

7 October 2021

Ministry for the Environment  
By email: [IWG@mfe.govt.nz](mailto:IWG@mfe.govt.nz)

Dear Sir/Madam

### **INTENSIVE WINTER GRAZING**

The Hawke's Bay Regional Council appreciates the opportunity to provide feedback on the government's proposals to modify the Intensive Winter Grazing module which forms part of the 2020 Essential Freshwater reforms.

HBRC invites Ministry for the Environment officials to visit the Hawke's Bay should they require more details about our experiences with IWG, the challenges and opportunities we are encountering, and what would be most useful for managing IWG in Hawke's Bay.

Yours sincerely



**Katrina Brunton**  
GROUP MANAGER POLICY & REGULATION

### Section 1: Overall content and direction

The Hawke's Bay Regional Council (HBRC) supports the use of Intensive Winter Grazing (IWG) regulations as a way of managing this high-risk activity on farms.

While HBRC generally supports the intent of the proposed changes to the IWG regulations to clarify the workability of the permitted activity standards and to align implementation with the Freshwater Farm Plan (FW-FP) process, further work is required to address the wider range of IWG practices and contexts, including for Hawke's Bay.

HBRC suggests priority is given to development of a risk-based matrix which is suitable for wider use across New Zealand.

The IWG module should be actioned as soon as it is 'fit for purpose': the high risk of IWG activities is such that actioning the module should not be delayed until the wider FW-FP process is finalised.

HBRC invites Ministry for the Environment officials to visit the Hawke's Bay should they require more details about our experiences with IWG, the challenges and opportunities we are encountering, and what a risk-based matrix could look like.

### Section 2: Discussion document questions

#### 1. Do you agree with our framing of the issue? If not, why not?

HBRC does not agree with the framing of the issue. As proposed, the issue has primarily been framed in a Southland context, and predominantly around intensive strip grazing using fodder beet as a forage source. While this is important for Southland, their IWG systems, based on intensive strip grazing, electric fence containment/control, do not reflect a broader range of grazing and farming systems.

HBRC considers that the impact of IWG within a wider range of farming systems should be addressed.

For Hawke's Bay, this wider assessment would include farm systems using other forage types, such as kale and other brassicas, as well as grazing intensity, time that animals are left on the crop and whether animals can graze freely (i.e. without use of a hot wire to concentrate access to the crop). These matters are outlined further in Question 2 below.

We note that the primary production industries are critical for the delivery of a range of new national environmental policy (including for climate change and emission management, biodiversity and biosecurity). Consistency with other policy direction will be essential.

Further, landowners are facing a range of other policy and compliance challenges (including health and safety, animal welfare and market requirements). The full suite of changes being developed will change the farming paradigm: this warrants recognition in framing the issue and resourcing the transition.

The IWG module can be a useful method for engaging with, encouraging and supporting farmers to make good decisions. It should empower farmers to achieve good environmental outcomes and avoid complex, overly prescriptive and inflexible requirements which would risk perverse outcomes.

Accordingly, HBRC considers that IWG regulations should form part of an integrated 'whole of farm' strategy, likely to be articulated through the suite of regulations associated with FW-FPs.

#### 2. What other information should we consider?

HBRC considers a number of other matters should be considered, as follows:

## Feedback on Proposed Changes to Intensive Winter Grazing Regulations

### **a) Type of winter forage**

*Kale and other brassicas* have lower yields of dried matter per hectare, therefore are not grazed at the same intensity as higher producing bulbous forages. Brassicas best replicate animal grazing habits of pasture, being predominantly leaf/stalk as a food source.

*Fodder beet and other high producing forages* enable increased concentration of animals at grazing, increasing soil disturbance, opening the ground to greater nutrient/sediment transition and loss. The nature of fodder beet is that animals must be transitioned on to the crop to encourage them to consume the bulb (and in some cases the bulbs are lifted and fed as a supplementary feed source).

### **b) Stock class**

IWG risk varies according to the class of stock grazed. For example, grazing yearling cattle on a crop will present different risks on the environment to sheep, R2 bulls, or dairy cows.

There is also variation within the different classes of stock: size of urine patches, volume of effluent, weight of individual animals, pugging ability, drinking water demands, and days spent on a crop all vary.

Accordingly, the decision on which stock class to graze is important and may act as a mitigating factor for minimising environmental risk.

### **c) Grazing systems/farming systems**

Grazing system is influenced by the type of crop being grown, the role of the winter forage crop in the feeding system, and the methodology of feeding.

Ad lib grazing systems are where animals are offered the crop in an uncontrolled manner, i.e. not necessarily behind an electric fence. Animals can be let into the crop for a defined period (2 to 6 hours) and then mustered back off the paddock on to grass pasture. This could be where the crop is only a component of the diet, or the type of crop being offered does not require transition/training.

