural and social aspects of that Act.

2.3 Federated Farmers approach to this submission

2.3.1 Federated Farmers represents members who engage in a broad range of land use activities in the region. Some are engaged in dairying, some in other pastoral activities such as sheep and beef rearing for meat and wool production, and deer rearing. Others engage in various horticultural activities, or intensive farming activities such as pig farming. Of the horticultural activities members engage in, vegetable growing, or the use of pastoral land for vegetable growing, is more likely in parts of the region that are closer to metropolitan Auckland. The Proposed Plan Change needs to provide for the needs of all of the people of the region who engage in all of these activities.

2.3.2 Federated Farmers is aware that the levy payer funded rural production industry good organisations such as Beef + Lamb, Horticulture New Zealand and DairyNZ are preparing extensive and detailed submissions on the Proposed Plan Change, but is also aware that there is no co-ordination amongst those organisations regarding some commonality as to the approach taken to the Proposed Plan Change. Some like-minded, special interest, groups have also formed to take an active interest in the Proposed Plan Change and are active in preparing submissions. As a result, a great many disparate views on the Proposed Plan Change are likely to emerge from organisations, all of whom are made up in part, in some cases large part, of members of Federated Farmers.

2.3.3 Federated Farmers considers that the approach the Council has taken to the preparation of the Proposed Plan Change has been divisive in the farming community, and that the role of the CSG in the plan preparation process has played a large part in creating this state of divisiveness. Some of the concerns that Federated Farmers has about the CSG process are discussed in greater detail below, but it seems that, rather than reach a consensus by means of a collaborative approach on a way that the water quality issues in the Waikato and Waipa Rivers that are facing the Region might be addressed, differences between various stakeholders were not resolved, with progress being made by way of plebiscite.

2.3.4 The outcome of this is that Federated Farmers, the one organisation that represents a wide range of rural production industry stakeholders across the catchment, is left in the position of needing to make a submission on the Proposed Plan Change that addresses the issues raised by the Proposal in such a way that the needs of all stakeholders are taken into account and properly responded to. Federated Farmers considers that this can best be done by making a number of high level submission points, mostly at objective and policy level, addressing principally the key issues, of which there are three, and then addressing the detail of the Proposal by way of further submissions on those parts of other submissions that are worthy of support, or which need to be opposed, and backed up by way of evidence during the hearing process.

2.3.5 Accordingly, this submission addresses the Proposed Plan Change at a high level, with the expectation that the detail of the Federated Farmers position on the various issues that the Proposal has thrown up will emerge once the further submission process has been completed.

2.4 The 3 Big Issues

2.4.1 As already stated, Federated Farmers has 3 big issues that are outstanding with the Proposed Plan Change. Detailed submissions on each of the 3 points are made in the body of this submission, but, in short, the 3 issues are:

- Nitrogen Allocation: Federated Farmers is strongly opposed to the allocation of nutrient discharge allowances. Principally this is because there is no fair and equitable way in which this can be done. It is considered that issues arising from the over-allocation of nutrients can generally be addressed in the interim in ways other than allocation, such as the implementation of good management practices, with more detailed proposals developed at a later stage through a sub-catchment, freshwater management unit based, assessment, and implemented at that time through a sub-catchment plan change, as per the approach in the Canterbury region. It is considered that the Proposed Plan Change needs to make it much clearer that the Nitrogen Reference Point is to be used solely for the purpose of determining those land users who need to reduce their nutrient discharges, and for setting flexibility limits, as discussed below.
- Fencing requirements: Federated Farmers considers that the requirements for the fencing off of water bodies set out in the Proposed Plan Change are inequitable, repressive, unnecessary, and that they will not satisfactorily address the water quality issues that the Region is facing. Instead, Federated Farmers considers that the policy proposals for excluding stock from waterways set out in the Government's recently announced Clean Water Package 2017⁶ should be implemented as an interim measure, and more detailed proposals developed as appropriate to the particular sub-catchment later, through a freshwater management unit based assessment, and implemented then through a sub-catchment based plan change.
- Flexibility of land use: Federated Farmers is very concerned at the extent to which the Proposal locks rural production land users into their present land uses. This is because of the rapid changes in agriculture that are taking place at the moment. It is considered that land users should be able to modify their production systems within their present general land uses as a permitted activity, with the proviso that nitrogen discharge does not exceed 15kgN/ha across the production unit as a whole, and that an exemption from the general nutrient discharge restrictions should be applied in the case of vegetable production, as is the case in Auckland.⁷ For example, a sheep and beef farmer should be able to alter the ratio between sheep and beef, and also have the flexibility to grow some fodder crops without needing to obtain resource consent, while where a change of land use is involved, such as conversions from forestry to sheep and beef, or from sheep and beef to dairying a resource consenting regime is appropriate, with the Council retaining control over the amount of nutrient that can be discharged.

2.5 Section 32 Evaluation

2.5.1 Federated Farmers is extremely concerned at the quality of the "section 32 evaluation", particularly in that the costs of the Proposal have not been adequately evaluated. Particularly telling in this respect is a report commissioned by Federated Farmers and others,⁸ which demonstrated that the costs of implementing some of the requirements of the Proposal on some farmers were extraordinarily high, to such an

⁶ See < <http://www.mfe.govt.nz/fresh-water/freshwater-management-reforms/clean-water-package-2017> >.

⁷ Rule E35.6.1.(3)(c).

⁸ Momentum Research and Evaluation Limited, *Evaluation Report on the Waikato Federated Farmers Farm Environment Plan Project*, 17 November 2016.

extent that the farmers facing those requirements would be forced out of business. Federated Farmers understands that the findings of this report are backed up by a separate report commissioned by the Hill Country Group,⁹ which arrived at similar conclusions. Perhaps the most telling criticism in this respect is that the report of the Technical Leaders Group for the Healthy Rivers Wai Ora Project on the economic impact of the Proposal¹⁰ was prepared and came to light only after the CSG had made its final report. A finding in the report's conclusions exemplifies the concern:¹¹

... the proposed policy mix will have a significant negative impact on income, employment, and exports within agricultural industries in the Waikato region and those sectors that provide services to them. These impacts are further magnified when connections with industries across the nation are considered.

(emphasis added)

- 2.5.2 Some of the deficiencies of the CSG process, and therefore the Proposal itself, are demonstrated in the section 32 evaluation. For example, the “policy selection criteria” in Section A.1.2.1 – Assessment of objectives and policies – records that giving effect to Te Ture Whaimana/the Vision and Strategy is a relevant criterion, but not the requirement in the RMA that the Proposal give effect to the RPS, in which the Vision and Strategy is contained. In terms of effectiveness, a policy criterion is recorded as being that the Proposal is “realistic to implement ...”. Plainly, in the light of the Council’s own belated economic impact report, and the report commissioned by Federated Farmers, it is not.
- 2.5.3 Further, Section A.1.4.4 of the section 32 evaluation records differing water quality issues in different parts of the region. This suggests that the Proposal should have been found to pay insufficient regard to the benefits of a sub-catchment approach to the management of freshwater quality issues in the Region, as opposed to the catchment-wide approach that the Proposal adopts. This is supported by Section C2 – Key findings, which acknowledges the limited work that has gone into many of the studies that underpin the Proposal.
- 2.5.4 Section A.2 – Statutory Framework – includes a discussion of the key legislative and planning contexts for the Proposed Plan Change. As discussed earlier, it seems that the River Acts require the preparation of an Integrated River Management Plan, but in at least one instance, no such Plan has been prepared. Yet, there is no mention in the Section 32 Evaluation of the role that Integrated River Management Plans are expected to play in the preparation of the Proposed Plan Change, and there is no mention of the fact that at least one of the mandatory Integrated River Management Plans has not been prepared.
- 2.5.5 Section B.2.4 – Approaches to connect to the wider community – glosses over deficiencies that have come to light since the CSG process was concluded. The RMA provides that the Council is responsible for consulting with the wider community about the preparation of a proposed planning instrument, not ad hoc groups such as the CSG. The fact that Auckland Federated Farmers, and the farming community that is represented by Auckland Federated Farmers have been left feeling excluded from the process, having never been invited to participate in the process, nor contribute to the process, at any stage, as discussed earlier, is a strong indication that the approaches the Council made to connect with the wider community have not been successful.

⁹ It is understood that this report will be presented to the Council in due course.

¹⁰ Garry McDonald & Graeme Doole, *Regional- and National-level Economic Impacts of the Proposed Waikato Regional Plan Change No. 1 – Waikato and Waipa River Catchments*, 12 August 2016.

¹¹ *Ibid*, page 20.

Thus, the reports in B.2.4.3 of feedback from the engagement period should not have been relied on in the way they have been relied on in the Section 32 evaluation.

- 2.5.6 Of particular concern is way in which the “Recommendations from River Iwi partners” section of Chapter B.8 – Development of Plan Change 1 – is handled. It is plain from the section that River Iwi representatives participated in the decision making process regarding the Proposed Plan Change. Yet, although the Section 32 Evaluation records that the five River Iwi “have reserved their rights to individually and collectively submit on Plan Change 1”, no mention is made of the difficulties the Council faces in dealing with those submissions, as a result of conflict of interest concerns.¹²
- 2.5.7 As will become apparent from the specific submissions made on the Proposal, Federated Farmers generally supports the Objectives of the Proposed Plan Change, subject to a review of other submissions, and changes that might appropriately be made to the objectives through the further submission process. Yet, the evaluation of the Objectives in Part D falls short of the requirements of the RMA by finding, for example in D.1.4.2 – Assessment (of Objective 6) that “Objective 6 is an appropriate way of achieving the direction set out in the RMA Part 2 ...”, without any evaluation of alternatives, as is required by RMA s 32, in order to assess whether the objectives are the most appropriate way to achieve the purpose of the Act.
- 2.5.8 Likewise with the evaluation of the policies and rules in Part E – Provisions. Here, although there is an evaluation of a number of options, an assessment of the costs of the options, particularly the preferred option, is lacking. Taking, for example, the issue of livestock exclusion from waterways in E.3.5.1 – Relevance, much is made of the need for “best knowledge”, and “a clear cause-and-effect relationship between the activity occurring and adverse effects on water quality”. Yet, there is almost no assessment of the costs of the stock exclusion requirements on landowners, as is evidenced by the report commissioned by Federated Farmers. The costs of proposals such as the Proposed Plan Change need to be assessed on many levels, for example costs to the Region, to the local community, as well as to the individual farmers who are affected by the provisions in such a proposal. In any assessments of costs, all of the costs to individual farmers need to be assessed, including initial costs, annual costs and other on-going costs such as resource consent renewal fees.
- 2.5.9 Nevertheless, despite the many shortcomings in the section 32 evaluation, Federated Farmers agrees with the E.10 – Overall conclusion, that a staged approach is most appropriate to achieve the water quality that reflects the values expressed in the Vision and Strategy, which allows for progress to be made towards achieving the long term objectives, while minimising social disruption. However, Federated Farmers considers that the section 32 evaluation does not disclose that the balance between the stages is the most appropriate for achieving the purpose of the Act, for the reasons set out above. In short, it is considered that an approach which avoids the allocation of Nitrogen, and which is in keeping with the government’s recently announced approach to livestock access to water bodies would, by any reasoned evaluation, be considered the most appropriate for achieving the purpose of the Act.
- 2.5.10 Further evidence of deficiencies in the section 32 evaluation are evidenced by absence of any reference to the fact that the Proposed Plan Change has been developed and has been allowed to progress in the absence of the integrated river management plans, and by the fact that the Council has found it necessary to

¹² In this context, it is noted that the Council itself may make submissions on its own plan proposals and have them processed on the same terms as any other submission only because of cl 6 of Schedule 1 of the RMA.

prepare an “implementation plan”, and has itself prepared submissions on the Proposed Plan Change. The scheme of the RMA is such that all the material relating to a planning instrument should be contained in that planning instrument, and it would normally be expected that an implementation plan would become appropriate if deficiencies regarding its implementation were found in the planning instrument after it had been finalised.

- 2.5.11 Further, Federated Farmers considers that, had it been properly completed, the “section 32 evaluation” would have disclosed that elements contained in the Proposal are against the best interests of farming in the Region, and therefore do not promote sustainable management. Amongst other reasons, this is because some provisions:
- will lead to the introduction of a significant new cost and the likelihood of delay to what should be considered normal farming activities;
 - will disadvantage farmers on steeper land, compared to farmers in other parts of the region and the country, in that they will need to obtain resource consents for activities that are normally permitted;
 - will result in detracting from the rural character of the rural areas of the region because normal rural activities that contribute to the rural character of the area will be stifled.

2.5.12 In summary, Federated Farmers is very concerned about the “Section 32 evaluation” that the Proposal is required to have been assessed against. As a result of the obvious deficiencies in the areas already discussed, Federated Farmers considers that the requirements of Section 32 of the Resource Management Act 1991 can not be said to have been complied with.

2.5.13 Overall, Federated Farmers considers that the “section 32 evaluation” associated with the Proposal is seriously inadequate, and should be disregarded by the Council when it comes to make decisions on submissions on the Proposed Plan Change.

2.6 The CSG process

2.6.1 As mentioned earlier in this discussion, Federated Farmers is very concerned about the role the CSG has played in the preparation of the Proposed Plan Change. It seems that the CSG has not been the central channel for stakeholder and broader community collaboration in the project as claimed, with some farming communities feeling excluded from the process. The fact that part of the Proposed Plan Change was withdrawn soon after notification because of a lack of consultation with some iwi groups seems also to provide good evidence that the CSG process was seriously flawed.

2.6.2 Further, the approach the Council has taken to the preparation of the Proposed Plan Change has been divisive in the farming community, and the role of the CSG in the plan preparation process has played a large part in creating this state of divisiveness.

2.6.3 Federated Farmers is concerned at the quality, and in particular the lack of depth, of the information that was provided to the CSG by the Technical Leaders Group. A good example is the papers that were provided to the CSG on water clarity issues. In C.2.1 – Information provided to the CSG, there are three documents that appear relevant to water clarity, Doc#3140260, Doc#3127539 and Doc#3286338. Yet those documents do little more than set out what the contaminants are that bring about water clarity issues in no more than a general sense. There is nothing to guide the CSG as to what might be the particular causes of water clarity issues in particular locations, and from which appropriate area or site specific solutions to water clarity issues might be derived. It seems that the livestock access to water bodies provisions

are intended to address, at least in part, water clarity issues, yet the region-wide requirements requiring prevention of livestock access to water bodies may not address the core issue in many cases, for example if the clarity issues in particular locations are brought about by streambank erosion. Federated Farmers considers that the CSG should have been provided with much more detailed information, to enable the Group to better assess whether an area based approach to water quality issues, such as addressing the issues on a sub-catchment level, might be a better approach than the region wide approach adopted in the Proposed Plan Change.

2.6.4 It is also apparent that the CSG was not provided with an adequate range of information, in a timely manner, in particular in that there seems to have been a lack of information regarding the economic impact of the Proposal. A good example of this is the McDonald and Doole Report,¹³ which was published some two months after the CSG made its final decision to recommend the draft Proposed Waikato Regional Plan Change to the Council, and which contains information which Federated Farmers considers would have been likely to have influenced the CSG to take a less restrictive stance to the provisions in the Proposed Plan Change than it did. Further, deficiencies in the information provided to the CSG regarding the impact of the Proposal meant Federated Farmers needed to prepare its own evaluation of the impact of the Proposal on the Region's Farmers,¹⁴ and Federated Farmers understands a separate report along similar lines has also been produced by the Hill Country Group.¹⁵

2.6.5 In summary, the CSG process has been undermined by the way in which it was structured, and by inadequacies in the information it was given to work with. All in all, Federated Farmers considers that the work of the CSG should, regrettably, be given little weight by the Council when it comes to make decisions on submissions on the Proposed Plan Change.

2.7 The Nitrogen Management / Other Contaminant Management Issue

2.7.1 Federated Farmers is concerned at the degree of attention that is paid to the "nitrogen issue" in the Proposed Plan Change, when it seems from the data that is available the nitrogen is not the predominant contaminant issue in much of the Waikato River catchment. As was discussed earlier, there seems to be little hard evidence available as to the actual state the Waikato River is sought to be restored to, and Objective k. in the Vision and Strategy appears to have already been achieved in many parts of the catchment, as is evidenced by the fact that the NPSFM attribute states for the Nitrogen attributes are all "A".¹⁶

2.7.2 But that is not to say that the community's strong desire to improve water quality across the catchment and for all attributes is not recognised by Federated Farmers. The thrust that Federated Farmers has in its approach to water quality issues, and nitrogen management issues in particular, is to ensure that any action that is taken to address issues regarding nitrogen is not action that results in wasted effort, or action that is disproportionate to the results that might be achieved. Nevertheless, Federated Farmers is concerned that the set of actions set out to be taken in the Proposal Proposed Plan Change will over-deliver on the stated intent of the Proposed Plan Change and indeed the Vision and Strategy.

¹³ See above at fn 10.

¹⁴ See above at fn 8.

¹⁵ See above at fn 9.

¹⁶ See above at fn 5.

2.7.3 Federated Farmers does not agree with the statements that are being made by the Council alleging that water quality is in decline and that this decline is mostly due to intensive farming. For example, The web page inviting submissions states:

Water quality has consistently been identified as the top issue for the people of the Waikato region for the past two decades

However, a recent Council survey¹⁷ broadly found that well under half the people surveyed would agree with that proposition:

- 31% assessed water quality as good
- 40-50% neutral/don't know
- 20-30% thought it was poor

The web page goes on to state:

Nitrogen, phosphorus, sediment and bacteria levels are rising in our waterways
- "We need to tackle these issues now"

Federated Farmers considers that the first part of the statement is incorrect and "screws the scrum". A more careful description can be found in the Section 32 evaluation, at page 10:

- **E coli:** levels are very low in Upper Waikato, moderate downstream from Karapiro with some deterioration, high in Waipa River with no discernible trends
- **Clarity:** sediment levels are low to moderate in Upper Waikato with some deterioration; Lower Waikato and Waipa have high levels with some deterioration
- **Phosphorus:** levels downstream of Taupo are especially low; in the Waikato River there are some moderate levels and some improvement; in the Waipa River, there are moderate levels with mixed trends
- **Nitrogen:** levels are especially low downstream of Taupo, but increase down the length of the Waikato River; N has slowly but steadily rising trends in the Waikato and Waipa rivers over the last 20 plus years

Further, this assumption of declining water quality is a consistent theme, for example, Part D of the Proposal, consequential changes to Waikato Regional Plan, states:

Chapter 3.11 sets out more stringent provisions within the Waipa and Waikato River catchments to address the trend of degrading water quality

The second comment implies no action has been taken to date which is considered equally misleading, and is disrespectful of the investments and efforts that have been made by many individuals and entities to date including the Council itself.

2.7.4 In fact, on a national level, 80% of waterways have stable water quality or are improving. And while Federated Farmers accepts that farming does have a part to play in improving water quality, so too do other groups in society have a part to play. Federated Farmers agrees that the 20% of waterways where water quality is not stable or improving should be prioritised by way of a whole of catchment approach, in which practical and economical solutions that all users and polluters pay for are utilised.

2.7.4 Federated Farmers challenges the generally held assumption that water quality is generally declining, and that this alleged decline is due to farming. Federated

¹⁷ Waikato Regional Council, Technical Report 2013/31- *Community held values of rivers, lakes and streams in Waikato and Waipa catchments*, December 2013, figures 6, 7.

Farmers' review of the base science and models discloses that assumptions such as these are not generally supported. It is clear that the Proposed Plan Change was strongly shaped by model assumptions and outputs that use crude averages and rudimentary assumptions. While these might be acceptable on a "ball-park" basis, such averages and assumptions require ground-truthing before they are relied on in planning instruments, something which does not appear to have taken place in the case of the Proposed Plan Change. Federated Farmers considers that it is neither effective nor efficient to use these averages and assumptions to drive region-wide rules. Additionally, the water quality targets are not targeted at the particular water quality issues at any particular location, but are instead applied in a broad brush way across the whole of the 74 sub-catchments, irrespective of what the specific issues are with water quality, if any, in the particular sub-catchments.

- 2.7.5 For example, achieving swimming values is a principal issue in parts of the lower Waipa, and where swimming values are not achieved, it occurs for the most part in winter, due to E coli spikes and low clarity from sediment. But other parts of the same catchment are different, for example, Phosphorous levels is the issue that needs attention in the middle part of the catchment. Phosphorous is also the priority issue as regards the lakes in the lower Waikato. Further, algae levels for the most part isn't an issue, but it is implicated in low clarity which, as the scientific evidence indicates, is driven principally by Phosphorous, so in those situations, rules regarding Nitrogen are likely to have little impact on the issue of concern.
- 2.7.6 Regarding Nitrogen management, it seems that the untargeted and universal Nitrogen rules and controls are proposed in part to deal to the load from the Upper Waikato and reduce chlorophyll in order to improve clarity in the Lower Waikato. However, analysis demonstrates that the increase in the load to come in mainstem Waikato is only detectable at the 2nd decimal point. It is also apparent that water clarity is mainly driven by sediment levels, $\frac{2}{3}$, rather than chlorophyll, $\frac{1}{3}$. Additionally, chlorophyll from algal growth is in a greater part due to Phosphorous levels, rather than Nitrogen levels. This demonstrates that there is no compelling reason for managing Nitrogen across all farming practices to such a prescriptive degree as is required by the Proposed Plan Change. The base data on nitrate numbers is material to the conclusions on the various scenarios on which the Proposed Plan Change is based.
- 2.7.7 Further, there appear to be discrepancies in the base data and in relation to some of the numbers quoted in the summary reports. Federated Farmers has sought clarification from the Council in this respect, but has received it.
- 2.7.8 While the untargeted focus of the Proposal is currently on rivers, arguably the key issue in the Waikato is the lakes, which are mostly below national ecological minimum requirements. In this case, the Proposed Plan Change is very clear in its intent that work in improving the lakes must be taken slowly, as research is undertaken into the complexities of improving water quality in those cases. By contrast, the river targets require blunt region-wide rules to improve rivers for recreational purposes by 2026, even though lakes are also utilised in the Waikato for rowing, swimming, and skiing.
- 2.7.9 Federated Farmers considers that, as regards the management of Nitrogen and the other contaminants, the Proposal over-delivers, and over-delivers at a high economic costs. The Proposal is positioned as an "interim" step towards achieving the 80-year target, which seeks to deliver 10% progress in 10 years. However, the reality is that two-thirds of sites and attributes achieve or exceed the 80 year targets. Federated Farmers considers that, at its essence, the Proposed Plan Change is blindly focused

on achieving a 10% improvement in every sub-catchment for every attribute, irrespective of whether the attribute is already at the 80-year target, which is immaterial to achieving the values that are desired or whether there is actually a gap between the present state and the target, that needs focusing on.

