

BEFORE THE SOUTHLAND REGIONAL COUNCIL

UNDER THE the Resource Management Act 1991

IN THE MATTER OF Resource consent applications by Sanford Limited, APP-20157616-V1, APP-203236-V1, APP-203237-V1, APP-203240-V1, APP-203241-V1, APP-203242-V1, APP-207256-V1, seeking coastal permits associated with the operation of a Salmon Farm at Big Glory Bay, Stewart Island.

**STATEMENT OF EVIDENCE OF NARDIA ALICE NANETTE YOZIN
for DIRECTOR-GENERAL OF CONSERVATION**

Dated 18 March 2019

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1. INTRODUCTION

- 1.1 My name is Nardia Alice Nanette Yozin. I am an RMA planner at the Department of Conservation ("the Department"). I have been in this position since October 2016. Prior to my current position, I worked as an RMA planner for Opus International Consultants, Canterbury Earthquake Recovery Authority, and Stantec.
- 1.2 I hold a Bachelor of Planning with Honours (2011) and a Master of Professional Studies (International Relations and Human Rights) with Honours (2014) from the University of Auckland. I am a Full Member of the New Zealand Planning Institute.
- 1.3 I have six years' experience practising as a resource management planner. I have worked on a variety of resource management matters including statutory planning, environmental assessments and policy analysis. I have been involved with the drafting of district and regional planning documents, and the processing of resource consent applications.
- 1.4 I am presenting this evidence in relation to the Director-General of Conservation's ("D-G") submission on Sanford Limited's application.

2. CODE OF CONDUCT

- 2.1 I have read the code of conduct for expert witnesses as contained in the Environment Court's Practice Note 2014 ("the Code"). Although this hearing is not before the Environment Court, I have complied with the Code when preparing my written statement of evidence.
- 2.2 The data, information, facts and assumptions I have considered in forming my opinions are set out in my evidence to follow. The reasons for the opinions expressed are also set out in the evidence to follow.
- 2.3 Unless I state otherwise, this evidence is within my sphere of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.
- 2.4 I am authorised to present this evidence for the D-G and to do so in an independent capacity in accordance with the Code.

3. SCOPE

- 3.1 I have been asked to provide evidence in relation to the New Zealand Coastal Policy Statement (“NZCPS”), Southland Regional Policy Statement (“SRPS”) and Southland Coastal Plan (“SCP”) policy framework and if the potential effects of the proposed activities will result in environmental outcomes consistent with those in these documents.
- 3.2 My evidence has been divided into the following parts:
- (a) A discussion on the concerns raised in the D-G’s submission.
 - (b) An overview of the post-submission discussions between Sanford Limited and Department staff.
 - (c) Consideration of all other evidence and the s42A report.
 - (d) Discussion on how the agreed¹ conditions achieve the planning framework contained in the NZCPS, SRPS and SCP.
- 3.3 The key documents that I have relied on in forming my opinions are contained in **Appendix NY1**.
- 3.4 In preparing my evidence I have read, and where necessary refer to:
- (a) Resource consent application and supporting documents from Sanford Limited;
 - (b) The Council Officer’s section 42A Report;
 - (c) The evidence of Dr Mark James, Mr Philip Mitchell, Mr Jacobus Swart, Ms Ali Undorf-Lay, Dr Neil Hartstein, Mr Ben Wybourne and Mr Ted Cully for the applicant;
 - (d) The D-G’s submission; and
 - (e) The evidence of Mr Andrew Baxter and Dr Peter Longdill for the D-G.
- 3.5 I was involved in the drafting of the D-G’s submission and subsequent discussions with Sanford regarding the concerns raised in the D-G’s submission.

¹ Evidence of Dr Longdill, Sections 10, 11 and Appendix PL2.

