Submission

Essential Freshwater: Action on healthy waterways

Introduction

Fonterra supports improving the quality of New Zealand's freshwater and recognises the increasing awareness that some land use activities contribute to the degrading state of some waterbodies.

Our Co-operative is proudly owned by around 10,000 New Zealand farmers and their families who all understand the importance of freshwater to our businesses and our communities. Healthy freshwater is important to our country, and we believe New Zealand can have both healthy freshwater and a thriving agricultural economy.

We welcome the opportunity to submit on Essential Freshwater: Action for healthy waterways. The discussion document provides an important opportunity to improve the current regulatory framework for the management of freshwater.

Summary

There are a number of proposals outlined in the discussion document that we support. Some of the proposals could be better considered in the context of efficient and effective resource management in order to best achieve the desired outcome at the lowest economic and social opportunity cost. There are some proposals we oppose, and there are some proposals which we believe should go further in order to achieve the ultimate goal of improved freshwater quality.

Fonterra supports:

- the interim regulation of intensification. This reduces the risk of over-allocation in the period before new regional plans that are compliant with the National Policy Statement for Freshwater Management (NPS-FM) take effect.
- regulation of winter grazing to level the playing field across all farm systems. We consider that has distinct advantages over industry-led standards.
- mandatory Farm Environment Plans (FEP) by 2025 and seeks industry-wide standards and accreditation. Farm plans should be mandatory across all farm systems as these are a key tool to enable on-farm change which recognises unique farm attributes and farmer objectives. All farms should be operating under a certified FEP that is regularly reviewed by 2025, and these plans should be of a consistent standard with clear timebound actions against minimum standards and Good Farming Principles. It is because of our existing FEP process that Fonterra is well positioned to support and enable our farmers to identify and protect those remaining natural wetlands located on their farms, and meet nationally consistent standards for winter grazing.
- an accelerated regional plan-making process to implement the new NPS-FM.

Fonterra conditionally supports:

- the identification of high-risk catchments. However, we believe attributes other than nitrogen ought to be considered in defining those catchments. Where reductions in nitrogen loss are prioritised, instead of an Overseer-estimated nitrogen cap we prefer a *nitrogen surplus* approach, in combination with an objective risk assessment. Research has shown that such an approach can achieve the greatest gains in the shortest period of time while avoiding imposing unnecessary costs.
- the national regulation of stock exclusion but oppose the suggested five metre set-backs as they are not effects based. Instead, the focus of regulation should be on fencing those waterways not currently fenced, and further gains should be prioritised alongside other environmental improvements through Farm Environment Plans. Excluding cattle from waterways has significant benefits in terms of enhancing ecological quality, water clarity and reducing risk to human health. As adopters of stock exclusion ahead of regulation, Fonterra farmers have invested significant capital and effort to exclude stock from over 98% of the waterways covered by the proposal. Farmers should not be forced to re-locate these existing fences unless there is a clear scientific rationale for doing so.

Fonterra strongly opposes:

- some of the suggested in-stream bottom lines, specifically dissolved inorganic nitrogen (DIN) and dissolved reactive phosphorus (DRP). In-stream bottom lines should only be utilised where there is a direct link to the outcomes sought. The inclusion of DIN and DRP as attributes does not well represent biological ecosystem health (macroinvertebrate and fish attributes), and the impacts of these attributes on individuals and communities is not well understood. We support the DairyNZ proposal to consider a total nitrogen bottom line that reflects a more conservative protection level for sensitive organisms than that currently contained in national regulation. The discussion document does not contain sufficient economic analysis to justify the proposed bottom line values.

Response to proposals

Essential Freshwater: Action for Healthy Waterways comments table

Reference	Question or Issue	Response
1.6(1) p.19	Do you think proposals set out in this document will stop further degradation of New Zealand's freshwater resources, with water quality materially improving within five years?	The current NPS-FM and primary sector supported change programmes, are already ensuring that water quality will improve over the next five years. Controls over high-risk practices with minimum standards, and controls to manage intensification, are sensible additional regulatory methods that will act to protect the gains already being made. Fonterra supports practical and implementable regulation – for example the minimum standards and supported practice change through FEPs that can be seen in some of the National Environment Standard (NES) proposals. This approach will make sense to land users and will lead to meaningful change. Resource users will make decisions, and change behaviour, when the purpose of the change is clear, and the transition can be carried out while they can maintain a viable livelihood. Under the approach proposed, the determination of the principles underlying Te Mana o te Wai is left to lower order