2.7.10 Thus, from the predicted results in the river, it is evident that the rules in the Proposed Plan Change are designed to deliver significantly more than 10% reductions in all of the contaminants, Nitrogen, Phosphorous, sediment and E coli. Accordingly, it comes as no surprise that a key finding in the Proposed Plan Change Simulation report is:¹⁸

- “an overwhelming improvement in water quality brought about by the proposed policy mix, relative to the 10% step towards the Scenario 1 goal”,¹⁹
- “the proposed policy mix is predicted to achieve greater than a 10% movement towards the goals set out for different attributes in Scenario 1 in 99% of the cases”,²⁰
- “The only sites that fail to meet 10% steps towards Scenario 1 exist in the Upper Waikato FMU, as the policy mix does not provide for sufficient mitigation effort to offset substantial amounts of nitrogen in the groundwater that will eventually start to express itself in surface waters”²¹
- “Nevertheless, these breaches affect only nitrogen attributes and do not have a predicted impact on chlorophyll-a levels due to the dominant influence of phosphorus on algal growth”²²

(emphasis added)

A look at the numbers in a little more detail confirms that the region is well over the 10% mark:

- Phosphorous median improvement 31%,
- Nitrate median improvement 65%,
- E coli median improvement 69%,
- Clarity median improvement 175%

2.7.11 Accordingly, Federated Farmers considers that the Proposed Plan Change needs to take a sub-catchment focus, rather than a whole of catchment focus. Rather than the blunt, untargeted, whole of catchment approach in the Proposal, what is needed is the identification and prioritisation of sub-catchments in the place of whole-of-catchment plans. It is considered that sub-catchments are central to the Proposed Plan Change framework, but there is no information available for farmers and other land users to understand and/or ground-truth their own situation and that of their own sub-catchment. Federated Farmers considers that the Proposal needs to include sub-catchment maps, along with monitoring points and information packs on each sub-catchment that shows the current state, what the targets are, and what the Proposed Plan Change is expected to deliver. In order to achieve efficient and effective progress the plan needs to have a targeted and a pragmatic prioritised plan.

¹⁸ Graeme J. Doole, John M. Quinn, Bob J. Wilcock and Neale Hudson, *Simulation of the proposed policy mix for the Healthy Rivers Wai Ora process*, 6 June 2016.

¹⁹ Ibid, page 28.

²⁰ Ibid, page 46.

²¹ Ibid.

²² Ibid.

3. SPECIFIC SUBMISSIONS

3.1 GENERAL

1. The specific provisions of the Proposal that my submission relates to are:

The whole of the Proposed Plan Change.

2. My submission is:

Federated Farmers notes with considerable concern that the Proposed Plan Change has been withdrawn in part, as it relates to an area in the north of the Region. Federated Farmers understands that it is the Council's intent to proceed to notify a separate plan change in relation to this area, covering the same matters in relation to the area as does the Proposed Plan Change in relation to the rest of the catchment (the "Northern Area Plan Change").

Federated Farmers is very concerned at the process by which the Council has set about addressing the matters at issue that gave rise to the need for the Northern Area Plan Change. Federated Farmers considers that, out of fairness to all concerned, the Council should have withdrawn the whole of the Proposed Plan Change, addressed the matters at issue, and re-notified the Proposed Plan Change as a whole. Indeed, Federated Farmers is part of a group of concerned persons who are challenging the Council's decision by way of judicial review in the High Court, and it remains available as an option that the High Court will order the withdrawal of the Proposed Plan Change.

Federated Farmers considers that the Council should put the Proposed Plan Change on hold until decisions are made regarding the Northern Area Plan Change. It may be that the Northern Area Plan Change will be incompatible, in terms of the integrated management of the natural and physical resource of the Region, in which case it will be necessary for the Proposed Plan Change to be withdrawn, and a new plan change prepared for the whole of the catchment, if appropriate.

In any event, the Proposed Plan Change should only proceed if and when the Northern Area Plan Change reaches the same stage in its preparation as the Proposed Plan Change will be immediately after the period for submissions on it have closed.

Accordingly, Federated Farmers considers that the Proposed Plan Change should be put on hold.

3. I seek the following decision from the local authority:

Put the Proposed Plan Change on hold, pending its withdrawal on the orders of the High Court or if it is found to be incompatible with the Northern Area Plan Change, and proceed with the Proposal only if and when the Northern Area Plan Change reaches the same stage in its preparation as the Proposed Plan Change.

3.2 GENERAL

1. The specific provisions of the Proposal that my submission relates to are:

The whole of the Proposed Plan Change.

2. My submission is:

In general terms, Federated Farmers supports the Proposed Plan Change. However, underlying that support are some serious concerns about the equity of what is proposed, across all sectors of the Waikato community.

As indicated in the General Comments section of this submission, Federated Farmers is very concerned at the process by which the Proposal is being progressed. Federated Farmers is also concerned at the relative lack of science in support of some of the provisions in the Proposal, and is concerned at the extent to which the Proposal locks rural production land users into their present land uses and the resultant reduction in flexibility of land use that is considered essential to the viability of farming on an ongoing basis.

It is also of concern that the Proposed Plan Change is being progressed with insufficient regard being paid to the development of the Region's response to the NPSFM framework.

Federated Farmers acknowledges and supports the intent of the Proposal, but considers that it does not address the issues that it sets out to address in an appropriate fashion. Federated Farmers is of the view that the Proposal should better reflect that the propositions it seeks to advance are strictly interim in nature, and that the Proposed Plan Change should be used to ready the region to progress the changes to the Regional Plan that will need to be made in response to the requirements of the NPSFM.

Thus, Federated Farmers considers that the Proposal should proceed, subject to the submissions on it made below, and with the proviso that the Proposal should only proceed if and when it is merged with the Northern Area Plan Change.

3. I seek the following decision from the local authority:

With the proviso that the Proposal should only be proceeded with if and when it is merged with the Northern Area Plan Change, proceed with the Proposal, retaining the Proposed Plan Change as notified, but subject to the amendments requested in the submissions on it made below, and to refinements to be made to it by way of the further submissions process.

3.3 GENERAL

1. The specific provisions of the Proposal that my submission relates to are:

The whole of the Proposed Plan Change.

2. My submission is:

As is also indicated in the General Comments section of this submission, and although Federated Farmers generally supports the Proposal, the Federation is nevertheless very concerned about the "Section 32 evaluation" that the Proposal is required to have been assessed against. As a result of the obvious deficiencies in two of the areas already discussed, deficiencies in the CSG process and the lack of a timely assessment of the costs of the Proposal, Federated Farmers considers that the requirements of Section 32 of the Resource Management Act 1991 can not be said to have been complied with.

Further, Federated Farmers considers that, had it been properly completed, the "section 32 evaluation" would have disclosed that elements contained in the Proposal are against the best interests of farming in the Region, and therefore do not promote sustainable management. Amongst other reasons, this is because some provisions:

- will lead to the introduction of a significant new cost and the likelihood of delay to what should be considered normal farming activities;
- will disadvantage farmers on steeper land, compared to farmers in other parts of the region and the country, in that they will need to obtain resource consents for activities that are normally permitted;
- will result in detraction from the rural character of the rural areas of the region because normal rural activities that contribute to the rural character of the area will be stifled.

Accordingly, Federated Farmers considers that the "section 32 evaluation" associated with the Proposal should be disregarded by the Council in the course of its making decisions on submissions on the Proposal, and a further evaluation carried out on the entire Proposal.

For the purposes of section 32A of the RMA, this submission constitutes a challenge to all objectives, policies, rules, and other methods in the Proposed Plan Change, on the ground that the evaluation report required under section 32 of the RMA has not been properly prepared or regarded and accordingly section 32 has not been complied with.

3. I seek the following decision from the local authority:

Disregard the entire "section 32 evaluation" associated with the Proposal and carry out a further evaluation on the entire Proposal, as provided for in section 32AA of the RMA.

3.4 GENERAL

1. The specific provisions of the Proposal that my submission relates to are:

The whole of the Proposed Plan Change.

2. My submission is:

Federated Farmers considers that, in its present form, the Proposed Plan Change does not give effect to the NPSFM. Many of the reasons for this are set out in the discussion about the "section 32 evaluation", above.

In particular, Federated Farmers considers that the Proposed Plan Change does not address issues in respect of each of the water quality attributes in a balanced manner, in part because it sets out to address water quality issues on a catchment-wide basis, rather than sub-catchment by sub-catchment.

By not addressing such water quality issues as do really exist in each freshwater management unit, or at least setting out a program whereby freshwater management units will be appropriately established and such water quality issues as do really exist in each of those freshwater management unit are to be addressed, the Proposed Plan Change cannot be said to give effect to the NPSFM.

In particular, it is considered that Table 3.11-1 does not give effect to the NPSFM.

3. I seek the following decision from the local authority:

Amend the Proposed Plan Change as set out in this submission, so as to give effect to the NPSFM.

3.5 GENERAL

1. The specific provisions of the Proposal that my submission relates to are:

The whole of the Proposed Plan Change.

2. My submission is:

Federated Farmers considers that, in its present form, the Proposed Plan Change does not give effect to the Waikato Regional Policy Statement: Te Tauākī Kaupapa here ā-Rohe. Many of the reasons for this are set out in the discussion about the “section 32 evaluation”, above.

Federated Farmers considers, for example, that the Proposed Plan Change does not give effect to Policy 8.4 – Catchment intervention, and in particular Method 8.4.2 – Process for determining catchment management approach. The process described is that the Waikato Regional Council will develop management approaches to achieve desired outcomes in catchments identified as requiring intervention, by working with stakeholders, tāngata whenua and other groups and individuals in local communities, taking into account local information. It is plain that the Council has not identified, in consultation with the stakeholders described, the implications for communities (including financial implications) of the scale and rate of change required in the management process it has adopted, and so has not given effect to the Regional Policy Statement, as is required by the RMA.

Federated Farmers consider that the council should review the policies in its Regional Policy Statement, and carry out the actions and make the necessary changes to give effect to the Regional Policy Statement in the Proposed Plan Change.

3. I seek the following decision from the local authority:

Amend the Proposed Plan Change as set out in this submission, so as to give effect to the Waikato Regional Policy Statement: Te Tauākī Kaupapa here ā-Rohe.

3.6 3.11.1 Values and uses for the Waikato and Waipa Rivers/Ngā Uara me ngā Whakamahinga o ngā Awa o Waikato me Waipā

1. The specific provisions of the Proposal that my submission relates to are:

All of the Values and Uses in Section 3.11.1 Values and uses for the Waikato and Waipa Rivers/Ngā Uara me ngā Whakamahinga o ngā Awa o Waikato me Waipā.

2. My submission is:

Federated Farmers supports the values and uses, subject to the refinement of that position through the further submissions process.

Federated Farmers is aware that the levy payer funded rural production industry good organisations such as Beef + Lamb, Horticulture New Zealand and DairyNZ are preparing extensive and detailed submissions on the Proposed Plan Change, and the Federation considers that it can best assist the Council by supporting submissions made on the values and uses that will better achieve the outcomes sought by the Proposal and better promote the purpose of the RMA.

3. I seek the following decision from the local authority:

Retain the values and uses, subject to refinement through the further submissions process.

3.7 3.11.2 Objectives/Ngā Whāinga

1. The specific provisions of the Proposal that my submission relates to are:

All of the Objectives in Section 3.11.2 Objectives/ Ngā Whāinga.

2. My submission is:

Federated Farmers generally supports the objectives, subject to the refinement of that position through the further submissions process.

Federated Farmers considers that the Objectives are, by and large, a rendition of the Objectives in the Vision and Strategy.

However, Federated Farmers does not support Objective 5.b., and considers that it should be deleted. Federated Farmers considers that the Objective will be achieved through the amendments sought to the Proposed Plan Change by way of this submission that seek to achieve flexibility of land use for all landowners.

Further, Federated Farmers considers that the Proposed Plan Change should treat all landowners equally, and that it is not the role of the Council to address matters that relate to Treaty of Waitangi grievances through the Proposal. The matter is addressed further in the submission on Policy16.

Federated Farmers is aware that the levy payer funded rural production industry good organisations such as Beef + Lamb, Horticulture New Zealand and DairyNZ are preparing extensive and detailed submissions on the Proposed Plan Change, and the Federation considers that it can best assist the Council by supporting

submissions made on the objectives that will better achieve the outcomes sought by the Proposal and better promote the purpose of the RMA.

3. I seek the following decision from the local authority:

Retain the objectives, other than objective 5.b., subject to refinement through the further submissions process.

Delete Objective 5.b.

3.8 3.11.3 Policies/Ngā Kaupapa Here – Policy 1: Manage diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens/Te Kaupapa Here 1: Te whakahaere i ngā rukenga roha o te hauota, o te pūtūtae-whetū, o te waiparapara me te tukumate ora poto

1. The specific provisions of the Proposal that my submission relates to are:

Policy 1, which manages diffuse discharges, and in particular Policy 1.a, which enables activities with a low level of contaminant discharge to water bodies provided those discharges do not increase;

2. My submission is:

Federated Farmers supports the intent of Policy 1, but considers that Policy 1 as a whole and Policy 1.a. in particular need clarifying to make it clear that discharges to water bodies will be assessed on a sub-catchment basis, and reductions will be required where improvements in the levels of specific contaminants will contribute to the 10-year target in Table 3.11-1. This is to provide clarity for all emitters, and flexibility for low-level emitters.

3. I seek the following decision from the local authority:

Retain Policy 1, subject to refinement through the further submissions process, but clarify it as follows:

Manage and require reductions in sub-catchment-wide diffuse discharges of nitrogen, phosphorus, sediment and **microbial pathogens**, where improvements in the levels of specific contaminants will contribute to the relevant ten-year target in table 3.11-1, by:

- a. Enabling activities with a low level of contaminant discharge to water bodies provided those discharges do not increase when assessed on a sub-catchment basis;
-

3.9 3.11.3 Policies/Ngā Kaupapa Here – Policy 2: Tailored approach to reducing diffuse discharges from farming activities/Te Kaupapa Here 2: He huarahi ka āta whakahāngaihia hei whakaiti i ngā rukenga roha i ngā mahinga pāmu

1. The specific provisions of the Proposal that my submission relates to are:

Policy 2, and in particular Policy 2.a: Taking a tailored, risk based approach to define mitigation actions on the land that will reduce diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens, with the mitigation actions to be specified in a Farm Environment Plan either associated with a resource consent, or in specific requirements established by participation in a Certified Industry Scheme.

2. My submission is:

Federated Farmers considers that the requirements regarding Farm Environment Plans and Certified Industry Schemes are too stringent for low level emitters, and that an exemption should be provided for those emitting less than 15KgN/ha.

3. I seek the following decision from the local authority:

Retain Policy 2, subject to refinement through the further submissions process.

Amend Policy 2.a. to make it clear that discharges to water bodies will be assessed on a sub-catchment basis and provide an exemption for those emitting less than 15KgN/ha, as follows:

- a. Taking a tailored, risk based approach to define mitigation actions on the land that will reduce **diffuse discharges** of nitrogen, phosphorus, sediment and **microbial pathogens** when assessed on a sub-catchment basis, with the mitigation actions to be specified in a **Farm Environment Plan** either associated with a resource consent, or in specific requirements established by participation in a **Certified Industry Scheme** where the Nitrogen Reference Point is not less than 15KgN/ha;
-

3.10

1. The specific provisions of the Proposal that my submission relates to are:

The lack of a reference to consent term in situations where resource consent is required.

2. My submission is:

Federated Farmers considers that, in situations where resource consent is required, the consent should be issued with a term of no less than 25 years. This is in line with the consent term specified in Policy 13, for point source discharges, and is considered appropriate in order to give certainty for any investment that might follow the granting of the resource consent.

3. I seek the following decision from the local authority:

Include Policy 2.f., as follows:

- f. When determining an appropriate duration for any consent granted consider the following matters:
 - i. A consent term of a minimum of 25 years is appropriate; and
 - ii. A consent term exceeding 25 years, where the applicant demonstrates the approaches set out in Policy 2.a. – 2.e. will be met; and
 - iii. The magnitude and significance of the investment made or proposed to be made in contaminant reduction measures and any resultant improvements in the receiving water quality; and
 - iv. The need to provide appropriate certainty of investment where contaminant reduction measures are proposed (including investment in treatment plant upgrades or land based application technology).
-

3.11 3.11.3 Policies/Ngā Kaupapa Here – Policy 2: Tailored approach to reducing diffuse discharges from farming activities/Te Kaupapa Here 2: He huarahi ka āta whakahāngaihia hei whakaiti i ngā rukenga roha i ngā mahinga pāmu

1. The specific provisions of the Proposal that my submission relates to are:

Policy 2.e: Requiring stock exclusion to be completed within 3 years following the dates by which a Farm Environment Plan must be provided to the Council, or in any case no later than 1 July 2026.

2. My submission is:

Federated Farmers considers that the requirements regarding stock exclusion should be brought into line with the government’s proposals in its Clean Water package 2017.²³

3. I seek the following decision from the local authority:

Amend Policy 2.e. as appropriate to give effect to the “Keeping stock out of our waterways” provisions of the government’s Clean Water package 2017.

3.12 3.11.3 Policies/Ngā Kaupapa Here – Policy 3: Tailored approach to reducing diffuse discharges from commercial vegetable production systems/Te Kaupapa Here 3: He huarahi ka āta whakahāngaihia hei whakaiti i ngā rukenga roha i ngā pūnaha arumoni hei whakatupu hua whenua

1. The specific provisions of the Proposal that my submission relates to are:

The whole of Policy 3, which provides for a tailored approach to reducing diffuse discharges from commercial vegetable production systems.

²³ See <<http://www.mfe.govt.nz/fresh-water/freshwater-management-reforms/clean-water-package-2017>>.

2. My submission is:

Federated Farmers considers that it is not possible to provide for the wellbeing of the people of New Zealand as a whole, as is required by s 5 of the RMA, unless commercial vegetable production is allowed to expand into the Waikato to meet the needs of the growing populations of the surrounding areas of Auckland, the Bay of Plenty and the Waikato itself.

The area of land occupied for commercial vegetable growing now, and likely to be occupied for vegetable growing into the near and foreseeable future is small, compared to the amount of land in the Waikato Region as a whole. Further, commercial vegetable growing is subject to a set of industry management practices, designed to produce optimal environmental outcomes.

3. I seek the following decision from the local authority:

Amend Policy 3 to provide exemption from the general nutrient discharge restrictions in the case of vegetable production, provided industry certified good management practices are followed, as follows:

~~Manage and require reductions in~~ **diffuse discharges** of nitrogen, phosphorus, sediment and microbial pathogens from **commercial vegetable production** through a tailored, **property** or **enterprise**-specific approach where:

- a. Flexibility is provided to undertake crop rotations on changing parcels of land for **commercial vegetable production**, while ~~reducing average managing~~ **managing** contaminant discharges over time; and
 - b. ~~The maximum area in production for a~~ **property or enterprise** is established and capped utilising ~~commercial vegetable production~~ data from the 10 years up to 2016; and
 - c. Establishing a **Nitrogen Reference Point** for each **property** or **enterprise**; and
 - d. ~~A 10% decrease in t~~ **The diffuse discharge** of nitrogen, and a tailored reduction in the ~~diffuse discharge~~ of phosphorus, sediment and **microbial pathogens** is achieved across the sector **managed** through the implementation of **Best** or **Good Management Practices**; and
 - e. Identified mitigation actions are set out and implemented within timeframes specified in either a **Farm Environment Plan** and associated resource consent, or in specific requirements established by participation in a **Certified Industry Scheme**.
 - f. **Commercial vegetable production** enterprises that ~~reduce manage~~ **manage** nitrogen, phosphorus, sediment and **microbial pathogens** are enabled; and
 - g. ~~The degree of reduction in~~ **diffuse discharges** of nitrogen, phosphorus, sediment and **microbial pathogens** is proportionate to the amount of current discharge (those discharging more are expected to make greater reductions), and the scale of water quality improvement required in the **sub-catchment**.
-

3.13 3.11.3 Policies/Ngā Kaupapa Here - Policies 4: Enabling activities with lower discharges to continue or to be established while signalling further change may be required in future/Te Kaupapa Here 4: Te tuku kia haere tonu, kia whakatūria rānei ngā tūmahi he iti iho ngā rukenga, me te tohu ake ākuanei pea me panoni anō hei ngā tau e heke mai ana

1. The specific provisions of the Proposal that my submission relates to are:

Policy 4 in Section 3.11.3 Policies/Ngā Kaupapa Here.

2. My submission is:

Federated Farmers generally supports Policy 4, subject to the refinement of that position through the further submissions process.

However, Federated Farmers is concerned at the link to Table 3.11-1, and the 80-year water quality attribute targets therein. Federated Farmers considers that changes are needed to the Table to bring it into line with the requirements of the NPSFM.

Federated Farmers is aware that the levy payer funded rural production industry good organisations such as Beef + Lamb, Horticulture New Zealand and DairyNZ are preparing extensive and detailed submissions on the Proposed Plan Change, and the Federation considers that it can best assist the Council by supporting submissions made on Policies 4 & 5 that will better achieve the outcomes sought by the Proposal and better promote the purpose of the RMA.

3. I seek the following decision from the local authority:

Retain Policy 4, subject to refinement through the further submissions process.

Amend Table 3.11-1 to bring it into line with the requirements of the NPSFM and add a column containing the current attribute levels for each site to Table 3.11-1.

3.14 3.11.3 Policies/Ngā Kaupapa Here - Policy 5: Staged approach/Te Kaupapa Here 5: He huarahi wāwāhi

1. The specific provisions of the Proposal that my submission relates to are:

Policy 5 in Section 3.11.3 Policies/Ngā Kaupapa Here.

2. My submission is:

Federated Farmers supports Policy 5, subject to the refinement of that position through the further submissions process.

Federated Farmers is aware that the levy payer funded rural production industry good organisations such as Beef + Lamb, Horticulture New Zealand and DairyNZ are preparing extensive and detailed submissions on the Proposed Plan Change, and the Federation considers that it can best assist the Council by supporting submissions made on Policies 4 & 5 that will better achieve the outcomes sought by the Proposal and better promote the purpose of the RMA.

3. I seek the following decision from the local authority:

Retain Policy 5, subject to refinement through the further submissions process.

3.15 3.11.3 Policies/Ngā Kaupapa Here – Policy 6: Restricting land use change/Te Kaupapa Here 6: Te here i te panonitanga ā-whakamahinga whenua

1. The specific provisions of the Proposal that my submission relates to are:

The exemption to Policy 6 provided by Policy 16.

2. My submission is:

Federated Farmers considers that Policy 16 is inappropriate.

Federated Farmers considers that greater flexibility of land use needs to be provided for all low-end emitters.

3. I seek the following decision from the local authority:

Amend Policy 6. as follows:

Except as provided for in ~~Policy 16~~ Policies 1, 2, 3, 4 & 5, land use change consent applications that demonstrate an increase in the **diffuse discharge** of nitrogen, phosphorus, sediment or **microbial pathogens** will generally not be granted.

Land use change consent applications that demonstrate clear and enduring decreases in existing **diffuse discharges** of nitrogen, phosphorus, sediment or **microbial pathogens** will generally be granted

3.16 3.11.3 Policies/Ngā Kaupapa Here – Policy 7: Preparing for allocation in the future/Te Kaupapa Here 7: Kia takatū ki ngā tohanga hei ngā tau e heke mai ana

1. The specific provisions of the Proposal that my submission relates to are:

The requirements in Policy 7 as they relate to “Preparing for allocation in the future”.

2. My submission is:

Federated Farmers is totally opposed to the use of allocation mechanisms to manage nutrient use. Principally this is because there is no fair and equitable way in which allocation can be undertaken. Issues arising from the over-allocation of nutrients can generally be addressed in ways other than allocation, such as the implementation of good management practices, particularly in the case of interim proposals, as is the case with the Proposed Plan Change. More bespoke and detailed proposals can be developed at a later stage through a sub-catchment, freshwater management unit based, assessment, and implemented at that time through a sub-catchment plan change, as per the approach in the Canterbury region.