4. EXECUTIVE SUMMARY

- 4.1 The D-G's submission was largely concerned with the ability for BGB to cope with the nitrogen increases proposed by Sanford Limited. Concerns included uncertainty around how the proposed conditions would effectively monitor changes and manage potential adverse effects on water quality and benthic values.
- 4.2 Following the lodgement of the D-G's submission, advisors for the Department and Sanford engaged in discussions to develop more appropriate conditions to provide more certainty around monitoring and management of effects.
- 4.3 I consider these revised conditions provide the necessary certainty sought through the D-G's submission and can effectively manage any potential adverse effects over the remaining term of the consent through to 2025.

5. D-G'S SUBMISSION

- 5.1 The D-G lodged a submission on the application from Sanford Limited to increase the discharge of nitrogen (through salmon feed) in Big Glory Bay ("BGB"), Stewart Island.
- 5.2 The submission, noted that:
 - (a) the D-G was not opposed to marine farming within BGB, provided it was within environmental limits;
 - (b) there were no concerns with the application where it assessed the effects on marine mammals, seabirds, recreation, amenity or landscape values;
 - (c) the D-G was concerned with the application where it related to the assimilative capacity of BGB to cope with the proposed increases of nutrients and discharges;
 - (d) specific concerns relating the effects on the water column and the benthic environment;
 - (e) concerns around the certainty of environmental outcomes provided by the modelling used by Sanford to predict potential effects;

- (f) a lack of appropriate management to manage the significant increase in discharges and that an adaptive management approach to the increased discharges would be more appropriate; and
- (g) concern about how an overall bay-wide cap of nitrogen will be managed practically.

5.3 Overall, these concerns resulted in the D-G's uncertainty that the proposed conditions, management and monitoring referred to in the application would lead to appropriate management of adverse effects on the water column and benthic environment. As such, the D-G submitted the application should be declined unless appropriate conditions could be developed to address this uncertainty.

5.4 The submission also noted that many of these issues could possibly be resolved through pre-hearing discussions, which was taken up by Sanford. This process is discussed further in sections six and seven of my evidence.

6. POST SUBMISSION CONDITION DISCUSSIONS WITH SANFORD LIMITED

6.1 Following the lodgement of the D-G's submission, Department and Sanford staff met to discuss the concerns raised in the D-G's submission and possible amendments to conditions to address these concerns.

6.2 At the conclusion of these discussions, Sanford sent an agreed set of conditions through to the Southland Regional Council ("Council"). These revised conditions are identified in the Officers s42A report on pages six to 10 and identified as 'Revised set of conditions for discussion dated 18 December 2018' I note the numbering used in the Officer's report differs from what was sent to the Council (and provided in Mr Baxter's and Dr Longdill's evidence).

6.3 Further amendment to conditions A4c(ii) were suggested by the Department's advisors and agreed by Sanford in early 2019. These amendments seek to improve the clarity of conditions A4c(ii) and are discussed in more detail in the evidence of Dr Longdill.²

² Evidence of Dr Longdill, Sections 10, 11 and Appendix PL2.

7. AGREED CONDITIONS

- 7.1 Due to the technical nature of the application and the revised conditions³, I have relied on the advice and expertise of Peter Longdill and Andrew Baxter in determining if the revised conditions⁴ will address the concerns raised by the D-G's submission, as discussed in section five of my evidence.
- 7.2 Relying on the evidence on Dr Longdill and Mr Baxter, I consider the revised conditions⁵:
- (a) Adopt an adaptive management approach, including staging of discharges;
 - (b) Outline a management and monitoring regime that will provide more certainty that BGB water quality and benthic environment will be able to cope with the increased discharges proposed by Sanford;
 - (c) Provide for a tiered system of management when limits are reached, or breaches occur to manage effects; and
 - (d) Overall provide more certainty that the increase of discharges will be appropriate monitoring so necessary management can occur.

