

## Proposed Marlborough Environmental Plan, Variation 1A

### Supplementary responses to questions put to the McGuinness Institute on 18 November 2021.

#### Question 1: From Commissioner Mr Rawiri Faulkner

‘We’ve heard from various submitters around the ability to manage the impacts of, in adapting to the impacts of climate change moving forward. You’ve raised it in your submission too, how do you propose Variation 1A can go about doing that?’<sup>1</sup>

- 1.1 As the Commissioners have heard, NZKS has been significantly impacted by climate change, so much so that it is having to seek out colder water, out of inshore waters in the Marlborough Sounds (Blue Endeavour Application, U190438).
- 1.2 The Institute notes the number of applications that NZKS has applied for in recent years, most of which relate directly to their response to the rising water temperatures that result from climate change. See full list of NZKS recent applications in Appendix 1.
- 1.3 This illustrates that climate change is central to the challenges aquaculture faces in the Marlborough Sounds. This is further demonstrated by the marine heatwave occurring in waters around New Zealand this summer.<sup>2</sup>
- 1.4 Climate change is such a fundamental issue that the McGuinness Institute does not consider it can be properly addressed as an addendum to the Variations. The Institute considers the Variations should be withdrawn, and the entire approach to climate change reconsidered in a properly comprehensive manner, across the whole of the Plan.
- 1.5 The Institute’s position is also shaped by two recent working papers:
  - 1.5.1 The Institute has prepared a compilation of excerpts from current and previous applications by NZKS to help illustrate the variable use of water temperature data and the need for not only better data but better reporting of data – so that accurate, timely and relevant data is provided to decision-makers. This includes a specific section on the Variations. See pages 9 and 10 and Appendix 2 in *Working Paper 2021/14 – The Role of Water Temperature in Climate Change Policy – A New Zealand King Salmon Case Study*.<sup>3</sup>

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<sup>1</sup> Retrieved from Zoom recording at 04:07:23 on 18 November 2021.

<sup>2</sup> Radio New Zealand (RNZ). (30 November 2023). Marine heatwave occurring in waters around New Zealand, NIWA says. Retrieved 9 March 2023 from <https://www.rnz.co.nz/news/national/456889/marine-heatwave-occurring-in-waters-around-new-zealand-niwa-says>

<sup>3</sup> McGuinness Institute. (November 2021). *Working Paper 2021/14 – The Role of Water Temperature in Climate Change Policy – A New Zealand King Salmon Case Study*. Retrieved 9 March 2023 from <https://www.mcguinnessinstitute.org/publications/working-papers/>

1.5.2 Second, the Institute is concerned by a distinction being drawn between ‘inshore’ and ‘offshore’ farming without a clear and common taxonomy to support distinctions between areas in the ocean. For this reason we have prepared *Working Paper 2021/15 – Looking for a taxonomy for Aotearoa New Zealand’s oceans*.<sup>4</sup>

1.6 To illustrate the types of subject matter that could be considered if climate change is to be addressed in the Plan, we have compiled some examples in the following list. Note, this is not a complete list, but illustrates the breadth and extent of what is missing:

### **Emission reduction**

- That applications should be required to prepare a report on their carbon footprint (prepared by an independent expert).
- Favourable consideration should be given to applications where the carbon footprint has been reduced. For example:
  - That fish feed is New Zealand made.
  - That the fish feed does not contain any livestock products (such as blood) and poultry products (such as feathers).
  - That electricity is used for farming, killing and processing the fish (e.g. electric boats, cars, trucks, coolers, freezers and water coolants) rather than using fossil fuels.

### **Waste reduction and management (during fish farming) •**

Plastic is minimised.

- Feed waste is minimised (e.g. set minimal feed waste standards).
- All dead fish and fish parts (e.g. heads and guts) are buried on land.

### **Making good (after fish farming)**

- Farms are ‘made good’ once they are no longer in use or their permit expires. This means all hardware is removed and any excess waste underneath the farms is removed. This must be policed by MDC. The costs of monitoring and gaining final tick-off should be paid by NZKS. A penalty should be put in place if it is not put back to prefish farming standards after a certain time limit (e.g. the 12 months). This means an ecosystem stress test needs to be done before and after fish farming.