The present Policy 7 amounts to a de facto allocation mechanism, in that the Nitrogen Reference Point is liable to be rolled over into a permanent allocation mechanism.

Federated Farmers considers that the Proposed Plan Change needs to make it very clear that the Nitrogen Reference Point is to be used solely for the purpose of determining those land users who need to reduce their nutrient discharges, and for setting flexibility limits, and will not form the basis of any allocation regime that may come into being in the future.

3. I seek the following decision from the local authority:

Amend Policy 7 as follows:

Policy 7: Preparing for allocation in the future/Te Kaupapa Here 7: ~~Kia takatū ki ngā tohanga hei ngā tau e~~ E Teuteu ki he te heke mai Ana

~~Prepare for further diffuse discharge reductions and any future property or enterprise level allocation of diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens that will may be required by subsequent regional plans, by implementing the policies and methods in this chapter. To ensure this occurs, collect information and undertake research to support this, including collecting information about current discharges, developing appropriate modelling tools to estimate contaminant discharges, and researching the spatial variability of land use and contaminant losses and the effect of contaminant discharges in different parts of the catchment that will assist in defining 'land suitability'.~~

~~Any future allocation should consider the following principles:~~

- ~~a. Land suitability which reflects the biophysical and climate properties, the risk of contaminant discharges from that land, and the sensitivity of the receiving water body, as a starting point (i.e. where the effect on the land and receiving waters will be the same, like land is treated the same for the purposes of allocation); and~~
- ~~b. Allowance for flexibility of development of tangata whenua ancestral land; and~~
- ~~c. Minimise social disruption and costs in the transition to the 'land suitability' approach; and~~
- ~~d. Future allocation decisions should take advantage of new data and knowledge.~~

The Nitrogen Reference Point established under Policy 2.c. is not to be regarded as forming the basis of any allocation mechanism that may be adopted in the future.

3.17 3.11.3 Policies/Ngā Kaupapa Here - Policies 8, 9, 10, 11, 12, 13, 14 & 15

1. The specific provisions of the Proposal that my submission relates to are:

Policies 8, 9, 10, 11, 12, 13, 14 & 15 in Section 3.11.3 Policies/Ngā Kaupapa Here.

2. My submission is:

Federated Farmers supports Policies 8, 9, 10, 11, 12, 13, 14 & 15, subject to the refinement of that position through the further submissions process.

Federated Farmers is aware that the levy payer funded rural production industry good organisations such as Beef + Lamb, Horticulture New Zealand and DairyNZ are preparing extensive and detailed submissions on the Proposed Plan Change, and the Federation considers that it can best assist the Council by supporting submissions made on Policies 8, 9, 10, 11, 12, 13, 14 & 15 that will better achieve the outcomes sought by the Proposal and better promote the purpose of the RMA.

3. I seek the following decision from the local authority:

Retain Policies 8, 9, 10, 11, 12, 13, 14 & 15, subject to refinement through the further submissions process.

- 3.18 3.11.3 Policies/Ngā Kaupapa Here – Policy 16: Flexibility for development of land returned under Te Tiriti o Waitangi settlements and multiple owned Māori land/Te Kaupapa Here 16: Te hangore o te tukanga mō te whakawhanaketanga o ngā whenua e whakahokia ai i raro i ngā whakataunga kokoraho o Te Tiriti o Waitangi me ngā whenua Māori kei raro i te mana whakahaere o te takitini

1. The specific provisions of the Proposal that my submission relates to are:

The whole of Policy 16.

2. My submission is:

Federated Farmers considers that it is not appropriate to manage resources on the basis of ownership.

It has been well established by the Courts that the concept of sustainable management takes priority over private property rights, for example in *Falkner v Gisborne District Council* ([1995] 3 NZLR 622). In *Haddon v Auckland Regional Council* (Environment Court decision A077/93), the Environment Court established that ownership of resources is not of itself relevant under the RMA and that all land is subject to the regime of the RMA. In *Western Bay of Plenty District Council v Te Whaiti* (Environment Court decision A128/05) the Environment Court found that Maori-owned land is not exempt from the RMA.

Federated Farmers considers that Objective 5.b. is able to be achieved through the other policies in the Proposed Plan Change, as modified by the changes sought by Federated Farmers.

3. I seek the following decision from the local authority:

Delete Policy 16.

3.19 3.11.3 Policies/Ngā Kaupapa Here – Policy 17: Considering the wider context of the Vision and Strategy/Te Kaupapa Here 17: Te whakaaro ake ki te horopaki whānui o Te Ture Whaimana

1. The specific provisions of the Proposal that my submission relates to are:

The whole of Policy 17.

2. My submission is:

Federated Farmers considers that the matters addressed in Policy 17 are not within the scope of the Proposed Plan Change, as it was notified.

Even if Policy 17 was within the scope of the Proposal, Federated Farmers considers it to be inappropriate, in that it is not appropriate to consider “opportunities to enhance biodiversity, wetland values, the functioning of ecosystems” and “opportunities to enhance access and recreational values” that are not related to the Proposed Plan Change when processing resource consent applications that are made in reliance on the provisions in Chapter 3.11. It is considered that biodiversity outcomes should not be the drivers of measures taken to address water quality issues, rather biodiversity outcomes will follow water quality outcomes.

3. I seek the following decision from the local authority:

Delete Policy 17.

3.20 3.11.4 Implementation methods/Ngā tikanga whakatinana

1. The specific provisions of the Proposal that my submission relates to are:

The Methods described in 3.11.4 Implementation methods/Ngā tikanga whakatinana.

2. My submission is:

Federated Farmers supports the Methods described in 3.11.4 Implementation methods/Ngā tikanga whakatinana, apart from Methods 3.11.4.7 and 3.11.4.8, subject to the refinement of that position through the further submissions process.

Federated Farmers is aware that the levy payer funded rural production industry good organisations such as Beef + Lamb, Horticulture New Zealand and DairyNZ are preparing extensive and detailed submissions on the Proposed Plan Change, and the Federation considers that it can best assist the Council by supporting submissions made on the Methods described in 3.11.4 Implementation methods/Ngā tikanga whakatinana that will better achieve the outcomes sought by the Proposal and better promote the purpose of the RMA.

As regards Methods 3.11.4.7 & 3.11.4.8, Federated Farmers is strongly opposed to the allocation of nutrient discharge allowances because there is no fair and equitable way in which this can be done. Issues arising from the over-allocation of nutrients can generally be addressed in the interim in ways other than allocation, such as the implementation of good management practices, with more detailed

proposals developed at a later stage through a sub-catchment, freshwater management unit based, assessment, and implemented at that time through a sub-catchment plan change.

3. I seek the following decision from the local authority:

Retain the Methods described in 3.11.4 Implementation methods/Ngā tikanga whakatinana, other than Methods 3.11.4.7 and 3.11.4.8, and subject to refinement through the further submissions process.

Amend Methods 3.11.4.7 & 3.11.4.8 as follows:

~~3.11.4.7 Information needs to support any future allocation~~/Ngā pārongo e hiahiatia ana hei taunaki i ngā tohanga o anamata

Gather information and commission appropriate scientific research to inform ~~any future framework for the allocation~~ the management of diffuse discharges including:

- a. Implementing processes that will support the ~~setting of property or enterprise-level diffuse~~ management of discharges limits in the future.
- b. Researching:
 - i. The quantum of contaminants that can be discharged at a sub-catchment and Freshwater Management Unit[^] scale while meeting the Table 3.11-1 water quality attribute[^] targets[^].
 - ii. Methods to categorise and define 'land suitability'.
 - iii. Tools for measuring or modelling discharges from individual properties, enterprises and sub-catchments, and how this can be related to the Table 3.11-1 water quality attribute[^] targets[^].

~~3.11.4.8 Reviewing Chapter 3.11 and developing an allocation~~ discharges management framework for the next Regional Plan/Te arotake i te Upoko 3.11, te whakarite hoki i tētehi anga toha para mō te Mahere ā-Rohe e whai ake ana

Waikato Regional Council will:

- a. Develop discharge ~~allocation~~ management frameworks for individual ~~properties and enterprises~~ based on information collected under Method 3.11.4.7, taking into account the best available data, knowledge and technology at the time; and
- b. Use this to inform future changes to the Waikato Regional Plan to manage discharges of nitrogen, phosphorus, sediment and microbial pathogens ~~at a property or enterprise-level~~ to meet the targets[^] in the Objectives.

3.21 3.11.5 Rules/Ngā Ture

1. The specific provisions of the Proposal that my submission relates to are:

All the Rules in Section 3.11.5 Rules/Ngā Ture.

2. My submission is:

It is noted that the Implementation Methods do not appear to rely on the Rules in the Proposed Plan Change to implement the Policies. The RMA provides that rules

are a method of implementing policies.²⁴ Thus there is a disjoint between the methods in the Proposed Plan Change and the Rules.

Federated Farmers considers that the Rules go a great deal further than is necessary to achieve the Objectives, and indeed further than is directed by the policies, even without the amendments sought by Federated Farmers. Thus there is a danger that the Proposed Plan Change will over-deliver on the outcomes sought in the Vision and Strategy. If the Proposed Plan Change over-delivers on the outcomes sought, it means that the purpose of the RMA is not promoted, in that the overall balance between environmental, social, cultural and economic outcomes that is needed to achieve sustainable management will not be realised.

Federated Farmers is aware that the levy payer funded rural production industry good organisations such as Beef + Lamb, Horticulture New Zealand and DairyNZ are preparing extensive and detailed submissions on the Proposed Plan Change, and in addition to commending its own submissions on the Policies and Methods to the Council, the Federation considers that it can best assist the Council by supporting submissions made on the Rules that will better achieve the outcomes sought by the Proposal and better promote the purpose of the RMA.

In particular, Federated Farmers consider that the Proposed Plan Change should provide, by way of a permitted activity rule, a rule that provides greater flexibility for land users to vary their stock numbers in line with normal seasonal variations.

3. I seek the following decision from the local authority:

Amend the Rules to bring them into alignment with the Policies and Methods in the Proposed Plan Change, as sought to be amended by the submissions made herein, and subject also to additional refinement through the further submissions process.

In particular:

- include a Rule in the Proposed Plan Change to implement the policy of providing an exemption from Farm Environment Plans and Certified Industry Schemes for those emitting less than 15KgN/ha; and
- remove Condition 4(c) (that no part of the property or enterprise over 15 degrees slope is cultivated or grazed) from Rule 3.11.5.2 - Permitted Activity Rule – Other farming activities; and
- include a Rule along the lines:

The use of land for farming activities (excluding commercial vegetable production) where the property area is greater than 4.1 hectares is a Permitted Activity provided that:

- 1) The change in the use of land is not from non-milking dairy farming to milking dairy farming; or
- 2) The change in the numbers of breeding cattle, deer, pigs or horses does not exceed 15% of the numbers used to establish the Nitrogen Reference Point; or
- 3) The change in the numbers of trading cattle, deer, pigs or horses does not exceed 15% of the numbers used to establish the Nitrogen Reference Point.

²⁴ See, for example, s 62(1)(e).

3.22 The Schedules

1. The specific provisions of the Proposal that my submission relates to are:

All of the schedules in the Proposed Plan Change, pages 46 – 55.

2. My submission is:

Federated Farmers doubts the legality and questions the necessity of the Council seeking some of the information sought in the schedules. It is considered that the purpose for which the information is sought should be clearly stated in the Schedules. It is submitted that in some cases the Council is on what amounts to a fishing expedition.

With respect to Schedule 1(f), the requirements regarding cultivation do not synchronise with the definition of “cultivation”. Federated Farmers considers that care should be taken with the Schedules to ensure that all of the matters in the Proposed Plan Change synchronise with the Schedules, Tables, and Glossary.

3. I seek the following decision from the local authority:

Ensure that the purpose for which the information in the schedules is sought is clearly stated in the Schedules.

Ensure that it is within the powers of the Council to seek all of the information sought in all of the Schedules in the Proposed Plan Change.

Ensure that the information sought by the Council is no more than is necessary to achieve the purposes for which it is sought.

Ensure that the requirements set out in the Schedules match the policies, methods, definitions, etc, to which the schedules relate.

3.23 The Glossary

1. The specific provisions of the Proposal that my submission relates to are:

All of the definitions in the Glossary in the Proposed Plan Change, pages 79 – 85.

2. My submission is:

With respect to the Glossary, Federated Farmers considers that care should be taken to ensure that the definitions in the Glossary in the Proposed Plan Change synchronise with the operative provisions, Schedules and Tables.

3. I seek the following decision from the local authority:

Ensure that the definitions in the Glossary in the Proposed Plan Change synchronise with the operative provisions, Schedules and Tables.

4. CONCLUSION

- 4.1 I wish to be heard in support of my submission.
- 4.2 If others make a similar submission, I will consider presenting a joint case with them at a hearing.

5. ABOUT FEDERATED FARMERS

- 5.1 Federated Farmers of New Zealand is a primary sector organisation that represents farming and other rural businesses. Federated Farmers of New Zealand (Waikato Region) 1999 Incorporated, Federated Farmers of New Zealand – Rotorua Taupo Province Incorporated and Federated Farmers of New Zealand (Auckland Province) Incorporated each operate as an independent “branch” of Federated Farmers of New Zealand. At all levels, Federated Farmers has a long and proud history of representing the needs and interests of New Zealand farmers.
- 5.2 The Federation aims to add value to its members’ farming business. Our key strategic outcomes include the need for New Zealand to provide an economic and social environment within which:
- Our members may operate their business in a fair and flexible commercial environment;
 - Our members' families and their staff have access to services essential to the needs of the rural community; and
 - Our members adopt responsible management and environmental practices.

.....
Richard Gardner
Senior Policy Advisor, Federated Farmers of New Zealand
(person authorised to sign on behalf of submitter)

8 March 2017

.....
Date

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WAIKATO
FEDERATED FARMERS
CHARITABLE SOCIETY INC.



FEDERATED
FARMERS
OF NEW ZEALAND

EVALUATION REPORT ON THE
WAIKATO FEDERATED FARMERS
FARM ENVIRONMENT PLAN PROJECT



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17 November 2016



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EXECUTIVE SUMMARY

INTRODUCTION

This report presents the results of an evaluation of the Waikato Farm Environment Plan project, commissioned by the Waikato Federated Farmers together with Fonterra, which was carried out by Momentum Research and Evaluation Limited in October 2016.

BACKGROUND

The Waikato Federated Farmers Farm Environment Plan project, Ground Truthing of Healthy Rivers/Wai Ora Plan Change 1, was developed to trial the farm environment plan (FEP) process on farms in the Waikato and Waipa River Catchments. The purpose of the project was to: (i) assess the impact of Plan Change 1 on a range of farm types and management regimes through the Waikato and Waipa catchments; (ii) provide an analysis of actual costs of producing and developing a FEP including the nitrogen reference point (NRP) and any consent costs that may be required, both to the farmer and Regional Council; and (iii) assess the cost to the farmer of implementing the FEP actions and any resource consent requirements.

A total of 24 farms were included in the trial. Of these 24 farms, 11 were Fonterra dairy farms and 13 other farms which included, seven dry stock farms including one deer farm, two cropping farms, three dairy farms and one lifestyle block which included horses. The FEP process was carried out either, by Fonterra Sustainable Dairying Advisors or by AgFirst Farm Consultants, and included: (i) an on farm visit to gather the necessary data and see the operation; (ii) development of a FEP which included the elements needed as per the Plan Change 1 requirements; and (iii) provision of the FEP to the farmer.

EVALUATION

The aim of the evaluation was to evaluate the "Ground Truthing of Healthy Rivers Plan Change 1" project in order to (i) determine what works and what are the challenges or areas for development; and (ii) provide information to inform project partners' response to the Healthy Rivers Plan Change 1.

Information for the evaluation was collected from: (i) review and analysis of background documents; (ii) two group interviews with 16 Fonterra and AgFirst staff who were involved in the project; and (iii) phone interviews with 26 farmers from 24 farms; 11 Fonterra farms and 13 other farms.

SUMMARY OF KEY FINDINGS

The key findings of the evaluation were:

LEVEL OF KNOWLEDGE AND ENGAGEMENT

- Findings indicate that there will be a proportion of farmers who have limited knowledge of Plan Change 1 and/or lower levels of understanding about managing contaminant loss on-farm, and this has implications for communications about Plan Change 1 as well as allowing for increased time and effort needed to prepare FEPs for less-informed farmers.
- The Fonterra farmers and AgFirst dairy farmers were more likely than the non-dairy farmers, to be more informed about Plan Change 1 and managing contaminant loss, due to the work that has already occurred in the dairy sector as a result of initiatives like the dairy clean stream / water accords and sustainable milk plans (SMPs) as two examples.
- Increasing farmer knowledge of Plan Change 1 and providing clear and accurate information about on-farm impacts via appropriate communications, field days, or discussion groups may be an area for consideration in order to increase overall understanding across the sector.

PRE-VISIT PREPARATION

- In terms of pre-visit preparation, Fonterra farmers are likely to be more prepared and have to spend less time in preparation and gathering the necessary data for an FEP, than other farmers, due to having much of the information already collected and recorded as part of their Fonterra requirements.
- If farmers have clear and accessible records of stocking rates and numbers, fertiliser application records and/or have nutrient budgets and information then, for farmers, the pre-visit preparation of the necessary documentation for a FEP should be fairly straightforward .
- If farmers do not typically have a nutrient budget, or keep their records (e.g. of fertiliser, stocking rates, cropping regimes) in a way that is easily accessible then the farmer's pre-visit preparation time would be greater.
- Fonterra advisors had access to more information than AgFirst farm advisors, due to having a access to the Fonterra database. This has implications primarily for the time that advisors have to spend gathering some of the data.
- In terms of pre-visit preparation, it may be useful for farm advisors to send out an information sheet to farmers, as was undertaken by AgFirst for this project, which details the information required and gives the farmers an indication of what they need to have on hand to complete the FEP process.

ON-FARM PROCESSES

- The on-farm visit is a necessary part of the process of completing the FEPs. One hundred percent of the farmers in the sample reported that the farm visit was necessary in order for the advisor to understand their system and operation.
- The time required to undertake the on-farm visits varied depending on the complexity and size of the farm and operation, issues such as numbers of waterways, terrain, slopes and as well whether any mitigations had already occurred.
- Fonterra and dairy farm, on-farm visits typically took less time, due to the fact that dairy farmers had been providing information (e.g. Overseer nutrient pages) and undertaking environmental mitigations for a number of years.
- The follow-up part of the FEP process emerged as important for encouraging ownership of the plan and to clarify and discuss any areas of concern. For some farmers this process may be fairly straightforward with minimal discussion while for others there may be some significant issues to discuss and this may be best done 'in-person'.
- Overall feedback about farm advisors was positive; they were viewed as professional, courteous; knowledgeable, willing to listen and able to answer most questions. Where they could not provide answers to some questions this was related to areas within the Plan Change 1 'rules' which require further clarification.
- It is important that the farm advisors have relevant background knowledge and understanding of the farm system that they are developing a plan for, as well as the ability to answer questions and provide information in relation to Plan Change 1 requirements and appropriate mitigating actions.

OVERALL FEP PROCESS

- The time taken for the overall FEP process differed between Fonterra and AgFirst farms with the Fonterra sample taking less time, due to the following: (i) much of the information required to prepare a FEP was already on the Fonterra database; (ii) there was a high level of engaged

farmers in the Fonterra farm sample; and (iii) as dairy farmers they were more likely to already have some mitigations in place and/or have completed other plans (e.g. SMPs) meaning that there was less to discuss, negotiate, consider and include in a FEP.

- Farm advisors experienced some issues with using Overseer for non-typical systems which indicates that this is an area in which advisors may need opportunities to upskill and access to clear guidelines.
- Being able to communicate with farmers about the expectations of Plan Change 1, and to support and enable them to make the necessary changes, emerged as an important part of the advisor role and skill set, particularly when working with farmers who may be less engaged.

FEP DOCUMENTS

- In general the FEP documents produced by the farm advisors, received positive feedback as being clear, easy to follow and representative of the farm and system.
- Key components to include in FEPs, based on the feedback from this project, are: (i) ensure it is farmer-friendly, clear and concise but comprehensive enough to cover the system and the requirements; (ii) use visuals, photos and graphs to illustrate the issues and the key actions, recommendations and areas to focus on; and (iii) provide bound hard copies as this can be kept in the office for easy reference, shown to staff and taken out on farm as needed.

ACTIONS, TIMEFRAMES AND COSTS

- The Fonterra farmers considered that the suggested actions were, in general, expected and in the main, relatively minor, manageable and achievable. There were some actions that were 'new' and these were typically related to sediment control.
- Although the Fonterra farmers were generally in agreement with the actions in their FEPs, there was still a need for surety that what is in the FEPs is what they will be required to do; that is that the 'rules' have been interpreted accurately.
- The AgFirst farmers were less likely than the Fonterra farmers to agree that the actions in the FEP needed to be done, due mainly to the issues of affordability, with further analysis showing that the dairy farmers in the AgFirst sample were the ones more likely to agree with the actions than the other (i.e. non-dairy) farmers.
- Findings in regards to the actions indicated that farmers are interested in (i) clarity about the rules, (ii) consistency in their interpretation, (iii) guidance about what actions they can take, (iv) access to information and evidence that the actions will work, and (v) being able to practically and financially undertake the proposed actions.
- The NRP was of concern particularly for the AgFirst farmers. The two main concerns were: (i) ensuring that the farm system 'fitted' into Overseer parameters and consistency around this and (ii) the number itself, particularly when it was low, and the extent to which this would limit or cause issues over time.
- For most farmers the timeframes in the FEPs were realistic, however whether they could achieve some of these actions within the timeframes, was contingent on issues such as the cost and affordability.
- The costs within the AgFirst FEPs were considered by farmers to be reasonably accurate. However there was also a concern that the costs at times did not cover all the costs, both in the short and long term, of an action. For some farmers, the costs of the actions were more than they could afford.

OTHER ISSUES

- Farmers also raised a number of other issues in relation to the FEP process and impact of the Plan Change 1. Specifically, these issues were related to the rules regarding: stock exclusion, practicality and cost of fencing on dry stock farms particularly hill country farms; identification of waterways; issues on peat land; practices and systems that do not 'fit' Overseer; handling of lease blocks; how the NRP impacts dry stock farms who have different stock ratios, numbers and cropping regimes dependent on market forces; the need to ensure that supporting industries like suppliers and land agents can meet the Plan Change 1 requirements; and how to handle future possibilities within an FEP.

CONCLUDING COMMENTS

Overall this evaluation has identified key strengths of the FEP process such as the process of 'on-farm visit, draft FEP and follow up', key aspects of the FEP documents themselves, and the abilities of the farm advisors to work in a positive way with farmers. Identified challenges and areas for development include, the need for clarity around some of the interpretations of the rules, consistency across FEPs, and having processes to communicate evidence and provide guidance and support to farmers to undertake the actions. As well, farm advisors who complete FEPs need to have the skills and knowledge to be able to work proactively with farmers, to answer their questions and concerns, to communicate clearly, and have a thorough understanding of Plan Change 1, Overseer and the implications for a farmer and their farm.

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1.0 BACKGROUND

1.1 INTRODUCTION

This document presents the findings of the evaluation of the Waikato Federated Farmers Farm Environment Plan project, Ground Truthing of Healthy Rivers/Wai Ora Plan Change 1, commissioned by the Waikato Federated Farmers together with Fonterra, which was carried out by Momentum Research and Evaluation Limited in October 2016..