8. CONSIDERATION OF OTHER EVIDENCE AND THE S42A REPORT

- 8.1 In formulating my evidence, I have read and considered the s42A report. Overall, I agree with the s42A report in terms of the assessment of the relevant planning framework (NZCPS, SRPS and SCP).
- 8.2 I largely agree with the officer's recommendation that the consents should be granted, and the conditions referred to as 'Revised set of conditions for discussion dated 18 December 2018' in the s42A report⁶ are placed on the consent. However, I also note the proposed amendment to conditions A4c(ii) discussed in Dr Longdill's evidence and I believe this amendment should also be incorporated to improve the certainty of this condition.
- 8.3 My only concern with the officers s42A report recommendation is where it recommends that the consents are granted for a 20 year duration. The

³ Evidence of Dr Longdill, Sections 10, 11 and Appendix PL2.

⁴ *ibid*

⁵ *ibid*

⁶ Danielle Korevaar, s42A Report for App-20157616-V1, Pg 6-10.

application from Sanford was for a variation of existing consents which expire on 1 January 2025. The D-G's submission and further discussions between Sanford and Department staff were all based on a consent expiry of 2025. A 14 years duration for these consents was not considered when drafting the conditions with Sanford, nor did the technical advice relied on in drafting conditions, considered that a duration of 20 years as appropriate. Moreover, the D-G's final agreement to these revised conditions was on the understanding the consents expire in 2025. Different conditions may have been adopted if a much longer consent duration was under consideration.

- 8.4 While I recognise that the s42A report considers the application from Sanford as a new activity⁷, I do not agree that the duration of these consents should extend beyond the 2025 date noted on the original consent and sought by the applicant.
- 8.5 This expiry date (1 January 2015) is also supported by the evidence of Mr Mitchell⁸, and I agree with Sanford's reasoning for the preferred expiry date.

9. THE AGREED CONDITIONS AND THE PLANNING FRAMEWORK

- 9.1 Based on the evidence of Dr Longdill and Mr Baxter, I consider these new proposed conditions will provide the necessary monitoring and management framework to support the proposed increases in nutrient loadings, thus meeting the planning framework contained in the NZCPS, SRPS and SCP.
- 9.2 The NZCPS outlines objectives and policies for the management of the coastal environment. Relevant to the activities proposed by Sanford Limited's application are:
- (a) Policy 3 – Precautionary Approach: which seeks that a precautionary approach is applied where the effects of proposed activities on the environment are uncertain, especially where there the coastal environment is vulnerable to climate change.
 - (b) Policy 8 – Aquaculture: which seeks to recognise the contribution of aquaculture to the social, economic and cultural well-being of people and communities.

⁷ Danielle Korevaar, s42A Report for App-20157616-V1, Section 10, pg 48.

⁸ Evidence of Mr Mitchell, Paragraph 50.

- (c) Policy 11 – Indigenous biodiversity: which seeks to protect indigenous biological diversity in the coastal environment by avoiding adverse effects on specific values, avoiding significant adverse effects on other values, and avoiding, remedying or mitigating all other adverse effects.
- (d) Policy 13 – Natural Character: which seeks to preserve natural character and protect it from inappropriate subdivision, use and development.
- (e) Policy 23(1) – Discharge of contaminants: seeks to manage the discharge of contaminants.

9.3 As discussed in section seven of my evidence, the revised conditions⁹ will provide more certainty of effects over the remaining duration of the consents. The combination of staged increases in nutrients, monitoring adaptive management and tiered responses provides for Sanford to increase their feed discharges, while ensuring the environment is coping with the changes.

9.4 This approach ensures:

- (a) the modelling used by Sanford to predict effects on water quality and benthic communities applies in the real world;
- (b) effects on benthic values and water quality are appropriately monitored and managed as discharges increase; and
- (c) more importantly, effects are appropriately managed if monitoring shows that breaches are occurring, or limits are being reached.

9.5 I refer to the Officers s42A report where the proposal is assessed against the SRPS¹⁰ and SCP¹¹ and agree with the officer's identification of relevant SRPS and SCP provisions, and assessment of the proposed activities against these provisions.

