BEFORE THE HEARINGS PANEL

AT THE MACKENZIE DISTRICT COUNCIL,

COUNCIL CHAMBERS, FAIRLIE

IN THE MATTER of the Resource Management Act ("**the Act**")

AND

IN THE MATTER of the hearing of submissions on Plan Change 23 and Plan Change 27 to the Mackenzie District Plan.

STATEMENT OF EVIDENCE OF HANNAH RITCHIE

FOR NEW ZEALAND PORK INDUSTRY BOARD

(NZPork)

26 April 2024

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SUMMARY STATEMENT

1. This statement of evidence has been prepared in relation to a submission from the New Zealand Pork Industry Board (NZ Pork) on the Mackenzie District Council's Proposed Plan Change 23 and Proposed Plan Change 27 to the Mackenzie District Plan.

2. Pig farming systems in New Zealand can generally be classified as intensive or extensive, based on housing types and stocking densities. Intensive and extensive systems can differ in the type and intensity of amenity effects, with those from extensive farming systems more akin to other pastoral farming systems.

3. The New Zealand pork industry is recognised internationally for its high health status. Maintaining this status requires a robust framework for both avoidance of and response to any actual or potential biosecurity incursions. his may involve the need for earthworks to promptly dispose of livestock on the farm, reducing the risk of spread and preventing the transfer of contaminants off-site.

4. Animal care on a pig farm is a daily responsibility. They have a greater need for shelter and their social and dietary requirements are more complex than sheep and cattle. Such an intensive role often necessitates pig farmers providing on-site accommodation for workers, so staff can be present to provide the round-the-clock, year-round care and services needed on-farm.

5. Reverse sensitivity effects due to urban and rural-lifestyle encroachment into traditionally rural areas are a significant challenge for commercial pig farmers nationally. There are many practices that farmers can and do undertake to reduce odour emissions, however it is not always feasible to contain odour within the property boundary, and such an expectation would not be reasonable in a productive rural environment. We support the use of setbacks as a means of managing the risk of reverse sensitivity associated with the amenity effects of intensive pig farming.

QUALIFICATIONS AND EXPERIENCE

6. My name is Hannah Ritchie. I am currently employed as the Environment and Planning Manager at NZ Pork. Before stepping into this role six months ago, I held the position of Senior Environmental Advisor at NZPork from 2019 – 2023. Additionally, I have worked as a policy advisor for the Foundation for Arable Research and spent seven years in resource management roles at Canterbury Regional Council.

7. I have a Bachelor of Science in Environmental Science from the University of Southampton and I am currently studying for a Postgraduate Certificate in Environmental Management at Lincoln University. I have also completed a course in Intermediate Sustainable Nutrient Management at Massey University.

8. While this is not a hearing under the Environment Court, I have read the Environment Court's Code of Conduct for Expert Witnesses, and I agree to comply with it. My qualifications are set out above. I confirm that the issues addressed in this brief of evidence are within my area of expertise, except where I state I am relying on what I have been told by another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

INTRODUCTION

9. NZPork is a statutory Board funded by producer levies. It actively promotes "100% New Zealand Pork" to support a sustainable and profitable future for New Zealand grown pork. The Board's statutory function is to act in the interests of pig farmers to help attain the best possible net ongoing returns while farming sustainably into the future.

10. The New Zealand pig industry is a highly productive specialised livestock sector, well integrated within New Zealand's primary production economic base. It draws on both downstream and upstream inputs and economic activity from New Zealand's rural sector including feed inputs, equipment and animal health supply, transport, slaughterhouse facilities plus further processing. Currently, New Zealand's pig farmers produce around 38% of pig meat consumed by the domestic market, with the other 62% provided

by imported pig meat from a range of countries. Nationally there are less than 90 commercial pork producers, comprising a relatively small but significantly integrated sector of the New Zealand agricultural economy.

11. There is one commercial pig farm in the Mackenzie District. This is a 'free-farmed' breeding operation, as per the description in Mr. Ian Barugh's evidence, in which sows and their young are reared on pasture.

12. New Zealand pork producers are facing several economic, social and environmental challenges to remain viable. The contribution of imported pork to New Zealand's total pork consumption has increased significantly in recent years, placing further demands on producers who have responded by developing increasingly efficient systems.

13. Pig farmers in New Zealand have a firm grasp of environmental issues and demonstrate a high level of innovation and environmental stewardship. The New Zealand pork industry has committed significant time and resources to projects centred on environmental initiatives, including the development and implementation of Environmental Guidelines and Nutrient Management Guidelines.

14. The nature and size of our industry and our commitment to best practice, means we have a small environmental footprint relative to other parts of the primary production sector. We encourage our farmers to adopt good management practices, ensuring they are stewards of the environment, sustainably managing water, land and nutrients to preserve and enhance the environment for future generations.