		planning instruments. In this regard changes in practice by resources users will be delayed until there is certainty in the relevant planning framework.
1.6(2) p.19	Do you think the proposals will bring New Zealand's freshwater resources to a healthy state within our generation?	We think the implementation of a NES focused on improved management and enforceability, alongside intensification controls and additional science-based attributes in the NPS-FM if required, would ensure water quality improvements within this generation. While we agree that there is some merit in high level descriptive outcomes as described in the discussion document, it is not possible to know if these proposals would achieve the conceptual outcome. The degree to which these proposals will lead to healthy water outcomes within a generation will depend on collaborative processes and how these concepts are applied. This will depend on the capacity of regional councils (and wider sectors) to develop and deliver these processes, the clarity and enforceability of the regulatory instruments, and the degree of potential central government implementation support mechanisms.
1.6(3) p.19	What difference do you think these proposals would make to your local waterways?	In our experience, good regulation is effective in supporting industry approaches to improve on-farm practice and environmental outcomes. Some of the proposals have clear achievable expectations, whilst other provisions could be more effective with some minor changes. Those practical proposals can be expected to increase the uptake of good practice and directly lead to improved water quality.
1.6(4) p.19	What actions do you think you, your business, or your organisation would take in response to the proposed measures?	Fonterra has made a significant commitment to sustainable farming practice, including: • Providing 1:1 advice to farmers via our 28 Sustainable Dairying Advisors • Mandatory stock exclusion requirements for our farmer suppliers • Development of digital tools and reporting to accelerate change in on-farm practice • Delivery and subsequent support of over 1,500 FEPs to our farmer suppliers over the last two years • Development and delivery of a Nitrogen Risk Scorecard to increase farmer awareness of the factors influencing nitrogen loss and accelerate development of on-farm change • Over the last five years we have been largest user of the Overseer model; processing data from over 9000 farms on an annual basis

		In regions of the country with strong freshwater regulation this suite of offerings has complemented the regulatory framework and we have made significant change in on-farm practice. However, in parts of the country where the regulatory framework is less robust, the degree to which industry tools can directly lead to on-farm change is more limited. We will continue developing tools and support frameworks that assist our farmers to meet those standards expected by regulators, communities and our customers.
1.6(6) p.19	Can you think of any unintended consequences from these policies that would get in the way of protection and/or restoration of ecosystem health	It is crucial land owners are supported to implement change that will produce a positive outcome for water quality. High costs and uncertainty of the impact of future regulations on business viability may mean farmers avoid or ignore regulation that is intended to drive positive change The proposed NPS-FM's requirement to maintain existing state, has the effect of rendering freshwater quality as 'fully allocated', meaning no further consents would be granted unless an equivalent offset is achieved. In lieu of explicit guidance on what new uses are to be enabled in the period between the NPS-FM becoming operative, and regional plans becoming operative, this lack of certainty will delay changes in practices by resource users. It is likely that implementation challenges will arise for some communities and regional councils as the proposed policies mark a shift away from the approach of balancing environmental, social and economic outcomes.
1.6(7) p.19	Do you think it would be a good idea to have an independent national body to provide oversight of freshwater management implementation, as recommended by KWM and FLG?	It is currently unclear how an independent body would make decisions relating to freshwater nor how appointments to that body would occur. Without that information it is difficult to assess the value of another level of decision making to freshwater management in New Zealand.
4.7(9) p.36	Do you support the Te Mana o te Wai hierarchy of obligations, that the first priority is the health of the water, the second priority is providing for essential human health needs, such as drinking water, and the third is other consumption and use?	We agree that the restoration of mana and health of the water should have primacy as a long-term outcome, and support enabling communities to determine how this is interpreted at local level.
4.7(10) p.36	Do you think the proposals will have the desired effect of putting the health of the water first?	We think the think the proposals will have the desired effect of putting the health of the water first. The three-tiered hierarchy of obligations clearly identifies healthy water as a priority. The extent to