10. CONCLUSION

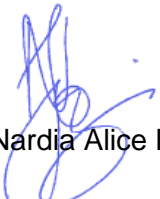
10.1 The D-G's submission was largely concerned with the ability of BGB to cope with the nitrogen increases proposed by Sanford Limited.

⁹ Evidence of Dr Longdill, Sections 10, 11 and Appendix PL2.

¹⁰ Danielle Korevaar, s42A Report for App-20157616-V1, Section 7.2, pg 38-39.

¹¹ Danielle Korevaar, s42A Report for App-20157616-V1, Section 7.3, pg 40-42.

- 10.2 The D-G's submission considered the proposed management regime and conditions put forward by Sanford Limited did not provide enough certainty that the proposed increases of nitrogen would not result in adverse environmental effects, particularly on water quality and the benthic environment.
- 10.3 Following discussions between technical advisors for the Department and Sanford a revised set of conditions were developed and sent to the Council in December 2018. These conditions, plus the additional amendment in Peter Longdill's evidence, provide more certainty that the environmental effects will be more appropriately managed over the remaining duration of the consents, and therefore address the concerns raised in the D-G's submission.



Nardia Alice Nanette Yozin
18-March 2019

APPENDIX NY1 - DOCUMENTS CONSIDERED

- (a) Resource Consent Application APP-20157616-V1, APP-203236-V1, APP-203237-V1, APP-203240-V1, APP-203241-V1, APP-203242-V1, APP-207256-V1;
- (b) New Zealand Coastal Policy Statement;
- (c) Southland Regional Policy Statement;
- (d) Southland Coastal Plan;
- (e) Council Officers Section 42A Report;
- (f) Evidence of Dr Ken Grange for the Southland Regional Council;
- (g) Evidence of Dr Mark James for Sanford Limited;
- (h) Evidence of Philip Mitchell for Sanford Limited;
- (i) Evidence of Jacobus Swart for Sanford Limited;
- (j) Evidence of Ali Undorf-Lay for Sanford Limited;
- (k) Evidence of Dr Neil Hartstein for Sanford Limited;
- (l) Evidence of Ben Wybourne for Sanford Limited;
- (m) Evidence of Ted Cully for Sanford Limited;
- (n) Evidence of Mr Andrew Baxter for the Director General of Conservation; and
- (o) Evidence of Dr Peter Longdill for the Director General of Conservation.

**APPENDIX NY2 – AGREED CONSENT CONDITIONS BETWEEN SANFORD
AND DOC 18 DECEMBER 2018**

**Sanford Limited
Big Glory Bay Salmon Farm Resource Consent Variation
Proposed Conditions:**

A. CONDITIONS PROPOSED IN VARIATION FOR EACH INDIVIDUAL EXISTING CONSENT

Resource Consent AUTH-20157616, relating to MF 246

4. (a) The total nitrogen input from feed at the marine farm site for salmon between 1 July and 30 June each year shall be restricted to 415.1 tonnes provided that:
- (i) the total nitrogen input from feed used in Big Glory Bay between 1 July and 30 June each year does not exceed 659 tonnes across all farms in Big Glory Bay, irrespective of ownership; except that
 - (ii) until such time as the requirements of Condition YY have been satisfied, the total nitrogen input from feed used in Big Glory Bay between 1 July and 30 June each year shall not exceed 583 tonnes across all farms in Big Glory Bay, irrespective of ownership.

Water Quality Objectives:

- (b) The marine farm shall be operated in such a way to achieve the following water quality objectives for the water column:
- (i) To not cause a shift in the trophic state of the water column (i.e. change towards a eutrophic state), beyond that which is likely to occur naturally.
 - (ii) To not increase the frequency, intensity, or duration of phytoplankton blooms (i.e. chlorophyll-a concentrations ≥ 5 $\mu\text{g/l}$).
 - (iii) To not cause elevated nutrient concentrations outside the confines of established natural variation for the location and time of the year, beyond 250m from the edge of the farm.
 - (iv) To not cause reduction in dissolved oxygen concentrations to levels that are potentially harmful to marine biota beyond 250 m from the edge of the farm.

