11 September 2019

Environment Southland
Private Bag 90116
Invercargill 9348

Our ref: 18247
ES ref: APP-20191128

Attn: Alex Erceg

Dear Alex

RE: Request for Further Information under Section 92(1) of the Resource Management Act 1991 – APP 20191128, application for a Discharge Permit, Water Permit and Land Use Consents

Further to your request for further information dated 19 August 2019, our response is detailed below. We don't think that it is useful to revisit the issues relating to the s92 deadline, but we consider that it is important to respond to the original questions.

1. ***"An explanation as to the differences between set stocking and grass/bailage [sic] winter grazing including how excluding these paddocks from winter grazing but not set stocking reduces nutrient losses over this period."***

With set stocking cattle are spread out over as much of the runoff properties as possible with no addition of supplement feed to minimise soil and pasture damage with stock and machinery movement. This translates to 1.5-3 R1yr heifers per hectare depending on the grass cover, which will result in lower nutrient losses as the potential nutrients are spread less intensively over a much wider area and sediment runoff will be minimal due to minimal pasture damage.

With grass/baleage wintering, the animals are mob-stocked on conserved feed, in the same manner as intensive winter grazing on crop, to avoid soil and pasture damage over a wider area and allow enough feed to get the animals through the winter period. Due to there being potential for higher nutrient losses from this form of wintering, the high risk areas have been identified and excluded from any areas where this will be done.

These approaches are carried out together to ensure that there is enough feed for the stock while at the same time avoid any

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significant pasture or soil damage. Seasonal changes require flexibility.

With the R1yr heifers, normally the more intensive grass/baleage winter grazing is done for 30-40 days in early winter before pasture covers is grazed low on the remainder of the properties. Mid to late winter stock are normally set stocked on reasonable covers which allows enough feed until the spring growth comes.

You will be aware of the definition (subject to appeal) of Intensive Winter Grazing in the Proposed Southland Water and Land Plan (PSWLP): **"**Grazing of stock between May and September (inclusive) on forage crops (including brassica, beet and root vegetable crops) excluding pasture and cereal crops."

We note that the definition of intensive winter grazing does not include winter grazing on pasture. For grass/baleage wintering, the pasture paddock is grown to a reasonably high cover, with baleage then put in the paddock in feeders.

2. An assessment of the effects of set stocking on those paddocks on the Cameron Road block that are to be excluded from winter grazing.

The AEE incorporates nutrient loss modelling that takes account of the stocking on the Cameron Block and the subsequent water quality effects assessment are in turn based on the nutrient loss modelling.

The following answers are in response to your email dated 19 August 2019.

(a) Is there any intensive water grazing proposed or just winter grazing on pasture

There will be winter grazing on grass/baleage and winter grazing on pasture. However, there will not be any intensive winter grazing as currently defined in the PSWLP.

(b) Confirm the cow numbers for the milking herd will not exceed 1250 as the nutrient budgets have modelled higher cow numbers

The proposal is to peak milk 1250 cows, to achieve this, additional cows need to be wintered, which have been included in the nutrient budget. We can confirm that the milking herd will not exceed 1250.

(c) Confirm the maximum stock numbers proposed to be on the runoff blocks between 1 June and 31 May- is it 700 (350 R1s + 350 R2s) or is it 1050 (350 R1s + 350 R2s + 350 milking age cows

The maximum stock numbers proposed to be on the runoff blocks at any point in time between 1 June and 31 May is 1140. This can be broken down into:

- 120 MA cows wintered in the Browns herd home
- 320 MA cows winter grazed on grass/balage
- 350 R2yr heifers farmed on the block all year, then winter grazed on grass/balage over the winter period until they go to the milking platforms pre calving (20 of these are empty

heifers which are winter grazed (on grass/bailage) with the group then remain on the runoffs until sent to slaughter in the later spring)

- 350 R1yr heifers farmed on the block from weaning in December, then winter grazed (on grass/bailage) for 30-40 days before being set stocked over the later part of winter (350 young stock reared is 25% of total milking number of 1250 plus approx. 10% to allow for deaths and culling).

This translates to milking numbers of:

320 MA cows wintered in herd homes at SD2

200 MA cows winter grazed (on grass/bailage) on milking platform

120 MA cows wintered in herd home at Browns

320 MA cows winter grazed (on grass/bailage) at runoffs

330 In-calf heifers winter grazed (on grass/bailage) at runoffs

Giving a maximum total of 1290 in calf animals wintered to peak milk no more than 1250.

(d) Are the cows to be housed in the herd home at Browns, in addition to or inclusive of in the above maximum?

The cows housed at Brown's are inclusive of the above maximum.

I am more than happy to discuss the matters raised in this further information response with you if you have any additional questions, but trust that this addresses your specific questions.

Yours sincerely,

Matilda Ballinger

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