SUBMISSION ON PROPOSED ACTION FOR HEALTHY WATERWAYS

To: Freshwater submissions
Ministry for the Environment
P O Box 10362
Wellington 6143

Submission on: Proposed Action for Healthy Waterways Discussion Document; Draft National Policy Statement for Freshwater Management; Proposed National Environmental Standards for Freshwater; Draft Stock Exclusion Section 360 Regulations

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31 October 2019
1 INTRODUCTION

The following submission is made on behalf of Ravensdown Limited (Ravensdown) to the proposed Action for Healthy Waterways programme.

1.1 Overview

Ravensdown has reviewed the Discussion Document ‘Action for healthy waterways’ (September 2019) and the accompanying documents including the Draft National Policy Statement for Freshwater Management – Proposals for consultation (September 2019) (Draft NPS-FM), the Proposed National Environmental Standards for Freshwater – Proposals for consultation (September 2019) (Proposed NES-F), and the Draft Stock Exclusion Section 360 Regulations (Draft SER).

Ravensdown acknowledges the intent of the Action for healthy waterways programme is to ensure New Zealand has ecologically healthy waterways, and the three Government objectives to stop further degradation, reverse past damage and address water allocation issues.

Ravensdown supports this overall intent, conditional on matters of interest outlined in this submission being addressed. Ravensdown notes the message from the Ministers states that:

“... freshwater degradation issues have been decades in the making, so we want to ensure the pace of change is manageable and appropriate support in place.” (para. 6; page 5 of Discussion Document)

The Ministers’ message goes on to state:

“New requirements must be practical and enduring. This means they need to be science-based, predictable, understood by the public, and underpinned by effective regulation and enforcement.” (para. 7; page 5 of Discussion Document)

Ravensdown strongly supports the sentiment expressed in the above statements which encapsulates the approach Ravensdown has taken to reviewing the Action for healthy waterways Discussion Document and accompanying documents.
While Ravensdown also supports the intention of the programme to focus first on catchments where the risk of further damage is greatest, it has some reservations on the means of determining these catchments.

In its submission Ravensdown addresses some key areas of concern and questions a number of the initiatives the programme is proposing in order to achieve the outcomes sought. In particular, Ravensdown is concerned about the achievability of a number of these initiatives and the timeframes set through regulation, and the robustness of the estimates of costs and impacts on resource users that are required to implement the initiatives.

In preparing its submission Ravensdown has consulted with a number of primary sector industry groups to inform its views and submission points. Ravensdown’s submission also makes reference to Good Management Practices (GMP) which refers specifically to the 2015 ‘Industry-agreed Good Management Practices relating to water quality’ document prepared by primary sector industry groups and adopted by Environment Canterbury through its Land & Water Regional Plan.

### 1.2 Approach to submission

This submission adopts the following approach:

1. Identification of key matters of interest/concern to Ravensdown.
2. Identification of a preferred approach to address the concerns.
3. A response to the questions included in the Action for healthy waterways Discussion Document specifically relevant to the matter of interest to Ravensdown in Appendix 1 to this submission.

### 1.3 Further involvement

While Ravensdown notes the timeframes for the implementation of new requirements is very short (June 2020), it is willing and available for further involvement in the Action for healthy waterways programme to discuss any of the matters of concern and preferred approaches to addressing these concerns with the Ministry for the Environment prior to the June 2020 deadline.
2 RAVENSDOWN LIMITED

2.1 Ravensdown’s interest in regulatory processes

Ravensdown takes an interest in a wide range of resource management matters that relate to rural and industrial activities and participates in policy and planning processes at the national and regional level through preparing submissions on policy and plan mechanisms prepared under the Resource Management Act 1991 (RMA).

In participating in policy and plan development processes, Ravensdown recognises the need for the environmental impacts of farming to be mitigated and is supportive of the effects-based approach required by the RMA. However, it is important that farmers’ ability to farm is not unduly restricted and they retain the opportunity to innovate and to run farm businesses that are productive, sustainable and profitable for the benefit of all of New Zealand.

In addition, Ravensdown has its own manufacturing, quarrying and bulk fertiliser store activities to service its customers. Ravensdown supports the need to mitigate the effects of its operations on the environment and is committed to fulfilling its environmental obligations in order for its business activities to continue.

In particular, Ravensdown participates in policy and planning processes to ensure planning mechanisms incorporated into national policy/environmental standards and regional plans find an optimal balance between any necessary restrictions on farming activities, as well as its industrial operations, and the use of the products and services it has developed to assist with sustainability, growth and production in the rural sector, and ultimately the economic and social wellbeing of the rural community and New Zealand.

2.2 Ravensdown’s shareholders in New Zealand

Ravensdown has approx. 21,000 shareholders in New Zealand. 32% of these are dairy farmers, with the balance comprising a mix of sheep, beef, other livestock (50%), horticulture and cropping systems (12%), and others (6%).
2.3 Ravensdown’s business

Ravensdown exists to enable smarter farming for a better New Zealand. As a farmer-owned cooperative, Ravensdown’s products, expertise and technology help farmers reduce environmental impacts and optimise value from the land.

Ravensdown operates a network of fertiliser bulk stores, quarries and three superphosphate manufacturing plants throughout New Zealand.

Ravensdown is an integral part of the food creation process, whether the food is grown for livestock or for humans. Ravensdown tests for, advises about, buys, ships, stores, spreads, measures and maps food-creating nutrients and fertiliser for its farmers in an integrated way.

Ravensdown is a science-focused organisation delivering quality agri-products, technologies and services. Ravensdown provides:

a) Practical insights, trusted guidance and lab-based diagnostic data on soil, plant and water samples.

b) Environmental consultancy to assist farmers to mitigate impacts and move beyond compliance.

c) Quality agri-products including agrichemicals, seeds and animal health products.

d) Manufacture of superphosphate-based products at dedicated plants in Christchurch, Dunedin and Napier.

e) Lime quarries producing agricultural lime products.

f) Logistics and storage of bulk fertiliser and other products to ensure they are available when needed.

g) Global sourcing from top tier suppliers.

h) Capability for precision fertiliser application by ground and by air.

i) Map-and-measure technology supported with tailored decision support for better on-farm decision making.

j) Innovation and research to ensure advice and solutions are based on sound science.

Ravensdown provides the nutrients that nourish New Zealand’s soil which, in turn, feed the plants and animals that deliver the products that can command a premium on the world stage. Smarter farming is all about smarter choices for the environment. Sales are important, but as a farmer-owned cooperative, it is not Ravensdown’s policy to sell farmers more than they need. Precision agriculture is about the right amount of the right inputs in the right place, applied at the right time. Smarter farming
is also about always having the right reason – the focus on the environment, community and kaitiaki (stewardship).

Nutrient losses from fertiliser are undesirable and these potential losses can be managed using a range of techniques including appropriate advice on product type, application rates and timing.
3 **KEY MATTERS OF INTEREST TO RAVENSDOWN**

The proposals outlined in the *Action for healthy waterways* Discussion Document are to be implemented through three regulatory instruments: the draft NPS-FM; proposed NES-F; and draft SER.

The purpose of the proposed NES-F and draft SER is to set rules and mechanisms to implement the objectives and policies of the draft NPS-FM. The following comments on these instruments only focus on those matters of interest to Ravensdown:

1. **Draft NPS-FM**
   - Matter of Interest #1 – Draft NPS-FM (general comments)
   - Matter of Interest #2 – Immediate action to reduce nitrogen loss
   - Matter of Interest #3 – Setting new bottom lines for nutrients in waterways
   - Matter of Interest #4 – Future nitrogen allowances

2. **Proposed NES-F**
   - Matter of Interest #5 – Proposed NES-F (general comments)
   - Matter of Interest #6 – Farm Plans
   - Matter of Interest #7 – Use of OVERSEER®FM
   - Matter of Interest #8 – Winter grazing
   - Matter of Interest #9 – Restricting further intensification of rural land use
   - Matter of Interest #10 – Sediment
   - Matter of Interest #11 – High nitrate-nitrogen catchments.

3. **Draft SER provisions.**
   - Matter of Interest #12 – Draft SER
   - Matter of Interest #13 – Stock exclusion

4. **Impacts on farmers – costs.**
   - Matter of Interest #14 – Financial impacts

5. **Modelling mitigation strategies on farm profitability.**

6. **Timeframes.**

3.1 **Draft National Policy Statement-Freshwater Management (Draft NPS-FM)**

The management of nitrogen in waterways is a key matter of interest to Ravensdown, and in particular in rural areas where it is stated that farming can significantly increase the adverse cumulative effects of contaminant losses, and can pollute waterways with sediment, nutrients (nitrogen and
phosphorus), and pathogens (like *E. coli*). Ravensdown generally agrees that some farming methods can have a high impact on waterways if not managed in line with GMP. Ravensdown is aware of and is involved in the development of GMP with primary sector groups and supports the adoption of GMP in regional freshwater plans (supported by rules) to manage the adverse effects of farming methods on waterways.

