Public submissions received for rock lobster stocks as part of the 2025 April sustainability round

March 2025

Table of submissions and responses received

#	Name/Organisation	Stock/s included in submission
Organisations		
1	Aotea Great Barrier Trust	CRA 2
2	Auckland Council	CRA 2
3	Cando Fishing Ltd	CRA 7
4	CRA 2 Rock Lobster Management Company Ltd (CRAMAC 2)	CRA 2
5	Deep End Fish Ltd	CRA 2
6	Environmental and Conservation Organisations of NZ INC (ECO)	CRA 2 & CRA 7
7	Environmental Defence Society (EDS)	CRA 2
8	Environmental Law Initiative (ELI)	CRA 2
9	Royal Forest and Bird Protection Society of New Zealand (Forest & Bird)	CRA 2
10	Friends of Taputeranga Marine Reserve Trust	CRA 2
11	Hauraki Gulf Forum	CRA 2
12	Hauturu Supporters Trust	CRA 2
13	Hooked On Barrier Ltd	CRA 2
14	Iwi Collective Partnership	CRA 2
15	Leigh Commercial Fishermen's Association Inc.	CRA 2
16	Lee Fish Limited T/A Leigh Fish and Te Henga Ltd	CRA 2
17	Marina Fisheries Ltd	CRA 2
18	New Zealand Sport Fishing Council and LegaSea 'the joint recreational submitters'	CRA 2 & CRA 7
19	Ngāti Rehua-Ngātiwai ki Aotea	CRA 2
20	Ngatiwai Trust Board	CRA 2
21	NZ Reefs Lab (University of Auckland Institute of Marine Science)	CRA 2
22	New Zealand Rock Lobster Industry Council Ltd (NZ RLIC)	CRA 2
23	New Zealand Rock Lobster Industry Council Ltd (NZ RLIC) and Otago Rock Lobster Industry Association (ORLIA)	CRA 7
24	Royal New Zealand Society for the Prevention of Cruelty to Animals (RNZSPCA)	CRA 2 & CRA 7
25	Southern Oceans Seafoods	CRA 2
26	Specialty & Emerging Fisheries Group	CRA 7
27	Stet Ltd	CRA 2
28	University of Auckland	CRA 2
29	Wai Whare Charters Ltd	CRA 2
30	Waiheke Marine Project	CRA 2
31	Whangamata Ocean Sports Club	CRA 2
Individuals		
32	A Abraham	CRA 2
33	A Saunders	CRA 2
34	B de Lambert	CRA 2
35	B Winlove	CRA 2
36	C Patchell	CRA 2
37	C Reed	CRA 2
38	D Guccione	CRA 2
39	E Ferguson	CRA 7

#	Name/Organisation	Stock/s included in submission
40	G Edney	CRA 2
41	G McKone	CRA 2
42	H Grace	CRA 2
43	I Fordham	CRA 2
44	J Laurence	CRA 2
45	K Lombard	CRA 2
46	K Prior	CRA 2
47	M Graeme	CRA 2
48	N Rist	CRA 2 & CRA 7
49	P Clark	CRA 2
50	P Clow	CRA 2
51	P Thompson	CRA 2
52	R McCulloch	CRA 2
53	R Waterhouse	CRA 2
54	S Harwood	CRA 2
55	T Morgan	CRA 2
General submissions (not specific to CRA 2 or CRA 7)		
56	A Spence	N/A
57	C Edwards	
58	D Guzzo	
59	J John	
60	J Smith	
61	L Ignius	
62	M Spence	
Submissions received through the LegaSea template		
Summary of comments received		CRA 2
Sample of submissions		

Submission on Review of sustainability measures for spiny rock lobster (CRA2) for 2024/25

29 January 2025

SUBMITTER DETAILS
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Address: PO Box 20, Claris, Great Barrier Island 0961
Contact: Kate Waterhouse (Chair) / Barry Scott (Deputy Chair)
Email: s9(2)(a)

Introduction

1. This is a submission by the Aotea Great Barrier Environmental Trust (AGBET) on proposed changes to the harvest of rock lobster in Quota Management Area (QMA) CRA2 for 2025[1].
2. AGBET is a registered charitable trust whose mission is to "Work with Aotea's mana whenua and community to protect biodiversity, re-introduce lost species, eradicate rats and feral cats, and grow a sustainable, ecology-based economy."[2]
3. AGBET has an extensive history of advocating for protection of the terrestrial and marine environment at Aotea Great Barrier Island[3].
4. A core underlying value of AGBET is to use robust evidence-based data in our assessment of the state of the environment and in our advocacy for ecosystem restoration and protection.
5. Accurate stock estimates of rock lobster / kōura populations within CRA2 is critical for sustainable management of this fishery. The recommendations in this review are predicated on a methodology used by Fisheries NZ that estimates there has been a dramatic recovery in kōura stock since the total allowable catch (TAC) was reduced in 2018. That conclusion is based on a modelling methodology that estimates the catch per unit effort (CPUE) based on biomass of kōura per potlift. This may not reflect actual abundance.

[1] Fisheries New Zealand Discussion Paper No: 2024/25. ISBN: 978-1-991330-55-0 (online)
[2] https://www.gbiet.org
[3] Ogden J (2023). Birds of Aotea. The status of the birds of Aotea Great Barrier Island. Published by the Aotea Great Barrier Environmental Trust.

6. Independent studies based on diver-based surveys that compare stock in marine protection areas (MPA) versus fished locations conclude that the Fisheries NZ modelling approach severely overestimates recovery of kōura stock within CRA2[4]. Qualitative observations by environmental organisations and recreational divers across the Hauraki Gulf support this conclusion.

Background: The Hauraki Gulf

7. The Hauraki Gulf / Tīkapa Moana is a taonga for Aotearoa, distinguished by its unique features and values. It is of significant historical and cultural importance for tangata whenua. With around 2 million people living on the shores of the Gulf it is one of the most heavily utilized marine areas in New Zealand. It is the seabird capital of the world and home to a resident population of tohorā / Bryde's whale.
8. But climate change and human activity – on both land and sea - have taken a heavy toll on the health of the Gulf, which is currently described as on the edge of 'ecological collapse' with declining water quality, habitat loss and overfishing[5, 6, 7] The kelp forests that sustain fish stocks and biodiversity within the Gulf are in serious decline[8], principally through kina predation[9, 10], and that has a huge flow on effect on the marine life within the Gulf. The collapse of seabird populations within the Gulf are one of the best indicators of the poor ecological state of health of the Gulf[11].
9. It is against this background that we have reviewed the Discussion Paper on proposed options around the future harvest of rock lobster / Kōura papatea (*Jasus edwardsii*) within CRA2, noting that the Hauraki Gulf is a significant component of this fishery.
10. In particular, our focus is on the implications of the management options proposed and how they might impact on the ecological health of the coastal waters around Aotea / Great Barrier island.

[4] Nessia HR, Hanns BJ, Haggitt TR & Shears NT (2024). Using marine protected areas to assess the status and recovery of the spiny lobster *Jasus edwardsii* fishery in the Hauraki Gulf, Aotearoa New Zealand. Frontiers in Marine Science 11: 1440350. And references cited within this article.
[5] Hauraki Gulf Forum (2023). State of our Gulf 2023. Hauraki Gulf / Tikapa Moana / Te Moananui-a-Toi. State of the Environment Report 2023 https://gulfjournal.org.nz/state-of-the-gulf/
[6] RNZ News. Multiple threats leave Hauraki Gulf in unchartered waters, report finds 11 August 2023. https://www.rnz.co.nz/news/national/495592/multiple-threats-leave-hauraki-gulf-in-uncharted-waters-report-finds
[7] WWF. Protecting the Hauraki Gulf Marine Park. https://wwf.org.nz/hauraki-gulf#
[8] Andrew Jeffs (2024). Newsroom. A cry for help – Our kelp forests are in deep trouble. https://newsroom.co.nz/2024/10/20/a-cry-for-kelp-our-kelp-forests-are-in-serious-trouble/
[9] University of Auckland News. Battle of the barrens. https://www.auckland.ac.nz/en/news/2024/06/04/kelsey-miller-battling-kina-barrens.html
[10] Miller K, Balemi CA, Bell DR, Blain CO, Caiger PE, Hanns BJ, Kulins SE, Ohad Peleg A, Spyksma AJP & Shears NT (2023). Large-scale one-off sea urchin removal promotes rapid kelp recovery in urchin barrens. Restoration Ecology 32. e14060.
[11] Waterhouse K (2025). Sailing close to ecological collapse in Tīkapa Moana / Te Moananui-ā-toi. Environmental News. Issue 51 / Summer 2025. p.1-3. Aotea Great Barrier Environmental Trust.

Proposed biomass management targets

11. Of the options proposed in this review AGBET supports a management biomass target greater than 3.5x B_R (where B_R is the Biomass reference target).
12. We have opted for this target rather than the Fisheries NZ preferred option of 2.5x B_R because:
    a. Independent studies involving diver-based surveys question the accuracy of the methodology used by Fisheries NZ in estimating kōura stock within CRA2[12].
    b. The Fisheries NZ modelling methodology estimates catch per unit effort (CPUE) based on biomass of kōura per potlift. No independent 'in ocean' methodology is used to support the accuracy of this modelling approach. It is not possible to make ecological inferences using fishery-dependent data alone.
    c. The independent studies compare stock in 3 marine protection areas (MPA) versus 6 fished areas across the Hauraki Gulf and conclude that the Fisheries NZ modelling approach severely overestimates recovery of kōura stock within CRA2.
    d. They found that the biomass at fished locations was <10% of that in reserves and there was little evidence for stock recovery within CRA2 since the catch reductions made in 2018. These diver directed surveys allow a direct comparison of number, size and biomass of individual kōura at fished and unfished sites and take into account the highly variable ocean dynamics.
    e. Qualitative diver-based observations by marine environmental organisations and recreational divers across the Hauraki Gulf do not support the conclusion by Fisheries NZ that there has been a dramatic recovery in the kōura stock.

Total allowable catch (TAC) options

13. AGBET supports Option A1: retention of the current settings. We prefer this option as
    a. there is considerable uncertainty as to whether there has really been a recovery of the fishery stock since the adjusted take was reduced in 2018.
    b. Independent diver-based surveys (see above) do not support a recovery of the magnitude proposed in this paper.
    c. The consequences of closure of the inner Hauraki Gulf to both commercial and recreational rock lobster harvest will change the impacts on the remainder of the CRA2 fishery. Retention of the current settings may have considerably greater impact on the areas outside the inner Gulf than are already occurring.
    d. If the Hauraki Gulf / Tīkapa Moana Marine Protection Bill is passed 12 additional High Protection Areas (HPAs) will be added to the current 8 marine reserves within CRA2 where there is a policy of no-take.

[12] Nessia HR, Hanns BJ, Haggitt TR & Shears NT (2024). Using marine protected areas to assess the status and recovery of the spiny lobster *Jasus edwardsii* fishery in the Hauraki Gulf, Aotearoa New Zealand. Frontiers in Marine Science 11: 1440350.

e. It is a high-risk strategy to increase the take while also making major adjustments to the areas from which commercial and recreational kōura harvest can occur.

Proposed spatial management measures

14. AGBET supports option B2 of closing the inner Hauraki Gulf to all commercial and recreational rock lobster fishing.
15. We support this option as rock lobster within the inner Gulf are close to being functionally extinct. It is an indictment of the previous CRA2 management measures that this part of the Gulf is now in such a dire state. Iwi have become so concerned they have taken independent action as exemplified by the successful Ngāti Paoa application for a section 186A temporary closure around Waiheke Island. The very small populations of rock lobster within the inner Gulf now make commercial rock lobster fishing within this area unviable.
16. The status quo (option B1) is not acceptable as it will allow ongoing recreational harvest, further depleting already low stocks and lead to total collapse of the population in this area.
17. However, closure of the inner Gulf, combined with a proposed increase in the total available commercial catch (TACC), will lead to huge pressure on the outer Gulf, and in particular at Aotea.

Pressure on Aotea coastline

18. Besides the potential impact of commercial fishing, the impact of recreational fishing on rock lobster around Aotea is also likely to increase.
19. It is estimated that there are over 100,000 recreational vessels in and around Auckland. While only a fraction of these boats come out to Aotea, the number of vessels visiting the island, especially over summer is still in the thousands, and many of these engage in fishing activities. Charter boats with divers add to that pressure, and can quickly result in depletion of kōura and other fish stocks from popular dive locations.
20. Surveillance and enforcement of fishing regulations at Aotea by Fisheries NZ is sporadic at best.
21. While kōura stock did recover a little in Tryphena, Okupe and Whangaparapara harbours when anchoring bans were imposed as part of the conditions of the controlled area notices (CAN) set up across this section of the west coast of Aotea following the identification of the highly invasive exotic seaweed, caulerpa (*C. brachypus* and *C. parvifolia*) in July 2021, that increase was short lived. Once the ban on diving was lifted when the CAN was renewed in November 2023, stocks of rock lobster decreased rapidly from the pressure of recreational divers[13].
22. The issuing of permits for crayfishing at Aotea, including within the CAN, in 2023, added further pressure on the rock lobster stocks at Aotea[14].

[13] Edney G. (2022-2025). Hauora Moana Survey reports at Aotea by the Ahu Moana pilot project.
[14] Review of Commercial Rock Lobster Potting Permits for the Exotic Caulerpa Aotea and Ahuahu Controlled Area Notice. Peter Thompson, Chief Biosecurity Officer, MPI (28 May 2024).

23. It is important to recognize that tangata whenua and the community of Aotea rely on the moana as a source of kai.
24. Therefore, management of the rock lobster stocks on Aotea must take into account the needs of the local community and place their rights ahead of those of visitors from off the island who fish on a recreational basis and are not dependent on the moana for kai.

The Ahu Moana Vision

25. AGBET strongly supports a vision of community management of local marine ecosystems.
26. This is possible without legislative change through section 11 of the Fisheries Act (1993).
27. We support an island led management structure as captured by the vision of the Ahu Moana pilot[15]. This is a concept that was developed as part of the Sea Change Tai Timu Tai Pari / Hauraki Gulf Marine Spatial Plan in 2017[16], and is one of the core elements of the Government's 2021 'Revitalise the Gulf Strategy'[17].
28. Ahu Moana, which sits within the Pou Moana of Ngāti Rehu Ngātiwai ki Aotea Trust (NRNWKAT), has now been operating for three years (since October 2022) providing a model for mana whenua and community working together to observe, record and better understand the local ocean ecosystems. The regular surveys by Ahu Moana, using hauora moana methodology, provide a continuous record of the dynamics of the local ocean ecosystems, which is a richer and more comprehensive record of what is going on in the ocean than assessing stock using models based on catch data.

Conclusion

29. We support closure of the inner Hauraki Gulf to both commercial and recreational fishing for kōura but in doing so highlight the likely flow on negative effects, and the impact they will have on the ecological health of the Aotea fishery. While there is still a functioning kōura population on some Aotea reefs, these areas must be protected from the likely increase in recreational fishing following closure of the inner Gulf and introduction of HPAs. This fishery must also be protected from commercial cray fishing. When boats come to Aotea, they do so in the thousands per year. We request assistance in implementing local controls and in ensuring compliance with these.
30. To mitigate those potential impacts we recommend the establishment of a local management model for Aotea that incorporates the vision of the Ahu Moana pilot.

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https://www.mpi.govt.nz/dmsdocument/62310-Review-of-Commercial-Rock-Lobster-Potting-Permits-for-the-Exotic-Caulerpa-Aotea-and-Ahuahu-CAN-2023

[15] Edney G (2024). The Ahu Moana Vision. Environmental News 49 / Summer 2024, p 6-11. https://www.gbiet.org/en49-ahu-moana-vision.

[16] Sea Change Tai Timu Tai Pari – Hauraki Gulf Marine Spatial Plan (2017). https://gulfjournal.org.nz/wp-content/uploads/2022/01/5086-SCTTTP-Marine-Spatial-Plan-WR.pdf

[17] Revitalising the Gulf – Government action on the Sea Change Plan (2021). https://www.mpi.govt.nz/dmsdocument/45550-Revitalising-the-Gulf-Government-action-on-the-Sea-Change-Plan

Such an approach will not require a legislative change. We urge Fisheries NZ to support and work with NRNWKAT and the wider Aotea community in making this a reality.

31. It is clear that the model used by Fisheries NZ to estimate current and future rock lobster stock within CRA2 is seriously flawed. There are no other bodies of evidence to support a conclusion of stock recovery. In fact other indicators and the excellent study from researchers at the University of Auckland[18] show a picture of wide depletion. It would be negligent for Fisheries NZ to implement an increase in take in these circumstances and we submit that such a step would cause further harm, both to a greatly depleted fishery and to the reef ecosystems of the Gulf.
32. We therefore recommend a conservative management approach that in the short term prevents a further decline of the ecological health within CRA2 and in the longer term allows the Gulf to 'heal' to ensure future generations enjoy both the ecological and economic benefits.

[18] Nessia HR, Hanns BJ, Haggitt TR & Shears NT (2024). Using marine protected areas to assess the status and recovery of the spiny lobster *Jasus edwardsii* fishery in the Hauraki Gulf, Aotearoa New Zealand. Frontiers in Marine Science 11: 1440350.

Fisheries New Zealand
Tini a Tangaroa

Submission form
Review of sustainability measures for 1 April 2025

Once you have completed this form, send it by email to FMsubmissions@mpi.govt.nz
While we prefer email, you can also post your submission to:
2025 Sustainability Review, Fisheries Management, Fisheries New Zealand, PO Box 2526, Wellington 6140, New Zealand.

Submissions on the proposals must be received no later than 5pm on Wednesday 29 January 2025.

Anyone may make a submission, either as an individual or on behalf of an organisation. Please ensure all sections of this form are completed. You may either use this form or prepare your own. If preparing your own, please use the same headings as used in this form.

Submitter details

Name of submitter or contact person	**Dr Jacquie Reed** (Contact person) **Denise O'Shaughnessy** (Authorised by Acting General Manager – Policy Department)
Organisation (if applicable)	Auckland Council
Email address	s9(2)(a)
Fish stock(s) this submission refers to	Review of Sustainability Measures for Spiny Rock Lobster (CRA 2) for 2025/26
Your preferred option as detailed in the discussion paper (write 'other' if you do not agree with any of the options presented)	Support **Option A1** (status quo) for setting limits. Support **Option B2** (closure) management option.

Submissions are public information

Note that all, part, or a summary of your submission may be published on this website. Most often this happens when we issue a document that reviews the submissions received. People can also ask for copies of submissions under the Official Information Act 1982 (OIA). The OIA says we must make the content of submissions available unless we have good reason for withholding it. Those reasons are detailed in sections 6 and 9 of the OIA. If you think there are grounds to withhold specific information from publication, make this clear in your submission or contact us. Reasons may include that it discloses commercially sensitive or personal information. However, any decision MPI makes to withhold details can be reviewed by the Ombudsman, who may direct us to release it.

Official Information Act 1982 – NZ Legislation

Submission:[1]

Details supporting your views:

Summary
Council staff have prepared this technical staff submission and we have summarised the key points below, cognisant of views previously expressed by elected members with an interest in the restoration and sustainability of the coastal marine area encompassed by the Hauraki Gulf extending out to Great Barrier Island. Given the time constraints, the submission has not yet been put before the Policy and Planning Committee of Auckland Council.

Staff have also provided further information under each question in the Fisheries New Zealand (FNZ) submission process. Key points are:

- support taking an ecosystems-based approach to managing the fishery taking into consideration not just the fisheries sustainability for harvest but its ecosystem interactions and effects
- support the wider recovery of ecological functions which includes both more and larger rock lobsters throughout the inner Hauraki Gulf
- support a biomass management target of 2.5 B_R for the short to medium term until more information on the status of the stock is known, and in recognition of any limitations and assumptions around current modelling outputs
- collect more localised information across the full extent of the stock and use this information to make management decisions that allow for localised issues and work in partnership with a broader range of tangata moana interests
- support ongoing management that considers all information sources not just the traditional stock assessment
- support Option A1 to retain the existing total allowable catch (TAC) for the CRA2 stock such that the stock can continue to rebuild in the shortest possible timeframe
- support Option B2 to temporarily close off the inner Hauraki Gulf – noting that council staff have not engaged with mana whenua on this submission.
- not support Option B1 (status quo) as this would not allow the rock lobster population to replenish at rates to support their ecological function in the inner Hauraki Gulf
- any decisions taken for the start of the 2025-26 fishing year will need to be reviewed with the new stock assessment information, and suggest decisions be deferred until the 2026-27.

1. **Do you support using a higher biomass management target for long-term management of the CRA2 stock? Why?**

   Council staff **support Option A1 (status quo)** setting catch limits to continue the rock lobster stock recovery earlier due to the increasing pressures from ecological and environmental stressors (e.g. large areas of kina barrens, patchy rock lobster distributions, decade of declining recreational catch, and expected effects of climate change / marine heatwaves / ocean acidification). The existing catch limit is expected to be at the level where rock lobsters can slowly increase their ecological role on the reef and larger rock lobsters can control kina numbers.

   Having time now to increase stocks will improve rock lobster numbers, the role of ecosystems services they provide and increase their resilience into future years. Staff recognise that it takes more than 15 years for stocks to improve when there are no fishing pressures. For example, a study at the Leigh Marine Reserve measured reef fish assemblage recovery (between 1978 and 2018) and found recovery was greatest at depths where habitats had changed (between reserve and fished areas) (https://www.sciencedirect.com/science/article/abs/pii/S0006320721004572). Rock lobsters will still be available for customary Māori harvest in the inner Hauraki Gulf.

[1] Further information can be appended to your submission. If you are sending this submission electronically, we accept the following formats: Microsoft Word, Text, PDF, and JPG.

Depending on the scale of that harvest, and other factors, this could imply that a more likely timeframe for ecosystem recovery is 25 years.

Council staff support FNZ in developing better understanding of rock lobster population distribution and migration across the CRA2 stock and into adjoining stocks (e.g. CRA1, Northland). This will help in understanding the type of management measures best applied at a stock wide and localised basis. Understanding the larval life and circulation in the plankton within the inner Hauraki Gulf and adjoining waters over time (and changing patterns due to climatic effects) will clarify the nature and extent of connections across the CRA2 and adjoining stocks.

A better understanding is also needed as to why rock lobster populations in some areas are more resilient (and resident) than other areas (e.g. inner Hauraki Gulf), and the nature and extent of the role of other biophysical factors in determining where juveniles settle, and what is a preferred habitat for longer term residence.

Overall, council staff would like to see further improvements in habitats and fisheries stock status in the inner Hauraki Gulf and support decision-making that is led by an ecosystem-based approach. The focus on potential options for long-term improvements in rock lobster biomass across the inner Hauraki Gulf (where a broader section 11 regulatory closure is now proposed) is supported.

Staff support the inclusion of multiple data sources and information and University of Auckland rock lobster monitoring and community surveys like the Waiheke Koura surveys. Waiting a year for this information and completion of the refreshed stock assessment is a pragmatic and precautionary approach, in forming proposals for the 2026-27 fishing year. Further, the reef ecosystems in the inner Hauraki Gulf have been in decline (e.g. kina barrens) and the extent of this decline and or restoration is too variable at this stage to increase catch limits in the short term. Continuing respite from increased harvest in the short term will only benefit all users in the medium term, both in terms of rock lobster relative abundance, but also ecosystem improvements that support other fisheries resources and values.

2. What do you think of the long-term biomass management targets discussed? Do you support a particular biomass management target?

Council staff support including the wider ecosystem function of rock lobsters (as well as other species i.e. use a multi-species approach in their reef ecological assessments) as the basis for any TAC recommendation. Today the B_R is a rock lobster-only estimate not a multi-reef ecosystem reference. A multi-species approach to a reference limit is taking a sustainable whole of ecosystem functioning approach which the Fisheries Act emphasises, particularly through section 9 (Environmental Principles), and consideration of the interdependence of stocks (section 13(2)).

The management target adopted should be informed by the likelihood of not creating kina barrens over a reasonable timeframe. Staff support FNZ efforts to better determine what threshold level of rock lobster and snapper populations are needed to prevent kina barrens from occurring.

Fish stocks should not 'by default' be set at a level that produces BMSY targets. The legislation allows for this to be set 'at or above' a level that can produce maximum sustainable yield. Over the years, managing above BMSY had become more readily considered as an option, particularly for species that had not already been significantly depleted prior to the QMS being available on and after 1986. For example, several new QMS species introduced from around the year 2000 were more readily considered for target levels above the BMSY, as several of them had not been previously fished down to depleted levels below BMSY. In circumstances where certain stocks were not so depleted, adjusting to an above BMSY target level was able to be more readily entertained. Either way, the rate at which the target can be achieved can be over a longer timeframe, albeit with opportunity costs associated with reduced harvest over shorter periods.

Table 3 provides a useful summary of the pros and cons of different reference targets – there seems to be some uncertainty expressed about whether greater biomasses might push enough larger rock lobster through to the population to effect a change in kina abundance.

3. Do you support the 2 x B_R preliminary management target? Why?

Council staff note that the modelling undertaken extends back to 1980 (in Figure 3), which is useful both in terms of tracking relative biomass over time and showing the trajectories relative to the different proposed biomass targets (dashed lines).

Council staff note that in the early 1980s, the inshore commercial fishery was over-capitalised and that catch rates were not likely to be sustainable for many species. It was commonly observed that recreational catch rates declined in response to commercial fishing pressure through to the 1980s at accessible coastal locations across CRA2, with many submissions to MAF Fisheries highlighting this concern through the Proposed Fisheries Plan for the Auckland Fishery Management Area 1989.

A preliminary biomass management target of 2x BR might support increased TAC options, but council staff suggest there is an immediate need for ecosystem management outcomes to be achieved in response to both kina barrens, and climate change impacts. Similarly, there is an ongoing need to restore fishing access to non-commercial interests who have not been able to fish to levels experienced in the 1970s and 1980s. This is not necessarily advocating for pre-'fishdown' high levels of relative abundance. This would increase the chance that non-commercial interests could return to shore with a reasonable catch from accessible waters.

A preliminary biomass management target of 2.5 BR is supported by staff in the short to medium term until more information on the status of the stock is known. The modelling undertaken has various limitations and assumptions, including that it primarily uses commercial catch per unit effort data which do not go across the full geographical extent of the stock, as commercial fishers are largely absent from the inner Hauraki Gulf.

A more conservative management target may have consequences for further utilisation opportunity. However, the focus is on addressing the sustainability concerns associated with other elements of the aquatic environment (e.g. the effect of kina in the absence of sufficiently sized predators such as large rock lobster), which basically underpins the integrity of the aquatic ecosystem. Larger rock lobster will also have higher reproductive rates in terms of juveniles released into the plankton.

4. Which option do you support for revising the TAC and allowances? Why?

Council staff support Option A1 which seeks to retain the current TAC setting options. Staff agree that this option is expected to provide the greatest and quickest biomass increase.

Council staff note that a full stock assessment of CRA2 is planned in mid-2025, and therefore several of the management decisions made for 1 April 2025 could be premature. Staff support a conservative (precautionary) approach to avoid adverse changes that might be necessary in the following fishing year beginning 1 April 2026.

Council staff observe that the number of commercial fishers for rock lobster within the CRA2 stock have significantly reduced since 2018, given economic rationalisation that was needed with the reduced TACC. While some increase in the TACC might further improve the viability of existing operators (and those who might wish to restart operations), some recognition of the social and economic value associated with the recreational fishing sector for rock lobster is warranted.

Council staff suggest that, in addition to the approach proposed, FNZ compliance staff input should be sought to better articulate estimates for other sources of fishing related mortality, as it relates to illegal fishing.

5. **Do you support the proposed spatial closure? Why?**

Council supports the spatial closure and supports an ecosystem-based approach to the fisheries closure to improve rock lobster biomass. As discussed in previous questions, the need to restore habitats in the inner Hauraki Gulf is a priority for council. Staff believe this is best achieved through a combination of closing areas for effective recovery and limiting fishing pressure. Even by doing these two actions some areas (currently under a rāhui) can take many years for functioning reef ecosystems to recover. Council staff recognise there are land impacts which we are managing through plan changes and other measures. However, the reef ecosystem restoration and recovery needs to be increased and continued responsive fisheries management is a vital part of this process.

6. **Do you support the boundaries that FNZ has suggested for the proposed inner Hauraki Gulf closure? Why?**

Council staff support the boundaries that FNZ has proposed.

7. **If you do not support any of the options listed, what alternative(s) should be considered? Why?**

N/A

8. **Do you think any additional measure should be considered?**

Rock lobster populations across the inner Hauraki Gulf are patchy and the overall rock lobster populations are struggling to have a functional role in the wider reef ecosystems. Applying complementary measures should serve to enhance the stability and recovery of the rock lobster biomass. This provides benefits to the ecosystem and the fishery interests which are reliant on a functioning healthy ecosystem.

Staff support monitoring of the rock lobster spatial closure in the inner Hauraki Gulf to determine how rock lobster populations recover and how the ecosystem responds. It is vital that information is gathered during the proposed closure to determine effects of the closure and how to better manage rock lobster populations and stocks in the long term.

The monitoring should also be undertaken to ensure that any displaced fishing (mainly recreational fishing in this case) is not depleting other rock lobster populations. This is an important consideration for rock lobster around Little Barrier (Hauturu) and Great Barrier (Aotea) Islands, where additional harvest may not be sustainable on a local basis.

Staff agree that the range of other possible additional management measures identified in the discussion paper (2024/33, paragraph 61) will need to be considered to ensure that local rock lobster populations are able to be sustained. By way of example, possible additional management measures of interest that address multiple outcomes may include maximum size limits, and/or limits on accumulation of daily bag limits for recreational fishers using vessels. Staff agree that some assessment of the efficacy of potential additional management measures would need to occur.

Staff support the full recovery of rock lobster populations, and this is most successful when there is a no-take or prohibition to give them the best chance of recovery in the short term. A good example is the rāhui around Waiheke Island for re-establishing the reef ecosystem function and the return of reef species. Rock lobsters are the top predator of reef ecosystems and thrive where

there are healthy reef systems (marine reserves or long-term rāhui on reef systems including no take from any fishing activity takes >15 years to fully recover).

Staff supports rāhui or similar regulatory measures under fisheries legislation in areas that are low or devoid of rock lobsters (e.g. kina barrens), especially where they have been described as functionally extinct, for example, Waiheke Island. The devoid quality of habitat where kina barrens exist are a barrier to rock lobster stock re-establishment.

Staff consider that the number of fisheries compliance staff available to enforce fisheries regulations needs additional resourcing. More fisheries patrols will be needed especially in remote areas like Little Barrier and Great Barrier Islands. If the spatial closure proceeds, additional fisheries patrols will also be needed in the regulated closure areas.

9. Are the allowances for customary Māori, recreational, and other sources of mortality appropriate? Why?

Suggest monitoring the impacts of continuing customary Māori fishing of rock lobster populations in Option B2 with the intention of better understanding how customary harvesting in areas do or do not impact their sustainable fisheries use and reef ecosystem impacts. Use these learnings to input into the long-term fisheries management practices.

More certainty of information is required before allowances are changed. Recognition of recreational access being improved with improved rock lobster populations should result in a progressive increase of recreational allowances.

10. Do you think these options adequately provide for social, economic, and cultural wellbeing?

The options supported by council will aid in improving the range of options available for the social, economic and cultural wellbeing of various interests over time. Council supports prioritising rock lobster biomass growth, ecosystem restoration and rebuilding of rock lobster/fisheries stocks. More explicitly, a lack of a rock lobster fishery in the inner Hauraki Gulf denies a food source for a significant part of New Zealand's population. Only a generation ago rock lobsters were more readily available, even if it was a shadow of the observations made prior to, or up to, the 1970s.

Applying a more conservative and resilient management target approach will facilitate a more durable and sustainable CRA2 fishery. This contributes to greater economic wellbeing that is maintained with more certainty.

This contrasts with the greater risk associated with higher harvest rates enabled up until the 2018 fishing year. With the reduced CRA2 catch limit and allowances after 2018, there was a consequent impact on economic participation at that time. Non-commercial interests had already been affected in earlier years, as the depleted state of the fishery reduced their access and availability to harvest the resource.

11. What are your aspirations for the CRA2 fishery? Do you think there is another way to realise this outside of the discussion document?

Council supports Revitalising the Gulf and therefore staff support an increase in stocks to a sustainable levels that includes (1) the recovery of reef ecosystems at depth, (2) prevents kina barrens (i.e. largest rock lobsters are present on the reef), (3) supports healthy kelp beds and (4) enables both recreational and customary fishing to be widespread in the Gulf so New Zealanders can feed themselves as part of social occasions or for cultural purposes. Thereafter, a commercial sector that provides an affordable domestic supply would be desirable where a proportion of the local population does not have the ability to access seafood from the wild.

12. **Do you have any concerns about potential impacts of the proposed options on the aquatic environment?**

Yes, it would be preferable for FNZ to take a longer term view and better give effect to 'while ensuring sustainability' rather than providing for short term utilisation given current and future risks. This is particularly where any rebuild in a fishery is needed to be seen as offering broader based benefits and assurances, when environmental influences are likely to have an adverse effect on fishery interests into the future.

The simplest way to resolve the kina barrens issue is to rebuild the stock structure of the predator species – this requires a greater proportion of larger animals, whether this is rock lobster, snapper or other species. The issuing of special permits to enable people to harvest kina from barren areas is not getting to the nub of the issue, where natural ecosystem processes need to be normalised through more natural predator-prey relationships.

In the Full report of the review of the rock lobster stock CRA2, Figure 1 shows modelled vulnerable biomass since 1979. The early-1990s show the pink model variance around the red lines as very narrow until 2019 when that pink shaded part increases again. Why this wide variance, what drives this variation?

Has climatic changes been factored into the modelling scenarios? Using the precautionary principle, would it be better to err on the side of caution and improve conditions above the reference green line in Figure 1 to a revised line that reflects both effects of reduced habitat and climatic changes underway to be predicted to be worse under different IPCC scenarios? Ditto for snapper fisheries (they will move to cooler waters in the south) and the potential effects of changing behaviours of known predators of kina.

13. **Is there any relevant literature or research you are aware of that you think should have been referred to in this paper?**

Hauraki Gulf Fisheries Plan (2023) is relevant, as it represents the direction sought to ensure that an ecosystem based approach to fisheries management is embedded in decision making. Similarly, the Hauraki Gulf Fisheries Plan is based on the ongoing involvement of fisheries interests from the area (whether commercial, recreational, customary Māori or environmental) who know the area well and its needs in order that restoration is prioritised as a fundamental element of management decisions for many inter-related fishery resources.

14. **Do you have any further information to share on the location of urchin barrens in CRA2?**

The proposed High Protection Areas included in the Hauraki Gulf Marine Protection Bill will aid fisheries management outcomes.

15. **Are there other fishery management measures that you feel could be appropriate in CRA 2? Why?**

The council supports the use of assessment methods that both consider the status of the stock in question, and its relationship to other species within its ecosystem. For the CRA2 fishery, there is a desire to not be so reliant on fishery dependent assessment methods, where they have their own limitations and assumptions, and limited geographical coverage in the case of the CRA2 stock.

Staff highlight an issue of fishing the largest rock lobsters which will limit the stock's replacement ability and suggest an upper size limit across all management options. Council staff support changing management measures so that largest rock lobsters and the smallest rock lobsters are protected and returned to the ocean. These limits are like rules for blue cod stocks that have an upper and lower limit. The largest and most fecund animals are to be kept in the ocean to enable

stock replenishment, to predate kina and fulfil their ecological function and contribution to ecological and environmental conditions/services of the reef ecosystem in the long term.

Staff also highlight season limits when rock lobsters are mating, and activities related to rock lobster behaviour pre-mating (moving to new areas). Does FNZ have data or information on rock lobster behaviour in the inner Hauraki Gulf and CRA2? Would any seasonal closure be beneficial, and would this need to be considered across several rock lobster stocks for simplicity, effectiveness and consistency?

Management of snapper (also a natural predator of kina) requires a broader review alongside any future assessments of rock lobster catch restrictions in a multi-species management response to kina barrens. In suggesting a broader review, this is not about adjusting catch limits in response to some recovery of biomass for SNA1, but more about whether existing management measures are cognisant of giving effect to the environmental principles of the Fisheries Act. A focus on improving the size structure of the snapper stock from its present state and having regard to the interdependence of stocks is required. Multi-species interactions are necessary to have ecosystem level recovery and resilience in the inner Hauraki Gulf.

If a spatial closure for commercial and recreational rock lobster fishing is applied to the inner Hauraki Gulf, there is a potential risk that fishing interests (principally recreational fishers in this case) would look to access rock lobster populations in adjoining coastal areas on the east coast. Is FNZ satisfied that adjoining reef ecosystems in say CRA1 and the eastern Coromandel can sustain the potential recreational fishing pressure if left outside a closure ban of the inner Hauraki Gulf? Some recreational fishers from Auckland and Waikato will travel to these locations as an alternative fishery. Will any mitigation be necessary to consider? Will Fisheries NZ consider some form of monitoring to see if levels of recreational fishing activity change in these adjoining areas, and if of an adverse nature, consider some form of subsequent response?

29th January 2025

To: Fisheries Management, Fisheries New Zealand – Ministry for Primary Industries.

Submission from Cando Fishing Ltd on Review of Sustainability Measures for Spiny Rock Lobster (CRA7) for 2024/25.

This is a submission on behalf of Cando Fishing Ltd (CFL) on the Review of sustainability measures for spiny rock lobster (CRA 7) for 2024/25: Fisheries New Zealand Discussion Paper No: 2024/31

s9(2)(a)

CFL opposes any increase in the CRA7 TACC (including Option 2) unless a Harvest Plan is developed for kina, to prevent kina barrens forming off the Otago Coast. CFL has proposed such a Harvest Plan for kina. No increase in the TACC for rock lobster should be implemented unless this Harvest Plan is correspondingly implemented.

