Fisheries New Zealand Review of Sustainability Measures for 1 October 2018 – Te Ohu Kaimoana's Response

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Introduction

1. Fisheries New Zealand (FNZ) released an Initial Position Paper (IPP) on 2 July 2018 that reviews sustainability measures for the fishing year beginning on 1 October 2018. This document represents the response from Te Ohu Kaimoana. We do not intend for this response to derogate from or override any response or feedback provided independently by Iwi, through their Mandated Iwi Organisations (MIOs) and/or Asset Holding Companies (AHCs).

Who we are

2. Te Ohu Kaimoana was established to implement and protect the Fisheries Settlement. Its purpose, set out in section 32 of the Māori Fisheries Act 2004, is to "advance the interests of Iwi, individually and collectively, primarily in the development of fisheries, fishing and fisheries-related activities, in order to;
    - ultimately benefit the members of Iwi and Māori generally; and
    - further the agreements make in the Deed of Settlement; and
    - assist the Crown to discharge its obligations under the Deed of Settlement and the Treaty of Waitangi; and
    - contribute to the achievement of an enduring settlement of the claims and grievances referred to in the Deed of Settlement.

3. Te Ohu Kaimoana works on behalf of 58 MIOs, who in turn represent all Iwi throughout Aotearoa. AHCs hold Fisheries Settlement Assets on behalf of their MIOs. These include Individual Transferable Quota (ITQ) and shares in Aotearoa Fisheries Limited which, in turn, owns 50% of the Sealord Group.

4. Te Ohu Kaimoana works on priorities agreed by MIOs to protect and enhance the Settlement by providing policy advice for Iwi. Iwi have identified the review of sustainability measures as critically important to their long-term relationship with Tangaroa. MIOs have also have approved a Māori Fisheries Strategy and three-year strategic plan for Te Ohu Kaimoana, which has as its goal "that MIOs collectively lead the development of Aotearoa's marine and environmental policy affecting fisheries management through Te Ohu Kaimoana as their mandated agent".

5. This response to the IPP sets out several important matters of principle that should guide the Minister and puts forward our recommendations on the sustainability measures and allocation decisions that should be applied to each stock.

Noho ora mai rā,

Dion Tuuta
CHIEF EXECUTIVE

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1 – Guiding Principles

1.1 – Te Hā o Tangaroa ki ora ai tāua

1. Prior to the colonisation of Aotearoa by the British Crown Māori enjoyed complete authority over their fisheries resources. Te Ao Māori's relationship with Tāngaroa, and ability to benefit from that relationship, was and remains underpinned by whakapapa – descent from Ranginui and Papatūānuku and their children.

2. The signing of Te Tiriti o Waitangi in 1840 affirmed Māori tino rangatiratanga over their taonga including fisheries which was an essential affirmation of the traditional Māori world view. This world view endures in the modern day. Te Tiriti o Waitangi and the 1992 Maori Fisheries Settlement are built on a much deeper foundation of Māori whakapapa connection to and relationship with Tangaroa.

3. In the modern context, when considering or developing fisheries-related policy, Te Ohu Kaimoana is guided by the principle of 'Te Hā o Tangaroa kia ora ai tāua' - the breath of Tangaroa sustains us. In this context Tangaroa is the ocean and everything connected to and within, on and by the ocean. This connection also includes humanity, one of Tangaroa's descendants.

4. Ko 'Te hā o Tangaroa kia ora ai tāua', highlights the importance of an interdependent relationship with Tangaroa, including his breath, rhythm and bounty and how those parts individually and collectively sustain humanity. The guiding principles underpinning 'Te hā o Tangaroa kia ora ai tāua' highlight how we ensure that we foster and maintain our relationship with Tangaroa.

1.1.1 – Tangaroa

5. Tangaroa is the God of the Sea and everything that connects to the sea. He is the divinity represented through Hinemoana (the ocean), Kiwa (the guardian of the Pacific), Rona (the controller of the tides – the moon) and the connection with other personified forms of the Great Divine. For some tribes, he is also the overlord for all forms of water, including freshwater and geothermal as well as saltwater.

1.1.2 – Te Hā

6. Te Hā means, breath and to breathe. Te Hā o Tangaroa represents the breath of Tangaroa, including the roar of the ocean, the crashing of waves on the beach and rocks, the voice of the animals in and above the ocean and of the wind as it blows over the ocean, along the coast and the rocks and through the trees that stand along the shoreline. Through our whakapapa to Tangaroa, we as humanity, we as tangata whenua are the human voice for Tangaroa.

7. When Tangaroa breathes it is recognised through the ebb and flow of tide and the magnetism of the moon. This magnetism is recognised as the kaha tuamanomano (the multitudinal rope of the heavens).

Therefore, we must also be mindful of the lunar calendar when working with Tangaroa and his various modes.

1.1.3 – Purpose and Policy Principles

8. Te hā o Tangaroa ki ora ai taua provides Te Ohu Kaimoana with guidance on key principles which should underpin our consideration of modern fisheries policy.

    - **Whakapapa:** Maori descend from Tangaroa and have a reciprocal relationship with our tupuna;
    - **Tiaki:** To care for Tangaroa, his breath, rhythm and bounty, for the betterment of Tangaroa in order to care for humanity as relatives;
    - **Hauhake:** To cultivate Tangaroa, including his bounty, for the betterment of Tangaroa (as a means of managing stocks) and for the sustenance of humanity; and
    - **Kai:** To eat, enjoy and maintain the relationship with Tangaroa as humanity.

9. Whakapapa as a principle recognises that when Māori (and Te Ohu Kaimoana as an extension of Iwi Māori) are considering Tangaroa we are considering the wellbeing of our tupuna (ancestor) – rather than a thing or inanimate object. Therefore, the obligation and responsibility of Tiaki – caring for Tangaroa – comes from our descent from our Tupuna. Similarly, the responsibility and obligation of Hauhake (cultivation) is underpinned by our Tiaki obligations to Tangaroa in order to Tiaki humanity.

10. Ultimately, humanity's right to Kai – to enjoy the benefits of our whakapapa relationship with Tangaroa – are dependent upon our ability to Tiaki and Hauhake and how we uphold the responsibility and obligation in a modern and meaningful way to maintain legitimacy through practicing Tiaki, Hauhake and Kai.

11. These principles were inherent within the Treaty of Waitangi fisheries settlement and – Te Ohu Kaimoana asserts - the quota management system which Māori endorsed as part of that historic settlement. This underscores its ongoing relevance and importance in modern New Zealand fisheries management.

1.2 – Duty to act in a manner consistent with the Fisheries Settlement

12. Section 5 (b) of the Fisheries Act 1996 obliges "all persons exercising or performing functions, duties, or powers conferred or imposed by or under it" to "act in a manner consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 (TOW(FC)SA)". The TOW(FC)SA implements the Deed of Settlement between Māori and the Crown, which represented a full and final settlement of Māori claims to fisheries.

13. It follows that whenever a Minister makes a decision to implement a sustainability measure or to provide for utilisation, they must ensure their decision is consistent with, and does not undermine, the Fisheries Settlement. The following matters are particularly relevant.

1.2.1 – Allocating the TAC

14. To protect Māori fisheries settlement rights, the following approach should be taken to adjusting the Total Allowable Catch (TAC):
    a. the recreational allowance should not be increased above the level it was first set by the Minister when the TAC was set for any particular stock; and
    b. if, in order to ensure sustainability, the TAC, Total Allowable Commercial Catch (TACC) and the recreational allowance is reduced, the allowance can be increased back to its initial level when the stock rebuilds;
    c. all increases to a TAC should be allocated to the commercial sector after providing for non-commercial customary fishing and other fisheries-related sources of mortality;
    d. the customary allowance is based on customary needs and managed through kaitiaki. In some instances, customary needs may not be fully identified and there may be insufficient capacity to harvest what is needed. Therefore, there can be expected to be increases to the customary allowance over time as both needs are better identified and capacity to harvest is realised;
    e. in situations where the abundance of a stock drops, kaitiaki will respond appropriately.

15. In our view, this approach should be adopted as the default option and apply whether the stock is at, above or below any target stock level at the time the TAC is set. Variations on this approach should only be considered by the Minister if all extractive interests reach agreement on an alternative approach. Our rationale for this approach is set out below.

16. When the Interim Fisheries Settlement was agreed between Māori and the Crown in 1988, the Crown undertook to provide Māori with 10% of the quota for all stocks in the Quota Management System (QMS) at that time. When the Deed of Settlement was finalised, it was agreed that all stocks introduced to the QMS from that time would generate a 20% share for Māori. As part of this agreement, Māori agreed that the QMS was an appropriate regime for managing commercial fisheries. At the time of the Settlement the only proportional interests held were quota owners (who owned a share of the TACC). Allowances for customary and recreational interest were for a fixed amount.

17. This rights-based system formed the basis for the commercial part of the settlement and underpins sound management of commercial fishing, in which rights holders take responsibility for managing their share of the overall TAC. The expectation was that the benefits of good stock management would accrue to those who had a proportionate interest in the fishery, notwithstanding the priority right held by customary interests in the event that customary needs increased.

18. As part of the Settlement, it was also agreed that the Minister would develop policies to help recognise use and management practices of Māori in the exercise of non-commercial fishing rights. The Minister was also to recommend the making of regulations to recognise and provide for customary food gathering by Māori and the special relationship between tangata whenua and those places which are of customary food

gathering importance to the extent such food gathering is neither commercial in any way nor for pecuniary gain or trade. Within the customary regulations, kaitiaki take responsibility for managing customary fishing, including issuing authorisations and reporting catch.

19. When agreeing to the provisions of the Deed of Settlement, Māori expected the value and integrity of the Settlement to be retained. After all, the Settlement is full and final: any action the Crown takes to undermine the value of settlement quota or fails to recognise customary non-commercial needs is a matter of bad faith.

20. Thus, when adjusting the TAC, the Minister must ensure the integrity of Māori fishing rights is maintained. This means:
    a. priority should be given to the customary allowance for stocks that Iwi and hapū require to meet their customary non-commercial needs; and
    b. the proportion of the TACC that makes up the TAC should not be reduced (but can be increased) by reallocations to the recreational sector. Any reallocation to the recreational sector has the effect of reducing the overall value of settlement quota.

21. Te Ohu Kaimoana views recreational fishing as a privilege which should not be exercised at the expense of Māori commercial and non-commercial fishing rights. In recent times the recreational sector has effectively operated within an unconstrained allowance – which provides little incentive for the recreational sector to exercise responsibilities to constrain catch within the recreational limit. Similarly, this provides little incentive for the commercial sector to work collaboratively to increase stock abundance given the likelihood that any benefits of a rebuild will be allocated to the recreational sector. We acknowledge there are input controls such as bag limits; however, there is no effective constraint on total catch.

22. Te Ohu Kaimoana does not support decisions that increase the recreational allowance at the expense of the TACC. These kinds of re-allocations affect the rights of settlement quota holders and reduce the incentives on the commercial sector to take responsibility and invest in good management.

23. Te Ohu Kaimoana considers that the appropriate way of reflecting the recreational share of the fishery is to set an allowance that reflects the catch taken in 1992, when the Deed of Settlement was signed. We note that a recreational allowance did not become part of the TAC until the Fisheries Act 1996 came into effect, and since then it has been the general practice to set allowances when TACCs are varied and TACs are set, or when stocks are introduced into the QMS. We note that the courts have ruled that the Minister has discretion to set the allowance when initially allocating a TAC up to the level of estimated catch. However, we do not accept any increases in this allowance after this time. From a fisheries management perspective, such decisions encourage a "race for fish" – which is what we are seeing in the case of Southern Bluefin Tuna. This kind of behaviour should be what responsible fisheries management aims to avoid.

24. If the recreational sector wishes to see a system in which the allowance can be increased above its initial allocation, a full review of the framework for managing the recreational sector is required. This would require further consideration of options to more tightly manage recreational catch to ensure it stays within the recreational allowance. A system that allows for the recreational sector to increase catches would need to be carefully designed and take explicit account of obligations under the Deed of Settlement.

1.2.2 – 28N rights can affect the Fisheries Settlement and this needs to be avoided

25. When the QMS was first introduced, the ITQ for each stock was based on a set tonnage that could be caught by each quota owner. It soon became apparent that the TACC in some fisheries exceeded the sustainable capacity of those fisheries and the Crown acted to reduce the catch.

26. The regime at that time required the Government to buy quota back and retire it. The Government chose to change the law and provide quota owners with the choice of putting a specific amount of their quota "on hold" in the hope that the TACC for the fishery would subsequently be increased. Once the fishery recovered, the 'quota on hold' would have priority to the increase. Once 'refunded' in this way, that quota is normalised and holds the same rights as other quota. This quota and the associated rights and processes were set out in Section 28N in the Fisheries Act 1983.

27. Many affected quota owners took the latter path of having the amount of their quota the government wanted reduced declared to be subject to 28N conditions. Subsequent to this, the Crown made other changes to the QMS that changed the basis of quota being volume based to proportional shares of the TACC. The effect of this last change, when combined with s 28N rights, means that when a TACC increases for fisheries where some quota owners hold 28N rights, all the increase transfers to those quota owners (until the total of the 28N rights for that fishery is exhausted). Because there is only a fixed number of shares in the fishery, this can only be achieved by increasing the number of shares held by the 28N rights holder and decreasing the shares held by other quota owners.

28. The Deed of Settlement was signed in 1992 and was put into effect through the Fisheries (Treaty of Waitangi Fisheries Claims) Settlement Act 1992. However, the Fisheries Act 1983 was not amended to reflect the settlement obligations, and 28N rights were subsequently carried through into the Fisheries Act 1996.

29. Ultimately, this situation means that where 28N rights are invoked, the share of quota that Iwi hold will be reduced. This undermines the agreement between the Crown and Māori, that Māori would receive 10% of all stocks in the QMS at the time of the interim fisheries settlement (1989).

30. In light of the obligations under s 5(b) of the Fisheries Act, the Minister must ensure that any decisions that trigger 28N rights, are administered by FNZ in such a way that they do not have the effect of diluting the proportional share that Iwi have in the TACC. If FNZ fails to act in this way, it will have the effect of

undermining the Fisheries Settlement. This issue is relevant for a number of fisheries that are being reviewed as part of the 2018 sustainability round. Where the potential for a breach of the Settlement exists because of so called s 28N rights exists, our response points this out and requests that remedial steps be taken to ensure there is no breach of the Settlement.

1.2.3 – Appropriate Consultation Period

31. Te Ohu Kaimoana was initially provided 19 working days to respond to the IPP. We note that in more public communications, FNZ have stated that it is standard practice to provide for a six-week consultation period for stakeholders.

32. The statutory and non-statutory mandate that is held by Te Ohu Kaimoana is set out in the introduction to this document. This includes working with, and on behalf of, the 58 MIOs and to assist the Crown to discharge its obligations under the Deed of Settlement and the Treaty of Waitangi. Te Ohu Kaimoana does not consider that being given 19 days to respond to an IPP of this magnitude signals that FNZ understands the obligations it has to work with us as the agent of the Treaty Partner.

33. This lack of time to respond is of particular concern where Te Ohu Kaimoana is not provided with an opportunity to have input into confirming the stocks for review. In this instance, we have been granted an extension that means the response period has been extended to five weeks. Notwithstanding the extension to a five-week response timeframe, we would like to meet with FNZ officials to discuss how Te Ohu Kaimoana can be better positioned to deliver on our statutory and non-statutory obligations in the future.

1.3 – Other Matters

1.3.1 – Shelving of ACE is a matter for the Minister to take into account

34. The IPP places a primary focus on adjusting TACs and TACCs in response to assessments that indicate a stock's position around relative biomass reference points. This represents a very limited view of the tools provided under the Fisheries Act 1996 to ensure sustainability. Of note is that s 11(3) sets out a range of options that are available to the Minister to ensure sustainability. Only where a catch limit is deemed to be the most appropriate is the Minister referred to setting or varying a TAC under ss 13 or 14 for stocks managed under the QMS.

35. Notwithstanding the broad range of tools available to the Minister to address a sustainability concern, Te Ohu Kaimoana interprets the Fisheries Act to be structured in a way that enables the Minister to give full consideration of the relevant fisheries management regime for a particular stock (or stocks) before considering whether or not a formal sustainability measure should be proposed. We consider that the Act provides for more responsive fisheries management than can be achieved through a blunt TAC/TACC reduction, by recognising the potential for Iwi or industry-led actions to better address sustainability

concerns. This is reflected in the opportunity to "take into account" such actions under s 11(1) before the Minister decides whether or not to propose setting a sustainability measure. Even in situations where the Minister proposes to set a sustainability measure, Te Ohu Kaimoana considers that Iwi or industry can promote an alternative approach in response to consultation under s 12 of the Act.

36. In particular, s 11(1) requires that before proposing to set or vary a sustainability measure for one or more stocks, the Minister must take into account a range of matters, including the effects of fishing on the aquatic environment. The former Ministry of Fisheries developed and consulted on a series of policy definitions on the "Front End" of the Fisheries Act 1996 and in relation to s 11(1)(a), confirmed that it provided for "existing or proposed measures that currently, or potentially, manage any adverse effects of fishing to be taken into account before the need for a sustainability measure to be determined".

37. This interpretation of s 11(1)(a) was subsequently used to support the use of shelving Annual Catch Entitlement (ACE) as a means of effecting a reduction in the commercial catch in the PAU 7 fishery as part of the decisions made by the Minister of Fisheries in 2003. However, in more recent times the shelving of ACE has not been supported by FNZ, although the rationale for this position has not been given publicly.