A key issue raised in the Discussion Document seems to be the fact that over half of the regional councils have extended the timeframe for preparing a freshwater plan or plan change to give effect to the current NPS-FM by 2025, and most are intending to push this timeframe out to 2030. In response to this potential delay, the proposal is to amend the NPS-FM to enable a faster plan-making process and require regional councils to have publicly notified decisions on plans by 31 December 2025. Government appointed commissioners would form a panel with council representatives and tangata whenua to consider council plans, hear submissions, and make recommendations (councils to make the final decision) with restricted avenues for appeal. While Ravensdown supports the intention to have freshwater plans amended and approved in a timely manner, it is concerned about the restricted avenues for appeal which is an important component of plan making under the RMA that should not be compromised for expediency.

**Matter of Interest #1 – Draft NPS-FM (general comments)**

The purpose of the draft NPS-FM is to:

> Set objectives and policies in relation to freshwater management and to specify what local authorities, in their governance and management roles, must do to help achieve those objectives and policies.

The draft NPS-FM includes:

- **One objective that reflects the fundamental concept – Te Mana o te Wai.**
- **Thirteen policies that the NPS-FM is intended to achieve.**
- **Approaches to achieve the objectives and policies including Te Mana o te Wai; tangata whenua roles and interests; integrated management.**
- **National Objectives Framework (NOF) for identifying Freshwater Management Units (FMUs) and monitoring sites; identifying values and environmental outcomes; identifying current attribute states; setting target attribute states; identifying limits on resource use and preparing action plans; setting environmental flows and levels; identifying take limits; monitoring; what to do if deterioration is detected.**
• Specific requirements for inland wetlands; streams; fish passage; primary contact sites; water allocation; accounting systems; assessing and reporting.

• Exceptions – large hydro schemes; naturally occurring processes; transitional.

• Timing.

**Ravensdown’s Position**

In regard to the draft NPS-FM, Ravensdown has the following concerns:

• Ravensdown notes that the new objective is a considerable step-change from the Te Mana o te Wai objective in the current NPS-FM and is not supported by other objectives that implement the requirements of the RMA for freshwater management. Ravensdown is concerned that the draft NPS-FM is not consistent with or implements the purpose of the RMA. Ravensdown does not support the objective as it is currently written, or the lack of other objectives relating to water quality/quantity and integrated management in the draft NPS-FM.

• Ravensdown notes that most of the ‘policies’ listed in Section 2.2 are ‘intended outcomes’. By definition, a policy should be a course of action to achieve the objective in Section 2.1 using the SMART principle. Ravensdown does not consider the draft NPS-FM includes clear policies that provide a course of action to meet the objective, but high-level aspirational outcomes (which by definition is an objective).

• National Objective Framework: Clause 3.10 - Identifying limits on resource consents and preparing action plans. Ravensdown has concerns regarding Subclause (4)(c) that intends to limit resource use expressed as an input control (such as the amount of fertiliser that may be applied) or an output control (such as volume or rate of discharge). This clause does not provide any clarity or consistency because it directs anthropogenic resources (such as fertiliser) as an input limit and also as an output limit. Ravensdown seeks the deletion of this clause, or in the alternative should use wording consistent with the RMA and provide guidance on implementing “controls on land use or land use activities”.

• Subpart 4 provides exceptions for large hydro schemes. Ravensdown does not support the proposed exceptions when considering the fundamental premise of Te Mana o te Wai is “prioritising the health and wellbeing of water before providing for human needs
and wants” [page 3 of draft NPS-FM]. To provide an exception to a significant resource user is contrary to the principle of Te Mana o te Wai and also places an unreasonable burden on other resource users (farmers) in those catchments impacted by the large hydro schemes. This is particularly the case in the Waiau River catchment in Southland where 95% of the river flow is diverted for hydroelectricity production in the Manapouri Power Scheme.

- **Appendix A1 – Compulsory Values & Appendix 1B – Other values that must be considered:** Ravensdown generally supports the intent of these draft NPS-FM provisions and notes the recognition of primary production (food and non-food crops) in the Appendix 1B matters.

- **Appendix 2A – Attributes requiring limits:** As discussed above in Matters of Interest #2, Ravensdown opposes the DIN national bottom lines included in Table 5 and the DRP national bottom lines included in Table 6. Ravensdown also opposes the suspended fine sediment – turbidity numbers included in Table 10 for reasons discussed in Matter of Interest #10 below.

Ravensdown seeks the inclusion of a suite of objectives similar to the current NPS-FM and a re-write of the Te Mana o te Wai objective to make it more consistent with the purpose of the RMA.

Ravensdown seeks the policies to be redrafted to meet the SMART principle for policy writing – that may mean some of the intended outcomes be included as objectives.

Ravensdown seeks Clause 3.10 (4) c) be deleted or in the alternative should use wording consistent with the RMA and provide guidance on implementing “controls on land use or land use activities”.

Ravensdown seeks subpart 4 to be deleted.

Ravensdown seeks the national bottom lines for DIN and DRP be deleted from the relevant tables, and provision for regional councils to develop their own bottom lines for DIN and DRP, based on robust science, that are appropriate for their regions.

Ravensdown seeks realistic thresholds for suspended sediments to be set that reflects the nature of the catchments, and allows for the preferred approach proposed above to use a Farm Plan that identifies a pathway meeting GMP for their particular farming activities within the environment they operate, and where a catchment is degraded, then require the farmers to operate at 10% or 15% below GMP until improvements in the catchment are recorded. This approach is achievable and practicable as GMP continues to evolve.
Matter of Interest #2: Immediate action to reduce nitrogen loss

The proposal is:

To introduce immediate measures to reduce excessive nitrogen leaching arising from poor management practices to ‘hold the line’ on water quality while regional councils introduce plans to implement the current NPS-FM by 2025. Interim measures would apply to catchments (or sub-catchments) having been identified as having high nitrogen levels derived from intensive pastoral farming (as listed on Page 72 of the Discussion Document).

Three options are put forward for consideration:

Option 1 – Nitrogen-loss cap in high nitrate-nitrogen catchments – set a per hectare nitrogen leaching cap, or threshold, for nitrogen leaching for each sub-catchment with similar soil type and rainfall where nitrate-nitrogen levels are in the highest 10% of monitoring sites and regional rules are not in place.

Option 2 – National nitrogen fertiliser cap – caps or thresholds for total nitrogen applied in fertiliser per hectare per year would be set based on research findings or GMP, applied nationally and with a higher threshold for higher nitrogen-demanding crops and land-uses. Farms and horticultural producers would have to use less than the threshold amount of nitrogen in fertiliser per hectare, or a resource consent is required.

Option 3 – Farm-based reductions – farms in catchments with high nitrate-nitrogen levels (highest 10% of monitoring sites where rules implementing NPS-FM are not in place) would have to show in the freshwater module in the farm plan, how they will rapidly reduce nutrient leaching. Farm plans would be required within 2 years of NES-F coming into effect (expected in June 2020).

Ravensdown’s Position

Ravensdown is concerned that a single focus on nitrogen will not achieve the ecosystem health outcomes (objectives and policies) being sought in the draft NPS-FM.

Ravensdown prefers an approach that is a variation to Option 3 that requires all farmers to have a Farm Plan that identifies a pathway for meeting GMP for their particular farm systems within the
environment they operate, and where a catchment is degraded, then require the farmer to operate at 10% or 15% below GMP until improvements in the catchment are recorded. For those catchments where degradation continues regardless of these measures, restrictions on land intensification or land use change would then need to be considered.

Such an approach would provide a package of measures for managing nitrogen loss that are output based, pragmatic and relevant to the farm system, and supports targeting catchments with high nitrate-nitrogen levels. This support of Farm Plans is conditional on matters of interest to Ravensdown discussed later in this submission being addressed.

In sensitive catchments where farmers are required to get to better than GMP with respect to nitrogen loss, an objective should be to drive management change to increase as far as possible the nitrogen use efficiency (NUE) of their system. This will require careful balancing of the inputs of all forms of nitrogen (e.g., clover nitrogen fixation, supplementary feed nitrogen and nitrogen fertiliser) with the stock dietary requirement for protein and the production of meat, fibre or milk.

Specific concerns Ravensdown has with Options 1 and 2 include:

- Adopting the Waikato approach in Option 1 is not supported as: this approach has not been proven or tested; there is no certainty the draft NPS-FM outcomes will be achieved; and the economic, social and community impacts have not been appropriately identified and assessed;

- Adopting a ‘one size fits all’ approach in Option 2 is not supported by Ravensdown as: input control of fertiliser is not effects based and reduces flexibility and is not particularly effective and is difficult to allocate; the thresholds set may not be equitable across regions or across primary sectors; and the economic, social and community impacts have not been appropriately identified and assessed.