Introduction – Cando Fishing Ltd (CFL)

Cando Fishing Ltd (CFL) undertakes kina harvesting throughout the South Island, principally SUR5, SUR3 and SUR7A. CFL has extensive knowledge of the kina industry, including catching, processing and marketing kina; and fine-scale data collection for managing kina fisheries. CFL was the only fishing company which participated in the fine-scale reporting programme in SUR5. CFL 100% funded the 2024 SUR3 survey (McKenzie *et al* 2024). This survey was overseen by a Certified Environmental Practitioner (Chisholm Associates), NIWA and the Fisheries NZ Science Directorate's Shellfish Working Group.

CFL also undertakes kina processing and marketing. The main kina processing facility is located in Bluff. Kina are mainly sold to local markets, although overseas markets are available. There is currently a lack of kina available to supply these markets.

The discussion document

The discussion document referred to in this submission is the "*Review of sustainability measures for spiny rock lobster (CRA 7) for 2024/25. Fisheries New Zealand Discussion Paper No: 2024/31*"

The discussion document mentions the problem with trophic cascades caused by removing kina predators such as larger rock lobsters. CFL agrees that this is a problem. The discussion document states:

A survey of kina abundance was conducted in 2024 by fishers without formal scientific training.

This statement infers a bias against CFL (who undertook the kina abundance survey) by Fisheries NZ staff. The "scientific training" of the divers and skipper conducting this kina survey is irrelevant to the fact that this survey (McKenzie *et al* 2024) found very high densities of kina forming off the Moeraki Coast. The discussion document also states:

FNZ noted at the time that there was uncertainty in the biomass estimates and that the survey design may have resulted in overestimation of kina biomass. In addition, there was conflict between the high biomass estimates from the survey and information from tāngata whenua, including the East Otago Taiāpure Committee which noted kina have become increasingly difficult to access.

The ”uncertainty” in the kina biomass estimates is overstated by FNZ staff. It largely came from CFL’s trade competitors and their associates. No scientific or dive data was supplied by tangata whenua or anyone else on kina densities along the Moeraki coast. During the kina survey, CFL took videos of all transects. These videos provide incontrovertible proof that kina densities are high and barrens may be forming off the Moeraki Coast. The Fisheries Act Sections 10(a) and 13 2A (c) (i) require the Minister to set TACC’s on the basis of “best available information”. There is no way that anecdotal information is “best available information”, when CFL had undertaken a scientific survey of kina off the Moeraki Coast, using a methodology approved by the Shellfish Working Group, with results which were peer reviewed by that same Group.

All kina survey dive videos are available for public view. CFL has made these videos publicly available in order to dispel accusations (supported by FNZ staff) that the SUR3 survey field work was somehow unreliable. These videos are available on:

Kaikoura transects:
https://www.dropbox.com/scl/fo/qh1csgnejnna2sgriogfi/APxN7rp8LFtuQ-qEOINhvgA?rlkey=3107tqt9nj6cpc26y64pguy1a&st=qe0i1e4s&dl=0

Moeraki transects D.
Timms: https://www.dropbox.com/scl/fo/kdnrumnmocrj04yfu18q0/AN8ZE28-t9oSV_ULTUG4o_4?rlkey=m6x2adjygnzbsc2qgc52ftft7&st=n8pmjjfs&dl=0

Moeraki Transects J & J
Ashley: https://www.dropbox.com/scl/fo/iniq5yfkltouy5ur5tj3x/APABD-4C39QTIlaY9sjsrBM?rlkey=abwrjy1dwcccck5slg8wn8qxbf&st=6cf1021w&dl=0

The kina survey raw data, transect locations and kina counts for each transect are available here:

https://www.dropbox.com/scl/fi/cqq4qm5asuw7ehl2i8x4e/All-Transect-details-and-kina-counts-final-May-24.xlsx?rlkey=w6vw4rlke9ifmstm2ik69h8kn&st=37616jho&dl=0

The full kina survey report (McKenzie *et al* 2024) is available here:

https://www.dropbox.com/scl/fi/meymbs4w7pgtoxciz6z2p/SUR3-final-report-NIWA-SFDL.pdf?rlkey=mfejvbwd153f51ffx6rpv2sk0&st=mt4qr7o4&dl=0

It is the opinion of this submitter that FNZ demonstrated an unprofessional degree of bias against CFL in making its October 2024 recommendations on SUR3, and this bias is again demonstrated in the discussion document, which essentially sets aside the SUR3 kina survey (McKenzie *et al* 2024).

The SUR3 kina survey found kina densities off the Moeraki Coast up to 5 times greater than the densities defined as a kina barren. i.e. The survey found kina densities of up to 5 per square metre, when MPI's own definition of a kina barren is 1 per square metre. While CFL does not dispute the calculations showing improved CPUE for CRA7, it is too risky to allow a TACC increase in the light of kina barrens forming off the Otago Coast.

Therefore, CFL proposes that an increase in the CRA7 TACC may be warranted, if a Harvest Plan for kina were implemented which mitigated the potential for kina barrens to form off the Moeraki Coast. If kina are not to be managed through a Harvest Plan, then CFL is opposed to any TACC increase for CRA7.

This Harvest Plan, based on the SUR3 kina survey (McKenzie et al 2024), is provided below:

Proposed SUR3 kina Harvest Plan

CFL proposes a Harvest Plan for SUR3 proportionally based on the biomass estimates from the SUR3 kina survey (Table 1). The Harvest Plan provides a level of effort-spread to prevent local depletion and give confidence to other harvest sectors that their preferred areas will not be overfished. A formal Fisheries Plan is not needed because the majority SUR3 quota holder is CFL.

The CFL Harvest Plan is based on a maximum 50T harvest from the Kaikoura strata, with the balance (150T) taken from Moeraki strata. All of the 200T additional TACC proposed by CFL will be taken from the surveyed strata only. The remaining 21T will be used for exploratory fishing purposes, because large areas of SUR3 remain unknown and this ACE will be needed to explore the coastline and identify additional strata for harvesting.

Table 1: Harvest Plan for SUR3

Region	Strata	Max. Annual Harvest (Tonnes)
Kaikoura	1 (Kaikoura Peninsula)	43.5
Kaikoura	2 (N. of Pinnacle Rock)	6.5
Kaikoura	3 (N. of Spyglass Pt)	0
Moeraki	4 (Fish Reef)	22.5
Moeraki	5 (Danger Reef)	66
Moeraki	6 (Goodwood coast)	61.5
Moeraki	7 (Seacliff coast)	0
Rest of SUR3	*Exploratory fishing*	*21*
Total		221

Other quota holders (principally Ngai Tahu) will be encouraged to participate in this Harvest Plan. CFL will harvest in accordance with this Harvest Plan and will advocate that other SUR3 quota holders do the same.

The Harvest Plan includes provision for resurvey of all harvested strata (excluding strata 3 and strata 7) in two years' time. This will provide information on the kina response to harvesting at these levels. Additional SUR3 strata may be surveyed. CFL submits that this Harvest Plan provides for sustainable harvest of all strata, while providing for ongoing sustainability assessment through regular re-surveys.

Summary and Conclusion

CFL does not support any increase in the TACC for CRA7, because of the risk this poses to the formation of kina barrens off the Otago Coast.

However, CFL does support an increase in the TACC for CRA7 if the suggested kina (SUR3) Harvest Plan is implemented. This Harvest Plan will allow for ongoing monitoring and mitigation of kina barrens currently forming off the Moeraki Coast, and allow for assessment of other areas of the Otago Coast where kina barrens may be forming.

Yours faithfully

s9(2)(a)

CANDO FISHING LTD.

CRA 2 ROCK LOBSTER MANAGEMENT COMPANY LTD (CRAMAC 2)

P.O. Box 947
Wellington, 6011

REVIEW OF ROCK LOBSTER SUSTAINABILITY MEASURES FOR 01 APRIL 2025

SUBMISSION from CRAMAC 2

This submission is made by the CRA 2 Rock Lobster Management Co Ltd (CRAMAC 2). CRAMAC 2 is recognised as the commercial stakeholder organisation that represents the interests of the commercial rock lobster industry, in the region from Te Arai Point just south of Whangarei all the way to East Cape.

This submission is in regard to the Fisheries New Zealand Discussion Paper - Review of Sustainability Measures for spiny rock lobster (CRA 2) for 2024/25, No: 2024/33

CRAMAC 2 POSITION - CATCH SETTINGS

The discussion paper proposes three different catch settings options (in tonnes) for CRA 2 from 1 April 2025. Of the three options proposed CRAMAC 2 support option A3.

Option A3 proposes:

- TAC 188.5t
- TACC 100t
- Customary 16.5t
- Recreational 34t
- other fishing mortality 38t

CRAMAC 2 POSITION- SPATIAL MANAGEMENT MEASURES

The discussion paper proposes two different spatial management measure options for CRA 2. Of the two options proposed CRAMAC 2 support option B1.

Option B1 proposes to maintain status quo with no additional management of rock lobster fishing.

RATIONALE FOR CATCH SETTING - Option A3

A sustainable abundant fishery, for now and the future, is of paramount importance to the rock lobster industry in CRA 2. It is the foundation that supports the livelihoods of our industry people, from our fishers on the water to the staff of our Licenced Fish Receivers, our Quota Owners, our research providers and many other secondary businesses who are dependent on a successful rock lobster fishing industry. CRAMAC 2 appreciate that CRA 2 is a shared fishery, and we appreciate the need for a “gifts and gains” approach between the different stakeholder groups in the fishery. We fully believe there is adequate scope to allow for an economically viable rock lobster fishing industry in CRA 2 as well as accommodate the social and cultural needs of the other stakeholder groups.

The last full stock assessment for CRA 2 was undertaken in 2022 and the latest assessment of stock status was the 2024 Rapid Update assessment, using all available data up to the end of the 2023-24 fishing year. Both these assessments have shown a significant increase in biomass since the 2018 TAC cut, where the TACC was reduced by 60% from 200 to 80 tonnes. Spawning stock biomass has more than doubled since the 2018 assessment and vulnerable biomass is now 154% above the reference level (Bref).

Note: Bref (estimated to be 335 tonnes) is the level of biomass that is required to maintain a healthy sustainable stock for the long-term. That is, the reference level is calculated to estimate the maximum catch that will allow sustainability goals to be met. The reference level could therefore be used as the target biomass that allows sustainable utilisation. Therefore, managing utilisation of the stock to maintain a biomass anywhere above Bref, is providing a conservative approach to managing the fishery.

As stated above, an abundant sustainable fishery for now and the future is of paramount importance to CRAMAC 2 and we believe the management target for the CRA 2 fishery should be above, not at, Bref. However, the choice of a target higher than Bref needs to be based on good quality science not emotive political agendas and needs to balance economic return to the CRA 2 region and the country with social/cultural needs.

CRAMAC 2 support a management target of between 175-200% above Bref and believe a TACC of 100 tonnes allows this target to be met in an appropriate time frame, as shown in the projections from the 2024 rapid update assessment and stated in the FNZ Sustainability Round discussion document. Setting this management target will also allow management procedures to once again be developed and used for managing the CRA 2 fishery.

The 60% reduction of the TACC on 1 April 2018 was a major financial blow to the CRA 2 fishing industry. Over the past six years the cut to an 80 tonne TACC has resulted in the loss of vessels and jobs from the industry, and the businesses of the remaining fishers have been economically marginal since then. With the increase in costs to run a fishing vessel and business, a reinstatement of the TACC to at least 100 tonne will be required to get the CRA 2 fishery back to being financially viable for our industry.

The TACC review for CRA 2 has been postponed twice over the past 3 years, creating excessive financial stress for our industry and we cannot emphasise enough our level of frustration at the reasoning behind the delays being emotive hysteria about the prevalence of kina barrens. CRAMAC 2 acknowledge that kina barrens are present in the marine environment and that in specific areas, management of these barrens may be required. However, the options being proposed to control barren populations (e.g. increasing abundance of large lobsters) are based on assumptions and as yet lack adequate scientific evidence to justify their consideration as reliable management tools. We note:

1. Although rock lobster are known to predate on kina, our collective experience and knowledge, also supported by research, is that kina are not a preferred food source for rock lobster and they are even less inclined to feed upon ‘skinny’ kina that make up kina barrens .i.e. the natural role of rock lobster in the control of kina barrens has been dramatically over stated.
2. As yet there is no accepted scientific definition of what constitutes an urchin barren and there is no documentation of their location, the number or the extent of these urchin barren areas.
3. There is no baseline data on the previous habitat structure. Some urchin barren areas may be the baseline habitat structure.
4. The effect of land based activities (e.g. sediment runoff) as a causal agent of urchin barrens has not been adequately investigated.

5. The effects of climate change as a causal agent of urchin barrens has not been investigated.
6. The FNZ CRA 2 Sustainability measures document acknowledges:
    a. "…there is no definitive knowledge of the threshold of predator abundance required to reverse urchin barrens…"
    b. From the best available information, urchin barrens were prevalent in parts of CRA 2 back in the 1980's when the biomass was a higher than it currently is. We have no definitive information on the extent of barrens earlier than this.

Considering the points listed above in 1 to 6, it defies all logic that kina barrens are even being considered as a driver behind the management options proposed within the Sustainability Review discussion document.

The review of the CRA 2 TAC should be based on the results from the 2022 full stock assessment and the 2024 rapid update. This research is critiqued by a highly experience science community and is of very high quality. The assessment shows an abundant CRA 2 fishery that is projected to continue to increase in biomass and remain fully sustainable even with a TACC of 100 tonnes. The 100 tonne TACC will allow the fishery to move towards a target of between 175-200% above Bref within the next 4 years, providing a conservative management approach for this fishery to ensure sustainable utilisation for now and long into the future.

RATIONALE FOR SPATIAL MANAGEMENT MEASURES – Option B1

CRAMAC 2 support the proposal that no additional management of rock lobster fishing is proposed beyond the existing marine reserves, mataitai, and proposed new high Protection Areas provided for in the Hauraki Gulf marine Protection Bill.

There is minimal commercial potting for rock lobster within the inner Hauraki Gulf, but closure of this area will have significant detrimental impacts on the CRA 2 fishery overall. Closing more areas to rock lobster fishing, on top of those already closed, will result in far higher concentrations of recreational and commercial fishers on what reefs are left. This will quickly result in unsustainable levels of fishing pressure on the remaining, but ever decreasing areas, open to fishing.

CRAMAC 2 are in the process of developing a Code of Conduct with the industry fishers who fish within the 905 statistical area of CRA 2. The purpose of the document is to; help address the concerns of some stakeholders that abundance of rock lobster within the Hauraki Gulf has not increased as well as it has in other areas of CRA 2 and to ensure the industry is perceived as fishing sustainably. The Code of Conduct focuses on statistical area 905 and is proposing catch limits, a voluntary closed season, a maximum grade limit and assisting with kina barren removal initiatives. We believe the industry Code of Conduct together with management measures that can effectively monitor, and therefore effectively manage, recreational catch within the Hauraki Gulf are more appropriate tools compared to complete closure of the inner Hauraki Gulf to recreational and commercial fishing.

We also suggest a sound research programme is required to determine the extent of land-based, pollution or climate change impacts on the rock lobster populations in the inner Hauraki Gulf area. If land-based, pollution or climate change impacts are the main drivers behind the decreased abundance in the Gulf, closing this area to all commercial and recreational fishing will have negligible effect in a population rebuild.

CRA 2 INDUSTRY VOLUNTARY LOGBOOK PROGRAMME (VLBP)

The rock lobster industry in CRA 2 have been actively engaged, for the last 20 years, in a voluntary data collection programme, designed to monitor the red rock lobster stocks in CRA 2. The programme is fully funded by industry, was designed, by expert fishery scientists and is reviewed every few years. Data from the programme is an invaluable input into the MPI stock assessment process that assesses the status of the CRA 2 stocks and allows catch to be adjusted as abundance in the fishery fluctuates, to help ensure the fishery is managed sustainably.

The programme has been designed, to cost effectively, collect length frequency (tail width) and maturity status (number of males and immature mature, berried and spent females) data that is representative of the fishery. This data helps the stock assessment model build a population profile of the number of lobsters in different size classes and the percentage of males versus females within the population. This information essentially allows the model to more accurately estimate the spawning and vulnerable (above minimum legal size) biomass of red rock lobsters in CRA 2.

The VLBP also collects catch per unit of effort data (CPUE). Due to the ongoing problems with the mandatory ER CPUE data being unreliable for use in stock assessments since 2019, the VLBP CPUE data has been invaluable. Without this data, it is unlikely a reliable stock assessment could have been undertaken in CRA 2 since 2018.

The stock assessment process is an essential component of the management, of not only the commercial, but also the recreational and customary sectors of the CRA 2 fishery. Reliable stock assessment outputs need good quality fishery data to feed into the stock assessment model and this data is currently sourced from:- the mandatory catch and effort reporting (includes FSU and CELR data); the voluntary logbook data, which is collected and funded by the commercial fishery; tag-recapture data (required for information on growth), funded also by the commercial fishery and an MPI required catch sampling programmed, that is also cost recovered from the commercial fishery.

Without this data, the sustainable management of CRA 2, for the benefit of all stakeholders within the fishery, would not be possible.

Yours sincerely

CRAMAC 2 Board or Directors

s9(2)(a)

(CRA 2 Executive Officer)

4/1/25

s9(2)(a) [redacted]

To Whom It May Concern,

As a fishing industry operator and quota owning family committed to sustainability and conservation, we are writing to express our strong support for the reinstatement of the 100-tonne Total Allowable Commercial Catch (TACC) for the CRA 2 fishery. This decision represents a carefully considered step toward balancing sustainable stock recovery with the economic needs of the industry and associated communities.

1. A Pragmatic Step in Historical Context

The CRA 2 fishery has undergone significant adjustments over the years, with the original TACC set at 236 tonnes. As declining stock health became apparent, the TACC was progressively reduced, with the most recent adjustment lowering it to 80 tonnes to allow for rebuilding. This reduction has yielded positive outcomes, as the fishery shows clear signs of recovery. Reinstating the 100-tonne TACC, while still conservative compared to historical levels, reflects a cautious and evidence-based approach to leveraging these gains responsibly.

2. Stock Recovery Supported by Scientific Evidence

The decision to reinstate the 100-tonne TACC is supported by scientific assessments that indicate the stock is on a positive recovery trajectory. This adjustment allows fishers to benefit from the resource while maintaining the broader goal of long-term sustainability.

3. A Path Toward Future Management Procedures

The reinstatement of the 100-tonne TACC should be paired with the introduction of a robust management procedure as soon as possible. A management framework that is adaptive, science-driven, and responsive to changes in stock abundance will safeguard the fishery against overexploitation while enabling sustainable utilization. Such a procedure ensures that the CRA 2 fishery remains resilient in the face of environmental and economic uncertainties.

4. Statistical Area-Based Management Over Blanket Closures

The CRA 2 fishery would benefit greatly from targeted, statistical area-based management approaches rather than blanket closures of fishing grounds. This

localized approach allows for sustainable fishing in areas of abundance while protecting areas where stock levels require further recovery. Reinstating the 100-tonne TACC offers a balanced opportunity for fishers to continue operating responsibly while contributing to the overall health of the fishery.

5. Supporting the Industry and Communities

The CRA 2 fishery is an essential contributor to the livelihoods of fishers, processors, and local economies. Reinstating the 100-tonne TACC provides a reasonable increase in economic opportunities while ensuring that sustainability remains a core priority. This adjustment reflects a win-win scenario for both the industry and the environment.

6. Reinforcing New Zealand's Commitment to Sustainable Fisheries

By reinstating the 100-tonne TACC, New Zealand reaffirms its leadership in sustainable fisheries management. This decision, coupled with plans for a future management procedure, exemplifies how evidence-based decisions can ensure the health of marine resources while maintaining economic benefits.

Conclusion

Reinstating the 100-tonne TACC for CRA 2 is a prudent and balanced decision that reflects stock recovery, addresses economic needs, and sets the stage for a sustainable future. While this step is modest compared to the original TACC of 236 tonnes, it represents a critical milestone in the recovery journey of the CRA 2 fishery.

We urge decision-makers to adopt the 100-tonne option and prioritize the development of a management procedure to ensure the continued sustainability of this valuable resource. Thank you for considering this submission.

Sincerely,

Dan & Dee McRae

Directors

Deep End Fish Ltd

ENVIRONMENT AND CONSERVATION ORGANISATIONS OF NZ INC.
Level 2, 126 Vivian St, Wellington, New Zealand
PO Box 11-057, Wellington
Email: eco@eco.org.nz Website: www.eco.org.nz
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1 February 2025

Ministry of Primary Industry

Email: FMSubmissions@mpi.govt.nz

Attn: Emma O'Malley

Howard Reid

ECO Submission on the Rock Lobster proposals for CRA 7 and CRA 2

A. Introduction

The Environment and Conservation Organisations of New Zealand Inc, ECO, champions protection of the environment, conservation and sustainability and we are and organisation of organisations that share these concerns and are based in New Zealand. They range from small locally focused organisations to national organisations. Some are focused on particular environmental problems (e.g waste reductions, transport), biodiversity losses, places awa, marine health, or species or ecosystems.

B. Key comments

ECOs key reasons for making these comments include:

- The need to take a precautionary approach to fisheries management;
- The Ministry has yet to implement key provisions of the Fisheries Act:

- there is no overall strategy to avoid, remedy or mitigate the impacts of fishing;
- Habitat of particular significance for fisheries management have not been identified.
- Maintenance of biological diversity has not been given the effect to.

· Rock lobster is an important shared fishery and an important part of the inshore ecosystem.

ECO is concerned that CRA 3 was removed from the April 2025 Sustainability round.

ECO welcomes the development of stock assessments for rock lobster stocks and species. ECO has generic concerns over the trends in catch rates and biomass (including targets) in the red rock lobster stocks and the small size of vulnerable biomass in quota areas or assessed management areas.

The process in developing agreed stock targets for rock lobster has been slow and these need to be developed and agreed before harvest strategies are adopted. A precautionary approach must be taken with catch limits.

The NZ Harvest Strategy Standard is 10 years past its review date[1].

The potential negative impact of climate changes and ocean acidification on rock lobsters, particularly in East Cape and northern areas is an additional concern that needs to be considered and assessed. Climate change and ocean acidification should be an integral part of decision-making.

C. Precautionary Approach and principle

The precautionary approach is an inherent part of fisheries management. The most recent acknowledgement of precaution is in Justice Churchman's decision on CRA 1[2]. At para 108 he notes:

"Indeed, the purposes of the Act appear to create what could be described as an 'environmental bottom-line', and are accordingly complemented by a scheme that favours precaution."

Further at para 109 he states: *"that the precautionary principle does apply and Crown counsel appeared in submissions to accept that point."*

Earlier in the decision he also recognises that an ecosystem approach needs to be taken by decisionmakers:

"The ecosystem approach requires decision-makers to incorporate wider ecosystem effects into fisheries management, instead of considering sustainability with a single-species focus. This approach is acknowledged in the Act through the requirement for the Minister to consider the interdependence of species when making a decision as to TAC, as well as through ss 9 and 11."

D. Urchin Barrens

ECO supports measures to increase rock lobster populations, in particular larger size classes of lobster, to reduce urchin barrens – both kina and (*Evechinus chloroticus*) and long-spinned sea urchins (*Centrostephnus rodgersii*). Similar approaches should be taken to increase other urchin predators including snapper and packhorse lobsters.

We agree that the loss of kelp forests is damaging coastal ecosystems, biodiversity, productivity of the marine environment and carbon sequestration. These are ecosystem services provided by kelp forests to the marine environment.

While closures are a positive proposal it is likely to be insufficient and should include all rock lobster species in this area. ECO agrees with the suggestion that closures should include key areas with urchin barrens including those surrounding Te Hauturu-o-Toi/Little Barrier Island.

E. Ecological Role, climate change, and other considerations

Larger rock lobster stock sizes have been recommended for resilience to climate change, increased "blue" carbon sequestration, and reducing the carbon footprint of the fishing industry. ECO notes that the rock lobster fishery has on average the highest carbon footprint in the fishing industry of an estimated 4,731 litres per tonne of diesel per tonne of lobster caught or 12.49 tonnes of carbon dioxide per tonne of rock lobster caught (Hilborn and Tillier 2012)[3]. There needs to be a move to bring rock lobster fishery to net zero emissions by 2050.

MPI should in its recommendations considering the impacts of climate change and ocean acidification. This includes the impacts of sea level rise, acidification, more frequent and severe extreme weather events, and heatwaves, changes in marine biodiversity, and the impacts on fisheries and marine ecosystems.

An additional consideration is the ecological importance of rock lobster. For example, Kina barrens are created by over-fishing kina predators like snapper and rock lobster to low levels (Shears & Babcock, 2002[4], Babcock et al 2010). Kina eat kelp and kina grazing creates and maintains urchin barrens and prevents kelp re-establishing, especially in North-Eastern New Zealand.

Research in North-Eastern New Zealand has found that when rock lobster and snapper are in high enough densities there is a positive effect on kelp forests and primary productivity as they consume kina (Shears and Babcock, 2002). In contrast urchin barrens are less prevalent in marine reserves where there are higher densities of kina predators eg rock lobster and snapper (Babcock et al 1999[5], Shears and Babcock 2002, Babcock et al 2010[6]). Similar situations have been noted with sea urchins globally (Ling et al 2015[7]).

There are clearly knowledge gaps when looking at the wider ecological role of lobsters marine ecosystems as identified by Phillips et al (2013)[8].

F. Reporting systems

ECO is concerned that differences between the reporting systems prior to and after electronic reporting has not been resolved. As noted in the Plenary Report on Rock Lobster:

"The review found a shift in the way that rock lobster estimated catch data were being reported under the new electronic reporting scheme, suggesting that data from the new system were not comparable with data from the previous system. The RLWG concluded that CPUE estimated under the new electronic reporting system was likely to differ from CPUE calculated under the previous paper form system for two reasons. Firstly, fewer vessels than previously would contribute to the CPUE calculation, because fewer vessels fell within the preferred 0.8 to 1.2 vcf range for data acceptability (see Table 4 caption for the definition of this vcf quantity and the associated estimates). Secondly, some vessels appeared to have changed the way they reported catches under the new regime when the progression of vcf ratios over time for an individual vessel was tracked."

This is an unsatisfactory situation especially given the value of rock lobster catch.

G. Harvest Strategy

Separate harvest control rules and limit and target reference points have yet to be adopted for either rock lobster species. The current harvest strategy and Fisheries NZ approach has in the past been overly focused on the 20% "soft limit".

ECO considers it is overdue for the Harvest Strategy to be reviewed and made more ecosystem focused. In most cases the proposals use the default provisions in the harvest strategy.

The strategy still refers to old default soft and hard limits that do not meeting international best practice. For example, the hard limits are half the level used in Australia where targeted fishing for a species must stop.

The biomass targets are well below the practice used in CCAMLR for predator species (50%Bo) and prey species of (75%Bo). The NZ Harvest Strategy itself notes that *"it is becoming increasingly difficult to justify stock targets less than 30-40% Bo (or, equivalently, removing more than 60-70% of the unfished biomass)."* ***[9]***

For example ECO notes that the Worm et al (2009)[10] paper recommends that stocks be maintained above Bmsy: *"In fisheries science, there is a growing consensus that the exploitation rate that achieves maximum sustainable yield (u) should be reinterpreted as an upper limit rather than a management target. This requires overall reductions in exploitation rates, which can be achieved through a range of management tools."*

Penney et al (2013)[11] in their review for the Australian harvest strategy suggested a range of best practice approaches would involve higher stock levels:

- Target for important forage fish at 75%Bo "to ensure stocks remain large enough to fulfil their ecotrophic functions";
- The proxy for B_{MSY} for shark species may need to be closer to 50%Bo than the current proxy of 40%Bo;
- B_{MEY} proxy is more likely to lie in the range of 50-60%Bo.

Larger stock sizes are also recommended in a recent review by Pauly and Froest (2020)[12] noted that: *"In principle, most fisheries scientists and relevant legislations and regulations agree that MSY should be a limit, and not a target, for fisheries management, notably because if it were a target, and successfully implemented, then there would be a 50% probability that the biomass of the managed stock would be below the level that can produce MSY. This generally implies that target biomass should be set above the MSY level, as is done explicitly in recently formulated fisheries regulations (e.g. CFP, 2013* ***[13]****)."*

A key question for rock lobster stocks is how to treat vulnerable biomass and what the target should be, it surely shouldn't be to keep the vulnerable biomass below 20%. A precautionary approach also supports larger stock sizes.

D. Proposals

1. CRA 7 Management Procedure and Catch limits

ECO does not support a management procedure adopted for CRA7. ECO does not support management targets below 50%SSB and equivalent levels of vulnerable biomass.

ECO supports Option 1 which is the Modified status quo (2% TAC increase).

This option would set a modified status quo, with a small three tonne increase to the allowance for other sources of mortality caused by fishing, to better reflect the current best available information on other mortality occurring in the fishery. It would not alter the customary Māori and recreational allowances, which appear to remain appropriate based on current harvest levels.

The current assessment indicates that the vulnerable biomass is less than 30% of its unfished state, and total biomass well under 50% of its unfished state.

ECO has long supported the removal of the concession in CRA7 which allows the taking of small lobsters and instead have a minimum legal size all year round of 54 TW for males and 60TW for females. There is no ecological or biological justification for the concession.

2. CRA 2 Catch Limits and measures

A. Catch limits

ECO supports option A1 or status quo, and no current increase in catches.

ECO does not support management targets below 50%SSB and equivalent levels of vulnerable biomass. CRA2 has catch rates well below other areas but problems with reporting systems bring into question the current basis of stock assessments.

Baselines should go back well before 1980 in making comparisons on the state of the stock, especially given the long history of rock lobster fishing in this area. Previous assessments have undertaken assessments back to the 1940s.

ECO is concerned that assessments have over-estimated any recovery in subsequent years. The rapid updates have become more pessimistic with each additional year with the latest assessment showing a decline in catch rates, and subsequently vulnerable and spawning stock biomass. This brings further into questions the reliability of rapid assessments especially in any forward projections.

The current rapid assessment indicates that the current state of vulnerable, spawning stock and total biomass is well under 50% Bo.

There is clearly a difference in scientific view on the state of the CRA2 fishery. Auckland University researchers have reported on the absence of lobster, particularly in waters shallower than 20m, and estimate biomass at more like 4.6% of spawning stock biomass (Nessia et al 2024[14]).

ECO supports a management target of at least 3.5 times the Br level. A higher management target would acknowledge the need for lobster to play its ecological role and in helping to control kina and reduce kina barrens.

B. Area closures

Option B2 close the inner Hauraki Gulf to all commercial and recreational rock lobster fishing.

ECO agrees with the suggestion that closures should include key areas with urchin barrens including those surrounding Te Hauturu-o-Toi/Little Barrier Island. These are habitats of significance to fisheries management.

These measures are only effective if they constrain commercial and allow rock lobsters to grow to larger sizes and play an effective role in the ecosystem and reduce kina barrens.

C. Broader management

Given the establishment of the Hauraki Gulf Marine Park and the fisheries plan associated with this area, ECO considers MPI should look at establishing smaller management units to manage rock lobster.

Thank you for the opportunity to make a submission.

Ngā Mihi,

Barry Weeber

ECO Co-Chairperson

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Fisheries management (CRA 2)
Fisheries New Zealand
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29 January 2025

Review of sustainability measures for spiny rock lobster (CRA 2) for 2024/25

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Introduction

1. This is a submission on proposed sustainability measures for the Hauraki Gulf, Coromandel and Bay of Plenty spiny rock lobster fishery (**CRA 2**) as set out in the Fisheries New Zealand (**FNZ**) Discussion Paper No: 2024/33 (**Discussion Paper**).[1]

2. The Environmental Defence Society (**EDS**) is an independent not-for-profit organisation conducting interdisciplinary policy research and litigation. It was established in 1971 with the purpose of improving environmental outcomes in Aotearoa New Zealand.

3. EDS has a special interest in the marine environment. In May 2022, EDS completed the first phase of a multiyear project looking at issues within the national oceans management system and options for future reform.[2] EDS is undertaking phase two of the project which focuses on developing recommendations for oceans reform.

4. Fisheries management has been a core focus of EDS's work for many years. In 2018, EDS led an in-depth review of the national fisheries management system and published findings in a report entitled "*Voices from the Sea: Managing New Zealand's Fisheries*".[3] Drawing on this work, EDS has sought to improve fisheries decision-making by submitting on proposed measures for various wild stocks, including rock lobster within northeastern New Zealand (CRA 1 and CRA 2).[4]

[1] FNZ (2024) *Review of sustainability measures for spiny rock lobster (CRA 2) for 2024/25* (Fisheries New Zealand Discussion Paper No:2024/33, December 2024), [**Discussion Paper**], available here.
[2] Greg Severinsen et al (2022) "*The Breaking Wave: Oceans Reform in Aotearoa New Zealand*" (EDS, May 2022), available here.
[3] Raewyn Peart (2018) "*Voices from the Sea: Managing New Zealand's Fisheries*", (EDS, 2018), available here.
[4] For example EDS (12 December 2024) "*Submission on proposed measures for the Northland spiny rock lobster fishery (CRA 1)*", available here. Previous submissions by EDS on proposals applying to CRA 1 and CRA 2 are available here.

Summary of submission

5. EDS commends FNZ for taking steps to manage the negative impacts of rock lobster harvest on kelp forests in the CRA 2 fishery which is long overdue and now urgently needed.

6. EDS is very concerned about the depleted biomass levels of CRA 2, the significant implications for the health of rocky reef ecosystems, and the negative flow-on effects for the productivity of the broader marine environment. Available information shows the stock has remained persistently depleted under the current management settings. An urgent and careful management approach is required to support the recovery of the stock and kelp reef systems.

7. The information presented in the Discussion Paper relies heavily on the latest FNZ stock assessments. EDS finds it concerning that the Discussion Paper attempts to disregard relevant fisheries-independent information about important matters that the Minister for Oceans and Fisheries (**Minister**) is required to take into account. This approach is not consistent with the information principles in s 10 of the Act or the requirements in s 13(2) of the Act.

8. EDS supports the need to set a higher long-term biomass management target for the CRA 2 stock because this is likely to result in more large rock lobster over time. EDS stresses the need for an increase of at least 3.5 times the current target (i.e. $\mathbf{B_R}$) above the other less precautionary options in the Discussion Paper. This will support critical increases in rock lobster abundance at a quicker rate, which is necessary to restore the predatory influence of rock lobster in shallow reef ecosystems.

9. EDS does not support any increases to catch limits for the 2025/26 fishing year and prefers retaining the status quo ("**Option A1**") as it is the most conservative of the options proposed. EDS finds it concerning that the Discussion Paper fails to consider any *reductions* in the Total Allowable Catch (**TAC**). This contradicts the other proposals in the Discussion Paper, which may require reductions in the TAC to be successfully implemented.

10. EDS supports the proposed closure of the inner Hauraki Gulf to commercial and recreational rock lobster harvest ("**Option B2**"). There is strong evidence that rock lobster are critically depleted across shallow reefs in the inner Hauraki Gulf and recruitment may be limited by prevailing oceanic conditions. The proposed closure may support recovery of these rock lobster populations. However, there is a material omission in the Discussion Paper; it fails to include any spatial measures applying to the wider CRA 2 fishery and this oversight means there is a failure to take into consideration relevant evidence of urchin barrens and severely depleted rock lobster populations. Stronger measures are required to achieve consistency with the environmental principles and purpose of the Act.

11. Overall, the proposals in the Discussion Paper do not go far enough to ensure sustainability of the CRA 2 stock and associated reef ecosystems. EDS requests a suite of necessary additional measures that will provide for effective ecosystem-based management of the stock. These include (as a minimum):

(a) A finer scale spatial stock assessment and ecosystem based management approach for CRA 2 based on the recommendations outlined in MacDiarmid (2025).[5] As an initial step, this would involve subdividing the stock into 6 subregions and incorporating fisheries-independent data into the assessment process. Targeted measures, including ecosystem based biomass management targets and appropriate catch limits, could then be applied to each subregion rather than the fishery as a whole.
(b) A maximum legal size limit to protect large rock lobster with the highest reproductive capacity and most important predatory influence.
(c) Strong spatial measures aimed at rebuilding depleted rock lobster populations and restoring kelp forests in areas susceptible to urchin barrens throughout the CRA 2 fishery. In these areas, deployment of proactive restoration tools should be enabled, such as urchin removal and/or rock lobster translocation, with appropriate conditions.
(d) An ecosystem monitoring plan to track the status of kelp forest habitat over time.
(e) Additional protections for packhorse rock lobster that reflect the management settings for spiny rock lobster. For instance, the daily bag limit for packhorse lobster should be reduced from 6 to 3, and packhorse lobster should be included in the spatial measures deployed for spiny rock lobster in CRA 2.
(f) Mandatory reporting of recreational catch of rock lobster (spiny and packhorse).

12. This submission addresses the relevant management context and then provides EDS's feedback on the proposals in the Discussion Paper. Additional comments on the legislative framework are included in **Appendix 1** and a summary of EDS's responses to questions in the Discussion Paper is included in **Appendix 2**.

Management context

Key characteristics of the CRA 2 fishery

13. CRA 2 encompasses coastal waters on the east coast of the North Island from Te Arai Point (south of Whangārei) to East Cape in the Bay of Plenty. As shown in Figure 1, the CRA 2 fishery is divided into four statistical areas for reporting purposes:

(a) Statistical area 905 falls within the Hauraki Gulf Marine Park (**HGMP**) and includes waters surrounding Little Barrier Island, Great Barrier Island and the western side of the Coromandel Peninsula (**Hauraki Gulf**).
(b) Statistical area 906 overlaps with the southern part of the HGMP and includes coastal waters to the east of the Coromandel Peninsula (**Eastern Coromandel**).
(c) Statistical areas 907 and 908 span waters off the eastern Bay of Plenty (**Eastern Bay of Plenty**).

[5] Alison MacDiarmid (2025) "What is an appropriate spatial scale for ecosystem based fishery management of koura, spiny lobster, Jasus edwardsii, in the Hauraki Gulf Marine Park, Aotearoa New Zealand?" *Fisheries Research* 281 107261, available here, at 8.

