



Andrew Caddie
Kenepuru and Central Sounds Residents' Association
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Dear Andrew Caddie

OFFICIAL INFORMATION ACT REQUEST

I refer to your official information request received on 13 November regarding the salmon mortality event as attached.

Please find the answers below to your questions numbered according to your request.

Question 3

Mortalities were noticed by the company beginning in February 2015. The Ministry for Primary Industries (MPI) was notified by the company in May 2015.

Question 4

MPI has withheld this information under the following sections of the Official Information Act (OIA):

- 9(2)(b)(ii) to protect the information where making it available would likely unreasonably prejudice the commercial position of the person who supplied or who is the subject of the information; and
- 9(2)(ba)(i) to protect information which is subject to an obligation of confidence or which any person has been or could be compelled to provide under the authority of an enactment, where the making available of the information would be likely to prejudice the supply of similar information, or information from the same source, and it is in the public interest that such information should continue to be supplied.

Question 5

No. Industry sent moribund fish to MPI after consulting with an MPI incursion investigator.

Question 6

No reports have been produced regarding this response. The MPI Investigation Diagnostic Centre & Response Animal Health Laboratory (AHL), as part of the response team, confirmed that *Tenacibaculum maritimum* and a Rickettsia-like organism were detected in the Marlborough Sounds.

In response to this information, the intelligence and planning workstreams of the response are developing a surveillance plan to determine if the two pathogens are present in other salmon farming areas. This information along with observed mortalities will help us understand if the pathogens are present in other salmon farms.

Question 7

MPI has notified Marlborough District Council and Tasman District Council about the biosecurity incursion. Both councils are listed as stakeholders for information-sharing notifications.

Question 8

Feed is not a primary causative agent. MPI believes that the mortalities were caused by multiple factors and is investigating a range of factors potential to determine the cause (i.e. infectious agents, environmental factors, and management practices).

Question 9

MPI has collected historical and current data on mortality as part of this response.

Question 10

MPI has retrospectively collected mortality data along with other environmental and temperature data to analyse. The objective of the analysis is to identify any risk factors that may be associated with mortality. This analysis work is in progress.

Question 11

MPI has retrospectively collected water temperatures as part of this response. Please note that water temperature alone is not the primary cause. Biologically, the pathogens have a preferred water temperature which make temperature a factor. However, temperature is not the primary cause. The mortalities are caused by a multitude of factors which may include temperature.

Question 12

The dead fish were sent to a rendering plant where they were turned into dried product suitable for pet and animal food. The heating process involved with rendering kills bacteria and makes the product safe.

Question 13

There is no indication that this New Zealand Rickettsia-like organism or other rickettsial pathogens of fish cause disease in humans or other warm-blooded animals. For example, other rickettsial pathogens grow at temperatures between 15°C to 18°C with no growth at 25°C and above. This prevents *P. salmonis* from becoming established in warm-blooded animals¹. Similarly, *Tenacibaculum maritimum* grows the best at 30°C with no growth over 34°C². Even more importantly, these pathogens are not OIE (World Organisation for Animal Health) listed diseases. The OIE is the World Trade Organization (WTO) reference organisation for standards relating to animal health and zoonoses. One of the criteria for a pathogen being an OIE listed disease is that a disease has a public health concern (zoonotic disease)³.

Question 14

MPI is taking stocking density into consideration. It is an important factor in all animal and marine farming operations in outbreaks. Animals that are stocked densely are more stressed leading to decreased immunity and therefore are more susceptible to becoming infected with a pathogen. There is also more animal to animal contact and therefore an increased probability for infected animals to contact susceptible animals.

Farmed fish are covered by the Animal Welfare Act 1999, which is administered by MPI. This Act requires owners and people in charge of animals (including fish) to meet the physical, health and behavioural needs of animals in their care. Any breach of the Animal Welfare Act will be referred for further animal welfare investigation.

Question 15

The response brief was drafted in May 2015 when the biosecurity response was stood up. It is used to set response objectives and outcomes. It was checked that the document was current when it was released to you to provide the most accurate picture of the response at the time of release. As this is a “living document” that changes as new information arises, there is no final draft of response options.

MPI has issued movement restrictions to the farms where the pathogens were detected to mitigate the further spread of the pathogens while investigating the cause of the mortalities. MPI has developed a surveillance plan in place for collecting and testing tissue samples from moribund salmon in the other salmon farming areas in New Zealand. This surveillance will help form the response options and allow the response management to continue to make informed decisions.

¹ Fryer JL and Mauel MJ. The Rickettsia: an Emerging Group of Pathogens in Fish. Emerg Infect Dis. 1997, JUN. Available from <http://wwwnc.cdc.gov/eid/article/3/2/97-0206>. DOI: 10.3201/eid0302.970206

² Avendaño-Herrera R, Toranzo AE, Magariños B. Tenacibaculosis infection in marine fish caused by *Tenacibaculum maritimum*: a review. *Dis Aquat Organ*. 2006 Aug 30;71(3):255-66.

³ World Organisation for Animal Health. http://www.oie.int/index.php?id=171&L=0&htmfile=chapitre_criteria_diseases.htm [26 November 2015 2015]

Question 16

MPI is considering the impacts El Niño may have on the water temperatures in the Marlborough Sounds. Further information is publicly available on the following web address: <http://www.mpi.govt.nz/protection-and-response/responding-to-threats/adverse-events/classifying-adverse-events-/preparing-for-el-nino/>

Question 17

Vaccinations are developed for diseases that cause huge impacts. For example, there is a rabies vaccine to prevent rabies in dogs and cats. Vaccinations are used to prevent diseases that are caused by viruses and bacteria. Vaccinations have been used in other countries to treat fish diseases (i.e. *Yersinia ruckeri* in Atlantic salmon).