38. Te Ohu Kaimoana considers that shelving of ACE is a viable way of reducing the commercial catch and that the Minister of Fisheries is obliged to take this into account in accordance with the provisions of s 11(1)(a). If the Minister is satisfied that the approach will adequately mitigate a risk to sustainability, there is no legislative obligation to choose from the list of statutory sustainability measures set out is s 11(3). This would also mean that the Minister would not be directed to either section 13 or section 14 in order to vary a TAC for one or more stocks.

1.3.2 – Managing fish stocks

39. In situations where the Minister decides to set or vary a catch limit under s 11(4) (after choosing that option from the (non-limiting) list of choices in s 11(3)), sections 13 and 14 set out the considerations that apply for a stock managed under the QMS. The provisions of s 13 require that a stock should have a TAC set that maintains the stock at or above a level that can produce the maximum sustainable yield (often summarised as B_{MSY}), having regard to the interdependence of stocks. Where the stock is above or below B_{MSY}, there is discretion over the way and rate the stock rebuilds or is fished down to the level of B_{MSY}. Importantly, as noted above, there is a range of tools available under s 11(3) (in addition to TACs) to assist with any rebuild process that may be required to ensure sustainability.

40. In considering the obligations set out in s 13, FNZ defers to a 'Harvest Strategy Standard for New Zealand Fisheries' (HSS). This document was produced in 2008 by the Ministry of Fisheries. The HSS is described as "a policy statement of best practice regulation to the setting of fishery and stock targets and limits for fishstocks in New Zealand's QMS." It was intended to form a core input to the Ministry's advice to the Minister of Fisheries on the management of fisheries, particularly the setting of TACs under sections 13

and 14. This means the HSS document is now 10 years old and it is difficult to sustain an argument that a non-statutory document of that age could be viewed as promoting best practice regulation.

41. The HSS sets out default management targets for stocks as well as both "soft" and "hard' Limits. Where the best available information suggests a stock has fallen below the soft limit of 20% B_0, the HSS triggers a rebuild plan.

42. However, Te Ohu Kaimoana notes that the purpose of the Fisheries Act 1996 sets out an obligation to provide for utilisation, with a focus on enabling people to provide for their own social, cultural and economic wellbeing within limits that ensure sustainability. Employing default target levels and timeframes for fisheries management has the real potential to undermine the purpose of the Act.

43. Target reference points that correspond to levels of biomass and fishing pressure that are considered to provide for 'optimal' harvests, implicitly internalise economic considerations and/or the ecological requirements for each stock. Hence the target reference points promoted by FNZ are inherently setting utilisation targets that the Act enables people to consider and take the necessary actions to achieve. In this way the suggested targets have the effect of prescribing rather than enabling management of fisheries beyond the levels required to ensure sustainability.

44. There is considerable discrepancy between the requirements of the Fisheries Act and the implementation of the HSS guidelines. To be consistent with the Fisheries Act, stock rebuild plans should be based on the best available information, have considered all tools available to the Minister, account for relevant social, economic, cultural factors, have regard to the interdependence of stocks and ensure the stock is tracking to level that can produce the maximum sustainable yield.

45. As noted, providing one tool for stock recovery in the form of a reduction to the TAC cannot be best management practice. This "set and forget" approach disregards the range of tools available to rebuild the stock at an optimal rate. Therefore, application of the HSS has the potential to have significant adverse social and economic impacts if applied without careful consideration of the specific circumstances of the fishery and the range of existing mechanisms to promote recovery. In view of this, Te Ohu Kaimoana considers the unique biological and environmental conditions facing each stock and socio-economic implications to be an important explicit consideration when contemplating management targets. The provisions of the Fisheries Act should be the first point of reference when contemplating management decisions and rebuild strategies to reach those targets.

46. We further note that where quota owners are incentivised to act collectively, the evidence suggests that they will adopt strategies that promote the management of stocks at levels above the requirements of section 13. Te Ohu Kaimoana considers it is an appropriate role for FNZ to develop frameworks that encourage collective action. This focus is most particularly needed in shared fisheries, where there are many examples of the recreational sector being rewarded (through an increased allowance) for fishing

beyond the level allowed for by the Minister of Fisheries when the TAC was set. As noted, this practice also offends the Settlement (we refer to our comments on the role of s 5b of the Fisheries Act).

1.3.3 – Use of Deemed Values

47. Deemed Values have played an important role in the administration of the QMS since it was introduced in 1986. Commercial fishers who do not balance catch with ACE must make deemed value payments.

48. Section 75 of the Fisheries Act 1996 requires the Minister to set deemed values (both interim and annual) for a stock. In setting a deemed value, the Minister must take into account the need to provide an incentive for every commercial fisher to acquire or maintain sufficient ACE in respect of each fishing year that is not less than the total catch of that stock taken by that commercial fisher. The Minister should have regard to a range of matters that are set out in s 75(2)(b)(i)-(vi), including the market value of the stock and the value of ACE for that stock. There is also scope for the Minister to set differential annual deemed values. These provisions were last amended in 2004.

49. FNZ consider that "the deemed value regime is intended to constrain commercial catch to respective catch limits by encouraging commercial fishers to balance their catch with ACE, while not discouraging them from landing and accurately reporting catch". To understand the rationale for this purpose, potential respondents to the IPP are referred to "Deemed Value Guidelines" that were released in 2012. Application of the guidelines has resulted in deemed values being set at, or ramped to, levels that are higher than the market value of a stock in some instances. Under this situation the incentive to land and report catch is removed.

50. Te Ohu Kaimoana considers that the overriding purpose of deemed values is to encourage the reporting of catch, while discouraging the catch of stocks that individual fishers cannot cover with ACE. Deemed values were never intended or designed to be a mechanism for ensuring commercial catch did not exceed the TACC. Rather, the key focus was on encouraging transparency across the fisheries management system so that catch was reported, and the information forms an important input to the monitoring of harvesting. Ultimately, the relationship between the TACC and catch reporting is a dynamic one.

51. While deemed values act to discourage fishers from fishing without ACE, TACCs themselves are not always set right and need to be regularly reviewed, based on the best available information. Hence there is a balance to be struck between incentives to fish with ACE (and hence within the TACC) and accurate reporting of catch (whether or not it is covered by ACE), which is fundamental to understanding whether TACCs have been set appropriately. This was the basis for deemed values being introduced and it is notable that s 75 has not been amended since 2004. In contrast the FNZ guidelines were developed in 2012 and we do not believe they are aligned with the purpose of the Act.

52. The discouraging of catch in excess of ACE holdings is achieved by ensuring that the deemed value is set at a level that is above the ACE price. The requirement to ensure that the deemed value system does not

encourage the discarding of fish at sea is achieved by ensuring the deemed value rate does not exceed the market value of the stock. In this way, the key considerations that the Minister should have regard to under 75(2)(b)(ii)-(iii) are met.

53. Te Ohu Kaimoana considers that the deemed value for a particular fish stock can be set at, or scaled up to, a level that removes any profit after harvesting costs are deducted. Under these conditions a fisher is incentivised to both retain catch for which ACE cannot be obtained and to report the catch. Importantly, a fisher has no incentive to target the stock as returns will be maximised where the catch can be covered by ACE. This application of deemed values is consistent with the purpose of the Act and the Settlement and has the real potential to increase the quality of information available to support fisheries management decision-making.

54. The current policy, conversely, has the potential to increase incentives for discarding catch. This, in turn, has led to a misinformed view that cameras should be required on all vessels to detect any discarding of catch at sea. Rather than focus the public debate on the use of cameras, Te Ohu Kaimoana considers a more appropriate response would be to utilise the deemed value provision in the way Parliament and the law intended. Other tools are available to address issues where additional action is required to ensure sustainability.

2 – Deepwater Stocks

2.1 – Overview

1. FNZ is reviewing its management controls for the following deepwater fisheries:
    a. Ling (LIN 5)
    b. Oreo (OEO 4)
    c. Orange Roughy (ORH 3B)
    d. Scampi (SCI 3)

2. Te Ohu Kaimoana participates in the Deepwater Group Ltd (Deepwater Group) and supports its submission on LIN 5, OEO 4, ORH 3B and SCI 3. The submission supports:
    a. an increase in the TACC for LIN 5 from 3,955 tonnes to 4,746 tonnes;
    b. an increase in the TACC for OEO 4 from 3,000 tonnes to 3,900 tonnes, with a catch limit of 2,900 tonnes for smooth oreo;
    c. an increase in the TACC for ORH 3B from 5,197 tonnes to 7,667 tonnes, a decrease in the sub-area catch limit for Northwest Chatham Rise from 1,250 t to 1,150 t, and an increase in the sub-area catch limit for East & South Chatham Rise from 3,100 t to 5,670 t; and
    d. an increase in the TACC for SCI 3 from 340 tonnes to 408 tonnes.

2.2 – Ling (LIN 5)

2.2.1 – Proposed Options

3. FNZ have proposed 2 options for varying the TACC in LIN 5 (Table 1):

Table 1: Proposed management settings in tonnes for LIN 5 from 1 October 2018, with the percentage change relative to the status quo in brackets.

Option	Total Allowable Catch (TAC)	Total Allowable Commercial Catch (TACC)	Allowances		
			Customary Māori	Recreational	All other mortality to the stock caused by fishing
Option 1 *(Status quo)*	4036	3955	1	1	79
Option 2	4431 ↑ (10%)	4340 ↑ (10%)	1	1	89 ↑ (13%)
Option 3	4834 ↑ (20%)	4735 ↑ (20%)	1	1	97 ↑ (23%)

2.2.2 – Context

4. LIN 5 and 6 are assessed as a single stock, as ling found in LIN 5 and LIN 6 (excluding the Bounty platform) is considered the same biological stock.

5. An updated stock assessment for LIN 5 and 6 was undertaken in 2018, which considered catch histories, biomass indices and catch-at-age data from trawl surveys and commercial fisheries. The updated stock assessment estimates that LIN 5 and 6 is at 88-90% of unfished or "virgin" biomass (B_0). While estimates of absolute current and virgin stock size are very imprecise, it is very likely that current biomass for LIN 5 and 6 is greater than 70% of B_0. Accordingly, there is a utilisation opportunity available for the LIN 5 and 6 fisheries.

6. The catch for LIN 5 is consistently at or above the TACC, while LIN 6 is consistently under caught. This is largely because fish are more widely dispersed in LIN 6, which together with factors associated with operating in a remote and challenging environment, means operating costs are higher in LIN 6 than in LIN 5.

7. There is no rationale or interest from stakeholders for increasing the TACC for LIN 6. However, there is significant interest in increasing the TACC for LIN 5.

2.2.3 – Our Position

8. Te Ohu Kaimoana recommends that FNZ adopt Option 3 for a 20% increase in the TACC for LIN 5. However, we calculate a 20% increase equates to 4,746 tonnes, rather than 4,735 tonnes.

2.2.4 – Commentary

9. Increasing the TACC for LIN 5 from 3,955 tonnes to 4,746 tonnes will not have any impact on the requirements of section 13(2)(e) of the Fisheries Act 1996, as increased catch would not affect the fishery's ability to produce maximum sustainable yield.

10. In addition, trawl surveys to date have found no evidence of any long-term biomass trend in LIN 5, such as could arise from localised depletion. However, should any changes in biomass trends occur, these will be picked up in the biennial trawl surveys for LIN 5 and 6.

2.3 – Oreo (OEO 4)

2.3.1 – Proposed Options

11. FNZ have proposed 3 options for varying the TACC in OEO 4 (Table 2).

Table 2: Proposed management settings in tonnes for OEO 4 from 1 October 2018, with the percentage change relative to the status quo in brackets.

Option	Total Allowable Catch (TAC)	Total Allowable Commercial Catch (TACC)	Smooth oreo voluntary limit (t)	Allowances		
				Customary Māori	Recreational	All other mortality to the stock caused by fishing
Current settings	3150	3000	-	0	0	150
Option 1	3465 ↑ (10%)	3300 ↑ (10%)	2300	0	0	165 ↑ (10%)
Option 2	4095 ↑ (30%)	3900 ↑ (30%)	2900	0	0	195 ↑ (30%)
Option 3	4515 ↑ (43%)	4300 ↑ (43%)	3300	0	0	215 ↑ (43%)

2.3.2 – Context

12. OEO 4 is managed as a species complex comprised of smooth oreo, black oreo, spiky oreo and warty oreo. Fishers are required to report by species on landing returns, however the TAC and TACC settings for OEO 4 do not restrict levels of take of any of the oreo species.

13. In 2014 a stock assessment for smooth oreo in OEO 4 was completed, which estimated the stock was at 27% of B_0. In response, in 2016 the OEO 4 TACC was reduced from 7,000 tonnes to 3,000 tonnes.

14. A new stock assessment for smooth oreo in OEO 4 was undertaken in 2018, using new age composition data. The results of the stock assessment suggest that the 2015 stock assessment was overly pessimistic and that the current spawning stock biomass is assessed to be at 40% B_0. Accordingly, this suggests there is a utilisation opportunity available for OEO 4.

15. FNZ is proposing to increase the TACC for OEO 4 and is also proposing to implement a voluntary species-specific catch limit for smooth oreo.

2.3.3 – Our Position

16. Te Ohu Kaimoana recommends that FNZ adopt Option 2 and that the TACC for OEO 4 be increased from 3,000 tonnes to 3,900 tonnes, with a catch limit of 2,900 tonnes for smooth oreo.

2.3.4 – Commentary

17. Te Ohu Kaimoana supports the proposal to implement a voluntary species-specific catch limit for smooth oreo, as an added measure to ensure good management of the stock.

18. Increasing the TACC for OEO 4 from 3,000 tonnes to 3,900 provides a greater utilisation opportunity than Option 1.

19. One of the sensitivity model runs used for the 2018 stock assessment indicated that the smooth oreo stock in OEO 4 could be 33% B_0. While projections based on the pessimistic sensitivity model suggest that annual smooth oreo catch of 2,900 tonnes would result in only a 21% probability of the stock being at or above the management target in 2023, these projections nevertheless indicate the stock would continue to increase under these catch levels and that the stock would have only a 4% probability of being below the soft limit in 2023. With the next stock assessment for OEO 4 due to be completed in 2022, Te Ohu Kaimoana considers the utilisation opportunity presented by Option 2 should be taken.

2.4 – Orange Roughy (ORH 3B)

2.4.1 - Proposed Options

20. FNZ have proposed 2 options for varying the TACC in ORH 3B (Tables 3 and 4):

Table 3: Proposed options for ORH3B

Option	Total Allowable Catch (TAC)	Total Allowable Commercial Catch (TACC)	Allowances		
			Customary Māori	Recreational	All other mortality to the stock caused by fishing
Option 1 *(Status quo)*	5470	5197	5	0	268
Option 2	8055 ↑ (47%)	7667 ↑ (47%)	5	0	383 ↑ (43%)
Option 3 (year 1)	6413 ↑ (17%)	6091 ↑ (17%)	5	0	317 ↑ (18%)
(year 2)	7116 ↑ (30%)	6772 ↑ (30%)	5	0	339 ↑ (26%)
(year 3)	8055 ↑ (47%)	7667 ↑ (47%)	5	0	383 ↑ (43%)

Table 4: Proposed limits for ORH3B Sub-QMA catch limits

	Option1 *(Status quo)*	Option 2	Option 3		
			Year 1	Year 2	Year 3
Northwest Chatham Rise	1250*	1150 ↓	1150 ↓	1150	1150
East & South Chatham Rise	3100	5670 ↑	4095 ↑	4775 ↑	5670 ↑
Puysegur	347	347	347	347	347
Arrow Plateau	0	0	0	0	0
Sub-Antarctic	500	500	500	500	500
TACC	5197	7667 ↑	6091 ↑	6772 ↑	7667 ↑
Allowance for other mortality to the stock caused by fishing	268	383 ↑	317 ↑	339 ↑	383 ↑
Customary Māori allowance	5	5	5	5	5
TAC	5470	8055 ↑	6413 ↑	7116 ↑	8055 ↑

2.4.2 – Context

21. ORH 3B is a large and spatially-complex fishery that comprises at least five individual sub-stocks including the Northwest Chatham Rise (NWCR) and the East & South Chatham Rise (ESCR). The TAC and TACC for ORH 3B is set as a whole; however, the Deepwater Group – which represents approximately 98% of the ORH 3B quota owners – agrees to catch-limits at a sub-Quota Management Area (QMA) level for the individual sub-stocks.

22. The ORH 3B stock is managed in line with a Harvest Control Rule (HCR) developed on the basis of a Management Strategy Evaluation (MSE).

23. During 2016-17 a stock assessment for ORH 3B NWCR and ESCR was undertaken. The application of the agreed HCR for ORH 3B to the outputs from the stock assessments suggests there should be a small decrease to the NWCR sub-area catch limit and an increase to the ESCR sub-area catch limit.

24. In 2014 an MSE for orange roughy was developed. The MSE recommends a management target range of 30-50% B_0 for orange roughy to ensure the stock is resilient to periodic recruitment pulses and long-term fluctuations in biomass and to provide a high level of confidence that the stock will remain above the soft limit of 20% B_0. A harvest strategy and HCR for ORH 3B were developed, based on the MSE.