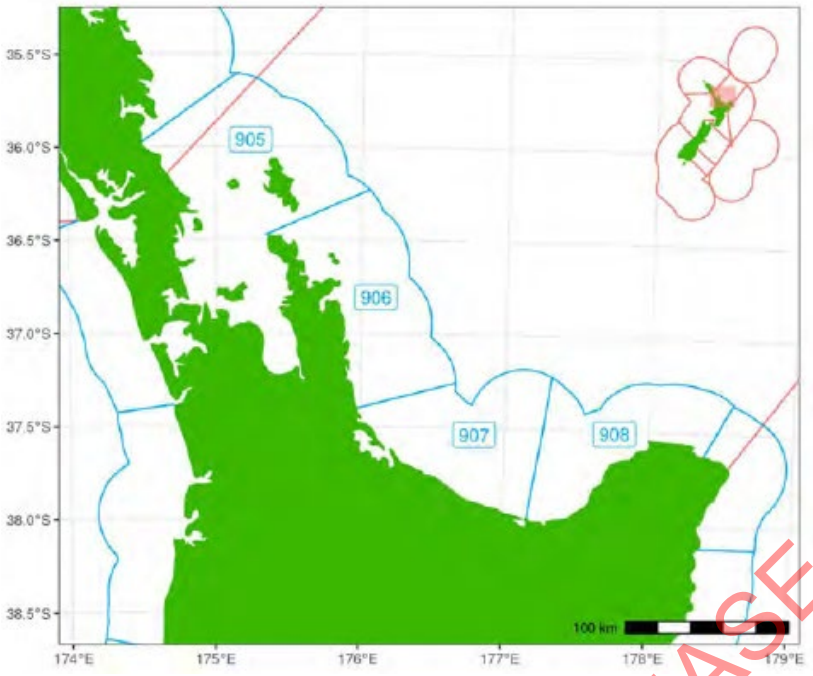

Figure 1. Map reproduced from the Fisheries Assessment Plenary (2024) showing the boundaries of the statistical reporting units within CRA 2.[6]

14. A recent report commissioned by FNZ (**FNZ Report**) indicates that approximately half (47-50%) of the annual commercial catch of rock lobster in CRA 2 is taken from the Hauraki Gulf and Eastern Coromandel (combined statistical areas 905 and 906).[7] However, annual landings are unevenly distributed between these areas. For instance, between 2020-21 and 2022-23, the Eastern Coromandel supported 33-34% of annual landings, while only 13-17% of landings were taken from the Hauraki Gulf (statistical area 905).[8] The Discussion Paper suggests that 0.5-2% of the annual commercial harvest has been taken from the inner Hauraki Gulf over the past five years, while 93% of fishing effort occurred elsewhere.[9]

15. The FNZ Report demonstrates that the number of commercial vessels operating within CRA 2 has decreased through time, from 70-80 vessels during the 1980s, to 16 vessels in 2022.[10] The number of vessels operating within the Hauraki Gulf (statistical area 905) dropped to just 4 in the 2020/22 fishing year and has remained at this level since.[11] This has occurred alongside declines in commercial catch and has implications for the reliability of stock assessments (addressed further below).

[6] FNZ (2024) *Fisheries Assessment Plenary: November 2024, Stock assessment and stock status Volume 1 Introductory sections and Albacore to Yellowfin Tuna* (Wellington, November 2024) [**Plenary Report**], available here, at 318.
[7] P J Starr (2024) *Rock lobster catch and effort data: 1979-80 to 2022-23* (New Zealand Fisheries Assessment Report 2024/10, March 2024), available here, at 13.
[8] Ibid at 39.
[9] Discussion Paper, above n 1, at [47].
[10] Starr, above n 7, at 38.
[11] Starr, above n 7, at 38.

16. There is limited understanding of recreational or customary harvest in CRA 2. Recreational catch is estimated through results of the National Panel Surveys of Marine Recreational Fishers (**NPS**), boat ramp ("creel") surveys and reported landings from recreational charter vessels.[12] The NPS is undertaken once every 5 to 6 years, and relies heavily on self-reported data, making it difficult to assess spatial or temporal trends in recreational fishing effort. The latest NPS indicates that recreational landings in CRA 2 have decreased over the past decade from approximately 40 tonnes in 2011/12 to 10 tonnes in 2022/23.[13] The Discussion Paper suggests that recreational fishers have shifted away from the inner Hauraki Gulf in recent years due to localised depletion of rock lobster.[14]

17. There is also limited information on settlement levels and recruitment in CRA 2. In 1999-2000, settlement monitoring frames were installed at four locations in CRA 2 with the aim of identifying a site for long-term monitoring.[15] The frames were installed at Papatu Point (near Tauranga Harbour), Mount Maunganui wharves (briefly until the frames were vandalised), Okurei Point (Maketu), and Little Awanui (eastern Bay of Plenty).[16] Some of these locations had been monitored in the 1980s but only temporarily and no long-term record had been established.[17] The frames were monitored monthly for a year and pueruli and young juvenile rock lobsters were only reported at Papatu Point.[18] Low or zero catches were observed elsewhere. While Papatu Point was identified as a potential candidate for long-term monitoring, a permanent station was not established.[19]

18. Rock lobster have an extended larval stage. They spend at least 12 months drifting in oceanic currents, where they transition from a planktonic larval stage ("phyllosoma") to a post-larval stage ("puerulus"), and then return to the coast to settle on suitable reef substrate.[20] This extended larval phase has implications for management of CRA 2 because there are important linkages between populations located in different parts of the country.

19. A broad analysis of larval sources and sinks around the country indicates that 19% of settlement in CRA 2 is sourced from the Northland stock (CRA 1) while 20% is sourced from local recruitment.[21] Other recruitment is sourced from stocks further to the south extending all the way to Kaikōura.[22] There is strong evidence that rock lobster populations on the east coast of CRA 1 have collapsed due to long-term overfishing,[23] which is likely to have implications for future recruitment in downstream stocks including CRA 2. In addition, the depletion of CRA 2 itself, will be likely affecting local recruitment.

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[12] A Heinemann and A Gray (2024) *National Panel Survey of Marine Recreational Fishers 2022–23* (New Zealand Fisheries Assessment Report 2024/51, August 2024), available here; and J Q Maggs et al (2024) *Monitoring of recreational harvest of red rock lobster Jasus edwardsii in CRA 2* (New Zealand Fisheries Assessment Report 2024/52, August 2024), available here.
[13] Plenary Report, above n 6, at 274.
[14] Discussion Paper, above n 1, at 16.
[15] J D Booth et al (2001) *Settlement indices for 1999, and 1999-2000 juvenile abundance of the red rock lobster, Jasus edwardsii* (New Zealand Fisheries Assessment Report 2001/28, Ministry of Fisheries, Wellington, June 2001), available here, at 7.
[16] Ibid at 7-8.
[17] J D Booth et al (2007) *Monitoring the settlement of red rock lobsters (Jasus edwardsi) in New Zealand, with settlement levels to 2004* (New Zealand Fisheries Assessment Report 2007/43, NIWA, Wellington), available here, at 10-11.
[18] Booth et al, above n 15, at 6.
[19] Booth et al, above n 17, at 10-11.
[20] Plenary Report, above n 6, at 277.
[21] Stephen M Chiswell and John D Booth (2008) "Sources and sinks of larval settlement in Jasus edwardsii around New Zealand: Where do larvae come from and where do they go?" *Mar Ecol Prog Ser* 354:201-217, available here, at 213.
[22] Ibid at 212.
[23] See EDS, above n 4, for an overview.

20. Overall, the evidence confirms rock lobster populations are critically depleted in parts of the CRA 2 fishery, that settlement from 2 key sources is likely depressed, and the stock is vulnerable to fluctuations in settlement. A cautious approach must be adopted to management of the CRA 2 fishery in light of this context.

Past management approaches

Long-term declines in abundance of rock lobster

21. Rock lobster in CRA 2 have been heavily fished for many decades. The latest Fisheries Assessment Plenary Report (**Plenary Report**) suggests the abundance of legally harvestable rock lobster ("vulnerable biomass") is around 20% of the unfished reference level (**URL**) (a modelled estimate of unfished or "virgin biomass" used to determine the current status of the stock)[24] while the biomass of sexually mature female lobsters ("spawning biomass") is around 38% of the URL.[25]

22. Model-derived estimates of vulnerable biomass show the CRA 2 stock reached an initial low point in 1992, increased until the mid-1990s, and then decreased rapidly to a new low point by 2002.[26] The vulnerable biomass remained relatively stable (at this depleted level) until 2007 and then decreased to a new historic low by 2017.[27]

23. The abundance of rock lobster in CRA 2 has increased since 2018 but remains well below historic levels. For example, the Discussion Paper notes that the vulnerable biomass was more than *two times* greater in 1980 (the earliest modelled biomass).[28] Studies exploring long-term trends in population structure and ecosystem functioning of marine species in the Hauraki Gulf suggest rock lobster populations had already experienced significant declines (~76%) by 1950.[29] This means the current biomass levels of rock lobster in CRA 2 reflect a historically depleted state and stronger measures are required to rebuild the stock.

Reliance on flawed management procedures

24. Between 2014 and 2016, decisions on the setting of catch limits in CRA 2 were informed by a "*management procedures*" approach.[30] Generally, management procedures involve the development of a harvest 'decision rule', which defines the relationship between catch and effort data and the Total Allowable Commercial Catch (**TACC**).[31] Decision rules are developed with inbuilt triggers so that if the reported catch changes by a prescribed amount, the output will automatically adjust in response, without any further management scrutiny.

[24] Plenary Report, above n 6, at 341. (See Table 11 - B_{2024}/B_0).
[25] Plenary Report, above n 6, at 341. (See Table 11 - SSB_{2024}/SSB_0).
[26] Plenary Report, above n 6, at 331.
[27] Ibid.
[28] Discussion Paper, above n 1, at [17].
[29] A B MacDiarmid et al (2016) *Taking Stock the changes to New Zealand marine ecosystems since first human settlement: synthesis of major findings, and policy and management implications* (NZAEBR No 170, MPI, June 2016), available here, at 27.
[30] D N Webber et al (2018) *The 2017 stock assessment and management procedure evaluation for rock lobsters (Jasus edwardsii) in CRA 2* (NZ Fisheries Assessment Report 2018/17, MPI, May 2018), available here, at 11-12.
[31] See summary: Plenary Report, above n 6, at 286.

25. The management procedure adopted for CRA 2 relied heavily on fisheries-dependent catch-per-unit-effort (**CPUE**) data, which was considered to be a reliable indicator of relative stock size.[32] This proved to be inadequate and led to significant depletion of rock lobster biomass over the span of several years.

26. When it became apparent that rock lobster populations had been critically depleted across shallow reef habitats in CRA 2, industry agreed to voluntarily shelve 25 tonnes of quota (i.e. 12.5% of the TACC) for the 2015-16 fishing year. The amount of shelved quota was increased to 49 tonnes (i.e. 24.5% of the TACC) in the 2016-17 and 2017-18 fishing years.[33]

27. In 2017, a stock assessment was undertaken for CRA 2. Results showed the spawning biomass of rock lobster was critically low at about 18.5% of the (then) URL and very likely (82%) below the soft limit for the stock (which required a rebuilding plan).[34] The assessment found the biomass of rock lobster had steadily decreased between 2007 and 2016. However, between 2014 and 2016 when management procedures were used to inform catch settings, the decision rule indicated no change in TACC was necessary despite the low and declining stock levels.

28. The 2017 stock assessment suggested that low recruitment played a part in the declining trends.[35] However, it also found changes in the commercial fleet likely contributed to the disconnect between CPUE data and stock biomass levels. Vessels with lower catch rates had left the fishery, while those with higher catch rates remained. This led to an observed increase in CPUE that was independent of any increase in stock biomass and likely overestimated the abundance of the stock in preceding years.[36]

29. In 2018, the (then) Minister decided to implement a 'fixed catch approach' and to depart from the management procedures approach for CRA 2 as part of a rebuilding plan.[37] This involved reductions in the TAC (from 416.5 to 173 tonnes), TACC (from 200 to 80 tonnes), recreational catch allowance (from 140 to 34 tonnes) and other mortality allowance (from 60 to 42.5 tonnes).[38] In 2020, the recreational daily bag limit was reduced from 6 to 3 red rock lobster.[39] These settings remain in force as of January 2025.

Latest stock assessments

30. The latest stock assessments for CRA 2 were undertaken in 2022 (full assessment), 2023 (rapid assessment) and 2024 (rapid assessment). Full stock assessments for rock lobster occur every four to five years and include a review of key parameters and assumptions underlying the assessment model ("base case").[40] Rapid assessments retain the base case but include new data

[32] Webber et al, above n 30, at 11-12.
[33] Ibid.
[34] Webber et al, above n 30, at 22-23.
[35] Webber et al, above n 30, at 14.
[36] Webber et al, above n 30, at 3.
[37] Decision by Hon Stuart Nash on *Fisheries sustainability measures for 1 April 2018* (26 March 2018), available here.
[38] Ibid at 3.
[39] Ministry for Primary Industries "Review of the CRA 2 rock lobster fishery" here.
[40] Plenary Report, above n 6, at 284.

such as additional years of CPUE.[41] Consequently, rapid updates provide an opportunity to evaluate how the stock is tracking against projections made by the full assessment model.

2022

31. The 2022 full assessment estimated the vulnerable biomass of rock lobster in CRA 2 that can produce the Maximum Sustainable Yield (**MSY**) for the purposes of managing the stock in accordance with the Act.[42] The biomass management reference target for the stock (i.e. $\mathbf{B_R}$) was estimated to be about 335 tonnes.

32. The assessment found the vulnerable biomass was about 19.9% of the URL (i.e. 1.67 times B_R) and the spawning biomass was about 39.7% of the URL.[43] Results suggested the CRA 2 biomass had rapidly increased (i.e. more than doubled) since the last full assessment in 2017. Vulnerable and spawning biomass were predicted to increase over the next 5 years under the existing management settings.

2023

33. The 2023 rapid update found the vulnerable biomass had increased slightly to 21.3% of the URL (i.e. 1.77 times B_R) and the spawning biomass to 41.2% of the URL.[44] The assessment predicted that the biomass of the CRA 2 stock would continue to increase but at a slower rate than projected by the 2022 full assessment.[45]

2024

34. The 2024 rapid update found the vulnerable biomass was about 20% of the URL (i.e. 1.54 times B_R) and the spawning biomass was about 38.3% of the URL.[46] Consistent with the 2023 rapid update, the 2024 rapid update predicted that the stock biomass would continue to increase but at a slower rate than projected by the 2022 full assessment.[47] These results suggest the biomass of rock lobster in CRA 2 slightly declined between 2022 and 2024.

Concerns related to the FNZ stock assessment approach

Gaps and uncertainty underpinning stock assessment results

35. EDS has concerns about the reliability of the latest stock assessments and considers these should be approached with caution.

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[41] Ibid.
[42] M B Rudd et al (2022) *The 2022 stock assessment of red rock lobsters (Jasus edwardsii) in CRA 2* (New Zealand Fisheries Assessment Report 2023/43, August 2023), available here, at 29.
[43] Ibid, see table 11: median 50%: B_{2022}/B_0 = 19.9%, B_{2022}/B_R = 1.676, SSB_{2022} / SSB_0 = 39.7%.
[44] M Pons et al (2024) *Rapid updates for New Zealand rock lobster (Jasus edwardsii) stocks in 2023* (New Zealand Fisheries Assessment Report 2024/13, March 2024), available here, at 24. See table 8: median 50%: B_{2023} / B_0 = 21.3%, B_{2023}/B_R = 1.772, SSB_{2023} / SSB_0 = 41.2%.
[45] Ibid at 38.
[46] Plenary Report, above n 6, at 341, see table 11, metrics: median 50%: B_{2024} / B_0 = 20%, B_{2024}/B_R = 1.538, SSB_{2024} / SSB_0 = 38.3%.
[47] Plenary Report, above n 6, at 345.

36. The model used by FNZ to assess the status of the CRA 2 stock is heavily reliant on fishery-dependent data as an indicator of stock abundance. CPUE data has known limitations because it can be influenced by a range of factors such as gear selectivity, changes in fishing patterns, fleet efficiency or fleet dynamics over time.[48] As previously indicated, past reliance on CPUE-based management procedures led to rapid depletion of the CRA 2 stock and changes in vessel/fisher behaviour are thought to have contributed to this outcome.

37. The Plenary Report acknowledges that there is no robust puerulus settlement series to inform the stock assessment model for CRA 2.[49] This means the assessment model is not responsive to changes in settlement levels, which can have significant implications for future recruitment to the fishery.

38. Recent modelling has identified a potential negative correlation between sea surface temperature and annual recruitment in CRA 2.[50] Specifically, model results show that high temperatures may impair the survival of rock lobster in CRA 2 around the size of recruitment.[51] This means there is a risk that ocean warming could affect stock productivity in future years on the north-east coast. The stock assessment model does not account for this.

39. The above examples demonstrate that there is considerable uncertainty associated with estimates of rock lobster biomass produced by the latest stock assessment reports, and that reliance on these estimates may have led to further depletion of the CRA 2 stock.

Inadequate consideration of fisheries-independent data

40. Recent scientific studies have used fisheries-independent data to assess the status of rock lobster populations at marine reserve and fished locations in the Hauraki Gulf.[52] Results suggest the latest FNZ stock assessments have overestimated the biomass of rock lobster populations within the CRA 2 fishery. For example:

    (a) Hanns et al (2022) used fisheries-independent data (i.e. potting and diver surveys) to assess the status of rock lobster populations at 2 marine reserves and adjacent fished locations in CRA 2.[53] They found the modelled total, spawning and vulnerable biomass levels of rock lobster populations in fished areas were all <10% of the biomass in marine reserves.[54] For example, the vulnerable biomass of fished populations was estimated to be 2.58% (range 0.87- 9.28) of the vulnerable biomass in marine reserves; and the spawning biomass was 1.94% (range 0.31-7.41).[55] The results suggested the biomass

[48] Mark N Maunder et al (2006) "Interpreting catch per unit effort data to assess the status of individual stocks and communities" *ICES Journal of Marine Science*, 63(8) 1373-1385, available here.
[49] Plenary Report, above n 6, at 326 and 336.
[50] Plenary Report, above n 6, at 336.
[51] Plenary Report, above n 6, at 336.
[52] Nessia et al (2024) "Using marine protected areas to assess the status and recovery of the spiny lobster Jasus edwardsii fishery in the Hauraki Gulf, Aotearoa New Zealand" *Front Mar Sci* 11, available here. Benn J Hanns, Tim Haggitt and Nick T Shears (2022) "Marine protected areas provide unfished reference information to empirically assess fishery status" *Biol Conserv* 276, available here.
[53] Hanns et al, above n 52, at 1.
[54] Hanns et al, above n 52, at 8-9.
[55] Hanns et al, above n 52, at 9, see table 5.

levels of rock lobster populations in fished areas were substantially lower than estimated by the FNZ stock assessment for the wider CRA 2 fishery at the time (2018-2019).[56]

(b) Nessia et al (2024) used fisheries-independent survey data to assess the status of rock lobster populations at additional sites (i.e. 3 marine reserves and 6 fished locations) in the Hauraki Gulf. They found the modelled total biomass of rock lobster in the Hauraki Gulf (statistical area 905) was 12.9 times higher in marine reserves than in fished locations and 42.5 times higher in the Eastern Coromandel (statistical area 906).[57] Overall, consistent with the findings of Hanns et al (2022), they found the total, vulnerable and spawning biomass of rock lobster at fished locations was <10% of the biomass in marine reserves.[58] However, estimates of biomass were slightly higher on average (sitting around 5%) than reported in Hanns et al (2022).[59] These results suggested there had been little evidence of rock lobster recovery across the wider Hauraki Gulf following catch reductions in 2018.

41. The above studies used rock lobster populations within marine reserves as a proxy for the unfished reference level (or 'virgin biomass'). However, as outlined in Nessia et al (2024), rock lobster populations in marine reserves do not represent the *true* unfished biomass level, which is likely much higher, and therefore the above over-estimates the rock lobster biomass in unfished areas. This is because rock lobster abundance has declined over the past two decades at marine reserves in the CRA 2 fishery (along with declines in the broader fisheries) despite no-take protection.[60] This is thought due to 'edge effects' where strong fishing pressure at the reserve boundaries leaves rock lobster vulnerable to harvest during offshore movements outside the reserves.[61]

Stock assessment model operates at inappropriate spatial scale

42. A recent synthesis of scientific information by MacDiarmid (2025) suggests a finer-scale assessment approach is needed to ensure sustainability of the CRA 2 stock.

43. MacDiarmid (2025) describes how the FNZ stock assessment model is applied at the scale of the whole Quota Management Area (**QMA**) and treats all rock lobster within CRA 2 as a single unit ("unit stock assumption").[62] The model assumes there is a high degree of mixing of individual rock lobsters within the CRA 2 fishery and predicts annual recruitment, growth, fishing effort and natural mortality across the entire stock area.[63] The model then draws on this information to assess the status of the stock and how it may respond to different levels of harvest at the same scale.

[56] Hanns et al, above n 52, at 9, see figure 5.
[57] Nessia et al, above n 52, at 6.
[58] Nessia et al, above n 52, at 10, see figure 5.
[59] Nessia et al, above n 52, at 10, see figure 5 which suggests the modelled biomass levels for combined statistical areas 905 and 906 are (on average) sitting around 5%.
[60] Nessia et al, above n 52, at 9-10.
[61] La Scala-Gruenwald et al (2022) "Small marine reserves do not provide a safeguard against overfishing" *Conservation Science and Practice* 3(1565), available here.
[62] MacDiarmid, above n 5.
[63] MacDiarmid, above n 5, at 7.

44. MacDiarmid (2025) found key aspects of the unit stock assumption were violated in the CRA 2 context because (in summary):[64]

    (a) There was a high likelihood of variable rock lobster recruitment across the fishery with a strong trend of decreasing settlement from the outer to inner Hauraki Gulf. This reflected the longer distances that pueruli would have to travel to reach the inner Hauraki Gulf from the shelf edge. Consequently, rock lobster populations in the outer Gulf likely experience higher and more consistent settlement and recruitment to the fishery.
    (b) Once rock lobster have settled on suitable reef habitat they remain within that area and are unlikely to move between adjacent reefs separated by wide stretches of sediment.
    (c) Fishing patterns are not uniform across the fishery. For example, commercial effort is concentrated in specific areas near the east coast of the Coromandel, Great Barrier Island and Little Barrier Island, while recreational effort is more widely distributed.
    (d) There is considerable spatial variation in the abundance of rock lobster across the Hauraki Gulf. Surveys have indicated that rock lobster are more abundant in the outer Gulf with very low abundance reported in the inner to mid Hauraki Gulf.
    (e) Results from ecosystem based model approaches (which account for a wider range of variables than the FNZ stock assessment model) suggest different sized rock lobster populations will play different roles in reef ecosystem functioning.

45. This means continued reliance on the FNZ stock assessment model could enable ongoing and increased depletion of rock lobster in areas where recruitment is limited (e.g. the inner Hauraki Gulf), where fishing is concentrated (e.g. the outer Hauraki Gulf) or where other model assumptions are not satisfied.

46. MacDiarmid (2025) suggests an ideal approach for the CRA 2 fishery would be to focus on assessing rock lobster populations at the *reef scale* given there is limited movement of juvenile and adult rock lobster between adjacent reefs.[65] However, as an interim step, MacDiarmid makes the following recommendations:[66]

    (a) Incorporate existing fine-scale data on rock lobster populations, including fisheries-independent data, in the stock assessment approach.
    (b) Identify new ways to collect data at suitable spatial scales to fill information gaps.
    (c) Develop a stock assessment model based on the four statistical areas, with the Hauraki Gulf (statistical area 905) divided into three sub-areas representing rock lobster populations located at different settlement points (i.e. inner, mid and outer Hauraki Gulf). This would provide for six subregions where targeted management measures could be applied.

[64] MacDiarmid, above n 5, at 7-8.
[65] MacDiarmid, above n 5, at 8.
[66] Ibid.

47. **Given the above, EDS submits that the latest stock assessment findings should be viewed extremely cautiously. A finer-scale spatial assessment and management approach should be urgently adopted for CRA 2 with targeted measures deployed to support recovery of depleted rock lobster populations and kelp forest habitat.**

Effect of rock lobster fishing on shallow kelp forests within CRA 2

Implications of urchin barrens

48. Widespread shifts from kelp forests to urchin barrens have been observed across shallow reefs in northeastern New Zealand.[67] This is of considerable concern because kelp forests support much higher biodiversity, significantly contribute to fisheries productivity and support healthy ecosystem functioning when compared to urchin barrens.[68] The scientific literature describes urchin barrens as "*a collapsed kelp ecosystem*" and it is widely accepted that urchin barrens are an indicator of significant ecosystem degradation.[69] They indicate that a 'tipping point' has been passed where the ecosystem has 'tipped' into a stable depauperate state.

49. The loss of kelp forests from shallow reefs represents a significant threat to the CRA 2 stock as well as the wider ecosystem. Kelp forests are an important facilitator of rock lobster puerulus settlement onto rocky reefs after larval transition, with the physical structure and chemical cues emitted by them having a positive effect on settlement and recruitment levels.[70] Scientists have recorded higher survival rates of juvenile rock lobster (40%) in kelp habitat versus in urchin barren habitat (10%) in Tasmania and linked this to potential protective benefits of kelp forests (e.g. food and shelter).[71]

50. Urchin barrens form when urchin densities exceed a critical threshold that drives destructive overgrazing of macroalgae.[72] Once barrens have formed, they are difficult to reverse because urchins are highly adaptive and can alter feeding behaviour to survive off less nutritious biota.[73] Studies have shown it is necessary to reduce urchin numbers to very low levels (e.g. 1 kina per m^2) to enable kelp recovery.[74]

Rock lobster fishing has contributed to urchin barrens in north-eastern New Zealand

51. The best available information demonstrates that fishing of rock lobster has contributed to a trophic cascade in CRA 2, where the depletion of rock lobster (and other key predators) has

[67] Vince C Kerr, Roger V Grace and Nick T Shears (2024) "Estimating the extent of urchin barrens and kelp forest loss in northeastern Aotearoa, New Zealand" *Journal of Marine and Freshwater Research*, available here.
[68] Aaron M Eger et al (2024) "Kelp forest versus urchin barrens: a comparison of ecosystem functions and services provided by two alternative stable marine habitats" *Proc R Soc B* 291: 20241539, here.
[69] Karen Filbee-Dexter and Robert E Schiebling (2014) "Sea urchin barrens as alternative stable states of collapsed kelp ecosystems", *Mar Ecol Prog Ser*, 495:1-25, available here.
[70] Iván A Hinojosa et al (2015) "Settlement and early survival of southern rock lobster, Jasus edwardsii, under climate-driven of kelp habitats", *ICES Journal of Marine Science*, 72(Supplement 1), available here.
[71] Ibid.
[72] S D Ling et al (2015) "Global regime shift dynamics of catastrophic sea urchin overgrazing", *Phil Trans R Soc B*, available here.
[73] See review by Kelsey I Miller, Caitlin O Blain and Nick T Shears (2022) "Sea Urchin Removal as a Tool for Macroalgal Restoration: A Review on Removing "the Spiny Enemies" *Frontiers in Marine Science*, available here, at 2.
[74] See Kelsey I Miller and Nick T Shears (2023) "The efficiency and effectiveness of different sea urchin removal methods for kelp forest restoration" *Restoration Ecology* 31(1), available here.

allowed kina to flourish and overgraze kelp on shallow reefs.[75] This in turn, has driven the loss of kelp and formation of extensive kina barrens.[76]

52. The scientific evidence on the role of fishing in trophic cascades in northeastern New Zealand was accepted by the High Court in the recent CRA 1 case.[77] The Court found (footnotes omitted):[78]

> (a) rock lobsters have an important ecological role in coastal ecosystems;
> (b) their primary ecological role is as a predator in shallow water areas;
> (c) in New Zealand, rock lobsters prey upon sea urchins/kina;
> (d) kina are an important herbivore on rocky reefs in north-eastern New Zealand because they can consume entire kelp forests and other seaweeds;
> (e) generally, the ecological role of rock lobsters as a predator influences the ecological role of the species they prey on;
> (f) where there are fewer rock lobsters, there is an increased population of kina, thereby increasing the grazing activity of kina, and resulting in the loss of strands of seaweed, particularly kelp forests, in coastal areas, described as a "trophic cascade";
> (g) trophic cascade has been reported in New Zealand, and areas affected by it are described as 'kina barrens', which take decades to reverse;
> (h) loss of kelp forests is ecologically damaging for surrounding coastal systems, in fisheries production, biodiversity, and ocean carbon sequestration;
> (i) there is strong evidence that trophic cascade has significantly contributed to the presence of kina barrens in the north-east of New Zealand, within both CRA1 and CRA2;
> (j) there are other factors, such as water temperature, water depth, storm damage, sediment and kelp disease that may impact on the prevalence of kina barrens; and
> (k) there is a lack of evidence as to this relationship around the remainder of New Zealand.

53. The above findings of the High Court were informed by scientific evidence and results from peer-reviewed publications that involved monitoring of sites within the CRA 2 fishery. Therefore, these findings are relevant to the Minister's decision on sustainability measures for CRA 2.

Extent and distribution of kina barrens

54. In northeastern New Zealand, the majority of urchin barrens are dominated by *Evechinus chloroticus* (kina). Studies have found that kina barrens predominately occur on shallow reefs (<10 m) but they can extend deeper (to ~20 m) at exposed offshore islands; they are most extensive on moderately wave-exposed reefs; and they are not observed in areas with high turbidity or wave action.[79]

55. A recent study by Kerr et al (2024) used survey data from seven sites on the northeast coast (within CRA 1 and CRA 2) to estimate the spatial extent of kina barrens at the regional scale. In summary, they found existing kina barrens:[80]

[75] Nick T Shears and Russell C Babcock (2002) "Marine reserves demonstrate top-down control of community structure on temperate reefs" *Oecologia* 132 (131):142, available here; Nick T Shears and Russell C Babcock (2003) "Continuing trophic cascade effects after 25 years of no-take marine reserve protection" *Marine Ecological Progress Series* 246:1-16, available here.
[76] Ibid.
[77] *The Environmental Law Initiative v Minister for Oceans and Fisheries* [2022] NZHC 2969 [*CRA 1 case*] at [69].
[78] Ibid.
[79] Nick T Shears and Russell C Babcock (2004) *Community composition and structure of shallow subtidal reefs in northeastern New Zealand* (Science for Conservation 245, Department of Conservation, October 2004), available here, at 6-7.
[80] Kerr et al, above n 67, at 12.

(a) Covered approximately 30% of shallow reefs in north-eastern New Zealand, which equates to an area of 30 km^2;
(b) Extended to depths of 12-16m at surveyed sites; and
(c) Were less common in no-take marine reserves (<2% coverage of shallow reefs) than at fished locations (7-49% coverage of shallow reefs).

56. Several studies have analysed long-term trends in the spatial extent of urchin barrens at sites within the Hauraki Gulf based using a combination of aerial imagery and ground-truthing surveys.[81] These studies have demonstrated that the spatial extent of urchin barrens has significantly increased since the 1950s at sites within CRA 2. For example:[82]

(a) Dartnell (2022) found the extent of kina barrens had increased from 0.4% to ~32% of shallow reef habitat around Little Barrier Island between 1953 and 2019. When mapping was undertaken in 2019, kina barrens were mostly found between 3 and 7m depth but extended to 14 m (and deeper) in some areas.
(b) Dartnell (2022) found urchin barren extent grew from 24% in 1979 to 49.5% in 2019 at The Noises.
(c) Lawrence (2019) found over a 40-year timeframe that urchin barrens had increased in extent at the Mokohinau Islands (CRA 2) and Mimiwhangata (CRA 1). In contrast, the extent of barrens had decreased within the no-take marine reserve at Leigh (CRA 2).

57. During recent surveys at sites around the Mercury Islands, Caiger et al (2023) observed some large areas of kina barrens (100-1000m^2) where rock lobster populations were depleted and dominated by small individuals.[83]

58. The above studies demonstrate that kina barrens are not isolated to the inner Hauraki Gulf but extend into the mid and outer Hauraki Gulf and other parts of the CRA 2 fishery.

Kelp forests are under increasing pressure from long-spined urchins

59. *Centrostephanus rodgersii* (long-spined urchins) have been described as an "*emerging threat*" for northern New Zealand.[84] Long-term monitoring data indicates that long-spined urchins have increased in abundance and spatial extent over the past two decades.[85] Balemi and Shears (2023) found long-spined urchins had formed barrens at protected and fished sites in Northland; and these barrens were generally deeper than kina barrens (i.e. > 10 m).[86] The authors suggest warmer sea temperatures may have contributed to the increases in long-spined urchin populations.

[81] See literature review by B Doheny, J P Davis and B Miller (2023) *Fishery-induced trophic cascades and sea urchin barrens in New Zealand: a review and discussion for management* (NZAEBR No. 324, FNZ, November 2023), available here at 49.
[82] Ibid.
[83] P E Caiger, O Peleg and N T Shears (2023) "Biodiversity and habitat assessment of subtidal reefs at the Mercury Islands, northeastern New Zealand" (Waikato Regional Council Technical Report 2023/25, October 2023, available here.
[84] Celia A Balemi and Nick T Shears (2023) "Emergence of the subtropical sea urchin Centrostephanus rodgersii as a threat to kelp forest ecosystems in northern New Zealand" *Frontiers in Marine Science* 10, available here, at 1.
[85] Ibid.
[86] Ibid.

60. Available information suggests long-spined urchins are more challenging to manage than kina. They were first detected on the east coast of Tasmania, in the late 1970s, and rapidly expanded range in response to warming coastal waters. By 2001, the long-spined urchin population occupied reefs across eastern Tasmania at depths ranging from 4 to 40 m, and formed extensive barrens.[87] Long-spined urchins have been observed to form discrete patches of barren habitat ("incipient barrens") which eventually expand and join with others to create extensive barrens.[88]

61. Ling and Keane (2021) monitored the response of long-spined urchin barrens to measures aimed at increasing the abundance of rock lobster (i.e. translocation and rock lobster fishery closure) over a 12-year period (2008-2020).[89] They found locations with healthy rock lobster populations have an increased ability to avoid formation of new barrens.[90] For example, the spatial extent of *incipient* barrens decreased over this period, which contrasted with observed trends in other areas where rock lobster had not been translocated.[91] However, there was no detectable effect of lobster enhancement on the coverage of existing *extensive* barrens, which persisted in a stable state without reducing in area.

62. The above demonstrates that long-spined urchins must be carefully and proactively managed to avoid formation of extensive urchin barrens in CRA 2. While FNZ has commissioned mapping of shallow (<10 m) urchin barrens in northeastern New Zealand,[92] long-spined urchin barrens pose a potentially greater threat to kelp forests across a wider depth range. **Therefore, it is essential that wider mapping is undertaken to identify incipient long-spined urchin barrens so measures can be deployed to avoid their expansion into more persistent networks.**

EDS's comments on the information basis presented by the Discussion Paper

63. The Minister is required to take into account the information principles set out in s 10 of the Act when making a decision on sustainability measures applying to the CRA 2 fishery (see **Appendix 1**). EDS considers aspects of the Discussion Paper do not present the "*best available information*" and should not be relied on without recourse to the fisheries-independent publications and additional information listed in this submission.

<u>Insufficient regard to fisheries-independent data</u>

64. The Discussion Paper includes information from FNZ stock assessments and fishery-independent studies of rock lobster populations in CRA 2.[93] However, the Discussion Paper does not treat these types of information equally. Instead, it emphasises differences between the sources of

[87] See summary in Katherine Cresswell et al (2024) "When overfishing is the sustainable option: controlling a range-extender" (published online but not yet peer-reviewed), available here, at 2.
[88] Ibid.
[89] Scott Ling and John Keane (2021) "Decadal resurvey of long-term lobster experimental sites to inform Centrostephanus control" (Final contracted report for the Abalone Industry Reinvestment Fund, AIRF Project 2019_08), available here.
[90] Ibid.
[91] Ibid at 13.
[92] Discussion Paper, above n 1, at [214.d].
[93] Discussion Paper, above n 1, at [179] to [191].

information, and ultimately disregards the fisheries-independent data, while giving preference to the FNZ stock assessments. For example, the Discussion Paper states:[94]

> caution should be exercised when extrapolating the Nessia et al. (2024) study to make inferences on rock lobster abundance outside of the areas surveyed, the wider CRA 2 fishery; especially when making direct comparisons to the 2022 CRA 2 stock assessment. Therefore, FNZ considers that at this stage, the 2024 rapid assessment update (that is informed by the 2022 CRA 2 stock assessment) constitutes the best information on the state of rock lobster populations within CRA 2.

65. EDS submits that it is not open to FNZ to cherry-pick what amounts to the "*best available information*" for the Minister to base his decision on. The Act defines this concept as:[95]

> **Best available information** means the best information that, in the particular circumstances, is available without unreasonable cost, effort or time.

66. The fishery-independent studies cited in the Discussion Paper provide important and relevant information on the abundance and status of rock lobster populations at different locations in the Hauraki Gulf. They show that rock lobster populations are critically depleted in some places and stronger management measures are required to achieve consistency with the principles and purpose of the Act. This is highly relevant to the Minister's decision. Failing to account for this information, by relying exclusively on the 2024 rapid stock assessment update, is not consistent with the information principles set out in s 10 of the Act.

67. The approach adopted by the Discussion Paper effectively disregards peer-reviewed scientific publications. In the recent *CRA 1 case*, the (then) Minister made a decision in reliance on an unpublished report and disregarded peer-reviewed scientific publications. In considering the evidence before it, the High Court found the scientific papers reflected the best available information because they had been peer-reviewed "*and found suitable for publication*".[96] This suggests the Nessia et al (2024) and Hanns et al (2022) studies, which are reported in peer-reviewed scientific publications, should be given more weight than the FNZ stock assessment reports.