Ravensdown seeks an approach that is a variation to Option 3 that requires all farmers to have a Farm Plan that identifies a pathway for meeting GMP for their particular farm systems within the environment they operate, and where a catchment is degraded, then require the farmer to operate at 10% or 15% below GMP until improvements in the catchment are recorded. This approach is achievable, practicable, and enhances the adoption of emerging innovations and technology as GMP continues to evolve.

If after achieving the below target GMP, and catchment improvements are not achieved then restrictions on land use intensification or land use change would be required through the Farm Plan process.
Matter of Interest #3: Setting new bottom lines for nutrients in waterways

The proposal is:

To introduce a new bottom line for nitrogen in rivers at an annual median of 1.0 milligrams per litre (mg/l) of dissolved inorganic oxygen (DIN) and a bottom line for phosphorus in rivers at an annual median of 0.018mg/l of dissolved reactive phosphorus (DRP). GMP can achieve some but not all of the reduction in nutrient losses required to achieve ecosystem health. Further reductions of nitrogen loads of more than 50% in some regions (especially parts of the Waikato, Canterbury and Southland) may be required, beyond the impact of the current attributes and bottom lines.

The proposal also includes amending the periphyton attribute in the current NPS-FM by removing the provision for the ‘productive class’ and requiring councils to use a default table to set periphyton biomass thresholds in cases where there are no robust, locally suitable, independently peer reviewed criteria.

Ravensdown’s Position

Ravensdown has a number of concerns about setting bottom lines for DIN and DRP:

- The bottom lines proposed are likely to be unachievable universally and impracticable (without a very significant financial dislocation to some farmers and NZ) as they would require substantial reductions in nitrogen loads for a large number of catchments, which is contrary to the Minister’s message that new requirements must be practical and enduring.
- Coupled with this is the admission in the Ministerial Cabinet Paper (para. 77) that a significantly greater scale of mitigation and land use change is required to meet the periphyton bottom lines introduced in 2014 than previously estimated;
- Ravensdown is not aware of any substantial economic or social analysis of the impacts of adopting the proposed bottom lines for DIN and DRP;
- The science to determine the difference between a reduction in nitrogen leaching and the nitrogen load in the receiving waterbody is scientifically fragile to say the least;
• Furthermore, there are questions regarding whether the science behind the identified bottom lines to achieve the improvements in ecosystem health sought by the draft NPS-FM is robust and certain;

• Ravensdown understands there is no national summary of periphyton monitoring available, meaning it is very difficult to test where periphyton needs further control and what nutrient limits will ensure appropriate control;

• The intent of introducing a DIN number is to introduce nitrogen restrictions, including for soft bottom streams that do not grow periphyton. However, the growth of macrophytes in these catchments is substantially driven by the sediment load in these catchments;

• The proposed DRP number effectively seeks to return all rivers to a close to undisturbed condition and sets a target that is likely to have significant impacts on economic outcomes without a demonstrated benefit for the environment;

• Applying a one-size fits all ‘blanket approach’ and locking in a ‘flawed’ national bottom line number across all catchments is not best practice, does not give flexibility to Councils to consider what approaches will be effective to manage ecosystem health, and it is considered inappropriate to set a nutrient criterion relating to reference state or natural water quality states for all rivers nationally.

Ravensdown prefers that regional councils develop their own bottom lines for DIN and DRP based on robust science that is appropriate to their region. The Taranaki and Southland councils are evidence of the benefits of developing a range for DIN and DRP appropriate to their regions. It is recognised that in other regions more work scientifically should be done to arrive at a range appropriate to that region.

As an alternative, and less preferred by Ravensdown, a staged ‘default’ approach could be taken whereby a national bottom line is set for a limited period (say 3 years) by which time individual regional councils would have to develop a range for DIN and DRP appropriate to their region based on robust science identifying risks at a catchment level. Any land use activities that could not meet the ‘default’ national bottom line would require a resource consent to operate.

Ravensdown does not support the setting of single bottom line numbers for DIN and DRP.
Ravensdown prefers that regional councils develop their own bottom lines for DIN and DRP, based on robust science, that are appropriate for their regions.
As a less preferred alternative, Ravensdown suggests a staged ‘default’ approach whereby a national bottom line is set for a limited period (e.g. maximum 3 years) by which time individual regional councils would develop a range for DIN and DRP appropriate to their region based on robust science identifying risks at a catchment level.
Matter of Interest #4 – Future nitrogen allowances

When identifying the path forward (next 12 months), there is an indication that there will be public consultation on nitrogen discharge allowances. It is understood that in order to reduce nitrogen discharge levels to meet those limits outlined in the proposal (as discussed above), there needs to be a system for allocating allowances to discharge nitrogen into water. This system would have to provide for new entrants and the development of currently undeveloped land.

Ravensdown’s Position

Ravensdown supports the development of a system for nitrogen allocation. However, Ravensdown is concerned that such an allocation system is to be developed separate to the proposals included in the Discussion Document for reducing nitrogen loss in waterways.

Ravensdown would prefer to have the consultation and development of a nitrogen allocation system now, and prior to the setting of bottom lines or other initiatives included in this Discussion Document. Ravensdown is concerned that the development of a future allocation system would need to be aligned with the attributes and limits proposed in the draft NPS-FM, and that may constrain the ability to use land for primary production in some catchments.

Ravensdown seeks to have the consultation and development of a nitrogen allocation system now, and prior to the setting of bottom lines or other initiatives.

3.2 Proposed National Environmental Standards-Freshwater (Proposed NES-F)

Environment Aotearoa 2019 says that there are many studies at national, regional and catchment scales that show concentrations of nitrogen, phosphorus, fine sediment and E. coli in river all increase as the area of farmland upstream increases. To ensure all farmers and growers contribute to the solutions there needs to be good practice standards across the board and a way of ensuring they are followed. Because every catchment and region is different with different timeframes likely for reducing pollution to meet regional objectives and targets, a number of farm practices are proposed in the proposed NES-F.
Ravensdown supports the intent of the proposals to improve farm practices and adopting GMP to assist in the management of concentrations of nutrients in waterways. However, Ravensdown has concerns regarding how farm practices are to be improved, and in particular: restricting further intensification by a change in land use activities (e.g. drystock to avocados); requiring farm plans with a freshwater module; excluding stock from waterways; and controlling intensive winter grazing. These matters are discussed below.

**Matter of Interest #5 – Proposed NES-F (general comments)**

The proposed NES-F includes Environmental Standards of interest to Ravensdown for:

- **Wetlands including monitoring; rules for vegetation destruction; rules for earth disturbance; water take activities;**
- **Farming including livestock control; intensification; freshwater modules in Farm Plans;**
- **Additional proposal for management of nitrogen in Schedule 1 catchments including a nitrogen cap that would replace Clause 38 (1)(j) and (5) provision; applies only to farms in catchments identified in Schedule 1 but only until NPS-FM fully implemented by regional plans; a baseline nitrogen loss figure and threshold value (prepared by regional council) is required from commencement date of NPS-FM; controlled and discretionary activity consents do not apply until 19 months after commencement of NPS-FM; Overseer output files are not required until 18 months after commencement of NPS-FM.**

**Ravensdown’s Position**

Ravensdown is mainly interested in Part 3 Farming and the additional proposal for the management of nitrogen in Schedule 1 catchments.

In relation to Part 3 Farming, Ravensdown has the following concerns/comments:

- Ravensdown supports Part 3 not applying to pastoral farms and arable farms less than 20ha, and horticultural farms less than 5ha.
- Subpart 1 – Livestock Control: Ravensdown notes that for feedlots; sacrifice paddocks; other stock holding areas; and intensive winter grazing, resource consent applications made before the commencement date (of the proposed NES-F) must have a condition that a Freshwater Module in a Farm Plan (FW-FP) is prepared and after the date that is 2 years after the commencement date must include a certified FW-FP for the farm. **As**
discussed in Matter of Interest #6 below, Ravensdown does not support the timeframes proposed for preparing FW-FP for the reasons given;

• Subpart 2 – Intensification: Ravensdown notes the requirement for a FW-FP to be prepared and included as part of a resource consent application, similar to Subpart 1 above. As discussed in Matter of Interest #6 below, Ravensdown does not support the timeframes proposed for preparing FW-FP for the reasons given;

• High-risk land use changes (Clause 35): Ravensdown supports providing for the change in land uses identified as a discretionary activity, subject to the concerns expressed above regarding the provision of a FW-FP as part of a resource consent application;

• Subpart 3 – Freshwater Modules of Farm Plans: Ravensdown supports in general the principle of having a Freshwater Module included in a Farm Plan, subject to the concerns expressed above;

• Content of FW-FP (Clause 38): Ravensdown generally supports the matters to be addressed in a FW-FP which is consistent with a number of regional plans. Ravensdown understands that stock exclusion requirements do not include sheep, and considers Clause 38 (3 f)) should specifically reference that sheep are not to be addressed in the FW-FP;

