He Pou a Rangi
Climate Change Commission

Official Information request reference: 2021-003

2 March 2021

[redacted]

Dear [redacted]

Thank you for your Official Information Act 1982 (the Act) request of 1 February 2021 requesting information the following:

1. *Any correspondence, whether written or digital that was to, from, or between the Climate Change Commissioners, relating to the Auckland University of Technology research led by Dr Bradley Case about the sequestration potential of native woody vegetation on sheep and beef farms as referenced in the below media release: https://beeflambnz.com/net-carbon-report.*

   In response to your first query, please find enclosed the following documents:

Number	Document Name
1	Fwd: New Zealand sheep and beef farms close to being carbon neutral – new research
2	Fw: Sheep & beef emissions story
3	Fw: B & L study on carbon sequestration

1. *Any reports or advice given to the Commissioners about the above research.*

   I can advise you that, although the research was discussed at a Board meeting, there was no advice or reports tendered and there are therefore no resulting minutes.

Please note that the Commission has a policy of proactive release of OIA responses to help others have access to more information so this letter will be published on the website with your name and contact details redacted to protect your privacy.

Kind regards

J E Hendy

Jo Hendy
Chief Executive
He Pou a Rangi – Climate Change Commission

From: [redacted]
To: [redacted]
Subject: Fwd: New Zealand sheep and beef farms close to being carbon neutral – new research
Date: Wednesday, 3 February 2021 7:38:15 pm

The reply from Phil.

From: Phil Wiles <[redacted]@climatecommission.govt.nz>
Sent: Wednesday, October 7, 2020 10:29 AM
To: Rod Carr; Jo Hendy; Nicola Shadbolt; Catherine Leining
Cc: Ben Abraham; Sandra Velarde; Sally Garden
Subject: RE: New Zealand sheep and beef farms close to being carbon neutral – new research

I haven't read all their material yet.

You are correct. It is NZ's choice about what we include in the ETS. However two points to note:

- If we want to link our ETS to international markets, those markets should require that all NZUs issued have credibility. Our international accounting is (almost by definition) already subject to rigorous quality assurance
- The Govt would face a liability if it issued NZUs in the ETS, but didn't receive credit for those removals internationally.

Neither of these are 'show-stoppers' but need to be considered.

Phil.

From: Rod Carr <[redacted]@climatecommission.govt.nz>
Sent: Wednesday, 7 October 2020 10:24 am
To: Phil Wiles <[redacted]@climatecommission.govt.nz>; Jo Hendy <[redacted]@climatecommission.govt.nz>; Nicola Shadbolt <[redacted]@climatecommission.govt.nz>; Catherine Leining <[redacted]@climatecommission.govt.nz>
Cc: Ben Abraham <[redacted]@climatecommission.govt.nz>; Sandra Velarde <[redacted]@climatecommission.govt.nz>; Sally Garden <[redacted]@climatecommission.govt.nz>; Rod Carr <[redacted]@climatecommission.govt.nz>
Subject: RE: New Zealand sheep and beef farms close to being carbon neutral – new research

Thanks Phil,

I got their release and noted they said "woody vegetation was not included in the ETS because it did not count internationally". My understanding is that it does not count internationally in our national inventory but whether it is in the ETS is New Zealand's choice?

Rod

From: Phil Wiles <[redacted]@climatecommission.govt.nz>
Sent: Wednesday, 7 October 2020 10:14 AM
To: Jo Hendy <[redacted]@climatecommission.govt.nz>; Rod Carr <[redacted]@climatecommission.govt.nz>; Nicola Shadbolt <[redacted]@climatecommission.govt.nz>
Cc: Ben Abraham <[redacted]@climatecommission.govt.nz>; Sandra Velarde <[redacted]@climatecommission.govt.nz>; Sally Garden <[redacted]@climatecommission.govt.nz>
Subject: FW: New Zealand sheep and beef farms close to being carbon neutral – new research

Morning all,

B+LNZ this morning published their research on woody vegetation offsetting farm emissions.

Note we're talking to B+LNZ tomorrow at midday about this.

Phil.

From: Dylan Muggeridge <[redacted]@beeflambnz.com>
Sent: Wednesday, 7 October 2020 10:04 am
To: Dylan Muggeridge <[redacted]@beeflambnz.com>
Cc: [redacted]@mpi.govt.nz; [redacted]@mfe.govt.nz; Phil Wiles <[redacted]@climatecommission.govt.nz>; [redacted]@nzagrc.org.nz; [redacted]@globalresearchalliance.org; Nigel Searles <[redacted]@mfe.govt.nz>; Helen Plume <[redacted]@mfe.govt.nz>; Mark Storey <[redacted]@mfe.govt.nz>; [redacted]@mpi.govt.nz; Lou Hunt <[redacted]@mpi.govt.nz>; Kristen Green <[redacted]@mpi.govt.nz>; Mele Tabukovu (Mele) <[redacted]@mpi.govt.nz>
Subject: New Zealand sheep and beef farms close to being carbon neutral – new research

Dear colleagues,

This morning Beef+Lamb NZ released research by Auckland University of Technology that estimates the woody vegetation on New Zealand sheep and beef farms is offsetting between 63 percent and 118 percent of their on-farm agricultural emissions, and makes a strong case for farmers to be recognised for the sequestration happening on their farms.

The AUT research was commissioned by B+LNZ. The report was written by Dr Bradley Case and Catherine Ryan and was peer reviewed by Dr Fiona Carswell, Chief Scientist, Manaaki Whenua -Landcare Research and Dr Adam Forbes, Senior Ecologist, Forbes Ecology, Research Associate and New Zealand School of Forestry, University of Canterbury.