1.2 HEALTHY RIVERS PLAN CHANGE 1

Healthy Rivers/Wai Ora Proposed Waikato Regional Plan Change 1 (Plan Change 1) has recently been notified by the Waikato Regional Council (WRC). The aim of Plan Change 1 is to address the problem of water quality in the Waipa and Waikato Rivers. A key component of Plan Change 1 is that farmers will be required to have a Farm Environment Plan (FEP) which covers on-farm issues relating to the discharge of contaminants (nitrogen, phosphorus, sediment, microbes) and how the farmer will manage this on-farm. FEPs must also include actions to prevent stock access to waterways and include a Nitrogen Reference Point (NRP) for the farm. There are essentially two paths to undertaking a FEP: (i) as a permitted activity under a Certified Industry Scheme (CIS); or (ii) as a controlled activity if not under a CIS.

1.3 WAIKATO FARM ENVIRONMENT PLAN PROJECT

The Waikato Federated Farmers Farm Environment Plan project, Ground Truthing of Healthy Rivers/Wai Ora Plan Change 1, was developed to trial the FEP process on farms in the Waikato and Waipa River Catchments. The purpose of the project was to:

- i. assess the impact of Plan Change 1 on a range of farm types and management regimes through the Waikato and Waipa catchments;
- ii. provide an analysis of actual costs of producing and developing a FEP including the NRP and any consent costs that may be required, both to the farmer and WRC.
- iii. assess the cost to the farmer of implementing the FEP actions and any resource consent requirements and the impact on farm profitability¹.

A total of 24 farms were included in the trial. Of these 24 farms, 11 were Fonterra dairy farms and 13 other farms which included, seven dry stock farms including one deer farm, two cropping farms, three dairy farms and one lifestyle block which included horses. The FEP process was carried out either, by Fonterra Sustainable Dairying Advisors or by AgFirst Farm Consultants, and included: (i) an on farm visit to gather the necessary data and see the operation; (ii) development of a FEP which included the elements needed as per the Plan Change 1 requirements; and (iii) provision of the FEP to the farmer.

1.4 EVALUATION

As part of the project, an evaluation was commissioned.

1.4.1 EVALUATION AIM

The aim of the evaluation was to undertake an evaluation of the Waikato Federated Farmers Farm Environment Plan project: "Ground Truthing of Healthy Rivers Wai Ora Plan Change 1" in order to:

¹ Source: Waikato Federated Farmers, *Ground Truthing of Healthy Rivers/Wai Ora Plan Change 1 project outline*.

² Documents included: Agenda package for the Healthy Rivers Wai Ora Committee of the Waikato Regional Council, 5 September 2016;

- i. determine what works and what are the challenges or areas for development; and
- ii. provide information to inform project partners' response to the proposed Healthy Rivers/Wai Ora Plan Change 1.

1.4.2 METHOD AND DATA SOURCES

The evaluation included the following:

- i. Review and analysis of background documents including WRC documents relevant to Plan Change 1²; Waikato Federated Farmers and Fonterra documents relevant to the project and Plan Change 1; Journeaux (2016) *Report to Waikato Federated Farmers on Farm Environment Plan Project*³; copies of completed questionnaires that were sent to participating farmers in the AgFirst sample; and copies of completed FEPs.
- ii. Two group interviews with 16 Fonterra and AgFirst staff who were involved in the project. These included: six Fonterra staff, four of whom were Fonterra Sustainable Dairying Advisors who had completed the FEPs and two who were overseeing the project; and nine AgFirst staff, eight of whom were farm consultants who had completed the FEPs and one who was overseeing the project. As well, a Waikato Federated Farmers' representative sat in on the AgFirst interview, as did two staff from Beef and Lamb New Zealand.

The interviews took place after the advisors had completed the FEP process, and were face to face in Hamilton at Fonterra and AgFirst, with two of the AgFirst staff phoning in from offices outside of Hamilton. Questions covered the process for completing the FEPs from initial contact with farmers through to on-farm visits, writing of FEPs and draft and feedback process, as well as discussion of any issues that were arising.

- iii. Phone interviews with 26 farmers from 24 farms⁴. Interviews with farmers took place after the farm advisor interviews and after the FEP process was completed. In most cases, farmers had a copy of their final FEP, however there were some cases where they had only received the draft copy but not a final copy. The farmers had all been informed that the evaluation was part of the project and would involve the evaluator contacting them to arrange an interview, once they had their FEP.

The evaluator contacted the farmers via 'phone and completed interviews. Interviews took place in October 2016, and averaged an hour each. Questions covered the process of completing the FEP from initial contact through to on-farm visit and receiving the FEP, feedback on the FEP and the process as well as questions and discussion around Plan Change 1, issues and areas for concern, and self-reported pre-project knowledge about Plan Change 1.

1.5 THIS DOCUMENT

The next section reports on the results of the collation and analysis of the available data. The audience for this report is primarily the project partners and as such assumptions have been made that the reader has a reasonable level of level of knowledge and understanding of Plan Change 1, farm environment planning and the project process.

² Documents included: Agenda package for the Healthy Rivers Wai Ora Committee of the Waikato Regional Council, 5 September 2016; Federated Farmers Project Details document outlining the relevant standards and technical guidance to complete "trial runs" of Farm Environment Plans; Examples of Farm Plan templates and information provided by each organisation for the advisors completing the plans.

³ This document, Journeaux, P. (2016), *Report to Waikato Federated Farmers on Farm Environment Plan Project*. AgFirst Waikato, Hamilton, is the AgFirst report on the project.

⁴ Note that in two cases the farmers used 'speaker 'phone' so that both farmers on the property could contribute to the interview.

2.0 FARMER INTERVIEWS: FINDINGS

2.1 INTRODUCTION

The following presents the information gathered from farmer interviews. Where relevant, information from the background documents and completed questionnaires is also included. Information presented includes: (i) Sample characteristics; (ii) Process; (iii) Farm Environment Plans; (iv) Healthy Rivers Plan Change 1; and (v) Other issues. Where relevant, evaluative comments are provided to highlight the implications and/or key points that the specific findings raise.

2.2 SAMPLE CHARACTERISTICS

2.2.1 NUMBER AND TYPE OF FARMS

There were 24 farms in the sample. Of these 24, 11 were Fonterra dairy farms and 13 were recruited by Waikato Federated Farmers and included a range of different farm types. Fonterra selected a range of farms across the four Freshwater Management Units (FMUs) and asked the farmers if they would participate in the project. The other 13 farms were selected via a request from Waikato Federated Farmers for volunteers to participate (see flyer, Appendix A). Twenty seven farmers responded and, of these, 13 were selected to include a spread across the FMUs and a range of different farm types.

TABLE 1: SELECTED FARMS⁵

Fonterra Farms			
Farm Size	Type	FMU	Priority Catchment
251 ha	Dairy (620 cows calved)	Upper	3
195 ha	Dairy (430 cows calved)	Upper	3
340 ha	Dairy (840 cows calved)	Upper	2
84 ha	Dairy (175 cows calved)	Upper	2
87 ha	Dairy (196 cows calved)	Central	3
192 ha	Dairy (569 cows calved)	Lower	1
196 ha	Dairy (640 cows calved)	Lower	1
255 ha	Dairy (500 cows calved)	Lower	1
115 ha	Dairy (300 cows calved)	Waipa	2
240 ha	Dairy (710 cows calved)	Waipa	2
75 ha	Dairy (230 cows calved)	Waipa	2
AgFirst Farms ⁶			
Farm Size	Type	FMU	Priority Catchment
240 ha	Dairy	Upper	3
165 ha	Dairy	Central	2
197 + 120 + 57 ha	Dairy x 2; Support block x1	Upper	1
454 ha	Drystock	Waipa	3
1,000 ha	Drystock, (incl. intensive finishing)	Waipa	2
124 ha	Drystock (intensive)	Central	3
202 ha	Drystock + grazing dairy heifers all year	Upper	3
240 ha	Drystock	Lower	1
330 ha	Drystock + dairy grazing all year + deer	Waipa	2
50 ha	Drystock (Beef) + cropping	Waipa	2
443 ha	Drystock + arable cropping	Lower	2
107 + 65 + 34ha	Arable cropping	Lower	3
18 ha	Lifestyle block: beef + horses	Lower	3

⁵ Source: This table was developed from information in Journeaux, 2016, pp. 8 and 12.

⁶ AgFirst consultants undertook the FEP with the 13 farms recruited by Waikato Federated Farmers and as such these are referred to in this document as AgFirst farms or farmers; however is not meant to imply that the farmers were necessarily clients of AgFirst.

2.2.2 LEVEL OF PRE-PROJECT KNOWLEDGE

As part of the interview, farmers were asked a series of questions in regards to their knowledge of Plan Change 1, as well as knowledge of on-farm management of contaminant loss.

Farmers were asked 'On a scale from strongly disagree to strongly agree how much do you agree or disagree with the statement, before participating in this project I considered I had a good level of knowledge about Plan Change 1.' As Table 2 indicates, whilst the majority of the sample (80%, 19) agreed (38%,9) or strongly agreed (42%,10) that they had a good level of knowledge, there were a minority (13%,3) who did not.

When the results are separated by Fonterra or AgFirst farms the results show that 91% of the Fonterra farmers agreed or strongly agreed that they had a good level of knowledge about Plan Change 1 compared to only 80% of the AgFirst farmers. There were three farmers who strongly disagreed with the statement, and they were all in the AgFirst sample.

TABLE 2: BEFORE PARTICIPATING IN THIS PROJECT I CONSIDERED I HAD A GOOD LEVEL OF KNOWLEDGE ABOUT PLAN CHANGE 1

Rating	Fonterra Farms		AgFirst Farms		All Farms	
	No	%	No	%	No.	%
Strongly Disagree	0	0%	3	23%	3	13%
Disagree	0	0%	0	0%	0	0%
Neither agree or disagree	1	9%	1	8%	2	8%
Agree	4	36%	5	38%	9	38%
Strongly Agree	6	55%	4	31%	10	42%
Total	11	100%	13	100%	24	100%

In terms of knowledge, farmers were asked 'How much did you know about Plan Change 1 prior to being involved in this project? As Table 3 indicates 58% (14) stated that they knew 'a lot' and 29% (7) knew 'a bit' and 13% (3) that they knew 'nothing'. All the Fonterra farmers had some knowledge whilst three AgFirst farmers stated they knew 'nothing'.

TABLE 3: HOW MUCH DID YOU KNOW ABOUT PLAN CHANGE 1 PRIOR TO BEING INVOLVED IN THIS PROJECT?

Level of Knowledge	Fonterra Farms		AgFirst Farms		All Farms	
	No	%	No	%	No.	%
A lot	7	64%	7	54%	14	58%
A bit	4	36%	3	23%	7	29%
Not Much	0	0%	0	0%	0	0%
Nothing	0	0%	3	23%	3	13%
Total	11	100%	13	100%	24	100%

Farmers were asked 'On a scale from strongly disagree to strongly agree how much do you agree or disagree with the statement, my understanding of what was needed to manage contaminant loss on my farm was high before I participated in this project.' As Table 4 indicates 75% (18) agreed or strongly agreed that they had a high understanding of managing on-farm contaminant loss prior to the project,

20%(5) disagreed or strongly disagreed. Overall, a higher percentage of Fonterra farmers agreed or strongly agreed with the statement than AgFirst farmers (82% of Fonterra farmers compared to 69% of the AgFirst farmers).

TABLE 4: MY UNDERSTANDING OF WHAT WAS NEEDED TO MANAGE CONTAMINANT LOSS ON MY FARM WAS HIGH BEFORE I PARTICIPATED IN THIS PROJECT

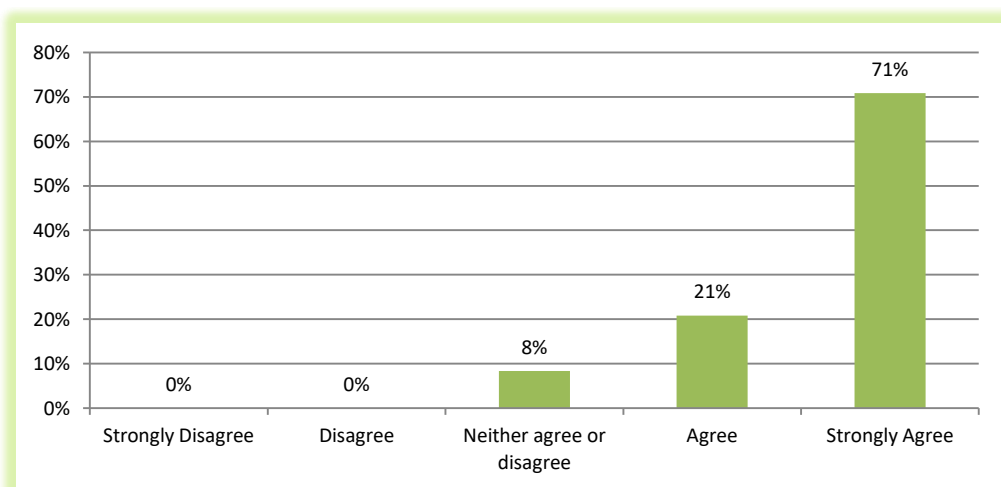
Rating	Fonterra Farms		AgFirst Farms		All Farms	
	No	%	No	%	No.	%
Strongly Disagree	0	0%	1	8%	1	4%
Disagree	1	9%	1	8%	2	8%
Neither agree or disagree	1	9%	1	8%	2	8%
Agree	3	27%	4	31%	7	29%
Strongly Agree	6	55%	5	38%	11	46%
Don't Know	0	0%	1	8%	1	4%
Total	11	100%	13	100%	24	100%

Farmers were invited to comment on their ratings and indicate where they had gained the information they had. Analysis indicates that those who were more informed or knowledgeable had gained information from being part of the DairyNZ farmer engagement group (FEG) or farmer discussion groups, attending CSG public meetings and/or industry organised meetings⁷. Of the Fonterra farmers, 45% (5) were part of the FEG and 90% (10) had attended at least one CSG public meeting. Of the AgFirst farmers, 23% (3) were part of a farmer discussion group, 31% (4) had attended at least one industry organised meeting and 55% (6) had attended at least one CSG public meeting.

2.2.3 VIEWS ON MANAGING CONTAMINANT LOSS

Farmers were asked, 'On a scale from strongly disagree to strongly agree how much do you agree or disagree with the following statement, managing contaminant loss on my property is important to me.' As Figure 1 indicates 92% agreed (21%) or strongly agreed (71%) that managing contaminant loss on farm was important to them.

FIGURE 1: MANAGING CONTAMINANT LOSS ON MY PROPERTY IS IMPORTANT TO ME

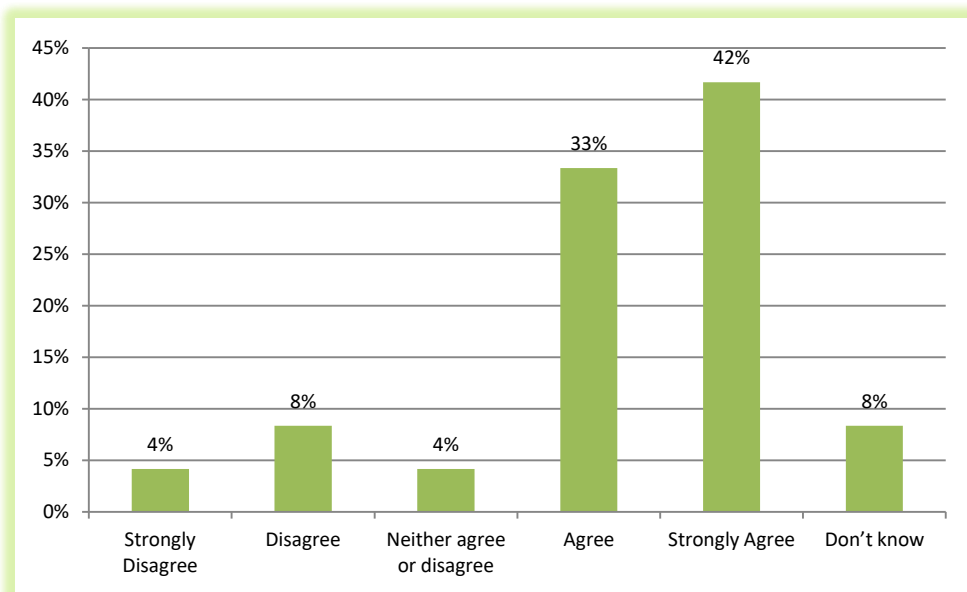


⁷ Industry organised meetings included meetings for farmers organised by project partners (e.g. Foundation for Arable Research, Beef and Lamb, Waikato Federated Farmers).

Farmers were asked, 'On a scale from strongly disagree to strongly agree how much do you agree or disagree with the following statement, I could improve some of my on farm practices in order to reduce contaminant loss.' As Figure 2 shows 75% (18) agreed (33%, 8) or strongly agreed (42%, 10) that they could improve some of their on farm practices in order to reduce contaminant loss. Twelve percent (3) disagreed or strongly disagreed with this statement. These three farmers were dairy farmers and clarified their rating with statements that indicated they had already changed their practices and or put in mitigations and that there was little else they could change or improve on. For example:

No. Not in my practice and, I spent 200k on an effluent system so I would hope I got that nailed.
(Fonterra farmer)

FIGURE 2: I COULD IMPROVE SOME OF MY ON FARM PRACTICES IN ORDER TO REDUCE CONTAMINANT LOSS



EVALUATIVE COMMENT

These findings indicate that the sample overall, was one that had a reasonable or high level of knowledge of Plan Change 1 and managing on-farm contaminant loss and that they considered managing contaminant loss on-farm to be important.

The Fonterra farmers were more likely to know about Plan Change 1 and on-farm mitigations, than the AgFirst farmers. It is difficult to extrapolate to the general population of farmers, as these samples were not random and the Fonterra farmers were those who had been engaged in for example FEGs and made the effort to go to CSG public meetings. However, the trend for Fonterra farmers to be more informed about Plan Change 1 and managing contaminant loss, is still likely to be true for the general population based on the fact that Fonterra farmers (and dairy farmers in general) have been required to put in place a number of on-farm mitigations⁸ over the past few years.

The fact that some farmers in the AgFirst sample considered that they knew nothing or very little indicates that there will be a proportion of farmers in the rest (i.e. non-Fonterra and/or non-dairy)

⁸ This assumption is primarily based on the fact that Fonterra farmers (and dairy farmers in general) have been required to put in place a number of on-farm mitigations (e.g. effluent management; use of Overseer) over the past ten years, as well as a range of other dairy-farm initiatives (e.g. DairyNZ SMPS), which would have overall increased the level of knowledge of Fonterra farmers about contaminant loss on-farm and mitigation practices. By contrast there has been less input into increasing knowledge and requiring on farm changes for non-dairy farmers; this is not to say there have been no initiatives, as WRC, Beef and Lamb, Foundation for Arable Research (FAR), Waikato Federated Farmers and other groups have worked on a range of initiatives included 'menus for best practice' and Farm Environment Plans for non-dairy farms in the catchments, however 'other' (nondairy) farms have had less requirements placed on them to date.

farming population who also have limited knowledge of Plan Change 1 and/or lower levels of understanding about managing contaminant loss on-farm.

2.3 PROCESS

Fonterra sustainable dairying advisors carried out the FEP process with the 11 Fonterra farms and AgFirst consultants carried out the FEP process with the other 13 farms. The process was essentially the same for both samples, in that it involved:

1. A pre-contact by the farm advisor⁹ to arrange a visit and discuss what information was needed;
2. An on-farm visit by the farm advisor which typically included a 'round the table' discussion and walking/driving around the farm to identify critical source areas and take photos;
3. Preparation of a draft FEP by the farm advisor;
4. Provision of the draft FEP to the farmer (via email, post or by hand);
5. Discussion with the farmers (either in person, on the 'phone, or via email) about the draft FEP and where appropriate, adjustment and /or corrections made to the FEP.
6. Provision of the final FEP to the farmer.

In relation to the above, steps 1 to 4 occurred for all farms with steps 5 and 6 occurring for the majority. There were some farmers who had yet to receive a final plan, either because it had not been prepared or in a couple of cases, because there were some discrepancies or areas of disagreement about some of the actions in the plan, which needed to be clarified and/or further discussed.

2.3.1 PRE-CONTACT AND PREPARATION

Farmers were asked to comment on what information they had to have ready for the farm advisor and how much preparation they had to do prior to the visit.

All farmers noted that they had to do very little preparation prior to the visit. When asked for amounts of time, this ranged from "nothing" to "a couple of hours" to "a morning".

In comparing the Fonterra and AgFirst farmer samples, the Fonterra farmers typically spent less time in pre-visit preparation than the AgFirst farmers. This was primarily due to Fonterra farmers already providing Fonterra with, for example, annual nutrient pages, so preparation was minimal. i.e.

[Preparation?] Nothing really because it's all through the Nitrogen pages we do for Fonterra so [the farm advisor] pre-populated [the document] before he came out. For a lot of famers it should be the same - the data is already captured, and as this process takes hold the data will be captured by fertiliser companies and Fonterra etc. (Fonterra farmer)

The AgFirst farmers had completed a pre-project questionnaire as part of applying to be involved in the project. This questionnaire included some of the key data that was required by the farm advisors such as stock numbers, topography, waterways and fencing and availability of nutrient management plans or Overseer budgets (see Appendix B). As well, AgFirst sent out an information sheet detailing the information they needed to input into Overseer and Landbase. One AgFirst farmer had to make contact with their fertiliser representative to get a copy of their nutrient budget, but other than that, most noted that they had the necessary information on hand. For example:

I just had to pull the folder out. (AgFirst farmer)

⁹ Note that the term 'farm advisor' has been used throughout the document to refer to both the Fonterra sustainable dairying advisors and AgFirst consultants.

[Preparation?] Minimal, because I already had it at my fingertips. (AgFirst farmer)

One AgFirst farmer noted that whilst the preparation for them was minimal: "It wasn't a huge amount of work.... I spent a morning organising everything" they went on to state the following:

If you had no information, it would appear quite a daunting task. (AgFirst farmer)

EVALUATIVE COMMENT

These findings indicate that Fonterra farmers are likely to be more prepared and have to spend less time in preparation and gathering the necessary data for an FEP, than other farmers. For other farmers, if they keep clear and accessible records of stocking rates and numbers, fertiliser application records and/or have nutrient budgets and information then the pre-visit preparation will also be fairly straightforward.

As noted in section 2.2 the farmers in this project did tend to be those who had a reasonable level of knowledge of Plan Change 1, and/or managing on-farm contaminant loss and as such it could be assumed that they were likely to be more prepared and be more likely to have the type of information needed for the FEP process, than farmers who were less engaged or informed.

If farmers do not typically have a nutrient budget, or keep their records (e.g. of fertiliser, stocking rates, cropping regimes) in a way that is easily accessible or in the format that would be needed for preparing an FEP, then the preparation the farmer would need to do would be greater. Also of note is that the less complete the records are or the more that the way they are collected is incompatible with what the advisor needs, the more time consuming the plan preparation will be for the farm advisor.

In terms of future FEP processes, it would be useful for advisors to send out an information sheet to farmers (particularly the non-Fonterra farmers) as was undertaken by AgFirst, which details the information required and gives the farmers an indication of what they need to have on hand to complete the FEP process.