Antibiotics are used to treat bacterial infections. Antibiotics are used in other countries to treat bacterial infections in fish if the antimicrobial susceptibility test suggests the bacteria is susceptible to a particular antibiotic.

MPI is investigating the cause of the mortality and will determine if vaccination is possible and/or antibiotics are required. At this point, this is not the case. Management options such as these have been discussed with NZKS. MPI will continue discussions with industry as information becomes available.

Question 18

Farmed fish are covered by the Animal Welfare Act 1999 which is administered by MPI. This Act requires owners and people in charge of animals (including fish) to meet the physical, health and behavioural needs of animals in their care. The Animal Welfare Act can be found at the following web address: <http://www.legislation.govt.nz/act/public/1999/0142/latest/DLM49664.html>

Animal welfare implications are being considered as part of this response. Any activity identified in the course of the response to be a potential breach of the Animal Welfare Act will be notified to the appropriate staff to be investigated.

MPI is satisfied that in the circumstances of this case, the withholding of information is not outweighed by other considerations which render it desirable in the public interest to make the information available.

You have the right under section 28(3) of the OIA to seek an investigation and review by the Ombudsman of my decision to withhold information. A complaint can be made by contacting the Office of the Ombudsman directly.

Yours sincerely



Andrew Coleman
Chief Operations Officer

DRAFT Memorandum

For: Ministry for Primary Industries

Subject: Marlborough Sounds Salmon Mortality Spike March 2015 – Questions

From: Andrew Caddie, Vice President, Kenepuru and Central Sounds Residents' Association

Date: 13 November 2015

Introduction

1. In the Ministry's response to our revised Official Information Act request of September, you attached two MPI generated documents:
 - A summary of response (two pages) ("SR")
 - A response foundation document entitled "Biosecurity Response Brief" ("BRB")
2. Based on a review of these documents and other publicly available materials, we have a number of additional questions, which I intend to traverse at our meeting in Auckland on 26 November. In order to expedite matters, I set out a number of the questions we would like to be answered at the meeting under several broad subject headings below.

Notification of the Outbreak

3. It is unclear to us as to when MPI received advice from NZKS as to yet another unusual mortality spike at its Marlborough Sounds salmon farm operations. The SR states the event started in February 2015 whilst the BRB suggests MPI's attention was "captured" in May 2015. When and how was MPI formally notified?
4. The documents supplied are unclear as to how many NZKS salmon farms were affected. The SR suggests one ("a salmon farm") whilst the BRB suggests mortality spikes occurred at "some salmon farms". Please clarify and confirm the names of the salmon farm(s) affected.

Details of the Outbreak

5. Did MPI/AHL personnel collect the diseased fish samples for testing?
6. Has AHL produced a report or similar outlining its processes/conclusions from this round of testing?
7. Has MPI discussed this mortality incident with the consenting authority (Marlborough District Council)? If so, what was the outcome?

8. The documents supplied and associated press releases suggest “feed” as a causative agent has not been ruled out. Is this correct? If yes, has MPI reviewed the feeding regime/composition and discussed the same with NZKS and the supplier of the feed?
9. Has MPI any information as to the quantum of the mortality incident overall or on a per farm basis? By way of example, we note that in the 2012 outbreak elevated levels of dead fish were dumped at the Blenheim tip between 15 November and 31 March, amounting to, we understand, some 345 tonnes.
10. Does MPI hold information charting the rise and fall of the incident over the relevant period?
11. Water temperatures are suggested as a causative factor. Does MPI hold information as to actual water temperatures leading up to, during and over the mortality incident at the affected farms(s)?

Immediate Response by MPI

12. Anecdotal accounts in the community suggest mortalities from the outbreak were used to produce “burley” or made into pet food. What information does MPI have about what happened to the diseased fish?
13. MPI seems very clear that there is no known risk to humans from the two bacteria strains potentially identified as causing mortality in the diseased fish. We would like to discuss this aspect further.
14. The literature suggests that high stocking densities exacerbate the risk for such outbreaks occurring. Has MPI reviewed this aspect in its assessment and response to this outbreak? If yes, what are MPI’s findings and conclusions?
15. The BRB is dated 26 May 2015 but records it was updated on 19 October. It is a little unclear from the tone of the document as to what MPI has actually done as opposed to what might be done. We would like to discuss further paragraph 6 of the BRB (which seems to be outcomes to date) and paragraph 5 (which seems to be more of a plan). For example, where is MPI at with the preparation of the final draft response option document and the implementation plan for response operations? Did MPI set up voluntary movement control measures and if so what were they and are they still in place? In terms of paragraph 6, has MPI a surveillance plan in place to determine presence and prevalence of any disease going forward?

Issues for the Summer of 2016

16. Does MPI have a view about the impact of El Nino on water temperatures in the vicinity of the affected farms in the February/March 2016 period?
17. The literature suggests that if the bacteria strains tentatively identified are causative of mortality then vaccination (injection) with antibiotics is the best preventive measure. Have such measures been discussed with NZKS?

18. In terms of animal health welfare issues, what guidelines has MPI established in relation to the affected operation e.g. identified appropriate stocking densities, critical water temperature levels and so on?

We look forward to discussing the above with you when we meet.