Understanding the role of the winter crop in the farming system, ranging from the only source of animal feed (perhaps a Southland system) through to a component of a mixed diet of crop, pasture, and supplementary feed (or any combination in between) more typical of Hawke's Bay. The mix of these factors on any one farm impacts mostly on intensity and duration at the feeding event, which in turn impacts on the risk of the practice to the wider environment.

### **d) Grazing intensity**

For IWG, the environmental risk being managed is damage to soil which leads to increased nutrient and sediment runoff and leaching. The amount of soil damage from IWG activities results from the weight and level of concentration of stock being grazed over time.

Where animals are grazed to a feed plan that seeks to maintain body condition or a modest improvement over the shorter winter period, intensity is an artifact of the volume and quality of feed that can be presented to animals at the time of grazing. Therefore, as the quality or yield of feed is reduced, the level of concentrated grazing reduces, resulting in a reduction of animal weight per square metre being grazed.

Reduced intensity of grazing also benefits animal welfare as there is more space between animals and more loafing/resting areas.

### **e) Critical source areas**

The proposed definition for CSAs is either from the proposed Southland Water and Land Plan or that which is proposed for FW-FPs. This is the Southland proposal:

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### *Critical source area*

*(a) a landscape feature like a gully, swale or a depression that accumulates runoff (sediment and nutrients) from adjacent flats and slopes, and delivers it to surface water bodies (including lakes, rivers, artificial watercourses and modified watercourses) or subsurface drainage systems; and*

*(b) areas which arise through land use activities and management approaches (including cultivation and winter grazing) which result in contaminants being discharged from the activity and being delivered to surface water bodies.*

HBRC considers that this definition is both unclear and too broad. In the above definition, any area under IWG would become a CSA, as could any swale.

We consider that the definition needs to clearly link all of the following:

- 1) The activity that generates the contaminants (the **contaminant source**)
- 2) The mechanism by which sediment/ contaminant is transported to where the problem is experienced (the **pathway** and **impact area**)
- 3) The significance of the risk of adverse effect at paddock, farm, sub-catchment and catchment scale (the **impact**), as these activities/areas will generate disproportionately large amounts of contaminant at farm/catchment scale.

The definition should also be consistent in both the IWG module and FW-FP regulations.

Some thought needs to be given to scalability and cumulative effects when looking at both farm level and catchment level management.

### ***f) Higher risk areas within an area of high risk IWG activity***

HBRC also notes that within the high-risk winter crop paddock, there may be higher risk pathways (such as swales) which should be identified and managed with particular care, regardless of whether or not the area warrants being defined as a CSA. Loss of soil is an issue in its own right.

### ***g) Slope measurement***

The change of the way slope is determined is now even less clear, and potentially captures even more land than was originally intended.

HBRC considers that a consistent and practical way to measure slope within a paddock should be identified. There may be slope measuring devices used in the roading and construction sector that would be sufficiently reliable and simple for farmers to use.

### ***h) Slope of paddock and buffer***

The research being used in the consultation paper (pages 12/13 of the consultation document) is not discoverable. This research appears to conflict with the Pastoral 21 research at Telford that identified a change in grazing direction, alone, reduced nitrate/sediment loss by up to 80%. There is a need for more robust research on the slope risk, taking into consideration soil type, climate, slope length, grazing system/soil disturbance factors at least.

Increasing the buffer zone between the grazeable crop and a critical source area (CSA) in a paddock according to the slope could better manage the risk of contamination. However, it is not the only solution possible.

As slope increases, the risks of adverse effects from IWG increase, and some adjustment to the original practice contemplated may need to be considered.

### ***i) Other mitigations***

## **Feedback on Proposed Changes to Intensive Winter Grazing Regulations**

Where the risk from IWG is increasing, a wider range of options for managing adverse effects should be considered, including those sediment management practices used in roading and infrastructure projects where, during the process of construction, sensitive areas are protected. Silk screens and other such tools protect against sediment loss and contamination from earthworks.

By mitigating for this increased risk (e.g. by increasing the buffer zone relative to slope, or using a silk screen or other form of sediment trap) the decision to crop a particular paddock becomes a management decision based on farm efficiency.

HBRC suggests that where a mix of mitigations are being proposed to achieve permitted activity environmental standards, this could be assessed either through a controlled activity consent (in advance of the FW-FP regulations coming into legal effect) or the FW-FP farm certification process. Where permitted activity standards cannot be either certified or consented as a controlled activity meeting the permitted standards, further assessment is required (see 2(k) below).

### ***j) Using a risk management matrix***

The FW-FP proposal relies on a risk matrix approach to matching the physical environment, the proposed activity and any mitigations to address adverse effects to establish whether or not the farm plan is able to be certified.

HBRC suggests that the risk management matrix for IWG should address all the above matters (listed under 2(a) to (i) above) to determine whether or not IWG activity in a particular paddock and/or farm is acceptable, or whether a consenting process (such as restricted discretionary or non-complying) is appropriate.