		which this takes primacy over other uses is likely to vary based on local interpretation.
4.7(11) p.36	Is it clear what regional councils have to do to manage freshwater in a way consistent with Te Mana o te Wai?	Yes. Based on our understanding that the extent that "management of freshwater in a manner consistent with Te Mana o te Wai" means establishing priorities and engaging with communities and tangata whenua on the basis of the proposed hierarchy and values.
4.7(12) p.36	Will creating a long-term vision change how councils and communities manage freshwater and contribute to upholding Te Mana o te Wai?	We support the long-term vision and agree that the concept of Te Mana o te Wai expresses how New Zealanders relate to freshwater resources. Good policy would clearly define the vision and engage in a positive way with those who will carry out the actions that will achieve desired outcomes.
4.7(13) p.36	Do you think either or both of these proposals will be effective in improving the incorporation of Maori values in regional freshwater planning?	Both proposals could be successful at a regional level. However Option 2 would appear to be the more holistic approach in that it would also encompass the concept of mahinga kai.
4.7 (17) p.36	Do you support the proposal for a faster freshwater planning process?	We support the proposal for faster, more consistent planning processes.
4.7(18) p.36	Does the proposal make the roles and responsibilities between regional councils and territorial authorities sufficiently clear?	This proposal clarifies accountability for territorial authorities in relation to their obligations to apply water quality outcomes to those functions within their remit.
4.7(19) p.36	Does the proposal to allow exceptions for the six largest hydro-electricity schemes effectively balance New Zealand's freshwater health needs and climate change obligations, as well as ensuring a secure supply of affordable electricity.	We do not believe the proposal to allow exceptions for the six largest hydro-electricity schemes effectively balances New Zealand's freshwater health needs and climate change obligations. It is inconsistent with these needs and obligations to exempt a major resource user with significant water quality impacts from the underpinning principles of the proposals. While it is understandable that there is a strong desire to protect renewable energy, it is not consistent or desirable to ignore the water quality impacts of hydro electricity generation.
5.13(20) p.52	Do you think the proposed attributes and management approach will contribute to improving ecosystem health? Why/why not?	We support the proposed flexibility of enabling an adaptive management approach for regional councils to respond to achieving ecosystem health objectives. We support the DairyNZ assessment of the full suite of attributes for ecosystem health, and the effectiveness of each in improving ecosystem health as set out in their submission document.
5.13(21) p.52	If we are managing for macroinvertebrates, fish, and periphyton, do we also need to have attributes for nutrients that	Good practice would suggest that in order to mitigate risk you include outcomes and attributes in regulation. However, the link between the two needs to be clearly justifiable in order to avoid

	have been developed based on relationships with aquatic life?	unintended outcomes. We note the comment at page 46 of the Discussion Document: "*It is important to understand more about the ecological benefits from limiting nutrients, whether this varies by waterbodies, and what impacts the proposed new bottom lines would have on individuals and communities. Final decisions will not be taken until further analysis has been done."*
5.13(22) p.52	Threatened species – Do you support the new compulsory national value? Why / why not?	We support the new compulsory national value for threatened species. To ensure survival of threatened indigenous species (whether flora or fauna), the interconnected health of the ecosystem must be actively and adaptively managed. We would welcome further context as to how the value for threatened indigenous species would be put into practice alongside the management of undesirable fish species.
5.13(23) p.52	Do you support the proposed fish passage requirements? Why / why not?	We support the proposed fish passage requirements. We recognise the importance that fish passage plays in enabling access to critical habitats. Further guidance on how this would be regulated (in practice) in those waterways where both undesirable and threatened species co-exist would be useful.
5.13(24) p.52	Should fish passage requirements also apply to existing instream structures that are potentially barriers to fish passage, and if so how long would it take for these structures to be modified and/or consented?	It is important to recognise the significance of existing structures. As an early adopter of stock exclusion, dairy farmers have bridged/culverted all regular stock crossing points prescribed in the proposal. Utilising regional planning processes to address existing structures would allow prioritisation based on specific catchment values and attributes. The FEP process could be a key mechanism in facilitating this.
5.13(25) p.53	Do you support the proposal to protect remaining wetlands? Why / why not?	We support the protection of remaining natural wetlands through identification, monitoring and the setting of policies to protect and the consideration of methods to restore. Requiring the inclusion in every Regional Policy Statement of a policy such as that proposed "*The loss or degradation of all or any part of a natural inland wetland is avoided"* is appropriate and supported by Fonterra.
5.13(26) p.53	If this proposal was implemented what would you have to do differently?	We would support the intent of these wetland provisions through inclusion of actions in FEPs that identified wetlands on Fonterra farms and provided for ongoing protection, or restoration and protection, as appropriate.

5.13(30-42) p.53		Fonterra agrees with and supports the DairyNZ positions, as set out in their submission document, on: - New bottom lines for nutrient pollution (Q.30-32) - Reducing sediment (Q.33-35) - Higher standards for swimming (Q.36); and - Minimum flows (Q.37) We do not support the inclusion of DIN and DRP as attributes but we do support attributes that are direct measures of biological ecosystem health i.e. macroinvertebrate and fish attributes. Fonterra does support the consideration of a total nitrogen bottom line that reflects a more conservative protection level for sensitive organisms. We support the DairyNZ proposal to increase the threshold for species protection from 80% to 90%. We support the proposed adaptive management approach to address deposited sediment. We support the DairyNZ assessment of the sediment attribute as detailed in their submission. The preparation of action plans to achieve clear minimum standards during the swimming season is a sensible approach which we support. We also support the Government's proposal to review the guidelines for swimming standards. We support the proposed changes that enable a clear link between minimum flows and allocation limits to ecosystem health to be established. These objectives should represent community values for those waterbodies.
8.9(51) p.80	Do you support interim controls on intensification, until councils have implemented the new NPS-FM? Why/why not	We support the proposed interim controls on intensification. These will limit the extent to which increased contaminant losses resulting from land use change can occur during this period.
8.9(52) p.80	For land-use change to commercial vegetable growing, do you prefer Option 1: no increases in contaminant discharges OR Option 2: farms must operate above good management practices. What are your reasons for this?	We support Option 1. While we recognise the need to ensure vegetable production has some flexibility to move cropping blocks, we do not support this high-risk land use being effectively excluded from a requirement to not increase contaminant loss pre NPS-FM values and limit setting. Operating "above good management practice" has little meaning without a clear guide as to what that good management practice (GMP) is. We would also note that GMP may not prevent intensification within a system with a risk of a corresponding increase in some contaminants.
8.9(53) p.80	How could these regulations account for underdeveloped land,	The interim intensification controls ensure catchment contaminant loads associated with the