• Certification of FW-FP (Clause 40): While Ravensdown supports national criteria for certifying a farm environmental planner, it notes that a farm environment planner (and auditor – Clause 41) is required to be approved by the Minister for the Environment and the Minister of Agriculture. Ravensdown considers it is more appropriate for a regional council to approve a farm environment planner and sees no reason why a Minister needs to approve this person. Ravensdown also seeks recognition of the existing farm environment planner programmes, including the Nutrient Management Advisor Certification Programme which recognises specialist skills in preparing OverseerFM nutrient budgets. Ravensdown is also concerned that the farm environment planner is expected to certify a FW-FP that includes an accurate identification of risks (as required by Clause 38(3)) and sets out actions that can or will appropriately address those risks that relate specifically to freshwater ecosystem health (which is defined in Appendix 1A of the proposed NPS-FW and includes 5 biophysical components). Ravensdown
considers this risk assessment would require specialist freshwater ecology skills and expertise that the farm environment planner is unlikely to have;

- Subpart 4 – Nitrogen Cap: Ravensdown notes Subpart 4 is an alternative proposal for managing nitrogen loss than provided for in Clauses 38(1)(j) and 38(5). Ravensdown prefers the Clauses 38(1)(j) and 38(5) provisions which are consistent with the approach it proposes above to have actions that are tailored via a Farm Plan at the farm-scale. Ravensdown considers the alternative provisions included in Subpart 4 are too complex and are likely to cause further delays in implementation.

**Matter of Interest #6 – Farm Plans**

The proposal is to:

*Make it mandatory for all farmers to have a farm plan with a freshwater module (known as a FW-FP in the proposed NES-F) by 31 December 2025.*

*Farms that do not already have a certified FW-FP that are: used for commercial vegetable production; in catchments and sub-catchments in Schedule 1 of the proposed NES-F; and in the Kaipara catchment on highly erodible land must have a certified FW-FP within 2 years of the commencement date of the proposed NES-F (expected to be June 2020).*

*The freshwater module would integrate with existing farm planning tools, resource consents and regional plan rules and would be signed off by a suitably qualified (certified) and experienced farm environment planner. The freshwater module is to be independently audited and progress reported to the regional council.*

**Ravensdown’s Position**

Ravensdown supports the use of Farm Plans as a mechanism to direct farming practices, and address environmental effects from such practices, and has participated in a number of regional plan preparation processes to ensure the content and implementation of such plans is workable. Ravensdown also supports in principle requiring farm plans being mandatory, and to include a freshwater module. This support is conditional on farm plans being prepared by suitably qualified (certified) and experienced environmental planners and freshwater specialists, a robust certification and auditing system (as proposed), and resources being available to prepare and implement these plans. As farm systems can change over time, Ravensdown considers a Farm Plan should be updated
every 5 years as a matter of course, or sooner if there has been a material change to the farm system (i.e. when key input data such as stocking rates, nitrogen application changes 20% less or greater than the numbers used to develop the Farm Plan for 2 years in a 5-year period).

However, Ravensdown has a number of concerns regarding the proposal as it currently stands:

1. The capability within the industry to prepare the Farm Plans, particularly within the timeframes proposed for these plans to be mandatory;
2. The ability of the industry, farm environment planner and freshwater specialist to access and interpret the required spatial datasets (at an appropriate scale) to allow correct identification of at-risk freshwater values;
3. Associated with this is the specialist freshwater expertise required to prepare parts of the freshwater module, and in particular, the risk assessment required to determine the consequent impacts of contaminant losses on freshwater ecosystem health and actions required;
4. The costs of the environmental planner and freshwater specialist preparing a freshwater module and the remainder of the Farm Plan could be expected to be far greater than the $3,500 suggested, and the costs of implementation for a particular farm, and the ongoing independent auditing of the freshwater module and Farm Plan (discussed in the Impacts section below);
5. While identifying action points to address risks identified is supported, Ravensdown is concerned about situations when mitigations may not be available or may not work as anticipated, or the source of the risk is either not within the control of the farmer, or is on adjoining properties or in the upper catchment;
6. There is a lack of clarity around the determinants of whether the auditing frequency is 2 yearly or 3 yearly. Ravensdown would prefer a system similar to that in place in Canterbury whereby the initial audit is completed within 12 months and thereafter the audit frequency is determined through bands of grades A to D, each of which has specific criteria to be met.
7. Targeting the catchments in Schedule 1 of the proposed NES-F may not achieve the immediate outcomes sought in the proposal as these may not be the highest priority catchments for directing resources because despite observed higher nitrate levels, nitrate alone is not a direct measure of environmental impacts.

Ravensdown notes that FANZ in partnership with DairyNZ and Beef & Lamb are building capability in certified nutrient management advisers. Ravensdown has also invested in its own staff, requiring advisory staff to undertake post-graduate training in nutrient management and requiring them to
pursue certification. Notwithstanding this investment, as outlined above, Ravensdown is concerned that there are not enough certified and qualified people to prepare the Farm Plans required to implement the proposals within the timeframes set.

Ravensdown supports making Farm Plans mandatory but with the caveat that further investigations regarding the capacity within the industry to prepare the plans within the timeframes proposed and the availability of freshwater experts to provide input into the Freshwater Module are required.

As an alternative, Ravensdown supports the mandatory requirement to have Farm Plans (with a Freshwater Module) prepared within realistic timeframes, such as within 5 years of the regulation becoming operative for intensive dairying and vegetables; and dry stock and all other farming activities within 10 years.

Ravensdown supports the inclusion of a freshwater module in the Farm Plan and the content included in Clause 38, but requires a clear statement in Clause 38 (3) f) that sheep are not to be addressed in the FW-FP.

Ravensdown supports a certification process but would prefer that the regional council certification process is adopted as the method to approve farm environment planners for their regions.

Ravensdown seeks deletion of Subpart 4 – Nitrogen Cap and supports managing nitrogen loss through Clauses 38(1)(j) and 38(5).

Matter of Interest #7 – Use of OVERSEER®FM

Overseer is referenced in the Discussion Document and proposed NES-F in a number of settings, including:

1. Government investing in systems and technology (such as Overseer) that will help monitor and manage pollution (Section 1.5);

2. As part of Option 1 for immediate actions to reduce nitrogen loss, requiring pastoral farms on flat or gently rolling land in identified catchments to provide an Overseer audited nitrogen loss figure to council, and using Overseer to calculate a threshold across the catchment.

3. In the proposed NES-F a definition is included in Clause 43;

4. In the proposed NES-F, a controlled activity condition (Clause 44) and discretionary activity condition (Clause 45) requires a farmer to provide to council by 30 September in each year an Overseer FM output file (certified by an Overseer FM modeller) for the previous farm year;

5. In the proposed NES-F, every farmer of a dairy farm or a low-slope pastoral farm (not a dairy farm) must provide a nitrogen loss figure for the farm to council in the form of an
electronic OverseerFM output file certified as accurate by an Overseer modeller (Clause 46); and any farmer not required to have a controlled or discretionary resource consent under Clauses 44 or 45 must provide annually to the council an OverseerFM output file certified by an Overseer modeller of their farming activities for the previous year (Clause 48).

**Ravensdown’s Position**

Ravensdown welcomes and supports Government investing in systems and technologies that will help to monitor and manage nutrients in waterways. Ravensdown also supports the need for a certified modeller to run and interpret Overseer.

Ravensdown supports the use of OverseerFM as a cloud-based platform which operates differently from the early versions of Overseer software in that it is updated much more frequently than the significant twice-yearly updates that have occurred previously.

Ravensdown does not support Option 1 as its preferred option for immediate actions to reduce nitrogen loss. Ravensdown considers OverseerFM is one of the ‘tools’ available to resource users to manage nitrogen loss at a farm level. Ravensdown notes that while OverseerFM is not designed to be a regulatory mechanism and was not intended to be used to determine a resource consent activity status as it is in some plans, it is currently the best tool available, and accepts it will be used in a compliance capacity by councils.

In relation to the use of OverseerFM in the proposed NES-F, Ravensdown notes that these provisions are an alternative proposal for managing nitrogen loss and relates to setting a nitrogen cap for a catchment (discussed further below).

OverseerFM is a long-term quasi-equilibrium model using long term average climate data against within-year management changes. The N loss estimate is uncertain, and it would be better to report N loss on an average 5-yearly basis, averaging the management input information across these years.

Ravensdown’s preferred use of OverseerFM is for developing nutrient budgets as part of a Farm Plan.

Ravensdown also believes there is an opportunity for Government to invest in mitigation research. Ravensdown supports a partnership approach to research investment, with a focus on attracting scientists to come to New Zealand to advance innovation and technology in addressing nutrient monitoring and management issues.
The proposal is to:

Require farmers to meet standards for intensive winter grazing. Winter grazing would only be permitted if an area being grazed meets standards. Farmers would have 6 months to comply with the new standards after the regulations come into force (expected to be June 2020).