68. EDS submits that information from the FNZ stock assessments and other relevant published studies collectively represent the "*best available information*" on rock lobster populations within CRA 2. The fisheries-independent surveys fill gaps in the FNZ stock assessment by producing estimates of rock lobster biomass at finer spatial scales than the model. They also provide complementary information (e.g. about sub-legal rock lobster size) which is collected during dive surveys.

69. The Discussion Paper does not identify any "*unreasonable cost, effort or time*" associated with consideration of available fisheries-independent information and overseas experience suggests it can easily be included in assessments. For example, fisheries-independent rock lobster potting data has been used to complement CPUE-dependent stock assessments in the South Australia

[94] Discussion Paper, above n 1, at [190].
[95] Fisheries Act 1996, s 2(1).
[96] *CRA 1 case* at [112].

rock lobster fishery since 2006/07.[97] The fisheries-independent data is considered alongside model outputs, as part of a quality assurance process, to check if the model results are robust.[98] EDS submits that a similar approach should be taken in relation to the CRA 2 fishery rather than delaying consideration of fisheries-independent data (as suggested by the Discussion Paper).[99]

70. As a final point on this matter, EDS emphasises that the 2024 rapid assessment results show the rock lobster biomass levels in CRA 2 are slightly lower than was projected by the 2022 and 2023 stock assessments. This trend is consistent with comments in Nessia et al (2024), which suggest an increase in CPUE following the 2018 catch reductions may have influenced fisher behaviour and resulted in the FNZ stock assessments overestimating the biomass of the CRA 2 stock.[100] If the 2022 stock assessment findings were accurate, the biomass levels of rock lobster populations would have continued to increase but they have plateaued instead.

<u>Inaccurate, misleading and unsupported statements</u>

71. The Discussion Paper contains various comments to support FNZ's position that the latest stock assessments represent the best available information on rock lobster populations. For example:[101]

> The higher density of rock lobster within marine reserves … cannot be attributed solely to fishing effort targeting this species. The higher abundance of rock lobster observed inside marine reserves will in part be due to rock lobster's preference for a biological environment that has developed in the absence of fishing for all species (and other human activities), which in turn attracts rock lobster and causes aggregations of localised high rock lobster abundance.

72. EDS queries the scientific basis for this statement which appears to minimise the role of fishing in contributing to observed differences in rock lobster abundance at marine reserves and fished locations. No scientific information was provided in the Discussion Paper to support the proposition that marine reserves attract rock lobsters from other areas (as opposed to supporting the survival of rock lobster that settle within those areas). This statement also appears to contradict the recent synthesis by MacDiarmid (2025), which found that rock lobsters exhibit high side fidelity and are unlikely to move between adjacent rocky reefs post-settlement.[102] **It needs to be deleted from any final advice to the Minister.**

73. The Discussion Paper also states:[103]

> The options proposed here have the potential to support kelp recovery in the long term.

[97] Linnane et al (2022) *Southern Zone Rock Lobster (Jasus Edwardsii) Fishery Stock Assessment 2020/21* (South Australian Research and Development Institute (Aquatic Sciences), Adelaide, SARDI Research Report Series No. 1156, July 2022), available here, at 8.
[98] Ibid at 39-40.
[99] Discussion Paper, above n 1, at [190].
[100] Nessia et al, above n 52, at 12.
[101] Discussion Paper, above n 1, at [189].
[102] MacDiarmid, above n 5, at 5-6.
[103] Discussion Paper, above n 1, at [152].

74. However, the Discussion Paper includes proposals to increase the TAC and TACC for rock lobster in CRA 2 by up to 9% and 25% respectively (i.e. "Option A3"). There is no scientific evidence to suggest *increases* in the rock lobster harvest would support kelp recovery in the long term.

75. Overall, EDS submits that the information basis presented by the Discussion Paper is not consistent with the information principles listed under s 10 of the Act because it:
    (a) Disregards relevant peer-reviewed scientific information;
    (b) Fails to adequately recognise uncertainty associated with the latest FNZ stock assessment results; and/or
    (c) Includes statements that are inaccurate, misleading and unsupported by peer-reviewed and published literature.

76. **EDS requests that these matters are addressed in advice provided to the Minister on the CRA 2 proposals to ensure his decision is consistent with the requirements of the Act.**

EDS's comments on specific proposals in the Discussion Paper

77. The Discussion Paper includes three proposals:

    (a) Set a new long-term biomass management target for CRA 2;
    (b) Retain or increase the catch limits for CRA 2; and
    (c) Close the inner Hauraki Gulf to the commercial and recreational harvest of rock lobster.

Proposal 1: Set a new long-term biomass management target

78. FNZ seeks feedback on a new long-term biomass management target for CRA 2. The Discussion Paper includes three options, which reflect increases of varying magnitude compared to the current management target (i.e. $\mathbf{B_R}$):

    (a) An increase of 1-2 times B_R (i.e. 335 to 670 tonnes);
    (b) An increase of 2-3 times B_R (i.e. 670 to 1005 tonnes); or
    (c) An increase greater than 3 times B_R (i.e. >1005 tonnes).

79. EDS supports the need for a higher biomass management target for the CRA 2 stock. The latest FNZ stock assessments show the current management settings are inadequate to rebuild rock lobster populations or to address the cumulative effects of fishing on shallow kelp forest habitat.

80. The Discussion Paper suggests a higher management target will result in more (and larger) rock lobsters in the CRA 2 fishery over time.[104] EDS generally supports this outcome because:

    (a) Large rock lobster have greater reproductive potential;[105]

[104] Discussion Paper, above n 1, at 8-9.
[105] See A B MacDiarmid, D Freeman and S Kelly (2013) "Rock Lobster biology and ecology: contributions to understanding through the Leigh Marine Laboratory 1962-2012", *New Zealand Journal of Marine and Freshwater Research*, 47:3, 313-333, available here, at 319.

(b) Large rock lobster (with a carapace length > 130 mm) fulfil an important predatory role in shallow kelp habitats because they have an ability to consume large numbers of kina of all sizes and particularly large kina;[106]

(c) Large rock lobster (spiny and packhorse) are the only known predator of long-spined urchins. This means large rock lobsters may play a critical role in regulating long-spined urchin numbers and preventing the expansion of urchin barrens into deeper kelp habitat;[107]

(d) Larger urchins eat more kelp than smaller urchins. Therefore, large predators play an important role in regulating the most destructive kina and preventing barrens.[108]

81. FNZ modelling suggests an increase of 3.5 times B_R would result in (at least) 2.9 times more large male and 5.9 times more female rock lobsters relative to the current biomass of CRA 2.[109] An increase of 2.5 times B_R would result in at least 2.3 times more large male and 3.2 times more large female rock lobsters. **Therefore, out of the options included in the Discussion Paper, EDS prefers an increase of *at least* 3.5 times B_R as it will provide for the greatest increase in large rock lobster biomass over time.**

82. However, EDS submits that a higher biomass target of at least 3.5 times B_R is not sufficiently cautious (on its own) to ensure sustainability of rock lobster populations in CRA 2 or to address urchin barrens as required by the Act. This is because:

(a) The Discussion Paper indicates that the new target will be used to inform the development of CPUE-based management procedures.[110] As addressed above, past reliance on management procedures based on CPUE resulted in rapid depletion of rock lobster from shallow reefs in CRA 2. EDS considers the risk associated with CPUE-based management procedures is elevated, in the context of recent declines in vessels operating within CRA 2, because changes in fisher/vessel behaviour are known to affect their reliability.

(b) The Discussion Paper notes an increase of 3.5 times B_R would be consistent with the level of estimated rock lobster biomass in CRA 2 in the late 1970s / early 1980s.[111] However, urchin barrens were already present in the Hauraki Gulf by the 1960s.[112] This suggests efforts to rebuild the CRA 2 stock to higher levels around 3.5 times B_R will not be sufficient to address cumulative adverse effects of rock lobster harvest on shallow kelp habitats.

(c) Fisheries-independent studies of rock lobster populations in marine reserves suggest total biomass levels were about 12.9 times higher in the Hauraki Gulf (statistical area

[106] N L Andrew and A B MacDiarmid (1991) "Interrelations between sea urchins and spiny lobsters in northeastern New Zealand". *Marine Ecology Progress Series*, 70, 211-222, available here, at 216.
[107] Balemi and Shears (2023), above n 84, at 9.
[108] Christine F Stevenson, Kyle W Demes and Anne K Salomon (2016) "Accounting for size-specific predation improves our ability to predict the strength of a trophic cascade" *Ecology and Evolution*, available here.
[109] Discussion Paper, above n 1, at 9.
[110] Discussion Paper, above n 1, at 2 (see footnote #10), [26] and [185].
[111] Discussion Paper, above n 1, at [17].
[112] Ibid.

905) and about 42.5 times higher in the Eastern Coromandel (statistical area 906) compared to fished areas.[113] Studies tracking long-term ecosystem trends in marine reserves in CRA 2 have shown that urchin barrens are less prevalent in these marine reserves compared to fished areas.[114] This suggests a significantly higher biomass management target (of at least *10 times*) is required to restore the functional role of rock lobster on shallow reef habitats in CRA 2.

(d) There is strong evidence that a finer-scale spatial management approach is needed to ensure sustainability of rock lobster populations in CRA 2. Applying a biomass management target at the scale of the whole fishery is inconsistent with the best available information as summarised in MacDiarmid (2025) and may worsen outcomes for rock lobster in the inner to mid Hauraki Gulf.[115]

83. **For completeness, EDS confirms that it does not support an increase of 1-2 times B_R (i.e. the lowest magnitude of increase considered in the Discussion Paper).** The 2024 rapid update assessment estimated that the vulnerable biomass of rock lobster was currently sitting around 1.54 times B_R. Therefore, setting the target anywhere below 1.5 times B_R would reflect a lower level than the estimated vulnerable biomass of rock lobster within CRA 2 as of 2024. In other words, it would provide for a decrease in biomass over time. A slight increase (i.e. to 2 times B_R) is inadequate in the context of widespread urchin barrens and critically depleted rock lobster populations.

Proposal 2: Retain or increase catch limits

84. FNZ is proposing to review the catch settings for CRA 2 for the 2025/26 fishing year. The Discussion Paper includes three options:

(a) Retain the status quo with the TAC unchanged at 173 tonnes and the TACC at 80 tonnes (**Option A1**);
(b) Increase the TAC to 174.5 tonnes (+1%), the TACC to 90 tonnes (+12.5%) and decrease the "other mortality" allowance (from 42.5 to 34 tonnes) (**Option A2**).
(c) Increase the TAC to 188.5 tonnes (+9%), the TACC to 100 tonnes (+25%) and decrease the "other mortality" allowance (from 42.5 to 34 tonnes) (**Option A3**).

85. EDS strongly opposes any increase in catch allowances for CRA 2 because:

(a) Available information indicates that rock lobster populations are critically depleted in parts of the Hauraki Gulf and the biomass of the wider CRA 2 fishery is substantially below historic levels. In this context, increasing the catch limits for the CRA 2 fishery is inconsistent with the environmental principles set out in s 9 and the purpose of the Act (see **Appendix 1**).

[113] Nessia et al, above n 52, at 6.
[114] Shears and Babcock (2003) above n 75.
[115] MacDiarmid, above n 5, at 7.

(b) The options presented in the Discussion Paper were modelled using an interim biomass management target of 2 times B_R. EDS considers this reference level is not sufficiently cautious to ensure sustainability of the CRA 2 stock or to address cumulative effects of fishing on shallow kelp habitats. This is because it does not provide for any substantive increase in rock lobster biomass compared to the current biomass levels (which are about 1.5 times B_R).

(c) Increasing the TAC or TACC for CRA 2 is inconsistent with s 13(2) of the Act, which requires the Minister to set a TAC having regard to "*the interdependence of stocks*" (see **Appendix 1**). Increased catch limits would provide for more rock lobster to be harvested in areas susceptible to urchin barrens and/or where rock lobster populations are already critically depleted. This fails to give adequate consideration to the role of rock lobster as a key predator of kina on shallow reefs in CRA 2.

(d) The Discussion Paper indicates that a full stock assessment is planned for CRA 2 in 2025.[116] Moreover, it acknowledges that *reductions* in the TACC and recreational catch may be required if a higher long-term biomass management target (>3 times B_R) is adopted.[117] EDS considers it is premature to consider increasing the TAC and TACC in advance of a full stock assessment and additional measures being implemented (see below). This approach risks leading to worse outcomes, and requiring greater future reductions in harvest, by enabling further overfishing in areas with depleted rock lobster populations.

(e) Increasing the TAC or TACC could lead to perverse outcomes if spatial closures (or other measures) are implemented as a result of the FNZ consultation process. For instance, FNZ is proposing to close the inner Hauraki Gulf to the commercial and recreational harvest of rock lobster (addressed further below). The Discussion Paper notes an increase in the TAC and TACC, coupled with the proposed spatial closure, could lead to displaced effort and higher competition in other parts of the CRA 2 fishery. EDS finds this deeply concerning because available information suggests urchin barrens are already prevalent in the outer Hauraki Gulf (e.g. Mokohinau Islands and sites near the Mercury Islands). Increasing harvest effort in these areas will worsen cumulative effects of fishing which is inconsistent with the requirements of the Act.

(f) Increasing the TAC or TACC ignores available information showing that rock lobster populations have been heavily depleted in areas of CRA 2. A *reduction* in the TAC is needed to support rapid recovery of these populations.

86. The Discussion Paper provides no rational basis for increasing the TAC and TACC. Indeed, increasing the TAC and TACC appears to contradict other measures in the Discussion Paper, which identify the need to manage the CRA 2 stock to higher biomass levels and to significantly reduce fishing pressure in areas that are susceptible to urchin barrens.

[116] Discussion Paper, above n 1, at [185].
[117] Discussion Paper, above n 1, at 10.

87. **Of the options provided in the Discussion Paper, EDS prefers Option A1 (i.e. retain the status quo) because it is the most conservative of those being considered.** However, EDS finds it concerning that the Discussion Paper does not provide any analysis of potential reductions in the TAC or TACC. This is particularly surprising, as it appears to acknowledge that these measures will be necessary to achieve better outcomes for rock lobster populations in CRA 2. **EDS requests that a wider range of catch settings (including significant reductions in the TAC / TACC) are provided to the Minister for consideration as part of the review of sustainability measures for CRA 2.**

Proposal 3: Close the inner Hauraki Gulf to harvest of rock lobster

88. FNZ seeks feedback on proposed spatial measures to address urchin barrens in the Hauraki Gulf.[118] The Discussion Paper includes two options:[119]

    (a) Retain the status quo (i.e. no additional spatial measures would be implemented) (**Option B1**).
    (b) Close the inner Hauraki Gulf to commercial and recreational harvest of rock lobster with a review after 10-years and ongoing ecosystem monitoring (**Option B2**). The proposed closure would apply to coastal waters to the south of a straight line from the Leigh Marine Reserve to Port Jackson Bay.[120]

89. **EDS supports an urgent closure of the inner Hauraki Gulf as a minimum step towards more effective long-term management of the CRA 2 stock.** Available information indicates that rock lobsters have been removed from most shallow reefs in the inner Hauraki Gulf and this has been accompanied by an expansion of kina barrens. Moreover, the Discussion Paper indicates that commercial and recreational fishers have already shifted away from the area because they are unable to find legally harvestable lobster.[121] Given rock lobster populations are critically depleted, and recruitment levels in the inner Gulf are low, it is important that the proposed closure is implemented without delay to support recovery of the stock.

90. The Discussion Paper fails to include any spatial measures for the wider CRA 2 fishery. This is concerning because available information shows rock lobster populations have been heavily depleted in other places, including the mid to outer Hauraki Gulf. For example:

    (a) In recent years, surveys of rock lobster populations on shallow reefs (<20m) at Great Barrier Island and the Mercury Islands have recorded few legally harvestable lobsters.[122] Only one rock lobster was observed across 24 transects spanning 1.2ha of reef area at the Mokohīnau Islands (while this area is set to become a High Protection Area under the Hauraki Gulf / Tīkapa Moana Marine Protection Bill, it is indicative of heavy fishing effort across the outer Gulf).[123]

[118] Discussion Paper, above n 1, at [49].
[119] Discussion Paper, above n 1, at [48]-[56].
[120] Discussion Paper, above n 1, at 5 (Figure 2).
[121] Discussion Paper, above n 1, at 16.
[122] Nessia et al, above n 52, at 6; Caiger et al, above n 83, at 7.
[123] Nessia et al, above n 52, at 6.

(b) As previously indicated, mapping studies have shown that kina barrens are prevalent across shallow reefs in the wider CRA 2 fishery.[124]

(c) Populations of long-spined urchins are expanding across exposed locations within the Hauraki Gulf and are likely to increase in abundance in response to warming waters. This creates a significant risk for deeper kelp forest habitat in CRA 2 because long-spined urchin barrens can form at a wide depth range and are unlikely to naturally reverse once they have become extensive.

91. **Given the above, EDS submits that additional spatial measures are necessary to rebuild depleted rock lobster populations and support recovery of kelp forests in areas susceptible to urchin barrens.**

92. EDS supports the need for stronger spatial measures applying to the wider CRA 2 fishery. Areas with extensive urchin barrens should be prioritised and proactive tools should be enabled in these areas (e.g. kina removal and/or rock lobster translocation) to support effective recovery of rock lobster populations and kelp forests.

93. **As a minimum, EDS requests that the following additional spatial measures be included in advice to the Minister to inform his decision:**

(a) Urchin barren mapping should be undertaken at a wider depth range relevant to kina and long-spined urchins. This would expand on the results of the urchin mapping exercise being undertaken by FNZ at shallow reefs within the 10 m depth limit.

(b) Results of initial urchin barren mapping should be used to inform development of area-based measures such as closures to rock lobster harvest or fully no-take protection.

(c) Clear thresholds should be set to guide long-term ecosystem management. For example, Vince Kerr (marine scientist) has previously recommended a two-tier management response, where:[125]

(i) Level 1: if urchin barrens cover 5-10% of rocky reef habitat then careful monitoring of predator populations is needed and fishing restrictions should be considered.

(ii) Level 2: if urchin barrens cover >10% of rocky reef habitat and are accompanied by low fish diversity and predator abundance then long-term no-take protection is required to restore ecosystem balance. Areas could be reviewed for reopening only if urchin barren extent is reduced below 10% for a specified period that indicates the 'health' of the ecosystem has stabilised.

(d) The scale of management would need to be carefully considered for the purposes of determining when thresholds had been exceeded (e.g. relative barrens coverage at a scale that has ecological relevance).

(e) Closed areas should be monitored against clear criteria such as urchin barren or kelp forest extent and the abundance and distribution of key predator populations should be tracked inside and outside of these areas to enable relative trends to be assessed.

[124] Doheny et al, above n 81, at 49.
[125] Statement of evidence of Vince Kerr on behalf of Te Uru o Hikihiki Hapu, dated 25 March 2021, available here.

94. **For the reasons addressed above, EDS does not support retaining the status quo ("Option B1").** There is strong evidence that overfishing has resulted in localised depletion of rock lobster and this has resulted in persistent urchin barrens across shallow reefs in the CRA 2 fishery. In making decisions to set sustainability measures, the Minister must "*avoid, remedy or mitigate*" the cumulative effects of rock lobster harvest on reef ecosystems. Taking no action to rebuild the stock or address urchin barrens is not consistent with the principles and purpose of the Act (Appendix 1). Therefore, **EDS requests that Option B1 be removed from ministerial consideration.**

Additional measures

95. The Discussion Paper identifies a suite of other potential measures for *future* consideration:[126]

    (a) QMA subdivision to provide for a finer-scale management approach;
    (b) Additional spatial closures to harvest of rock lobster;
    (c) Additional no-take areas;
    (d) Seasonal closures;
    (e) Vessel and accumulation limits for recreational vessels;
    (f) Increasing the minimum legal size and/or introducing a maximum legal size limit for rock lobster in CRA 2; and
    (g) Reviewing the management settings for packhorse rock lobster.

96. The Discussion Paper indicates that further work is required to understand the effectiveness of such measures before they can be developed for CRA 2.[127] EDS disagrees for the reasons already addressed. Available information demonstrates that additional measures are necessary to address cumulative effects of fishing on shallow reefs in CRA 2. **EDS requests that the following additional measures are included in the scope of options presented to the Minister for consideration as part of this sustainability review**:

    (a) A finer scale spatial stock assessment and ecosystem based management approach for CRA 2 based on the recommendations outlined in MacDiarmid (2025).[128] This would involve subdividing the stock into 6 subregions and incorporating fisheries-independent data into the assessment process. Targeted measures, including ecosystem-based biomass management targets and appropriate catch limits, could then be applied to each subregion rather than the fishery as a whole.
    (b) A maximum legal size limit to protect large rock lobster with the highest reproductive capacity and most important predatory influence.
    (c) Strong spatial measures aimed at rebuilding depleted rock lobster populations and restoring kelp forests in areas susceptible to urchin barrens throughout the CRA 2 fishery. In these areas, deployment of proactive restoration tools should be enabled, such as urchin removal and/or rock lobster translocation, with appropriate conditions.
    (d) An ecosystem monitoring plan to track the status of kelp forest habitat over time.

[126] Discussion Paper, above n 1, at [61].
[127] Discussion Paper, above n 1, at [60] and [62].
[128] MacDiarmid, above n 5.

(e) Additional protections for packhorse rock lobster that reflect the management settings for spiny rock lobster. For instance, the daily bag limit for packhorse lobster should be reduced from 6 to 3, and packhorse lobster should be included in the spatial measures deployed for spiny rock lobster in CRA 2.
(f) Mandatory reporting of recreational catch of rock lobster (spiny and packhorse).
(g) Mandatory recreational catch reporting to improve understanding of fishing pressures.

Conclusion

97. The best available information demonstrates that urgent action is required to rebuild sustainable levels of rock lobster and promote the maintenance and recovery of healthy kelp forests in the CRA 2 fishery.

98. Out of the options provided in the Discussion Paper, EDS prefers:

(a) An increased long-term biomass management target of *at least* 3.5 times B_R.
(b) Retention of the current catch settings (i.e. "Option A1").
(c) The proposed closure of the inner Hauraki Gulf to commercial and recreational harvest of rock lobster (i.e. "Option B2").

99. None of these measures are sufficient, either on their own or in combination, to achieve consistency with the principles and purpose of the Act.

100. Additional measures are necessary to ensure sustainability of the CRA 2 stock and associated kelp forest habitat, including catch reductions, strong spatial measures targeting existing urchin barrens and maximum size limits for spiny and packhorse rock lobster.

APPENDIX 1: LEGAL FRAMEWORK

101. The Minister must comply with various requirements when considering the setting of sustainability measures under the Act.

Sustainability measures (s 11)

102. A "*sustainability measure*" is any measure set "*for the purpose of ensuring sustainability*".[129] A range of options are available to the Minister for the CRA 2 fishery, including area closures, size limits and adjusting annual catch limits.[130]

103. The Minister must make decisions on sustainability measures:[131]

(a) In a manner that is consistent with the purpose of the Act in s 8;
(b) Taking into account the environmental principles in s 9;
(c) Taking into account the information principles set out in s 10;
(d) After taking into account any effects of fishing on any stock and the aquatic environment in accordance with s 11; and
(e) Having regard to the interdependence of stocks in accordance with s 13(2).

Purpose (s 8)

104. The purpose of the Act is "*to provide for the utilisation of fisheries resources while ensuring sustainability*".[132] Section 8(2) defines key aspects of the purpose as follows:

> **ensuring sustainability** means—
> (a) maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations; and
> (b) avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment
>
> **utilisation** means conserving, using, enhancing, and developing fisheries resources to enable people to provide for their social, economic, and cultural well-being

105. In *New Zealand Recreational Fishing Council Inc v Sanford Ltd*, the majority of the Supreme Court provided the following guidance on the purpose of the Act (footnotes omitted):[133]

> Section 8(1) … expresses a single statutory purpose by reference to the two competing social policies reflected in the Act. Those competing policies are "utilisation of fisheries" and "ensuring sustainability". The meaning of each term in the Act is defined in s 8(2). The statutory purpose is that both policies are to be accommodated as far as is practicable in the administration of fisheries under the quota management system. But recognising the inherent unlikelihood of those making key regulatory decisions under the Act being able to accommodate both policies in full, s 8(1) requires that in the attribution of due weight to each policy [the weight] given to utilisation must not be such as to jeopardise sustainability. Fisheries are to be utilised, but sustainability is to be ensured.

106. This guidance was recently affirmed by the Supreme Court in *Seafood New Zealand Ltd v Royal Forest & Bird Protection Society of New Zealand Inc* [2024] NZSC 111 (the *Tarakihi case*).[134]

[129] Fisheries Act 1996, s 2(1).
[130] Fisheries Act 1996, s 11(3).
[131] Fisheries Act 1996, s 11(1).
[132] Fisheries Act 1996, s 8(1).
[133] *New Zealand Recreational Fishing Council Inc v Sanford Ltd* [2009] NZSC 54 at [39].
[134] *Seafood New Zealand Ltd v Royal Forest & Bird Protection Society of New Zealand Inc* [2024] NZSC 111 [*Tarakihi case*] at [15].

107. The purpose of the Act was considered by the High Court in *Environmental Law Initiative v Minister for Oceans and Fisheries* [2022] NZHC 2969 (the *CRA 1 case*) which involved a challenge to the Minister's decision on catch limits for the Northland rock lobster fishery (**CRA 1**). In that case, Churchman J described the purpose as creating an "'*environmental bottom line' … complemented by a scheme that favours precaution*".[135]

108. EDS submits that this means any sustainability measures must rebuild depleted rock lobster populations within CRA 2 to sustainable levels and avoid, remedy or mitigate adverse effects of fishing (e.g. urchin barrens) to achieve consistency with the purpose of the Act.

Environmental principles (s 9)

109. Section 9 of the Act sets out environmental principles which the Minister must "*take into account*". The two most relevant to this review of measures for the CRA 2 fishery are:

    (a) "*biological diversity of the aquatic environment should be maintained*" (s9(b)); and
    (b) "*habitat of particular significance for fisheries management should be protected*" (s9(c)).

<u>Biodiversity should be maintained</u>

110. *"Biological diversity"* is defined in s 2(1) as *"the variability among living organisms, including diversity within species, between species, and of ecosystems".*

111. The word "*maintained*" is not defined by the Act and no commentary on its meaning in the fisheries context was identified in case-law. However, the online Oxford English Dictionary defines "*maintain*" as follows:[136]

> To keep up, preserve, cause to continue in being (a state of things, a condition, an activity, etc.); to keep vigorous, effective, or unimpaired; to guard from loss or deterioration.

112. The approach adopted by the Discussion Paper to assessing whether s 9(b) has been achieved appears to use rock lobster abundance as a proxy for increased biodiversity. For example, the Discussion Paper states:

    (a) In relation to proposals to increase the catch limits (i.e. TAC and TACC): "*A greater TAC increase would provide for more utilisation of the fishery, that in turn would likely constrain rock lobster abundance, which in turn would reduce the likelihood that rock lobster can fulfil their ecological role. This would likely result in a lower amount of biological diversity than what would be expected if a smaller / no TAC increase were implemented*".[137]
    (b) In relation to proposals to set a higher biomass target "*in the longer term, there is a higher probability of increasing rock lobster abundance, which in turn increases the likelihood that rock lobster can fulfil their ecological role. This would likely result in higher biological diversity within CRA 2 than what would be expected if the stock were managed to a lower biomass level*".[138]

[135] *The Environmental Law Initiative v Minister for Oceans and Fisheries* [2022] NZHC 2969 at [108].
[136] Oxford English Disctionary (online edition) available here.
[137] Discussion Paper, above n 1, at [148] – bullet point one.
[138] Discussion Paper, above n 1, at [148] – bullet point two.

113. Kelp forests support higher levels of biodiversity than urchin barrens. Therefore, to "*maintain biodiversity*" it is necessary to avoid new urchin barrens in CRA 2 as well as address past effects of fishing activity on them (ie reverse existing urchin barrens) under section 8(b), noting that the definition of "effects" in section 2 includes past effects.

Habitat of particular significance should be protected

114. The Discussion Paper identifies eight potential habitats of particular significance for fisheries management (**HoPs**) within CRA 2.[139] However, no HoPs for rock lobster have been identified.

115. EDS finds this concerning because kelp forests are likely to be an important habitat for rock lobster in CRA 2. For example, a recent synthesis by MacDiarmid (2025) states:[140]

> One of the most striking results of recent underwater surveys of [rock lobster] populations across the HGMP is the higher apparent abundance of sublegal size individuals within no-take marine reserves than in the fished areas (Nessia et al, 2024). This could be a result of higher puerulus settlement and/or juvenile survival in areas of higher kelp abundance, typical of these marine reserves (Edgar et al., 2013). In field experiments in Tasmania, Australia, Hinojosa et al. (2015) found that artificial crevice collectors with attached natural kelp had higher catches of pueruli than those with artificial kelp or controls with neither, which suggested enhanced settlement through chemical attraction.

116. This indicates that kelp forests are HoPs under section 9(2) of the Act, and therefore need to be identified as such in advice to the Minister, along with measures to ensure their protection. The association between rock lobster and kelp is generally acknowledged by the Discussion Paper,:[141]

> We recognise the likely importance of kelp-dominated habitat in supporting settlement, recruitment, and productivity of a number of species, including rock lobster.

Information principles (s 10)

117. The Minister must take into account the information principles in s 10 of the Act, which are:

> (a) decisions should be based on the best available information:
> (b) decision makers should consider any uncertainty in the information available in any case:
> (c) decision makers should be cautious when information is uncertain, unreliable, or inadequate:
> (d) the absence of, or any uncertainty in, any information should not be used as a reason for postponing or failing to take any measure to achieve the purpose of this Act.

118. The terms *"information"* and *"best available information"* are defined as: [142]

> **Information** includes –
> (a) scientific, customary Maori, social or economic information; and
> (b) any analysis of any such information
>
> **Best available information** means the best information that, in the particular circumstances, is available without unreasonable cost, effort or time.

[139] Discussion Paper, above n 1, at [150].
[140] MacDiarmid, above n 5, at 6.
[141] Discussion Paper, above n 1, at [152].
[142] Fisheries Act 1996, s 2(1).

119. As outlined in the main body of EDS's submission, it is important that all relevant information, not just the FNZ stock assessment, contributes to the advice provided to the Minister.

Catch settings (s 13)

120. Section 13(1) of the Act requires the Minister to set a Total Allowable Catch (**TAC**) (i.e. an annual harvest allowance) for the CRA 2 fishery. Under s 13(2)(a), the Minister must set a TAC that maintains the stock at or above a level that can produce the maximum sustainable yield (**MSY**), having regard to "*the interdependence of stocks*".

121. The Act defines MSY as:[143]

> The greatest yield that can be achieved over time while maintaining the stock's productive capacity, having regard to the population dynamics of the stock and any environmental factors that influence the stock

122. The Act does not provide a definition for "*the interdependence of stocks*". However, the Supreme Court recently observed that the concept (emphasis added in bold): [144]

> concerns the effects of fishing on associated stocks, including bycatch harvested with the target species, **and the role of the target species in the food chain**.

123. The "*interdependence of stocks*" is a relevant consideration when the Minister sets a TAC for stocks that are estimated to be above the MSY under s 13(2)(c) of the Act.[145] The concept is particularly important in relation to the CRA 2 fishery because rock lobster fulfil an important role in regulating, through predation, urchin populations and associated urchin barrens on shallow rocky reefs in north-eastern New Zealand.

124. Under s 13(3), the Minister must have regard to social, cultural and economic factors (to the extent he considers relevant) when considering the "*way*" and "*rate*" at which a stock is moved towards or above a level that can produce MSY. In the *Tarakihi case*, the Supreme Court confirmed that these factors do not detract from the primary objective of sustainability, which underpins s 13 of the Act.[146]

125. None of the proposed catch settings proposed in the Discussion Paper adequately account for the role of rock lobster in shallow reef systems. The proposed inner closure of the Hauraki Gulf fishery does not resolve the deficiencies related to proposed increases in the TAC and TACC.

[143] Fisheries Act 1996, s 2(1).
[144] *Seafood New Zealand Ltd v Royal Forest & Bird Protection Society of New Zealand Inc* [2024] NZSC 111 [*Tarakihi case*] at [23].
[145] Fisheries Act 1996, s 13(2)(c).
[146] *Tarakihi case* at [90].

APPENDIX 2: SUMMARY OF EDS'S RESPONSES TO QUESTIONS IN DISCUSSION PAPER

FNZ Discussion Points[147]		EDS Response
1	*Do you support using a higher biomass management target for long-term management of the CRA 2 stock? Why?*	EDS supports a higher biomass management target because: (a) It is likely to result in more (and larger) rock lobsters in the CRA 2 fishery. (b) It is likely to rebuild the stock at a faster rate than the current target. (c) More (and larger) rock lobsters are necessary to support wider ecosystem functioning.
2	*What do you think of the long-term biomass management targets discussed? Do you support a particular biomass target?*	EDS supports a target of at least 3.5 times B_R. As addressed in the main body of the submission, EDS has concerns about the broad scale of the stock assessment model used to identify biomass reference levels for CRA 2. This is because the stock is not distributed evenly across the QMA. Higher biomass management targets (e.g. 10 times B_R) may be necessary in areas where rock lobster populations are critically depleted.
3	*Do you support the 2 x B_R preliminary target? Why?*	EDS does not support the 2 times B_R preliminary target for the reasons under '2' and as addressed in the main body of the submission.
4	*Which option do you support for revising the TAC and allowances? Why?*	Of the options included in the Discussion Paper, EDS prefers Option A1 (i.e. retain the status quo) as it is the most precautionary. EDS requests additional options that provide for significant reductions in the TAC and other catch allowances.
5	*Do you support the proposed spatial closure? Why?*	EDS supports the proposed closure of the inner Hauraki Gulf (Option B2) as a minimum step. The closure is necessary to rebuild critically depleted rock lobster populations and/or address cumulative effects of fishing on reef ecosystems. EDS considers additional measures are necessary. See below under '8'.
6	*Do you support the boundaries that FNZ has suggested for the proposed inner Hauraki Gulf closure? Why?*	The alignment of the proposed closure area with existing marine reserves needs to be carefully designed to avoid 'edge effects' or effects from displaced fishing. EDS considers a larger buffer area should be applied around the existing marine reserve Cape Rodney-Okakari Point Marine Reserve (Goat Island). Particularly if the proposed closure is implemented prior to the Hauraki Gulf / Tīkapa Moana Marine Protection

[147] Discussion Paper, above n 1, at [97].

		Bill being passed into law (which will extend the existing marine reserve into adjacent waters). Additional spatial measures are necessary to address cumulative effects of rock lobster harvest in the wider CRA 2 fishery. See below under '8'.
7	*If you do not support any of the options listed, what alternative(s) should be considered? Why?*	EDS considers additional measures are necessary. See below under '8'.
8	*Do you think any additional measures should be considered?*	EDS seeks a suite of additional measures to provide for effective long-term management of the stock. These include (as a minimum): (a) Reduction in catch limits for the 2025/26 fishing year. (b) A finer scale spatial stock assessment and ecosystem based management approach. (c) A maximum legal size limit for male and female rock lobster. (d) Strong spatial measures aimed at rebuilding depleted rock lobster populations and restoring kelp forests in areas susceptible to urchin barrens throughout the CRA 2 fishery. (e) An ecosystem monitoring plan to track the status of kelp forest habitat over time (including in and outside of closure areas). (f) Additional protections for packhorse rock lobster. (g) Mandatory reporting of recreational rock lobster catch.
9	*Are the allowances for customary Māori, recreational, and other sources of mortality appropriate? Why?*	EDS does not support any increases to the TAC or other catch allowances and queries the rationale for reducing the 'other sources of mortality' limit. EDS requests the inclusion of additional options that provide for significant *reductions* in the TAC and other catch allowances. Reductions in the TAC are necessary to support rapid recovery of depleted rock lobster populations and kelp forests.
10	*Do you think these options adequately provide for social, economic, and cultural wellbeing?*	Overall, EDS considers the options in the Discussion Paper adopt a short-term focus that does not adequately provide for social, economic and cultural wellbeing. These outcomes can only be achieved if rock lobster populations are restored to sustainable levels and the health of associated kelp forests restored.

11	*What are your aspirations for the CRA 2 fishery? Do you think there is another way to realise this outside of this discussion document?*	EDS seeks a productive CRA 2 fishery with restored and healthy kelp ecosystems. This will require active kelp restoration (and sea urchin removal) alongside regulatory measures. This needs to be explored, and supported with adequate investment in scientific research and monitoring, alongside progressing necessary regulatory measures.
12	*Do you have any concerns about potential impacts of the proposed options on the aquatic environment?*	EDS finds the approach adopted by the Discussion Paper concerning because the proposed options are not sufficient to address urchin barrens. They will continue and potentially worsen negative impacts of fishing on the aquatic environment.
13	*Is there any relevant literature or research you are aware of that you think should have been referred to in this paper?*	Relevant literature omitted from the Discussion Paper includes: (a) A recent synthesis by Alison MacDiarmid (2025) entitled "*What is an appropriate spatial scale for ecosystem based fishery management of kōura, spiny lobster Jasus edwardsii, in the Hauraki Gulf Marine Park, Aotearoa New Zealand?*"[148] is highly relevant to the Minister's decision on sustainability measures applying to the CRA 2 fishery. (b) The report by Caiger et al (2023)[149] identified large areas of kina barrens near surveyed locations at the Mercury Islands in the outer Hauraki Gulf. This information has not been incorporated into the Discussion Paper or material cited therein. As addressed in the main body of the submission, EDS has concerns about the information basis presented in the Discussion Paper.
14	*Do you have any further information to share on the location of urchin barrens in CRA 2?*	See above under '13(b)'.
15	*Are there any other fishery management measures that you feel could be appropriate in CRA 2? Why?*	See above under discussion point '8'.

[148] MacDiarmid, above n 5.
[149] Caiger et al, above n 83.