	and is there opportunity to create headroom?	diffuse discharge from certain farming activities do not increase between now and the establishment of values and limits through the NPS-FW to come. As there are no proposed controls on within-system intensification (beyond the Schedule 1 catchments or point source discharges), it does not seem consistent to consider that "headroom" creation could be possible. If any such headroom could be created it would be relative to current state and does not consider the desired state post freshwater management units (FMU) limits, nor the impact of previously consented, but not yet exercised activities/discharges. To provide for an ability for some land use change to increase contaminant losses in this context would, be inconsistent with the policy intent. In catchments that are in the future defined (through FMU processes) as fully, or over allocated, the development of an appropriate allocation framework is where this conversation about underdeveloped land should occur.
8.9(54) p.80	Do you prefer mandatory or voluntary farm plans (acknowledging that farm plans may be required by councils or under other parts of the proposed Freshwater NES)? What are your reasons for this?	Fonterra supports mandatory FEPs. We do not believe low intensity exceptions to farm plans would be appropriate as many such low intensity farm systems operate on the most erosion prone and vulnerable soils and have little or no regulatory oversight at present. Low intensity does not equate to low risk when catchment water quality issues include elevated sediment loads, associated phosphorus and high E. coli. All farms (above a size threshold of 20ha with conditions to avoid a loophole for highly intensive small landholdings) should be required to be operating under a farm plan by the end of 2025. Fonterra strongly agrees with those within the Freshwater Leaders Group who considered that "*Requiring everyone to have a plan is simple and unambiguous. Councils will retain accountability and can use industry capacity and capability to drive change"* and *"significant shifts in behaviour are occurring but making plans mandatory will be needed to shift slow movers."* *(*Advisory group's comments p.69 of *Action for Healthy Waterways Discussion Document).*
8.9(55) p.80	What are your thoughts on the proposed minimum content requirements for the freshwater module for farm plans?	Fonterra supports the high-level description of farm plan requirements and the more detailed description of FEP content as set out in (38) of the Proposed NES for Freshwater. Expressly recognising that planning provisions resulting from future regional planning processes might apply more prescriptive

		farm plan standards beyond the NES minimums, would provide useful additional context. Fonterra supports a certification process for all farm plans to ensure they are of a consistent standard with clear timebound actions against minimum standards and Good Farming Principles.
8.9(56) p.80	What are your thoughts on the proposed priorities and timeframes for roll out of farm plans, as set out in the proposed Freshwater NES?	The Fonterra position is that all farms should be operating under a Certified FEP that is regularly monitored / audited, by 2025.
8.9(57) p.80	Do you have any comment on what would be required to ensure this proposal could be effectively implemented, including options for meeting the cost of preparing, certifying, and auditing of farm plans; and for financing options for other on-the-ground investments to improve water quality?	1**). Effective implementation:** The dairy industry has been proactive in establishing systems and developing support capability and capacity for the rollout of farm environment plans. Fonterra has delivered over 1,500 FEPs over the past two years. We have supported regulatory control over FEPs to ensure they are of a uniformly high quality, align with the Good Farming Principles and, where necessary state clear minimum standards to make the provisions certain enough to be a permitted activity and enforceable. Where farmers cannot or will not prepare FEP's that meet clear standards described in regulation, the regional council should have discretion to impose conditions and, if necessary, to decline a consent application. See: Appendix 1: Fonterra FEP example Appendix 2: Fonterra FEP process documentation Appendix 5: FEP and Good Farm Practice Reporting **2). Funding support for FEPs (or on the ground investments):** If central Government plans to subsidise the implementation processes we would expect that the subsidy would be applied equitably between sectors and not directed to sectors that have been less proactive. Government funding (if any) should be directed toward ensuring the systems and processes required to administer, certify and audit efficient and effective FEP delivery. Direct funding of FEPs may well result in a perverse outcome as the competitive pressure to keep costs to a minimum is removed.