2.3.2 ON FARM VISIT

Farmers were asked a number of questions in relation to the on-farm visit, including what occurred, how long it took, what the farm advisor was interested in looking at and discussing, whether their questions were able to be answered and the necessity of the visit as part of the process.

2.3.2.1 TIME AND PROCESS

All the farmers indicated that during the visit the farm advisors spent some time discussing some of the 'paperwork' and then went around the farm with the farmer.

Farmer interview data indicates that the amount of time the visit took ranged from "a couple of hours" to "all day" and that in general, Fonterra farm visits were shorter than AgFirst farm visits. Data from Journeaux's¹⁰ (2016) report supports these findings. Journeaux (2016) reports that that on average, the farm visits for the AgFirst farms took 5.3 hours (range 2.5 hours to 9.5 hours) and for the Fonterra farms the average time was three hours (range 2 hours to 4 hours).

Journeaux (2016) reports that the reasons for the time differences were mainly related to the size of the farm, the complexity of the operation, contour, topography and the extent to which environmental mitigation had already been carried out. These findings are supported by the farmer interview findings

¹⁰Journeaux, 2016, pp 10 and 12.

which indicated that the time to go around for example, a large drystock farms in hill country with a number of waterways and minimal mitigations or an operation with three separate blocks took longer than a small lifestyle block or dairy farm which already had some mitigations in place.

As with the pre-visit preparation, the Fonterra farms typically took less time, due to the fact that as dairy farmers, Fonterra farmers have been providing information (e.g. Overseer nutrient pages to Fonterra) and undertaking environmental mitigations over the past ten years as part of different initiatives (e.g. Dairying Clean Stream and Water Accords¹¹). The dairy farms in the AgFirst sample also typically took less time for the same reasons (e.g. data available and mitigations in place).

Farmers were asked, 'What kinds of things was the advisor interested in looking at on-farm and is this what you expected?' Findings show that all the farmers reported that the advisors looked at the areas that the farmers thought they would. These areas included, for example, waterways, raceways, slopes, fencing and potential critical source areas such as for example, effluent storage, feed pads.

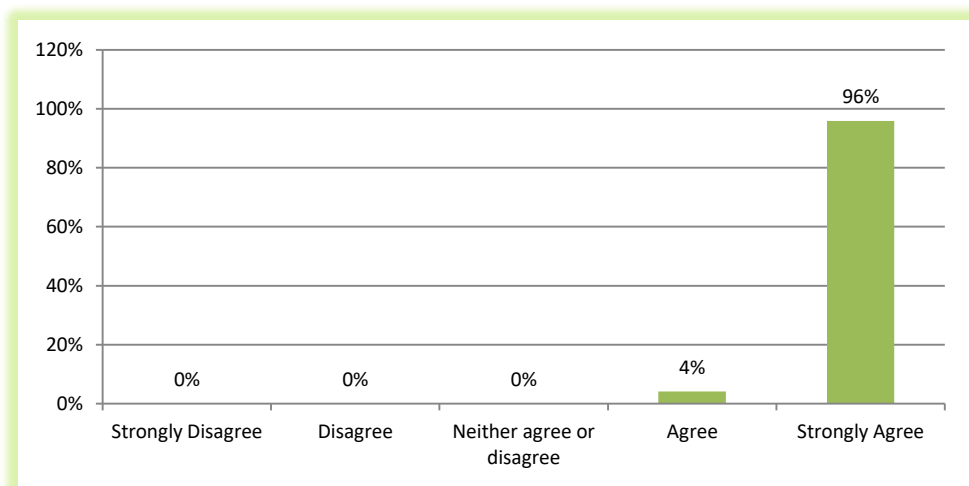
There were no reported 'surprises' as to what the advisors looked at, indicating that farmers were reasonably well-prepared for what the visit would involve.

2.3.2.2 NECESSITY OF THE ON FARM VISIT

Farmers were asked, 'On a scale from strongly disagree to strongly agree how much do you agree with the statement, the on farm visit was necessary in order for the advisor to see the farm and understand my system and operation?'. Responses were collated and percentages calculated. As Figure 3 shows 100% either agreed (4%,1) or strongly agreed (96%,23) that the on farm visit was necessary in order for the advisor to see the farm and understand the system and operation. Farmers were invited to comment about their ratings and, as one farmer explained:

[The visit] is hugely important. With what I'm doing, there is no way [an advisor] could sit in an office in Hamilton and make an assessment on what I'm doing. (AgFirst farmer)

FIGURE 3: THE ON FARM VISIT WAS NECESSARY IN ORDER FOR THE ADVISOR TO SEE THE FARM AND UNDERSTAND MY SYSTEM AND OPERATION

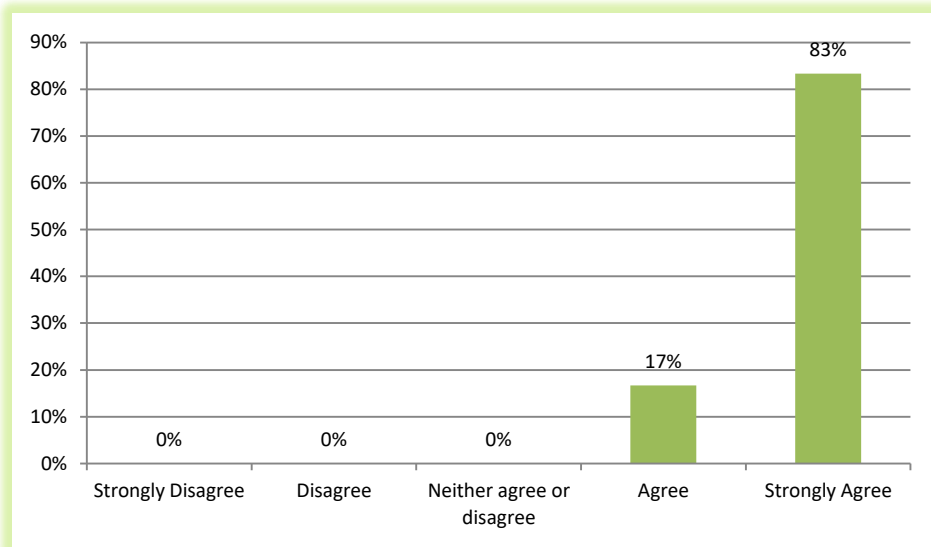


¹¹ i.e. The 2003 Dairying and Clean Stream Accord (DCSA) which ran from 2003-2012 and the Sustainable Dairying Water Accord which superseded the DCSA and began in 2013. The Accords were a joint agreements with partners including dairy companies, to encourage, support dairy farmers to undertake key actions related to keeping waterways clean such as riparian management, fencing and planting, stock exclusion, nutrient management, water use, effluent management. Sources: DCANZ and DairyNZ (2015) Sustainable Dairying Water Accord, and DCANZ and DairyNZ (2015)., Sustainable Dairying Water Accord: Two years on what have achieved? Available online: <http://www.dairynz.co.nz/environment/in-your-region/sustainable-dairying-water-accord/>

2.3.2.3 FEEDBACK ON THE FARM ADVISORS

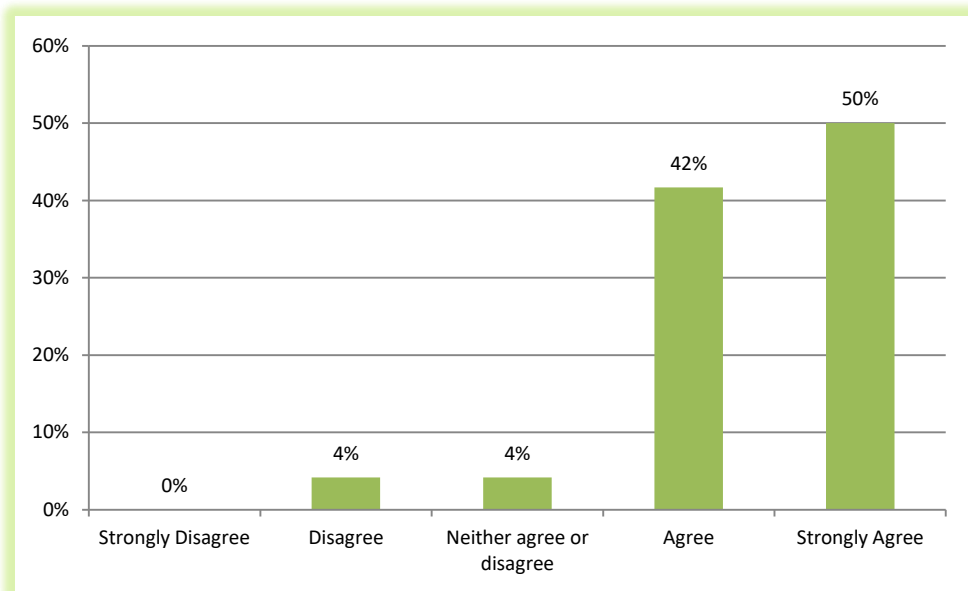
Farmers were asked, 'On a scale from strongly disagree to strongly agree how much do you agree with the following?' This was followed by reading out two statements about the farm advisors. Responses were collated and percentages calculated. As Figure 4 shows 100% either agreed (17%,4) or strongly agreed (83%,20) that the ' farm advisor was professional and courteous'.

FIGURE 4: THE FARM ADVISOR WAS PROFESSIONAL AND COURTEOUS



As Figure 5 shows 83% either agreed (42%,10) or strongly agreed (50%,12) that the ' farm advisor was able to answer the questions I had'. Four percent (1) gave a neutral (neither agree or disagree) response and four percent (1) disagreed.

FIGURE 5: THE FARM ADVISOR WAS ABLE TO ANSWER THE QUESTIONS I HAD



Farmers were encouraged to comment on their ratings and as well they were also asked other open ended questions about whether the farm advisor was able to answer the questions they had. Analysis of these comments indicates that for the two who gave a neutral or disagree rating, the key theme was clarity around an action or actions that the FEP was recommending they undertake; that is they could

not get a clear answer that the action or actions were necessary and/or an accurate interpretation of 'the rules'¹². The advisors in question did seek further clarification from WRC and/or others in their team, however a clear conclusion was not reached. Therefore, the inability of the farm advisor to answer a question or questions was related to a lack of clarity about the Plan Change 1 rules and their interpretation in regards to how they are applied on some farms. It is not related to the advisors being unwilling to answer questions or lacking key knowledge.

As well, five of those who agreed, also added comments to the effect that whilst the advisor could answer their questions, or some of them, there were still some areas for clarification in terms of how some of the Plan Change 1 rules are applied on farm. For example:

[They could answer] within their current knowledge, because there are grey areas [within Plan Change 1]. (Fonterra farmer)

Because nobody really does know - the rules aren't set in stone. (Fonterra farmer)

Farmers were also asked to comment on the extent to which they felt that the farm advisors were knowledgeable about their farm system and operation. All farmers reported that the advisors appeared to be knowledgeable and as well were prepared to listen and ask questions as needed, in order to understand the operation.

The Fonterra farmers reported that the advisors from Fonterra were knowledgeable about their farm and system, which was not a surprise given that they are 'sustainable dairying advisors' who work for the co-operative and as such would be expected to be knowledgeable about dairy farming and Fonterra. The AgFirst farmers also noted that the advisors were knowledgeable and typically had some background or expertise in the type of farming operation that they were looking at.

The need to have an advisor who understands their operation, was important for the farmers, as summed up in the following quote from one AgFirst farmer:

One of my concerns was that I would I get someone who would not understand what I was doing. He [farm advisor] didn't come in with blinkers on - he looked at what I was doing and has written the place up fairly well. (AgFirst farmer)

EVALUATIVE COMMENT

These findings indicate that the on-farm visit is a necessary part of the process of completing the FEPs. One hundred percent of the farmers in the sample reported that the farm visit was necessary in order for the advisor to understand their system and operation.

There is definite variation in the time required to undertake the on-farm visits with a range from two hours to 9.5 hours depending on the complexity and size of the farm and operation, issues such as numbers of waterways, slopes and as well whether any mitigations have already occurred. The Fonterra and AgFirst dairy farms typically took less time, due to the fact that dairy farmers had been providing information (e.g. Overseer nutrient pages) and undertaking environmental mitigations for a number of years.

In terms of the farm advisors' knowledge and approach, all the farmers agreed that the advisors were professional and courteous and were able to answer most questions. Where the advisors could not

¹² in this case, 'the rules' means the requirements of Plan Change 1.

answer questions this was typically related to 'grey areas' in interpretation of the requirements of Plan Change 1, not because the advisors were unwilling or lacking in key knowledge.

In terms of future processes the findings support the need to ensure that farm advisors have relevant background knowledge and understanding of the farm system that they are developing a plan for.

2.3.3 FOLLOW-UP

Farmers were asked, 'Did you have the opportunity to discuss the Plan with the advisor?' Twenty one (88%) answered 'yes' and three (12%) answered 'no'. All three who had not had this opportunity were from the AgFirst sample: one had only just received the draft plan, one had seen the draft plan although noted it could be in a backlog of emails, and one had received the plan, but had yet to discuss it with the advisor¹³.

Farmers who responded 'yes' were asked, 'was this in person on-farm or over the phone or email?' Findings show that farm advisors followed up 'over the 'phone with ten farmers, on-farm with nine farmers, and via email with one farmer, and the method was not specified by one farmer.

The 21 farmers who had had a follow-up opportunity, were asked, 'Was this follow up necessary?' Nineteen (90%) stated yes and two (10%) stated no. Farmers were asked to comment on their answers. Analysis of the comments from those who stated 'yes' indicated that the main reasons were: (i) to clarify and explain the actions in the FEP and discuss any discrepancies or areas of concern; (ii) to have the opportunity to ask questions and understand what is being asked; (iii) to correct any inaccuracies; and (iv) to encourage 'buy in' by farmers. The following are examples of some of the comments that were made:

When someone sends you a report you need to respond to it - you need to be able to ask the questions. (Fonterra farmer)

If the farmer doesn't buy into it, then it's going to go nowhere, it has to feel like their plan. Have to find a middle ground between us owning the plan and at the same time trying to meet some standards that are being placed on us. (AgFirst Farmer)

It could be over the phone or a visit; if someone had a significant amount of actions and if they didn't agree, then it should be in person. (Fonterra farmer)

Absolutely necessary because otherwise it becomes arbitrary - someone coming to your farm, then gives you a plan that you must adhere to and this is ... (a) it's not constructive and (b) you won't get buy in. (Fonterra farmer)

It is worth sitting down and going through it - especially if your farming operation is going to hang on it, then the plan needs to be right. Farmers will need time to digest the information . (Fonterra farmer)

[The farm advisor] should be coming back a second time and consulting with the farmer - 'this is what I think you need to do'. I talked to another farmer. [I asked him] 'do you know what you'd have to do [as part of Healthy Rivers]? ' He said 'no'. The farmer needs to understand and agree about what he is committing himself to. You have to follow that plan and if you don't you're in

¹³ Note that the project and evaluation were subject to some very tight timeframes and as such the fact that some farmers had not been able to discuss the FEP prior to the evaluation interview is a reflection of the project timeframe limitations, not the farm advisors' work.

trouble, so if it's not achievable or there is another way to do it then you need to change that.
(Fonterra farmer)

EVALUATIVE COMMENT

These findings indicate that the follow-up part of the process is important for encouraging ownership of the plan and to clarify and discuss any areas of concern. For some farmers this process may be fairly straightforward with minimal discussion, questions or changes and could be accomplished via 'phone or email, for others there may be some significant issues to discuss and this may be best done 'in-person'.

2.4 FARM ENVIRONMENT PLANS

Farmers were asked a number of questions about the FEP they received as part of the project. Answers to these questions were collated and analysed for key themes and these are presented in the next sections.

2.4.1 DOCUMENT

The AgFirst and Fonterra FEP documents contained the same essential information, however they were formatted differently and as such feedback about them has been separated out into Fonterra farms and AgFirst farms.

2.4.1.1 FONTERRA FARMS

A number of Fonterra farmers commented on the FEP document itself and in the main this feedback was positive. There were some specific comments that were related to some of the detail of where information was, for example, as the following two quotes indicate putting related information on one page rather than two:

Putting things .. Having pages where - for example, the numbers are on page five but you have to turn page to read about it on page six. Would make it easier to read [if you didn't have to turn the page]. (Fonterra Farmer)

There's a couple of areas where it could be tidied up. You want to get information and graphs on the same page. It had the data on one page and the graphic on other - need to have them on the same page. (Fonterra Farmer)

Overall, farmers reported that the FEP document was farmer-friendly as it was comprehensive, farm-specific, easy to read, clear and concise, and made good use of visual aids and photographs to illustrate the issues and clearly identify the risk areas, actions required and the level of urgency. For example:

It is really good. I can look at it and see 'this is what we need to do' without having to read the detail. Dial indicators - are good to glance at. Photos - if you did it [the farm visit] a month ago and then [look at the plan and] wonder 'what's that about?', you can see the photo and think 'okay' (Fonterra Farmer)

One of the things I thought was really good was that it was pictorial; visuals, very easy to remember the conversation because they took photos and put them in the plan. And [I like] the monitors that show you the risk and where the arrows are, because you can flick through it [and see what is important]. ...This was to the point, it addresses what needs to be addressed and is not pages and pages of descriptions. The overall farm map with the risk identification was numbered so it was obvious where the high risk points were. (Fonterra Farmer)

The way they've done it in a farmer-friendly way with a lot of visual stuff and putting the pictures (of the hotspots) - photos - from a farmer's perspective they can see it, visually. (Fonterra Farmer)

Quite comprehensive and I felt it was - almost - a document for the regulators, but actually quite farmer-friendly in terms of setting out the risk and how you would deal with it and where it ranks in terms of risks. Farmer-friendly - reasonably compact document, easy to find your way through it, pictorial, prioritisations. Can refer to it relatively quickly. (Fonterra Farmer)

I had no concept or idea about the format it would be delivered in. It was better in respect that it wasn't a big complex document. It was small, simple to read, and you could sit down and read through it - you went through it and checked a few numbers and it was a nice, easy read. (Fonterra Farmer)

Farmers with staff also commented that it was a document that they could easily use to explain the issues to staff and having it as a hard copy, bound book (not just an e-document) meant you could show it to staff, keep it for reference and take it out on farm as a reference to check specific issues.

I really liked it. Could see the strengths and weaknesses quickly. Good for the Manager as well. Haven't gone through it with the Manager yet but have already discussed a few things, so we are already implementing things in the plan.... (Fonterra Farmer)

I wasn't expecting a whole book. I think it lays it out - it's really good [as a book] because it's not a 'five sheets of A4' - you would lose that. It's come in the form of a book. Good explanations. It's farm-specific and where my issues are. Anybody can pick it up and see 'arrows point to the red' and see what needs to be done and when. It's all on computer and they can email it out, but there is value in having a hard copy book to hang on to it and pass it on to your staff. (Fonterra Farmer)

The document is useful to go back to the sharemilker and say that, 'these things need to be done.' For example, putting sand in the gate entrances. We need to be saying, 'those jobs have to be done.' It's a good reference document for talking through with staff. (Fonterra Farmer)

2.4.1.2 AgFIRST FARMS

In general, AgFirst farmers tended to comment more on the content of the FEP rather than the document itself, however, some AgFirst farmers commented on the FEP document. Comments indicated that the FEP was what they expected in terms of a plan document and was easy to follow, and for at least one farmer that it was what WRC required. For example:

The plan was pretty easy to follow. Similar format to the other plan¹⁴. (AgFirst farmer)

It's basically what Regional Council are asking for. (AgFirst farmer)

Didn't have any expectations. Close to what I expected. (AgFirst farmer)

One farmer notes that whilst they considered the FEP to be farmer-friendly, they also made the point that they had a reasonably high level of knowledge and understanding about Plan Change 1 which would enable them to have a greater understanding of what was in the FEP.

¹⁴ Note the 'other plan' this farmer was referring to was another type of plan they had had done previously (e.g. SMP, LEP).

I thought it was a farmer friendly plan, but I understand what is coming. I've understood for quite some time. (AgFirst farmer)

EVALUATIVE COMMENT

These findings indicate that overall the FEP documents were received positively. In terms of FEPs in the future, key components to include, based on the feedback from this project, are: (i) ensure they are farmer-friendly, clear and concise in their writing but comprehensive enough to cover the system and the requirements; (ii) use visuals, photos and graphs to illustrate the issues and the key actions, recommendations and areas to focus on; (iii) provide bound hard copies as these can be kept in the office for easy reference, shown to staff and taken out on farm as needed.

2.4.2 ACTIONS AND PRACTICES

Farmers were asked a range of questions about the actions or practices that were suggested in the FEP, the extent to which they expected them, agreed with them, and intended to do them and as well asked about the costs and the timeframe information.

2.4.2.1 LEVEL OF AGREEMENT WITH THE ACTIONS

Farmers were asked, 'On a scale from strongly disagree to strongly agree how much do you agree or disagree with the statement, the Farm Plan I received included suggested actions /practices that I agree need to be done. As Table 5 shows 67% (16) agreed (42%,10) or strongly agreed (25%,6) that the FEP included suggested actions /practices that they agree needed to be done, 11% (3) disagreed (4%,1) or strongly disagreed (8%,2) with this statement, and 17% (4) took a neutral stance.

The Fonterra farmers were more likely to agree that the suggested actions needed to be done (91% agreed or strongly agreed) than the AgFirst farmers (46% agreed or strongly agreed).

TABLE 5: THE FARM PLAN I RECEIVED INCLUDED SUGGESTED ACTIONS /PRACTICES THAT I AGREE NEED TO BE DONE

Rating	Fonterra Farms		AgFirst Farms		All Farms	
	No	%	No	%	No.	%
Strongly Disagree	0	0%	2	15%	2	8%
Disagree	0	0%	1	8%	1	4%
Neither agree or disagree	1	9%	3	23%	4	17%
Agree	5	45%	5	38%	10	42%
Strongly Agree	5	45%	1	8%	6	25%
Don't Know	0	0%	0	0%	0	0%
Not Applicable	0	0%	1	8%	1	4%
Total	11	100%	13	100%	24	100%

Farmers were asked an open ended question, 'Talk to me about the objectives/ practices/ actions that were recommended in your Farm Plan', in order to explore the types of actions and practices that were suggested or recommended in the FEPs and farmers' views of them. Answers were collated and analysed for key themes. The findings show some key differences between the views of the Fonterra farmers and the AgFirst farmers in relation to the actions and as such, these are discussed, separately, below.

FONTERRA FARMERS

For the most part feedback from the Fonterra farmers on the actions in their FEPs indicated that the actions that were being suggested in the plans were ones that were expected and were generally relatively minor, manageable and achievable.