25. The HCR is used to suggest catch limits dependent on the estimated stock status in relation to the management target range. The development of a HCR for ORH 3B involved testing the performance of a

number of potential harvest control rules against simulated stock trajectories over long period of time to allow for uncertainty in the inputs into the HCR. The agreed HCR is estimated to have a greater than 97% probability of maintaining the stock above the lower bound of the management target range under a range of assumptions about stock-recruit relationships and estimates of natural mortality.

26. The stock assessments estimate orange roughy abundance in the NWCR and ESCR is increasing.

2.4.2.1 – NWCR

27. The NWCR stock assessment estimated that the stock was at 38% B_0 and there was a 98% probability that the stock was above the lower bound of the management target range of 30% of B_0 in 2017. The current catch limit for NWCR is 1,250 tonnes and was established before a HCR was developed for this fishery, so industry voluntarily shelved 207 tonnes to achieve a catch limit of 1,043 tonnes as this is the limit that would have been set if the HCR applied. Applying the HCR to the 2016-17 stock assessment outputs results in a suggested catch limit of 1,150 tonnes.

2.4.2.2 – ESCR

28. The ESCR stock assessment estimated that the stock was at 33% B_0 and there was an 86% probability that the stock was above the lower bound of the management target range of 30% of B_0 in 2017. The application of the HCR to the 2016-17 stock assessment outputs for ESCR suggested the catch limit could be increased from 3,100 tonnes to 5,970 tonnes.

2.4.3 – Our Position

29. Te Ohu Kaimoana recommends that FNZ adopt Option 3 for a TACC increase from 5,197 tonnes to 7,667 tonnes, a decrease in the sub-area catch limit for NWCR from 1,250 tonnes to 1,150 tonnes, and an increase in the sub-area catch limit for ESCR from 3,100 tonnes to 5,670 tonnes.

2.4.4 – Commentary

30. Te Ohu Kaimoana considers that there is great merit in the way the ORH 3B stock is managed in line with a HCR developed on the basis of an MSE. This approach – which has been promoted by industry – is consistent with the Fisheries Act, in that it enables "people to provide for their social, economic, and cultural well-being" while "ensuring sustainability".

2.4.4.1 – NWCR

31. The proposed catch limit for the NWCR sub-area is appropriate and aligns with the HCR. However, Te Ohu Kaimoana understands the Deepwater Group may maintain a lower catch limit in the NWCR. The decision to maintain a lower catch limit in the NWCR relates partly to a desire to support a faster rebuild but is also a

reality of the fishing environment – there is limited effort being applied in the NWCR as it is easier to catch orange roughy elsewhere and there are only a limited number of boats available to catch orange roughy.

2.4.4.2 – ESCR

32. Te Ohu Kaimoana considers it appropriate that the proposed increase in the ESCR sub-area be applied immediately, rather than being staged over three years. The stock assessment indicates that the ESCR sub-area can sustain the proposed increase in catch limit while remaining within the management target range and we therefore consider the catch limit should be increased to 5,670 tonnes now, rather than being adjusted over the next three years. We understand that even with this level of increase, the stock will continue to increase in size towards the midpoint of the target range (40%B0), which is set using the HCR developed from the MSE.

33. We note that increasing the catch limit for the ESCR sub-area will likely result in increased catch of smooth oreo and black oreo on the Chatham Rise in OEO 4. If the proposed catch limit increase is fully caught, it is estimated that this would lead to an increase of approximately 75 tonnes in black oreo caught, and approximately 284 tonnes of smooth oreo. The increase in oreo catch from increased ORH 3Bfishing is unlikely to pose a sustainability risk because, as was discussed earlier in this response document, spawning stock biomass for OEO 4 is at 40% B_0 and can support increased utilisation.

2.5 – Scampi (SCI 3)

2.5.1 – Proposed Options

34. FNZ have proposed 2 options for varying the TACC in SCI 3 (Table 5):

Table 5: Proposed management settings in tonnes for SCI 3 from 1 October 2018, with the percentage change relative to the status quo in brackets.

Option	Total Allowable Catch (TAC)	Total Allowable Commercial Catch (TACC)	Allowances		
			Customary Māori	Recreational	All other mortality to the stock caused by fishing
Option 1 *(Status quo)*	357	340	0	0	17
Option 2	394 ↑ (10%)	375 ↑ (10%)	0	0	19 ↑ (10%)
Option 3	428 ↑ (20%)	408 ↑ (20%)	0	0	20 ↑ (20%)

2.5.2 – Context

35. Scampi in SCI 3 are almost entirely caught as part of a target bottom trawl fishery with less than 1% of scampi in SCI 3 taken during tows targeting species other than scampi. Vessels operating within the scampi target fishery are typically dedicated scampi vessels, with 11 vessels being used to target scampi in SCI 3 during the last five years.

36. The management of scampi in SCI 3 is supported by a full quantitative stock assessment, which is undertaken every three years. The latest stock assessment was undertaken in 2018 and was preceded by a dedicated trawl and photographic research survey that was conducted in September and October 2016. The 2018 stock assessment estimates that spawning stock biomass for SCI 3 is at 76% B_0.

37. Forward biomass projects at the level of current TACC of 340 tonnes, and for increased catch levels of 375 tonnes (Option 2) and 408 tonnes (Option 3) suggest the stock will slowly increase in size and remain well above the default management target of 40% B_0. Accordingly, there is a utilisation opportunity available for the SCI 3 fishery.

2.5.3 – Our Position

38. Te Ohu Kaimoana recommends that FNZ adopt Option 3 and that the TACC for SCI be increased from 340 tonnes to 408 tonnes.

2.5.4 – Commentary

39. On the basis of projection outputs for the base case model used for the 2018 stock assessment, it is estimated that the likelihood of B_{2021} falling below management targets is very low under both options 2 and 3. Therefore, both options 2 and 3 would allow for increase SCI 3 utilisation whilst maintaining scampi spawning stock biomass in SCI 3 above management targets with a high degree of likelihood.

40. An increase in the TACC of SCI 3 will result in an increase in fishing effort targeting scampi in SCI 3. The predicted increase in fishing effort of scampi in SCI 3 could potentially result in changes to the current dynamics of the scampi fleet, i.e. additional vessels reconfiguring to target scampi or existing scampi vessels preferentially targeting scampi in SCI 3 over more distant fishing grounds such as SCI 6A (Auckland Islands).

41. While an increase in fishing effort targeting scampi in SCI 3 may result in increased interactions with seabirds, FNZ notes that seabird interactions with New Zealand's commercial fisheries are co-ordinated under the 2013 National Plan of Action to Reduce the Incidental Captures of Seabirds in New Zealand

Fisheries (NPOA-Seabirds). The most recent update to the risk assessment that underpins the NPOA-Seabirds identified that scampi trawl fisheries contribute 10% of the total risk score for Salvin's albatross and 5% of the risk score for flesh-footed shearwaters. FNZ notes the total risk to both species attributed to scampi fisheries is small as scampi fishing is not the most significant risk for these birds. Further, operators of vessels targeting scampi have developed vessel-specific management plans that set out the on-board practices followed to reduce the risk to seabirds.

42. As a proportion of the total catch, levels of non-target bycatch within the SCI 3 fishery are high compared to other scampi target and deepwater/middle-depth fisheries – scampi comprised approximately 17% of the total catch of all observed tows targeting scampi in SCI between the 2012/13 and 2016/17 fishing years. However, the increased catches of non-target bycatch species that will result from an increase to the TACC for SCI 3 will not pose a risk to any interdependent stocks. Seaperch in SPE 3 and 4 and ghost shark in GSH 3 and 4 are the QMS species most frequently caught as non-target bycatch within the SCI 3 target fishery. Both SPE 3 and 4 and GSH 3 and 4 are consistently under caught. An increase in fishing effort targeting scampi in SCI 3 is very unlikely to impact upon the sustainability of, or availability of ACE for, SPE 3 or 4 and GSH 3 or 4 fish stocks. Further, there are good processes in place to monitor and manage and risks associated with the increase of bycatch in SCI 3 and planned research for 2018/19 will continue the monitoring and quantification time series of bycatch in scampi fisheries.

3 – Inshore Stocks

3.1 – Overview

1. FNZ is reviewing its management controls for the following inshore fisheries:
    a. Elephant Fish (ELE 3)
    b. Flatfish (FLA 1)
    c. Green Lipped Mussel (GLM 9)
    d. John dory (JDO 1 & JDO 7)
    e. Kingfish (KIN 3)
    f. Pāua (PAU 5B)
    g. Rig (SPO 7)
    h. Red Gurnard (GUR 3)
    i. Tarakihi (TAR 1, 2, 3, & 7)

3.2 – Elephant Fish (ELE 3)

3.2.1 – Context

2. The ELE 3 TACC of 1000 tonnes has been consistently exceeded for each of the last five years. The expectation is this over catch of the TACC will continue in the 2018/19 fishing year. Commercial fishers indicate that the increasing biomass makes it difficult to avoid ELE and to stay within the TACC. This impacts on the ability to catch other target species within the mixed trawl, which in turn, is likely having a downward bias effect on abundance indices for catch per unit effort (CPUE). During the last five years deemed values for ELE 3 have averaged $185,415. Given the stock assessment shows that the current catch levels are sustainable, it represents a loss of economic value to quota owners.

3. The state of the stock in relation to B_{MSY} is unknown, however, FNZ considers the ELE 3 (MIX) CPUE series to be an index of stock abundance. This suggests that ELE 3 is likely (40-60% probability) to be at, or above their 40% B_0 reference point.

4. While there is some uncertainty in the information from ELE 3 CPUE indices and trawl survey estimates, commercial ELE 3 catches remain consistently higher than the TACC. This suggests that there is an abundance of ELE 3 available to be taken by commercial fishers that is greater than what the current TACC allows for. FNZ considers that there is an opportunity for additional utilisation of ELE 3 that would not pose a risk to the sustainability of the stock in the long-term.

3.2.2 – Proposed Options

5. FNZ have proposed two options for varying the TAC in ELE 3 (Table 6):

Table 6. FNZ's proposed options for ELE 3 management settings in tonnes from 1 October 2018, with the percentage change relative to the status quo in brackets.

Option	Total Allowable Catch	Total Allowable Commercial Catch	Allowances		
			Customary Māori	Recreational	All other mortality caused by fishing
Option 1 (*Status quo*)	1060	1000	5	5	50
Option 2	1228 ↑ (16%)	1150 ↑ (15%)	5	15 ↑ (200%)	58 ↑ (16%)

3.2.3 – Our Position

6. Te Ohu Kaimoana supports an increase to the TAC, TACC, and other mortalities, but we do not support an increase to the recreational allowance. We support a variation of Option 2 (Option 3, detailed in Table 7) that is consistent with the allocation principles set out in Section 1.2.1 of this response.

Table 7. Te Ohu Kaimoana's proposed variation to Option 2 (Option 3)

Option	Total Allowable Catch	Total Allowable Commercial Catch	Allowances		
			Customary Māori	Recreational	All other mortality caused by fishing
Option 3	1228 ↑ (16%)	1160 ↑ (16%)	5	5	58 ↑ (16%)

3.2.4 – Commentary

7. The proposed TACC increase under Option 3 will provide further ACE to commercial fishers to cover their increase in bycatch. We do not expect the proposed TAC increase to result in additional targeted fishing effort.

8. An increase in the TACC will provide for improved utilisation consistent with s 8 of the Act and allow fishers to increase the value being derived from the fishery. Biennial trawl surveys will enable responsive interventions to any downward changes in ELE 3 abundance.

9. We note the contradictions made in the IPP at paragraphs 421 and 442 regarding recreational allowances. The first suggests the recreational allowance has been exceeded, and the second suggests catches are within their current allowance. The latter of these paragraphs is likely to be untrue. Any over-catch of the recreational allowance should be reflected in other sources of mortality, and once management measures are in place that align catch to the allowance, the allocation of the TAC should be reviewed and the TACC increased.

10. We do not support the allocation methodology which is applied in the ELE 3 stock review. Our views on allocation are set out in Section 1.2.1 of this document.

3.3 – Flatfish (FLA 1)

3.3.1 – Context

11. FNZ is reviewing the TAC, allowance for Māori customary fishing, allowance for recreational fishing, allowance for all other mortality to the stock caused by fishing, and the TACC for flatfish in FLA 1 in the upper North Island.

12. The FLA 1 stock complex is composed of eight species of flatfish: yellow-belly flounder, sand flounder, black flounder, greenback flounder, lemon sole, New Zealand sole, brill, and turbot. For management purposes, the commercial landing codes for these species are combined into the flatfish complex code FLA.

13. Flatfish are short-lived with highly variable recruitment levels. As a Schedule 2 species, they are potentially subject to in-season increases in years of high abundance.

14. There is no information to determine whether or not the eight species that make up the FLA 1 stock are individually or collectively at, above, or below the level that would produce B_{MSY}. In addition, there are no

established alternative stock biomass reference points for management targets associated with the current catch levels for flatfish in FLA 1.

15. Target fishing for flatfish in FLA 1 occurs in three main areas: the Kaipara Harbour, the Manukau Harbour and the Hauraki Gulf and Firth of Thames. A stock assessment was completed in 2018 which found that the CPUE indices for flatfish in the Kaipara and Manukau Harbours are declining, while the CPUE indices for flatfish in the Hauraki Gulf and the Firth of Thames have increased significantly. The stock assessment does not consider any flatfish fishing effort outside of these areas.

16. The 2018 stock assessment also found that there are indications that environmental degradation is negatively impacting the abundance of localised flatfish sub-stocks within the Kaipara and Manukau Harbours.

17. The sand flounder and yellow-belly flounder stocks with the Kaipara and Manukau Harbours exhibit minimal dispersal, effectively isolating them from neighbouring populations. Given that fish in these enclosed waters may be effectively isolated from neighbouring populations, these sub-stocks could be considered separately.

18. Traditionally, flatfish fishing has provided a shallow water source of kaimoana and a customary allowance for pātiki fishing is included in the TAC setting for flatfish in FLA 1. Several Iwi regard flatfish as a taonga.

19. FNZ is also reviewing the interim deemed value for FLA 1. The current average ACE price for 2017/18 is $0.52/kg and port price $5.64/kg.

3.3.2 – Proposed Options

20. FNZ have proposed three options for varying the TAC in FLA 1 (Table 8):

Table 8: Proposed management settings in tonnes for FLA 1 from 1 October 2018, with the percentage change relative to the status quo in brackets.

Option	Total Allowable Catch (TAC)	Total Allowable Commercial Catch (TACC)	Allowances		
			Customary Māori	Recreational	All other mortality to the stock caused by fishing
Option 1 *(Status quo)*	1762	1187	270	270	35
Option 2	487 ↓ (72%)	423 ↓ (64%)	27 ↓ (90%)	27 ↓ (90%)	10 ↓ (71%)
Option 3	444 ↓ (75%)	381 ↓ (68%)	27 ↓ (90%)	27 ↓ (90%)	9 ↓ (74%

21. FNZ is considering the following options for deemed values for FLA 1 (Table 9).

Table 9: Proposed deemed value settings for FLA 1 from 1 October 2018.

	Interim Rate ($/kg)	Annual Differential Rates ($/kg) for excess catch (% of ACE)					
		100-120%	120-140%	140-160%	160-180%	180-200%	200%+
Status quo	0.75	1.50	1.80	2.10	2.40	2.70	3.00
Proposed	1.35 ↑						

3.3.3 – Our Position

22. Te Ohu Kaimoana does not consider that any of the options presented by FNZ address the identified spatial management and environmental issues. As such, Te Ohu Kaimoana supports maintaining the existing TAC settings until these challenges are addressed.

23. Te Ohu Kaimoana urges FNZ to commence formal processes with Iwi and other interests in this fishery that will lead to improved management of both the habitat and the flatfish biomass within key harbours within FLA 1. This would include addressing the impacts on fisheries and well as the impacts of fishing.

24. Regarding the proposed changes to the interim deemed value rate, Te Ohu Kaimoana supports increasing the interim rate to $1.35/kg.

3.3.4 – Commentary

3.3.4.1 – Varying the TAC/TACC

25. FNZ's proposed changes to the management settings for FLA 1 outlined in Option 2 and Option 3 are unsuitable as they do not address crucial management issues within the fishery. Te Ohu Kaimoana recognises that the quota appeals process when FLA was introduced into the QMS resulted in the TACC being set beyond the level of historical catches. Notwithstanding this, indiscriminate cuts to the TACC will only serve to punish owners of small parcels of quota. It is these small operators who catch their full quota and who would be disproportionally impacted by any cuts. In the case of Iwi, who own 10% of quota through the Deed of Settlement, these unjustified cuts would devalue their settlement assets.

26. Te Ohu Kaimoana acknowledges that the degradation of the Kaipara and Manukau Harbours has limited the carrying capacity of these environments. Accordingly, we consider that FNZ should take steps to lead discussions with appropriate regulatory bodies to address these challenges.

27. Te Ohu Kaimoana does not accept that FNZ has adequately considered all available tools under the Act before recommending a blunt TAC/TACC cut to the Minister. These include considering the full range of tools and considerations available under Section 11. Given the localised degradation of the harbours and the differences in CPUE trends between the assessed areas, finer scale management seems more

appropriate than a blunt TAC/TACC cut. Working with quota owners to manage at a finer scale, FNZ will be able to address the identified challenges and work with the land-based activities to improve the quality of the marine habitat.