		Additionally, there is the potential for direct industry support to be removed so as to let the subsidised approach take its course which would significantly slow down implementation
8.9(58) p.80 Immediate action to reduce nitrogen loss.	Which of the options, (or combination of them) would best reduce excessive nitrogen leaching in high nitrate-nitrogen catchments? Why?	We support the concept of identifying the highest risk catchments and accelerating the implementation of land use controls to ensure that water quality in these catchments does not deteriorate. We recommend considering risks other than nitrogen, such as phosphorus and fine sediment when determining high risk catchments. We agree with the principle of the proposed framework that requires the highest risk farms in an over-allocated catchment to make reductions to a defined threshold. It is in the detail of the method to most efficiently achieve the desired outcome that we believe there should be changes. There are considerable implementation risks that will arise with the proposed N cap approach as set out in Subpart 4 of the NES. Utilising a purchased nitrogen surplus metric, in combination with an objective risk assessment tool, (see Appendix 3 “Nitrogen Risk Scorecard Engine Documentation”, and Appendix 4 “Nitrogen Risk Scorecard Report”) provides a method to achieve quantifiable reductions of nitrogen loss within farm systems. We note that the Regulatory Impact Statement for the proposed changes, considered the usefulness of a surplus approach in some detail. This was in the context that once established, FEPs would be the mechanism through which to meet surplus thresholds within the prescribed timeframes. Despite recognising the clear advantages of this approach, the recommendation was to not go down this pathway because it would not result in an Overseer file for each farm, and utilising FEPs as the implementation mechanism (without a consenting requirement) was considered less reliable from an enforcement perspective. Fonterra does not agree that this is a good basis for the rejection of a more efficient method that will allow for better engagement with those who are required to make practice change. The proposed approach addresses these concerns by: - Utilising the same proposed consenting framework to provide rigour around implementation (substituting Overseer

		nitrogen losses for purchased nitrogen surplus); and - Utilising a Nitrogen Risk Scorecard to guide farmers towards on-farm changes, using a dataset that much more closely reflects Overseer (than a purchased surplus metric) i.e. all key annual farm information is still collected in order to populate the scorecard calculation engine. This hybrid type approach (regulated purchased nitrogen surplus thresholds, and all farmers assessed against a Nitrogen Risk Scorecard) will be more effective both in achieving the changes in on-farm practices, whilst providing significant cost savings and reducing complexity of implementation. See Appendix 5 "Purchased nitrogen surplus analysis for Schedule 1 catchments". ***Tracked changes to NES Subpart 4:*** *Subpart 4 - Nitrogen cap* ***42 Application of subpart 4*** *(1) This subpart applies only to farms in catchments that are identified in Schedule 1, but only until the National Policy Statement for Freshwater Management 2019 is fully implemented (as defined in clause 31(2)(b)) in the catchment.* *(2) Clauses 46 and 47 apply on and from the commencement date, but:* *a) clauses 44 and 45 do not apply until 19 months after the commencement date;* *b) clause 48 does not apply until 18 months after the commencement date.* ***43 Definitions for subpart 4*** *In this subpart:* ***baseline nitrogen ~~loss~~ purchased surplus figure** means the nitrogen ~~loss~~ purchased surplus figure calculated for the purposes of clause 47* ***nitrogen ~~loss~~ purchased surplus figure** means the amount of nitrogen surplus calculated as: nitrogen brought on to the farm in fertiliser + nitrogen brought on to the farm in feed – amount of nitrogen exported from the farm in productive outputs~~. lost from the whole of a farm by leaching from farming activities,~~ expressed in kilograms per hectare per year.*

		nitrogen purchased surplus calculator *means the web based data input and calculation tool used in establishing the baseline nitrogen purchased surplus for a farm, and to monitor annual compliance.* ~~*Overseer means, at any time, the latest version of the proprietary software (OverseerFM) nutrient*~~ ~~*budget model used by applying the Best Practice Data Input Standards 2016*~~ ~~*Overseer modeller means:*~~ ~~*a) a nutrient manager certified under the Nutrient Manager Adviser Certification Programme; or*~~ ~~*b) in respect of any farm, a suitably qualified person approved by the regional council in which the farm is located*~~ ***threshold value*** *means the value calculated by a regional council for the purposes of clause 47.* ***44 Controlled activity*** *(1) Low-slope pastoral farming* ~~*and all*~~*, dairy farming, arable farming and commercial vegetable production is a controlled activity if, at any time, the nitrogen* ~~*loss*~~ *purchased surplus figure for the farm exceeds the threshold value for the catchment or subcatchment in which the farm is located.* *(2) For the purpose of granting a resource consent for the controlled activity, the matters over which control is reserved* ~~*is*~~ *are nitrogen purchased surplus and modelled nitrogen loss.* *(3) An application for a resource consent for the purposes of this clause will not be publicly or limited notified.* *(4) A resource consent granted for the controlled activity must include at least the following conditions:* *a) the farm must have a certified FW-FP that includes actions that will, within 5 years, reduce the farm's nitrogen* ~~*loss*~~ *purchased surplus by the difference (expressed as a percentage) between:* *i. the farm's baseline nitrogen* ~~*loss*~~ *purchased surplus figure; and* *ii. the threshold values for the catchment in which the farm is located;* *b) by 30 September in each year the farmer must ensure all relevant data are entered into the regional council web based* ***nitrogen purchased***