Environmental Law Initiative
Submission:

‘Review of sustainability measures for spiny rock lobster (CRA 2) for 2024/25’

Environmental Law Initiative
Tiakina te mauri o te taiao

ABOUT US

The Environmental Law Initiative (ELI) uses the law to protect Aotearoa's natural environment.

ELI is a registered charitable trust, advised by a small team of experts in environmental law, science, and management.

We partner with a range of other groups — including iwi, hapū, and other NGOs — to achieve better outcomes for the environment.

Read about our legal cases at www.eli.org.nz

If you have any questions about our submission, we would welcome the opportunity to discuss any issues. Please contact Reto Blattner de - Vries to arrange a time to discuss: s9(2)(a) .

Cover photo: 'NZ Crayfish' Stock image taken from Canva.

Summary

1. Fisheries New Zealand (**FNZ**) recently released a consultation document: 'Review of sustainability measures for spiny rock lobster (CRA 2) for 2024/25'. The consultation document contains proposed options as to CRA 2 management (**Options**) and seeks additional feedback from stakeholders on three different aspects of CRA 2 management.

2. The Environmental Law Initiative (**ELI**) has filed two judicial review proceedings challenging the Total Allowable Catch (**TAC**) of crayfish in CRA 1. The High Court found for ELI in the first proceeding.[1] The second proceeding was heard in the High Court in August 2024. These cases have highlighted several issues including the role of crayfish in coastal ecosystems and the link between the overfishing of crayfish and the presence of kina barrens in the Northeast of New Zealand. In these proceedings, we have filed and relied on expert evidence. In the first proceeding, most of the evidence filed by ELI was not contested by the Crown. Where there was a divergence between the evidence of ELI's experts and the respondents', the evidence of ELI was preferred. For example, the High Court was satisfied that (a) the primary ecological role of crayfish is as a predator in shallow water areas, (b) where there are fewer crayfish, there is an increased population of kina resulting in a trophic cascade, (c) areas affected by trophic cascade are described as kina barrens which take decades to reverse.[2]

3. ELI's analysis of FNZ's Options is directly informed by the academic research of the experts we have relied on in our judicial review proceedings. Much of the research we rely on was accepted as the best available information on the causes of kina barrens in north-eastern New Zealand waters. The ecological issues present in CRA 1 are present in CRA 2. In *ELI v Minister for Oceans and Fisheries* the High Court was satisfied that there is strong evidence that trophic cascade has significantly contributed to the presence of kina barrens in the north-east of New Zealand, both within CRA 1 and CRA 2.

4. In ELI's view, none of the Options as presently developed will allow crayfish to be managed at a level that allows them to play their ecological role as a key predator of kina, nor do the Options sufficiently avoid, remedy or mitigate the adverse effects of commercial fishing. The consultation document acknowledges that crayfish are regularly

[1] *The Environmental Law Initiative v Minister for Oceans and Fisheries* [2022] NZHC 2969.
[2] Para [69] of judgment.

described as functionally extinct within the Hauraki Gulf. Despite this, the presented TAC options do not allow for a reduction in catch.

5. While the Options include the closure of the inner Hauraki Gulf, doing so is unlikely to lead to substantive recovery given that this area accounts for only 2% of crayfish landings over the last five years.

6. FNZ are not consulting on further spatial closures at this time, despite the strong evidence that large scale spatial closures are required to address the problem of kina barrens in north-eastern New Zealand. In ELI's view, the proposed options have therefore not been developed using the best available scientific information.

The Proposed Options

7. ELI welcomes the fact that Fisheries New Zealand (**FNZ**) is consulting on Options that its states will ensure that crayfish biomass can increase to a level at which this species can fulfil its ecological role as a predator of kina, while avoiding, remedying or mitigating any adverse effects.

8. The Options include:

    a. The setting of a preliminary biomass management target to underpin options for setting the TAC, TACC and allowances;

    b. The setting of a TAC for the fishing year commencing 1 April 2025:

        i. Option A1: Retain the TAC of 173 tonnes;

        ii. Option A2: Increase the TAC by 1.5 tonnes with a 10 tonne increase to the TACC and 8.5 tonne decrease in all other mortality caused by fishing;

        iii. Option A3: Increase the TAC by 15.5 tonnes with a 20 tonne increase to the TACC and a 4.5 tonne decrease in all other mortality caused by fishing.

    c. The implementation of a spatial closure

        i. Option B1: Maintain the status quo. No additional spatial closures beyond what exists currently;

ii Option B2: Closure of the inner Hauraki Gulf to all commercial and recreational crayfishing.

9. FNZ consider that the proposed closure under Option B should complement the modification of TAC settings under Option A to ensure that crayfish biomass increases to a level at which this species can fulfil its ecological role as a predator of kina.[3]

Setting of a preliminary biomass target and TAC

10. FNZ considers it appropriate to set a preliminary biomass management target of 2x the Bmsy – that is, 2x the vulnerable biomass that produces the maximum sustainable yield which is twice the current management target.

11. In FNZ's view, all three TAC Options are projected to lead towards the CRA 2 stock abundance reaching 2x Bmsy, with the rate at which the stock will reach that target dependent on the particular TAC Option adopted.

12. In 2018, the TAC for CRA 2 was reduced from 416.5 to 173 tonnes. This reduction was made in response to sustainability concerns about critically low levels of abundance in the fishery.

13. The proposed setting of a higher TAC under options A2 and A3 is supported by reference to a full stock assessment in 2022, and subsequent rapid update assessments in 2023 and 2024. These all indicated that CRA 2 biomass has increased significantly following the reduction in 2018.

14. FNZ acknowledges that while the vulnerable biomass target that CRA 2 is managed to is a single-stock target, the Act requires the incorporation of wider ecosystem considerations.[4]

15. While increasing the abundance of large crayfish is noted as being an effective mechanism to reduce the abundance of urchins and therefore the prevalence of urchin barrens within CRA 2, FNZ also states that there is no definitive knowledge of the threshold of predator abundance required to reverse urchin barrens.

16. FNZ states that while a key objective of managing CRA 2 to a higher biomass is to bring crayfish populations levels back to those found in the ecosystem prior to the

[3] Consultation document at para 50.
[4] At para 6.

spread of urchin barrens, it is impossible to predict how this biomass will perform under current environmental conditions which have changed substantially since the 1960's due to factors such as climate change and coastal development. FNZ concludes that is it therefore possible that managing crayfish to a higher biomass may not result in a population size structure that is sufficient to prevent the formation or reduce the extent of existing urchin barrens in CRA 2.

Spatial Closure

17. The inner Hauraki Gulf has been identified as an area where crayfish abundance is low and the lack of natural predators of kina has contributed to a significant adverse effect on the ecosystem. There are several other areas within CRA 2 where crayfish abundance is low and kina barrens are prevalent, however these areas are not subject to spatial closures.

18. FNZ considers that the high prevalence of kina barrens and a low abundance of crayfish could warrant additional spatial measures to assist:

    a Rebuilding the crayfish population in the inner Gulf to a level that allows them to fulfil its ecosystem function as a predator of kina;

    b Rebuilding the crayfish population to a level that supports a sustainable fishery in this area.

19. Such a spatial closure would be implemented under section 11 of the Act and would specifically prohibit crayfish harvest. If implemented, this closure would be the first of its kind in New Zealand.

20. FNZ has outlined some of the benefits and risks of implementing closures. These are:

    a Benefits:

        i more likely to lead to an increase in the abundance of large rock lobster, in addition to increasing the overall population, within the inner Hauraki Gulf;

        ii likely to lead to rock lobster recovery within the proposed HPAs in the inner Hauraki Gulf as there will be no boundary fishing or edge effect. In turn this provides the greatest opportunity to reduce urchin barrens within

HPAs due to the absence of boundary fishing edge effects for rock lobster;

iii This option is more likely to lead to an increase in the abundance of large rock lobster, in addition to an increase to the overall abundance and biomass, in what has historically been one of the most intensively fished recreational areas within FMA 1.

b Risks:

i This option would prevent commercial fishers from accessing areas within the inner Hauraki Gulf where they currently harvest rock lobster. This includes areas at the margins of the proposed closed area (top of Coromandel and reefs from Cape Rodney to Kawau Island) which account for roughly 2% of CRA 2 landings over the last five years;

ii As the recreational crayfish catch has declined as is already considered low within the inner Gulf, the closure is not expected to result in a significant loss of recreational harvest;

iii An inner Gulf closure does not address concerns raised by stakeholders around CRA 2 sustainability and localised depletion outside the Gulf;

iv Closing the inner Gulf would increase costs for fishers who would be forced to travel further to target rock lobster.

21. FNZ acknowledges the occurrence in other parts of CRA 2 beyond the inner Gulf that could be linked to crayfish abundance. FNZ reference a kina mapping project that is expected to provide more detailed and up to date information on the distribution or kina barrens in waters between 2 m and 10 m water depth, between Cape Reinga and East Cape. The outputs of this project could help inform appropriate fisheries management measures within CRA 2.

Best available scientific information

22. This section of our submission is informed by the expert evidence filed in our judicial review proceedings on the CRA 1 TAC decisions. Our comments reflect the best available information, on how to address kina barrens in northeastern New Zealand waters. Information that is only relevant to the CRA 1 context has been omitted.

The role of Crayfish

23. Kina barrens are a significant concern across New Zealand, where they proliferate due to high densities of kina. These barrens emerge when kina consume virtually all vegetation on rocky reefs, leading to a significant loss of habitat and biodiversity.

24. The primary ecological role of crayfish is as a predator in shallow water areas. Where there are fewer crayfish, there is an increased population of kina, thereby increasing the grazing activity of kina and resulting in the loss of strands of seaweed. This process is known as a trophic cascade.[5]

25. Crayfish density, size and biomass on the northeast coast of CRA 2 within STA 905 are at very low levels and are well below a level where they play a functional role in controlling kina populations.

26. Rock lobster populations are highly reliant on the structure and productivity of habitats provided by rocky reef in shallow coastal waters, especially rocky reef with seaweed cover.[6] However, extensive surveys of rocky reef on Northland's eastern coast in 2017 found 17% of the available rocky reef was occupied by urchin barren habitat.[7] In contrast in two marine reserves, where urchin predators were unfished, the urchin barrens covered only 1% of the available rocky reef.

27. Other studies of the extent of urchin barrens undertaken around the same time in the Bay of Islands indicated their greater extent within this region of Northland. One study used historical aerial imagery to map the extent of habitats in shallow waters and described the loss of kelp habitat by the 1970s as "monumental" with loss of shallow kelp forests reaching up to 90% or more.[8]

28. More recent estimates of the extent of kina barrens on rocky reefs in other parts of northeastern New Zealand indicate that they are continuing to increase in coverage and that these earlier estimates from 2017 for Northland may now underestimate the

[5] *The Environmental Law Initiative v Minister for Oceans and Fisheries* [2022] NZHC 2969 at [69].
[6] Jeffs, A.G., Gardner, C., Cockcroft, A. (2013). Jasus and Sagmarlasus Species. /n: Lobsters: Biology, Management, Aquaculture and Fisheries. (ed). Phillips B.F. John Wiley & Sons, Ltd. Pp. 259-288.
[7] Kerr, V.C., Grace, R.V. (2017). Estimated extent of urchin barrens on shallow reefs of Northland's east coast. A report prepared for Motiti Rohe Moana Trust. Kerr & Associates, Whangarei. 38pp
[8] Booth, J.D. (2017). Characterising fisheries and other marine harvesting in the Bay of Islands, with ecological consequences, from first human settlement to the present. New Zealand Aquatic Environment and Biodiversity Report No. 186.86 p

full extent of the corresponding loss of kelp communities from rocky reefs in shallow waters.

29. These rocky reef habitats are crucial for the settlement of post-larval rock lobsters known as pueruli.[9] The physical presence of kelp in coastal habitat significantly increases the settlement of rock lobster pueruli.[10]

30. Despite dramatic changes in both habitat and fishing activity, and the available evidence in support of a decline in productivity of the CRA 2 ecosystem, the Discussion Paper continues to assume that the overall ecosystem in CRA 2 has maintained the continued capacity to support spawning stock biomass and vulnerable biomass of rock lobster at historical unfished levels at a time when the ecosystem was intact.

31. The scientific evidence supporting the use of marine spatial closures in reversing kina barrens is very strong**.** Please refer to our submission for the 20th May 2024 'Enabling the removal of sea urchin for the management or prevention of urchin barrens' consultation for an extensive list of research that supports this.

Deficiencies in the Options

Setting of a preliminary biomass target

32. FNZ considers it appropriate to set a preliminary biomass management target of 2x the Bmsy. This is so despite acknowledging that the best available information suggests that the setting of a target greater than 3x Bmsy would allow the overall crayfish population to meaningfully play an increased role as a predator of kina and prevent barren formation. FNZ acknowledges that adopting a target greater than 3x Bmsy would allow CRA 2 to be managed to the level of biomass that modelling suggests was present within the QMA in the late 1970s and early 1980s. It explicitly acknowledges that the best available information suggests that the abundance of large crayfish at this

[9] Booth J.D., Carruthers, A.D., Bolt, C.D., & Stewart, R.A. (1991)' Measuring depth of settlement in the red rock lobster, Jasus edwardsii. New Zealand Journal of Marine and Freshwater Research, 25,(2), 123-132. DOI: 10.1080/00288330.1991.9516462. See also Edmunds, M. (1995.) The ecology of the juvenile southern rock lobster Jasus edwardsii (Hutton 1875) (Palinuridae). PhD thesis, University of Tasmania. 173 pp.

[10] See Hinojosa et al. (2015), n 13 above. See also Shelamoff, V., Layton, C., Tatsumi, M., Cameron, M.J., Wright, J.T., and Johnson, C.R. (2022). Restored kelp facilitates lobster recruitment but not other mid-trophic macroinveftebrates. Aquatic Conservation: Marine and Freshwater Ecosystems. 32: 1 115-1125

biomass target may be nearer to the abundance of large crayfish and overall population required to meaningfully play an increased role as a predator.

33. If adopting a target greater than 3x Bmsy is consistent with the best available information, it is unclear why FNZ is proposing an interim management target of 2x Bmsy and TAC Options that either maintain the status quo or increase the amount of crayfish taken.

34. The predominant reasons for proposing a lower target are:

    - That a higher target represents an estimated loss of $1.94 million;
    - Short term economic loss for the commercial sector and reductions in recreational and daily limits;
    - That although a high target is estimated to bring crayfish populations back to historic biomass levels, it is impossible to predict how this biomass will perform under current environmental conditions which have changed substantially since the 1960s, and that there is no definitive knowledge of the threshold of predator abundance required to reverse kina barrens.[11]

35. Seeking to justify decisions in the interest of short-term economic loss is at odds with the purpose of the Fisheries Act which includes an environmental bottom line of sustainability[12]. It also fails to take an economic lens to the ecological issue, in that the short-term economic loss generated now will result in higher economic benefit in the future. There is no mention in the consultation document as to the economic costs of the formation of kina barrens and the accompanying losses of associated species. As the information on the costs of kina barrens is entirely absent, it is not possible to compare this to the very low levels of additional revenue gained from increasing the TAC.

36. Any uncertainty as to the level of crayfish abundance required to redress the ecological crisis of kina barrens is not to be used as a reason for postponing or failing to take conservation and management measures. Rather, the Minister is under a statutory duty to act with caution in the face of that uncertainty (s 10 of the Fisheries Act 1996). While it may be impossible to predict exactly how crayfish biomass will perform under

[11] Page 12 consultation document.
[12] At [11]

the environmental conditions today, it cannot be used as a reason to continue to delay taking meaningful management action.

37. FNZ justifies adopting an interim biomass management target of x2 by stating that higher target would be expected over the long term, and to adopt a higher management target now would be to forgo utilisation opportunities. However, this justification is vague and is inconsistent with the principles and purpose of the Fisheries Act. Figure 3 of the Discussion Document, shows that by 2030 the estimates of vulnerable biomass are still below x2 Bmsy based on the median values. It is unclear to ELI what FNZ therefore means by a 'long term' and why FNZ is not proposing more urgent action to address an ecological crisis that has been known about for decades.

Stock assessment model limitations

38. The 2022 CRA 2 full stock assessment model and subsequent rapid update assessments are based solely on single species fishery models. Such models are only one part of effective fisheries management and do not incorporate wider ecosystem-based management considerations.

39. While stock assessments are a vital part of fisheries management, they have many limitations including that CPUE may not always reflect actual abundance due to the influence of exogenous factors on catch rates, such as target species biology, environmental conditions, fishing gear type and configuration, and fisher behaviour. limit, rather than being a sign of increased rock lobster abundance and biomass.

40. There is a history of single stock models for CRA 2 being too heavily relied upon. According to the 2013 stock assessment the CRA 2 stock was well above target, whereas stakeholders expressed concerns that stock levels were in fact extremely low which prompted an early reassessment in 2017. The subsequent stock assessment modified some of the inputs (including CPUE) and the resulting new assessment placed the stock level below FNZ's soft limit.[13]. This illustrates the deficiencies in modelling, if inputs aren't appropriately ground-truthed, models won't reflect empirical observations.

[13] The 2017 stock assessment and management procedure evaluation for rock lobsters (Jasus edwardsii) in CRA 2.

41. Additional criticisms associated with using stock assessments are outlined in the papers published by Hanns et al. 2022 and Nessia et al. 2024 which are included in the discussion paper.

42. Hanns et al. (2022) used marine protected areas to provide information to empirically assess fishery status within CRA 2. Potting surveys in 2018 and 2019 inside marine reserves did not show large increases in abundance relative to previous surveys in contravention to the CRA 2 stock assessment. Therefore, little evidence was found that crayfish populations in the Hauraki Gulf had recovered since the commercial take reductions in 2018.

43. Nessia et al. 2024 suggests that in CRA 2, the increase in CPUE that followed the 2018 TAC reduction may be due to fishers focussing on high productivity areas to harvest, rather than a sign of increased crayfish abundance and biomass. FNZ states that while the study can provide possible insights into crayfish abundance and population dynamics in the Hauraki Gulf, caution should be exercised due to the limited comparable other fishery independent studies.

44. If these two studies introduce uncertainty into the information base used by FNZ, then caution must be exercised. While the Discussion Document does list these studies within the key areas of uncertainty in Table 10, they do so in a way which trivialises the challenges to the stock assessment model by saying that there are 'limited fishery independent assessments available from CRA 2'. The Hanns et al and Nessia et al studies raise important questions which bring uncertainty into the stock assessment. By stating that the stock assessment is the BAI, and not the entire plenary information, FNZ are effectively discounting the studies that contradict the stock assessment.

45. In the absence of wider ecosystem considerations, it is difficult to see how pre-set decision rules will help ensure sustainability. While FNZ does state that the modification of TAC settings should be used in conjunction with closures under Option B, the only closure consulted on is an already highly depleted area in which crayfish are described as being 'functionally extinct'.

46. FNZ has also referred to a range of management measures implemented that purport to facilitate kina removals, including increasing the recreational daily limit and

authorising a new special permit purpose and a non-commercial fishing use to provide for the culling, translocation and removal of urchins. However, for reasons already submitted by ELI in a previous consultation, these measures suffer from serious practical limitations and will not address the underlying cause of the kina barren crisis.

Spatial closures

47. FNZ considers that the current situation in the inner Hauraki Gulf could warrant a spatial closure to assist in rebuilding the population level, noting that the best available information indicates that the implementation of no-take marine protected areas is an effective means to rebuild the abundance of kina predators and reduce barrens.

48. Implemented under section 11, this closure would prohibit crayfish harvest to commercial and recreational fishers within the inner Hauraki Gullf (specifically waters south of a straight line that extends from the southern boundary of the Cape Rodney-Okarari Point Marine Reserve to Port Jackson Bay, top of the Coromandel Peninsula).

49. The best available science clearly favours the use of spatial closures as the way of reducing kina barrens. However, the closure as proposed is seriously deficient.

50. The deficiency stems from the state of the inner Hauraki Gulf itself. Crayfish are now described as functionally extinct within the Gulf and are no longer large or abundant enough to play an ecological role in controlling kina densities. This is reflected by FNZ's acknowledgment that closing the Gulf will *unlikely* restrain fishers ability to fish in other areas of CRA 2 where *almost all effort and catch within the CRA 2 QMA occurs*.[14] Indeed, FNZ estimates commercial fishing landings within the inner Gulf to account for only 2% of CRA 2 landings over the last five years.[15]

51. It is unclear to ELI what the proposed spatial closure is intended to achieve if it will effectively not restrain commercial fishing for crayfish.

52. Importantly, if the inner Gulf is already fished out, then the fishing effort is being displaced elsewhere within CRA 2. The observed changes in commercial and

[14] At para 51.
[15] At page 20.

recreational fishing effort from statistical area 905 is consistent with localised depletion of crayfish on rocky reefs on the east coast.

Broader area closures

53. It is ELI's view that broader closures are therefore needed in order to actually restrain commercial fishing activity, to prevent the displacement of activity and to reduce the number of crayfish caught across the FMA.

54. FNZ states it is not proposing wider closures at the present time and has provided no justification for ruling out such closures This is despite FNZ's own admission of a scientific consensus that large scale spatial closures are the most effective measure to address kina barrens.

55. Given the available evidence of existing barrens, and the acknowledgment of kina barrens in other parts of CRA 2 beyond the inner Gulf, it is unclear why FNZ is not proposing further closures.

56. While stating that 'the design of closures required to support ecosystem recovery' is a key information gap which prevents action,[16] FNZ goes on to reference existing information which could be used to progress spatial closures. Examples of such information includes:

    a Kerr at al. (2024) which estimates the percentage of shallow rocky reef habitat between seven sites between Maitai Bay to Tawharanui Peninsula;
    b Dartnall, L. (2022) The extent of kina barrens over time at Hauturu-o-Toi and the Noises Islands. University of Auckland Thesis;
    c Lawrence, K. (2019). Mapping long-term, changes in reef ecosystems using satellite imagery. University of Auckland Thesis;
    d Kibele, J., & Shears, N (2017). Mapping rocky reef habitats on the eastern Coromandel Peninsula with multispectral satellite imagery (No.12557259). Hamilton, New Zealand: Waikato Regional Council.

57. These studies set out known sites of kina barren in CRA 2. The proposals as set out do not directly address how these kina barrens will be remediated. Instead, FNZ has

[16] Page 35 consultation document.

ruled out the use of the management measure (large scale spatial closures) which is scientifically supported.

58. FNZ already has information about where kina barrens are located within CRA 2 and knows where heavy fishing activity is occurring. FNZ has sufficient information to set out where large scale spatial closures need to occur but has ruled these out without justification.

59. It is difficult for submitters to provide detailed information about where such closures should occur as FNZ has not provided the public with the information about where commercial fishing activity takes place. If the intent of spatial closures is to control commercial fishing activity, it is essential to know where that activity takes place to be able to assess any proposals.

Forest & Bird

TE REO O TE TAIAO | *Giving Nature a Voice*

Submission on proposed measures for Spiny rock lobster / Crayfish, Kōura papatea (CRA 2) – Hauraki Gulf, Coromandel, and Bay of Plenty

To **Fisheries New Zealand**

Attn fmsubmissions@mpi.govt.nz

From **Royal Forest & Bird Protection Society of New Zealand Inc.**

PO Box 631

Wellington

Contact **Bianca Ranson**

s9(2)(a)

Date 28/01/2025

Introduction

Forest & Bird has a strategic priority for New Zealand to transition to ecosystem-based fisheries management. Managing the relationship between kelp, kina and kina predators to maintain and restore healthy kelp beds is a key test of New Zealand's implementation of ecosystem-based management of fisheries as it requires multi species management at different levels of the food chain to sustain ecosystem structure and function.

Rock lobsters are key predators of kina, and an abundance of large rock lobsters are recognised as essential to preventing kina barrens and restoring kelp forests. Kelp forests provide crucial habitats for a range of coastal species and are a critical feature of the coast. Their protection and restoration is necessary to achieve the purposes of the Fisheries Act 1996 consistent with the environmental principles of the Act as well as Objective 10 of the Te Mana o Te Taiao Biodiversity Strategy. Forest & Bird was party to the CRA1 case *The Environmental Law Initiative v Minister for Oceans and Fisheries* [2022] NZHC 2969, which established an important baseline for best available science in relation to kina barrens in CRA1 and which recognised the ecological role of rock lobsters in managing kina barrens under the Fisheries Act (1996).

Forest & Bird welcomes the focus on addressing kina barrens in the consultation document but the proposed measures are not sufficient in themselves as they are premised on restoring the biomass to a level at or below the level at which kina barrens appeared.

Forest & Bird's key asks

Forest & Bird's key asks are:

- A biomass target of at least 3x BR should be the biomass target to address kina barrens
- The TAC should be compatible with achieving 3x BR in a reasonable time frame
- MPI should close the inner Hauraki Gulf
- Other sites within CRA2 should be identified for closure in time for April 2026 decisions

The Hauraki Gulf Fisheries Plan

The Hauraki Gulf Fisheries Plan needs to have a central place in decisions on the management of CRA2. The consultation document only covers the Fisheries Plan lightly by referring to the high-level goals contained within the Fisheries Plan. The consultation

document should have given consideration to the specific actions in the Plan that give policy guidance. In the context of CRA2, these are:

Management Objective 1.3: Mitigate the direct and indirect impacts of fishing on the marine food chain. There is one management action from this objective that is directly relevant to CRA2:

- Management Action 1.3.4 Facilitate the co-development of a management plan for restoring healthy kelp forests, which will consider the causes and address the environmental impacts of kina barrens and include management considerations for predator species such as snapper and crayfish

Management Objective 2.1: At the QMA level, ensure all harvested stocks of wild marine species are at or above target levels. There are two management actions from this objective that are directly relevant to CRA2:

- Management Action 2.1.1 Work with tangata whenua and stakeholders (recreational, customary, commercial, non-take) to determine and document their fisheries resource needs and priorities within the Hauraki Gulf.
- Management Action 2.1.2 Set management targets and Total Allowable Catches to achieve/restore abundance at stock levels necessary to support the needs and priorities identified in management action 2.1.1 and within an ecosystem-based fisheries management framework

The consultation document should have made specific reference to these management objectives and actions to help submitters see the relationship between the CRA2 proposals and the Fisheries Plan. The consultation document could have been an opportunity to explicitly seek views on needs and priorities as per Management Action 2.1.1 to enable the process set out in 2.1.2 to occur. It is implied, but is not explicit.

The consultation document should have noted that although a management plan for restoring kelp beds has not yet been done, the intention is for decisions on CRA 2 to support this work.

These management objectives and actions inform Forest & Bird's submission. In particular, that there needs to be a clear relationship between decisions on TAC and closures with the wider community's need to reverse kina barrens, and that TAC should be set on the basis of ecological requirements rather than BMSY.

Setting a goal for CRA2

The discussion document for CRA 1 included a draft goal of:

"Rock lobster stocks are managed to levels that enable them to meaningfully contribute as rocky reef predators, including helping, at a minimum, to mitigate existing urchin barrens at both a QMA and local scale, while avoiding contributing to the formation of new barrens."

Part of "ensuring sustainability" under section 8 (2) of the Fisheries Act requires decision-makers to avoid, remedy, or mitigate any adverse effects of fishing on the aquatic environment.[1] In the case of kina barrens, this means MPI has three options to choose from for managing the environmental effects of excessive rock lobster harvest.

The selection of mitigation (over avoidance and remediation) appears to not fit the ecological dynamics and management requirements to address kina barrens; it's not clear what mitigation looks like where there are threshold effects that switch the system between kina barrens and kelp forests. The goal should instead be focused on:

- Avoiding the creation of kina barrens by maintaining rock lobster populations and size class distributions that help prevent new kina barrens from forming
- Remedying the creation of kina barrens by maintaining rock lobster populations and size class distributions that enable the restoration of healthy kelp beds

This would mean changing the goal to an approach that more readily reflects the application of section 8 (2)(b) to the kelp-kina barren system requirements. Forest & Bird agreed with the goal proposed by the Bay of Islands Maritime Park for CRA1 which reads:

> "Rock lobster stocks are managed to levels that enable them to meaningfully contribute as rocky reef predators, including helping to reverse existing urchin barrens at both a QMA and local scale while avoiding contributing to the formation of new barrens."

Forest & Bird considers that this goal would better reflect the environmental principles in section 9 of the Fisheries Act 1996 for the following reasons:

- Kelp and the biodiversity that relies on kelp are species dependent on kelp that should be maintained above a level that ensures their long-term viability:
- Protection and maintenance of kelp forests is essential to maintaining the biological diversity of the aquatic environment

[1] Fisheries Act, section 8(2)(b)

- Vulnerable kelp forests are habitats of particular significance for fisheries management because of their ecological functions as a form of primary production and biogenic physical structures and should be protected.

In this context, prioritizing the avoidance of kina barrens and then remediation, is more consistent with the "bottom-lines" under Fisheries Act and biological reality than starting with mitigation. This should be the approach taken to CRA2.

This approach leads to a set of objectives:

> **Objective 1**: Maintain or increase rock lobster abundance in areas with known urchin barrens to levels that contribute to reversing existing urchin barrens while avoiding contributing to the formation of new barrens; and
>
> **Objective 2**: Maintain or increase abundance of large rock lobsters in areas with known urchin barrens to levels that contribute to reversing existing urchin barrens while avoiding contributing to the formation of new barrens.

Key questions from MPI

What is an appropriate CRA 2 biomass management target (i.e. the amount of rock lobster that FNZ aims to have present in the CRA 2 QMA)?

The management target for CRA2 should be based on the following objectives:

- Maintain rock lobster abundance in areas with known urchin barrens at levels that contribute to reversing existing urchin barrens while avoiding contributing to the formation of new barrens; and
- Maintain abundance of large rock lobsters in areas with known urchin barrens to levels that contribute to reversing existing urchin barrens while avoiding contributing to the formation of new barrens.

It seems likely, based on the information provided by MPI in the discussion document, that this would require a biomass management target greater than 3x BR. The options for a biomass target of less than 3x BR all appear to result in rock lobster biomass at or lower than the biomass when kina barrens were established.

How should the CRA 2 TAC be set for the upcoming 2025 April fishing year?

Until the management targets are agreed and the level of TAC that would enable the achievement of those targets is determined, a precautionary approach should be applied to the fishery. This means that the fishery should be managed with TAC that best enables a population increase to a biomass of at least 3x BR.

Forest & Bird notes that a shift to 3xBR would mean lower catches but that these catches would be more efficient to catch due to higher abundance. Forest & Bird also notes the concerns in the consultation document that increasing catches could lead to localised depletion.

None of the proposals in the discussion document are compatible with achieving a 3x BR biomass in a reasonable time. Option 1A (status quo) is the best of the options provided by MPI as it does not enable an increase in catch. Forest & Bird considers that Option 1A should be adopted on a transitional basis with a view to setting a new TAC in April 2025 that is compatible with the shift to a 3x BR biomass.

Should parts of CRA 2 be closed to rock lobster fishing to support recovery of rock lobster populations?

Forest & Bird supports the closure of the inner Hauraki Gulf but does not consider this to be sufficient. Other areas within CRA2 that Forest & Bird is aware have significant problems with either existing kina barrens or barrens in formation include:

- Hauturu
- Mokohinau Islands
- Mercury Islands
- Aldermen Islands

Forest & Bird therefore supports Option B2 with the additional request that MPI works with the iwi and hapu throughout CRA2, and the Hauraki Gulf Fisheries Plan Advisory Group, to propose a further set of closures to safeguard kelp beds and reverse kina barrens for decisions prior to April 2026.

This is particularly important because there is no proposal to increase the biomass of rock lobster to levels that would approach the levels prior to the formation of kina barrens.

Submitters Details
Nicole Miller, Chair
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28 January 2025

RE: Submission on CRA 2 Te Arai Point, Hauraki Gulf Marine Park and East Cape proposal to increase commercial crayfish catch limits.

The Friends of Taputeranga Marine Reserve Trust (the Trust) was formed in October 2009 to help ensure that the full range of Taputeranga Marine Reserve potential benefits could be realised and support community involvement in its future and wider marine protection in New Zealand. Trustees represent or have experience in marine science, the local community, commercial and recreational diving, central and local government, conservation, and marine use.
We consider that our collective expertise gives us credibility to take part in the present consultation.

The MPI proposal to increase commercial crayfish (rock lobster) catch limits threatens to deplete already dangerously low crayfish populations in significant coastal areas of east Northland and the Hauraki Gulf.
It is our understanding that the Fisheries NZ methodology for estimating crayfish numbers was questioned in an independent study by an international panel of scientists last year.
"Data collected from our diver-based surveys of Hauraki Gulf rocky reefs don't show an increase in crayfish numbers to the same extent as that reported in the fishery assessment" and "Region-wide surveys found that *J. edwardsii* populations within protected areas were dominated by large, legal-size individuals, whereas lobster in fished locations were mostly below or around legal-size."1
The scientists made 25 recommendations, highlighting both the need for crayfish surveys that were independent of fishing interests, and the ecological advantages in building increased resilience by not maximising catches.

Crayfish are ecologically important predators in New Zealand's rocky reef ecosystems.
They help regulate kina populations, which increase when large predator populations (e.g., crayfish and snapper) are too low. Kina destroy kelp beds which support marine life, act like a nursery for sea life, and sequester carbon.
Unchecked, kina strip the reef of the seaweed, creating "kina barrens" of bare rock, depriving other species of food, cover and a breeding habitat.
As kina proliferate when their natural predators are too small and too low in numbers to keep them in check, they destroy the kelp forests they live on, in turn destroying the shelter and food basket for juvenile fish and other species. This problem leads to parts of the coast becoming a marine desert, except for bristling kina spines and is increasing in many areas in New Zealand. Healthy kelp forests also play an important role in mitigating climate change as seaweed can draw down excessive atmospheric carbon-dioxide.

In addition to using fisheries regulations to manage stock, marine protected areas are an essential part of marine fisheries management. The value of fully protected marine areas are well researched to improve predator populations and the overall improvement in marine ecosystem health. However, research is

demonstrating that fishing pressure on surrounding areas, especially in the Hauraki Gulf, is showing that while the reserves still play a role in protecting crayfish, they are too small to fully protect lobster populations. Depleting kina predators such as crayfish is a key driver for kelp forest decline. Kina barrens are becoming increasingly prevalent as the fishing and other pressures on New Zealand's oceans increase. It is essential that measures to reduce the pressure on crayfish populations are needed.

SUPPORT

We support the proposal to close the inner Hauraki Gulf to all commercial and recreational rock lobster fishing

The Trust supports the Minister in splitting the large CRA 2 Quota Management Area between Te Arai Point and East Cape into at least two smaller areas so fine-scale management can be applied, to rebuild crayfish numbers on the proviso that sufficient funding and effort is put into monitoring stocks and the impact on the ecosystem to provide for management decision making. Knowledge of the interactions among species and communities is vital for their management and protection.

OBJECT

The Trust objects to the Fisheries New Zealand proposal to increase the commercial catch limit for crayfish in the CRA 2 fishery, between Te Arai Point and East Cape.

The Trust urges MPI to develop a recovery plan that includes:

- No increase to the total allowable commercial catch.
- Potential closed areas; and
- Investment in independent science to prove how many crayfish can be harvested sustainably.

Thank you for the opportunity to provide comments and suggestions.

Nicole Miller
Chair, Friends of Taputeranga Marine Reserve

References:

Why Earth's giant kelp forests are worth $500 billion a year (nature.com);
Research aims to quantify New Zealand's Blue Carbon capacity of kelp seaweeds | NIWA: Kelp beds are the dominant primary producers in the coastal zone, with average drawdown of around 28 tonnes of carbon dioxide per hectare, per year. In the case of the New Zealand native Giant Kelp, this is about 52 tonnes of carbon dioxide per hectare, per year, more than double that of pine trees. High-level estimates suggest about 11% of the carbon drawdown by kelp could be sequestered for thousands of years in deep marine sediments;
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Hauraki Gulf Forum
Tīkapa Moana
Te Moananui-ā-Toi

Fisheries New Zealand
FMsubmissions@mpi.govt.nz

Submission on the review of sustainability measures for 1 April 2025

Dr Lucy Baragwanath
Executive Officer
Hauraki Gulf Forum
EO@haurakigulfforum.org.nz

Fish stock this submission refers to: CRA2

Preferred options:

- Option A1: maintain catch settings at current levels.
- Option B2: close the inner Hauraki Gulf to all commercial and recreational rock lobster fishing.

Detail:

The Hauraki Gulf Forum has the statutory responsibility to promote integrated management to protect and enhance the Hauraki Gulf. The Forum has the goal of at least 30% marine protection by 2030, and is committed to improving marine ecosystems through recognising critical marine values and advocating for their protection and restoration.

The Hauraki Gulf Forum supports management targets that provide for better ecological outcomes. Given the ecological role of rock lobster as a predator of sea urchins and the formation and spread of kina barrens, we do not support an increase in the total allowable catch. We support option A1 to maintain current levels.

Given the high occurrence of kina barrens and low numbers of rock lobster, we also strongly support Option 2B to allow the rock lobster population to recover. We support the proposal to close the inner Hauraki Gulf to all rock lobster fishing, in addition to existing marine reserves, mātaitai, and proposed new HPAs provided for in the Hauraki Gulf Tīkapa Moana Marine Protection Bill. We also support the extension of the closure to include Te Arai, Mahurangi to Hauturu, and Mokohinau.

HAUTURU
SUPPORTERS TRUST

14 January 2025

Fisheries Management Division
Ministry for Primary Industries
FMSubmissions@mpi.govt.nz

Submission on CRA 2 Management Measures

The Hauturu Supporters Trust strongly supports a full closure of the CRA 2 fishery, particularly for the waters surrounding Hauturu-o-Toi / Little Barrier Island. The island's location in the outer Hauraki Gulf, combined with the ecological crisis caused by kina barrens, necessitates immediate and decisive action.

Extent of Kina Barrens around the motu (Dartnall 2022[1]).

Kina barrens were not present on Hauturu-o-Toi reefs in the 1950s.

By the 1970s, they had expanded to cover 11.6% of subtidal reefs.