Two options are proposed:

1. Nationally set standards – winter grazing only permitted if it was below a defined threshold in area and met standards, otherwise resource consent will be required – thresholds being considered range from no more than 5% of the property or 30 ha (whichever is larger) to no more than 10% of property or 50ha (whichever is larger); slope threshold being considered from 5 degrees to 15 degrees; setbacks from the edge of waterways being considered is 5m to 20m; standards pugging threshold being considered being no more than 10cm to 20cm (over half of the paddock).

2. Industry set standards supplemented by GMP winter grazing with resource consent required where standards not met – standards being considered: slope threshold – permitted on land below 20 degrees; all winter grazing setback 5 metres from edge of waterways; pugging extent no more than depth of ankle joint of stock (fetlock).
Ravensdown’s Position

Ravensdown supports in principle proposed national standards for intensive winter grazing with a consenting pathway for those activities that cannot meet national standards. Ravensdown considers any national standards should account for regional differences in intensive winter grazing practices.

Ravensdown prefers the ‘no more than 10% of property’ approach rather than incorporating a 50ha cap. Ravensdown also seeks a technical review of the range of threshold standards proposed to ensure the final thresholds agreed to are feasible and achieve the environmental outcomes sought in the draft NPS-FW.

Ravensdown supports a national standard in principle but seeks a technical review of the range of threshold standards proposed for winter grazing to ensure the final thresholds agreed to are feasible and achieve the environmental outcomes sought in the draft NPS-FW.

Matter of Interest #9 – Restricting further intensification of rural land use

The proposal intends to:

Tightly restrict intensification so it can only occur where there is evidence it will not increase nutrient losses and the net benefit to people, the environment and the economy is positive. By 2025 regional councils are expected to be implementing the draft NPS-FM that will prevent intensification beyond what is sustainable for land and water.

In the meantime (until councils have implemented the draft NPS-FM), it is proposed to tightly restrict land-use changes and increases in farm inputs by setting out the requirements that must be met before a resource consent is granted. The restrictions will apply to the following activities:

- Increase in area of land in irrigated pastoral, arable or horticultural production >10ha.
- Changes in land use >10ha from:
  - arable, deer, sheep or beef to dairy-support
  - arable, deer, dairy-support, sheep or beef to dairy
  - woody vegetation or forestry to any pastoral use
• Increase in forage cropping beyond the area in intensive winter grazing in the past 5 years

• Increase in land area used for commercial vegetable production beyond the maximum land area used in any one of the past 5 years

Resource consent will only be granted if activity does not increase N, P, sediment or microbial pathogen discharges above specified baseline periods or years, depending on the activity.

**Ravensdown’s Position**

Ravensdown notes that the approach taken is similar to that taken in the Waikato Plan Change 1 which is yet to be made operative. Ravensdown is concerned that the proposal intends to take a ‘blanket approach’ to the restricting of intensification of rural land use in all catchments regardless of whether they are identified as a ‘high risk’ catchment. However, Ravensdown appreciates that the restrictions are interim until Councils make changes to regional plans, they do not prohibit land use change, and they provide Councils with an additional mechanism (by way of regulatory consenting process) to manage the effects of land use change that may result in an increase in the discharge of contaminants.

Ravensdown notes that the impacts of introducing this restrictive regulatory approach need to be assessed through a robust Cost/Benefit evaluation to ensure environmental benefits outweigh the inevitable costs and delays associated with the consenting process.

Ravensdown also considers that intensification of land use should be provided for where emerging technologies such as soil fertility mapping by remote sensing enable within farm targeted intensification. This will create financial head room for concomitant implementation of mitigations resulting overall in improved environmental outcomes on a farm by farm basis.

Ravensdown accepts that the restrictions on further intensification of rural land use as an interim measure are necessary to address further degradation of waterways in areas where Councils have not yet fully implemented the draft NPS-FM.

The management of effects of land use change can be achieved through targeted actions identified in the Farm Plan.
Matter of Interest #10 – Sediment

The proposal intends to:

*Adopt an adaptive management approach to deposited sediment where regional councils monitor levels and if they exceed a threshold then action would be taken.*

*The proposal intends to include an attribute for suspended sediment (as measured as turbidity) with new bottom lines and setting out ‘attribute states’ with a system of classifying rivers reflecting that the natural levels of sediment in rivers varies widely across the country. Regional councils will set limits for each catchment or FMU and manage land within limits.*

*The approach to reducing sediment is supported by stock exclusion and winter grazing proposals.*

**Ravensdown’s Position**

Ravensdown supports an adaptive management approach to deposited sediment and generally agrees with the assumption that reducing sediment in waterways will improve the ecosystem health of the waterways, and GMP implemented through farm plans for activities that generate sediment (such as land disturbance and earthworks) can assist to reduce sediment in rivers.

However, Ravensdown is concerned that the levels of suspended sediment are above the proposed national bottom line in parts of most of NZ’s catchments. Ravensdown does not agree with the suggestion in the Ministerial Cabinet Paper (para. 67; page 13) that the proposed bottom lines for suspended sediment can be met through changes to on-farm practices and that land-use change is not required. Relying only on a change in on-farm practices is not realistic or practical, particularly in highly modified catchments and estuaries that cannot be reversed easily. On a practical note, it is also difficult for a farmer to determine turbidity levels in some waterways.

Ravensdown seeks realistic thresholds for suspended sediments to be set that reflects the nature of the catchments, and allows for the preferred approach proposed above to use a Farm Plan that identifies a pathway meeting GMP for their particular farming activities within the environment they operate, and where a catchment is degraded, then require the farmers to operate at 10% or 15% below GMP until improvements in the catchment are recorded. This approach is achievable and practicable as GMP continues to evolve.

If after achieving the below target GMP sediment issues continue, then restrictions on land use intensification or land use change would be considered through the Farm Plan process.
Matter of Interest #11 – High nitrate-nitrogen catchments

As part of the proposed approach to undertake immediate action to reduce nitrogen loss (discussed above in Matter of Interest #2), Section 8.4 of the Discussion Document identifies high nitrate-nitrogen catchments (page 72). These catchments have been identified based on having at least one monitoring site with high nitrate-nitrogen levels, and where a regional plan or proposed regional plan specifically addressing high nitrogen leaching farms are not in place.

As discussed above (in Section 3.1 of this submission), the premise for the proposal is that immediate action is required to reduce excessive nitrogen leaching from poor management practices to ‘hold the line’ on water quality. Interim measures apply to high risk catchments identified on Page 72, and feedback is sought on whether any other catchments should be added.

Ravensdown’s Position

While Ravensdown supports an overall focus for the proposals to apply to high-risk catchments throughout the country, it does not support the identification of priority catchments on nitrate-nitrogen levels alone. Nitrate-nitrogen levels are an indirect indicator and not a scientifically robust measure of potential ecosystem health effects. High-risk catchments should be based on a ‘suite’ of indicators, such as DIN, DRP, MCI, chlorophyll a, and sediment.

Ravensdown considers the selection of the high-risk catchments for immediate action based on a single monitoring site having a high nitrate-nitrogen level is flawed, especially when the threshold level is not given. The waterbodies in these catchments need to be considered holistically rather than being assessed on a single attribute. Targeting restrictions on agricultural sources of nitrogen which is one of the contributors in these catchments is not the holistic approach that is needed. The long-term nature of the issues in these catchments suggest that they do not need interim short-term action, but instead sustained effort over the long term by all nitrogen contributors.

Ravensdown seeks a wider set of criteria be developed to identify high-risk catchments that the initiatives outlined in the proposal will focus on. If a robust set of criteria are not developed or used, as an alternative, Ravensdown supports the mandatory requirement to have Farm Plans (with a Freshwater Module) prepared within realistic timeframes, such as within 5 years of the regulation becoming operative for intensive dairying and vegetables; and dry stock and all other farming activities within 10 years.
3.3 Draft Stock Exclusion Section 360 Regulations

**Matter of Interest #12 – Draft SER (general comments)**

The draft SER sets out proposed stock exclusion regulations that apply to rivers equal to or more than one metre in width. On land that is not ‘low-slope’, the regulations would only apply to high-risk pastoral activities (feeding stock on irrigated pasture or fodder crops) or land with a base carrying capacity of the stated stocking rates. On land that is not ‘low-slope’, stock would only be excluded from rivers and lakes where the regulation is triggered (where carrying capacity is high).

The regulations cover general stock exclusion requirements that relate to:

- **a)** Dairy and beef cattle, and pigs, are not permitted to cross water bodies except by a dedicated culverted or bridged cross point (unless that crossing is no more than twice per month).

- **b)** Where an existing fence does not comply with setback requirements, it shall be allowed to remain in its current position until 2025, unless the existing setback has a minimum 2 metre average width and is not less than 1 metre at any point, in which case the setback requirements do not apply until 2035.