### **Monitoring and reporting ‘by farm’ to MDC (and published by MDC)**

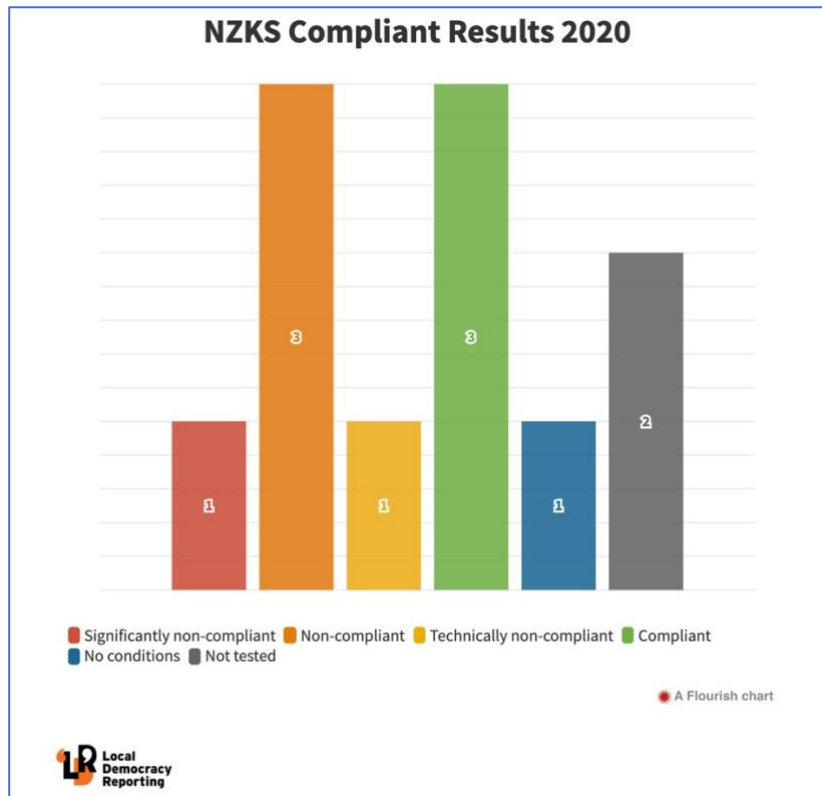
- Compliance results against MDC rules (see Figure 1 below) discussed in the press on 19 September 2021, however, we believe this is better understood ‘by farm’ given this will

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<sup>4</sup> McGuinness Institute. (November 2021). *Working Paper 2021/15 – Looking for a taxonomy for Aotearoa New Zealand’s oceans*. Retrieved 9 March 2023 from <https://www.mcguinnessinstitute.org/wp-content/uploads/2023/03/20230303-WP-2021-15.pdf>

provide a clearer picture of the environmental picture – as some farms will be less problematic than others).

**Figure 1: NZKS Compliant Results 2020<sup>5</sup>**



- Waste – how much waste was removed by the farm per month.
- Mortality (due to disease) by tonnes (actual) and number of fish (estimated).
- Water temperature changes per month at a specified depth (say sea surface temperature (SST), 2 metres depth and 10 metres depth, at the same time of day, noting tides).
- Dolphin and other marine mammal interrelationships with farms and farming and any resulting deaths.

#### **Annual public reporting by NZKS to MDC (and published by MDC)**

- Waste – how much plastic was purchased (per month); what type of plastic; and what was wasted.
- Exports – how many tonnes exported; what type of transport was used; and to where (to calculate carbon expended).

<sup>5</sup> Ranford, C. (19 September 2021). Waste 'footprint' concern sees salmon farm request rejected. Stuff. Retrieved 9 March 2023 from <https://www.stuff.co.nz/national/politics/local-democracy-reporting/300406467/waste-footprint-concern-sees-salmon-farm-request-rejected>

### **Annual reporting by MDC on climate change impacts**

- Publish research on impacts of climate change on the MDC region on the MDC website (including land and sea).

### **Cumulative Impact**

- Provisions should view farms as having a collective impact on the environment and climate – rather than solely considering each farm on its individual impacts.

### **Taxonomy**

- If ‘inshore’ and ‘offshore’ farming are to be meaningfully distinguished, this should be explicitly addressed in the Plan provisions. At the very least, clarity over key terms is necessary.

### **Review**

- Provisions to enable consent terms to be properly revised in response to emerging climate change issues.