By 2022, this coverage nearly tripled to 32%, equivalent to over 3 km² of barren reef out of the 9.02 km² mapped to 20 m depth.

Kina barrens are most prevalent between 3–7 m depth, with some extending to 23 m.

The 2018 TAC reductions for kōura (spiny rock lobster) have shown no observable impact on reducing kina barrens.

Significance of Hauturu-o-Toi's Ecosystems:

The nature reserve boasts 3,056 hectares of pristine forest, free from human interference or browsing animals, and is surrounded by 604 hectares of declining kelp forest.

The growing kina barren threatens the island's large kelp forests, particularly in the southwest. These could face local extinction by 2050 if the current trajectory continues.

Limited High-Protection Coverage:

Only 36% of Hauturu-o-Toi's reef habitats will fall under the proposed High Protection area, leaving 64% unprotected and vulnerable to further degradation.

Ecological and Economic Impacts:

People rarely harvest kina from Hauturu due to the high cost of travel, indicating that barrens are not caused by local fishing pressure but by the broader depletion of kina predators like koura (spiny rock lobster) and tāmure (snapper).

Kelp forests, valued at USD 147,100 per hectare annually[2], provide critical ecological services. Their loss represents significant economic and biodiversity costs.

Supporting New Targets

The Hauturu Supporters Trust strongly supports the adoption of kelp forest cover targets over biomass targets for primary urchin predators. Specifically, we advocate for a 100% kelp forest cover target, which

[1] Dartnall, L. (2022). The extent of kina barrens over time at Hauturu-o-Toi and the Noises Islands. Univeristy of Auckland Thesis

[2] https://ethicalhour.com/environment-sustainability/kelp-forests-a-500-billion-powerhouse-for-global-economy/

aligns with the conservation values of Hauturu-o-Toi as a nature reserve. Restoring full kelp forest coverage is essential to protecting the ecological integrity of this unique marine environment.

If Fisheries New Zealand does not currently have the Ecosystem-Based Management (EBM) framework to implement a kelp forest cover target, we recommend adopting a kōura biomass target of at least 3x B_R. This level is most likely to restore ecological balance by increasing predator populations, controlling kina densities, and halting the spread of kina barrens. Setting ambitious and measurable targets is critical to reversing the loss of biodiversity and ensuring the long-term health of the marine ecosystem.

The Hauturu Supporters Trust agrees with fisheries independent survey data that critiqued the stock assessment reliance on Catch Per Unit Effort and found the population to be overfished and require full closure.[3]

Call for Action

The Hauturu Supporters Trust urges Fisheries New Zealand to adopt a precautionary approach by closing the CRA 2 fishery entirely. This will allow predator species such as kōura to recover, fulfilling their ecological role and halting the spread of destructive kina barrens.

Failure to act risks irreversible ecological damage, particularly to the large kelp forests that remain in the southwest of Hauturu-o-Toi. Without intervention, kina barrens could escalate rapidly, pushing these ecosystems beyond recovery.

Management Action 1.3.4 of the Hauraki Gulf Fisheries Plan[4] states that Fisheries New Zealand will *"Facilitate the co-development of a management plan for restoring healthy kelp forests, which will consider the causes and address the environmental impacts of kina barrens and include management considerations for predator species such as snapper and crayfish."* We desperately need this plan.

Conclusion

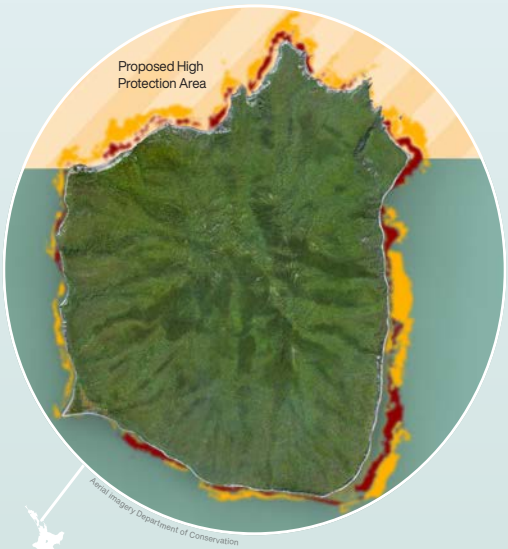
We call on Fisheries New Zealand to prioritise long-term ecological health over short-term gains. Protecting Hauturu-o-Toi's unique marine environment is critical not only for the island but also for the broader resilience of the Hauraki Gulf.

Thank you for considering our submission.

[3] https://www.frontiersin.org/journals/marine-science/articles/10.3389/fmars.2024.1440350/full
[4] https://www.mpi.govt.nz/dmsdocument/58396-Hauraki-Gulf-Fisheries-Plan

A tale of two forests

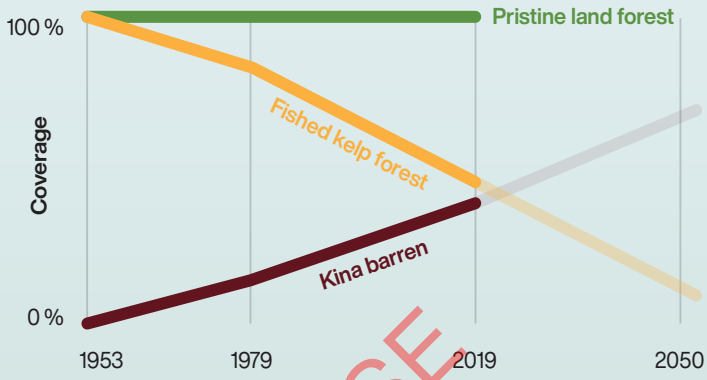
[redacted] Te Hauturu-o-Toi / Little Barrier Island

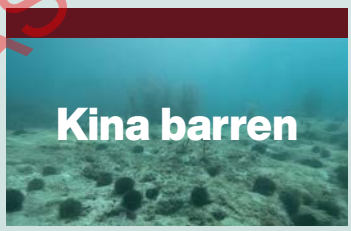


300 ha of growing kina barren

17 million kina in total

The underwater forests surrounding New Zealand's first Nature Reserve (1895) are being eaten to death.



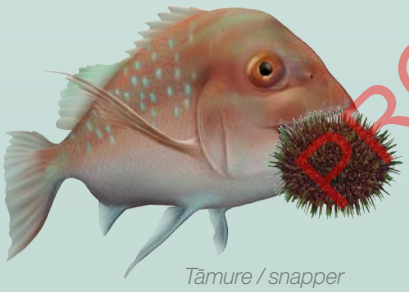


300 ha of lost kelp forest once fed

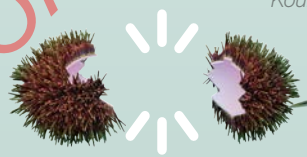
200 tonnes of lobsters and fish every year

However, the greater loss is the critical nursery habitat for Gulf ecosystems.

We are overfishing kina predators



Tāmure / snapper



Humans tend to avoid eating kina in barrens because they are too skinny (starving)

Kōura / spiny rock lobster

Solutions

To restore kelp, kina density must be reduced to less than

1/m²

The small High Protection Area will leave 64% of the reef unprotected, where the kelp forest will continue to decline.

TREAT THE SYMPTOM

Scuba diver crush

50 hours/ha

× 300 ha = 15,000 hrs

12 full time divers in perfect weather could restore the kelp in one year

WAGE COST: $1,500,000

TREAT THE CAUSE

But the barrens will just come back.

Restoring kelp without addressing overfishing is like bringing back a birdless forest. If we stop all fishing now, the lost kelp forest could fully recover in 15 years.

Hauturu urgently needs a kelp forest restoration plan

RESEARCH: University of Auckland. GRAPHICS: Shaun Lee

Fisheries New Zealand
Tini a Tangaroa

Submission form
Review of sustainability measures for 1 April 2025

Once you have completed this form, send it by email to FMsubmissions@mpi.govt.nz
While we prefer email, you can also post your submission to:
2025 Sustainability Review, Fisheries Management, Fisheries New Zealand, PO Box 2526, Wellington 6140, New Zealand.

Submissions on the proposals must be received no later than 5pm on Wednesday 29 January 2025.

Anyone may make a submission, either as an individual or on behalf of an organisation. Please ensure all sections of this form are completed. You may either use this form or prepare your own. If preparing your own, please use the same headings as used in this form.

Submitter details

Name of submitter or contact person	Chris Ollivier
Organisation (if applicable)	Hooked On Barrier Ltd
Email address	s9(2)(a)
Fish stock(s) this submission refers to	Spiny rock lobster CRA 2 Inner Hauraki Gulf closure, and TAC
Your preferred option as detailed in the discussion paper (write 'other' if you do not agree with any of the options presented)	Other

Submissions are public information

Note that all, part, or a summary of your submission may be published on this website. Most often this happens when we issue a document that reviews the submissions received. People can also ask for copies of submissions under the Official Information Act 1982 (OIA). The OIA says we must make the content of submissions available unless we have good reason for withholding it. Those reasons are detailed in sections 6 and 9 of the OIA. If you think there are grounds to withhold specific information from publication, make this clear in your submission or contact us. Reasons may include that it discloses commercially sensitive or personal information. However, any decision MPI makes to withhold details can be reviewed by the Ombudsman, who may direct us to release it.

Official Information Act 1982 – NZ Legislation

Fisheries New Zealand
Tini a Tangaroa

Submission:[1]

Details supporting your views:

- *Do you support using a higher biomass management target for managing the CRA 2 stock?*
- *What do you think of the proposed TAC options? Do you support one of the options in particular?*

Yes, a higher biomass target is imperative. I support aiming for a minimum of 2.5xB_R

Option A1 (Status quo) is the minimum of intervention required to save the Spiny Rock lobster from extinction by overfishing. The current recreational limits are too high, and accumulation within the rules allow significant quantity to be taken per diver and no boat limits exist.

"*In CRA1 and CRA2 (from the Kaipara Harbour on the west coast of the North Island, around North Cape and then south east to Cape Runaway) the catch limit for red or spiny rock lobster is different. Within the combined limit of 6 rock lobster, you can take a maximum of 3 red or spiny rock lobster and the remainder can be packhorse rock lobster. If you do not take any red or spiny rock lobster, then you can take a total of 6 packhorse rock lobster*."

This rule allows a boat that has say 4 divers to accumulate over a weekend 24 red or spiny rock lobster and an additional 24 packhorse (48 total) which has a huge impact on the population in the areas they may be diving in. This will decimate populations and prevent recovery. We understand that the recreational limit is not often reached due to the population already being depleted

We also recommend a maximum size to protect the large lobster that are so important to our ecosystem and additional protection like closed seasons for breeding.

Additional measures on commercial (and recreational) potting being restricted to deeper water (set minimum depth) to protect the shallow water population which is generally targeted by recreational divers.

- *Do you support the proposal to close the inner Hauraki Gulf to all commercial and recreational rock lobster fishing?*
- *How could the proposed measures impact you?*

Option B2 (Close the inner Hauraki Gulf to all commercial and recreational rock lobster fishing) This is a good initiative but will push additional pressure to the outer gulf particularly Aotea and Hauturu and the East Coast of the Coromandel. We recommend the implementation of local controls and management that provide better protection for those areas in combination with the closure of the Inner Gulf. This could include locally initiated lower local catch limits, Rahui in conjunction with Ahu Moana surveillance, seasonal breeding season closures, no take reserves and potting restricted in shallow water.

General comment

The reluctance of Fisheries NZ to step up to protection of all our fisheries with the emphasis on maximum yield rather than sustainability is leading us to a path of extinction of the previously abundant fish species at a rapid pace. We need a holistic look at fisheries management as the effect of overfishing one species flows on to everything in the environment. Examples in the northern hemisphere of the result of overfishing are being seen here (like decimation of bait fish) resulting in loss of Kahawai in the gulf as their food source is no longer abundant

[1] Further information can be appended to your submission. If you are sending this submission electronically, we accept the following formats: Microsoft Word, Text, PDF, and JPG.

24 January 2025

Review of Sustainability Measures 2024
Fisheries Management
Fisheries New Zealand
P O Box 2526
Wellington 6140

By email only: FMSubmissions@mpi.govt.nz

REVIEW OF SUSTAINABILITY MEASURES FOR FISHERIES – APRIL 2025 ROUND

Tena koe,

1. The Iwi Collective Partnership

This submission is presented on behalf of the Iwi Collective Partnership (ICP), a collaboration of 19 iwi (see table one) who believe that working together toward a common vision, based on shared Māori values, achieves superior outcomes over working alone. As a business ICP creates value by collectivising the annual fishing rights that derive from iwi quota and taking a more strategic approach to management of the portfolio.

Table one: Iwi Collective Partnership shareholders

Iwi Member	Iwi Entity
Ngāti Porou	Ngati Porou Seafoods Limited
Te Arawa	Te Arawa Fisheries Holding Company Limited
Ngāti Tūwharetoa	Ngāti Tūwharetoa Fisheries Holdings Limited
Ngāi Te Rangi	Ngāi Te Rangi Fisheries AHC Limited
Ngāti Awa	Ngāti Awa Asset Holdings Limited
Whakatōhea	Whakatōhea Fisheries Asset Holding Company Limited
Te Rarawa	Te Waka Pupuri Putea Limited
Taranaki Iwi	Taranaki Iwi Fisheries Limited
Ngāti Ruanui	Ngāti Ruanui Fishing Limited
Ngaa Rauru Kiitahi	Te Pataka o Tangaroa Limited
Te Aitanga ā Māhaki	Te Aitanga ā Māhaki Trust Asset Holding Company Limited
Rongowhakaata	Rongowhakaata Iwi Asset Holding Company Limited
Ngaitai	Te Kumukumu Limited
Ngāti Manawa	Ngāti Manawa Tokowaru Asset Holding Company Limited
Ngāti Whare	Ngāti Whare Holdings Limited
Tapuika	Tapuika Holdings Limited
Ngati Maru (Taranaki)	Ngati Maru (Taranaki) Fishing Company Limited
Rangitane	Rangitane o te Ika a Maui Limited
Ngai Tāmanuhiri	Ngai Tāmanuhiri Asset Holding Company Limited

2. Background

Fisheries New Zealand (FNZ) is reviewing the sustainability measures for spiny rock lobster (CRA 2) for the fishing year commencing 1 April 2025. The ICP acknowledges the success of earlier management interventions, including the Total Allowable Commercial Catch (TACC) reductions in 2018 and recreational daily bag limit adjustments in 2020, which have led to a significant increase in biomass. CRA 2 stock is now estimated at 1.54 times the target biomass (BMSY), and FNZ's current assessment projects continued growth under the proposed TAC adjustments.

The significant impact of the cuts in 2018 on the seafood industry is acknowledged. However, the subsequent recovery of the CRA 2 fishery has been pleasing, demonstrating the effectiveness of science-based management interventions. The ICP agrees with the proposed increase and is pleased to see further improvement to the BMSY despite the adjustments.

The ICP supports the proposals for increasing the TAC, specifically **Option A3**, which represents a balanced approach to increased utilisation while ensuring sustainability. This submission outlines the ICP's position and rationale, informed by scientific evidence and the perspectives of our iwi members and commercial operators.

3. Submission Views

CRA 2

The ICP supports **Option A3**, which proposes:

- **TAC:** Increase to 188.5 tonnes (up by 15.5 tonnes).
- **TACC:** Increase to 100 tonnes (up by 20 tonnes).
- **Other Mortality Allowance:** Decrease to 38 tonnes (down by 4.5 tonnes).

This option strikes an appropriate balance between ensuring the continued rebuild of the CRA 2 stock and providing increased utilisation opportunities for both commercial and non-commercial sectors.

Key Reasons for Support:

1. **Success of the 2018 TACC Reduction** The 60% reduction in TACC implemented in 2018 has proven effective, as evidenced by the significant recovery in CRA 2 biomass. Supporting an increase under Option A3 reflects a continuation of this evidence-based approach while allowing stakeholders to benefit from the recovery.

2. **Alignment with Scientific Projections** FNZ's modelling indicates that under Option A3, the CRA 2 biomass is projected to continue growing towards 1.8 times BMSY by 2028. This supports sustainable utilisation while maintaining a precautionary approach to fisheries management.

3. **Support from Commercial Operators** Aligning with the science, anecdotal evidence from ICP's commercial partners and fishers highlights improved catch rates and operational efficiency due to increased lobster abundance. Option A3 will enhance these benefits while maintaining sustainability and supporting local economies.

4. **Customary and Recreational Access** The proposed increase under Option A3 ensures that customary and recreational allowances remain unaffected, providing continued access and benefits to these sectors while recognising their cultural and social importance.

Conclusion

The ICP supports Fisheries New Zealand's Option A3 for CRA 2, recognising its balanced approach to sustainable utilisation and ecosystem management. This option builds on the proven success of previous interventions and reflects the value of collaboration between iwi, industry, and government to achieve shared sustainability goals.

The ICP thanks Fisheries New Zealand for the opportunity to provide input into this process and welcomes further engagement to ensure the best outcomes for the CRA 2 fishery and all stakeholders.

Naku noa na,

s9(2)(a)

Ken Houkamau

Chief Executive Officer
Iwi Collective Partnership
s9(2)(a)

27th January 2025

Ministry for Primary Industries

ATTN: 2025 Sustainability Review
Fisheries Management
Fisheries New Zealand
PO Box 2526
Wellington 6140
New Zealand.

Submission in response to MPI Discussion Paper No. 2024/33

1. Thank you for the opportunity to comment on the MPI Discussion Paper No 2024/33: Review of sustainability measures for spiny rock lobster (CRA 2) for 2024/25

2. This submission is provided by the Leigh Commercial Fishermen's Association (LCFA). LCFA's membership includes 38 members, 12 of which are domestic operators that fish for crayfish within the FMA1 area of New Zealand, at least six of these fishers operate within or close to the proposed spatial closure within CRA2 as discussed in this paper. LCFA has consulted these members while preparing this submission. There is minimal commercial potting for rock lobster within the Inner Hauraki Gulf but for those operators who do fish within it's boundaries a high percentage of their operation occurs in this space meaning this closure will affect their operation adversely and disproportionately. Closure of this area will have significant detrimental impacts on the CRA 2 fishery overall. The views expressed in this submission accordingly reflects the views of the membership.

3. Incorporated in 1994, LCFA advocates for the interests of commercial fishers. We are focused on the betterment of the well-being of commercial fishers. We seek to have our fishers recognized for their role in New Zealand's coastal communities as food providers, conservationists, supporters of local businesses and community groups, and business people in their own right.

4. LCFA is committed to evidence-based decision making and has a demonstrated history of being committed to sustainable utilisation and introducing innovative solutions to demonstrate performance and provenance. Our fishers have an established reputation for the quality of our fish and our market access is associated with confidence in the integrity of the QMS.

5. LCFA is generally supportive of the submissions and the concerns raised by Lee Fish Limited, NZ Rock Lobster Industry Council Ltd. (RLIC), CRA 2 Rock Lobster Industry Association Inc. (CRAMAC 2), and any independent submissions submitted by our commercial fishers on this Discussion Paper.

Our position

6. Our members support Option A3 as proposed in the discussion paper.

7. We support;

- Increasing the TAC to 188.5t
- Increasing the TACC to 100t
- Maintaining Customary Māori allowances at 16.5t
- Maintaining Recreational catch allowances at 34t
- Decreasing by 4.5t All other mortality caused by fishing allowances to 38t

8. We are supportive of Option B1, remaining with status quo.

9. In elaboration, we support;

- Commercial take within the Inner Hauraki Gulf by our fishers
- The development of a Code of Conduct for our fishers to adhere by
- A mountains to sea holistic management approach
- Research into land-based, pollution or climate change impacts on the spread of urchin barrens and extensive loss of kelp forest within the Inner Hauraki Gulf
- Research into what is considered 'local depletion' of CRA and a 'Kina Barren', where these both exist and if they correlate within the Inner Hauraki Gulf
- Research into what effect larger size crayfish have on Kina Barrens
- Implementation of mandatory recreational reporting

Commercial Efforts and Self Management

10. CRA 2 fishers have demonstrated a commitment to the sustainability of this fishery.

11. Our fishers have for the last 31 years voluntarily collected data to monitor the red rock lobster stocks within CRA 2. This has been fully funded by industry and data from this programme has been invaluable at maintaining the sustainability of this fishery for the future.

12. CRA 2 fishers have seen catch reductions including a 60% decrease to the CRA2 TACC in 2018, after implementing their own fisher-initiated cuts - shelving 50 tonnes for two years prior to 2018 to offset the poor CPUE at the time. We saw some of our operators having to exit the method or industry entirely after the 60% decrease, and livelihoods for their crew members were lost. This was a major financial blow to our fishers and associated businesses, and those that remained struggled to remain financially viable. Many pressures have affected our fishers on top of this previous TACC reduction including but not limited to: increase in costs to running a fishing vessel, export market closures halting overnight during the Covid 19 pandemic, massive increase in inflation especially effecting fuel and bait prices and other running costs, Caulerpa and associated CAN closures, and proposed Marine Protection Area spatial closures.

13. After many years of hard slog, our Cray fishermen welcome the proposed increases to the TAC and TACC as set out in option A3 which may offer some relief to the pressures they face day to day.

14. As mentioned above we support Option B1, the status quo remains.

15. The proposed closure will result in unintended consequences such as displaced fishing effort from both commercial and recreational fishers and increase the fishing pressure in nearby areas. Our membership includes fishers who will be directly impacted because of this displacement or due to displaced effort into their current fishing grounds.

16. There appears to have been no consideration as to the current scale and extent of fishing practices in these areas. We understand knowledge about customary and recreational take is limited, our knowledge from commercial operations can provide insight into recent activity to support effective spatial management.

17. Local knowledge and fishing practices by our fishers as an information source should be taken into account.

18. The CRA2 area supports multiple fishers that have collaborated to develop and now implement a harvesting approach whereby fishing effort is spread across the area. Fishers respect each other's historical fishing areas and work with each other to spread fishing effort and mitigate the risk of localized depletion.

19. There is also a temporal aspect of the fishery meaning that our fishers are spreading fishing effort to support the fishery. This is supported by the recent science that shows CRA2 abundance is increasing.

20. Our members are significantly concerned about recreational and commercial displacement that will undermine the sustainable management of resources and result in unnecessary conflict between sectors.

21. Our members want the best for this resource but do not believe that this blunt management tool based on a paucity of information or evidence, evident from the discussion document, will result in good fisheries management and the improvement to the health of the Inner Hauraki Gulf.

22. Spatial closures are not faceless decisions. There are men, women, and children impacted by these management decisions. It is a disservice to hardworking fishers, families, and all the ancillary services reliant on our fishers to make decisions that are ill informed with a lack of scientific evidence to inform them.

23. There are increased pressures on fishers resulting in fishers being under increased mental and financial stress. We know these stresses are severely impacting the mental health of fishers and they are struggling to see a future for their businesses and livelihoods. This result is that we are seeing more fishers exiting the industry, suffering from early mortality, suicide, and other unfortunate harmful incidents caused by associated fatigue, burnout, and stress.

24. Notably, our fishers want to emphasize how they responsibly manage the CRA 2 area and how there are already spatial and temporal factors to how this fishery operates.

25. Approval of this blanket closure would demonstrate siloed thinking focused on a specific management tool without recognition of the need for comprehensive holistic fisheries management, as you can already see our fishers are trying to achieve through collaborative fisher-initiated harvest management.

Code of Conduct

26. In spite of our opposition to the proposed spatial closure, we acknowledge the concerns from other stakeholders of local red rock lobster depletion and kelp forest loss and propose an alternative pathway forward as detailed in both CRAMAC 2 and RLIC's separate submissions by developing a Code of Conduct for our fishers to abide by. We hope that this Code of Conduct will be satisfactory and informative to alleviate any concerns that FNZ, other stakeholders and the wider community have on this subject of depletion within the Inner Hauraki Gulf.

27. Notwithstanding our concerns, our members welcome the opportunity to advance the dialogue between all stakeholders to discuss their respective concerns in order to work towards effective management based on a critical review and assessment of the available information.

28. Our members have intergenerational local and traditional ecological knowledge of the specific area associated with the proposed closure and the broader area. Our members are keen to work with other groups and specifically want to have the opportunity to propose solutions by sharing their knowledge to add value to the understanding and discourse.

Terrestrial Impacts

29. We support a Mountain to sea holistic management approach. This is needed to address the excessive sedimentation and nutrient flows into our coastal waters to help reverse any local depletion of crayfish and kelp forests within the Inner Hauraki Gulf.

30. The discussion document lacks any context of the influence of environmental conditions on the depletion of kelp forests in the proposed area. It however talks about the negative effects that impact rock lobster populations. We have reservations that the proposed closure will not achieve the desired outcome for kelp reforestation as the proposed closure will not address environmental impacts on the fishery.

31. If land-based, pollution or climate change impacts are the main drivers behind the spread of urchin barrens and extensive loss of kelp forests within the Inner Hauraki Gulf, closing this area to all commercial and recreational crayfishing will have negligible effect in kelp restoration and any local depletion of crayfish present.

32. The 2023 State of the Gulf report recognizes multiple factors influence populations and that effective fisheries management will not be achieved without addressing environmental impacts.

33. A more comprehensive and holistic approach is needed to address the effect of:

- Environmental changes e.g., hydrodynamic changes and climate change impacts.
- Terrestrial runoff associated with land use changes that result in sedimentation, siltation, and heavy metal build-up.

34. This proposed area closure should not be used as a sustainability measure instead of meaningful and comprehensive management responses to address the myriad pressures on our marine environment. If the concern is a range of stressors why does the consultation not address the holistic issue of stressors on the sea kelp forests and Kina and instead focuses on managing recreational and commercial crayfishers?

35. The effects of land use and climate change need to be integrated to establish effective spatial management that truly addresses integrated management of cumulative impacts and not by managing specific users alone.

36. How does this proposed spatial management intend to support passive restoration given there is no recognition of an integrated management approach?

37. The lack of clarity regarding obligations and responsibilities is undermining the effectiveness of FNZ's engagement with other jurisdictions. We support the development of a formal Memorandum of Understanding (MoU) that outlines the roles of FNZ, DOC, and regional councils to ensure integrated management and true mountains to sea management going forward.

Baseline Information

38. It is clear that there seems to be a lack of baseline information included in this consultation.

39. How will localized depletion be defined within the Inner Hauraki Gulf? Who is defining it and what is the proposed process to determine localized depletion and at what scale is this being considered?

40. How will Kina Barrens be defined within the Inner Hauraki Gulf? Who is defining it and what is the proposed process to determine Kina Barrens and at what scale is this being considered?

41. How do land-based, pollution or climate change impact on the spread of urchin barrens and extensive loss of kelp forest within the Inner Hauraki Gulf?

42. What effect do larger crayfish have on Kina Barrens within the Inner Hauraki Gulf?

43. The Inner Hauraki Gulf as stated in the discussion document is one of the most intensively used marine spaces within New Zealand. Without knowing the exact crayfish take of recreational fishers in this area, how do you know that the displacement of recreational fishers will help achieve the aim of this proposed closure?

Monitoring the proposed spatial closure

44. Establishing a spatial closure with no details of how it will be regularly monitored is not good management. Allowing an incoherent patchwork of spatial closures will not provide management benefits going forward.

45. There is a concerning lack of detail on the proposed monitoring and compliance approaches that will be established to protect the integrity of the fishery management system. This raises the following questions:

- How can an area be closed when there is no baseline information available?
- How is monitoring starting after the implementation of the closure considered baseline?
- What are the details of the monitoring proposed?
- Given the absence of baseline information, management objectives, and a monitoring regime how is success against a problem definition going to be assessed?
- If the assumed Kina Barrens are not in certain areas how will this be reported on and what, if any, management considerations will be made?
- If monitoring localized crayfish depletion and kelp forests shows a declining trend over time how will this be addressed? What will the management changes be, considering there will be no fishing pressure in such areas?
- How will performance be reported on and how frequently?

Polarization of Public Opinion

46. We address the misinformation and disinformation that seeks to inform public opinion of diminishing fish stocks and overfishing by referring to the best available information:

- CRA2 is not currently experiencing overfishing. The 2022 plenary specifies ‘Overfishing is Very Unlikely (< 10%) to be occurring’ and this is reiterated in the Rapid Update 2024.
- Proposed changes including options to maintain or increase the TAC/TACC demonstrate there are existing management measures in place that both address the abundance of CRA 2 and the latest stock assessments show this is working.

47. Despite this FNZ is proposing a spatial closure that appears to be based on pre-conceived ideas to address societal pressures around the perceived depleted status of

crayfish and abundance of kina barrens. This is not an evidence-based approach or indeed due to any sustainability concerns. This raises significant questions about the genuine nature of the consultation on this proposed spatial closure.

Marine protection areas

48. The recently announced high-protection areas in the Hauraki Gulf have the potential to meet the aspirations of this spatial closure without the need for another spatial closure.

49. Given the overlap with some of these already proposed areas adding another layer or spatial management through this newly proposed closure would indicate a lack of confidence in the previous spatial management measures announced. An approval of this proposed closure would undermine the validity of new marine protection already proposed.

Conclusion

The Leigh Commercial Fishermen's Association (LCFA) appreciates the opportunity to provide input on the MPI Discussion Paper No. 2024/33. Our members are committed to sustainable fisheries management and responsible harvesting practices. We are supportive of the TAC/TACC increases. While we acknowledge the concerns raised about the state of the Inner Hauraki Gulf, we strongly oppose the proposed spatial closure as it lacks sufficient baseline information, does not address the root causes of ecosystem decline, and risks significant socio-economic harm to our fishers.

Instead, we urge Fisheries New Zealand to adopt a more holistic and evidence-based approach to management, integrating environmental factors such as land-based pollution and climate change impacts. We support measures like the development of a Code of Conduct, improved monitoring and reporting, and research efforts to address knowledge gaps and ensure effective management of this valuable fishery.

The LCFA welcomes further dialogue with stakeholders to develop solutions that protect marine ecosystems while safeguarding the livelihoods of those who depend on them. We strongly advocate for fisheries management approaches that are grounded in robust scientific evidence to ensure the long-term health and sustainability of the environment.

Nāku noa,

s9(2)(a)

Nā Rebecca Alexander

LCFA Secretary

Submitter details:	Leigh Fish and Te Henga Ltd
Name of submitter or contact person:	Tom Searle
Organisation (if applicable):	Lee Fish Limited T/A Leigh Fish and Te Henga Ltd
Email address:	s9(2)(a)
Fish stock(s) this submission refers to:	Sustainability Measures for spiny rock lobster (CRA2) for 2025/26. No.2024/33 1/ Review of the CRA 2 Total Allowable Catch (TAC) for 2025. 2/ Closure of Inner Hauraki Gulf to rock lobster fishing
Your preferred option as detailed in the discussion paper:	1/ Option A3 2/ Option B1

Submission

Whakapapa

This submission is made by Leigh Fish and Te Henga Ltd which are substantial owners of CRA 2 quota shares. Leigh Fish operates a processing facility at Leigh and harvests its product via exclusive contract Fishers. Leigh Fish and Te Henga Ltd are fully owned subsidiaries of Foodstuffs North Island Ltd. For simplicity for this submission only, all references to Leigh Fish include Te Henga.

Kaitiakitanga

The overarching ethos of Leigh Fish is the sustainability of:

- The individual species targeted,
- The ocean and seabed environment,
- The environment surrounding the ocean,
- The people involved in harvesting and processing our product,
- The community in which our people live,

Leigh Fish has a clear commitment to and ongoing contribution to industry fisheries management through proactive participation in:

- The Black Petrel Working Group
- Fisheries Inshore New Zealand
- The Inshore Council
- SNA1 Commercial
- CRAMAC 1 & 2
- Northern Committee
- HMS Committee
- Southern Seabird Solutions Trust
- The Bluff Oyster management Co. (Te Henga Ltd.)
- Various other Industry Groups

Leigh Fish is committed to maintaining the integrity of the QMS and will only contract like-minded harvesters.

Ko tā mātou tūnga (our Position)

1/ Review of TACC for 2025

Leigh Fish and Te Henga Ltd support option A3:

Option A3	
TAC	188.5t
TACC	100t
Customary	16.5t
Recreational	34t
Other	38t

The high-quality results of the review from the 2022 full stock assessment and the 2024 rapid update of CRA2 show an abundant CRA2 fishery that is projected to increase in biomass and remain fully sustainable. The four independent Fishers contracted to harvest the Leigh CRA2 ACE support the finding of these reports based on their harvesting experiences over the last 3 years.
These fishers have small operations and depend heavily on the income provided by their CRA2 harvest.

Leigh Fish's position in supporting Option A3 is driven by our belief that the proposed increase is very conservative and will support the small operators and their local communities.

Leigh Fish unreservedly supports the CRA2 Rock Lobster Management Company Ltd (CRAMAC2) and NZRLIC submissions regarding the Discussion paper No 2024/33.

2/ Closure of Inner Hauraki Gulf to Lobster fishing.

Leigh Fish and Te Henga Ltd support Option B1.
Option B1 – Maintain status quo.

Leigh Fish contracts four fishers in CRA2 who operate in the northwestern portion of the area proposed to be closed. These fishers have already been severely affected by the introduction of Marine Protection Areas, Mataitai reserves, and the restrictions imposed by the prevalence of Calerpa weed. Further restrictions would impose unreasonable, disproportionate economic implications on the four fishers and Leigh Fish compared to any other stakeholder.
Closure of the area proposed will transfer catch effort by recreational and commercial fishers putting undue pressure on the remaining open areas.

Leigh Fish urges the Minister of Fisheries and the Minister of Conservation to recognise the multiple factors that effect the marine environment in the Hauraki Gulf:

- Environment change
- Historical runoff
- Land use changes

The results of these factors on the marine environment will not be easy to correct but we suggest that an integrated approach would be more successful in the long-term rather than targeting the commercial and recreational fishers.

Leigh Fish unreservedly supports the CRA2 Rock Lobster Management Company Ltd (CRAMAC2) submission regarding the Discussion paper No 2024/33. (Closure of Inner Hauraki Gulf to Lobster fishing.)

Leigh Fish unreservedly supports and is a signatory to, the NZ Rock Lobster Industry Council Ltd paper proposing a "Code of Conduct: 905 Area Lobster Operators". Leigh Fish believes this proposal embodies the main outcomes of the proposed full closure while mitigating the potentially catastrophic economic and social repercussions to a localised portion of the stakeholder group.

Nga Mihi Nui

Tom Searle
Acting Head of Seafood Foodstuffs North Island and Manager of Leigh Fish

Fisheries New Zealand
Tini a Tangaroa

Submission form
Review of sustainability measures for 1 April 2025

Once you have completed this form, send it by email to FMsubmissions@mpi.govt.nz
While we prefer email, you can also post your submission to:
2025 Sustainability Review, Fisheries Management, Fisheries New Zealand, PO Box 2526, Wellington 6140, New Zealand.

Submissions on the proposals must be received no later than 5pm on Wednesday 29 January 2025.

Anyone may make a submission, either as an individual or on behalf of an organisation. Please ensure all sections of this form are completed. You may either use this form or prepare your own. If preparing your own, please use the same headings as used in this form.

Submitter details

Name of submitter or contact person	Lyle Wood and Amanda Sewell .Marina Fisheries Ltd
Organisation (if applicable)	
Email address	s9(2)(a)
Fish stock(s) this submission refers to	CRA2 Rock Lobster
Your preferred option as detailed in the discussion paper (write 'other' if you do not agree with any of the options presented)	Option A3

Submissions are public information

Note that all, part, or a summary of your submission may be published on this website. Most often this happens when we issue a document that reviews the submissions received. People can also ask for copies of submissions under the Official Information Act 1982 (OIA). The OIA says we must make the content of submissions available unless we have good reason for withholding it. Those reasons are detailed in sections 6 and 9 of the OIA. If you think there are grounds to withhold specific information from publication, make this clear in your submission or contact us. Reasons may include that it discloses commercially sensitive or personal information. However, any decision MPI makes to withhold details can be reviewed by the Ombudsman, who may direct us to release it.

Official Information Act 1982 – NZ Legislation

Fisheries New Zealand
Tini a Tangaroa

Submission:[1]

Details supporting your views:

We are CRA2 quota owners and feel that cray fish numbers in CRA2 have increased significantly since the reduction in 2018.The scientific information on the status of stocks seems to prove this to be correct and we think that an increase in TAC is warranted

[1] Further information can be appended to your submission. If you are sending this submission electronically, we accept the following formats: Microsoft Word, Text, PDF, and JPG.

Scott Macindoe
President
NZ Sport Fishing Council
PO Box 54242, The
Marina, Half Moon Bay,
Auckland 2144
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Fisheries New Zealand
FMSubmissions@mpi.govt.nz

29 January 2025

Submission: Review of sustainability measures for spiny rock lobster (CRA 2) for 2025/26

Summary statement

The abundance of spiny red rock lobster (*Jasus edwardsii*) on the North Island's east coast has collapsed while creating trophic cascades in the form of kina barrens, and impacting associated and dependent species and habitats. Depletion of red rock lobster has been accompanied by the proliferation of the larger packhorse crayfish (*Sagmariasus verreauxi*) which may limit the return of red rock lobster to their original habitat if the population is rebuilt.

In 2016, rock lobster in the Hauraki Gulf were described by marine ecologists as being "functionally extinct", unable to carry out its natural functions as predator and prey. Despite previous management reviews, CRA 2 has not rebuilt to a level of abundance which allows rock lobsters to fulfil their natural role within the ecosystem, particularly in statistical area 905 (inner and outer Hauraki Gulf). The progressive collapse of CRA 2 has been drawn out by successive Ministers and Fisheries New Zealand (**FNZ**) who have failed to administer the Fisheries Act (**the Act**) as required by law.

The depletion of rock lobster fisheries CRA 1 (Northland) and CRA 2 (Hauraki-BOP) and the consequent proliferation of kina barrens could have been prevented if the purpose and principles of the Act were comprehensively applied. Successive Fisheries Ministers, through FNZ, have failed to avoid, remedy, or mitigate the adverse effects of fishing, and this was confirmed by the High Court's ruling for CRA 1 in 2022.[1]

Rock lobster has been overfished, and the manner in which catch settings were established has failed to defend the stock or the rocky reef ecosystems. While rock lobster and other species are managed at levels that prioritise harvest and ignore the wider ecosystem, we will not have abundant, functioning marine ecosystems.