When you look at the list of recommendations they are real minor - [like] a sidling - plant trees.
(Fonterra farmer)

There was nothing [in the FEP] that I didn't know that I was going to have to deal with under the Plan Change. (Fonterra farmer)

Many actions were those that farmers were intending to do anyway and/or which were part of ongoing maintenance. For example:

[Some] scouring in the race, so it was getting done anyways - it's maintenance. (Fonterra farmer)

However, there were some actions that they had not necessarily planned to do or had not considered, and these were usually related to sediment and erosion control. This finding is not surprising as the focus in the past, for on farm environmental management has often been on nutrients (e.g. nitrogen, effluent) getting into waterways, rather than sediment. Plan Change 1 has expanded this to some extent with a focus on contaminants, and including soil and erosion, thus 'sediment' is an area that farmers in the past may have focused on to a lesser extent. For example:

Things like sediment control and fencing tops and bottoms of banks - hadn't thought about before, except to stop from stock from falling. Most of the other [mitigations] I was aware of.
(Fonterra farmer)

[There were] some suggestions that were made that we weren't aware of. For example, a big one was a race that was - at the top was an erosion prone area, water 'zooms' down the race and gets to a crossing and [from there it was] draining straight into a drain, so [the farm advisor] suggested that we make cut-offs further up the race so water drains off, and to lift the level of the crossing and we did it [already] - because we were going to redo the race anyway- and it's worked beautifully. (Fonterra farmer)

As discussed in section 2.3.2 Fonterra farmers and dairy farmers in general, have been putting in place a number of on-farm mitigations over the past ten to 15 years, to reduce contaminant loss on farm and contribute to keeping waterways clean. These actions have been encouraged by the 'clean stream accords'¹⁵, among other initiatives, and have included, for example, riparian management, fencing and planting, stock exclusion, nutrient management, and effluent management and storage practices. As the following quote illustrates, this work of the previous years in "putting things in place" in the dairy industry is the most likely reason why Fonterra farmers (and the AgFirst dairy farmers) are more likely to be in agreement with undertaking the actions in this project's FEPs:

When I got the plan back from [the farm advisor] it didn't seem like there was a lot I had to do, so I hope I'm right. Being a Fonterra farmer, they [Fonterra] have been putting things in place forever, for years. (Fonterra farmer)

¹⁵ i.e. The 2003 Dairying and Clean Stream Accord (DCSA) and the Sustainable Dairying Water Accord which superseded the DCSA and began in 2013.

Although the Fonterra farmers were generally in agreement with the actions in their FEPs, there is still a need for surety that what is in the FEPs is what they will be required to do; that is that the 'rules' have been interpreted accurately (for example, the above quote from one farmer who states "I hope I'm right" when asked about the actions in their FEP). The following quotes provided two further examples of this theme. The first example is in regards to a lease block¹⁶ and a concern as to whether a management plan (rather than in this case, investing in fencing and other upgrades on leased land) will be enough to meet the requirements of Plan Change 1. The second example, is in regards to a specific action (an effluent system upgrade) and the need to be sure that whatever they 'put in' was going to meet the requirements into the future.

If I owned the whole property, it would be easier to plan, but with the lease property it is more difficult. I have a management plan in place and can manage the risk. ... but will it be enough to meet the requirements of Healthy Rivers ? It's a 'grey area' - because I don't have control over the whole block. (Fonterra farmer)

Effluent system - I'm sitting on the fence about what we're going to do about that. It's more about the rules and what they are going to be. We want to future proof, and make sure. We know we need to do it, we just want to make sure we put the right one in. (Fonterra farmer)

As well, there were some queries by some Fonterra farmers as to the need for some actions in their FEPs, with the point being made as this quote illustrates, that if the action is not 'needed' under the Plan Change 1 rules, then it should not be in the FEP; that is the FEP should only include actions that are required not ones that it might be 'nice' to do.

[Some] of the practices also felt a little 'nice to have' instead of 'need to have'. [Some] went beyond what I believe what the requirements are. ... We saw the draft [FEP] and I think it was fairly easy to understand. There were some things that were identified that were not issues so our feedback was 'this is not an issue so it should not show up in this plan. If it's not part of meeting our obligations then it shouldn't show up in there.' (Fonterra farmer)

AGFIRST FARMERS

As noted earlier (see Table 5, page 15) AgFirst farmers were less likely than the Fonterra farmers to agree that the actions in the FEP needed to be done. When the AgFirst sample data is further analysed by farm type, findings show that the dairy farmers were more likely to agree with the actions in their FEPs than the non-dairy farmers, and this is likely to be for the same reasons as the Fonterra sample (i.e. more prepared, mitigations already started over the past ten to 15 years).

All the AgFirst farmers tended to agree that the 'issues' identified in the FEP were ones that they expected; that is they were to the best of their knowledge, relevant to Plan Change 1. For example:

All the things [the advisor] looked at - were things we were aware of. (AgFirst farmer)

Some of the suggested actions were ones that farmers were aware of, already did, or were planning to do as part of their practice. For example:

¹⁶ Note that this 'lease' example also raises question and highlights another issue which is about who is responsible for mitigations on leased land and this is discussed further in section 2.4.4.2..

A lot of the actions [I already do]. Working with the fertiliser representative and soil tests and those things, we do. Five metre setback. Sort of knew about it anyway. All our fences are set back at least five metres from the drains. (AgFirst farmer)

For some farmers there were some actions that farmers were not convinced were needed, for a range of reasons such as cost (i.e. not affordable), clarity around the rule (i.e. particularly the 25 degree slope rule), and evidence for the recommended action (i.e. the science or proof that the action would work and/or was the best option).

I agreed with almost all of it. 75% of it was in my mind anyway. Of the rest there was probably 15% that would be in the category 'I can buy into that'. The last 10% - rubbish. (AgFirst farmer)

A number of key themes emerged from the interviews with the AgFirst farmers in relation to actions within the FEPs. These themes were, that farmers were interested in:

1. Clarity about the rules and regulations in Plan Change 1, for example:

Our questions come now as we learn a bit more. We are still not really clear about what has to be fenced off - one side is flat and the other is 25 degrees, so do we just do one side? (AgFirst farmer)

They should be coming to the farm with a clear set of parameters - what about when one part of the stream is 25 degrees and one part is 10 degrees; what part of it has to be fenced? (AgFirst farmer)

I can't see the economics of what they've proposed. The trouble is the rules aren't set. So it's very - it's prone interpretation. (AgFirst farmer)

2. Consistency in application of the rules across farms, for example:

This was the problem - we talked to another farmer and what his consultant has come back with is quite different. Our fencing requirements are 'loose' and the other one is more fencing. Ours is mitigating, like not putting stock in, in high rainfall. (AgFirst farmer)

The rules were very difficult to interpret consistently. [The farm advisor] was going back to his boss and the Regional Council and at one stage we had [a number of] different interpretations. (AgFirst farmer)

3. Guidance on what to do on-farm to meet the rules and regulations, for example:

I didn't know a hell of a lot about what they were talking about before, and so I waited for that. All I want to know is, if there is something that I need to do - how would I do that? What do I need to do? ... Would be good to have some assistance as to what I can do. (AgFirst farmer)

Some [issues] we didn't know what to do about. [The advisor] did tell us about the drop test because the ponds aren't lined. I didn't know about the drop test so that was something I learned, because we will eventually - maybe we will have to put new ponds in, so it would be good to know and plan for that. (AgFirst farmer)

4. Evidence that the proposed actions work or are the best solution, for example:

I would like to ask [the farm advisor]- where is the evidence that if we fence, then the contaminant levels will drop? For example, we are not erosion prone. The science behind it is really hard to find. If people [farmers] understood the science then you would get buy-in. It almost seems like this is 'arse about face'. They've been talking about this for two and a half years - and then people ask about the impact on farm. That's Regional Council - the policy makers should have been aware of farms and their requirements before this was voted on. (AgFirst farmer)

Where [the advisor] looked at some paddocks with the 25 degree slope thing and one paddock - that is easy to describe [as an example] - on one side it's flat and on the other side of stream it is steep - more than 25 degrees. [The farm advisor] has come back and said that it has to be fenced. I explained why that would be dopey to do that - because I could easily put a fence on the flat side, it would be a hell of a task to put one on the steep side. Would have to bench it with a digger and then it would cut off the normal flow of the cattle and they would keep treading above the fence anyway. As it is I have a water trough on each side of the stream and they are much more effective, if located in the paddock, so the cattle don't have to walk up and down, and the troughs are carefully sited for that reason - to discourage cattle away from the stream. The water trough is the superior solution. (AgFirst farmer)

There is no science proof that I'm going to reduce [contaminant loss, by doing what has been proposed in the FEP]. (AgFirst farmer)

5. Ability (practically and financially) to undertake the actions, for example:

How we put it into practice I have no idea without losing my ability to farm the way I'm farming - some of the things needed to be done and we're working through them. Others - the practicality of achieving it is going to be huge. ... We can fence the waterways on the flat and the main stream running through the property. Once we get into the hill country and the drains that come down, with the amount of catchment in those areas and the summer water the practicality of fencing or creating wetlands at the bottom ... I can't see how we can do it. The practicality of it - to actually be able to do it. We would have to bring in engineers, water people to work out how to do it, then to do it. To fence a lot of these- running water in the hill country - we would have to do major earthworks to get fences in there or fence huge areas off; then create wetlands - fine in the summer, but then in the wet I would be surprised if we could hold those wetlands from moving down in to the major stream. (AgFirst farmer)

We are in pretty damn good shape to take on the Plan Change - better than most - because of work that we have done already over the years - which we did for both farm management and environmental reasons. But my neighbor - is at stage 1 of the process and it will difficult for him to manage. On a dry stock farm it is not feasible because there is not a hell of a lot of cash surplus. (AgFirst farmer)

It's flawed. Their idea was to retire steeper country and put more fertiliser on the less steep and keep the same stocking rate. So it would increase my cost, and that impacts my income. How do I eat? Spending money and incurring debt and have no income and it doesn't stack up. (AgFirst farmer)

The Nitrogen Reference Point (NRP) was also raised by some AgFirst farmers, with two main concerns:

1. The use of Overseer to determine the number and whether their farm system 'fitted' the parameters of Overseer, for example:

The part that scares me - with the Regional Council - if they think I am doing something wrong then they can take me to court over an Overseer that doesn't suit my system. How accurate is Overseer for my situation? (AgFirst farmer)

Overseer never was developed for this operation. It was a catchment-based tool - not a farm based tool and developed for livestock not arable. There is still a lot of room for improvement - it doesn't recognise no tillage for a start - changes the whole game for me. The other big one - I use a lot of cover crops in the off season - will put some in before the cash crops and so effectively will have two crops in at the same time. [For Overseer] you have to have one month in between. It doesn't recognise that. You can't plant a cover crop before you've harvested your cash crop. Can't plant a multispecies - cover crop or cash crop - can't put in more than one crop. (AgFirst farmer)

2. The number itself, particularly when it was low¹⁷, and the extent to which this would limit or cause issues for them over time, for example:

[The NRP] seemed pretty light. I had no real idea [what it would be]. My biggest concern is if I have to shut down a lot of the farm then I will have to increase fertiliser input on what's left to stay viable. If I'm capped then how does that work out? (AgFirst farmer)

[The NRP] didn't surprise me - but it scared me all the same; because it's [low]. I have a high sheep ratio and it's a result of not putting on nitrogen on, on a regular basis. We were looking at leasing a few years ago and the only ones interested were dairy farmers looking at grazing cattle and no sheep. So [the NRP] will reduce the value of my land. Dry stock farmers - need to be able to change as to the market - e.g. cash crops, sheep, beef, grazing - and this [NRP] limits that flexibility. (AgFirst farmer)

The operation could change quite a lot from then [when the FEP is done] to now. Stock numbers could be different - e.g. haylage and baylage could be brought in and I also make it on the property. Stock types - fluid. How is this managed - within the plan? This is a key issue for dry stock farms. (AgFirst farmer)

2.4.2.2 OTHER ISSUES

In addition to the themes identified above, farmers also raised other potential issues or areas for consideration in relation to the FEPs, actions and practices and Plan Change 1 and its application on-farm. These are discussed below.

IDENTIFYING WATERWAYS

The identification of waterways was an issue that was raised by some farmers. Of note was the 'definition' of a permanent versus an ephemeral waterway and how this would be accurately determined. A number of farmers made the point that the FEP project took place in very wet weather and whilst in some cases this may be useful, as it identified where water was not collecting despite the

¹⁷ Note that the drystock farms tended to have quite low NRP numbers (e.g. 10 or 15 or in one case, 6) compared to dairy or Fonterra farms where numbers are more typically in the 30 or higher range.

weather, in other cases it could be difficult to determine in these conditions whether a waterway was dry at other times¹⁸.

FIVE METRE BUFFER

The cultivation of peat land, particularly the five metre buffer strip was raised as an issue with the main query being whether the 'evidence' for this practice was relevant for this soil type (peat) or not. Although this is a specific issue, it was an example of raising a question about a specific rule and whether it was applicable to all farm and soil types and highlights some key points: (i) a further example of a request by farmers for evidence for actions being required; (ii) the extent to which there is evidence for specific rules across all farms and where there may be exceptions and what the implications are of this for the rules; and (iii) further evidence to support an individual FEP approach rather than a 'one size fits all' approach.

We don't get how one rule covers soil type (peat), contour flat and 20degree? (AgFirst farmer)

MANAGING LEASED LAND

The issue of how to manage leased land was raised by those farmers who farm lease blocks. The main areas of consideration were: (i) who is responsible for the actions; the lessor or lessee or some combination?; (ii) the costs and implications for leasees of 'improving' leased land with no return (especially for short term leases); and (iii) discrepancies between lease requirements and FEP requirements.

Findings suggest that each arrangement could differ. For example, as the following quotes illustrate one farmer has initiated an action (a pump at an underpass) which they can re-coup some cost on when the lease expires. In the second quote the farmer is considering letting the lease block go as the actions required (significant fencing) would be too costly for them and would not be something they could recoup the costs on as it would not improve their land but someone else's.

An at risk area was an underpass to the lease block and so we looked at putting in pumps there; it used to drain to a watercourse; it was considered a farm race - which don't have pumps etc; [The advisor] identified that it should be pumped and not drained, because we don't want to go into the watercourse. I actioned that immediately. I will put a petrol pump and sprinkler and I can put something in place there - can get cost recovery on that - because I can sell the pump when the lease expires. (Fonterra farmer)

... might have to make changes and it would be a shock. For example, for the man who owns the lease land, the thought that he might have to fence - he would be quite daunted by that. We are thinking of dropping the lease, because of this. We have fenced the waterways, but we can't fence all of them (financially). (AgFirst farmer)

In another example, a farmer noted that there might be some discrepancies between the lease agreements and the Plan Change 1 requirements and while, in this case, the issue is not 'major' it is an example of where there may be some other impacts of the process.

You would need to have a discussion with the owner (of lease land) to do those things. There is some conflict between what my lease contract says, - that is, 'spray the drain banks' under the

¹⁸ Note that the 'definition is that the waterway is 'permanent' if it has a puddle in it for 12 months a year; if it is dry some of the year then it is ephemeral.

lease contract, and yet the (FEP) plan says I need to keep them in vegetation. So I will have to talk to the owner about that - we need to change our contract. (Fonterra farmer)

UP-SKILLING IN OTHER SECTORS

Another area for consideration that was raised was the need for other sectors in the community to understand and meet the needs of farmers. Two specific examples, as illustrated in the following quotes, were the suppliers of certain 'products' (e.g. underpasses, feedpads) and Land Agents.

The underpasses don't come with sumps and effluent management - because the guys who design these don't do effluent management; they design underpasses. [The advisor] said, 'you'll have to look at this underpass, sumps and thing.' My comment would be if those are the recommendations that will come then someone needs to talk to those who design the underpasses. Same as when we put the feed pad in, then ,the guys who did it didn't know how to do effluent management. If we do this [Plan Change 1] - then we need the suppliers to meet these rules. (Fonterra farmer)

When a farm comes up for sale ? You have to know what the requirements are - does that environment plan get made part of a 'LIM' report or whatever would be equivalent. It needs to be something that is put there that you are not going to be caught unaware. (AgFirst farmer)

THE 'LIFESPAN' OF AN FEP

One of the questions that came through from some farmer interviewees was to what extent the FEP remained 'current' over time, and what was the process if changes were made to the farm operation or system.

In the future it will be as of the time [the farm advisor] is visiting or a historical report, because they went back to 2014/2015 - the operation could change quite a lot from then to now. ... (AgFirst farmer)

EVALUATIVE COMMENT

These findings indicate that there were differences between the Fonterra farmers and the AgFirst farmers in terms of the actions in the FEPs and the extent to which they were able to undertake these. The AgFirst farmers were less likely than the Fonterra farmers to agree that the actions in the FEP needed to be done, with further analysis showing that the dairy farmers in the AgFirst sample were the ones more likely to agree with the actions than the other (i.e. non-dairy) farmers.

For the Fonterra farmers the suggested actions were, in general, expected and in the main, relatively minor, manageable and achievable. There were some actions that were 'new' and these were typically related to sediment control; this was not unexpected as sediment control is an area that the previous initiatives have not focused to the same extent as nutrients for example. Although the Fonterra farmers were generally in agreement with the actions in their FEPs, there is still a need for surety that what is in the FEPs is what they will be required to do; that is that the 'rules' have been interpreted accurately.

The AgFirst farmers were less likely than the Fonterra farmers to agree that the actions in the FEP needed to be done. The key themes that emerged from the findings were that farmers were interested in clarity about the rules, consistency in their interpretation, guidance about what to do, evidence that the actions would work, and the ability, practically and financially to undertake the proposed actions.

The NRP was of concern particularly for the AgFirst farmers. The two main concerns were: (i) ensuring that the farm system 'fitted' into Overseer parameters and consistency around this; and (ii) the number itself, particularly when it was low, and the extent to which this would limit or cause issues over time.

Farmers also raised a number of issues in relation to the FEP process and impact of Plan Change 1. Specifically, these issues are related to: stock exclusion, practicality and cost of fencing on dry stock farms particularly hill country farms; identification of waterways; issues on peat land; practices and systems that do not 'fit' Overseer; handling of lease blocks; how the NRP impacted dry stock farms who have different stock ratios, numbers and cropping regimes dependent on market forces; the need to ensure that supporting industries like suppliers and land agents can meet the Plan Change 1 requirements; and how to handle future possibilities within an FEP.

These findings highlight some areas to consider in future in terms of FEPs. There is an identified need for some clarity around some of the interpretations of the rules, as well as a need to ensure consistency across FEPs, and to communicate available evidence and support and provide guidance to farmers to undertake the actions. There is also a need to consider the question that if a farmer cannot afford to do what is being asked, what will happen?

2.4.2.3 TIMEFRAMES

Farmers were asked whether their FEP had timeframes, what they thought of the timeframes, and specifically, were the timeframes realistic? All Fonterra farmers and some AgFirst farmers stated that the timeframes were realistic. For example:

Realistic? Yes. That was probably what surprised me - the time frame was generous. (Fonterra farmer)

Realistic - yes. Things that are straightforward and easy - like taped gate on a crossing. Most [are to be] started next year - and the bigger actions had longer time frames. (Fonterra farmer).

Clear timeframes. I'm comfortable with them. They are realistic. (Fonterra farmer).

Some farmers reported that had completed some of the actions already. For example:

Realistic timeframes. Have done some of the actions already - bought the machine to throw the effluent out. Fencing has been done. (AgFirst farmer)

One Fonterra farmer noted that for one action, the timeframe was realistic, however they were dependent on a third party (in this case, WRC) completing an action first before they could proceed, and as such they could not be confident that the action would be completed in that timeframe.

On some actions ...for example, riparian planting in an area where Regional Council are pulling out the willows and [the advisor] had 'next year' [as the timeframe] but if the Regional Council doesn't get on to removing the willows, then we can't do the planting. Mostly timeframes were realistic but that one [is dependent on Regional Council doing their part first] (Fonterra farmer)

One Fonterra farmer and a number of AgFirst farmers raised the point that cost impacted on the viability on the timeframes; that is if the farmer did not have the money to undertake an action then they may not be able to achieve it within a specific timeframe.

It depends on the milk payout. If there's no money [I cannot do what is being asked]. (Fonterra farmer).

Timeframes realistic? Yes. If I can get a good payout tomorrow then I can do it. (AgFirst Farmer)

Timeframes seemed realistic, but it's the cost. (AgFirst farmer)

For a number of AgFirst farmers the cost was the primary barrier to being able to undertake some of the actions, at all, let alone within the timeframes suggested. Most did note that if they had the money, then the timeframe for the work itself was probably realistic.

Some timeframes are realistic. The volume that has to be done within that timeframe - we would work from most needed to ... financially to do it within the timeframe would be prohibitive. It's all capital expenditure not maintenance. (AgFirst Farmer)

[The timeframes] don't really matter because I'm not going to spend [the amount specified in the FEP]. (AgFirst Farmer)

Some fencing and some water crossing and water reticulation. That's what I expected they would be saying. Possibly less fencing because it is steeper country; the fencing was less than I thought. These are do-able over time - but not over three years - not economic in that timeframe. ... The water system - is on my agenda anyway. I only have issue with the time it will take (the cost over three years is not affordable). ... Income is variable, based on the stock prices. I am farming out of my income - I don't borrow. Putting this [FEP actions] as a priority over growing my income - will make it too tough [for me]. ... Every dollar I spend I need a return on. That's the way I farm. That's the way I stay in business. There needs to be a 1 to 1 approach rather than 'law'. The water system would help with production - but I need to afford to be able to do it. It's a goal, but to put a timeline on it. The timeframe has to be worked out with every individual farmer because every farmer is different, because they are all unique. (AgFirst farmer)

Realistic timeframes? I'd like to say yes, but also have some reservations, around [one action] - I don't know what I'm going to have to spend. Could be \$40K to \$100k - don't know. With the returns at the moment - I can't budget on spending that much in the next two to three years. (AgFirst farmer)

Given that I'm keen to get some of the riparian fencing in place over the next six months anyway, I can do that over the next five years without too much sweat. Cost - It's significant over five years, so there could be some cost restraints. (AgFirst farmer)

What was stated [in the FEP] is an accurate assessment of the financial implications of the rules. The cost [of the actions] is half the GV of the farm. I can't afford these costs. They don't seem to understand that fencing off a hill country farm is a totally different ball game to a dairy farm. Are you serious about loading these costs onto people? (AgFirst farmer)

EVALUATIVE COMMENT

These findings indicate that for most farmers the timeframes in the FEPs are realistic, however whether they can achieve some of these actions within the timeframes specified may be contingent on issues such as the cost and affordability. In terms of moving forward the findings suggest a need to consider timeframes not only within the framework of Plan Change 1 but also within the limits of the specific farm and operation.

2.4.2.4 COSTS

The AgFirst FEPs included an estimate of costs of the suggested actions. The Fonterra FEPs did not have this information, however estimates of the costs for the Fonterra farms were provided in Journeaux's (2016) report and they were on average lower than the costs for the AgFirst farmers. AgFirst farmers were asked an open ended question, 'talk to me about the costings for the actions, in your opinion are these accurate?' In general farmers considered that the costs were accurate.

Some farmers did consider that some estimated costs were 'a bit light' and/or did not take all impacts (short and long term) into account. For example:

Willow planting - I am not fond of willows because of long term maintenance and the whole plan has been premised on the cost of putting them in place to start off with. To pull a willow out when its 30-40 years old, is thousands of dollars. We have to be pretty damn careful of the long term costs of some of these things. (AgFirst farmer)

The costs were a bit light but they haven't thought the fencing through. Water - [the advisor] used an average price per hectare, whereas I have three blocks so I may need three pumps. Fencing - if we have to fence, then that changes paddock sizes so we would have to alter internal fences and that was not taken into account. Didn't address culverts and crossings cost either. (AgFirst farmer)

The figures are only half the story because they haven't had time to put all the cost in. Haven't put the cost in of owning the pine trees - if you don't trim them, etc., then you can't extract them. The cost of extraction is high so they have to be really good trees. (AgFirst farmer)

Although the Fonterra farmers were not asked about the costs of the actions in their FEPs, some farmers did comment on the cost and the need for actions to be workable and economically viable. For example, the following quote illustrates one farmer's view that an action discussed during the farm visit (to fence an area that is wet in winter) was not necessary and that 'in that moment' during the farm visit, they felt challenged by what they might be required to do as part of Plan Change 1. Of note, is that this farmer did go on to state that they were supportive of the FEP they received and were prepared to undertake most of the suggested actions in their FEP.