28. In the absence of information on the level of customary need and the capacity to harvest that level of catch, Te Ohu Kaimoana does not support a reduction to the customary allowance for pātiki fishing in FLA 1. Levels of customary take vary by year and we note that the actual level of catch is managed through the decisions made by appointed kaitiaki.

29. We note FNZ's point that a significant amount of customary take occurs under the recreational catch allowance. This is an artefact of the regulatory framework rather than indicative of Iwi and hapū preferring to exercise the privilege that supports recreational fishing. Iwi and hapū are best placed to decide whether their take – not just in FLA 1 but in all stocks generally – should be attributed to the recreational or customary allowance. This decision is made in the act of applying (or not applying) for a customary authorisation before gathering kaimoana.

3.3.4.2 – Challenges with B_{MSY}

30. Currently, there is no defined B_{MSY} estimate or reference biomass level to manage the FLA 1 sub-stocks. Te Ohu Kaimoana acknowledges there is localised depletion and a decline in CPUE in some areas; however, a reduction of the TACC will not address this issue. We consider that FNZ's proposed options fail to address either spatial concerns or habitat destruction.

31. Biomass fluctuations formed part of the rationale for the initial TAC setting when flatfish were introduced into the QMS. Reducing the TACC to average catch levels as proposed in Options 2 and 3 leaves no headroom in the TACC for years of high abundance. In years of high biomass, the sustainable utilisation of the stock will be restricted. FNZ notes that, as a Schedule 2 species, an in-season increase could address these concerns. However, previous experience with in-season increases in FLA 3 and RCO 2 demonstrate that this process is flawed. The speed at which the increase proceeds results in fishers being unable to benefit from in-season increases, with decisions not being implemented until the final month of the fishing year. This fails to enable sustainable utilisation in accordance with the Act, results in an opportunity loss for fishers, and requires additional levies to inform the assessment that do not deliver.

3.3.4.3 – Spatial Management

32. Spatial management of the sub-stocks is necessary for the scale at which fisheries occur and the dispersal level of the fish in FLA 1. The differences between the west and east coast harbours are a point of focus in the FNZ consultation document. Options 2 and 3 do not reflect these spatial differences and we consider that a substantial TAC/TACC cut is premature when other steps can be taken to resolve this issue. Given that FNZ acknowledges that localised trends in CPUE reflect localised trends in biomass, to propose steep

cuts across the entire QMA without addressing spatial differences is irresponsible and contrary to the purpose and principles of the Act. In our view, FNZ should engage with Iwi and quota holders and consider options for dealing with the local depletion issues at the appropriate scale.

33. Seventy-seven percent of catch in FLA 1 is from the east coast, particularly the Firth of Thames in the Hauraki Gulf[1]. It is highly likely that abundance in this area is increasing, given that CPUE in this area has continued to rise between the 2015 and 2018 stock assessments. Therefore, the cuts proposed under Option 2 or 3 are unlikely to be able to provide for sustainable utilisation in FLA 1 east. This emphasises the need for finer-scale spatial management of the FLA 1 sub-stocks.

34. There was a marked decrease in fishing intensity on the west coast harbours in the 2003/04 fishing year. This decline coincided with the declaration of Māui dolphins as a sub-species. As a result of this, spatial management for set netting and trawl were put in place across the west coast. Considerations of this fishing displacement should be made when analysing the CPUE indices as an estimate of relative biomass. The effects of conservation efforts for this species means that harbour set net species such as flatfish should be managed at a finer scale spatially.

3.3.4.4 – Long Term Trends in CPUE

35. There has been a long-term trend of decline in CPUE in key areas of FLA 1, suggesting decreasing abundance most particularly on the west coast. We acknowledge this trend; however, we consider the need to address habitat degradation to be the primary issues in this fishery at this time.

36. In spite of fluctuations, the CPUE series for the Kaipara and Manukau Harbours show a long-term declining trend and are currently 68% and 65% below the respective peaks in the early to mid-1990s (upper panels, Figure 2). Work by NIWA (McKenzie et al 2013) in the Manukau Harbour has linked the decrease in local CPUE with an increase in eutrophication, suggesting that there may be factors other than fishing contributing to the decline[2]. The Hauraki Gulf CPUE series shows an overall declining trend except for a three-year increase from 2002 to 2005 and a single strong increase in the final 2017 fishing year, which brings the series above the long-term average. We acknowledge that there are issues of localised depletion; however, as they are linked to eutrophication, depletion cannot be solved through a catch reduction at the scale of a QMA. Localised issues require local solutions.

37. The FLA 1 fishery is of key importance to a number of Iwi and to a range of stakeholders. Te Ohu Kaimoana urge FNZ to engage with Iwi and quota owners to outline gaps in the current research program and how these can be addressed.

[1] Fisheries New Zealand May Plenary 2018

[2] Fisheries New Zealand May Plenary 2018

3.3.4.5 - Adjusting the Interim Deemed Value Rate

38. We support the proposed interim deemed value for FLA 1 as it will reduce the prospect of fishers waiting until the end of the year before acquiring ACE. However, we do not support the retention of the differential rates whereby the deemed value would be set at a level above the market value of the catch. This aligns with our position on deemed values outlined in Section 1.3.3 of this document.

3.4 – Green Lipped Mussels (GLM 9)

3.4.1 – Context

39. Fisheries New Zealand is reviewing certain management controls for green lipped mussels in GLM 9. The extent of this review is limited to the spat ratio, the TAC and the TACC. Te Ohu Kaimoana has consulted with GLM 9 quota-owning MIOs/AHCs in preparing this response.

40. GLM 9 is an important customary, recreational and commercial fishery. Unlike other fisheries, different sectors have demands on the GLM 9 fishery at different stages of its lifecycle; the spat is an important commercial fishery and is the most significant contributor of juvenile mussels to the mussel aquaculture industry. Whereas the harvest of fully grown green lipped mussels is important to customary and recreational fishers in this area. These different interests in GLM 9 are reflected in the TACC (the spat) and in the allowances (adult mussels). Hence the TAC caters for both life stages.

41. FNZ are reviewing the harvest of spat under the TACC. All of the commercially taken GLM 9 spat is harvested from beach-cast spat collected from Te Oneroa a Tōhē (Ninety Mile Beach). Beach-cast seaweed is not managed under the QMS.

42. The Ministry of Fisheries brought GLM 9 into the QMS in 2004 to enable efficient utilisation and development of the spat fishery. Importantly, the spat:seaweed ratio was arbitrarily set at 50:50 rather than being accurately determined. This was because there was not deemed to be a sustainability risk to either the beach-cast seaweed (managed under open access) or the mussel spat (which would die once it was beach-cast if not harvested). However, it was recognised that there needed to be a pragmatic way to differentiate between the seaweed and the mussel spat.

43. The framework for introducing GLM 9 into the QMS was discussed with the Primary Production Select Committee, and introduction was by way of an amendment to the Fisheries Act 1996.

3.4.2 – Proposed Options

44. FNZ is considering two options for adjusting the management settings for GLM 9 (Table 10):

    a. Option 1: adjusting the reporting ratio for spat:seaweed to 25:75 and decreasing TACC by 50% to provide for the same amount of seaweed to be collected from Te Oneroa a Tōhē.

    b. Option 2: adjusting the reporting ratio for spat:seaweed to 25:75 and retaining the TAC and TACC at its current level, which would provide for 100% more seaweed to be collected from Te Oneroa a Tōhē.

45. Fisheries New Zealand do not propose changes to either the GLM 9 customary or recreational allowances.

Table 10: Proposed management settings in tonnes for GLM 9 from 1 October 2018, with the percentage change relative to the status quo in brackets.

Option	Reporting ratio for spat:seaweed taken from Ninety Mile Beach	Total Allowable Catch (TAC)	Total Allowable Commercial Catch (TACC)	*Amount of seaweed/spat material that can be harvested*	Allowances		
					Customary Māori	Recreational	All other mortality to the stock caused by fishing
Current settings	**50:50***	**278**	**180**	*360 t of seaweed & spat*	**59**	**39**	**0**
Option 1	25:75 ↓ (50%)	188 ↓ (32%)	90 ↓ (50%)	*360 t of seaweed & spat*	59	39	0
Option 2	25:75 ↓ (50%)	278	180	*720 t of seaweed & spat*	59	39	0

* Under the current 50:50 ratio, 50% of the weight of the combined seaweed/ spat material taken at Ninety Mile Beach is assumed to be, and recorded as, "GLM 9".

3.4.3 – Our Position

46. Te Ohu Kaimoana does not consider the problem or utilisation opportunity has been correctly identified and therefore does not support either Option 1 or Option 2. We favour retaining the current settings.

3.4.4 – Commentary

47. Te Ohu Kaimoana notes that at the time this fishery was introduced into the QMS, the key issue was that the way the fishery was operating resulted in a race for catch, with consequential loss of value to the participants and potentially detrimental impacts on the beach due to the level of vehicle activity.

48. Therefore, the primary driver for introducing GLM 9 to the QMS was to realise the benefits of improved utilisation of the fishery. Neither the removal of the beach-cast seaweed nor the mussel spat that had settled on it were considered to pose any sustainability issue. The ratio of spat:seaweed weight was arbitrarily set at 50:50. However, Iwi were concerned about the impact of unregulated harvesting on the beach, and hence the TAC effectively constrained the amount of vessel traffic to a level that had an acceptable impact on the beach ecology.

49. The underlying problem with the fishery at this time would appear to be more related to the lack of co-ordination in harvesting effort than to the ration of spat to beach-cast seaweed in the catch. The incentives for collective action under the QMS were expected to lead to rationalisation in harvesting activity, and therefore a reduced impact on the ecology of the beach. However, it would appear that the harvesters have not been successful in forming a collective and a race for catch is still a feature of the fishery.

50. The FNZ proposal to adjust the ratio to 25:75 will have the effect of increasing the amount of beach traffic, in that twice as much seaweed will be able to be harvested (and twice the amount of spat will be produced). Rather than adjust what both the Select Committee and Parliament agreed were arbitrary ratios, a more correct response to a shortage of spat would be to increase the TACC.

51. The impact of either changing the ratio or increasing the TACC would have the same effect of increasing the amount of seaweed able to be harvested. This would also trigger the concerns from Iwi over the consequential increased harvesting activity. This should only be considered in the context of a harvesting plan which addresses the concerns held by Iwi. Te Ohu Kaimoana notes that at this time no such plan has been finalised. On that basis, Te Ohu Kaimoana supports the status quo, rather than either of the options that are being consulted on.

3.4.4.1 – Retaining the TAC and TACC

52. Te Ohu Kaimoana agrees with the statement in the IPP that there are no sustainability concerns for either green-lipped mussel or beach-cast seaweed resource under the TACC and TAC at current levels. However, we also consider that, even at current levels, the impact of harvesting on the beach needs to be actively managed. We are aware that there is significant and increasing demand by the mussel farming industry for GLM 9 spat.

53. At a recent meeting with Northland Iwi, they expressed their concerns about the effects of GLM 9 harvesting activities on the toheroa and tuatua beds on Te Oneroa a Tōhē. Specifically, the effects of tractors and front-end loaders picking up beach-cast seaweed and the damage they perceived was being done to shellfish beds because of harvesting techniques.

54. As part of the respective Te Hiku (far north) Iwi claims settlement Acts, four Iwi have representation on the Te Oneroa a Tōhē Beach Board which has the ability to make by-laws for the beach. If Iwi perceive that harvesting activities are having destructive effects on shellfish beds, then they have the ability to manage the way harvesting is undertaken through those means.

55. The GLM 9 fishery is unique in that once spat washes up on beach-cast seaweed, it will not go back into the water or contribute to the fishery, effectively meaning that once spat washes up, it will die unless it is harvested. Spat is only collected once it has washed up on the beach, not while it is in the water.

56. There are no issues with proportionality of allowances between sectors, nor are there competing interests for spat from the customary or recreational sectors, as they fish for large mussels in other areas.

3.4.4.2 – Other considerations

57. The start of the current fishing year on 1 October coincides with a period that is known to be busy for beach-cast seaweed washing up on Te Oneroa a Tōhē. Indications from the main users of the resource are that this becomes problematic and that a better time of the year to commence the fishery would be six months later.

3.5 – John Dory (JDO 1 & JDO 7)

3.5.1 – JDO 1

3.5.1.1 – Context

39. The most recent stock assessment for JDO 1 indicates that the QMA is comprised of three biological stocks – these are Hauraki Gulf and east Northland, Bay of Plenty and the west coast of the North Island. The stock assessment indicates each of the stocks are unlikely to be below FNZ's Soft Limit and below FNZ's CPUE-based reference point. Two of the three stocks within JDO 1 were shown to be increasing in CPUE, slowly moving towards FNZ's reference point while the third has fluctuated.

40. Mean standardised mixed bottom trawl CPUE for the period of 1994-95 to 2010-11 are used as B_{MSY}-compatible proxies for all three stocks in JDO 1.

41. Although a TACC for JDO 1 has been set, allowances for recreational, customary and other sources of fishing-related mortality have not been set. A review of the TAC and TACC for JDO 1 has triggered a review of interim deemed value rates as the deemed value guidelines have been updated. The current average ACE price for 2017/18 is $0.84/kg and port price $5.64/kg.

3.5.1.2 - Proposed Options

42. FNZ have proposed three options for setting the TAC in JDO 1 for 2018/19 (Table 11):

Table 11: Proposed management settings in tonnes for JDO 1 from 1 October 2018, with the percentage change relative to the status quo in brackets.

Option	Total Allowable Catch	Total Allowable Commercial Catch	Allowances		
			Customary Māori	Recreational	All other mortality to the stock caused by fishing
Current settings	-	**704**	-	-	-
Option 1	790	704	15	36	35
Option 2	423 ↓	354 ↓ (50%)	15	36	18 ↓
Option 3	387 ↓	320 ↓ (55%)	15	36	16 ↓

43. FNZ is considering the following options for deemed values for JDO 1 (Table 12):

Table 12: Proposed deemed value settings for JDO 1 from 1 October 2018.

	Interim Rate ($/kg)	Annual Differential Rates ($/kg) for excess catch (% of ACE)					
		100-120%	120-140%	140-160%	160-180%	180-200%	200%+
Status quo	1.96	3.92	4.70	5.49	6.27	7.06	7.84
Proposed	3.52 ↑						

3.5.1.3 – Our Position

44. Te Ohu Kaimoana supports a *variation* of Option One: setting a TAC and allowances for customary, recreational, and other sources of fishing-related mortality while maintaining the TACC at its current level. We propose a 20-tonne allowance to Customary Māori as set out below (Table 13):

Table 13. Te Ohu Kaimoana's recommended TAC settings for JDO 1.

Option	Total Allowable Catch	Total Allowable Commercial Catch	Allowances		
			Customary Māori	Recreational	All other mortality caused by fishing
Option 1 *variation*	795	704	20	36	35

45. Te Ohu Kaimoana supports increasing the interim deemed value rate to $3.52/kg.

3.5.1.4 – Commentary

3.5.1.4a – Setting the TAC/Varying the TACC

46. There is no estimation for current customary catch; however, Iwi who attended a FNZ consultation meeting in Whangarei on July 20 considered that the customary allowance should be set at 20 tonnes in order to provide for the estimated need. Therefore, we propose an initial customary allowance of 20 tonnes, subject to an increase should future information demonstrate a higher customary need. For more information on our allocation principles, refer to Section 1.2.1 of this document.

47. FNZ's initial position paper (IPP) provides inadequate rationale for a TACC reduction of the extent proposed in Options 2 and 3. While it outlines some of the complexities within this stock, it fails to present options which address the fundamental management issues identified by both management discussions and the stock assessment. This includes the way residual 28N rights are proposed to be dealt with, the mixed nature of this fishery and the apparent contradiction that three distinct sub-stocks are managed under one TACC.

48. The standardised CPUE indices for each of the three sub-stocks in JDO 1 present differing trends in relation to the CPUE-based reference point. Two of these (Hauraki Gulf and east Northland, Bay of Plenty) have been tracking upwards since circa 2012. Only the west coast of the North Island has demonstrated a downward trend in CPUE in recent years. However, the stock is projected to fluctuate above the soft limit. As per the 2017 stock assessment for John dory, there is strong evidence for a separation of JDO 1 into north-east and north-west sub-areas. Te Ohu Kaimoana do not agree that there needs to be substantial cuts to the TACC prior to the resolution of spatial complexities of this fishery.

49. The IPP states that the majority of the decline of JDO 1 CPUE occurred in the Hauraki Gulf/east Northland fishery and suggests that the major cause of this decline was a period of low recruitment. Recruitment levels of this species are highly variable due to its life history characteristics. FNZ recognises that they are unable to predict future recruitment of John dory into the stock; however, this does not serve as adequate

rationale to reduce the TAC/TACC. Further, FNZ notes that management measures are required during periods of persistent low recruitment. The recent stock assessment does not indicate current low recruitment, as demonstrated by increases in CPUE towards the reference point in Hauraki Gulf/east Northland and Bay of Plenty sub-stocks.

50. JDO 1 is part of a mixed trawl fishery and as such cannot be considered in isolation. JDO 1 is often caught as bycatch in the Snapper (SNA 1) fishery. Further, John dory are associated with juvenile snapper through a predator-prey relationship. Areas where juvenile snapper are plentiful are intentionally avoided by commercial vessels, resulting in protection for the John dory in those areas. John dory biomass is estimated through a standardised CPUE index. The standardisation method struggles to account for subtle nuances like changes in effort. Therefore, abundance for JDO 1 is likely higher than the estimate provided by CPUE.