The New Zealand Sport Fishing Council has advocated for more precautionary management of rock lobster populations for more than two decades. Considerable investment has been put into involvement in the National Rock Lobster Management Group and into developing comprehensive

[1] Environmental Law Initiative v Minister for Oceans and Fisheries [2022] NZHC 2969 [11 Nov 2022].

submissions every year advocating the need to rebuild the abundance and size structure of crayfish populations, to restore ecosystem function. That feedback is largely ignored and rarely reflected in advice to Ministers in favour of Management Procedures that support maximum commercial yields.

The ongoing persistence by officials to permit the harvest of depleted species from degraded ecosystems is incoherent. The Minister must be advised that he cannot lawfully set catch limits each year whilst shallow reef ecosystems have been degraded due to the cumulative effects of fishing.

Now, we've reached the point where conservation alone will not save our rock lobster populations and associated ecosystems, and there is an urgent need for a recovery plan.

In its current state a Total Allowable Catch (**TAC**) cannot be lawfully set for CRA 2. A recovery plan is required and immediate actions are needed, a pause on rock lobster harvest is required until CRA 2 is subdivided and until fishery-independent assessments are reported so separate catch limits can be lawfully set for each sub-divided area. When the stock is sufficiently abundant to allow for harvest whilst allowing rock lobster to fulfil their natural ecosystem role, the recovery plan will guide a new method for establishing a precautionary TAC, with effort limits on commercial operations.

It is evident that management is failing and the status quo is no longer an option. The Minister and FNZ have had their chance to effectively manage rock lobster. In 2022 the CRA 1 High Court decision issued directions about not crossing the environmental bottom line, and the abject failures of breaching that limit are evident in CRA 2.

The status of CRA 2 is another example of commercial interests internalising the benefits of depleting our natural resources while passing on the costs of extraction to future generations.

As kaitiaki [guardians] of taonga, our precious crayfish, our first priority must be to stop the depletion, then work out a way to restore abundance, indigenous biodiversity and ecosystem function.

Recommendations

1. **The Minister acknowledges** that a Total Allowable Catch cannot be lawfully set for CRA 2 whilst there are significant areas of known depletion.

2. **The Minister does not approve** any increase to the Total Allowable Catch for CRA 2.

3. **The Minister approves** the sub-division of CRA 2 into smaller management areas that will allow targeted management and monitoring for each sub-divided area.

4. **The Minister directs Fisheries New Zealand** to develop and support new fishery-independent surveys of rock lobster size and abundance for the whole CRA 2 Quota Management Area.

5. **The Minister directs Fisheries New Zealand** to develop a recovery plan package of measures which will support the long-term management of rock lobster and contribute to the functioning of kelp forest ecosystems, including but not limited to –

    a. A new method for setting appropriate catch limits;

    b. Splitting the CRA 2 Quota Management Area into a minimum of two smaller areas;

c. Setting commercial pot/effort limits;

d. Support for current, new and ongoing fishery independent surveys of rock lobster; and

e. Setting a long-term management target that takes into account ecosystem considerations.

6. **The Minister supports** a programme to independently monitor water temperature in CRA 2 as the impacts of critical temperature events on rock lobster is not well understood and needs to be considered, which means precaution is essential when setting catch limits.

7. **The Minister does not support a closure** of the inner Hauraki Gulf. Separate management settings for all of statistical area 905 and the Hauraki Gulf Marine Park are needed as part of a CRA 2 recovery plan.

8. The Minister seeks to set a long-term management target for CRA 2 to rebuild the population to a more natural abundance and size structure, allowing rock lobster to fulfil their role as predator and prey.

9. **Fisheries New Zealand provides to the Minister** advice on setting commercial pot/effort limits as a measure to improve the management of rock lobster which will contribute to overall ecosystem functioning over the long-term.

10. **We recommend** the National Rock Lobster Management Group is disbanded, and full management responsibility is returned to the Minister for Oceans and Fisheries.

The submitters

11. The New Zealand Sport Fishing Council (**NZSFC**) appreciates the opportunity to submit on the review of proposed measures for rock lobster (*Jasus edwardsii*), in Quota Management Area CRA 2. Fisheries New Zealand's (**FNZ**) Discussion Paper 2024/33 was received on 13 December 2024, with submissions due by 29 January 2025.

12. The New Zealand Sport Fishing Council is a recognised national sports organisation with over 37,000 affiliated members from 55 clubs nationwide. The Council has initiated LegaSea to generate widespread awareness and support for the need to restore abundance in our inshore marine environment. Also, to broaden NZSFC involvement in marine management advocacy, research, education and alignment on behalf of our members and LegaSea supporters. www.legasea.co.nz

13. The New Zealand Angling and Casting Association (**NZACA**) is the representative body for its 24 member clubs throughout the country. The Association promotes recreational fishing and the camaraderie of enjoying the activity with fellow fishers. The NZACA is committed to protecting fish stocks and representing its members' right to fish.

14. The New Zealand Underwater Association (**NZUA**) comprises three distinct user groups including Spearfishing NZ, affiliated scuba clubs throughout the country and Underwater Hockey NZ. Through our membership we are acutely aware that the depletion of inshore fish stocks has impacted on the marine environment and the wellbeing of many of our members.

15. Collectively we are '*the submitters*'. The joint submitters are committed to ensuring that sustainability measures and environmental management controls are designed and implemented to achieve the Purpose and Principles of the Fisheries Act 1996, including "maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations…" [s8(2)(a) Fisheries Act 1996].

16. Our representatives are available to discuss this submission in more detail if required. We look forward to positive outcomes from this review and would like to be kept informed of future developments. Our contact is s9(2)(a) secretary@nzsportfishing.org.nz.

Fisheries New Zealand's proposals

17. Fisheries New Zealand (**FNZ**) has released a Discussion Document with a suite of proposals for the future management of rock lobster in CRA 2. The proposals include changes to the Total Allowable Catch (**TAC**) and potential closures for selected areas. FNZ are also seeking public feedback on a longer term management target for CRA 2.

Total Allowable Catch

18. FNZ are proposing three options for the CRA 2 TAC settings (**Table 1**). The Minister must first set a TAC taking into account the purpose and principles of the Fisheries Act 1996 (**the Act**) and international treaty obligations.

    The current TAC is 173 tonnes:

    a. Option A1 proposes to retain the status quo.
    b. Option A2 increases the TAC by 1.5 t to 174.5 t, which includes an increase to the Total Allowable Commercial Catch (**TACC**) by 10 t from 80 t to 90 t, reduces the allowance set aside for all other mortality caused by fishing by 8.5 t to 34 t, and retains the allowances for Customary Māori (16.5 t) and Recreational (34 t) interests.
    c. Option A3 increases the TAC by 15.5 t to 188.5 t, including an increase in TACC by 20 t to 100 t, a reduction in allowance set aside for all other mortality caused by fishing by 4.5 t to 38 t, and retains the allowances set aside for Customary Māori and Recreational interests.

Table 1: Proposed catch settings (in tonnes) for CRA 2 from 1 April 2025.

Option	TAC	TACC	Allowances		
			Customary Māori	Recreational	All other mortality caused by fishing
Option A1 (status quo)	173	80	16.5	34	42.5
Option A2	174.5 (↑ 1.5)	90 (↑ 10)	16.5	34	34 (↓ 8.5)
Option A3	188.5 (↑ 15.5)	100 (↑ 20)	16.5	34	38 (↓ 4.5)

Spatial management

19. FNZ are also proposing spatial management measures (closures) as a means to address areas of low rock lobster abundance (**Table 2**). FNZ advise that these closures would support the recovery of rock lobster populations, which may in turn restore their role in the coastal ecosystem and help to address the issue of sea urchin barrens. If approved, the closure will be implemented under section 11 of the Act and the efficacy of the closure will be reviewed in a minimum of 10 years.

20. Table 2 outlines the proposed closures. Option B1 maintains status quo, no additional closures beyond existing measures and proposed new High Protection Areas (**HPAs**). Option B2 proposes a closure to the inner Hauraki Gulf to all commercial and recreational rock lobster fishing under section 11 of the Act (**Figure 1**).

Table 2: Proposed spatial management measures.

Option	Action	Description
Option B1	Maintain status quo	No additional spatial management of rock lobster fishing is proposed beyond the existing marine reserves, mātaitai, and proposed new High Protection Areas (**HPA**s) provided for in the Hauraki Gulf / Tīkapa Moana Marine Protection Bill.[13]
Option B2	Close the inner Hauraki Gulf to all commercial and recreational rock lobster fishing	Closure of the inner Hauraki Gulf (specifically waters south of a straight line that extends from the southern boundary of the Cape Rodney-Okakari Point Marine Reserve to Port Jackson Bay, top of the Coromandel Peninsula) to all commercial and recreational rock lobster fishing, in addition to existing marine reserves, mātaitai, and proposed new HPAs provided for in the Hauraki Gulf / Tīkapa Moana Marine Protection Bill.

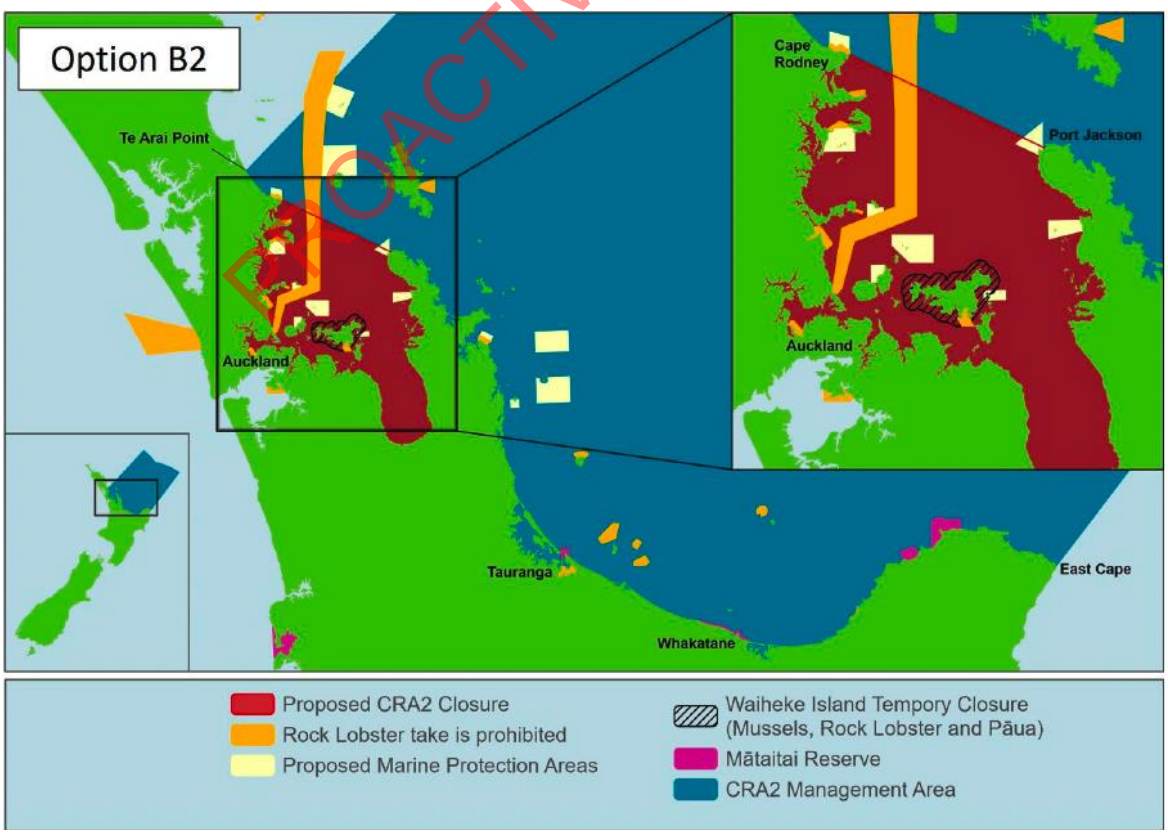

Figure 1. Existing and proposed spatial management measures for the CRA 2 QMA.

21. The submitters reject these FNZ proposals based on the need for the Minister to meet his statutory duty to ***ensure sustainability***, including maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations, and to avoid, remedy or mitigate any adverse effects of fishing on the marine environment. As per the purpose and principles of the Fisheries Act 1996, sections 8 to 10.

Background

CRA 2 management

22. Rock lobster is an important species and fishery for all sectors in Aotearoa New Zealand. In the past rock lobster were abundant and played a significant role in coastal ecosystems. Large catches were taken out of some ports in the 1920s for canning and export to Europe. Widespread commercial rock lobster fishing has occurred since the 1930s.

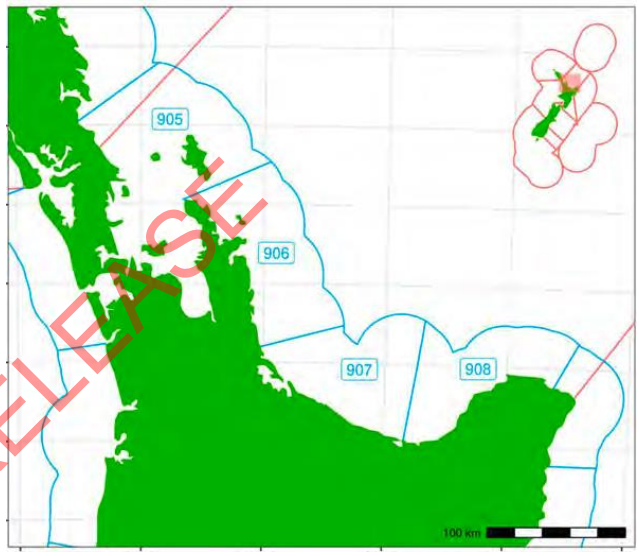

Figure 2. CRA 2 quota management area and statistical areas.

23. The CRA 2 commercial landings for the 2023–24 fishing year were 80 tonnes. An updated estimate of recreational harvest from the 2022–23 National Panel Survey in CRA 2 was 9.9 tonnes (+/- 3.10 t), not including 1.20 tonnes of catch taken for personal use while commercial fishing (section 111 landings) and 910 kg of reported amateur charter vessel catch.[2] The majority of recreational harvest is hand gathering via diving, with a small amount harvested by potting. [3]

24. The commercial quota year applying to rock lobster is 1 April to 30 March the following year. The minimum legal size (**MLS**) for harvesting male rock lobsters is 54 mm tail width (**TW**) and a minimum of 60 mm TW applies to female rock lobster. These apply to commercial and recreational harvest.

25. In 2018, the Minister at the time, Stuart Nash, reviewed CRA 2 and significantly reduced the TACC due to sustainability concerns. The TAC was reduced from 416.5 t to 173 t, reducing the recreational allowance from 140 t to 34 t, reducing the allowance for all other sources of mortality to 42.5 t and reducing the TACC from 200 t to 80 t.

26. Later in 2020, the recreational daily bag limit was halved from 6 to 3 rock lobsters, within a combined daily bag limit of 6 including packhorse crayfish. This reduction was to contribute to the stock rebuild. Telson clipping was also introduced to discourage black market sales of

[2] Review of sustainability measures for spiny rock lobster fishery (CRA 2). Fisheries New Zealand Discussion paper No: 2024/33. December 2024. At [85]
[3] At [84]

recreationally caught crayfish. At the time we submitted in support of an interim bag limit reduction to 3 rock lobster to help rebuild the CRA 2 population.

27. No pot limits apply to commercial fishers. Recreational fishers are limited to 3 pots per person, and up to 6 pots for 2 or more people fishing from a boat.

28. In 2014, the NZSFC and LegaSea submitted that the rock lobster abundance in CRA 2 was depleted and the Minister must address the long-term depletion evident in CRA 2.

29. Again in 2018, the NZSFC, LegaSea and the New Zealand Angling and Casting Association highlighted concerns regarding the state of CRA 2 and submitted in support of the Minister's option to close the CRA 2 fishery, acknowledging that this would have negative social and economic effects. A public survey by NZSFC and LegaSea with 3541 respondents, indicated that the majority of respondents at the time supported a closure of CRA 2 to all rock lobster fishing.

30. **FNZ and successive Ministers have missed the opportunities to take decisive action to rebuild the abundance of rock lobster and restore ecosystem function.**

Status of CRA 2

31. The stock status for CRA 2 is unknown. FNZ have relied on establishing the status of the stock by using a model that has relied heavily on Catch Per Unit of Effort (**CPUE**) records self-reported by some commercial fishers. It is obvious to non-commercial fishers and independent divers that the FNZ stock assessment model fails to align abundance, as described by computer models, with actual observed abundance. The divergence between the modelling and real-life observations has been growing for almost 30 years.

32. We submit that the recent stock assessment (2022) and successive rapid assessment updates are not just uncertain, but are not fit for the purpose of setting the TAC, the TACC or allowances, or establishing ecosystem-based management targets.

33. **The FNZ stock assessment for CRA 2 is rejected in full.**

34. We submit that is irresponsible at the least, and arguably ultra vires, for FNZ to present the stock assessment to the Minister as the best available information.

35. The NZSFC has pointed out for years the pitfalls of using fishery-dependent data as the foundation of a model that uses CPUE is a proxy for abundance (2013, 2014, 2018). What is required is an independent sampling programme that samples random areas of rock lobster habitat. Currently, using CPUE gathered from the places where commercial fishers operate only samples a portion of the QMA - the portion holding the largest relative abundance. And because commercial fishers do not target depleted areas, these areas are not sampled so they do not feature in the data – it's as if they do not exist, are unimportant. In using CPUE, the TAC is set based on the assumption that there is equal abundance in all areas of CRA 2, when we know this is not true.

36. The submitters do not see the point in going through the stock assessment and comments made by FNZ on the state of the stock. The stock assessment process cannot establish the state of the stock or predict what will result from various possible catch settings. The assessment outputs are imaginary fish within an imaginary fishery – their presence is not established and for assessment purposes exist only in a computer.

37. We submit the beginning point of the current assessment must be the abundance observed and recorded by independent surveys.

38. The University of Auckland has conducted region-wide dive surveys in the Hauraki Gulf Marine Park that provided fisheries independent information to evaluate the status of adjacent rock lobster stocks. Marine protected areas were dominated by large, legal-size individuals, whereas lobster in fished locations were mostly below or around legal-size. Total, vulnerable, and spawning stock biomass was 12-43 times higher within MPAs compared to fished locations. Overall, biomass at fished locations was <10% of that in reserves and there was little evidence of recovery following catch reductions. This fisheries-independent data suggests that recent stock assessments have severely overestimated the recovery and state of lobster populations in the Hauraki Gulf and that populations on shallow reefs remain depleted. Most of the fished sites were around the Mokohinau Islands, Aotea/Great Barrier Island, Hauturu/Little Barrier Island, and Mercury Islands, not the inner Hauraki Gulf.[4]

39. We submit that in statistical area 905 5% ($B_{0.05}$) is close to observed abundance (**Figure 2**). The range of rock lobster has been steadily contracting for 30 years as areas have become depleted and are not repopulated by recruitment. Large expanses of coastline hold very few rock lobster, it is now rare to encounter any. There are still areas inhabited by rock lobster, however, the population size structure is highly truncated – the large rock lobster are gone, with a loss of their ecosystem services.

40. It is essential that the stock assessment information included in the consultation paper is wholly rejected as implausible. It is irrelevant if there is a section on the prospect of closing areas in the Hauraki Gulf to rock lobster fishing because there are so few left, particularly in the inner Gulf. This stock assessment is for CRA 2. Te Arai Point to East Cape. With observed abundance being far below any level that will support continued removal in statistical area 905, FNZ's discussion document is full of contradictions and is inadequate to allow the Minister to lawfully set a TAC.

41. Currently, the Minister sets the TAC, allowances and the TACC for the whole of the CRA 2 Quota Management Area (**QMA**). Within that QMA are five statistical reporting areas – 905, 906, 907, 908 and 909 (**Figure 2**). Catch data is collected and reported for each of these areas. Within the QMA is the Hauraki Gulf Marine Park (**HGMP**). The Park straddles statistical areas 905 and 906. The Park has its own legislation that promotes a modified purpose which is weighted in favour of ecosystem function and health of the marine environment in general – while the Fisheries Act is more generalised.

[4] Nessia HR, Hanns BJ, Haggitt TR , Shears NT (2024) Using marine protected areas to assess the status and recovery of the spiny lobster Jasus edwardsii fishery in the Hauraki Gulf, Aotearoa New Zealand.

42. Neither the Fisheries Act nor the Hauraki Gulf Marine Park Act ever contemplated stocks being reduced to less than 10% of the natural size and becoming functionally extinct.

43. For FNZ to contemplate increasing catch when the stock within the HGMP is in such poor condition is incoherent. The first option offered to the Minister by FNZ must be to close the fishery until it rebuilds to a naturally size structured state and delivers the natural ecosystem services required to contain and eliminate sea urchin barrens. That is the legal requirement, as clarified by the High Court in 2022.

44. Ultimately, the recovery of rock lobster stocks is uncertain and relying on anything from the stock assessment outputs is risky, contrary to the requirement on the Minister to act in a precautionary manner.

45. The stock assessment process has led us here and it will not allow us to escape from poor policy prescription. A truly sustainable fishery will only exist when the rock lobster abundance recovers to where natural ecosystem services are provided and rocky reefs recover to a natural balance of species and productivity.

46. **We cannot fish our way towards abundance and no amount of computer generated stories will provide the necessary defence for the Minister setting a TAC based on existing assessments, when challenged.**

Ecosystem degradation

47. Rock lobster within the Hauraki Gulf have been termed as being "functionally extinct", not able to fulfil their natural ecosystem role. The lack of predators has driven the proliferation of sea urchin barrens within the Gulf and throughout the east coast of the North Island where localised depletion has occurred. FNZ have loosely defined a sea urchin barren as:

> *"sea urchin dominated areas of rocky reef that would normally support healthy kelp forest but have little or no kelp due to overgrazing by sea urchins."* [5]

48. There are two primary species of sea urchin known to cause barrens on temperate rocky reefs in New Zealand. Kina (*Evechinus chloroticus)* is endemic to New Zealand, and long-spined urchins (*Centrostephanus rodgersii*) which have been known to occur in New Zealand since the 1920s or earlier. *Centrostephanus* is less common, however, with warming water and changing ocean currents, their spatial distribution is expanding and abundance has been increasing.

49. Heavy grazing by urchins have turned previously diverse rocky reef habitats into barren areas with low biodiversity and productivity. This ecosystem imbalance is a clear example of where the single-species based Quota Management System (**QMS**) has failed and the Minister and FNZ have resiled from administering the Fisheries Act as lawfully required. This failure was discussed at length in the CRA 1 High Court decision, in 2022.

[5] Doheny B., Davis J.P., Miller B. (2023). Fishery-induced trophic cascades and sea urchin barrens in New Zealand: a review and discussion for management.

50. The formation of urchin barrens is thought to be driven by a combination of factors including changes in environmental conditions and a significant reduction in the number of predators causing a fishery-induced trophic cascade. In northeastern New Zealand, fishing of top reef predators is considered to be a key factor driving the proliferation of kina, resulting in extensive kelp loss and expansion on urchin barrens.[6]

51. Large snapper (*Pagrus auratus*), blue cod (*Parapercis colias*) and rock lobster are accepted as the predators of kina. Both snapper (SNA 1) and rock lobster (CRA 1 and CRA 2) populations have historically been fished down to levels where they cannot fulfil their natural ecosystem services. The lack of natural predators of sea urchins, including rock lobster, has contributed to a significant adverse effect on the ecosystem and the Minister has a statutory obligation to avoid, remedy or mitigate the adverse effects of fishing on the marine environment as well as the target and non-target species.

52. In New Zealand, the occurrence and severity of sea urchin trophic cascades is complex. Many reef finfish, invertebrates and macroalgae have been displaced by urchin barrens. A number of reef fish are also known to eat juvenile kina or kina spat. Yet these species have been continued to be excluded from the urchin barren conversation. Setnet fishing on reefs has also contributed to the depletion of long-lived resident fishing across the north east coast.

53. Reducing the extent of urchin barrens and preventing further formation of barrens will require a combination of active and passive measures including fine-scale management of fishing and active habitat restoration. But active restoration efforts are pointless unless the Minister and FNZ can contribute to the long-term control of urchin populations and the recovery of rock lobster populations and rocky reef ecosystems as a whole.

CRA 1 High Court decision

54. In 2022, the Environmental Law Initiative (**ELI**) and a Northland hapū challenged the Minister for Oceans and Fisheries' decisions for CRA 1, made in 2020/21 and 2021/22. Recreational fishers supported the legal challenge and the NZSFC was a third party intervenor.[7] The NZSFC was one of three intervenor parties to the judicial review proceedings challenging the Minister's 2021/22 and later 2022/23 decisions for the future management of CRA 1.

55. ELI successfully argued the Minister had been misled, using inaccurate and outdated information to make his decisions. In November 2022 Justice Churchman (**Churchman J**) of the High Court upheld the challenge and directed the Minister to reconsider the 2022/23 decision for CRA 1 using best available information and in accordance with the judgment.

56. The High Court provided clarification on the Minister's responsibilities in terms of setting the TAC. Churchman J. described those responsibilities (in part) as follows –

[6] Discussion of proposed measures for the Northland spiny rock lobster fishery (CRA 1). Fisheries New Zealand Discussion paper No: 2024/30. November 2024

[7] Environmental Law Initiative v Minister for Oceans and Fisheries [2022] NZHC 2969 [11 November 2022].

> *"When setting or varying [the] TAC the Minister **must take into account any effects of fishing on any stock and the aquatic environment**. 'Effect' means the direct or indirect effect of fishing, including any positive, adverse, temporary, permanent, past, present, future, and/or cumulative effect. 'Fishing' means the catching, taking, or harvest of fish, aquatic life, or seaweed."*[8] [emphasis added]

57. In August 2024, ELI challenged the remade (2023) decision. ELI's key concern is that FNZ continues to ignore a key part of the law which requires a more ecosystem-based approach to fisheries management. We are still waiting for the High Court's decision.

Discussion – proposed TAC and spatial management

58. FNZ are proposing to increase catch limits in CRA 2 based on an opportunity for utilisation, however, within the same proposal they have made a contradictory statements including -

> *"…concerns about localised depletion have been raised by numerous stakeholders across much of CRA 2, particularly in relation to the inner Hauraki Gulf."*[9]

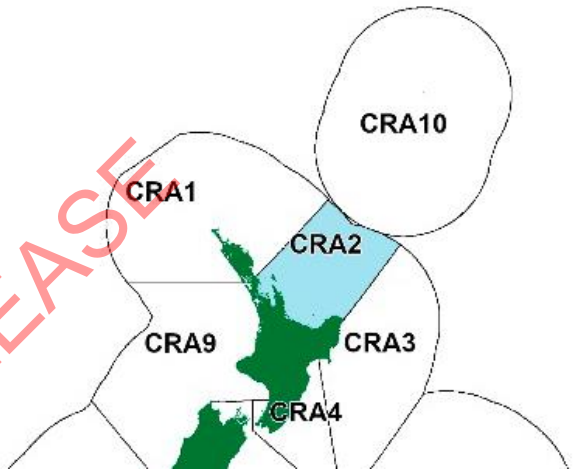

Figure 3. CRA 2 Quota Management Area shaded blue

59. The submitters share the same concerns as other stakeholders and reports from members of the public, that the biomass of rock lobster in CRA 2 is low and ecosystem function is unstable.

60. In this submission we make recommendations so the CRA 2 fish stock can rebuild to a more natural level assisted by contributions from all sectors.

61. The submitters acknowledge that there may be small pockets of abundance spread throughout CRA 2. Anecdotal reports suggest rock lobster are more abundant in the Bay of Plenty than in the Gulf. This abundance is seen as an improvement compared to earlier depleted levels, coming from a very low baseline. There is likely to be some resistance to closing the area to rock lobster fishing given the reported availability of crayfish in the Bay of Plenty. However, in the absence of a reliable index of abundance, and that the best available information points to the CRA 2 stock being below 10% of unfished biomass, the Minister has a statutory duty to manage the stock across the whole area, from Bream Bay to East Cape.

62. We are concerned that increasing the TAC in CRA 2 will reverse any recovery efforts that have been made by all sectors in recent years.

[8] At 22.

[9] Review of sustainability measures for spiny rock lobster fishery (CRA 2). Fisheries New Zealand Discussion paper No: 2024/33. December 2024. At page 12.

63. We submit that given the current state of CRA 2, the Minister cannot lawfully set a TAC permitting catch to be removed from a severely depleted ecosystem. Current catch levels are not allowing the whole of CRA 2 to rebuild. FNZ's proposal to increase catch limits for CRA 2 whilst acknowledging in their discussion document that there are areas of depletion is unintelligible.

64. FNZ also state –

> *"any increase to the TAC is expected to lead to increased fishing effort. As catch is not evenly distributed across CRA 2, this may lead to an aggregation of fishing effort at specific locations, that in turn could lead to localised depletion."* [10] This will only be exacerbated by more closures.

65. It is obvious that with the introduction of spatial closures and increases in catch limits, fishing effort will be displaced. This leaves open areas around Aotea Great Barrier and neighbouring islands at risk of further depletion. There are already anecdotal reports from locals and published scientific surveys show that rock lobster abundance is low. Additionally, a section 186A application was submitted in 2022 to prevent the removal of rock lobster from Aotea Great Barrier, Hauturu-o-Toi Little Barrier, the Mokohinau Islands, Simpson and Horn Rocks. A decision from the Minister on this application is still pending.

66. Establishing a closure to rock lobster fishing for the inner Gulf does not resolve any concerns of localised depletion in other areas and will only make matters worse with increased catch limits.

67. In the April 2024 Sustainability Round, on the decision for CRA 3, the Minister stated –

> *"…the TAC is the primary tool to ensure sustainability and I am required to set a TAC that satisfies the requirements of the Fisheries Act 1996…"*

68. Fisheries are managed at the QMA level, the Minister must consider the whole of CRA 2 when setting a TAC. Given the state of CRA 2, the Minister cannot lawfully set a TAC. The Minister has a **statutory obligation to avoid, remedy or mitigate the adverse effects of fishing on the marine environment**. When setting a TAC the Minister **must take into account any effects of fishing on any stock and the aquatic environment**.

> *"Effect means the direct or indirect effect of fishing, including any positive, adverse, temporary, permanent, past, present, future, and/or cumulative effect. 'Fishing' means the catching, taking, or harvest of fish, aquatic life, or seaweed."* [11]

69. In its current state, a pause on rock lobster fishing is required in CRA 2 to allow for the implementation of an agreed rock lobster recovery plan. The submitters acknowledge that a large scale closure to rock lobster fishing would be unpopular even amongst our own constituents. However, the rock lobster population on the northeast coast in particular is in such a dire state that this must be considered, at least discussed and debated. The Minister is obliged to apply the law when making management decisions. As clarified by Justice

[10] Review of sustainability measures for spiny rock lobster fishery (CRA 2). Fisheries New Zealand Discussion paper No: 2024/33. December 2024. At page 12.

[11] Environmental Law Initiative v Minister for Oceans and Fisheries [2022] NZHC 2969 [11 November 2022]. At [22]

Churchman, and admitted by the then Minister, Ministerial decisions must be informed by the best available information.

70. Managing fisheries at the QMA level is just one downfall of the QMS. Fine-scale management is required to improve the long-term sustainability of all rock lobster stocks.

71. **We submit that whilst rock lobster in CRA 2 is managed at such a large scale, the TAC needs to be reset and FNZ work with stakeholders to develop a recovery plan that will allow for future sustainable utilisation.**

72. **The submitters insist** that a TAC cannot be lawfully set for CRA 2 whilst there are significant areas of known depletion, and while the ecosystem is degraded and kina barrens continue to expand.

CRA 2 recovery plan

73. The Minister's first responsibility is to stop the depletion of rock lobster, the Minister must do this by first resetting the TAC. The following section provides recommendations on measures that need to be considered as part of a strategy to monitor the fishery and gradually reopen discrete areas for long-term sustainable utilisation. Splitting the CRA 2 QMA into a minimum of two smaller manageable areas would be required for long-term fine-scale management.

Fishery-independent surveys

74. FNZ does not independently monitor fish stocks, it relies on self-reported information submitted by commercial fishers. We insist that fishery-indpendent surveys will be essential for the long-term management of rock lobster and to assess rock lobster abundance and ecosystem changes over time.

75. Past published fishery-independent surveys of inside and outside marine reserves in the Hauraki Gulf and eastern Coromandel indicated that rock lobster populations are less than 10% of unfished levels. These surveys question the robustness of previous stock assessments and provide little evidence that rock lobster populations within the Hauraki Gulf have recovered since the large commercial catch reductions in 2018.

76. Recent published fishery-independent information needs to be taken into account when reviewing fish stocks. Leading marine ecologists compared rock lobsters populations on shallow reefs (<20 m depth) in three marine reserves with six fished locations across the Hauraki Gulf to provide a fisheries-independent assessment and the degree of recovery following catch reductions. Region-wide surveys found that rock lobster populations within protected areas were dominated by large, legal-size individuals, whereas lobster in fished locations were mostly below or around legal-size. Total, vulnerable, and spawning stock biomass was 12–43 times higher within marine protected areas (**MPA**) compared to fished locations. From 2021–22 their

mean estimate for spawning stock biomass was 5%, suggesting a small improvement from 3% in 2018–19. [12]

77. This fisheries-independent data suggest that recent stock assessments have severely overestimated the recovery and state of lobster populations in the Hauraki Gulf and that populations on shallow reefs remain depleted. Overall, biomass at fished locations was <10% of that in reserves and there was little evidence of recovery following catch reductions. [13] These findings highlight the critical need for fisheries-independent data and the value of MPA monitoring data in evaluating population status and recovery following fisheries management actions.

78. **The submitters support** the need for independent monitoring of water temperature. Evidence from CRA 3 and elsewhere indicates that critical temperature events for rock lobster need to be considered, which again emphasises the need for precaution when setting catch limits.

79. **The submitters insist** the Minister directs FNZ to establish and support new and ongoing fishery independent surveys of rock lobster throughout CRA 2. Once abundance and the state of the environment has been assessed, fisheries managers can determine whether smaller, discrete areas can begin to be opened for restricted levels of rock lobster harvest.

Commercial effort limits

80. Non-commercial cray fishers are limited in the amount of fishing effort able to be lawfully deployed – the use of a maximum of 3 pots per person. Commercial fishers have no effort limit – they may lawfully deploy as many pots as they wish. The effect of not limiting commercial effort was clearly displayed as a primary cause in the collapse of CRA 2.

81. We note the successful management of West Australian rock lobster stocks using a mix of quota and pot limits to avoid the proliferation of pots in popular fishing spots, as has occurred around the Coromandel, Aotea and other offshore islands. In WA, each commercial fisher has limited units of effort and catch. Fishing stops whenever the first of these units are met. The pot limit is effective in preventing stock collapse, and rebuilding stocks are protected by the catch limit. A win-win for the fishery and for future generations.

82. Limiting total catch is a raw and unsophisticated policy. The High Court judgment clarified that a broader view must be taken of the effects of fishing while clearly identifying the limitation of just setting single-species catch limits.

83. Catch limits become completely ineffective if fishing effort is able to increase and maintain catches when fish stocks are declining. Relying on CPUE without understanding efficiency gains as an index of abundance is a delusion, and is perfectly reflected in the collapse of CRA 2. Policy must progress beyond reliance on catch limits.

[12] Nessia HR, Hanns BJ, Haggitt TR , Shears NT (2024) Using marine protected areas to assess the status and recovery of the spiny lobster Jasus edwardsii fishery in the Hauraki Gulf, Aotearoa New Zealand.

[13] Nessia HR, Hanns BJ, Haggitt TR , Shears NT (2024) Using marine protected areas to assess the status and recovery of the spiny lobster Jasus edwardsii fishery in the Hauraki Gulf, Aotearoa New Zealand.

84. Despite such an obvious policy gap, FNZ propose possible restrictions across recreational fishing, yet remains silent on matters of commercial fishing effort which the submitters have consistently raised as a vital factor for effective management.

85. We submit that the lack of any effort limits applying to commercial fishing reduces the effectiveness of past catch reductions; both effort limits and catch controls are required for stocks with moderate productivity and variable recruitment. A broad age structured rock lobster population cannot be maintained by catch limits alone, and this policy gap needs urgent reform.

86. In the rock lobster fisheries effort limits can be easily applied, and depletion can be detected much sooner. Each vessel must be limited in the number of pots able to be lawfully deployed. If there is insufficient catch from the designated number of pot lifts the signal of depletion will become very clear.

87. An effort limit on commercial rock lobster harvest will contribute to mitigating the formation of urchin barrens in the long-term.

88. Given the Minister's statutory responsibilities as clarified by the High Court, to create an environmental 'bottom line' of sustainability, **the submitters recommend this policy gap must be addressed immediately.**

89. **The submitters recommend that an effort and pot limit must be applied to commercial fishing in CRA 2.**

Regulatory capture

90. An effective regulatory regime is necessary for fisheries to be managed and operated efficiently and equitably. It is inevitable that the regulator will become captured, but the degree of capture will vary across agencies from low to high. Strong capture violates the public interest to such an extent that the public would be better served by either (a) no regulation of the activity in question – because the benefits of regulation are outweighed by the costs of capture, or (b) comprehensive replacement of the policy and agency in question (Carpenter and Moss 2014: 11).

91. Fisheries in general, and rock lobster in particular, suffer from strong regulatory capture in New Zealand. In CRA 2 the stock assessment outputs are generated in concert by an industry lobby and government agency. The harvest strategies devised by this process are preoccupied with maximising commercial catch, often using contrived models to support the strategy. The steady decline of age structure and abundance in CRA 1 and CRA 2 over time contradict the harvest strategies. Neither CRA 1 or CRA 2 will survive to rebuild to functional levels while this process continues.