I came out of it [the farm visit]- and all I heard we were in the middle of continuous wet weather I sit in the back [of the ute and I hear] 'you need to 'fence that' and 'retire that' and this constant 'cost and removal of land from the milking platform' and I was going "I'm barely making this work right now and I don't have the budget to whack a fence up there." Some places [the advisor] wanted to fence are only wet at certain times. [The advisor] says 'just put up a temporary fence' but you cannot motivate staff to monitor temporary fences and put them up, so it will have to be permanent fencing and for areas that are not wet all year it feels ridiculous and not productive. It's changing the value of this property. I'm on board with the Healthy Rivers project -but it was challenging, in that moment, to see that this [farming] is a viable proposition in any way and if it's not viable then that's a number of families that are out of jobs, children not in the school. [If it's] no longer economic to dairy farm then there are a lot of losses that go along with that ... (Fonterra farmer)

EVALUATIVE COMMENT

These findings indicate that the costs within the AgFirst FEPs were considered by farmers to be reasonably accurate. However there was also a concern that some costs were at times a bit light' and/or did not cover all the costs, both in the short and long term, of an action.

In terms of moving forward the findings suggest a need to have some consistent guidelines and parameters for determining costs, and clarity about whether there could be other (hidden or future) costs not included in the estimate.

2.4.2.5 INTENTION TO USE THE FEP

Farmers were asked, 'On a scale from strongly disagree to strongly agree how much do you agree with the statement, I intend to use this Farm Plan as a tool to manage contaminant loss on my property?' As Table 6 shows 79% (19) agreed (29%, 7) or strongly agreed (50%, 12) that they intended to use the Farm Plan¹⁹ as a tool to manage contaminant loss on their property, and 17% (4) disagreed or strongly disagreed.

When analysed by sample, all the Fonterra farmers agreed or strongly agreed that the FEP was one they intended to use. While most (91%,9) of the Fonterra farmers 'strongly agreed', one only 'agreed'. Further analysis indicates that for this one farmer there were some actions that they wanted further clarification on before implementing them. The AgFirst farmer sample were less likely than the Fonterra farmers to agree that they intended to use the FEP. When the AgFirst sample data is further analysed by farm type finding show that the dairy farmers were more likely to agree that they intended to use the FEP than the non-dairy farmers

Farmers who had stated that they would not use the FEP indicated that this was because it was not a workable plan for their farm, and this was usually for financial reasons; that is that it was not because they disagreed with the FEP or actions per se, they just did not consider they could afford to follow undertake them. For example:

I don't want that plan - it's not one I want. It's game over, that plan. (AgFirst farmer)

TABLE 6: I INTEND TO USE THIS FARM PLAN AS A TOOL TO MANAGE CONTAMINANT LOSS ON MY PROPERTY

Rating	Fonterra Farms		AgFirst Farms		All Farms	
	No	%	No	%	No.	%
Strongly Disagree	0	0%	3	23%	3	13%
Disagree	0	0%	1	8%	1	4%
Neither agree or disagree	0	0%	0	0%	0	0%
Agree	1	9%	5	38%	7	29%
Strongly Agree	10	91%	3	23%	12	50%
Don't Know	0	0%	0	0%	0	0%
Not Applicable	0	0%	1	8%	1	4%
Total	11	100%	13	100%	24	100%

¹⁹ Note that as this was a pilot project, part of which was to trial the FEP documents and determine with WRC whether these plans would be accepted. So the FEPs that were developed may not be ones that these farmers would submit. The question about 'using this FEP' was framed within that context to determine 'if this plan was the FEP for your farm, would you as the farmer use it? and if not, why not?'

EVALUATIVE COMMENT

These findings indicate that the extent to which the FEPs are viewed as workable and able to be used varied, with Fonterra and AgFirst dairy farmers being more likely to use the FEP than other AgFirst farmers. This finding highlights the need to ensure plans, whilst meeting legal requirements, are also workable and achievable as well as raising the issue of what happens is a farmer does not or cannot accept the FEP?

2.5 OVERALL FEP PROCESS

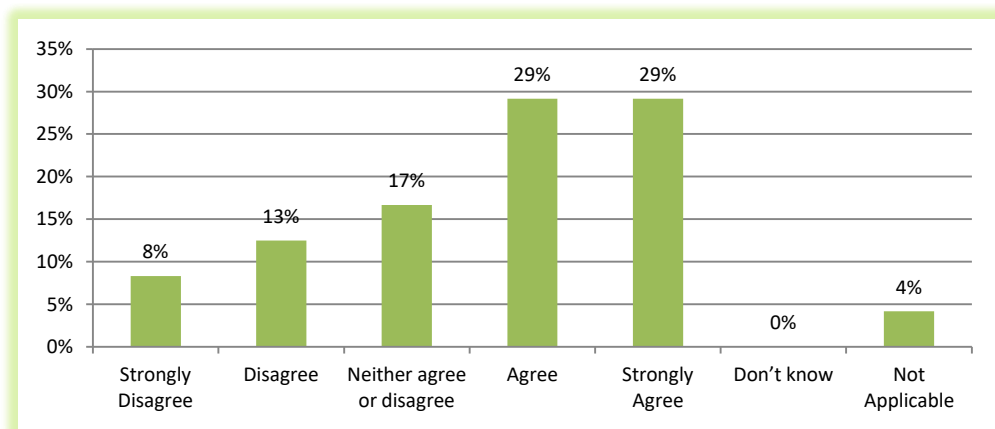
Farmers were asked, 'On a scale from strongly disagree to strongly agree how much do you agree with the statement, 'this Farm Plan process increased my knowledge about managing contaminant loss on my property'. As Figure 6 indicates 60% (14) agreed or strongly agreed, 21% (5) disagreed or strongly disagreed and 17% neither agreed or disagreed. One (4%) had not seen their draft plan, so this question was not applicable.

For the five farmers who disagreed, three farmers commented that they had not increased their knowledge as they were already well-informed. The remaining two farmers, were AgFirst farmers and commented that the process did not increase their knowledge as they were not able to get the clarity they wanted in regards to the efficacy of the suggested solutions for their specific farms or what they would be required to do under the 'rules', and as a result they did not feel that they were more informed about what they could or should be doing. For example:

Not really because they [haven't given us solutions]- everyone is focused on Nitrogen and I am not sure that is our problem because we have a low Nitrogen [loss figure]. (AgFirst farmer)

They didn't offer any solution about how we can go about reducing our nutrients. We have to reduce our N [nitrogen] loss every year but it doesn't say how we're going to do that. (AgFirst farmer)

FIGURE 6: THIS FARM PLAN PROCESS INCREASED MY KNOWLEDGE ABOUT MANAGING CONTAMINANT LOSS ON MY PROPERTY



EVALUATIVE COMMENT

These findings indicate that participating in an FEP process can increase farmer knowledge about managing contaminant loss on-farm, however this is contingent on their being some clear solutions or actions for an issue. This finding supports the need to ensure clarity about the 'rules' moving forward and to be able to provide farmers with consistent information and surety that proposed actions will have the desired results.

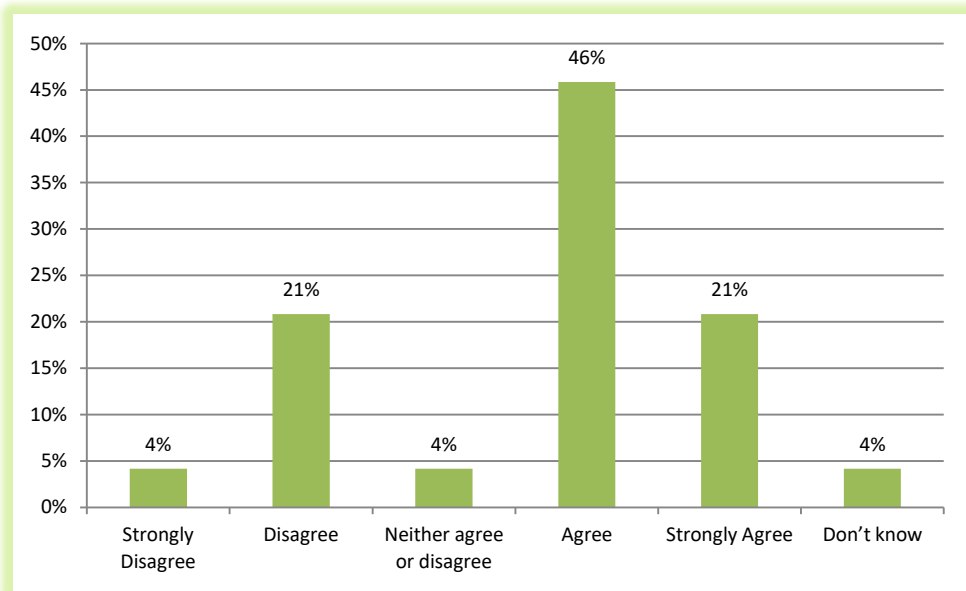
2.6 HEALTHY RIVERS PLAN CHANGE 1

Farmers were asked a range of questions about Plan Change 1 including whether they had more knowledge of it as a result of the project, what they thought about it, and the extent to which it would impact them.

2.6.1 INCREASE IN KNOWLEDGE ABOUT HEALTHY RIVERS PLAN CHANGE 1

Farmers were asked, 'On a scale from strongly disagree to strongly agree how much do you agree with the statement, participating in this project has increased my knowledge of Plan Change 1?' As Figure 7 indicates 67% (16) agreed (46% ,11) or strongly agreed (21%5) , 25% (5) disagreed or strongly disagreed and 4% (1) neither agreed or disagreed. Further analysis indicates that for five of the six farmers who disagreed this was because their knowledge was high to begin with, while the other one had reported little knowledge before the project and did not consider this project had increased their knowledge.

FIGURE 7: PARTICIPATING IN THIS PROJECT HAS INCREASED MY KNOWLEDGE OF PLAN CHANGE



2.6.2 OPINION OF HEALTHY RIVERS PLAN CHANGE 1

Farmers were asked, 'On a scale from strongly disagree to strongly agree how much do you agree or disagree with the statement, Plan Change 1 is necessary to achieve healthy rivers?' As Figure 8 and Table 7 indicate just over half (54%, 13) agreed (46%, 11) or strongly agreed (8%,12), 26% (6) disagreed (13%, 3) or strongly disagreed (13%, 3) and 17% (4) neither agreed or disagreed.

AgFirst farmers were more likely to strongly disagree that Plan Change 1 is necessary to achieve healthy rivers than Fonterra farmers (23% AgFirst farmers compared to 0% Fonterra farmers). However a higher percentage of AgFirst farmers agreed (62%) compared to Fonterra farmers (27%).

FIGURE 8: PLAN CHANGE 1 IS NECESSARY TO ACHIEVE HEALTHY RIVERS

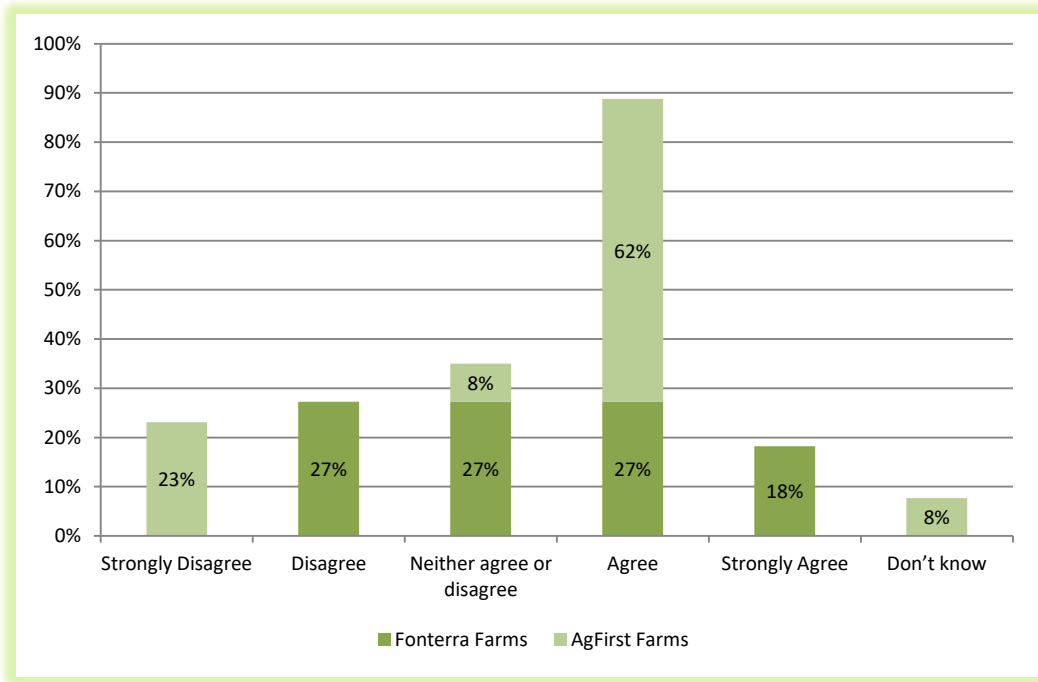


TABLE 7: PLAN CHANGE 1 IS NECESSARY TO ACHIEVE HEALTHY RIVERS

Rating	Fonterra Farms		AgFirst Farms		All Farms	
	No	%	No	%	No.	%
Strongly Disagree	0	0%	3	23%	3	13%
Disagree	3	27%	0	0%	3	13%
Neither agree or disagree	3	27%	1	8%	4	17%
Agree	3	27%	8	62%	11	46%
Strongly Agree	2	18%	0	0%	2	8%
Don't Know	0	0%	1	8%	1	4%
Total	11	100%	13	100%	24	100%

Farmers were asked, 'On a scale from strongly disagree to strongly agree how much do you agree or disagree with the statement, I agree with the requirements of Plan Change 1?' As Figure 9 and Table 8 indicate 38% (9) agreed or strongly agreed, 34% (8) disagreed or strongly disagreed and 25% (6) neither agreed or disagreed.

AgFirst farmers were more likely to strongly disagree with the statement 'I agree with the requirements of Plan Change 1' than Fonterra farmers (23% AgFirst farmers compared to 9% Fonterra farmers). However, a higher percentage of Fonterra farmers disagreed or strongly disagreed (36%) than the AgFirst farmers (31%).

FIGURE 9: I AGREE WITH THE REQUIREMENTS OF PLAN CHANGE 1

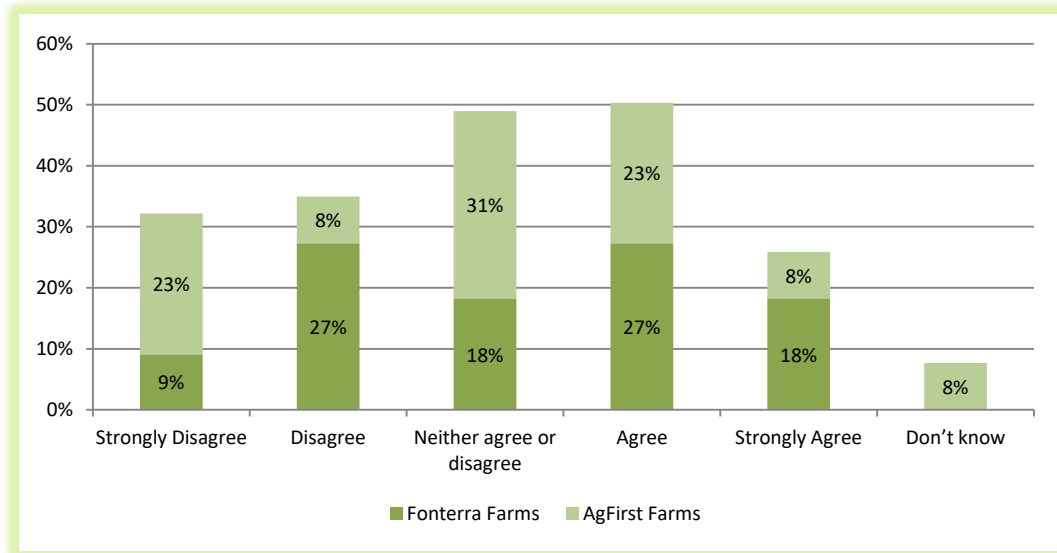


TABLE 8: I AGREE WITH THE REQUIREMENTS OF PLAN CHANGE 1

Rating	Fonterra Farms		AgFirst Farms		All Farms	
	No	%	No	%	No.	%
Strongly Disagree	1	9%	3	23%	4	17%
Disagree	3	27%	1	8%	4	17%
Neither agree or disagree	2	18%	4	31%	6	25%
Agree	3	27%	3	23%	6	25%
Strongly Agree	2	18%	1	8%	3	13%
Don't Know	0	0%	1	8%	1	4%
Total	11	100%	13	100%	24	100%

Farmers were invited to comment on their ratings for the above two statements. A key theme from across those who agreed was that 'something' is necessary, and that the Plan Change 1, was not the perfect approach, however it is the approach that has been chosen. For example:

We need something and this is what we have. It shouldn't cause hardship if you were being environmentally courteous [prior to the Plan Change 1]. (AgFirst farmer)

As well there was, amongst both those who agreed and disagreed, as the following quotes illustrates, a question as to whether the requirements are too extreme or necessary for all farmers, and whether there could be more flexibility. For example:

Agreed, but whether they need to go that far...? (AgFirst farmer)

Some practices have to change; but what they are imposing for some farmers is not necessary. If you have a 70kg [Nitrogen leaching rate] then yes, important, but because we are not a big N [Nitrogen] user.... for example, mitigating erosion for me could mean putting more N [Nitrogen] on my better pasture so am I allowed to do that? And, who do I ask? (AgFirst farmer)

I don't agree with all of them [the requirements]. There needs to be consideration around the value of fencing all the dry stock farms; like for some of them - it should be a bit of consideration

for what is happening and whether it will make any difference. I agree with the principle but I think there are different ways to go about it . For example, not being allowed to convert land - I think there are farms like ours that if you could swap the consent from ours to better contoured land then you wouldn't be increasing the N [Nitrogen] loss. It would encourage better land use. (Fonterra farmer)

There was also concern as to whether the requirements would achieve the desired outcome.

I agree with it in principle - philosophy around it - but disagree around some of the proposals being put forward. (Fonterra farmer)

That's what they tell me [that the Plan Change 1 would achieve clean rivers]. I hope they have looked into and it has not been hijacked. (AgFirst farmer)

Some farmers were also concerned that in its current form, some of the requirements would cause unnecessary hardship and either would be unable to be achieved or could make things worse. For example:

My rationale - as it is - the rules would require large amounts of fencing in hill country and will make [on farm] waters worse I agree with the aspirations and there are things we can do but the plan in its current form won't achieve what it sets out to achieve because its unaffordable and farmers won't be able to do it - it will make the streams worse not better (in hill country). (AgFirst farmer)

2.6.3 IMPACT OF HEALTHY RIVERS PLAN CHANGE 1

Farmers were asked, 'On a scale from strongly disagree to strongly agree how much do you agree or disagree with the statement, Plan Change 1 will cause unnecessary hardship to me as a farmer?' As Figure 10 and Table 9 indicates 50% (12) disagreed (25%) or strongly disagreed (25%), 34% (8) agreed (13%) or strongly agreed (21%) and 17% (4) neither agreed or disagreed.

AgFirst farmers were more likely to strongly agree that Plan Change 1 would cause unnecessary hardship to them as a farmer than Fonterra farmers (31% AgFirst farmers compared to 9% Fonterra farmers).

FIGURE 10: PLAN CHANGE 1 WILL CAUSE UNNECESSARY HARDSHIP TO ME AS A FARMER

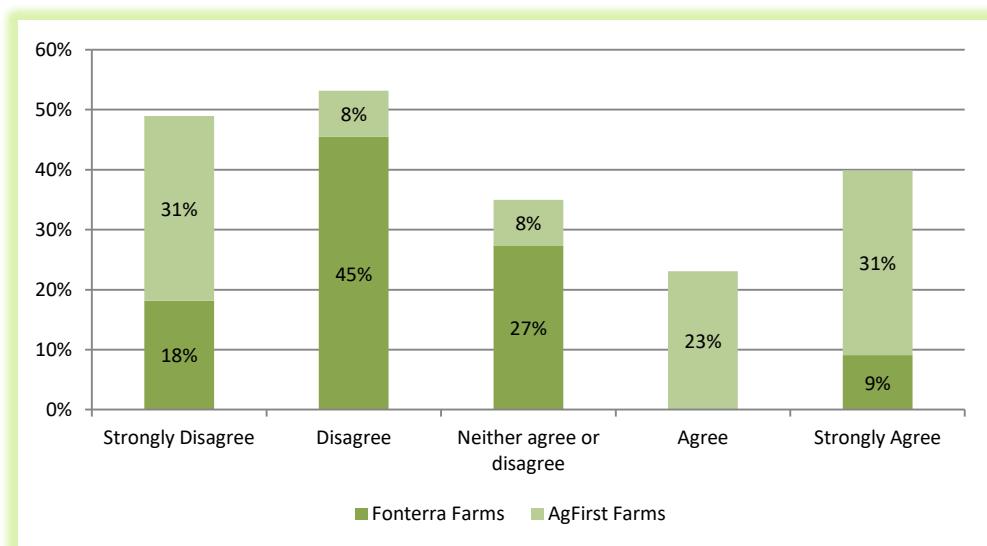


TABLE 9: PLAN CHANGE 1 WILL CAUSE UNNECESSARY HARDSHIP TO ME AS A FARMER

Rating	Fonterra Farms		AgFirst Farms		All Farms	
	No	%	No	%	No.	%
Strongly Disagree	2	18%	4	31%	6	25%
Disagree	5	45%	1	8%	6	25%
Neither agree or disagree	3	27%	1	8%	4	17%
Agree	0	0%	3	23%	3	13%
Strongly Agree	1	9%	4	31%	5	21%
Total	11	100%	13	100%	24	100%

Farmers were invited to comment on their ratings to the above statement. Those who strongly agreed that it would cause hardship, tended to be farmers who were likely to have to undertake some significant changes on farm, some of which they reported they could not afford to do. While most (7) in the 'agree' category were AgFirst farmers, there was also one Fonterra farmer.

One farmer who agreed that it would cause hardship, commented that it would have less of an impact than it would have had, as they had seen "this day coming" and made changes to their farm in anticipation, so were in a better position than they would have been:

It will have an impact. Only a bit, as I've already done some fencing. Probably not as strong an impact as if I'd done nothing. [We] could see the possibility of this day coming - so we saw the need to put some fences in [for environmental reasons but also to make] grazing the paddocks easier. (AgFirst farmer)

Most of those who disagreed that the Plan Change would cause them unnecessary hardship, tended to be Fonterra and/or AgFirst dairy farmers (10) although there were also two (non-dairy) AgFirst farmers who did not consider they would face unnecessary hardship. Farmers did note that they would face some cost, and were unsure as to the impact if they decided to sell in the future²⁰. For example:

Financially it will cost something and we will lose some land with fencing. (Fonterra farmer)

Some inconvenience - - but not hardship. But I don't know the impact if I ever decide to sell. (AgFirst farmer)

Comments from the four farmers who neither agreed nor disagreed, indicated that based on the FEP they had, they did not believe it would cause unnecessary hardship. However, as one farmer noted, they were cautious in case they had not interpreted the FEP correctly:

I hope it doesn't - doesn't seem like it will - hope I've understood it correctly. (Fonterra farmer)

Another farmer explained that there was the possibility of some hardship if they had to undertake one of the actions in the FEP (which was still being questioned and had not been confirmed) and/or if they had to purchase machinery in order to meet another action, sooner than they had planned to.