### **Question 2: From Commissioner Ms Shonagh Kenderdine**

‘We questioned the CEO of King Salmon when he was here about what impact climate change would have on his business and he said ‘well not quite enormous’ but that was his first, off the cuff comment. And he is seeking a withdrawal of Variation 1A to go back to the drawing board, do you see any way legally that he could move in the direction of land based marine farming in that re-assessment that might reoccur. Other parties have raised climate change as an issue to – but it seems that particularly salmon farming is going to suffer most.’<sup>6</sup>

- 2.1 As previously stated by McGuinness Institute’s legal counsel, Morgan Slyfield, the aquaculture variations are more ‘subject matter constrained’ than they are ‘geographically constrained’. How we have ended up in this position is not on the basis that there is an assumption of aquaculture being marine based per se, but on the assumption that aquaculture would be addressed through a separate variation.
- 2.2 If the variation were to be withdrawn, and there was to be essentially a ‘start over’ in some fashion of how aquaculture might be addressed in the planning instrument, our view is that there is no legal impediment.
- 2.3 Our view is that the drafting of Variation 1A needs to start over, but that it would need to take into account an ‘industry variation across both land and sea’ (not a marine variation). This would enable a land-based option to be considered and managed under the plan. This is particularly relevant given that fish farming is currently both a land and ocean based venture, and that NZKS has already indicated it is looking to grow salmon

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<sup>6</sup> Retrieved from Zoom recording at 04:09:00 on 18 November 2021.

longer on land than in their previous models. The three land hatcheries<sup>7</sup> are described here:

## OUR HATCHERIES

We operate three hatcheries across the South Island in Takaka, Tentburn and Waiau. The wide geographic dispersion of our hatcheries acts to mitigate the risk of disease or natural disaster. Our key hatcheries have ample water supply which we believe will facilitate any future expansion beyond our eight operational seafarms.

HATCHERY	LOCATION	ACTIVITIES	CONSENT EXPIRY DATES
Takaka	Golden Bay	Production of broodstock and eggs	Fish farm licence currently in renewal process Water permit expires in 2034
Tentburn	Canterbury	Smolt production	Various licences and permits expiring between 2026 and 2038
Waiau	North Canterbury	Backup for broodstock and smolt	Fish farm licence currently in renewal process Water permits expire between 2028 and 2039

<sup>7</sup> New Zealand King Salmon. (n.d.). *Operations Report*, p. 17. Ministry for Primary Industries. Retrieved 9 March 2023 from <https://www.mpi.govt.nz/dmsdocument/16102-New-Zealand-King-Salmon-Operations-report>

**Appendix 1: List of publicly notifiable applications to Marlborough District Council**  
**Table 1: NZSX applications post the 2012 BOI decision**

Reference Number	Proposal	Date Submitted	Decision Status
130466	New coastal permit for an additional salmon feed discharge at the Clay Point salmon farm for the period 1 December 2012 to 30 November 2013 to allow a total feed discharge of 4,500 metric tonnes per annum in combination with U060926.	2 Aug 2013	Granted
150081	New coastal permit (replacing MFL484, MPE466, U000237, U010142, U080726, U090841 and U130472) for the continuation of an existing salmon farm at marine farm site 8408 in Te Pangu Bay, including all activities ancillary to the farm's operation.	30 Jan 2015	Granted
150355	New coastal permit to occupy coastal space with a barge of maximum dimensions 20 metres long by 12.4 metres wide and 8.3 metres high (above the water line) to service a salmon farm in Ngamahau Bay, Tory Channel.	22 Apr 2015	Granted
160675	New coastal permit (replacing MFL537, U060926, U080054 and U080726) for the continuation of an existing salmon farm at marine farm site 8407 west of Te Uira-Karapa Point (Clay Point), Tory Channel, including all activities ancillary to the farm's operation.	8 Jun 2016	Granted
180499	A coastal permit to occupy - to the exclusion of other permanent or semi-permanent structures within the water column - 1792 hectares of the Coastal Marine Area to the north of Cape Lambert and east of Sentinel Rock, to facilitate the operation of scientific monitoring equipment.	29 Jun 2018	Withdrawn
190357	To increase the maximum area of net pen surface structures at the existing Waitata salmon farm (site 8632) from 1.5 hectares to 2.25 hectares, by installing four additional net pens, ten additional anchors and ten additional surface floats, and changing the associated consent conditions 2 and 14 on existing resource consent U140294.	8 May 2019	Refused
190438	To establish and operate new salmon farms within a 1791 hectare site located between 5 kilometres and 12 kilometres due north of Cape Lambert.	5 Jul 2019	In processing
160675.127.01	To change condition 25 of U160675, to provide for a maximum discharge of 9,000 tonnes of feed across two consecutive years.	14 Oct 2019	In processing
140294.127.01	To change conditions 36 and 40 of U140294.	12 Aug 2020	In processing
140296.127.01	To change condition 40 of U140296.	13 May 2020	In processing