		surplus calculator**, and, provide the relevant local authority with:* *~~i. an Overseer output file for the previous farm year, certified by an Overseer modeller;~~ and* *ii. documentation certified by an approved auditor that shows whether the* *farmer is complying with the FW-FP as it relates to reducing nitrogen ~~loss~~ purchased surplus;* *c) within 3 years after the granting of the consent, the farmer must provide evidence to the* *relevant regional council to show that nitrogen ~~loss~~ purchased surplus from the farm has been reduced by at least 50% of the figure referred to in (a) above;* *d) the consent expires on a specified date not later than 5 years after the date it is granted.* ***45 Discretionary activity *(1) Low-slope pastoral farming, ~~and all~~ dairy farming, arable farming, horticulture and commercial vegetable production is a discretionary activity if, at any time,:* *a) ~~the nitrogen loss figure~~ purchased nitrogen surplus figure for the farm exceeds the threshold value for the catchment in which the farm is located; and* *b) the farm either does not have a certified FW-FP, or it has a certified FW-FP but it does not* *include actions that will, within 5 years, reduce the ~~nitrogen loss~~ purchased nitrogen surplus by the difference* *(expressed as a percentage) between:* *i. the farm's baseline ~~nitrogen loss~~ purchased nitrogen surplus figure; and* *ii. the threshold value for the catchment in which the farm is located.* *(2) Any resource consent granted for the discretionary activity must include at least the following conditions:* *a) the farm must have a certified FW-FP that includes actions that will reduce the farm's* *~~nitrogen loss~~ purchased nitrogen surplus by a specified percentage over 5 years, using best practicable options;*

		b) by 30 September in each year the farmer must provide the relevant local authority with: *i., the data, in the prescribed electronic format, that allows for the generation of a Nitrogen Risk Scorecard and the calculation of a purchased nitrogen surplus figure~~. an Overseer output file for the previous farm year, certified by an Overseer modeller~~; and* *ii. documentation certified by an approved auditor that shows whether the* *farmer is complying with the FW-FP as it relates to reducing nitrogen loss risk;* *c) within 3 years after the granting of the consent, the farmer must provide evidence to the* *relevant regional council to show that ~~nitrogen loss from the farm~~ purchased nitrogen surplus has been reduced by at least 50% of the figure referred to in (a) above;* *d) the consent expires on a specified date not later than 5 years after the date it is granted.* ***46 Requirement to provide baseline** purchased nitrogen surplus ~~loss~~ figure* *(1) Every farmer of a dairy farm or a low-slope pastoral farm (that is not a dairy farm), or an arable farm, horticulture farm or a commercial vegetable production farm must provide ~~the nitrogen loss figure for the farm~~ to the relevant regional council:* *a) the data, in the prescribed electronic format, that allows for the generation of a Nitrogen Risk Scorecard and the calculation of a purchased nitrogen surplus figure. ~~in the form of an electronic Overseer output file certified as accurate by an Overseer modeller;~~ and* *b) within:* *i. for dairy farms, arable farms, horticulture farm and commercial vegetable farms, 6 months after the commencement date; and* *ii. for low-slope pastoral farms (other than dairy farms, arable farms and commercial vegetable farms), 12 months after the commencement date.* *(2) The purchased nitrogen surplus ~~nitrogen loss~~ figure must be calculated over a farm year and must be:* *a) the higher of the figures calculated in the 2017/18 farm year or the 2018/19 farm year; or*