51. Further, if the TACC was reduced JDO 1 would become a 'choke species'; meaning the ability of fishers to catch other target species in the area becomes restricted due to the lack of available ACE to cover John dory bycatch. Restricting the utilisation of multiple fisheries without evidence of a sustainability issue would be inconsistent with the purpose of the Fisheries Act 1996. Moreover, after factoring in the spatial complexities outlined above, it is clear cuts to the TACC will punish small-scale fishers in areas where abundance and CPUE for JDO 1 are trending upwards and potentially lead to the payment of deemed values when they cannot avoid catching John dory. Considering this, we do not support either Options 2 or 3.

52. FNZ pose that TACC cuts in JDO 1 will have no implications on the associated 28N rights. Te Ohu Kaimoana considers that reducing a TACC in a fishery where there are 28N rights in play effectively sets up the scenario whereby Settlement rights will eventually be diminished. In this instance we do not consider the science behind the proposed reduction to be sufficiently compelling to justify a risk that Settlement rights be eroded. Please refer to Section 1.2.2 for Te Ohu Kaimoana's position on 28N Rights.

53. The cumulative effect of these issues deems a TACC reduction to be unnecessary at this time. However, we do acknowledge the obligation to set a TAC when a TACC is reviewed and therefore support Option 1 with the initial customary allowance being set at the advised level of 20 tonne. We do not have sufficient information to assess the level of recreational catch at the time of the Settlement. We note the FNZ estimate of a recreational catch of 36 tonne and the recommendation this be reflected as an allowance for future recreational catch.

54. Te Ohu Kaimoana considers that better data is needed for this fishery. As such, we urge FNZ to engage with Iwi and quota owners to outline gaps in the current research program and how these can be addressed.

3.5.1.4b – Adjusting the Interim Deemed Value Rate

55. We support the proposed interim deemed value for JDO 1 as it will reduce the prospect of fishers waiting until the end of the year before acquiring ACE. However, we do not support the retention of the differential rates whereby the deemed value would be set at a level above the market value of the catch. This aligns with our position on deemed values outlined in Section 1.3.3 of this document.

3.5.2 – JDO 7

3.5.2.1 – Context

56. FNZ is reviewing the total allowable catch (TAC), allowance for Māori customary fishing, allowance for recreational fishing, allowance for all other mortality to the stock caused by fishing, and the total allowable commercial catch (TACC) for John dory in JDO 7, which covers the Challenger area and the West Coast of the South Island. FNZ is also recommending increasing the interim deemed value rate for JDO 7.

57. The best available information in 2018 indicates that the abundance of John Dory in JDO 7 has increased since the last assessment in 2015. According to this latest assessment, abundance is currently well above the reference biomass level and likely to remain so with recent strong recruitment. FNZ therefore considers that there is opportunity for increased utilisation of JDO 7 (increase the TAC) while ensuring the sustainability of the stock, consistent with s 8 of the Fisheries Act 1996.

58. The catch limits for John Dory in JDO 7 were last reviewed in 2016 following the 2015 assessment. The best available information from the 2017 west coast South Island (WCSI) trawl survey shows that the JDO 7 stock biomass is currently very likely (>90%) to be above the FNZ reference biomass level and is the second highest biomass level recorded since trawl surveys began in 1992. The JDO 7 stock is very unlikely (< 10%) to be below the soft or hard limits.

59. John Dory in JDO 7 is predominantly caught by bottom trawl targeting flatfish, barracouta and tarakihi. In the 2016/17 year, 19% of JDO 7 catch was from target John Dory fishing.

60. FNZ is proposing to increase the interim deemed value rate for JDO 7 to 90% of the annual rate to be consistent with Principle 7 of the Deemed Value Guidelines. The review of deemed value rates for JDO 7 have not been triggered by landings in excess of the TACC or changes in port prices. Over the five years between 2012-2017, annual deemed value payments have been low, averaging $524. FNZ does not propose increasing the annual deemed value rate. The current average ACE price for 2017/18 is $2.04/kg and the port price $6.50/kg.

3.5.2.2 – Proposed Options

61. FNZ have proposed three options for varying the TAC in JDO 7 (Table 14):

Table 14. FNZ's proposed management settings in tonnes for JDO 7 from 1 October 2018, with the percentage change relative to the status quo in brackets.

Option	Total Allowable Catch	Total Allowable Commercial Catch	Allowances		
			Customary Māori	Recreational	All other mortality caused by fishing
Option 1 (*Status quo*)	206	190	2	4	10
Option 2	226 ↑ (10%)	209 ↑ (10%)	2	4	11 ↑ (10%)
Option 3	246 ↑ (19%)	228 ↑ (20%)	2	4	12 ↑ (20%)

62. FNZ have proposed two options for changing the deemed value rate for JDO 7 (Table 15):

Table 15. Current and proposed Standard Deemed Value Rates ($/kg) for excess catch (% of ACE).

Options	Interim Rate ($/kg)	Annual Differential Rates ($/kg) for excess catch (% of ACE)			
		100-120%	120-130%	130-140%	>140%
Status quo	2.62	5.25	6.00	8.00	10.00
Proposed	4.73 ↑				

3.5.2.3 – Our Position

63. Te Ohu Kaimoana supports Options 2 or 3. We support the allocation of the TAC under both Options 2 and 3 as they align with our allocation principles. For Te Ohu Kaimoana's full position on allocation please refer to Section 1.2.1.

64. Te Ohu Kaimoana supports the proposed change to the interim deemed value rate (Option 1).

3.5.2.3 - Commentary

65. Te Ohu Kaimoana supports an increase in the TAC, based upon the best available scientific information which suggests abundance is well above the FNZ reference biomass level and likely to remain so with

recent strong recruitment. Some Iwi prefer the more conservative TAC increase under Option 2 and other Iwi prefer a higher increase under Option 3. Regardless of the extent of the increase, both options are considered to be able to provide for sustainable utilisation. Regular monitoring using the WCSI trawl surveys can inform whether adjustments to catch need to be considered in the future.

66. John dory populations can fluctuate widely due to variances in recruitment. It is expected that the current level of biomass will remain in the fishery for the next two to four years. An increase in TAC/TACC under will mainly cover increased bycatch as a result of increased abundance of John dory in JDO 7. We understand that there will not be additional targeted fishing effort that would arise from an increase. Further, the WCSI trawl surveys will continue to inform responsive management.

3.5.2.4 – Adjusting the Interim Deemed Value Rate

67. We support the proposed interim deemed value for JDO 7 as it will reduce the prospect of fishers waiting until the end of the year before acquiring ACE. However, we do not support the retention of the differential rates whereby the deemed value would be set at a level above the market value of the catch. This aligns with our position on deemed values outlined in Section 1.3.3 of this document.

3.6 – Kingfish (KIN 3)

3.6.1 – Context

68. Over the most recent 5-year period, there has been an increase in the commercial catch of kingfish in KIN 3, with no evidence of any increased targeting of kingfish by commercial fishers.

69. The observed increases in sea surface temperatures over recent years is likely spreading kingfish southward, and this may continue if temperatures continue to rise. If this is the case, there is likely to be an increase in kingfish bycatch by commercial fishers.

70. Kingfish was introduced into the QMS in 2003 with allocations initially set to discourage commercial fishers targeting kingfish due to its value to non-commercial fishers. Options are now being proposed to provide for increases in kingfish catch in KIN 3 for all sectors.

3.6.2 – Proposed Options

71. FNZ have proposed two options for varying the TAC in KIN 3 (Table 16):

Table 16. FNZ's proposed management settings in tonnes for KIN 3 from 1 October 2018, with the percentage change relative to the status quo in brackets.

Option	Total Allowable Catch	Total Allowable Commercial Catch	Allowances		
			Customary Māori	Recreational	All other mortality caused by fishing
Option 1 (*Status quo*)	3	1	1	1	0
Option 2	9 ↑ (300%)	3 ↑ (300%)	2 ↑ (200%)	3 ↑ (300%)	1↑
Option 3	17↑ (567%)	6 ↑ (600%)	4 ↑ (400%)	6 ↑ (600%)	1↑

3.6.3 – Our Position

72. Te Ohu Kaimoana supports a new Option 4 (Table 17). To increase the TAC to 7 tonnes, increase the TACC to 4 tonne, increase other mortalities to 1 tonne, and maintain the customary and recreational allowance at 1 tonne.

Table 17. Te Ohu Kaimoana's recommended management settings in tonnes for KIN 3.

Option	Total Allowable Catch	Total Allowable Commercial Catch	Allowances		
			Customary Māori	Recreational	All other mortality caused by fishing
Option 1 (*Status quo*)	3	1	1	1	0
Option 4	7 ↑	4↑	1	1	1↑

3.6.4 – Commentary

73. Te Ohu Kaimoana supports an increase to the TAC (7 t), TACC (4 t) and other mortality (1 t), and the retention of the 1 tonne recreational and customary allowance under Option 4. The proposed increase in the TACC will allow commercial fishers to have enough ACE to cover bycatch to the levels experienced in 2016-17. If commercial catch continues to increase in the future, we would consider a follow up review of the TAC and TACC to be appropriate. We note that at this point in time customary interests have not

identified an increased need for KIN 3 and hence we support retention of the existing allowance for customary fishing.

74. We do not support the allocation methodology which is applied in the KIN 3 stock review and therefore have recommended an alternative allocation under Option 4. Any increases in the TAC should be allocated to the TACC, customary allowance, and other mortalities as set out in Table 17. For more information on our allocation principles please refer to Section 1.2.1 of this document.

3.7 – Pāua (PAU 5B)

3.7.1 – Context

75. FNZ is reviewing the TAC, allowance for Māori customary fishing, allowance for recreational fishing, allowance for all other mortality to the stock caused by fishing, and the TACC for pāua in PAU 5B off the coast of Rakiura/Stewart Island.

76. The TAC of PAU 5B has not been reviewed since it was reduced to 105 tonnes in 2002. Since then the best available information suggests the biomass of the stock has been steadily increasing and is currently above FNZ's reference biomass level of 40% B_0 and trending upwards. Therefore, there is an opportunity for increased utilisation while sustainability is ensured.

77. The 2018 stock assessment estimates spawning stock biomass of PAU 5B to be at 47% B_0 and very unlikely to fall below 40% B_0 at current catch levels. Stock projections suggest that under a 10% increase to the TAC the stock biomass is likely to remain constant. Stock projections further suggest that under a 20% increase to the TAC, the stock biomass has in the worst case a 91% probability of remaining above 40% B_0 and a 59% probability of increasing above the current biomass.

78. Since the reduction in the TAC in 2002, commercial harvest has been constant at about the level of the TACC at 90 tonnes. Customary catch is reported regularly under the Fisheries (South Island Customary Fishing) Regulations 1999. In the past eight months, customary harvest has been conservative, with 1910 individual pāua reported. Current recreational harvest is unknown and was last recorded in the National Panel Survey of Marine Recreational Fishers 2011/12 at 0.82 tonnes. FNZ assumes it has increased since then, but not above the 6 tonnes provided for under their current allowance.

79. The commercial industry in PAU 5B have been implementing management measures to support an increasing biomass in PAU 5B and ensure its sustainability. This includes raising the minimum harvest size to 137mm, establishing a harvest control rule that internalises utilisation trade-offs and managing the fishery at finer spatial scales. This has helped rebuild the fishery to where it is today (47% B_0 and trending upwards).

80. There are 0.157 tonnes of preferential allocation rights (formerly 28N) rights in PAU 5B. If the TACC is increased under Option 2 or 3, these rights will be discharged.

3.7.2 – Proposed Options

81. FNZ have proposed three options for varying the TAC in PAU 5B (Table 18):

Table 18. FNZ's proposed management settings in tonnes for PAU 5B from 1 October 2018, with the percentage change relative to the *status quo* in brackets.

Option	Total Allowable Catch	Total Allowable Commercial Catch	Allowances		
			Customary Māori	Recreational	All other mortality caused by fishing
Option 1 (*Status quo*)	105	90	6	6	3
Option 2	115.2 ↑ (10%)	99 ↑ (10%)	6.6 ↑ (10%)	6.6 ↑ (10%)	3
Option 3	125.4 ↑ (19%)	108 ↑ (20%)	7.2 ↑ (20%)	7.2 ↑ (20%)	3

3.7.3 – Our Position

82. Te Ohu Kaimoana supports the opportunity to increase the TAC/ TACC but advise this increase should be implemented in a way that does not dilute the proportional share of the TACC held by Ngāi Tahu in the form of Settlement quota.

83. Te Ohu Kaimoana recommends different allocation settings in accordance with our allocation principles and consistent with the Treaty Settlement for fisheries (in accordance with s 5B of the Fisheries Act 1996) as set out in Section 1.2.1 of our response. This is set out as Option 4 (Table 19).

Table 19. Te Ohu Kaimoana's proposed management settings (Option 4) in tonnes for PAU 5B, with the percentage change relative to the *status quo* in brackets.

Option	Total Allowable Catch	Total Allowable Commercial Catch	Allowances		
			Customary Māori	Recreational	All other mortality caused by fishing
Option 4	123 ↑ (17%)	108 ↑ (20%)	6	6	3

3.7.4 – Commentary

84. There are 0.157 tonnes of preferential allocation rights (28N) rights in PAU 5B. If the TACC increases, these rights will be discharged. FNZ need to ensure that they administer 28N rights in a way that does not decrease the proportional rights held by Iwi through Settlement quota consistent with s 5b of the Fisheries Act. We strongly recommend FNZ works to resolve this issue. We note that the broader issue of 28N rights is subject to a working group between FNZ and representatives of parties that have initiated legal proceedings to judicially review the most recent TAC variation decreases in both PAU 4 and PAU 7. FNZ however needs to find a resolution to the preferential allocation rights issue in the short term, whilst the working group develop a more comprehensive option. For our full position on 28N rights, refer to Section 1.2.2 of this response.

85. Te Ohu Kaimoana supports the actions of the PAU 5B industry as a whole and the management steps they have initiated to rebuild the stock to its current status. This is a major achievement for industry and is an example of what can be achieved through collaboration. The PAU 5B stock is currently above 40% B_0 and has a 59% probability of increasing above the current biomass even with a 20% increase in the TAC. We support at TACC increase provided under Option 4 (noting that this is conditional on the resolution of 28N rights).

86. As commercial fishers in PAU 5B have a voluntary minimum harvest size (MHS) which is currently set at 137mm, this means that pāua between 125-137mm are not harvested. In instances where they are, they are returned to the sea by commercial fishers. However, as pāua are not listed in the Sixth Schedule of the Act, we understand that under the proposed reporting requirements it will be an offence to return the legal size (but smaller than industry MHS) pāua back into the sea. This default position needs to be addressed in order to avoid having a landing requirement that does not align with either the reporting system or an industry practice that should be encouraged.

3.8 – Rig (SPO 7)

3.8.1 – Context

87. The best available information indicates that the abundance of rig (mangō) in SPO7 is continuing to increase, and that the biomass is likely to be at or above the reference point. Therefore, there is an opportunity to increase utilisation (increase the TAC) while ensuring sustainability of rig within SPO 7.

88. The 2017 assessment concludes that it is likely (>40% chance) that biomass is at or above the FNZ reference point and very unlikely (<10% chance) that it is currently at or below the Soft or Hard Limits. CPUE trends and this assessment data show a fishery that is increasing.

89. Biomass of rig declined steeply between 1995 and 2005 (50% decline), prompting concern from industry and the Ministry of Fisheries. Industry, through the Challenger Finfisheries Management Company, drafted a Fisheries Plan which was subsequently approved by the Minister under Section 11A of the Fisheries Act 1996. The Plan was aimed at rebuilding SPO 7 stocks through measures such as shelving of ACE to aid catch reduction and spatial closures to protect key pupping grounds. The subsequent rebuild of the fishery demonstrates the benefits of fine-scale actions developed and implemented by quota owners to address sustainability concerns.

90. Biomass levels remained stable between 2007 and 2013 before spiking in 2015. Trawl surveys indicate that this increase in biomass is supported by strong recruitment in the past several years, meaning that, at least in the short term, population levels should remain stable. SPO 7 is caught during the WCSI Trawl Survey that occurs every two years. While calculating B_{MSY} for SPO 7 is not possible, a proxy target has been used by FNZ that is based on twice the Soft Limit (the average biomass level from 2003-2005). The 2017 assessment concludes that it is likely (>40% chance) that biomass is at or above that level and very unlikely (<10% chance) that it is currently at or below the Soft or Hard limits.

91. The SPO 7 fishery is primarily a targeted fishery using set nets, typically in waters less than 50m deep and can be caught along with spiny dogfish and school shark. The use of set nets has declined since the introduction of restrictions on set nets in Hectors dolphin habitat. It is also a bycatch species in the mixed species trawl fishery (gurnard, tarakihi, flatfish, red cod). Following a TACC cut in 2006/2007, the stock has been increasing, with commercial landings consistently being at or slightly above the TACC. In 2016/2017, maximum deemed value costs were incurred. The over catch of the TACC in 2016/2017 that resulted in deemed value costs is a strong indicator that abundance has increased.