### ***k) Prohibiting unacceptably high risk IWG activities***

Where the risk matrix assessment indicates IWG creates an extreme risk (i.e. unacceptably high risk), such that no resource consent could ever reasonably be granted, prohibition should be considered. This is discussed further at Question 4.

HBRC would support identification of such a prohibition threshold in the IWG regulations as it would be administratively far more efficient and provide consistency across New Zealand.

## **3. Are there any other implementation issues with the current default conditions that have not been discussed above?**

### ***a) Consultation***

HBRC considers that input from a wider range of interests would improve the proposal.

A regional consultation approach could result in a more balanced approach to understanding impacts on farmers, enabling better focus on the risk and impact of IWG in different environments.

Alternatively, a mechanism where industry and councils are part of the same discussions will ensure regional issues are adequately considered and enables a joined-up approach to communication and education. This will be important to ensure that the regional perspective is considered.

The use of regional networks connects with all the requirements and considers regional regulatory, climatic and system needs. Most Regional Councils conduct sector engagement or pan sector meetings/workshops where there is a shared understanding of local farming and opportunity to exchange information and good local practice.

### ***b) Introduce an IWG module as soon as possible***

## Feedback on Proposed Changes to Intensive Winter Grazing Regulations

The proposal is tied to the FW-FP regulations being ready in time for inclusion of the IWG certified modules. Even with deferral of IWG regulations by a further 6 months, there is still a risk that the two proposals will not have aligned in sufficient time. Farmers will be making decisions about IWG in 2023 in the middle of next year, not towards the end of 2022.

HBRC considers that IWG is such a high-risk farming activity that it warrants control as soon as possible, rather than delaying further until the certified FW-FP system is established.

### **4. Do you think these proposed changes are the right way to manage intensive winter grazing? If not, why not?**

HBRC considers that there are better ways to manage IWG than the limited approach proposed, and confusion remains over key aspects of the proposal.

#### **a) Slope**

The calculation of slope has not been resolved, with the use of mean and maximum measures remaining confusing and open to different interpretations.

There is no information on how the slope at the paddock scale should be measured. This needs to be consistent nationally.

A practical device to measure slope consistently is needed, at both desktop and paddock level. There are many examples of this in other industries eg roading. Some areas of the country have Lidar (including Hawkes Bay) and this should be able to be used to develop paddock scale maps.

#### **b) Pugging**

Pugging is still included, despite some industry groups stating that pugging has been dropped from the regulations. Messaging needs to be clear and consistent.

#### **c) Tile drains**

Tile drains may not have been intended to be captured, but they are still referenced as being part of CSAs. Messaging needs to be clear and consistent.

#### **d) Extreme risk IWG**

HBRC has already commented on the limits of the Southland approach for other regions in Question 2.

Where there is extreme risk of damage to soil and water quality, HBRC requests that the regulations should identify where IWG should be prohibited, as no consent could reasonably be granted. HBRC suggests that on steeper slopes (e.g. over 26 degrees, aligning with LUC class 6 and above), IWG should be prohibited. This would be more efficient administratively and farmers would not waste time trying to gain consent.

The two photos following illustrate what could be considered high or extreme risk IWG:

## Feedback on Proposed Changes to Intensive Winter Grazing Regulations



Photos: Winter cropping on steep slopes cultivated by bulldozer



### ***e) Critical source areas***

The regulations relating to CSAs need to be widened. While they may work for Southland at the paddock scale, the CSA definition needs to be applied at any scale: paddock, farm or catchment.

Further, HBRC considers that a winter crop area is, in itself, a CSA as it provides a source of contaminant that may have a transport pathway to water.

## Feedback on Proposed Changes to Intensive Winter Grazing Regulations

**5. Do you think these proposed changes would improve the workability of the permitted activity standards? If not, why not? (Please be specific about which provisions you are commenting on when you are responding.)**

HBRC does not consider the proposed changes are more workable, for the reasons already stated. As the proposed changes are activity based, they do not address regional differences (e.g. soil, forage type, grazing/farming system) and the IWG activities do not necessarily align with local Good Management Practice.

**6. Do you think these proposed changes would manage adverse environmental effects of intensive winter grazing effectively? If not, why not?**

HBRC does not consider that the changes will better manage adverse effects for Hawke's Bay. Whilst confusion remains as to the degree of slope and its distribution across a paddock, we expect that existing IWG practices will continue.

Successful change requires clarity of the issue being addressed and the provision of a clear framework for farmers that enables them to manage the risk relative to their individual farm system.

**7. Do you have any comments on implementation timeframes and whether a further deferral would be necessary**

HBRC would like to see IWG regulations introduced as soon as possible, noting the changes that need to be made to the module for implementation to be successful.