		b) if those figures are not available, a figure representing purchased nitrogen surplus ~~nitrogen loss~~ for the current year. ***47 Regional council to calculate threshold values*** *(1) Every regional council with farms to which this subpart applies must calculate a threshold* *value for each catchment or subcatchment to which this subpart applies, as at 7 months after the* *commencement date, based on the purchased nitrogen surplus ~~nitrogen loss~~ figures supplied under clause 46(1)(b)(i) by dairy* *farmers arable farmers, horticulture farmers and commercial vegetable farmers in each catchment.* *(2) The threshold value for a catchment or subcatchment must be set as the highest purchased nitrogen surplus ~~nitrogen loss~~ figure in the bottom [70 – 90%] of the purchased nitrogen surplus ~~nitrogen loss~~ figures supplied under clause 46(1)(b)(i), when the purchased nitrogen surplus ~~nitrogen loss~~ figures are ranked in ascending order.* *48* ***Requirement to provide ~~Overseer output files~~ annual farm data*** *Every farmer with a low-slope pastoral farm that is not required by clauses 44 or 45 to have a resource consent must provide annually to the relevant regional council, the data, in the prescribed electronic format, that allows for the generation of a* ***Nitrogen Risk Scorecard*** *and the calculation of a* ***purchased nitrogen surplus figure****. ~~an Overseer output file, certified by an Overseer modeller, of their farming activities for the previous farm year.~~*
8.9(59) p.80	If you are in a high nitrate-nitrogen catchment, what would you have to do differently under these options?	No farmers in these Schedule 1 catchments have had any regulatory obligation to provide or keep farm data sufficient to complete all Overseer entry fields. Under the proposals every affected farmer would need to set up an Overseer account (and pay to activate that account). They would then need to engage a consultant and provide historic data (if they have it), to the appropriately qualified and certified Overseer expert. We note that in the Waihou / Piako catchment there are over 1,200 dairy farms who would have to go through this process within six months of commencement, plus an unknown number of lowland non-dairy farms who have 12 months, but generally no history of using Overseer. Based on Canterbury Overseer baselining we estimate the cost for each baseline exercise to be in the region of $2,000-$3,000 per

		farm. Complex farming systems would likely cost more and there is little clarity in the proposal about the management of lease land, support land and subdivision and amalgamation. Fonterra further notes that arable / horticulture and commercial vegetable production appear to have been excluded from any consideration under this proposal despite often having the highest nitrogen loss footprint. The proposal described in Subpart 4 would be expensive, inefficient and very challenging to implement within the timeframes set out. Over the last five years Fonterra has been the largest user of Overseer, processing data from over 9,000 farms on an annual basis. Based on that experience we consider that limited resources are better focused in supporting on-farm change through the FEP process. The proposed method for the regulatory use of Overseer is inconsistent with all the recent expert opinion on appropriate use of the model (including the recent Parliamentary Commissioner for the Environment report). It also creates an arbitrary slope threshold for non-dairy inclusion that would allow a highly intensive bull beef unit, perhaps leaching more than a lowland dairy farm, to avoid any accelerated regulatory attention. A more practical and cost-effective method, that would achieve comparable water quality improvements and that sits more comfortably within an FEP regulatory framework, is available. (Purchased Surplus and objective Nitrogen Risk Assessment approach as described above and detailed in the appended process documentation)
8.9(60) p.80	In addition to those already identified, are there other high nitrate-nitrogen catchments that should be subject to these options?	We recommend considering risks other than nitrogen, such as phosphorus and fine sediment when determining high risk catchments. If the alternative approach that we have described, focusing on purchased nitrogen surplus and risk-based assessments were adopted, it might be possible to bring forward regulation, through FEPs and farming within a purchased nitrogen surplus threshold, across a larger number of catchments. We believe farmers will engage more effectively with the proposed alternative and the likelihood of “gaming” that exists with any Overseer based regulation will also be removed.
8.9(61) p.80	Do you think the action already underway in five regions (identified in section 8.4) will be	The regional plans identified in section 8.4 are uncertain as to their effectiveness.

	effective in reducing excessive nitrogen leaching in those high nitrate–nitrogen catchments?	All of these processes are highly complex with significant implementation challenges as many previously permitted land users move into a highly regulated framework.
8.9(62) p.80	Should there be higher thresholds for farms that produce food products in winter, and if so, which food products?	All farming that is high risk for contaminant loss, should be subject to the same controls. Creating exceptions for particularly high-risk activities, such as winter food production, is inconsistent with the objectives of the proposal.
8.9(65) p.80	Do you support excluding stock from waterways? Why / why not?	Cattle must be excluded from waterways. This has significant benefits in terms of enhancing ecological quality, water clarity and reducing risk to human health. As early adopters of stock exclusion, Fonterra farmers have excluded stock from over 98% of waterways prescribed in the proposal.
8.9(66) p.80	Do you have any comment on the proposed different approach for larger and smaller waterbodies	We support the approach in providing clarity on priorities for stock exclusion. This is consistent with the approach of the Sustainable Dairying Water Accord which enabled dairy farmers to focus on excluding stock from those larger waterways in the first instance. Utilising the FEP process is effective in balancing farmer priorities for managing those smaller/ephemeral waterways against addressing those wider risks posed by their specific farm systems, geographic features and constraints.
8.9(67) p.81	Do you have any comment on the proposed five metre setback, or where it should be measured from?	Fonterra does not support the proposed five metre setback. There is no clear scientific rationale that would justify the proposed setback distance; this is noted in the Interim Regulatory Impact Assessment "*The effectiveness of buffers depends on a range of site-specific biophysical factors including, in particular, the steepness of adjacent land (and banks), rainfall and soil drainage. This makes setting a nationally consistent buffer width that is equally effective everywhere challenging*" Farmers should not be forced to re-locate these existing fences unless there is a clear scientific rationale for doing so. Clearly defining the point at which setbacks are measured from is crucial for ensuring clarity of expectations and consistency of implementation. We suggest that a definition of 'Active Bed' is utilised; an example of this is specified in the Greater Wellington Regional Plan. Clarification on how the proposed average setback ('on average across a farm') is to be calculated; specifically whether this is applied to a linear length