- **c)** Landowners may seek an exemption from stock exclusion requirements, or an extension of the phase-in timeframes.

- **d)** Setbacks of 5 metres on average across a property from waterways.

**Ravensdown’s Position**

Ravensdown opposes any requirement to move existing fences at any time other than the end of the life of the fence.

Ravensdown supports the ability of a landowner to seek an exemption from stock exclusion requirements, but is concerned that there is no criteria or guidance regarding where to apply to for an exemption (presumably a regional council?) and what criteria will be used to determine whether an exemption should be granted, or rights to object if an exemption is refused.

Ravensdown seeks deletion of the requirement to move existing fences at any time other than the end of the life of the fence.

Ravensdown seeks guidance to be added regarding who a landowner should apply to for an exemption to the stock exclusion requirements, what criteria will be used to assess an application, and any objection rights.
Matter of Interest #13 - Stock exclusion

The proposal is for:

*New national standards (Draft Stock Exclusion Section 360 Regulations) for when stock must be excluded from wetlands, lakes and rivers more than 1 metre wide, and for the freshwater module to be included in farm plans (discussed above) to set out how and when farmers will exclude stock from rivers and streams less than 1 metre wide, and drains.*

*National standards to set minimum requirements in flat and gently rolling (low slope) areas within 5 years or 3 years for dairy, cattle and pigs, and other areas where the concentration of cattle or deer is similar to dairy stocking rates.*

*The key element of the proposal of interest to Ravensdown is the setback requirements that include:*  

1. A 5m setback based on stream-width, on average across a farm with a minimum width of 1 metre, for large rivers and streams (more than 1 metre across), lakes and wetlands – where an existing fence does not comply with the setback requirement, it can remain in its current position until 2025 unless the existing setback has a minimum 2 metre average width and is not less than 1 metre at any point, in which case the setback requirements do not apply until 2035;
2. Freshwater Module in farm plans to set out how and when farmers will exclude stock from rivers and streams less than 1 metre wide, with the timetable for fencing and setbacks tailored to the individual circumstances of the farm;
3. On non-low slope land (which is yet to be defined but could be greater than 5, 7 or 10 degrees), beef cattle, dairy support cattle and deer on land with a base carrying capacity of 14 stock units (SU)/ha at the farm scale, or 18 SU/ha at the paddock scale if base carrying capacity is less than 14 SU/ha at the farm scale, trigger a requirement to provide a setback of fences of 5m (on average) for rivers >1m wide and lakes across a property by 1 July 2021 (or immediately if a new pastoral system is established).

*Ravensdown’s Position*

Ravensdown understands that the stock exclusion requirements do not include sheep. However, there is no specific statement in the proposed NES-F or Draft SER that sheep are excluded, but instead
the generic term ‘stock’ is used. Ravensdown considers clarity is required with a statement in these mechanisms that the stock exclusion requirements do not apply to sheep.

In relation to the 5 metre setback for large rivers and streams, lakes and wetlands, Ravensdown is concerned that this is an arbitrary figure that does not represent the environmental conditions of the farms that might be affected. Ravensdown is not clear whether there is a scientific basis for this number.

That aside, the scale of the task to determine this setback calculation, particularly as it applies to farms that may have a boundary adjoining a long river, large lake or large and undefined wetlands, could be enormous and costly to complete. The results would also be a loss of grazing area which may be significant for large land holdings.

Likewise, accurate spatial identification of main and arterial stream networks is likely to be complex and costly; particularly for large sheep and beef holdings with numerous channel networks and catchment areas. It appears that many areas in New Zealand do not have appropriate digital elevation model coverage for robust hydrological analysis.

While the proposal includes the proviso that the 5 metres can be ‘on average across the farm’ is supported and provides some flexibility, it is not clear what this might mean and what a farmer would need to do to demonstrate they comply or for a council, who will enforce the regulation, to demonstrate that a farmer does not comply.

The implications of determining the effects of this requirement on a farm is made more uncertain with the starting point for measuring the 5 metres open for feedback. Ravensdown considers the proposal is impractical and difficult to implement.

Ravensdown also has concerns regarding the intention to have existing fences that do not meet the 5 metre setback to be moved so they do. It is not clear how this requirement lines up with the ‘on average across the farm’ suggestion included in the commentary. This requirement could have a large impact on farmers who have already fenced waterways, and the time and costs of shifting existing fences would need to be measured against environmental benefits that would be gained from this requirement. Ravensdown opposes any requirement to move existing fences other than at the end of the life of the fence.

Ravensdown also opposes the inequitable treatment of low slope and other land in relation to winter grazing on forage crops that permits winter grazing on forage crops for low slope land but requires a
consent for land which is above 10 or 15 degrees in slope. Environmental risks associated with winter grazing on forage crops relate to the intensity of the operation, the soils it occurs on, the way the activity is being undertaken and the proximity to a receiving freshwater body. Slope alone is too simplistic.

Ravensdown is also concerned about the 14SU/ha (farm scale) and 18SU/ha (paddock scale) requirements for farms on non-low slope land. Regardless of whether a 5, 7 or 10-degree slope is adopted as a trigger to define non-low slope land, farm practices (such as rotational grazing) would be likely to exceed the SU/ha threshold meaning fencing of rivers >1m and lakes with a 5m setback (on average) across the property would be required by July 2021. This requirement could have significant implications for farmers and may be an unintended consequence.

Overall, Ravensdown considers some drystock farmers would likely face large capital costs of fencing and likely suffer a large loss of grazed area from the stock exclusion requirements proposed.

Ravensdown seeks a more pragmatic approach to this matter and would prefer to have the Farm Plan approach adopted for streams less than 1 metre wide to apply to all rivers, lakes and wetlands, and targeted to high risk catchments in the first instance. This approach would see setbacks appropriate to the farm and freshwater environment, and the Farm Plan could include a fencing programme to achieve the outcomes sought over realistic timeframes.

Ravensdown seeks a review of the SU/ha requirements for rivers >1m and lakes and the fencing setback requirement that results and is concerned about potential significant implications for farmers and unintended consequences.

Ravensdown also seeks that any existing fences at the time the proposed NES-F is approved to remain in place, provided a minimum buffer is achieved as determined in a Farm Plan.

Ravensdown seeks a clear statement in the proposed NES-F and Draft Stock Exclusion Section 360 Regulations that the stock exclusion requirements do not apply to sheep.

3.4 Financial Impact on Farmers

It is well recognised in the Discussion Document that the proposals put forward will have impacts in the form of both benefits and costs. Costs are associated with implementing the proposals, and benefits are associated with long-term environmental, social, cultural and economic wellbeing. Costs will vary between those implementing the proposals, and benefits will vary depending on the natural and social environment.

Paragraph 18 of the Ministerial Cabinet Paper clearly identifies that impacts will be significant with the most significant impacts being on those who have to make the changes needed to meet national
bottom lines for sediment, nutrients and *E. coli* (swimming in summer). Meeting these bottom lines will require significant and widespread changes to land use practices (para. 171 of Ministerial Cabinet Paper). As already discussed in relation to Matters of Interest #2 to Ravensdown above, new information indicates the scale of mitigation and land use change needed to meet existing periphyton bottom line is significantly greater than previously estimated (para. 77 of Ministerial Cabinet Paper).

Ravensdown is particularly concerned that the same situation may arise again where new bottom lines and regulations proposed to address a range of farming activity is based on poor information and assessment of the impacts, and the scale of mitigation and land use change needs to meet the proposals is significantly greater than previously thought.

**Matter of Interest #14 – Cost implications**

The Discussion Document states:

> That the analysis of impacts focuses on the proposals that will have the largest changes to land use and management practices which include new attributes for nutrients and sediment in the draft NPS-FM and proposals to establish standards within the proposed NES-F.

> A table in Section 10.2 Magnitude of the benefits and costs provides a summary of the environmental benefits and costs that could result from action.

**Ravensdown’s Position**

Ravensdown has reviewed the impacts (positive and negative) included in the table and, while recognising that further impact assessments are proposed prior to recommendations being made on the proposals to the relevant Ministers, would make the following observations:

1. **Water Quality** – new values for DIN and DRP. The scale of load reductions in some catchments are identified with a recognition that achieving these reductions would require significant land management changes in some areas. The costs associated with these impacts are not given in the table and need to be determined to avoid the attributes and bottom lines being fiscally impractical and unachievable.

2. **Water Quality** – reducing sediment. This is to be achieved through changes in farming practices and some afforestation with the costs to be borne by resource users and councils. The costs associated with these impacts are not given in the table and need to be determined to avoid the attributes and bottom lines being impractical and unachievable.
3. Improving farm practices - consenting requirements for land use intensification. It is estimated to cost $3,000 per consent plus the cost of expert opinion. The cost of expert opinion could be significant as, for example a freshwater specialist, is likely to be required to support an application. In addition, council application fees plus any notification fees plus hearing fees etc. could mean the costs relating to gaining resource consents at a farm-scale basis are significantly greater than the estimated $3,000.