Please find a link to the media release, which includes the summary report and full research, on B+LNZ's website here.

Let me know if you have any questions, and I look forward to your feedback.

Best regards
Dylan

Dylan Muggeridge | Environment Policy Manager
Beef + Lamb New Zealand Ltd
mob [redacted] | website www.beeflambnz.com

From: [redacted]
To:
Subject: Fw: Sheep & beef emissions story
Date: Friday, 5 February 2021 11:17:20 am

My reply to James

From: James Renwick <[redacted]@climatecommission.govt.nz>
Sent: 08 October 2020 20:56
To: Harry Clark <[redacted]@climatecommission.govt.nz>
Subject: Re: Sheep & beef emissions story

Thanks Harry.

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Prof James Renwick
Commissioner
New Zealand Climate Change Commission

From: Harry Clark <[redacted]@climatecommission.govt.nz>
Sent: 08 October 2020 12:05
To: James Renwick <[redacted]@climatecommission.govt.nz>; Grant Blackwell <[redacted]@climatecommission.govt.nz>
Subject: Re: Sheep & beef emissions story

The report is fine up to a point. It is very useful as it outlines those areas on B & S farms that are not used for grazing and contain vegetation that can potentially store carbon. The problem for me is interpretation - standing vegetation area being converted into a sequestration value in a very static manner. For example, the biggest sequestration comes from 310,000 ha of pines calculated using the sequestration rate at 20 years. This is problematic as the 20-year sequestration rate may not be the average value over the lifetime of the pine plantation plus the sequestration eventually gets to zero as the tree is harvested or approaches maturity. Plus if it is harvested the sequestration only applies for the first rotation. Basically, the sequestration rate at 20 years is misleading - it gives the picture at a single point in time not the dynamic picture. In the example of the pine forests the B & L estimations are that it is over 50% of the sequestration potential but this would be zero in the second cycle if the forests were harvested. So, at 20 years it is > 50% of the potential and at 30 years the sequestration potential could be zero.
The data are ok for a single point in time but extrapolating is dangerous and potentially misleading.
Harry

From: James Renwick <[redacted]@climatecommission.govt.nz>

Sent: 08 October 2020 08:07
To: Harry Clark <[redacted]@climatecommission.govt.nz>; Grant Blackwell <[redacted]@climatecommission.govt.nz>
Subject: Sheep & beef emissions story

Hi Harry & Grant -

Do either of you know the background to this story? Seems optimistic to me, but I am far from an expert in this area.

https://www.stuff.co.nz/business/farming/123000345/new-zealand-sheep-and-beef-farms-close-to-being-carbon-neutral-new-study-shows

New Zealand sheep and beef farms close to being carbon neutral new study shows

Report has significant implications for sheep and beef farmers getting recognition for on-farm carbon storage, says Beef and Lamb NZ.

www.stuff.co.nz

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Prof James Renwick
Commissioner
New Zealand Climate Change Commission

From: [redacted]
To: [redacted]
Subject: Fw: B & L study on carbon sequestration
Date: Friday, 5 February 2021 11:43:30 am

My email to Judy

From: Harry Clark
Sent: 28 October 2020 19:09
To: Judy Lawrence <[redacted]@climatecommission.govt.nz>
Subject: B & L study on carbon sequestration

Hi Judy,
The B & L study was useful in that it better quantified the types of vegetation growing on what are classed as B & Sheep farms. Strangely for a country that generally has good statistics our statistics for land use are all over the place & the study may help identify we NZ has lost grassland area but there isn't a good record of where it has gone - the missing 2 M ha that Phil Wiles mentioned in one of our briefings.
With respect to the carbon sequestration data and the claims of carbon neutrality It is much less useful in my view.
It is unclear how they arrived at the chosen sequestration rates - they were not based on a detailed assessment of the vegetation age as far as I could see.
With respect to the claimed sequestration, 60-70% was from pinus radiata based on the 20-year sequestration rate. However, the sequestration rate from a short-lived species like this eventually goes to zero. If it isn't harvested the stock remains but it doesn't sequester any more carbon. If it is harvested, the previously stored carbon is lost and even if it is replanted there is no additional net sequestration - carbon sequestration from the replanted trees only balances the carbon lost from the harvested tree. (Nicola was making the point that pinus will be replanted but the net sequestration is zero from a replanted pine forest).
The claims of zero carbon beef and sheep farming are therefore highly misleading. As with exotic forestry the pine trees will offset some emissions but for a limited time. The native trees have a much better claim to be offsetting emissions for a much longer period, but this was <40% of the claimed sequestration. At best the sector could be C neutral at a given point in time but will not be on a pathway to sustained neutrality without additional actions.
The point you made about additionality is a good one. It wasn't considered by the study as the study took a pure C in C out approach not an accounting approach.
There is another point that is perhaps less well known. In our Paris commitment we have reserved the right to change the forest accounting rules but have also made a pledge not to use changed accounting rules to reduce the stringency of the target. If we count previously uncounted forest sinks, NZ is committed to increase the mitigation target to compensate. Owners of the new sinks may not care but the government will ultimately have to pick up the tab.
A question for you. What is your view of the 'we feed the world' argument against land use

change away from livestock agriculture based on the food supply clauses in the Paris Agreement? I am wary (a) because we don't try to feed the world, we try to supply high quality, highly priced food and (b) there is nothing sacrosanct about ruminant production - if we really wanted to feed the world, we could grow more energy and protein by converting most of the dairy land to cropland.
Harry