15. Pigs, being monogastric animals, produce significantly lower levels of enteric methane emissions compared to ruminant animals like cows or sheep.

16. Consequently, we see the potential for growth in pork production as consumers and regulators seek out strategies to reduce greenhouse gas emissions from agriculture and manage the environmental impact of livestock farming and meat production.

17. Even though there is currently only one commercial farm in the district, the potential growth prospects of the industry underscore the need for a practical and effective planning framework within the Mackenzie District Plan for pig farming operations.

PORK INDUSTRY ENVIRONMENTAL GUIDELINES

Good Management Practices for Outdoor Pigs**:**

18. Good Management Practice (GMP) Guidelines for Outdoor Pigs were developed by NZPork, working in conjunction with Landcare Research and Environment Canterbury. The guidelines include stocking rates for outdoor sows and grower pigs, and minimum acceptable levels of groundcover,

19. GMP guidelines were designed primarily to manage nutrient, sediment and pathogen loss to waterways from farms. The level of groundcover is a key determinant in losses of all three, with losses increasing as groundcover decreases. For this reason, the maintenance of groundcover is a foundation of good environmental management on outdoor pig farms.

Pork Industry Guide: Environmental Management:

20. This guide provides pork producers, council officers, persons looking to enter the pork industry, and other stakeholders a reference for acceptable practices for managing the environmental impacts of pork production. For outdoor pig farming, the guide includes factors to consider in the establishment of an outdoor piggery operation, including:

- Maintenance of pasture cover throughout the year.
- Rotation of paddocks where necessary to allow pasture recovery.
- Include outdoor pigs in part of an arable rotation to enable crops to utilise nutrient build-up.
- Selecting a suitable land area dependent on various factors including any nutrient management rules from the Council.
- In the absence of specific council requirements, the guide recommends following the GMP stocking rates.

NZ PORK SUBMISSION

Definitions

21. NZ Pork supports the definition in proposed PC23 of Intensive Primary Production, which is:

means either:

a. *primary production activities that principally occur within buildings and involve growing fungi, or keeping or rearing livestock (excluding calf-rearing for a specified time period) or poultry.*
b. *primary production activities involving the keeping or rearing of livestock that principally occurs outdoors, which by the nature of the activity, precludes the maintenance of pasture or ground cover, but excludes intensive winter grazing, where livestock are grazed on an annual forage crop at any time in the period that begins on 1 May and ends with the close of 30 September of the same year.*

22. Under this definition, outdoor pig farms that maintain ground cover would not be considered an intensive primary production operation and would therefore be a permitted activity under GRUZ-R1. NZ Pork agrees with this assessment, as the amenity effects of intensive farming systems are expected to be greater than those of extensive outdoor systems, as per the evidence of Mr Ian Barugh.

Biosecurity

23. The New Zealand pork industry is recognised internationally for its high health status. To maintain a high health status and prevent the spread of disease, NZPork provides guidelines for on-farm biosecurity standards, which are detailed in the evidence of Mr. Brent Kleiss.
24. The industry is at risk of biosecurity incursions from imported pork products, which make up 60% of all pork consumed in New Zealand.
25. In the event of such an incursion, a robust framework to rapidly respond to the outbreak and reduce the risk of spread is essential.
26. An on-farm response may be necessary to avoid spread of the contaminant during transport. There may also not be suitable facilities for the disposal of contaminated stock immediately available.

27. As per the evidence of Mr. Kleiss, the Biosecurity Act 1993 may place restrictions on the movement of material to stop the spread of an organism or pest.
28. Mr Kleiss also notes that the thresholds for the Biosecurity Act to override Part 3 of the Resource Management Act may not be met in all cases of an incursion.
29. There are also risks to public health to consider when responding to a biosecurity incursion in other legislation, for example:
    - The Health Act 1956 where the activity must not be offensive, likely to be injurious to health, spread disease, likely to harbour rats and other vermin, or give rise to the breeding of flies or other insects which are capable of transmitting disease.
30. Therefore, a framework is needed so that farmers and others involved in an incursion can dispose of infected material (animals) on site without going through the process of obtaining a resource consent.

Workers accommodation

31. NZ Pork supports a clear consenting pathway for the provision of onsite workers' accommodation in the GRUZ.
32. Providing accommodation on site for workers is an important component of many commercial pig farming operations, which often require the onsite provision of farm workers accommodation to provide onsite farm assistance, animal husbandry and security.
33. Farming pigs is very different from farming other livestock. Stockpersons are far more intimately involved with the care of pigs than other livestock. Pigs have a greater need for shelter and their social and dietary requirements are more complex than sheep and cattle. Animal care is a daily responsibility, as pigs are not like ruminants which derive their nutrition from grass: pigs are monogastric like humans, and require a balanced diet fed daily.
34. The size of the operation will determine the amount of day-to-day 'hands-on' involvement. As a rule of thumb, one staff member is required for every 100 sows.