Environmental Quality Standards-water (EQS-water):

- (c) Activities authorised by Condition 4(a), in combination with activities authorised by consents [insert all the other consent numbers] shall not result in any one of the following:
- (i) Tier one standard (see condition 4 (e)): the monthly median concentrations of chlorophyll-a in the water column within Big Glory Bay (monthly median from a data set of all

- monitoring sites) being greater than 3.5 µg/l for three consecutive months; or
- (ii) Tier two standard (see condition 4(e)): for three consecutive months, the concentration of chlorophyll-a in the water column (monthly median at any sampling site within Big Glory Bay) exceeding 5 µg/L:
- a. at two or more sites for any two of those three consecutive months; and
 - b. at one or more sites for the remaining month~~one of those three consecutive months~~.¹²
- (iii) Tier two standard (see condition 4 (e)): an increase in the average monthly excess total ammonia nitrogen in Big Glory Bay of more than 30 µg/L at the surface of the water column, when compared with baseline data from the same or comparable sampling sites from the period July 2015 to December 2017; or
- (iv) Tier two standard (see condition 4 (e)): the dissolved oxygen saturation in the water column at any sampling point more than 250 metres from the farm falling below 70% for three consecutive months (measured using 1 metre bins to 2 metres from the seabed).

Environmental Quality Standards-seabed (EQS-seabed):

- (d) Tier two standard (see condition 4 (e)): Activities authorised by Condition 4(a) shall meet the following Environmental Quality Standards (EQS) for the seabed within 10 metres of the edge of the pens:
- The benthic community retains a diversity and abundance of-marine taxa (other than one or two opportunistic enrichment-tolerant taxa such as Capitellid and Dorvillea worms, and nematodes) at levels which allow for sustained farm waste assimilative capacity and sufficient seabed recovery to support a farm rotation cycle with a fallowing period of not less than 5 years.
 - No more than 20% of the not less than 5 replicate cores collected have no taxa present (azoic). In any assessment under this condition, the effects of mussel shell substrate on benthic communities are to be ignored.
 - No obvious, spontaneous out-gassing (H₂S/methane)
 - Bacteria mat (*Beggiatoa*) coverage not greater than 50% of the sampled area.
- (e) Two tiers of responses in support of maintaining the Environmental Quality Standards (EQS) specified in Conditions 4 (c)(i) – (iv) and 4 (d) shall apply.

¹² Marked changes as agreed with Sanford AFTER 18 December 2018, and summarised within paragraph 11.3 of the evidence of Dr Peter Longdill.