4. Improving farm practices - farm plans. It is estimated that 28,000 more farm plans are required at an estimated average cost of $3,500 per plan. It is not clear whether this figure includes the input of a freshwater specialist to prepare the freshwater module component of the farm plan, which could be much greater than the estimated $3,500 per plan.

5. Improving farm practices – reducing nitrogen losses. For Option 1 (N-leaching cap in high nitrate-nitrogen catchments) it is estimated it would cost $3,000 per consent and $500 - $5,000 per OverseeFM run, plus costs of preparing, implementing and auditing farm plans. As per above, the costs of preparing and lodging a consent is likely to be significantly higher than these estimates, particularly as this applies to high nitrate-nitrogen catchments and the level of technical input to support any consent application would be high.

6. Improving farm practices - winter grazing. In Option 1 (national standards and consent requirements) it is identified that 2,000 additional consents are required at an estimated $3,000 per consent. The costs associated with additional consent is considered to be much greater when considering the cost of experts’ reports to accompany the application, council application fees plus notification fees plus hearing fees etc.

Ravensdown seeks a more robust analysis of the costs associated with implementing the various proposals in order to fully understand the impacts on resource users.

3.5 Modelling Mitigation Strategies on Farm Profitability

Section 10.3 of the Discussion Document provides three scenarios to indicate how the proposals may impact on a lowland dairy, a sheep and beef, and a commercial vegetable growing operation, using average figures wherever available.

It is understood that these scenarios are from the Ministry for the Environment document *Modelling of Mitigation Strategies on Farm Profitability: Testing Ag Package Regulations on-Farm* prepared by AgFirst. Wellington (September 2019).
Ravensdown’s Position

While Ravensdown supports the intention of providing a number of scenarios to demonstrate how the proposals may impact on a range of different farming types, it is concerned that some of the input data may not be accurate, and therefore some of the resulting impacts may not reflect the true extent of the proposals on the different farming types.

While Ravensdown has no issue with the case study presentations produced to show the impacts of the proposals on farm systems and economics, it would like to reiterate what the authors themselves have said about the representativeness of the case studies. That is, they are all case studies taken from the Canterbury region and as such may (or may not) be representative of the vast array of individual farm management systems in place in that region. While the case studies will demonstrate what might happen to nitrogen and phosphorus loss estimates on hill country red meat farms, dairy and dairy support farms and arable farms, they are only applicable to the soils, climate and management of the case study examples. They cannot be extrapolated to other areas that may have different combinations of soils, climates and management practices. The unique combination of these factors dictates the impact on nitrogen and phosphorus loss in a particular catchment. For example, these case studies represent sedimentary soils under low rainfall (with or without irrigation), possibly many of which are shallow or stony soils and with a higher reliance on forage crops to meet the demands of animals over winter and for raising young stock. These case studies do not readily represent the same farm systems on rainfed volcanic soils primarily reliant on pasture as the major feed source for livestock.

Ravensdown asks that extreme caution be taken when extrapolating these case studies to be representative of farm systems throughout most of the rest of the country, outside of Canterbury.

Ravensdown seeks a review of the input data used for the farm scenarios and a reassessment of the possible impacts the proposals may have on the different farm types selected to model.
3.6 Timeframes

Submissions on the proposals put forward in the Discussion Document are due with the Ministry for the Environment by 31 October 2019.

The intention expressed in the Discussion Document is for regulations to be made operative by June 2020, with immediate actions required to be implemented within 2 years of the regulation becoming operative, and other action within 5 years.

**Ravensdown’s Position**

Notwithstanding the fact that the public have been given an additional two weeks to make submissions on the proposals contained in the Discussion Document, the draft NPS-FW, and the proposed NES-F, Ravensdown considers these timeframes are unjust. This is particularly so when considering the complexity of the matters being addressed, and the potentially significant consequences of the proposals on a large number of resource users.

In Ravensdown’s opinion, rushing the consideration of the issues will cause a poor result, and as the Ministerial Cabinet Paper highlighted, this was the case for the earlier introduction of periphyton bottom lines that are now proving so much more difficult to meet. Ravensdown does not want this to happen again, and a rushed approach will not meet the manageable pace of change included in the message of the Minister.

As stated in the introduction to this submission, Ravensdown is concerned about the timeframes set through regulation for the implementation of the proposals which is considered to be unfairly short and likely to have severe consequences for many in and around the primary sector. Ravensdown is concerned that there will be a serious impact on the level of equity in the primary sector.

Rushing the process will also serve to isolate and antagonize those affected. Ravensdown is particularly concerned about the wellbeing of the resource users who would be put under additional stress by the implementation timeframes.

Ravensdown seeks a more considered and spread implementation period meaning a better opportunity is afforded to adjust to the implications/costs and changes required and the potential to reduce the loss of value and social disruption.

Such a timeframe would spread the implementation period to at least June 2025.
CONCLUDING REMARKS

While Ravensdown supports the overall intent of the *Action for Healthy Waterways* provisions it has a number of concerns in the detail of the regulatory instruments proposed to deliver the freshwater outcomes sought. These concerns have been highlighted in this submission and Ravensdown considers these matters need to be addressed at a fundamental level, prior to debating the finer detail within the provisions.

Noting that there is no further avenue for engagement on the content of the provisions, Ravensdown is willing to engage further with the relevant Government agencies on the implementation of the *Action for Healthy Waterways* provisions. Ravensdown has the scale, technical literacy, science and systems in place to deliver on the Government’s intent through the delivery of robust FEPs accompanied by sound nutrient management advice.
APPENDIX 1 – Questions following Discussion Document Structure

<table>
<thead>
<tr>
<th>Question</th>
<th>Ravensdown’s Response</th>
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</thead>
<tbody>
<tr>
<td>Q.1 Do you think the proposals set out in this document will stop further degradation of New Zealand’s freshwater resources, with water quality materially improving within five years?</td>
<td>Ravensdown supports the overall intent of 3 government objectives (Section 1.1; para. 2) but has a number of concerns with details in proposals as outlined in its submission; Ravensdown considers measures to improve freshwater resources are going to take longer than 5 years to put in place (Section 1.1; para.7). In particular Ravensdown is concerned that a single focus on nitrogen and phosphorus will not achieve the ecosystem health outcomes (objectives and policies) being sought in the draft NPS-FM (Matter of Interest #2; pages 11-12; Matter of Interest #3; pages 13-14).</td>
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<td>Q.6 Can you think of any unintended consequences from these policies that would get in the way of protection and/or restoration of ecosystem health?</td>
<td>Ravensdown has identified a lack of capacity an expertise within industry to prepare Farm Plans and FM-FP within the timeframes proposed (Matter of Interest #6; pages 18-20); Ravensdown questions in its submission the achievability of a number of initiatives and timeframe and costs and impacts on resource users.</td>
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<td>Q.9 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 third is other consumption and use?</td>
<td>While Ravensdown supports in principle Te Mana o te Wai, it notes that the new objective in the draft NPS-FM is a considerable step-change from the Te Mana o te Wai objective in the current NPS-FM and is not supported by other objectives that implement the requirements of the RMA for freshwater management. Ravensdown is concerned that the draft NPS-FM is not consistent with or implements the purpose of the RMA. Ravensdown does not support the objective as it is currently written, or the lack of other objectives relating to water quality/quantity and integrated management in the draft NPS-FM (Matter of Interest #1; pages 8-10).</td>
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<td>Q.17 Do you support the proposal for a faster freshwater planning process?</td>
<td>Ravensdown supports the intention to have freshwater plans amended and approved in a timely manner (as discussed in detail in its submission) but is concerned about the restricted avenues for appeal (Section 3.1; para.2).</td>
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<td>Q.19 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?</td>
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<td>Ravensdown does not support the proposed hydro-electricity scheme exceptions when considering the fundamental premise of Te Mana o te Wai is “prioritising the health and wellbeing of water before providing for human needs and wants” (page 3 of draft NPS-FM). To provide an exception to a significant resource user is contrary to the principle of Te Mana o te Wai and also places an unreasonable burden on other resource users (farmers) in those catchments impacted by the large hydro schemes; Ravensdown seeks subpart 4 to be deleted (Matter of Interest #1; pages 8-10).</td>
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<th>Q.20 Do you think the proposed attributes and management approach will contribute to improving ecosystem health? Why/why not?</th>
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<td>Ravensdown opposes the DIN national bottom lines included in Table 5 and the DRP national bottom lines included in Table 6. Ravensdown also opposes the Suspended fine sediment – turbidity numbers included in Table 10. Ravensdown seeks the national bottom lines for DIN and DRP be deleted from the relevant tables, and provision for regional councils to develop their own bottom lines for DIN and DRP, based on robust science, that are appropriate for their regions. Ravensdown seeks realistic thresholds for suspended sediments to be set that reflects the nature of the catchments, and allows for the preferred approach proposed above to use a Farm Plan that identifies a pathway meeting GMP for their particular farming activities within the environment they operate, and where a catchment is degraded, then require the farmers to operate at 10% or 15% below GMP until improvements in the catchment are recorded. This approach is achievable and practicable as GMP continues to evolve (Matter of Interest #1; pages 8-10).</td>
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<th>Q.30 Do you support introducing new bottom lines for nitrogen and phosphorus? Why/why not?</th>
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<td>Ravensdown does not support the setting of single bottom line numbers for DIN and DRP as the bottom lines proposed are likely to be unachievable universally and impracticable (without a very significant financial dislocation to some farmers and NZ) as they would require substantial reductions in nitrogen loads for a large number of catchments, which is contrary to the Minister’s message that new requirements must be practical and enduring. Ravensdown prefers that regional councils develop their own bottom lines for DIN and DRP, based on robust science, that are appropriate for their regions process. The Taranaki and Southland councils are evidence of the benefits of developing a range for DIN and DRP appropriate to their regions. (Matter of Interest #2; pages 13-14).</td>
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<th>Q.33 For deposited sediment, should there be a rule that if, after a period (say five years), the amount of sediment being deposited in an estuary is not significantly</th>
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<td>Ravensdown supports an adaptive management approach to deposited sediment and generally agrees with the assumption that reducing sediment in waterways will improve the ecosystem health of the waterways, and GMP implemented through farm plans</td>
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<td>Q.34 Do you have any comments on the proposed suspended sediment attribute?</td>
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<td>Q.40 Are the purpose, requirements, and process of the National Objectives Framework clearer now? Are some components still unclear?</td>
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<td>Q.42 What are your thoughts on the timeframes incorporated in the proposed regulations? Please refer to the specific policy in your response.</td>
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<td>Q.51 Do you support interim controls on intensification, until councils have implemented the new NPS-FM? Why/why not?</td>
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| Q.54 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? | Ravensdown supports making Farm Plans mandatory but with the caveat that further investigations regarding the capacity within the industry to prepare the plans within the timeframes proposed and the availability of freshwater experts to provide input into the Freshwater Module are required.