35. Most farms operate similar, regular (often weekly) production cycles with births, weanings, matings and sales occurring all year around. On smaller farms, the 'pig farmer' role requires the person to operate in all areas of the farm, including providing for 7-day-a-week coverage. As the farms grow, the 'pig farmer' role may specialise more in one of the five main facilities on the farm (farrowing, dry sow and mating, nursery, weaner/grower and feed preparation,) and may operate as part of or manage a 'team' in that area.

36. Such an intensive role often necessitates pig farmers providing on-site accommodation for workers, so staff can be present to provide the round-the-clock, year-round care and services needed on-farm.

37. Pig farming in New Zealand is also heavily reliant on skilled migrant workers. For farmers employing skilled migrants, accommodation on-farm is often a component of their employment package.

Reverse sensitivity and incompatible activities

38. In my experience with NZ Pork, I have found that odour complaints are the biggest single resource management issue in the pig farming sector.

39. Complaints seem to be more prevalent in areas where rural lifestyle developments have gradually encroached on existing pig farming operations. Subdividing land into smaller lots means pig farmers have more neighbours. Moreover, the nature of complaints received by both farmers and councils indicates that some rural lifestyle residents have expectations regarding amenities that don't align with the realities of a productive rural environment.

40. Mr. Ian Barugh, in his evidence, outlines practices farmers can adopt to reduce odour emissions from intensive pig farming. However, there may be instances or conditions where it is not feasible to contain all odour emissions within the property boundary. Moreover, this expectation would not be reasonable in a working rural environment.

41. Rules 7.65-7.66 and 7.69 in the Canterbury Air Regional Plan regulate the discharge of contaminants, including odours, into the air from intensive pig farming. Each rule includes the condition that:

1. The discharge of odour does not cause an offensive or objectionable effect beyond the boundary of the property of origin, when assessed in accordance with Schedule 2

42. As the number of sensitive receptors near pig farms increases, the likelihood of offensive or objectionable odours also rises. Even if complaints about such odours are not substantiated, they can still create pressure that threatens the continued operation of these farms.

43. An example of such an occurrence is a farm in the Selwyn District near Rolleston, which operates as a 'free-farmed' operation according to Mr. Ian Barugh's definition. This farm has been running for over 40 years, with infrastructure largely unchanged since the 1990s.

44. The land surrounding the pig farm has seen an increase in rural-lifestyle developments, with the farm now bordered mostly by 4-hectare blocks. Recently, a new owner bought the property next to the farm. Within the last 18 months, this new owner has lodged over 150 complaints with Environment Canterbury regarding odour from the farm, leading to more than 25 visits by compliance officers. Out of these visits, only three times was the odour deemed offensive or objectionable. However, the constant scrutiny from both the neighbour and the regional council has severely impacted the farmers' ability to operate. Consequently, the farmer no longer believes the farm is viable in its current location.

45. When investigating odour complaints, the regional council do not consider reverse sensitivity as a mitigating factor. Thus, the only way to prevent such incidents is by reducing the potential for reverse sensitivity.

46. The potential for piggery odours to affect the surrounding environment depends on various site-specific factors, including aspects related to the piggery itself and the landscape or natural features of its surroundings.

47. Multiple potential odour sources exist on a pig farm, as detailed by Mr. Ian Barugh's evidence, including pig housing buildings, effluent holding tanks or ponds, compost piles, and effluent discharge fields.

48. The age of the facilities can also influence odour potential, with newer facilities incorporating more modern designs to mitigate odour.

49. Natural features such as wind direction and velocity, topography, and vegetation play a role in odour dispersal. For example, odour dispersal conditions are more favourable when the odour source is on flat land with few obstacles nearby.

50. NZ Pork advocates for the use of minimum setback distances from existing intensive primary production activities to new sensitive activities as a simple method to reduce the risk of reverse sensitivity, thus providing farms with more operational security.

51. Reciprocity of setbacks for new intensive primary production activities to existing sensitive activities is also supported by NZ Pork to prevent new farms from establishing in unsuitable locations. Once buildings and other activities associated with intensive pig farming are established, it can be very expensive to try and mitigate odour. The appropriate location of facilities at the outset can reduce the risk of offensive or objectionable odour occurring.

52. Because there are many different variables affecting odour generation and dispersal, determining an appropriate setback distance is an imprecise science.

53. NZ Pork suggests a minimum distance of 300 meters as reasonable to mitigate the potential for objectionable odour emissions without overly restricting land use. This distance aligns with setback distances adopted in other Canterbury districts, as discussed in the evidence of Mr Vance Hodgson.

Hannah Ritchie

24 April 2024.