92. Rig/mangō is a taonga species for Iwi with interests in FMA 7. Rig is listed in the Te Waipounamu Iwi Fisheries Plan and is regarded as an important customary fishery, with fishing areas being easily accessible. Recent estimates place the customary catch well within the current allowances. A taiāpure has been established at Whakapuaka (Tasman Bay) and mātaitai reserves have been established at Okuru/Mussel

Point, Tauperikaka, Mahitahi/Bruce Bay, Manakaiaua/Hunts Beach, Okatiro Lagoon, Te Tai Tapu (Anatori) and Te Tai Tapu (Kaihoka). These reserves enable kaitiaki to pass bylaws. FNZ does not feel that these reserves will be impacted by increasing the TAC for SPO 7.

3.8.2 – Proposed Options

93. FNZ have proposed three options for varying the TAC in SPO 7 (Table 20):

Table 20: Proposed management settings in tonnes for SPO 7 from 1 October 2018, with the percentage change relative to the status quo in brackets.

Option	Total Allowable Catch (TAC)	Total Allowable Commercial Catch (TACC)	Allowances		
			Customary Māori	Recreational	All other mortality to the stock caused by fishing
Option 1 *(Status quo)*	306	246	15	33	12
Option 2	332 ↑ (8%)	271 ↑ (10%)	15	33	13 ↑ (10%)
Option 3	357 ↑ (17%)	295 ↑ (20%)	15	33	14 ↑ (20%)

94. FNZ is not considering any changes to the deemed values for this stock.

3.8.3 – Our Position

95. Te Ohu Kaimoana supports Option 2: a TAC increase of 8%, with the TACC increased by 10% and other sources of fishing related mortality increased by 10%.

3.8.4 – Commentary

96. Te Ohu Kaimoana supports Option 2. The best available information indicates that increases under Option 2 are unlikely to pose a threat to the sustainability of the stocks. An increase would reduce the risk of fishers being faced with unnecessary or inappropriate deemed values in the mixed trawl fishery. The frequency of the WCSI trawl survey ensures that abundance data is updated frequently. As such, any changes in abundance resulting from a higher TAC/TACC setting could be acted upon swiftly. This mitigates any long-term risk to sustainability associated with a higher TAC/TACC. The conservative level of increase under Option 2 coupled with the frequency of trawl surveys ensures that management of rig poses less risk to the long-term viability of this fishery than Option 3. A cautious approach is more consistent with the National Plan of Action for Sharks.

97. Te Ohu Kaimoana met with representatives from Te Tau Ihu Iwi on 20 July 2018 and discussed the proposed options with them. At this meeting, Iwi expressed support for Option 2 as they considered it posed less risk to the long-term sustainability of rig than Option 3.

98. Te Ohu Kaimoana rejects Option 1 because it would result in lost value and benefits for Iwi and quota owners generally. Maintaining current limits for SPO 7 when the best available science indicates opportunity for increased sustainable utilisation would effectively diminish the value of quota owned by Iwi.

99. Te Ohu Kaimoana notes that the higher increases under Option 3 are not considered to pose a significant risk to sustainability. However, Option 2 also allows for increased usage while promoting a further increase in stock abundance. Taking an intergenerational approach to management can ensure long-term usage without risking another population crash.

3.9 – Red Gurnard (GUR 3)

3.9.1 – Context

100. FNZ is reviewing the TAC, allowance for Māori customary fishing, allowance for recreational fishing, allowance for all other mortality to the stock caused by fishing, and the TACC for red gurnard in GUR 3 off the east coast of the South Island.

101. Levels of red gurnard were low in the mid-1990s, but since then stock size has increased substantially. Commercial fishers indicate that they find it difficult to stay within the TACC despite the low level of targeting on this species. The best available information suggests that the stock is above the FNZ reference management level and is likely to remain so in the short term as a result of high recruitment. Consequently, there is an opportunity to increase utilisation while ensuring sustainability.

102. The GUR 3 TAC was last reviewed in 2015. FNZ monitors the state of GUR 3 with CPUE analysis and the biennial east coast South Island (ECSI) inshore trawl survey. CPUE indications suggest that the status of GUR 3 in relation to the FNZ reference biomass level is likely (>60%) to be above the level, and that, as it is a bycatch fishery, the current catch is unlikely to pose a risk to fish stock levels and cause overfishing. The CPUE trend shows a substantial increase in abundance after 2000 and this level of abundance continues to be reflected in the results of the fishery independent ECSI trawl survey as well as the recent reporting landings for the fishery.

103. Red gurnard in GUR 3 are taken primarily in coastal trawl fisheries with a small proportion of the catch taken by Danish Seine. The fish stock is a key bycatch species (around 60% is caught as bycatch) in the south-east flatfish, red cod and barracouta mixed trawl fisheries and in the Foveaux Strait flatfish target trawl fishery. Some gurnard are also taken in the target tarakihi and stargazer bottom trawl fisheries.

About 90% of GUR 3 is taken as a bycatch of the mixed trawl fishery off the east coast South Island. Fishers in GUR 3 are reporting that they are having to avoid red gurnard when fishing for other species as there is insufficient ACE within the fishery to cover the quantity of bycatch.

3.9.2 – Proposed Options

104. FNZ have proposed two options for varying the TAC in GUR 3 (Table 21):

Table 21: Proposed management settings in tonnes for GUR 3 from 1 October 2018, with the percentage change relative to the status quo in brackets.

Option	Total Allowable Catch (TAC)	Total Allowable Commercial Catch (TACC)	Allowances		
			Customary Māori	Recreational	All other mortality to the stock caused by fishing
Option 1 (*Status quo*)	1290	1220	3	6	61
Option 2	1395 ↑ (8%)	1320 ↑ (8%)	3	6	66 ↑ (8%)

3.9.3 – Our Position

105. Te Ohu Kaimoana supports Option 2, to increase the TAC from 1,290 t to 1,395 t, the TACC from 1,220 t to 1,320 t, other mortality from 61 t to 66 t, and to retain the allowances for customary and recreational at their current settings.

3.9.4 – Commentary

106. The best available information suggests that the stock is above the B_{MSY} and is likely to remain so in the short term as a result of high recruitment. This level of abundance continues to be reflected in the results of the fishery independent east coast South Island (ECSI) trawl survey as well as the recent reporting landings for the fishery. Te Ohu Kaimoana supports Option 2 as it provides for a utilisation opportunity consistent with s 8 of the Fisheries Act and allows fishers to maximise value from GUR 3.

107. Currently, as a result of high abundance levels, red gurnard bycatch can cause a vessel to stop fishing even if they still have quota for other species. The proposed increase under Option 2 is intended to cover the quantity of bycatch by providing further ACE when targeting other fish species. FNZ does not expect additional targeted fishing effort for red gurnard under Option 2 and any additional impacts on bycatch species, protected species, and the benthic environment are unlikely. Te Ohu Kaimoana supports Option 2 as it provides for additional ACE to cover red gurnard bycatch whilst also being consistent with sustainability measures and environmental principles in s 9 and s 11 of the Act.

108. The level of commercial targeting of red gurnard in GUR 3 is low and has averaged less than 10% of landed catch since 1990. Whilst red gurnard is mostly taken by bottom trawl in fisheries targeted at red cod, barracouta and flatfish, some are also taken in the target tarakihi and stargazer bottom trawl fisheries. FNZ are also reviewing sustainability measures for tarakihi in TAR 3 that suggest a reduction in catch is required. Te Ohu Kaimoana notes that the proposed reduction in the TAR 3 catch may result in reduced bycatch and therefore reduced landings of red gurnard due to the interdependence of these stocks. Notwithstanding this possibility, we consider an increase in the GUR 3 should proceed. This will encourage industry to develop fishing practices that can take advantage of the increase in the TACC for GUR 3, while reducing catches of TAR 3.

109. It must be noted that red gurnard populations can fluctuate widely due to variation in recruitment. Therefore, there can be increased utilisation opportunities, however at times management actions may be required when there is persistent low recruitment. The state of GUR 3 is being regularly monitored with CPUE analysis and the biennial ECSI inshore trawl survey. The next ECSI survey is scheduled for 2020. Te Ohu Kaimoana supports Option 2 because the ongoing monitoring of GUR 3 supports responsive management and appropriate adjustments to address any risk to ensuring sustainability or providing for enhanced utilisation.

3.10 – Tarakihi (TAR 1, 2, 3, and 7)

3.10.1 – Our Position

110. In accordance with the collective proposal we signed off on and provided on 27 July, Te Ohu Kaimoana does not support the options proposed by Fisheries New Zealand. We consider that the east coast TAR management strategy (The Strategy) developed by industry and Iwi, appropriately reflects the best available information and approaches the management of this fishery in an innovative and proactive manner. Te Ohu Kaimoana therefore fully endorses that Strategy.

3.10.2 – Summary of the Industry TAR Management Strategy

Reduce—Research—Reassess

111. Te Ohu Kaimoana has been actively engaged in the recent sustainability review for east coast TAR (TAR) stocks. Through our concern with the assessed state of this important inshore stock we formed the Tarakihi Settlement Working Group and collectively worked with industry. The resultant Strategy was provided to FNZ by the close off date for submissions from stakeholders. Te Ohu Kaimoana was a signatory to The Strategy on behalf of all Iwi with Settlement interests in TAR 1,2,3 and 7.

112. The 2018 stock assessment provides the best available information for management decisions for the east coast tarakihi stocks. The Strategy addresses the key concerns and uncertainties identified in the

2018 stock assessment and the subsequent FNZ consultation document. Te Ohu Kaimoana fully supports The Strategy as it provides a comprehensive option to sustain the stock, the fishers and the associated economy. The Strategy implements a cohesive 'Reduce, Research, Reassess' approach.

113. The TAR fishery contains several management challenges, these include both biological and management issues that need to be addressed if we are to implement robust and lasting fisheries management. The Strategy identifies these challenges and addresses them with a range of complementary management and research actions. This is an inter-dependent package of work; the key components are as follows:

a. Shelving ACE. Industry will set aside 25% of the current TACCs for the eastern component of the four impacted QMAs. This represents a substantial reduction in catch that will rebuild the stock and take it close to 20%B_0 by next stock assessment. Please refer to section 1.3.1 of this document for the rationale for Te Ohu Kaimoana's support for ACE shelving as a legitimate management tool.

b. Catch spreading. The eastern biological stock of tarakihi (which is subject to the stock assessment), does not align with the management boundaries that are represented by the TAR 1 and TAR 7 QMAs. Part of The Strategy involves formally designating the East and West Coast ACE in both TAR 1 and TAR 7 to allow catch to be spread between areas. FNZ has not proposed any method of achieving this necessary action. Further, FNZ have suggested there may not be any need to apply management measures at all in TAR 7. This would mean the required reduction in catch would have to come from another part of the stock.

c. Identify the target biomass. A management target for stock management is a matter for people to decide in accordance with the definition of utilisation under the Act. The role of the Minister is to ensure achieving the target level would ensure sustainability. FNZ is seeking to apply a default target of 40%B_0 without identifying the economic and ecological drivers behind this choice of a target level. The Strategy includes conducting a Management Strategy Evaluation (MSE) that will calculate the optimum target for biomass. This target will meet or exceed the statutory target of B_{MSY}. We consider this is vital in a fishery as socially and economically important as tarakihi. Please refer to section 1.3.2 for Te Ohu Kaimoana's position on B_{MSY}.

d. Stock boundaries. There are uncertainties about the biological distribution of the east coast TAR stock, and the biological relationships between areas TAR 1, 2, 3 and 7. The current hypothesis is that the whole east coast fishery is a single stock. The Strategy supports further genetic work to investigate that hypothesis further.

e. Selectivity. Industry has invested significant time and resource into improving trawl gear to select for larger and more marketable fish. This has occurred in fisheries in all areas. Selectively catching larger fish assists the stock to rebuild faster and further research is ongoing by Fisheries Inshore New Zealand (FINZ) and individual companies.

f. Juvenile areas. Allied to the previous point, The Strategy will identify areas that are important for juvenile tarakihi. This will allow these smaller fish to on-grow and provide a greater contribution to the stock and the rebuild.

g. Spawning areas. We understand that the Minister may be interested in discussing the application of finer scale management measures for the two spawning aggregations of tarakihi that occur on the east coast. Our preliminary analysis is that such measures would not impact on stock recovery but could result in significant additional cost. Notwithstanding this, Te Ohu Kaimoana would welcome working with the Minister/FNZ to explore the merit in considering such measures.

h. Socio-economically responsible. TAR is a very important fishery, it contributes significantly to the inshore sector and is primarily sold in the domestic market (90%). While The Strategy proposes a significant reduction in catch, the socio-economic impact is at a level that can be absorbed by the sector. In this way the Strategy supports a rebuild at a rate that takes social, economic and environmental considerations into account. In contrast, the larger reductions proposed by FNZ in order to meet the 'default' rebuild strategy would compromise many small businesses and put their future at risk.

i. Does not risk future management. Associated with the previous point, any significant TACC reductions will have adverse economic effects on industry that would likely result in reductions in the fleet, or redeployment of that effort. Given the science underpinning the east coast TAR assessment is heavily reliant on CPUE, any significant change to the industry may compromise the capacity to collect further information to inform fisheries management.

j. Research reduces uncertainty. The east coast TAR stock assessment contains high levels of uncertainty, particularly the forward projections (biomass could be between 0-40% B_0 in ten years under current catch). The Strategy commits to obtaining the necessary information to reduce that uncertainty and allow for a more informed decision to be made in three years. In the interim, it preserves the economic viability of the fishery, and the information base needed for future management. Part of the research available at the next assessment will identify whether there are linkages to western tarakihi.

k. Ensures sustainability. The east coast TAR fishery and biomass have been relatively stable for decades. There is no impending sustainability risk now, there is no sustainability risk under The Strategy, as this will provide for the fishery to rebuild to a greater biomass.

114. Te Ohu Kaimoana considers the three options FNZ provided for managing TAR in the light of the latest stock assessment are too narrow and are all based on the default settings from the Harvest Strategy Standard (HSS) guideline. The operational guidelines for the HSS state that the default target (that is 40%B_0 for TAR) is the starting point for setting targets. This has led to options that only pose dramatic cuts to the fishery that will have much greater adverse consequences on Iwi, industry and the community than is warranted for this fishery at this time.

115. The HSS guideline notes that it is far better to derive the 'real world' B_{MSY} for specific species. We support a stock-specific approach that will provide a well informed and iterative approach for recovery. The Strategy proposes to undertake a Management Strategy Evaluation in the first year to do this. By 2019 this evaluation will generate real-world B_{MSY} for east coast TAR.

116. Once an estimate of the real world B_{MSY} is available, decisions are needed on the way and rate of recovery to this level. Here the relevant inputs are social, economic, and cultural considerations. Despite the depleted state of the fishery, the stock has been relatively stable for more than 40 years. The model projections show that even with the catch at the same level as the 2016-17 catch for the next 10 years, the biomass would be estimated to only slightly decrease.

117. Iwi and industry jointly acknowledge the need to act to help restore the stock, but in a way and rate that meets the Minister's responsibilities under the Fisheries Act. The 20% reduction in 2016/17 catch (equivalent to a 25% reduction in the combined east coast TACCs) will lead to a significant rise in biomass by the time of the next stock assessment. With the flexibility of shelving, the ongoing monitoring and analysis by industry and Iwi will allow adjustments to be made as necessary to adjust overall and between QMAs to ensure the 2020/21 target is achieved or exceeded. This could be just by changes in catch or in combination with the other measures in the strategy.

118. In summary of key management complexities set out in the IPP and the response under the Strategy are as follows:

    a. **Management complexity:** Lack of a specific management target and an inappropriate reliance on generic policy.

        Strategy solution: Conduct a management strategy evaluation to calculate the relative biomass that will provide the maximum sustainable yield for tarakihi as the *Fisheries Act* requires.

    b. **Management complexity**: Full reliance on very uncertain stock status projections.

        Strategy solution: Implement an iterative management response that allows for continued collection of information and a viable commercial fishery.

    c. **Management complexity**: Fishery is east coast only – this requires catch splitting between TAR 1 and TAR 7 but FNZ has no recommended way to achieve it.

        Strategy solution: Implement the Strategy that includes a robust catch spreading arrangement that would designate east and west ACE in both TAR 1 and TAR 7 and monitor catch against these

d. **Management complexity**: Existing 28N rights.

> **Te Ohu Kaimoana solution:** Choose an option to assist the fishery to recover that will not invoke 28N rights while a more permanent solution is being developed.

119. The Strategy also sets out solutions that will assist in addressing the key scientific uncertainties as summarised below:

a. **Uncertainty:** "The level of connectivity between sub-populations and the differential fishing pressure may have implications for the rebuilding of the stock." (Para 961 of consultation document)

> **Strategy solution:** Investing in genetic research (See Section 9 of the TAR Strategy which provides research to address this) and differential reductions in catch reflecting abundance.

b. **Uncertainty:** level of recruitment and catches of undersize TAR

> **Strategy solution:** Investing in genetic research (See Section 9 of the TAR Strategy which provides research to address this); early voluntary recording of undersize TAR by area and time, rapid CPUE analyses to check abundance and ability to adjust voluntary catch reductions.

c. **Uncertainty:** Stock status projections

> **Strategy solution:** Manage to an appropriate timeframe to reflect the uncertainty in managing to future projections that have a wide confidence interval.

120. Te Ohu Kaimoana considers the Strategy provides a much more comprehensive, cohesive and responsive set of measures to assist recovery of the east coast tarakihi fishery. It substantially reduces pressure on the fishery and promotes an increase in biomass. It does this in a way that, while significantly impacting industry, Iwi and the wider community, enables the fishery to continue to operate at a reduced level of harvest.