As an alternative, Ravensdown supports the mandatory requirement to have Farm Plans (with a Freshwater Module) prepared within realistic timeframes, such as within 5 years of the regulation becoming operative for intensive dairying and vegetables; and dry stock and all other farming activities within 10 years (Matter of Interest #6; pages 18-20). |
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<td>Q.55 What are your thoughts on the proposed minimum content requirements for the freshwater module of farm plans?</td>
<td>Ravensdown supports the inclusion of a freshwater module in the Farm Plan and the content included in Clause 38 but requires a clear statement in Clause 38 (3) f)) that sheep are not to be addressed in the FM-FP (Matter of Interest #6; pages 18-20).</td>
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| Q.56 What are your thoughts on the proposed priorities and timeframes for roll out of farm plans, as set out in the proposed Freshwater NES? | Ravensdown does not support the timeframes proposed for making Farm Plans mandatory without further investigations regarding the capacity within the industry to prepare the plans, the availability of freshwater experts to provide input into the Freshwater Module.

As an alternative, Ravensdown supports the mandatory requirement to have Farm Plans (with a Freshwater Module) prepared within realistic timeframes, such as within 5 years of the regulation becoming operative for intensive dairying and vegetables; and dry stock and all other farming activities within 10 years (Matter of Interest #6; pages 18-20). |
| Q.57 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 on financing options for other on-the-ground investments to improve water quality? | Ravensdown supports a certification process but would prefer that the regional council-driven national certification process is adopted as the method to approve farm environment planners for their regions (Matter of Interest #6; pages 18-20). |
| Q.58 Which of the options (or combination of them) would best reduce excessive nitrogen leaching in high nitrate-nitrogen catchments? Why? | Ravensdown seeks an approach that is a variation to Option 3 that requires all farmers to have a Farm Plan that identifies a pathway for meeting GMP for their particular farm systems within the environment they operate, and where a catchment is degraded, then require the farmer to operate at 10% or 15% below GMP until improvements in the catchment are recorded. This approach is achievable, practicable, and enhances the adoption of emerging innovations and technology as GMP continues to...
| Q.64 Do you have any comment on what would be required to ensure this proposal could be effectively implemented? | Ravensdown has identified its concerns with the three options proposed which include effective implementation of the proposals. Ravensdown has put forward a variation to Option 3 that requires all farmers to have a Farm Plan that identifies a pathway for meeting GMP for their particular farm systems within the environment they operate, and where a catchment is degraded, then require the farmer to operate at 10% or 15% below GMP until improvements in the catchment are recorded. This approach is achievable, practicable, and enhances the adoption of emerging innovations and technology as GMP continues to evolve (Matter of Interest #2; pages 11-12). |
| Q.65 Do you support excluding stock from water ways? Why/why not? | Ravensdown does not support the proposed stock exclusion approach and seeks a more pragmatic approach to this matter and would prefer to have the Farm Plan approach adopted for streams less than 1 metre wide to apply to all rivers, lakes and wetlands, and targeted to high risk catchments in the first instance. This approach would see setbacks appropriate to the farm and freshwater environment, and the Farm Plan could include a fencing programme to achieve the outcomes sought over realistic timeframes. Ravensdown also seeks that any existing fences at the time the proposed NES-F is approved to remain in place, provided a minimum buffer is achieved as determined in a Farm Plan (Matter of Interest #13; pages 28-30). |
| Q.66 Do you have any comment on the proposed different approach for larger and smaller waterbodies? | Ravensdown considers the scale of the task to determine this setback calculation, particularly as it applies to farms that may have a boundary adjoining a long river, large lake or large and undefined wetlands, could be enormous and costly to complete. The results would also be a loss of grazing area which may be significant for large land holdings (Matter of Interest #13; pages 28-30). |
| Q.67 Do you have any comment on the proposed five metre setback, or where it should be measured from? | Ravensdown is concerned that this is an arbitrary figure that does not represent the environmental conditions of the farms that might be affected. Ravensdown is not clear whether there is a scientific basis for this number. While the proposal includes the proviso that the 5 metres can be ‘on average across the farm’ is supported and provides some flexibility, it is not clear what this might mean and what a farmer would need to do to demonstrate they comply or for a council, |
who will enforce the regulation, to demonstrate that a farmer does not comply.

The implications of determining the effects of this requirement on a farm is made more uncertain with the starting point for measuring the 5 metres open for feedback. Ravensdown considers the proposal is impractical and difficult to implement (Matter of Interest #13; pages 28-30).

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<th>Q.68 Are there any circumstances that are appropriate for allowing exemptions to the stock exclusion regulations? If so, please give examples.</th>
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| Ravensdown seeks a more pragmatic approach to this matter and would prefer to have the Farm Plan approach adopted for streams less than 1 metre wide to apply to all rivers, lakes and wetlands, and targeted to high risk catchments in the first instance. This approach would see setbacks appropriate to the farm and freshwater environment, and the Farm Plan could include a fencing programme to achieve the outcomes sought over realistic timeframes.

Ravensdown also seeks that any existing fences at the time the proposed NES-F is approved to remain in place, provided a minimum buffer is achieved as determined in a Farm Plan (Matter of Interest #13; pages 28-30). |

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<th>Q.69 Do you prefer Option1: Nationally-set standards or Option 2: Industry-set standards? Why?</th>
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<td>Ravensdown supports a national standard in principle but seeks a technical review of the range of threshold standards proposed for winter grazing to ensure the final thresholds agreed to are feasible and achieve the environmental outcomes sought in the draft NPS-FW (Matter of Interest #8; pages 22-23).</td>
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<tr>
<th>Q.70 For the proposed nationally-set standards, which options do you prefer for the area threshold, slope, setback, and pugging depth components of the policy?</th>
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<tr>
<td>Ravensdown supports a national standard in principle but seeks a technical review of the range of threshold standards proposed for winter grazing to ensure the final thresholds agreed to are feasible and achieve the environmental outcomes sought in the draft NPS-FW (Matter of Interest #8; pages 22-23).</td>
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<th>Q.78 What are your thoughts on the timeframes incorporated in the proposed regulations? Please refer to the specific policy in your response.</th>
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| In relation to the policies in Part 3 Farming, Ravensdown supports making Farm Plans mandatory but with the caveat that further investigations regarding the capacity within the industry to prepare the plans within the timeframes proposed and the availability of freshwater experts to provide input into the Freshwater Module are required.

As an alternative, Ravensdown supports the mandatory requirement to have Farm Plans (with a Freshwater Module) prepared within realistic timeframes, such as within 5 years of the regulation becoming operative for intensive dairying and vegetables; and dry stock and all other farming activities within 10 years (Matter of Interest #6; pages 18-20). |