		of waterway stem; or averaged across all waterways at a farm level.
8.9(68) p.81	Are there any circumstances that are appropriate for allowing exemption to the stock exclusion regulations? If so, please give examples.	There are some circumstances for allowing stock exemption to stock exclusion regulations. Where farmers already have permanent fences in place to exclude stock, these should be allowed to remain for their lifetime, provided they area a minimum of one metre from the waterbody. Significant cost and effort has been spent fencing waterways on dairy farms. Farmers should not be forced to re-locate these existing fences unless there is a clear scientific rationale for doing so.
8.9(69-70) p.81	Do you prefer Option 1: Nationally-set standards or Option2: Industry-set standards? Why? For the proposed nationally-set standards, which options do you prefer for the area threshold, slope, setback and pugging depth components of the policy?	Fonterra believes nationally-set standards are appropriate to define practice expectations for intensive winter grazing. This ensures consistency across land users (which may vary when utilising an industry based approach). We agree in principle with the factors that are identified as requiring consideration for applying nationally-set standards. We support the application of those standards and thresholds proposed by DairyNZ as set out in their submission document.
8.9(71) p.81	Do you have any comment on the proposal to restrict feedlots?	We support increased controls on feedlots. The threshold for describing a land use as feedlotting has been set very high. The very high risk associated with confining animals on a pasture-free area for protracted periods would justify regulation at lower thresholds. As worded the restrictions (the need for consent) would not apply when the risk factors described exist for up to 160 days on any particular parcel of land in a year. Fonterra would support strengthening this standard.
8.9(72) p.81	Do you support the proposal relating to stock holding areas? Why / why not?	Well designed and managed stock holding areas are an effective mitigation tool in the management of contaminant losses from pastoral systems. The issues that can arise from poor practice are easily described and understood, and are well suited to permitted activity conditions. Requiring consent to manage these structures is an inefficient regulatory response when clear and enforceable conditions could be easily set out. Clear standards (including sealing standards, effluent management and minimum separation distances) should be prescribed within the NES with a requirement for consent if the standards cannot be met. There is a risk that calf sheds - utilised to raise young-stock on dairy farms until they reach maturity

		to be grazed on pasture – are captured by the definition of stockholding areas. We suggest that drafting changes are applied to ensure that these facilities are excluded in the same manner as milking sheds and animal husbandry areas.
8.9(73) p.81	Do you think sacrifice paddocks should be included?	We support the establishment of minimum standards for high risk practices. As with the risks from stock holding areas, regulating the risks of sacrifice paddocks, through clear permitted activity conditions, is appropriate and efficient. A requirement for resource consent where minimum standards cannot be met is supported.
8.9(74) p.81	What would you have to do differently if this proposal was implemented?	Fonterra FEPs already identify stock holding areas as critical source areas and any identified structure or management issues will be addressed through a clear, timebound action written in to the FEP. Having nationally consistent minimum standards as permitted activity rules, along with the Good Farming Principles to guide best practice, would be an example of regulation supporting industry on-farm programmes.
8.9(76) p.81	Are the definitions used in the policies accurate, and if not, how do you suggest improving them?	Part 3 p12: "**critical source area**" is defined here as a landscape feature. Fonterra believes this definition is too limited and should rather consider any area where there is (i) a source of potential contaminants and (ii) a risk of that source of contaminants reaching water. In our view it is the combination of these two factors (source and linkage to water) that creates a critical source area that must be identified and managed in the FEPs. A focus on identifying a wide range of landscape features serves little purpose. In line with our earlier submissions on Subpart 4, Fonterra believes the definitions for this section should be consequentially rewritten so as to replace references to "nitrogen loss", with "purchased nitrogen surplus". Additionally definitions of "purchased nitrogen surplus" and "Nitrogen Risk Scorecard" should be added.

ENDS