- (i) Tier one: a breach of Condition 4(c)(i) shall trigger further water quality monitoring, consideration of the wider environment, and investigations aimed to determine any contributing effect from farm operations on chlorophyll-a levels. Where relevant, this Tier one response shall also include the consideration of, and planning for, future management responses to avoid further breaches.
 - (ii) Tier two: a breach of any of the Tier two standards (Conditions 4 (c)(ii), (iii) and (iv), and 4(d)) shall require reduced stocking and/or fallowing of the marine farm following the next harvest of salmon on that farm to achieve full compliance with the EQS-water or EQS-seabed within 24 months of the date the consent holder receives confirmed notice of such a EQS result through its monitoring. A substantive improvement within 12 months of that date is required.
- (f) Water quality monitoring will be detailed in the Big Glory Bay Salmon Farm Environmental Management Plan (“BGBSFEMP”) required by the conditions of this consent and shall include monthly sampling of nutrients (total ammoniacal nitrogen, NO₃-N, NO₂-N, DRP, TN and TP), chlorophyll a, phytoplankton composition (reference sites), temperature, dissolved oxygen (DO), water clarity, salinity at the locations specified in the BGBSFEMP. A new “Reference” site outside Big Glory Bay shall be established.
- (g) Seabed monitoring will be detailed in the BGBSFEMP and shall include annual monitoring at the locations specified in the BGBSFEMP for sediment grain size, total organic matter (TOM), total organic carbon (TOC), copper and zinc, appearance of sulphide depth and general colour, depth of redox layer, obvious outgassing, mat forming bacteria, epifauna and infauna. If any benthic sample contains a large number of mussel shells or the grab is prevented from closing due to the presence of mussel shells, the sample shall be retaken. In the event that three grab samples at any one location all contain a large number of mussel shells or the grab is prevented from closing due to the presence of mussel shells the sampling location shall be relocated approximately 10 metres distant.
- (h) Notwithstanding any other condition of this consent, a suitably qualified, experienced and independent person shall prepare a monitoring plan, the purpose of which is to enable compliance with the standards in Conditions 4(c) and 4 (d) to be assessed. The monitoring plan shall be submitted to Environment Southland for approval in a technical certification capacity two months before the total nitrogen input from feed in Big Glory Bay authorised by consents [list to come] is increased above 483 tonnes/year.
- (i) In addition to the requirements of conditions 4(f) and (g), the BGBSFEMP shall set out the details of:
 - (i) Possible responses to a Tier one standard breach requiring further monitoring and/or analysis to determine whether the operation of the marine farm is causing the relevant EQS-water not to be achieved; and
 - (ii) Possible management responses to a Tier two standard breach requiring a clear decision process and plan of action, with clear timeframes to reduce effects on the water column or seabed and

achieve full compliance with the EQS-water or EQS-seabed in accordance with Condition 4(e)(ii).

Advice note: This consent expires in 2025, following which the on-going efficacy of the conditions of this consent, and especially Conditions 4 (b), 4 (c) and 4 (d), will need to be reassessed, having particular regard to the monitoring undertaken in accordance with Condition XXX.

**DETAILS OF THE OTHER FARM SPECIFIC CONSENTS HAVE BEEN DELETED
– TO AVOID REPITITION.**

**B. ADDITIONAL CONDITIONS PROPOSED TO BE INCLUDED ON EACH
INDIVIDUAL CONSENT**

Big Glory Bay Salmon Farm Environmental Management Plan

1. Notwithstanding any other conditions of this consent, the consent holder shall, no later than [insert date], submit to Environment Southland, a Big Glory Bay Salmon Farm Environmental Management Plan (“BGBSFEMP”) for approval in a technical certification capacity.

2. The BGBSFEMP required by Condition 1:

a. May be updated by the consent holder at any time; and

b. Shall be updated by the consent holder at least once in every two year period;

c. Address relevant matters identified in the latest Technology Update Report;

provided that any updated provisions shall only apply, once the updated BGBSFEMP has been approved in a technical certification capacity by Environment Southland.

3. The purpose of the BGBSFEMP required by Condition 1, or any updated BGBSFEMP prepared in accordance with Condition 2, is, as a minimum, to set out:

a. The procedures and practices to be implemented by the consent holder in order to ensure compliance with Conditions 4(c), 4(d) and 4(e) of consent AUTH-20157616 [and the other consents having the same requirement]; of this consent; and

b. The proposed layout of each salmon farm site and how this is expected to change over each two year period; and

c. The maintenance procedures to be followed to ensure the ongoing efficacy of all salmon farm structures; and

d. The procedures and practices to be implemented to minimise, to the extent practicable, the interactions of marine mammals and seabirds with the farm site; and

e. The procedures, practices and monitoring to be implemented to meet the objective of reducing historically elevated concentrations of copper and zinc in sediments beneath the farm site to those that satisfy the ANZECC (2000) Interim Sediment Quality Guidelines; and

f. How the results of the monitoring required by the conditions of this consent will be utilised to adapt, as quickly as practicable, operational farming practices, including but not limited to the fallowing of individual sites, in

the event that monitoring indicates that unforeseen environmental effects may arise;