121. The Strategy has been developed by all Iwi and industry. The measures to implement it are well-researched and ready to put in place. These have been circulated to all east coast tarakihi quota owners and fishers and have achieved in two weeks an over-whelming signed response from more than 85% across the country to formally shelve, split catch and implement all parts of the programme. It is expected that this will increase beyond 90% by the end of August.

122. Te Ohu Kaimoana notes that the emphasis of both The Strategy and our response to the IPP is on what the industry can do to improve the biomass of east coast tarakihi. We consider it is FNZ's responsibility to manage the recreational sector and note that the IPP discusses the potential for bag limit adjustments to assist with the rebuild.

4 – Deemed Value Rates

4.1 – Overview

1. FNZ is reviewing the deemed value settings for the following stocks:
    a. Bluenose (BNS 3)
    b. Gemfish (SKI 3 & SKI 7)
    c. Pilchard (PIL 7 & PIL 8)
    d. Tarakihi (TAR 1, 2, 3, and 7)
    e. Trevally (TRE 1)

2. Te Ohu Kaimoana's position on the way deemed values support Aotearoa's fisheries management framework is set out in section 1.2.3 of this document. In particular we support an approach that has an overriding purpose of encouraging the reporting of catch, while discouraging the catch of stocks that individual fishers cannot cover with ACE. We make the point that deemed values were never intended or designed to be a mechanism for ensuring the commercial catch did not exceed the TACC.

3. Our views on how deemed values should be considered for the fish stocks that are having their TAC/TACCs reviewed are set out in the context of our advice on those species. In addition, we have considered the role that deemed values should play in the context of the industry TAR strategy. We consistently make the point that any ramping of deemed values should not result in removal of the incentive to both report and land the catch. The comments below relate to the stocks who are not having their TAC/TACCs reviewed.

4. For Te Ohu Kaimoana's full position on deemed values please refer to Section 1.3.3.

4.2 – Bluenose (BNS 3)

4.2.1 – Context

5. FNZ is proposing to adjust the deemed value rates for bluenose in BNS 3 following catch exceeding available ACE in 2016/17. In addition, the current deemed rates for BNS 3 do not exceed ACE price by transaction costs and are therefore are considered to be inconsistent with Principle 2 of the Deemed Value Guidelines. The current average ACE price for 2017/18 is $2.97/kg and port price[3] $4.65/kg.

6. The majority of bluenose in BNS 3 is taken as bycatch in the middle depth trawl or bottom longline fisheries, with a small amount (approximately 10%) targeted through bottom longlining. Landings of BNS 3

[3] The port price is assumed to be a proxy for the market value of a stock referred to in s 75(2)(iii) of the Fisheries Act 1996.

have consistently exceeded the available ACE over the last six fishing years. The 2016/17 TACC was exceeded by 16 tonnes (11%). This fishery has been the subject of TAC reductions over the past decade or so and hence over-catch of the TACC is of particular concern.

7. In 2016 BNS 3 stock biomass was estimated to be between 17-27% B_0. Biomass has been below FNZ's 40% B_0 reference point since around 2000. The 2016 stock assessment suggested that biomass had either levelled off after 2011 or increased slightly and is projected to continue to increase at current catches. Catches at the level of the 2015/16 TACC were predicted to enable the stock to increase, but not nearly fast enough to attain the biomass target within the rebuild time frame that was set. As a result, the Minister further decreased the TACC to increase the recovery time frame.[4] In more recent years there have been positive signs that the CPUE has been increasing.

4.2.2 – Proposed Options

Table 22. FNZ's current and proposed deemed value rates ($/kg) for BNS (exc. BNS 3 landed to the Chatham Islands).

Stock	Option	Interim deemed value rate	Special annual differential rates ($/kg) for excess catch (% of ACE)							
			100-105%	105-110%	110-120%	120-130%	130-140%	140-150%	150-160%	>160%
BNS 3	Current	2.70	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
	Proposed	3.60	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00

8. FNZ proposes increasing the interim and annual deemed value rate for BNS 3 (Table 22). The proposed adjustments would be consistent with Principles 2 and 7 of the Guidelines in that the annual deemed value rate would exceed the ACE price by transaction costs and the interim deemed value rate would be set at 90% of the annual rate.

9. FNZ proposes retaining the special differential schedule for BNS 3 but adjusting the rate at each step on the schedule so as to provide a strong incentive for catch to not exceed ACE. The proposed changes would make the deemed value rates for BNS 3 consistent with those of BNS 2, as per Principle 3 of the Guidelines (adjacent QMAs should have identical, or very similar deemed value rates, to provide incentives to not misreport).

10. FNZ proposes increasing the annual and interim deemed value rates of BNS 3 landed to the Chatham Islands (Table 23). The proposed changes to the interim and annual deemed value rates represent an increase by the same proportion to that proposed for BNS 3 landed elsewhere. FNZ proposes retaining the

[4] Fisheries New Zealand May 2018 Plenary

special differential schedule for BNS 3 landed to Chatham Islands, but adjusting the rate at each step on the schedule so as to continue to provide a strong incentive for catch to not exceed ACE.

Table 23. FNZ's current and proposed deemed value rates ($/kg) for BNS 3 landed to the Chatham Islands.

Stock	Option	Interim deemed value rate	Special annual differential rates ($/kg) for excess catch (% of ACE)						
			100-120%	120-130%	130-140%	140-150%	150-160%	160-220%	>220%
BNS 3	Current	0.95	1.05	3.00	4.00	5.00	6.00	7.00	10.00
	Proposed	1.26	1.40	4.00	5.00	6.00	7.00	8.00	11.00

4.2.3 – Our Position

11. Te Ohu Kaimoana supports the proposed interim and annual deemed value rates in BNS 3. We do not support the differential schedule for BNS 3.

4.2.4 – Commentary

12. Te Ohu Kaimoana supports in principle the proposed annual deemed value rates due to increases in ACE price; the proposed rates will set the annual deemed value between the ACE and port price. We support the proposed interim deemed value rates so that fishers are incentivised to acquire ACE throughout the year. We consider this necessary to be able to allow the BNS 3 stock to rebuild.

13. The proposed deemed value rates are set to the same rate as BNS 2. We support this as it provides incentives for fishers to land their catch within the QMA the fish was caught, providing the correct data necessary for management.

14. We note that the proposed deemed value rates for landings to the Chatham Islands are intended to remove an apparent incentive for fishers to temporarily 'land' BNS 3 under deemed values to the Chatham Islands in order to benefit from the lower rate. However, we consider that in the long-term deemed values are not the best tool to address the over-catch of the TACC. Instead, a stricter registration regime for Chatham Island-based vessels may be required. There is also the potential for the Minister to establish a separate QMA for the Chatham Island part of the fishery if required to achieve sustainability. This would enable the Chatham Islands community to be able to achieve the development of a longline fishery, without being hindered by the bluenose catch from fishers that are not based on the Chatham Islands.

15. We do not support the differential schedules proposed. This is because the differential schedule values exceed the port price where catch is >105% of available ACE. Considering bluenose is largely caught as bycatch, the TAC is set low relative to availability, and the fishery is rebuilding, it is likely that fishers will continue to catch bluenose as a bycatch without being able to cover all of it with ACE until a TAC review is

conducted. In the meantime, setting a deemed value rate that is higher than the port price can actually work against the purpose of deemed values; it may encourage some fishers to discard due to the punitive rate rather than encouraging fishers to land and report catch.

16. This situation highlights the complexity of fisheries management in situations where it is desirable for the catch to be reduced in a fishery where it can be hard for fishers to avoid. In addition, the history of this fishery and the distribution of ACE means that the Chatham Island-based component of the fishery is particularly restricted by the lack of ACE availability and the higher costs of transporting processed fish. Te Ohu Kaimoana would encourage further discussions with FNZ around how this complex matter could be best resolved. We note that the next stock assessment is set to occur in 2021. However, given the problems with balancing catch with ACE in this fishery, it may be that five years between stock assessments is too long.

4.3 – Gemfish (SKI 3 & SKI 7)

4.3.1 – Context

17. FNZ is reviewing the deemed value rates for gemfish in SKI 3 and SKI 7 due to landings in excess of the available ACE in SKI 7 during the 2016/17 fishing year. As of June 2018, 119% of available SKI 3 ACE for the 2017/18 fishing year has been caught. Landings in both stocks have increased in a similar fashion.

18. Gemfish in SKI 3 and SKI 7 are considered one biological stock, with the 2016 West Coast South Island trawl survey detecting a substantially higher biomass of (presumably pre-recruit) gemfish in SKI 7 than previously. As landings of SKI 7 have increased in a similar fashion to those of SKI 3, it is likely that increased abundance of gemfish in SKI 3 is also driving increased landings.

19. Gemfish in SKI 7 are primarily taken as bycatch within the middle-depth trawl fishery, that operates in deeper waters than the WCSI trawl survey, targeting hoki or ling. Smaller quantities are taken in a minor target trawl fishery or as bycatch by vessels targeting inshore species (chiefly tarakihi). Similarly, in SKI 3 approximately 70% of gemfish is caught as bycatch by large trawl vessels targeting squid within the SQU 1T fishery. Large trawl vessels targeting barracouta and silver warehou catch small quantities of gemfish. Negligible target fishing for gemfish occurs in SKI 3.

20. The port price of SKI 3 has decreased over recent years from $2.42/kg in 2006/07 to $1.57/kg in 2017/18. The deemed value rates of SKI 3 have remained constant over this time frame. The current average ACE

price for 2017/18 is $0.35/kg. As a result of the decrease in the port price[5], FNZ is proposing to decrease the deemed value rates for SKI 3.

21. The situation in SKI 7 is similar to the situation on SKI 3. The port price of SKI 7 has decreased over recent years from $2.42/kg in 2006/07 to $1.25/kg[6] in 2017/18, whereas the annual deemed value rate for SKI 7 has remained unchanged since 2001 and currently exceeds the port price. The current average ACE price for 2017/18 is $0.56/kg. FNZ also proposes decreasing the annual deemed value rate of SKI 7.

4.3.2 – Proposed Options

4.3.2.1 – SKI 3

22. FNZ is consulting on one option for SKI 3: to retain an interim deemed value rate of $0.65/kg, while decreasing the annual deemed value rate to $0.72/kg. This option is proposed in order to be consistent with Principles 1, 2 and 7 of the FNZ Guidelines[7]:
    a. the annual deemed value rate should lie between the ACE price and the port price;
    b. exceed the ACE price by transaction costs; and
    c. interim deemed values rates must generally be 90% of the annual value rate.

Table 24. FNZ's current and proposed deemed value rates ($/kg) for SKI 3.

Stock	Option	Interim deemed value rate	Standard annual differential rates ($/kg) for excess catch (% of ACE)					
			100-120%	120-140%	140-160%	160-180%	180-200%	>200%
SKI 3	Current	0.65	1.29	1.55	1.81	2.06	2.32	2.58
	Proposed	0.65	0.72	0.86	1.01	1.15	1.30	1.44

4.3.2.1 – SKI 7

23. FNZ is consulting on one option for SKI 7: to retain an interim deemed value rate of $0.65/kg, while decreasing the annual deemed value rate to $0.72/kg to be consistent with Principles 1, 2 and 7 of the Guidelines:
    a. the annual deemed value rate should lie between the ACE price and the port price;
    b. exceed the ACE price by transaction costs; and

[5] The port price is assumed to be a proxy for the market value of a stock referred to in s 75(2)(iii) of the Fisheries Act 1996.

[6] The reasons for the port price difference between SKI 3 and SKI 7 have not been evaluated.

[7] Te Ohu Kaimoana does not consider the current use of deemed values to be consistent with the purposes of the Fisheries Act 1996 and the Fisheries Settlement. Accordingly, the guidelines should be considered in that light.

c. interim deemed values rates must generally be 90% of the annual value rate.

Table 25. FNZ's current and proposed deemed value rates ($/kg) for SKI 7.

Stock	Option	Interim deemed value rate	Standard annual differential rates ($/kg) for excess catch (% of ACE)					
			100-120%	120-140%	140-160%	160-180%	180-200%	>200%
SKI 7	Current	0.65	1.29	1.55	1.81	2.06	2.32	2.58
	Proposed	0.65	0.72	0.86	1.01	1.15	1.30	1.44

4.3.3 – Our Position

24. Te Ohu Kaimoana supports decreasing the annual deemed value rates for SKI 3. However, we note that where differential deemed value exceeds the market value of the stock, an incentive to discard is created. This equates to a disincentive to report and land. Hence, the appropriate response is to avoid setting deemed values that exceed the market price and instead set deemed values between the ACE price and the market value of the stock[8]. In SKI 3 all the proposed annual differential rates are between the ACE price and the market value of the stock.

25. Te Ohu Kaimoana supports decreasing the annual deemed value rates for SKI 7, however we note that when catch exceeds 180% of ACE, a disincentive to land catch is created. Hence, Te Ohu Kaimoana recommends that these differential rates should be lowered to avoid this. Furthermore, since the best available information suggests SKI 3 and SKI 7 form one biological stock, the same adjustments are recommended to the equivalent proposed differential rates of SKI 3. This would address the risk that differential deemed values become a penalty rather than be set to encourage reporting, while removing any economic incentive to catch SKI without being able to cover catch with ACE.

4.3.4 – Commentary

26. The port prices of both stocks have been decreasing over the past 10 years. Over this time, the deemed value rates of SKI 3 and SKI 7 have remained constant and now exceed the port price. Te Ohu Kaimoana supports FNZ's proposals to decrease the annual deemed value rates to between the ACE price and the market values of the stocks. We consider the adjustments to be consistent with s 75 of the Fisheries Act, in that an incentive to land the catch is provided. However, in SKI 7, when catch exceeds 180% of ACE, the proposed annual differential rates are exceeding the port price, which means an incentive to discard would be created. Hence, Te Ohu Kaimoana recommends that these differential rates would be lowered to avoid this. The same adjustment is recommended to be done for SKI 3 to encourage accurate reporting in these adjacent QMAs.

[8] This is a generalised view, as deemed values need to be set with the best available knowledge of the industry and to be open to adjustment where set too high or too low.

27. Te Ohu Kaimoana notes that in SKI 3 119% of available ACE for the fishing year 2017/18 fishing year has been caught as of June and in SKI 7 131% of available ACE was caught for the fishing year 2016/2017. Over catch of the TACC can be a signal of increased abundance and this possibility is backed up by the biomass estimates from the 2016 West Coast South Island (WCSI) trawl survey. In light of the over catch and the supporting reasons for this occurring, it appears that the appropriate response in the medium term would be to review the TACC so that an increased utilisation opportunity can be identified and acted on.

4.4 – Pilchard (PIL 7 & PIL 8)

4.4.1 – Context

28. FNZ is reviewing the deemed value rates for pilchard in PIL 7 and PIL 8 due to landings in excess of the available ACE during the 2017/18 fishing year. FNZ does not consider that landings in excess of available ACE during the 2017/18 year will significantly impact on the sustainability of PIL 7 and PIL 8. The high quantities of landed pilchard are suggestive of a large year class or perhaps of distributional changes which may be attributed to higher sea surface temperatures in the Tasman Sea during the 2017/18 summer. The current average ACE price for 2017/18 is $0.18/kg and port price[9] is $0.83/kg.

29. Pilchards are a fast-growing species that are subject to considerable short term and long-term fluctuations. It is considered pilchards comprise abundant but localised populations. When introduced into the QMS, the TACs for pilchard stocks were set conservatively to reflect their importance as a key component of marine food webs and the high level of uncertainty of biomass information to support the estimation of B_{MSY}.

30. Despite fluctuations in landings of PIL 7 and PIL 8, the current TACCs usually cover landings in most years. No target fishing for PIL 7 or PIL 8 occurs, but it is caught as bycatch in the West Coast jack mackerel trawl fishery (JMA 7). The current level of bycatch is considerably higher than previously experienced.

31. FNZ considers that the current port price of both PIL 7 and PIL 8 ($0.83/kg) likely highly over-estimates the market value of the stock. The current port prices are set the same as for PIL 1 which has a higher commercial value and is targeted by fishers for use as a bait fish. Target fishing does not occur in PIL 7 and PIL 8, and the bycatch of pilchard is typically in poor condition and processed into a low-value fishmeal product.

32. FNZ acknowledges that catches over the TACC have been infrequent and there is a high level of uncertainty in the data available to estimate both B_{MSY} and the market value of the stock. FNZ therefore notes that

[9] The port price is assumed to be a proxy for the market value of a stock referred to in s 75(2)(iii) of the Fisheries Act 1996.

adjustments to deemed value rates may not be the appropriate tool in the medium term and a future review of the TAC or TACC may be required.

4.4.2 – Proposed Options

4.4.2.1 – PIL 7

33. FNZ is consulting on one option for PIL 7 to maintain the interim deemed value rate at $0.30/kg but adjusting the differential rates to be consistent with Principle 8 of the Deemed Value Guidelines, which addresses low value/low TACC stocks where occasional unintended bycatch may occur.