²⁰ Note that the issues identified in terms of land sale were to do with the loss of value if there was less useable land and/or restrictions on land use and conversion that would impact on being able to sale and as well on the value of the land itself.

Some hardship, if it forces me to [do a specific action], and if I have to bring forward a capital expenditure [for machinery] when I don't have the cashflow. It could cause some hardship - but counteracting that, [the machinery], will be some benefits for the business anyway. Where my concern is, is that [what I will save due to the new machinery] is not going to pay for that - in 20 years it might - but I can't budget on [machinery] with a payback of 20 years. (AgFirst farmer)

EVALUATIVE COMMENT

These findings indicate that for most farmers, participating in the FEP project had increased their knowledge of Plan Change 1. Of those who had not increased their knowledge, the majority were well-informed prior to the project. There was one farmer who reported that they had little knowledge before and the process had not increased that knowledge.

In terms of the need for Plan Change 1 findings indicated that farmers are supportive of having cleaner waterways. The extent to which they believe that Plan Change 1 is the appropriate approach or vehicle to effect this change, varied. Although not all agreed, most were of the view that this was the approach that had been chosen and the focus needed to be on ensuring that it was workable. For those who disagreed, the primary concerns were that it would not work and/or would cause unnecessary hardship.

In terms of whether Plan Change 1 would cause unnecessary hardship, results were varied. For some, mostly AgFirst farmers but also at least one Fonterra farmer, hardship was predicted based on the FEPs they received as part of this project; the extent to which this will be significant varied, dependent on whether the actions were those they would be having to do or not and if so, the costs associated with them.

These findings have implications for communications about the reasons and evidence behind the requirements for Plan Change 1. There is a need to ensure that communications about Plan Change 1 are clear and consistent, that the evidence is communicated and that some of the 'grey areas' as to what is required are clarified for farmers. In addition there is a need for clarification in regards to some of the rules and how these are to be applied.

3.0 FARM ADVISOR INTERVIEWS: FINDINGS

3.1 INTRODUCTION

The following presents the information gathered from the farm advisor interviews. Information presented includes: (i) Farmer sample characteristics; and (ii) Farm Environment Plan Process Where relevant, evaluative comments are provided to highlight the implications and/or key points that specific findings raise.

3.2 FARMER SAMPLE CHARACTERISTICS

The farm advisors provided comment about the selection of the farms and the 'characteristics' of the farms and farmers. Analysis of the interview information supports the findings reported in Section 2.0. Specifically, the Fonterra farmers tended to be knowledgeable about and engaged with Plan Change 1 whilst, as the following quotes from the AgFirst group interview indicates, the AgFirst farmers were varied in their level of engagement and/or knowledge:

Some of them [farmers] were very aware and up to date and had very strong views.

[I had] two who wanted to get into it and two who were negative and wanted nothing to do with it.

Farm advisors commented that with the engaged farmers the FEP process was quicker, more positive and easier. For example:

[We had farmers who] were already engaged in the process so we didn't have to spend too much time. ... Found it pretty easy to set up the visit. Didn't get a knockback once. ... being engaged, they understood the pathways, saw it as a chance to get a headstart.

Where farmers were less engaged or less aware, advisors spent more time discussing the Plan Change and its implications and working to answer farmer concerns. For example:

Spent time talking about Healthy Rivers and the importance of it and the dynamic of farming going forward – so they understand that. Talked about Healthy Rivers and Overseer and filled in the gaps [in their knowledge]. They were aware of Healthy Rivers, but the details about NRP and fencing were unclear.

Two of them [farmers] were very aware and up to date and had very strong views about what was happening and what should or shouldn't happen. They were not liking what was being proposed so they were coming from that perspective – trying to negotiate your way through that with guys that were very opposed. ... One was very concerned about his farm. ... They had some legitimate concerns for their business, and whether they would be able to farm. [we were] dealing with stress and worry – their concerns and worries.

EVALUATIVE COMMENT

These findings provide further evidence that the farmers in the sample ranged in their level of engagement and knowledge of Plan Change 1. There are a number implications for the future including; (i) recognition that the FEP process is likely to be longer with less engaged farmers; and (ii) ensuring that the Farm Advisors have the skills and knowledge to be able to work proactively with farmers, to answer their questions and concerns, be able to communicate clearly and have a thorough understanding of Plan Change 1 and the implications of it for a farmer and their farm.

3.3 FARM ENVIRONMENT PLAN PROCESS

Farm advisors were asked a range of questions in relation to the FEP process²¹. A number of key themes emerged from the interviews in relation to the FEP process. These were:

1. Pre-visit preparation.

Fonterra advisors noted that they had access to a lot of the information needed for the FEP from their own database, including Overseer files and farm maps, and most had 'pre-populated' their spreadsheet prior to the visit. However, some noted that they did not necessarily need all the information prior to the visit. For example:

We almost over-collected the spreadsheet stuff before we hit the farm; that was probably redundant.

AgFirst advisors had a more varied experience with pre-visit information than Fonterra advisors as there was not a database already set up with the details on it. They had some information collected via the Waikato Federated Farmers' questionnaire and had also sent another information sheet to the farmers prior to the visit. Some farmers entered information into this sheet and emailed it back and others printed it out and wrote on it. As noted by the farm advisors the amount and type of information varied across farms, with some having "no information" and others having "lots of spreadsheets".

2. Time taken for the process.

Findings indicate that overall the FEP process was quicker for the Fonterra advisors compared to the AgFirst advisors. This difference was also reported by Journeaux (2016) who noted that the average time for AgFirst was 24.75 hours per farm and for Fonterra was 13.8 hours.

The Fonterra farm visits took between two to four hours and it was considered that this was unlikely to be any quicker, due to the information that had to be gathered, the time to go around a farm which as the following quote illustrates is unlikely to be any quicker with practice:

It's not the sort of thing that as you practice you'll get quicker. Wouldn't want to be booking two farms in one day; only want to do one visit in a day, and you're restricted to between milking times as well.

Fonterra farm advisors noted that having access to the database information, and engaged, knowledgeable farmers who had less complex farm systems and had already completed a lot of actions as part of other requirements, were all reasons why the process was quicker. There were some areas that could be further streamlined, such as having a specific FEP tool for writing the plans, however overall there was the view that the time was unlikely to get significantly quicker, particularly once they started working with less engaged farmers.

For the AgFirst farmers the FEP process was longer which was attributed to a number of factors including the size of the farms, availability of information, the level of farmer engagement and knowledge and the extent to which they had already undertaken mitigations. As well, as was noted earlier, the project has highlighted some areas of clarification in the 'rules' for some specific situations (e.g. fencing, buffer zones) and as such these issues typically increased the time needed to develop the FEP.

²¹ See section 2.3 for a description of the process.

In terms of the write up of the FEP itself, the AgFirst advisors noted that this was an area that would become quicker and more efficient once a standardised template is finalised, based on the learnings from this pilot project.

We are going to have a standard template which will be quicker.

3. Overseer

As noted earlier Fonterra farmers have been using Overseer for some time and there were no specific issues raised in regards to this tool. However the AgFirst advisors experienced a number of challenges with Overseer such as fitting 'non-typical' farm systems into it. For example:

Cropping then winter dairy grazing. Couldn't model them coming in to the system.

4. Evidence, Clarity and Consistency

The need to provide evidence for the actions and mitigations being proposed and clarity and consistency around the rules was raised by the farmers and was discussed in section 2.0. This issue was also raised by both the Fonterra and AgFirst farm advisors who needed to be able to provide evidence to the farmers and reasons for the actions, as well as needing clarity around some of the rules and their interpretation. For example:

If we are going to 'sell' these actions to farmers then we need the science to show them the reason. It's really hard to convince farmers to do it because 'it's a rule'.

Need some points of clarification on rules – some things are not really well defined and they are open to interpretation, and we're not sure what those will be.

Farmers were asking "where is the evidence for this?"

We need some clear guidelines and they need to be consistent across different farm advisors.

5. Financial viability of the actions

The extent to which farmers could afford to undertake the actions being proposed was raised by both the Fonterra and AgFirst farm advisors.

The financial situation of a lot of famers and reality of financially being able to undertake the actions. If we are writing timeframes into a plan, and they can't achieve those because of financial constraints ...

There is a concern about cost - the ability to farm into the future. ... One guy - would have to do kilometres of fencing - this would mean he couldn't farm; it wouldn't be viable for him to do that.

6. Lease blocks

Farm advisors also raised the issue of lease blocks and how they would be managed as part of the FEP process. For example:

The Healthy Rivers' obligation falls on the owner who would put that onto the leasee, so who do you do your plans for?

7. Getting agreement

The need for advisors to have the skills to discuss the FEP, explain the requirements and reach agreement with the farmer about the FEP was raised by both the Fonterra and AgFirst farm advisors. As the following quote illustrates, this is an important part of the process to ensure that the plan is one that can be signed off:

We can only recommend [to the farmer] but we have to sign off on the FEP - if both parties don't agree then we don't sign it off.

Being able to communicate with farmers about the expectations and to support and enable them to make the necessary changes, is an important part of the advisor role and one which requires skills to be able to communicate. For example:

A multi-skilled skill set is needed - a good understanding of nutrient management, farm systems, farm management, Overseer, and understanding of environmental issues and mitigation and good inter-personal skills.

Having the ability to be able have conversations with farmers to enable them to shift and change. .. it is part of our role – we are reasonably good at having those conversations on farm..

EVALUATIVE COMMENT

These findings indicate that the information available for completing FEPS varied across the samples with Fonterra advisors having access to more information than AgFirst farm advisors, due to having a database of Fonterra farms with relevant information on it. This has implications primarily for the time that advisors will have to spend gathering the data. The use of a pre-visit information sheet for farmers to complete was a useful tool that likely sped up this process, for the AgFirst farm advisors.

The time taken for the overall FEP process differed between Fonterra and AgFirst farms with the Fonterra sample taking less time. These differences were not unexpected, due to the fact that much of the information required to prepare a FEP is already loaded on to the Fonterra database, the higher level of engagement in the Fonterra farmer sample and that overall the dairy farmers are likely to have already put in place a number of mitigations so there is less to discuss, negotiate, consider and include in a FEP. The main implication of the time differences, moving forward is to ensure that enough time is allowed for, to complete FEPS.

AgFirst advisors experienced some difficulties with utilising Overseer, primarily around how to input 'non-typical' farms systems into it. The implication of this moving forward is the need to provide some clarification, guidelines²², and possible upskilling for advisors using Overseer for 'non-typical' systems.

Farm advisors also raised the issue of farmer requests for evidence, science, information and clarity about the rules and regulations. Increasing farmer knowledge of Plan Change 1 and providing clear and accurate information about on-farm impacts via farm advisors, appropriate communications, field days, or discussion groups may be any area for consideration in order to increase overall understanding across the sector.

Being able to communicate with farmers about the expectations and to support and enable them to make the necessary changes, is an important part of the advisor role and one which requires having the

²² Note that guidelines for Overseer have been produced and are available on the WRC website, but whether they cover the issues raised in the interviews for this evaluation is unknown.

necessary knowledge and experience, and also the skills to be able to communicate, particularly when working with farmers who may be less engaged.

4.0 SUMMARY AND CONCLUDING COMMENTS

4.1 INTRODUCTION

The aim of the evaluation was to undertake an evaluation of the Waikato Federated Farmers Farm Environment Plan project: "Ground Truthing of Healthy Rivers Plan Change 1" in order to: (i) determine what works and what are the challenges or areas for development; and (ii) provide information to inform project partners' response to the Healthy Rivers Plan Change 1. The following provides a summary of the key findings together with implications of these findings for future FEP processes, followed by a brief conclusion.

4.2 SUMMARY OF KEY FINDINGS

4.2.1 LEVEL OF KNOWLEDGE AND ENGAGEMENT

- Findings indicate that there will be a proportion of farmers who have limited knowledge of Plan Change 1 and/or lower levels of understanding about managing contaminant loss on-farm, and this has implications for communications about Plan Change 1 as well as allowing for increased time and effort needed to prepare FEPs for less-informed farmers.
- The Fonterra farmers and AgFirst dairy farmers were more likely than the non-dairy farmers, to be more informed about Plan Change 1 and managing contaminant loss, due to the work that has already occurred in the dairy sector as a result of initiatives like the dairy clean stream / water accords and sustainable milk plans (SMPs) as two examples.
- Increasing farmer knowledge of Plan Change 1 and providing clear and accurate information about on-farm impacts via appropriate communications, field days, or discussion groups may be an area for consideration in order to increase overall understanding across the sector.

4.2.2 PRE-VISIT PREPARATION

- In terms of pre-visit preparation, Fonterra farmers are likely to be more prepared and have to spend less time in preparation and gathering the necessary data for an FEP, than other farmers, due to having much of the information already collected and recorded as part of their Fonterra requirements.
- If farmers have clear and accessible records of stocking rates and numbers, fertiliser application records and/or have nutrient budgets and information then, for farmers, the pre-visit preparation of the necessary documentation for a FEP should be fairly straightforward .
- If farmers do not typically have a nutrient budget, or keep their records (e.g. of fertiliser, stocking rates, cropping regimes) in a way that is easily accessible then the farmer's pre-visit preparation time would be greater.
- Fonterra advisors had access to more information than AgFirst farm advisors, due to having a access to the Fonterra database. This has implications primarily for the time that advisors have to spend gathering some of the data.
- In terms of pre-visit preparation, it may be useful for farm advisors to send out an information sheet to farmers, as was undertaken by AgFirst for this project, which details the information required and gives the farmers an indication of what they need to have on hand to complete the FEP process.

4.2.3 ON-FARM PROCESSES

- The on-farm visit is a necessary part of the process of completing the FEPs. One hundred percent of the farmers in the sample reported that the farm visit was necessary in order for the advisor to understand their system and operation.

- The time required to undertake the on-farm visits varied depending on the complexity and size of the farm and operation, issues such as numbers of waterways, terrain, slopes and as well whether any mitigations had already occurred.
- Fonterra and dairy farm, on-farm visits typically took less time, due to the fact that dairy farmers had been providing information (e.g. Overseer nutrient pages) and undertaking environmental mitigations for a number of years.
- The follow-up part of the FEP process emerged as important for encouraging ownership of the plan and to clarify and discuss any areas of concern. For some farmers this process may be fairly straightforward with minimal discussion while for others there may be some significant issues to discuss and this may be best done 'in-person'.
- Overall feedback about farm advisors was positive; they were viewed as professional, courteous; knowledgeable, willing to listen and able to answer most questions. Where they could not provide answers to some questions this was related to areas within the Plan Change 1 'rules' which require further clarification.
- It is important that the farm advisors have relevant background knowledge and understanding of the farm system that they are developing a plan for, as well as the ability to answer questions and provide information in relation to Plan Change 1 requirements and appropriate mitigating actions.

4.2.4 OVERALL FEP PROCESS

- The time taken for the overall FEP process differed between Fonterra and AgFirst farms with the Fonterra sample taking less time, due to the following: (i) much of the information required to prepare a FEP was already on the Fonterra database; (ii) there was a high level of engaged farmers in the Fonterra farm sample; and (iii) as dairy farmers they were more likely to already have some mitigations in place and/or have completed other plans (e.g. SMPs) meaning that there was less to discuss, negotiate, consider and include in a FEP.
- Farm advisors experienced some issues with using Overseer for non-typical systems which indicates that this is an area in which advisors may need opportunities to upskill and access to clear guidelines.
- Being able to communicate with farmers about the expectations of Plan Change 1, and to support and enable them to make the necessary changes, emerged as an important part of the advisor role and skill set, particularly when working with farmers who may be less engaged.

4.2.5 FEP DOCUMENTS

- In general the FEP documents produced by the farm advisors, received positive feedback as being clear, easy to follow and representative of the farm and system.
- Key components to include in FEPs, based on the feedback from this project, are: (i) ensure it is farmer-friendly, clear and concise but comprehensive enough to cover the system and the requirements; (ii) use visuals, photos and graphs to illustrate the issues and the key actions, recommendations and areas to focus on; and (iii) provide bound hard copies as this can be kept in the office for easy reference, shown to staff and taken out on farm as needed.

4.2.6 ACTIONS, TIMEFRAMES AND COSTS

- The Fonterra farmers considered that the suggested actions were, in general, expected and in the main, relatively minor, manageable and achievable. There were some actions that were 'new' and these were typically related to sediment control.

- Although the Fonterra farmers were generally in agreement with the actions in their FEPs, there was still a need for surety that what is in the FEPs is what they will be required to do; that is that the 'rules' have been interpreted accurately.
- The AgFirst farmers were less likely than the Fonterra farmers to agree that the actions in the FEP needed to be done, due mainly to the issues of affordability, with further analysis showing that the dairy farmers in the AgFirst sample were the ones more likely to agree with the actions than the other (i.e. non-dairy) farmers.
- Findings in regards to the actions indicated that farmers are interested in (i) clarity about the rules, (ii) consistency in their interpretation, (iii) guidance about what actions they can take, (iv) access to information and evidence that the actions will work, and (v) being able to practically and financially undertake the proposed actions.
- The NRP was of concern particularly for the AgFirst farmers. The two main concerns were: (i) ensuring that the farm system 'fitted' into Overseer parameters and consistency around this and (ii) the number itself, particularly when it was low, and the extent to which this would limit or cause issues over time.
- For most farmers the timeframes in the FEPs were realistic, however whether they could achieve some of these actions within the timeframes, was contingent on issues such as the cost and affordability.
- The costs within the AgFirst FEPs were considered by farmers to be reasonably accurate. However there was also a concern that the costs at times did not cover all the costs, both in the short and long term, of an action. For some farmers, the costs of the actions were more than they could afford.

4.2.7 OTHER ISSUES

- Farmers also raised a number of other issues in relation to the FEP process and impact of the Plan Change 1. Specifically, these issues were related to the rules regarding: stock exclusion, practicality and cost of fencing on dry stock farms particularly hill country farms; identification of waterways; issues on peat land; practices and systems that do not 'fit' Overseer; handling of lease blocks; how the NRP impacts dry stock farms who have different stock ratios, numbers and cropping regimes dependent on market forces; the need to ensure that supporting industries like suppliers and land agents can meet the Plan Change 1 requirements; and how to handle future possibilities within an FEP.

4.3 CONCLUDING COMMENTS

Overall this evaluation has identified key strengths of the FEP process such as the process of 'on-farm visit, draft FEP and follow up', key aspects of the FEP documents themselves, and the abilities of the farm advisors to work in a positive way with farmers. Identified challenges and areas for development include, the need for clarity around some of the interpretations of the rules, consistency across FEPs, and having processes to communicate evidence and provide guidance and support to farmers to undertake the actions. As well, farm advisors who complete FEPs need to have the skills and knowledge to be able to work proactively with farmers, to answer their questions and concerns, to communicate clearly, and have a thorough understanding of Plan Change 1, Overseer and the implications for a farmer and their farm.

REFERENCES

Journeaux, P. (2016)., *Report to Waikato Federated Farmers on Farm Environment Plan Project*. AgFirst Waikato, Hamilton.

APPENDIX A: WAIKATO FEDERATED FARMERS' PROJECT FLYER

MEMBER ADVISORY

FREEPHONE 0800 327 646 | **WEBSITE** WWW.FEDFARM.ORG.NZ

31 August 2016

WE NEED YOUR HELP! HEALTHY RIVERS FARM PLAN PROJECT

WHO IT IS BEING SENT TO – members in Waikato Waipa Catchments from Waikato, Auckland and Rotorua-Taupo Provinces

Federated Farmers is aware of the concern being raised around the potential impacts on farming of Healthy Rivers Plan Change 1. To ensure Federated Farmers response is robust and evidence based we have initiated major a project to test the on farm impacts of Proposed Plan Change 1.

By using a case study approach the project will assess the impact of Plan Change 1 on a range of farm types and management regimes through the Waikato and Waipa catchments. It will provide an analysis of actual costs of producing and developing a farm environment plan including the nitrogen reference point and any consent costs that may be required, both to the farmer and Council. Also assessed will be the cost to the farmer of implementing farm environment plan actions including any resource consent requirements and impacts on farm profitability.

The projected completion date for this project is 31 October 2016 so that it can inform submissions made on Plan Change 1.

We are currently seeking farmers that would be willing to be part of this project from throughout the Waikato Waipa catchment including, drystock both intensive and extensive, mixed farming, arable, deer, equine and dairy. We also would like a range of farmers who have had no experience with nutrient budgeting (Overseer) and Farm Environment Plans to those who have and use these and consider they are at or close to meeting GMP.

You will need to have time (1-2 days) available to meet with the consultant from mid September to early October 2016. There will be no cost other than time to farmers who are involved.

Please note registering does not guarantee participation in the project as selection will need to occur to ensure good geographical spread and range of farm types.

THANK YOU IN ADVANCE FOR HELPING FEDERATED FARMERS GET IT RIGHT.
If you are interested in being part of this project please register with Louise Gibson
lgibson@fedfarm.org.nz ph 07 858 0828 by 7 September 2016.

APPENDIX B: WAIKATO FEDERATED FARMERS' PROJECT QUESTIONNAIRE

<h3 style="color: green;">HEALTHY RIVERS FARM PLAN PROJECT QUESTIONNAIRE</h3> <p>Please fill in and send back to Lgibson@fedfarm.org.nz by 12 September 2016.</p>	
Name	
Postal Address	
Farm Physical Address (if different from above)	
Phone Number (mobile preferably)	
Email	
Federated Farmers Member	Yes No
Farm Type (circle applicable)	Dairy Drystock hill country (extensive) Drystock (intensive) Arable Mixed Deer Equine
Farm size (effective and total ha)	
Topography of farm	Flat Rolling Steep
Stock	Total dairy cows Total beef cattle Total sheep Total other stock (specify) Total area cropped (ha)
Do you have a nutrient management Plan or overseer budget? <i>(this could be from your fertiliser rep or consultant)</i>	
Do you have a Farm Management Plan. <i>If yes, what type e.g. LEP, SMP</i>	
Will you be able to provide up to 2 days of time to meet with the consultant between 19 September and 10	Yes No

October?	
Will you be able to provide 1 – 2 hours of time end of October/early November to meet with an evaluator to provide feedback on the process and how you found it?	Yes No
Are you willing to host a Fieldday on your property?	Yes No
Are you willing to allow the results of your specific Farm Environment Plan and Nitrogen Reference Point to be made public in the form of a case study?	Yes No
Major farm goals (i.e. to become more nutrient efficient, farm more profitably, increase meat/milk production, improve work life balance, succession planning)	
How many waterways (i.e. streams, rivers and creeks) are on the property? Of these, how many are permanent?	
Estimated length of waterways on the property	
Proportion of waterways fenced (i.e. none, ½, ¾ etc)	