- g. Any changes in salmon farming technology and/or farm management practices identified in the Technology Update Report required by Condition 5 that the consent holder proposes to implement: and
 - h. Provide robust environmental data to inform the applications for replacement consents once these consents expire in 2025.
4. When determining practicability for the purposes of Condition 3 f), the following factors will be considered:
- a. The requirements of Conditions 4(c), 4(d) and 4(e) of consent AUTH-20157616 [and the other consents having the same requirement]; and
 - b. Fish should be allowed to grow to market ready size before being harvested; and
 - c. Salmon cage relocation to allow fallowing should not compromise fish health or the scheduling of fish harvesting.

Technology Update Report

5. At three yearly intervals during the term of this consent, the consent holder shall engage an appropriately qualified and experienced professional to prepare a Technology Update Report and, following consultation with Environment Southland, provide it to Environment Southland.

The purpose of the Technology Update Report is to:

- a. Evaluate and report on any new developments in salmon farming technology and/or farm management practices that have the potential to reduce the deposition on the seafloor of:
 - i. Uneaten salmon feed; and
 - ii. Salmon faeces.
- b. Any environmental benefits that could be expected by adopting that technology and/or farm management practice; and
- c. The feasibility of adopting that technology and/or farm management practice, including, but not limited to financial implications.

Advice Note

Conditions 1 – 4 are included on each of the consent holder's salmon farming resource consents in Big Glory Bay. It is envisaged the one BGSFEMP and one Technology Update Report will be prepared that addresses all the consent holder's salmon farms in Big Glory Bay, rather than having a number of individual documents.

Add the Following to the Monitoring Condition of each Consent

- X. The annual monitoring report required by Condition [y] of this consent shall include:
- a. A comparison with the results of previous monitoring at the same salmon farm site;

- b. Identification of any potential environmentally significant monitoring trends, at both the site and Big Glory Bay scales; and
- c. Identification of any proposed additional monitoring, including the rationale for it, and the proposed scale, extent and timeframes involved.
- d. An evaluation of the potential implications of the monitoring results from all salmon farming operations undertaken in Big Glory Bay by the consent holder on the environmental quality of Big Glory Bay;
- e. The extent to which the monitoring results indicate that farming practices may need to be adapted in order to address unforeseen environmental effects indicated by the monitoring results.

Add the Following to the Review Condition of each Consent

- e. Adding or amending conditions in order to address any matter raised in:
 - i. The annual monitoring report insofar as it relates to Condition [X immediately above]; or
 - ii. The Technology Update Report required by Condition 5.

Add the Following Condition to each Consent

Staging

- YY. The total nitrogen input from feed used in Big Glory Bay between 1 July and 30 June each year shall not exceed 583 tonnes across all farms in Big Glory Bay, irrespective of ownership until:
 - a. At least 1 July 2021; and
 - b. The total nitrogen in feed used in Big Glory Bay between 1 July and 30 June in each of three successive years has been at least 466 tonnes; and
 - c. The relevant farm(s) has operated for a period of three successive years at levels of between 85- 100% of its allowable individual nitrogen input; and
 - d. Monitoring results of the past two successive years for both seabed and water quality are not indicating results and/or statistically significant trends towards progressively greater environmental effects of the farms.
 - e. A suitably qualified, experienced and independent person has confirmed, in writing, that the increased input of nitrogen in feed should meet the requirements of Conditions 4(c) and 4(d) of consent AUTH-20157616 [and the other consents having the same requirement] and that the requirements of a – d above have been satisfied; and
 - f. Environment Southland certifies that the requirements of clause b and c of this condition have been satisfied.