Table 26. FNZ's current and proposed deemed value rates ($/kg) for PIL 7

Stock	Option	Interim deemed value rate	Standard annual differential rates ($/kg) for excess catch (% of ACE)					
			100-120%	120-140%	140-160%	160-180%	180-200%	>200%
PIL 7	Current	0.30	0.60	0.72	0.84	0.96	1.08	1.20
	Proposed	0.30	Special annual differential rates ($/kg) for excess catch (% of ACE)					
			100-200%	>200%	-	-	-	-
			0.45	0.60	-	-	-	-

4.4.2.2 – PIL 8

34. FNZ is consulting on two options for PIL 8, the first would set an interim deemed value rate consistent with that for PIL 7 and maintain the current differential rates (as per the status quo for PIL 7). The second option would reduce the interim deemed value rate to $0.30/kg, and adjust the differential rates to be consistent with both Principle 8 of the Deemed Value Guidelines and the proposed option for PIL 7.

Table 27. FNZ's current and proposed deemed value rates ($/kg) for PIL 8

Stock	Option	Interim deemed value rate	Standard annual differential rates ($/kg) for excess catch (% of ACE)					
			100-120%	120-140%	140-160%	160-180%	180-200%	>200%
PIL 8	Current	0.56	0.60	0.72	0.84	0.96	1.08	1.20
	Option 1	0.30	0.60	0.72	0.84	0.96	1.08	1.20
	Option 2	0.30	Special annual differential rates ($/kg) for excess catch (% of ACE)					
			100-200%	>200%	-	-	-	-
			0.45	0.60	-	-	-	-

4.4.3 – Our Position

35. Te Ohu Kaimoana supports FNZ's proposed deemed values rates for PIL 7 (Table 26).

36. Te Ohu Kaimoana supports Option 2 for proposed deemed value rates for PIL 8 (Table 27).

4.4.4 – Commentary

37. We support the proposed option for PIL 7 and Option 2 for PIL 8 as the primary role of deemed values is to ensure that catch is landed. In addition, >99% of pilchards caught in PIL 7 and PIL 8 are taken as bycatch of a fishery that uses a smaller mesh size and are likely unavoidable. They have low commercial value and over catch of a conservative TACC is likely. Therefore, we support a reduction in the deemed value. If PIL 7 and PIL 8 continue to have landings in excess of available ACE, then a TAC review may be the appropriate response.

4.5 – Trevally (TRE 1)

4.5.1 – Context

38. FNZ is reviewing the deemed value rates for trevally in TRE 1 due to a potential over catch of the TACC in 2017/18, underestimates of port price and current deemed value rates being inconsistent with the Deemed Value Guidelines. The average ACE price for 2017/18 is $0.51/kg and port price[10] $0.83/kg.

39. As of May 2018, 85% of available TRE 1 ACE for the 2017/18 fishing year has been caught and it is likely that TRE 1 landings will exceed the available ACE for the year. Trevally in TRE 1 is both targeted and caught as bycatch within the inshore bottom trawl and purse seine fisheries.

40. Recent landings from TRE 1 have been higher than any landings of the previous decade. There is no accepted stock assessment, however research is underway that could inform a stock assessment for the 2019/2020 fishing year.

4.5.2 – Proposed Options

41. FNZ is proposing to increase the interim deemed value rate to 90% of the annual rate to be consistent with Principle 7 of the Guidelines, and to incentivise fishers to regularly cover catch with ACE throughout the year. FNZ is also proposing to adjust the differential schedule (Table 28).

42. FNZ considers both proposals will make the deem value rates and differential schedule the same as TRE 2. This is considered consistent with Principle 3 of the Guidelines to discourage misreporting between adjacent QMAs.

[10] The port price is assumed to be a proxy for the market value of a stock referred to in s 75(2)(iii) of the Fisheries Act 1996.

Table 28. FNZ's current and proposed deemed value rates ($/kg) for TRE1.

Stock	Option	Interim deemed value rate	Standard annual differential rates ($/kg) for excess catch (% of ACE)					
			100-120%	120-140%	140-160%	160-180%	180-200%	>200%
TRE 1	Current	0.70	1.25	1.50	1.75	2.00	2.25	2.50
	Proposed	1.13	Special annual differential rates ($/kg) for excess catch (% of ACE)					
			100-110%	110-120%	>120%	-	-	-
			1.25	3.50	5.00	-	-	-

4.5.3 – Our Position

43. Te Ohu Kaimoana does not support the current or proposed deemed value rates for TRE 1 due to the deemed value rate being higher than port price.

4.5.4 – Commentary

44. Te Ohu Kaimoana does not support the current or proposed deemed value rates for TRE 1 due to the deemed value rate ($1.25/kg) being higher than the current port price ($0.83/kg). If deemed values are set higher than the market price of a stock, this penalises the fisher and therefore may not encourage landing and reporting of the catch. Te Ohu Kaimoana does not condone illegal behaviour however we consider that deemed values which penalise fishers do not provide an incentive to report catch and are therefore inconsistent with s 75(2)(a) of the Act. We also note that there is no rationale in the initial position paper to state why the annual deemed value ($1.25/kg) is set higher than the port price ($0.83/kg).

45. We note that the port price has decreased since the 2015/16 fishing year. In 2015/16 the port price was $1.79/kg and therefore the current deemed value price would have been below port price. However, the current port price is now $0.83/kg. FNZ should have taken this into account when proposing to alter the deemed values.

46. Te Ohu Kaimoana promotes appropriate alignment of deemed values between TRE 1 and TRE 2 to remove any incentive to land fish caught in the adjacent QMA.

5 – Southern Bluefin Tuna (STN 1)

5.1 – Context

1. FNZ is proposing to adjust the TAC for southern bluefin tuna – STN. The proposal is based on an increased national allocation after the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) increased the Global Total Allowable Catch (GTAC). New Zealand's national allocation has increased by 88 tonnes to 1088 tonnes.

2. The CCSBT is an intergovernmental organisation that is responsible for the management of southern bluefin tuna. The CCSBT's objective is to ensure, through appropriate management, conservation and optimum utilisation of southern bluefin tuna. New Zealand is a founding member, and other members include; Australia, Japan, the European Union, the Fishing Entity of Taiwan, Indonesia, the Republic of Korea and South Africa. The CCSBT sets the global total allowable catch (GTAC) for southern bluefin tuna in three-year blocks, with the GTAC allocated to individual member countries.

3. The national allocation for New Zealand is determined as part of an international agreement. Southern bluefin tuna is a highly migratory species, migrating over considerable distances and spending only part of its time in New Zealand waters. Therefore, it is not possible to calculate the maximum sustainable yield (MSY) for the portion of the stock found within New Zealand fisheries waters. Section 14 of the Act provides for alternative TACs to be set for stocks specified in Schedule 3 (which includes southern bluefin tuna) if the Minister considers it appropriate to better achieve the purpose of the Act.

4. For highly migratory species (including southern bluefin tuna), New Zealand will generally rely on international organisations in which we participate to determine the status of the species in question – in this instance the CCSBT. FNZ is satisfied that the advice from the CCSBT's Science Committee (including an independent panel) represents the best available information to inform management decisions.

5. The Minister approved the use of an in-season increase to the TAC during the 2017-18 fishing year to allow New Zealand to benefit from the first of a three-year allocation block. The changes proposed as part of the 1 October 2018 sustainability round are required to adjust the final two years of the three-year quota block.

5.2 – Proposed Options

6. FNZ proposes three options (Table 29). All options include an 88 tonne increase in the current TAC, which reflects the increase in New Zealand's national allocation that was determined by the CCSBT at the end of 2017. All three options focus on how the increased TAC will be allocated.

Table 29: Proposed management settings in tonnes for STN 1 from 1 October 2018, with the percentage change relative to the status quo in brackets.

Option	Total Allowable Catch (TAC)	Total Allowable Commercial Catch (TACC)	Allowances		
			Customary Māori	Recreational	All other mortality to the stock caused by fishing
Current settings (as at 1 October 2017)	**1000**	**971**	**1**	**8**	**20**
Option 1 (2017/18 in-season settings)	1088 ↑ (9%)	1047 ↑ (8%)	1	20 ↑ (150%)	20
Option 2	1088 ↑ (9%)	1059 ↑ (9%)	1	8	20
Option 3	1088 ↑ (9%)	1027 ↑ (6%)	1	40 ↑ (400%)	20

5.3 – Our Position

7. Te Ohu Kaimoana make the following recommendations:

    a. Te Ohu Kaimoana recommends that the TAC/TACC decision in STN 1 set the recreational allowance at or close to zero. This would align with the size of the recreational catch of STN at the time of the Deed of Settlement.
    b. Of the three options consulted on, Te Ohu Kaimoana notes that option two is the closest to our recommendation. This increases the TAC from 1000 tonnes to 1088 tonnes, increase the TACC from 971 tonnes to 1059 tonnes, retain the customary allowance of 1 tonne, retain the recreational allowance of 8 tonnes, and retain other sources of mortality at 20 tonnes (Table 29).
    c. Put in place new measures to ensure the recreational catch is managed within the recreational allowance. New measures could include a daily boat limit of one southern bluefin tuna, and a balloting system to enable the recreational catch to remain within the recreational allowance.
    d. We also propose that FNZ review their approach to international negotiations over access to fisheries that have implications for the way in which obligations under the Deed of Settlement are met. In particular, we consider that Te Ohu Kaimoana (as the agent of the Treaty Partner for fisheries matters such as this) should be invited to participate alongside the Treaty partner. In addition provision could also be made for MIOs that wish to participate in both scientific workshop and management negotiations as part of the New Zealand delegation be identified.

5.4 – Commentary

5.4.1 – Previous Advice

8. Te Ohu Kaimoana provided a comprehensive response to the proposal for an in-season increase to the TAC for the current (2017-18) fishing year. We refer FNZ to that response as background to our position for the more formal review of the TAC that is now being undertaken.

9. That response identified a number of management decisions that have been made in recent years that have had the effect of reducing both the size and proportion of the commercial catch limit/TAC that has been allocated to the TACC. In particular:
    a. The initial allocation to New Zealand did not reflect the size of the catch taken in New Zealand waters. Rather, much of that catch was allocated to Japan;
    b. The allocation to New Zealand was initially a commercial catch limit;
    c. When the fishery was introduced into the QMS in 2004, the TAC was set at the New Zealand allocation of 420 tonnes, but the TACC was set at 413 tonnes after allowing for customary and recreational fishing and other sources of mortality – without evidence to suggest those mortalities were real. In particular, we understand the actual level of recreational catch at that time was at, or close to, zero. The net effect was that Iwi received shares in the fishery below the 20 % agreed in the Deed of Settlement;
    d. When the New Zealand allowance was increased to 1000 tonnes in 2014, the recreational allowance was increased to eight tonnes, and other sources of mortality was increased to 20 tonnes. This had the effect of further reducing the Iwi share of the New Zealand allowance;
    e. There is no evidence to suggest New Zealand negotiators pushed for the allowances for other sources of mortality to be added to the commercial catch, rather than be deducted from it. Consequently, it would appear that New Zealand has been the only participating nation to fully account (effectively over account) for non-commercial mortality. It appears that other nations have been incentivised to substantially under report non-commercial catch in order to avoid diluting their commercial allocation;
    f. The net effect of the way that New Zealand has given effect to the allocation domestically has been driven by International agreements or concessions, rather than Treaty Settlement obligations. However, we note that the Fisheries Act 1996 requires decision-makers to be consistent with both International and Fisheries Treaty Settlement obligations. From a domestic policy perspective Te Ohu Kaimoana considers the Fisheries Treaty Settlement should be afforded a higher level of commitment than International Obligations;
    g. FNZ and the Minister should begin immediate discussion with Iwi to reconcile the policy issues that are raised in this submission to underpin any future TAC and TACC increase.

5.4.2 – Setting the Customary Allowance

10. Te Ohu Kaimoana understands that New Zealand officials have determined the allowance for customary fishing at an arbitrary level. Further, this allowance has been internalised within the New Zealand TAC. We consider that there are significant implications that arise from treating the customary allowance this way. In particular, we consider determining a customary allowance in an international context without conferring with Iwi to be problematic. This is especially so when it seems that the allowance for recreational fishing has been set at a higher level and beyond estimates of actual take.

11. Notwithstanding these concerns we note that all three options provided assume the customary allowance should remain at one tonne, and that it is only the recreational allowance that can be varied.

5.4.3 – Setting the Recreational Allowance

12. Te Ohu Kaimoana has set out our recommended approach to allocation of a TAC in Section 1.1.1 of this response. In the case of southern bluefin tuna our preference is that the setting of an allowance for recreational fishing should be based on the extent of the recreational catch at the time of the Deed of Settlement. Our understanding is that at that time the recreational catch was at, or close to, zero.

13. Te Ohu Kaimoana notes that FNZ have not provided an option to set the recreational allowance at or close to zero. We note that in considering the in-season increase to the TAC for the current year, FNZ recommended an option to the Minister that was above all options that were consulted on. This option was based on anecdotal information that the recreational catch was higher than the three options provided for. In advancing this option, Te Ohu Kaimoana considers that FNZ placed a greater weight on s 5a (international obligations) than on s 5b (Treaty Settlement obligations).

14. Notwithstanding our preference for setting the recreational allowance at the level of catch that was taken in 1992, if the Minister is limited to considering options that have been consulted on, then option two comes closest to being acceptable. This would have the effect of retaining the existing allowance and ensuring the most recent benefits of the rebuild would flow through to the TACC, consistent with the expectations that arise under the Fisheries Settlement.

15. As noted in Section 1.2.1 of this response, if the recreational sector wishes to see a system in which the allowance can be increased above its initial allocation, a review of the framework for managing the recreational sector is required. An alternative option available to the sector is to purchase ACE to cover catch and, in that way, ensure the integrity of the TAC. This is a viable option in this fishery given that the recreational catch is taken by a combination of charter boats and private launces.

16. Finally, we note that it is entirely possible that the current recreational catch exceeds the recreational allowance. This is a likely consequence of the "race for fish" we have seen during recent years as the sector

has actively sought to fish beyond their allowance and in so doing undermine the integrity of the TAC. If the best available information confirms that the recreational catch is above the allowance set, then Te Ohu Kaimoana considers that the Minister needs to take steps to address this situation. In the interim there is potential for any over-catch of the recreational allowance to be reflected in other sources of fishing mortality. The current level of 20 tonnes set for other sources of fishing mortality should be sufficient to cover the over-catch.

17. Once the new measures to control the over catch of the recreational allowance are addressed, the allowances for other sources of fishing mortality should be returned to the TACC.

5.4.4 – Managing to the Recreational Allowance

18. We are extremely concerned about unconstrained recreational catches in established commercial fisheries. As noted, the allowance for recreational fishing has increased in 2010 and 2018 (in-season), and there is an option that could result in an increase to as high as 40 tonnes under the current review.

19. Of particular concern is that the presentation of an option to increase the allowance to 40 tonnes would appear to be encouraging the sector to continue to increase its catch and therefore continue to undermine the integrity of the TAC. If this behaviour is subsequently rewarded by increasing the allowance this can only come at the expense of the TACC, and by association, undermining of the Fisheries Settlement.

20. In our view New Zealand fisheries management needs to develop a system that will enable the recreational catch to be managed within the allowance set by the Minister. Failure to do this will mean that the integrity of the TAC will continue to be undermined. This will impact negatively on the reputation of New Zealand as a credible manager of fisheries.

21. The use of a ballot system has been successfully used in the red abalone fishery in northern California, and the Western Australian snapper fishery. The total number of tags reflects the recreational allowance. Fishers should be required to tag, measure and weigh southern bluefin tuna, and report back information to FNZ to contribute to the National and CCSBT science programme. A tag would be provided to every ballot holder to attach to any southern bluefin tuna they catch. We invite FNZ to engage with Te Ohu Kaimoana and MIOs to develop a ballot and tag system.

6 – Closure of Kaipara Harbour Scallop Fishery (SCA Kaipara)

6.1 – Context

1. Surveys have shown significant decline in scallop abundance over time and a reduced spatial distribution throughout the Kaipara Harbour. There are also concerns with recruitment due to the absence of juvenile scallops in the 2017 survey.

2. Surveys over a 10-year period have shown increased sedimentation in the harbour, has contributed to the reduced recruitment of scallops to the Kaipara Harbour. Te Ohu Kaimoana notes that issues concerning habitat loss in the Kaipara Harbour are also relevant to the FLA 1 proposals and have been highlighted in a recent Seafood New Zealand article.

6.2 – Proposed Options

3. FNZ have proposed two options:

Table 30: Proposed management settings for Kaipara Harbour from 1 October 2018.

Options	
Option 1	*Status quo:* No changes made to current management
Option 2	Close the Kaipara Harbour to the taking of scallops as a sustainability measure under section 11 of the Fisheries Act 1996.

6.3 – Our Position

4. Te Ohu Kaimoana supports Option 2, to close the Kaipara Harbour to the taking of scallops as a sustainability measure under section 11 of the Fisheries Act 1996.

5. Te Ohu Kaimoana considers that the closure option is available to the Minister under s 11(3). It implies the Minister has chosen this option after considering the range of impacts on the fishery and had regard to the matters contained in s 11(2), including the matters able to be dealt with under the Resource Management Act.

6.4 – Commentary

6. Te Ohu Kaimoana supports Te Runanga o Ngāti Whātua and their position to close the fishery. Te Runanga o Ngāti Whātua have expressed concern over the health of the Kaipara Scallop beds to the extent that Kaitiaki are currently not issuing customary permits for their harvest.

7. Te Ohu Kaimoana also reinforces the suggestions made in response to the FLA 1 problem definition. This would involve leadership at the agency level from FNZ, working in with the users of both fishing and land-based resources.