92. The regulatory environment has become heavily captured and the popular quote attributed to Albert Einstein seems appropriate: '*No problem can be solved from the same level of*

consciousness that created it'. Over time it has become more obvious that the problem of overexploitation will not be solved with current actors and processes.

93. **We recommend** the National Rock Lobster Management Group is disbanded, and full management responsibility is returned to the Minister for Oceans and Fisheries who can then apply policy that values abundance and ecosystem function over a short term desire for maximum catches, as required by law.

Independent review of rock lobster assessment processes

94. In July 2024, an international, fully independent panel of three scientists met to receive and evaluate information on the Rock Lobster Stock Assessment Model, the associated biological reference points, the Management Procedures, and the Rapid Assessment Updates that have been used in recent years. Twenty-five recommendations for future development and improvement were provided to FNZ and the public in a final report.

95. FNZ have failed to mention any of these recommendations or the report in the CRA 2 discussion document.

96. Management Procedures and Rapid Assessment Updates are used in interim years between full stock assessments for rock lobster stocks. The panel commented on the use of these models in interim years in their recommendations and concluded –

> *"The objectives behind developing the management procedures should be made explicit, in particular, whether their intent is likely to increase risk to the stock."*
>
> *"The use of the management procedures appears inherently risky. Either find a way to demonstrate that increased risk is not occurring or only use the management procedures to keep the TACC stable or to decrease it."*
>
> *"As with Management Procedures, either find a way to demonstrate that increased risk is not a problem if the rapid update assessments are used to increase TACC, or, only use them to keep the TACC stable or decrease it."* [14]

97. One of the 25 recommendations from the independent review panel was for fishery-independent surveys to be conducted under repeatable and consistent frameworks aimed at reducing fisher-induced changes in the catchability of fish. Fishery-independent surveys are common practice in many lobster fisheries globally and inclusion of fishery-independent data into assessment have been shown to have positive stock and financial outcomes through robust assessments and less conservative quota set.[15] This recommendation reinforces the necessity for fishery-independent surveys.

[14] de Lestang, S.; Haddon, M.; Hoyle, S. (2024). Review of Red Rock Lobster Stock Assessment Modelling and the Determination of Management Reference Points.

[15] Review of red rock lobster stock assessment modelling and the determination of management reference points. August 2024. Fisheries New Zealand. New Zealand Fisheries Science Review 2024/01. At [p.6]

98. Based on the conclusions from the independent review panel, marine ecologists, and the state of CRA 2 as reported by fishers and the public, **the Minister cannot lawfully increase the TAC for rock lobster until FNZ can provide a strategic plan for the recovery and future, sustainable management of rock lobster.**

Environmental bottom line

99. The purpose and principles in sections 8, 9 and 10 of the Act form an environmental bottom line to **ensure sustainability.** This bottom line applies to all species – none are exempt from the statutory obligation to ensure sustainability. The primary tool used to defend the bottom line is the setting of the TAC pursuant to s13 of the Act, for each stock.

100. The biomass that will provide the maximum sustainability yield (B_{MSY}) of any species is only a starting point at determining the environmental bottom line. From this theoretical point the Act's principles must be applied to describe and take into account the uncertainty, information fullness and reliability, international obligations, and to adopt the precautionary principle, as described by Churchman J. of the High Court:

> *"Accordingly, I accept Mr Salmon's submission that the importance of the requirement relating to the use of the 'best available information' in a fisheries context, is somewhat elevated. Indeed, the purposes of the Act appear to create what could be described as an* ***'environmental bottom-line'****, and are accordingly complemented by a scheme that favours precaution"*[16]*. [emphasis added]*

101. The single species focus has been ruled by the Court as insufficient. In considering the challenge to the Minister's 2021 and 2022 decisions for CRA 1, the Court described how the Minister applies the Fisheries Act 1996, saying "there are two approaches to fisheries management that are identifiable at international law, being an 'ecosystem approach' and a 'precautionary approach':

a. The ecosystem approach requires decision-makers to incorporate wider ecosystem effects into fisheries management, instead of considering sustainability with a single-species focus; and
b. The precautionary approach stipulates that decision-makers are more cautious where information is uncertain, unreliable or inadequate[17].

102. Full application of the relevant factors is required to ensure the bottom line is at least achieved; the bottom line is not an aspiration, it is a bottom line not to be breached.

103. Considering the High Court judgment, the latest proposal for CRA 2 from FNZ is a defiant dedication to the status quo, making as few concessions as may be lawful. It certainly doesn't engage in the spirit and detail directed by the High Court.

104. In order for the Minister to make a lawful decision, officials must provide the Minister with more complete information that takes into account all of the uncertainties, and the interactions with associated and dependent species. In the absence of this information, the Minister is obliged to apply all of the Act' s principles in setting a TAC to achieve a stock size well above the

[16] Environmental Law Initiative v Minister for Oceans and Fisheries [2022] NZHC 2969 [11 Nov 2022]. At [108]
[17] Environmental Law Initiative v Minister for Oceans and Fisheries [2022] NZHC 2969 [11 Nov 2022]. At [16-17]

bottom line, to ensure sustainability.

Management targets

105. FNZ are seeking public feedback on a longer term management target for the CRA 2 fishery. The FNZ stock assessment team has developed a model-based method for estimating the biomass that will produce the Maximum Sustainable Yield (B_{MSY}) for rock lobster stocks. This is based on the same assumptions that CPUE is a reliable index of abundance and natural mortality is the same for all sizes of rock lobster. Based on past performance and flawed assumptions, we have dismissed this model as so inaccurate it cannot reliably be used for assessing current stock status or future biomass predictions.

106. The size distribution of all CRA 2 rock lobster is unknown. The model output in Figure 4 based on commercial logbook data represents the only the areas regularly fished. However, it does highlight that a management target needs to be significantly higher than the current B_{MSY} reference level to increase the number of large rock lobster and restore their natural function as predator and prey within the ecosystem. Any management target must include reference to the proportion of large rock lobster (>70 mm tail width) across all of CRA 2. It is unknown what stock level will deliver sufficient abundance and size structure to deliver the ecosystem services rocky reef ecosystems require. The correct target size structure and abundance will only be discerned by independent observation and when urchin barrens are retreating.

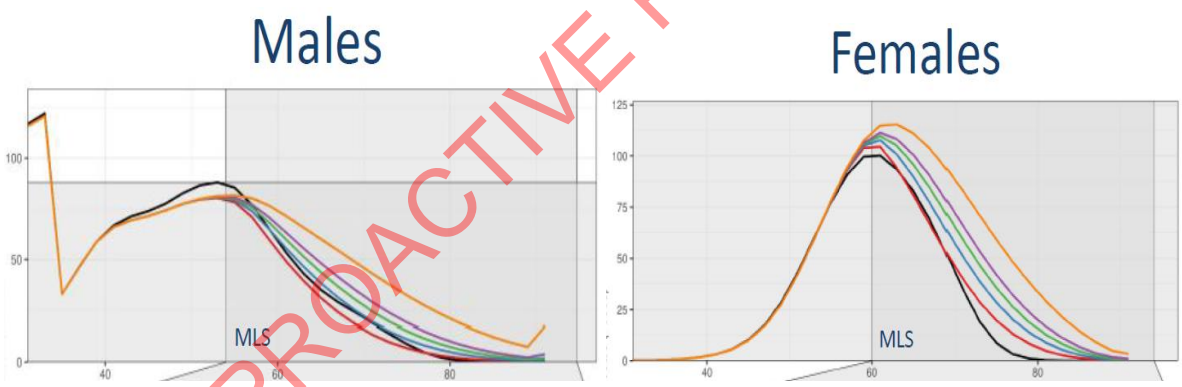

Figure 2. The predicted size distribution (mm tail width) of CRA 2 rock lobster under different management targets. MLS (vertical shading) is the minimum legal size by sex. Red line is the model prediction of managing at the BMSY reference level.

107. Selecting a management target requires consideration of the range of potentially conflicting objectives (ecological, economic, cultural, and social). The models produced by FNZ only consider the assumed productivity of the stock and the maximum catch that can be sustained based on an uncertain historic performance. In the face of environmental change such as marine heat waves and ocean acidification, more precaution is needed than these models can suggest. The independent review panel commented on targets, stating –

> *"…with the marine environment undergoing significant directional changes, there are ecological advantages to building increased resilience by not 'maximising' catches, even in what can be perceived as healthy stocks."* [18]

108. The estimation of B_{MSY} reference levels as a proportion of the unfished level remains elusive due to the unknown size and age structure of the original biomass. Our concern is that it's not that current abundance is 12, 30 or 40% of the unfished size estimated in a model, it is that in most places all indications point to a stock size of 2, 3, or 5% of historic levels of abundance of large rock lobster from the eastern North Island prior to large-scale commercial fishing. Hence our preference for a real world observed state of nature to serve as a target.

109. Single stock model estimates of B_{MSY} management targets do not take into account wider ecosystem considerations or environmental interactions. Coastal kelp forests are important nursery areas for many species including newly settled rock lobster.

110. In CRA 1, 2, and 3, rock lobster were a major rocky reef ecosystem service provider. The original biomass in all three areas is not being recognised in modelling, because if the real degree of depletion was taken into account these stocks would be below the hard limit which would require the Minister to close the fishery. Consequently, we are presented with statistical models that start in 1980 and only use recent data to estimate the biomass of rock lobster in the absence of fishing. These do not match our reality or the available fishery-independent data, but clearly serve to maintain commercial catches.

111. There are multi-species models provide new perspectives on ecosystem function. These should be considered when establishing ecosystem-based management targets, particularly where applied in the New Zealand context and published in peer review journals such as the Journal of Marine science. [19]

> "*Exploitation of lobster showed the strongest ecosystem effects, followed by abalone and urchin. In all three fisheries, the current exploitation rate exceeds that which produces maximum sustainable yield, with considerable ecosystem effects. Interestingly, a reduced exploitation rate is predicted to increase target catches (and catch-per-unit-effort), thereby strongly reducing ecosystem effects, a win–win situation. Our results suggest that invertebrate exploitation clearly influences ecosystem structure and function, yet the direction and magnitude of responses depend on the target group and exploitation rate . An ecosystem-based fisheries management approach that includes the role of invertebrates would improve the conservation and management of invertebrate resources and marine ecosystems on broader scales"*

112. Internationally, it is recognised that management targets can be informed by the science but it is up to stakeholders, tangata whenua, and fisheries managers to determine the wider

[18] de Lestang, S.; Haddon, M.; Hoyle, S. (2024). Review of Red Rock Lobster Stock Assessment Modelling and the Determination of Management Reference Points.

[19] Trade-offs between invertebrate fisheries catches and ecosystem impacts in coastal New Zealand. Tyler D. Eddy, Marta Coll, Elizabeth A. Fulton, Heike K. Lotze (2015)

management considerations and propose realistic targets for each rock lobster stock to the Minister.

113. Until rock lobster are managed at a level that allows them to fulfil their ecological role, they will not be able to contribute to the reduction of sea urchin populations and prevent the expansion of new urchin barrens.

114. The submitters consider success to be a return to the obvious abundance of rock lobster in CRA 2 and a gradual return to healthy kelp forests that maintain the biological and indigenous biodiversity of the marine environment.

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29 January 2025

Submission: Review of management procedures for spiny rock lobster (CRA 7) for 2025/26

Recommendations

1. **The Minister approves FNZ Option 1, to** increase the Total Allowable Catch for CRA 7 by 3 tonnes to 137.5 tonnes, including –
    a. Retaining the recreational allowance at 5 tonnes.
    b. Retaining the customary Māori allowance at 10 tonnes.
    c. Retaining the Total Allowable Commercial Catch at 111.5 tonnes.
    d. Increasing the allowance set aside for all other mortality caused by fishing from 8 tonnes to 11 tonnes.

2. **We insist the Minister revokes the concession in CRA 7** which permits commercial fishers to take female and male rock lobsters at or above 127 mm tail length (equivalent to 47 mm tail width (**TW**) for males and 48 mm TW for females) and restores the minimum legal size of 54 mm TW for males and 60 mm TW for females year-round.

3. **The Minister acknowledges that** an agreed management target and agreed reliable index of abundance are required for CRA 7.

The submitters

4. The New Zealand Sport Fishing Council (**NZSFC**) appreciates the opportunity to submit on the review of sustainability measures for rock lobster (*Jasus edwardsii*), in Quota Management Area CRA 7 for 2025–26. Fisheries New Zealand's (FNZ) Discussion paper was received on 13 December 2024, with submissions due by 29 January 2025.

5. The NZ Sport Fishing Council is a recognised national sports organisation of 55 affiliated clubs with over 37,000 members nationwide. The Council has initiated LegaSea to generate widespread awareness and support for the need to restore abundance in our inshore marine environment. Also, to broaden NZSFC involvement in marine management advocacy, research, education and alignment on behalf of our members and LegaSea supporters. legasea.co.nz.

6. The New Zealand Angling and Casting Association (**NZACA**) is the representative body for its 24 member clubs throughout the country. The Association promotes recreational fishing and the camaraderie of enjoying the activity with fellow fishers. The NZACA is committed to protecting fish stocks and representing its members' right to fish.

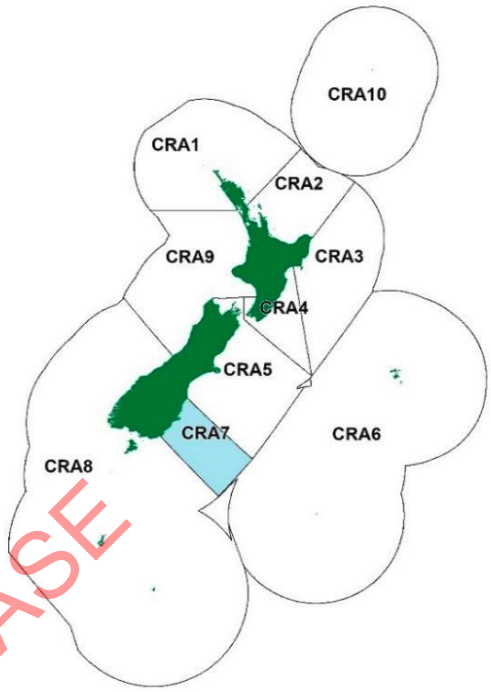
7. The New Zealand Underwater Association (**NZUA**) comprises three distinct user groups including Spearfishing NZ, affiliated scuba clubs throughout the country and Underwater Hockey NZ. Through our membership we are acutely aware that the depletion of inshore fish stocks has impacted on the marine environment and the wellbeing of many of our members.

8. Collectively we are '*the submitters*'. The joint submitters are committed to ensuring that sustainability measures and environmental management controls are designed and implemented to achieve the Purpose and Principles of the Fisheries Act 1996, including "maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations…" [s8(2)(a) Fisheries Act 1996].

9. Our representatives are available to discuss this submission in more detail if required. We look forward to positive outcomes from this review and would like to be kept informed of future developments. Our contact is s9(2)(a) , secretary@nzsportfishing.org.nz.

Background

10. Rock lobster are an important species and fishery for all sectors in New Zealand. Historically, rock lobster were abundant and played a significant role in coastal ecosystems. Large catches of rock lobster were taken out of some ports in the 1920s for canning and export to Europe. Widespread commercial rock lobster fishing has occurred since 1945. Updated estimates of recreational harvest are available from the 2022–23 National Panel Survey (**NPS**).



11. CRA 7 supports relatively small commercial, customary and recreational fisheries. Most of the rock lobster available in the fishery are young fish that tend to migrate into areas in CRA 8 after a few years. Catch rates tend to fluctuate with strong and weak years of recruitment.

12. The CRA 7 commercial landings for the 2023–24 fishing year were 111.5 tonnes. The 2023–24 estimate for recreational harvest was 1.41 t (C.V 0.54), not including 0.03 t of reported catch by amateur charter vessels and 2.24 t of catch taken for personal use while commercial fishing (section 111 landings).

13. CRA 7 is a concession area. Commercial fishers are permitted to land male and female rock lobsters at or above 127 mm tail length (**TL**). Approximate TW measures are 47 mm TW for males and 48 mm TW for females.[1] This is significantly less that the estimated size of 50% female maturity in CRA 7 of 58.2 mm TW. The CRA 7 fishery is closed to commercial fishing from 20 November to 31 May of any year.

14. Recreational fishers have a maximum daily bag limit of 6 rock lobsters.

15. CRA 7 is assessed in conjunction with CRA 8 because they are thought to be one biological stock. The best available information for the status of CRA 7 is the last full assessment of CRA 7 and CRA 8 conducted in 2021, a rapid update of the assessment conducted in 2023 and current Catch Per Unit of Effort (**CPUE**) data. The 2023 rapid assessment update at the end of the 2022–23 fishing year (31 March 2023) estimated the current biomass of the combined stocks is estimated to be at 54% of the SSB_0 (unfished spawning stock biomass)[2] above the interim target of 40% SSB_0.

16. The 2021 stock assessment model combined CRA 7 with four CRA 8 statistical areas to form region 1 and the Fiordland area into region 2. It was not possible to use this model to

[1] Fisheries Assessment Plenary - Introductory Section to Yellowfin Tuna. November 2024. Fisheries New Zealand.

[2] SSB, the spawning stock biomass, is the biomass of sexually mature females only. This includes females that are sexually mature but smaller than the minimum legal size (i.e., not able to be caught). SSB_0 is the estimated original biomass.

evaluate a new management procedure for CRA 7 or to assess the suitability of the old management procedure developed in 2015. While CPUE is rising in CRA 7, there are currently declines in catch rates in CRA 8 and CRA 5 and an unknown level of recruitment from, and movement to, these areas.

17. The Plenary accepted a short-term management procedure based updated CPUE standardisation methods that included a vessel effect and a year × area interaction term until the next assessment in 2027 that will explicitly model CRA 7.

18. The status of CRA 7 in relation to the default management target of 40% SSB_0 cannot be reliably estimated. The best available information for CRA 7 individually is standardised CPUE based on past Catch Effort Landing Return (**CELR**) and Electronic Reporting System (**ERS**) data. FNZ state in their discussion document that CPUE has been increasing since the late 1990s. The most recent estimate in 2023–24 showed an increase to 3.1 kg/potlift from 2.5 kg/potlift in 2022–23.[3] An increase of this magnitude in just one year is difficult to believe. Its inclusion in the proposal document could be misleading for the public who don't understand how CPUE can be manipulated to influence stock management and TACC increases, therefore it ought to be presented with a cautionary warning.

Management proposals

19. FNZ and the NRLMG have released a Discussion Document to review the Total Allowable Catch (**TAC**) for CRA 7.

20. FNZ are proposing two options for CRA 7, both options are to increase the TAC. Option 1 increases the TAC by 3 t to provide for an increase in the allowance set aside for all other mortality caused by fishing, from 8 t to 11 t. Option 2 increases the TAC by 15 t including an increase in TACC by 11.5 from 111.5 t to 123 t, and an increase in the allowance for all other mortality caused by fishing, from 8 t to 12 t (Table 1).

21. FNZ is not proposing an option to retain the status quo. In their discussion document FNZ have stated that the current 8 t allowance set aside for all other mortality does not align with new estimates of the combined illegal catch and handling mortality in CRA 7.

Table 1: Proposed management options (in tonnes) for CRA 7 from 1 April 2025.

Option	TAC	TACC	Allowances		
			Customary Māori	Recreational	All other mortality caused by fishing
Current settings	*134.5*	*111.5*	*10*	*5*	*8*
Option 1	137.5 (↑ 3)	111.5	10	5	11 (↑ 3)
Option 2	150 (↑ 15.5)	123 (↑ 11.5)	10	5	12 (↑ 4)

[3] Review of sustainability measures for spiny rock lobster (CRA 7) for 2025/26. Fisheries New Zealand. At [113–114]

CPUE based management procedures (MPs)

22. The submitters do not support the use of management procedures (**MPs**) designed to maintain vulnerable biomass at low levels that are estimated to maximise yield. The Minister must acknowledge that current MPs do not adequately consider efficiency gains made by rock lobster fishers since 1980, nor the downward trend in productivity of all rock lobster stocks in New Zealand and are arguably ultra vires.

23. Retention rates and reporting behaviour have changed over time yet this is not reflected in the previous MPs or previous stock assessments. In 2018, efficiency gains were factored into the CRA 2 stock assessment and that proved to be a turning point, showing that previous estimates of current and future abundance were too optimistic.

24. We are concerned that there are no iwi and stakeholder agreed management targets that take account of the wider impacts of high exploitation rates of rock lobster.

25. The purpose of the proposed CRA 7 MPs is to relieve decision makers of considering any other information than catch per unit of effort (**CPUE**) when setting or varying the total allowable catch (**TAC**) or total allowable commercial catch (**TACC**). However, simply relying on CPUE as a reliable index of stock abundance is problematic, and something that cannot be true except for very small areas.

26. CPUE indices do not allow for changes in market demands, fishing operations, increased efficiency, shifts in areas fished, and changes in discard rates or reporting rates. This is particularly relevant given that commercial fishers are now harvesting larger rock lobster in the neighbouring area CRA 8, whereas historically those larger animals were returned to the water.

27. The TAC must be set having regard to Part 2, the Purpose and Principles of the Fisheries Act (**the Act**) 1996. To take a simple measure of commercial CPUE and craft a rule that adjusts the TAC in response to changes in CPUE is not contemplated in the Act.

28. This process of determining catch settings using a single species assessment as the best available information has been rejected by the High Court[4]. In the 2022 CRA 1 High Court decision, Churchman J confirmed that the Act ***requires the Minister to act in a accordance with New Zealand's international obligation to favour a precautionary approach where information is uncertain, unreliable, or inadequate***[5]. As such, there is an obligation to enquire and report on environmental risks arising from the degree of depletion of the rock lobster stock, and the gaps and deficiencies in the information being used. Kina barrens are one obvious consequence of removing predators that provide necessary ecosystem services. While kina barrens are not as prolific in CRA 7 when compared to Northland waters, there are likely more consequences that are not so obvious or simply not reported.

[4] Environmental Law Initiative v Minister for Oceans and Fisheries [2022] NZHC 2969 [11 Nov 2022].

[5] At [17 & 44]

29. To make a lawful decision, the Minister must now consider the matters raised by Churchman J, including the quality of information, and take into account any past, present and cumulative effects of fishing on rock lobster and other species within the marine ecosystem.

Independent review of rock lobster assessment processes

30. In July 2024, an international, fully independent panel of three scientists met to receive and evaluate information on the Rock Lobster Stock Assessment Model, the associated biological reference points, the Management Procedures, and the rapid assessment updates that have been used over recent years. Twenty-five recommendations for future development and improvement were provided to FNZ and the public in a final report.

31. Currently, Management Procedures and rapid assessment updates are used in interim years between full stock assessment for rock lobster stocks. The panel commented on the use of these models in interim years in their recommendations and concluded –

> *"The objectives behind developing the Management Procedures should be made explicit, in particular, whether their intent is likely to increase risk to the stock."*
>
> *"The use of the Management Procedures appears inherently risky. Either find a way to demonstrate that increased risk is not occurring or only use the Management Procedures to keep the TACC stable or to decrease it."*[6]

32. FNZ have reported on the independent review in the discussion document and highlighted the risks of using Management Procedures to increase the TACC in interim years. In the discussion document FNZ have stated –

> *"FNZ is still working through the panel's recommendations and their potential implications for the assessment processes moving forward."*[7]

33. FNZ also acknowledge that an increase in TACC *"would be contrary to the panel's recommendations that procedures should only be used to keep the TACC stable or to decrease it."*[8]

34. It is counterintuitive for officials to be going against the recommendations provided by a panel of independent scientists. And, it seems "inherently risky" for FNZ to be proposing an increase to the TACC whilst they are still working through recommendations.

[6] de Lestang, S.; Haddon, M.; Hoyle, S. (2024). Review of Red Rock Lobster Stock Assessment Modelling and the Determination of Management Reference Points.

[7] Review of management procedures for spiny rock lobster (CRA 7 & 8), and review of CRA 8 sustainability measures for 2024/25. Fisheries New Zealand. At [125]

[8] Review of management procedures for spiny rock lobster (CRA 7 & 8), and review of CRA 8 sustainability measures for 2024/25. Fisheries New Zealand. At [128]

35. What is the rush? FNZ must take the time to fully consider the recommendations provided by the independent scientists and propose any increases when a full stock assessment has been completed and the uncertainties are reduced.

36. **The submitters do not support the use of CPUE-based MPs to increase the TACC on interim years between full stock assessments.**

FNZ Proposals

CRA 7 management

37. FNZ are proposing to increase the TAC based on an MP implemented prior to 2021, which was dropped after the Electronic Reporting System was introduced. The new electronic system changed the way catch was reported, which adversely affected CPUE in most Quota Management Areas (**QMAs**). CRA 7 is believed to be the exception and reporting of estimated catch improved, in that it seemed to match landed catch better.

38. The submitters do not support the use of CPUE-based management procedures and have actively and consistently opposed their use in previous submissions and Fisheries NZ-led stakeholder meetings. Our objections have been ignored.

39. FNZ state in their Discussion Document that the status of CRA 7 in relation to the default management target of 40% SSB_0 cannot be reliably estimated.[9] If this is true the submitters recommend the Minister meets his statutory obligations to take a precautionary approach by supporting Option 1, increasing the TAC to 137.5 t which includes an increase in the allowance for all other mortality caused by fishing to 11 t, to align with best available information.

40. **The submitters insist the Minister acknowledges that an iwi and stakeholder agreed management target and agreed reliable index of abundance are required before selecting a management procedure for CRA 7.**

CRA 7 differential size limit

41. When setting a minimum legal size (**MLS**) for a fishery it must be made in the context of sustainability regarding sexual maturity. As outlined above, this is clearly not the case for CRA 7.

42. The concession that permits commercial fishers to harvest crayfish smaller than the minimum legal size is unacceptable and must be revoked. This differential size limit in CRA 7

[9] Review of management procedures for spiny rock lobster (CRA 7 & 8), and review of CRA 8 sustainability measures for 2024/25. Fisheries New Zealand. At [8]

was introduced in the mid-1900s to support a market for canned rock lobster tails. That market no longer exists. This is a classic example of what happens when you allow concessions to continue when the original purpose is no longer valid. At the time it was also suspected that CRA 7 rock lobsters did not grow any larger than the MLS applied in other QMAs, and large number of small-sized lobsters moved out of the CRA 7 fishery at certain times of the year.

43. FNZ has acknowledged that there is no biological justification for the CRA 7 concession and rock lobsters do grow larger than the 54/60 mm TW.[10]

44. In neighbouring CRA 8, the best available information suggests the concession was implemented on an assumption that mature female rock lobsters in CRA 8 had a narrower tail width than equivalently mature fish in northern QMAs.[11]

45. The estimated size at which 50% of females mature in CRA 8 is 58.2 mm TW, larger than the current MLS concession.[12] FNZ have stated historically that a female MLS of 60 mm TW in CRA 8 could allow more rock lobster to breed before being vulnerable to the fishery.[13]

46. Permitting commercial fishers to land concession fish results in a larger number of crayfish being caught per tonne of Annual Catch Entitlement (**ACE**), fishing down new recruits before they have a chance to grow, so reducing yield per recruit. If CRA 8 is as abundant as FNZ suggest, then there is no need for a differential size limit.

47. Our ongoing concern is that there is no statutory requirement for the commercial sector to separately report the weight or number of landed concession rock lobster. There are indications that smaller grades that include concession fish make up a significant component of the commercial catch. However, we cannot verify this as the numbers and percentages of concession fish landed compared to crayfish above the MLS is not publicly reported and not available, despite several OIA attempts to retrieve this information.

48. **The Minister must insist** that there is comprehensive reporting on the numbers and weights of concession fish being landed into Licensed Fish Receivers, and that this information is made publicly available in a machine-readable format.

49. In 2023, the submitters adopted a National Rock Lobster Policy that aims to increase the size and abundance of rock lobster in New Zealand and ensure the needs of customary and amateur fishers are met. [At 5.9 b]

[10] Review of Rock Lobster Commercial Area Regulations – Initial Position Paper. 2011. Ministry of Fisheries. At [96]

[11] Review of Rock Lobster Commercial Area Regulations – Initial Position Paper. 2011. Ministry of Fisheries. At [29]

[12] Review of management procedures for spiny rock lobster (CRA 7 & 8), and review of CRA 8 sustainability measures for 2024/25. Fisheries New Zealand. At [20]

[13] Review of Rock Lobster Commercial Area Regulations – Initial Position Paper. 2011. Ministry of Fisheries. At [107]

50. **We the submitters insist the Minister removes the concession in CRA 7** permitting commercial fishers to land male and female rock lobsters at or above 127 mm TL (47 mm TW for males and 48 mm TW for females) from 1 June to 19 November and reinstates the MLS of 54 mm TW for males and 60 mm TW for females.

51. **We the submitters insist the Minister removes the concession in CRA 8** permitting commercial fishers to land female rock lobsters at or above 57 mm TW at any time of year and reinstates the MLS of 60 mm TW for all fishers.

52. **We the submitters insist the Minister removes the concession in CRA 3 (**Gisborne**)** to align with the revocation in CRA 7 and 8.

Ngāti Rehua-Ngātiwai ki Aotea Trust Board
PO Box 5
Port Fitzroy
Aotea 0960

26 January 2025

RE: April 2025 Sustainability Review – Proposed changes to sustainability measures for koura (spiny rock lobster) stocks

Kei te Rangatira, tēnā koe

Aotea (Great Barrier Island) is the ancestral land of the people of Ngāti Rehua-Ngātiwai ki Aotea. Ngāti Rehua are the mana whenua, mana moana, mana tangata of Aotea, Hauturu, the Mokohinau Islands and all other outlying islands and rocky outcrops in the region. Ngāti Rehua have maintained continuous, undisturbed occupation of these areas and continue traditional/tikanga practices such as kaitiakitanga, whanaungatanga and manaakitanga.

In 1985 the Ngāti Rehua-Ngātiwai ki Aotea Trust Board (NRNWKATB) was established as the mandated body to represent the uri of Ngāti Rehua-Ngātiwai ki Aotea. Ngāti Rehua-Ngātiwai ki Aotea Trust Board is the governance body that administers our collective resources and assets for the benefit of all Ngāti Rehua-Ngātiwai ki Aotea.

We acknowledge the opportunity to provide input on the proposed sustainability measures for kōura (spiny rock lobster) stock CRA 2 (April 2025 sustainability round) and wish to express our concerns and recommendations.

State of CRA 2

The Trust Board is deeply concerned about the current state Tīkapa Moana - Te Moananui-ā-Toi and of the CRA 2 kōura stock. While divers have observed some improvements in the stock's condition over the past few years, these gains can be largely attributed to the reduced fishing pressure during the COVID-19 pandemic and the exotic caulerpa Controlled Area Notice (CAN) access restrictions.

Additionally, we question the modelling methodology used in the review document, which does not necessarily reflect actual abundance. Independent studies suggest that this approach is flawed and significantly overestimates the recovery of kōura stock within CRA 2[1].

[1] *Nessia, H.R., Hanns, B.J., Haggitt, T.R., & Shears, N.T. (2024). Using marine protected areas to assess the status and recovery of the spiny lobster Jasus edwardsii fishery in the Hauraki Gulf, Aotearoa New Zealand. Frontiers in Marine Science 11:1440350*

Ngāti Rehua
Ngātiwai ki Aotea
Iwi Trust Board

Regardless, any observed improvement is fragile and must be carefully managed to ensure ongoing recovery and long-term sustainability.

Need for Additional Management Measures

As kaitiaki of Aotea, we must ensure the sustainable management of the waters surrounding our rohe. We strongly agree that additional management measures are essential to protect and sustain the CRA 2 kōura population. Specifically, we support the implementation of a higher management target to better reflect the ecological and cultural significance of this species. The current proposal to take the maximum sustainable yield is flawed; the priority should be to leave more kōura in the ocean.

The kōura population is now regarded as "functionally extinct" in the Hauraki Gulf. Leaving more kōura in the Gulf will help rebalance the ecosystem, particularly in relation to kina, whose barrens are expanding due to the lack of large predators – kōura and tāmure.

Regarding the proposal for a full closure of the inner Gulf, Ngāti Rehua-Ngātiwai ki Aotea recognises the mana of iwi and hapū of this area and supports their recommendations. However, we are concerned that such a closure is very likely to increase fishing pressure on the outer regions of the Gulf, particularly around Aotea. This displacement of fishing effort poses a significant risk to our local kōura populations and broader marine ecosystems.

Local Bylaws for Sustainable Management

To address this concern, we believe that local fisheries bylaws are essential to effectively manage kōura fishing around Aotea. We request that fisheries New Zealand collaborate with the Ngāti Rehua-Ngātiwai ki Aotea Trust Board and their Ahu Moana project team to develop and implement these bylaws. A collaborative approach would ensure that the management measures are culturally appropriate, locally relevant and enforceable. Working with Fisheries New Zealand, these bylaws could include:

1. Reduced daily limits: setting lower daily take limits for individuals, the introduction of daily boat limits and reduced accumulation limits - which would help regulate the amount of kōura that can be harvested by both individuals and by recreational vessels.
2. Localised rāhui: Implementing temporary closures to allow for the recovery of depleted stocks and protected critical habitats, guided by Ahu Moana surveillance findings.
3. Size limits: Establishing increased minimum and maximum size limits to protect juveniles and larger reproductive crayfish – allowing both a chance to contribute to the overall population.
4. Closed seasons: Enforcing seasonal closures to safeguard reproductive periods and enhance the sustainability of the kōura stock.

These measures align with the discussions and findings from the Ahu Moana project's pilot phase over the past three years. We encourage Fisheries New Zealand to collaborate with the Ahu Moana project to bring this vision to fruition.

Opposition to Proposed TAC and TACC Increases

We strongly oppose any increases to the Total Allowable Catch (TAC) and the Total Allowable Commercial Catch (TACC). We wish to again highlight that independent reports indicate that the modelling methodology that forms the basis of the recommendations in this review of CRA 2 is flawed and does not accurately reflect actual abundance. It does not represent the reality of the situation. Therefore, out of all of the proposed options, the most sensible option is to maintain the status quo (A1).

Until local bylaws are established and operational, the Ngāti Rehua-Ngātiwai ki Aotea Trust Board cannot support any proposed increases to the TACC. Introducing higher catch limits without a tailored local management response would undermine the progress made in recent years and jeopardise the sustainability of the stock.

Conclusion

The Ngāti Rehua-Ngātiwai ki Aotea Trust Board remains committed to the sustainable management of the CRA 2 kōura stock. We urge Fisheries New Zealand to consider our recommendations and work with us to ensure the long-term health and abundance of Tīkapa Moana - Te Moananui-ā-Toi, for the benefit of all.

Ngā manaakitanga

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Fletcher Beazley

Chair – Ngāti Rehua-Ngātiwai ki Aotea Trust Board

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Ngātiwai Trust Board

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30 January 2025

Fisheries New Zealand
Fisheries Management Team
By email: fmsubmissions@mpi.govt.nz

Review of Fisheries Sustainability Measures for April 2025-26 Fishing Year

Tēnā koe,

Ngātiwai Trust Board (*NTB*) is the mandated iwi authority for Ngātiwai iwi. Ngātiwai Holdings Limited (*NHL*) is the fully owned commercial subsidiary of NTB. NHL and NTB (herein referred to as Ngātiwai Group) are fully committed to the sustainable management of its fisheries and ensuring their protection and continued productivity for future Ngātiwai generations to come.

Of the fish stocks being reviewed by Fisheries NZ (*FNZ*) for the April 2025 sustainability round, the Ngātiwai Group is only submitting on CRA2. NHL owns 1,905,262 CRA2 quota shares.

CRA2

The following sets out the sustainability measures that Fisheries NZ's is consulting on and the Ngātiwai Group's position on each.

1. *Review of the CRA2 Management Target*

   The Ngātiwai Group supports increasing the management target to 2 x Bmsy.

2. *Review of CRA2 Total Allowable Catch*

   The Ngātiwai Group supports Option A1 – maintaining the status quo.

3. *Closure of the Inner Hauraki Gulf to Rock Lobster Fishing*

   The Ngātiwai Group is concerned about the condition of the rock lobster fishery within the inner Hauraki Gulf, however the Ngātiwai Group is also concerned at the potential impact of displacement on other areas if that area is closed. The Ngātiwai Group encourages Fisheries NZ

to discuss and consider, alongside tangata whenua, the implementation of stronger special management measures that could work in conjunction with the Quota Management System.

Nāku noa, nā,

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For, and on behalf of, Ngātiwai Group

The NZ Reefs Lab

Institute of Marine Science

University of Auckland

Fisheries management (CRA 2)

Fisheries New Zealand

By email: FMSubmissions@mpi.govt.nz

27th January 2025

Submission on the Review of sustainability measures for spiny rock lobster (CRA 2) for 2024/25

Tēnā kōutou,

1. This submission is being made on behalf of the NZ Reefs Lab, a marine ecological research group based within the University of Auckland's Institute of Marine Science.
2. Our lab contains senior academics, postdoctoral research fellows, and PhD and Masters students. Our research focuses on understanding rocky reef ecosystems, human impacts within these systems, and optimal strategies for habitat and ecosystem restoration.
3. Over the past three decades, the NZ Reefs Lab has conducted a significant amount of research within the Hauraki Gulf Marine Park (HGMP). A key component of this research has been the monitoring long-term changes in rock lobster populations and the impact these changes have had on reef habitats. This research is referred to repeatedly in the consultation document and represents the most extensive fisheries independent information on the state of rock lobster populations in the HGMP.
4. Collectively, our research has involved tens of thousands of hours of observational and experimental research. This research clearly demonstrates the poor state of many rocky reef ecosystems within the HGMP, the low numbers of rock lobster throughout the HGMP and the contrast in reef health between areas offered full marine protection (marine reserves) versus those that are open to fishing.

NZ Reef Lab's position on the proposals outline in the Review of sustainability measures for the CRA 2 spiny rock lobster fishery:

5. Summary of position:

- The NZ Reefs Lab commends Fisheries New Zealand's (FNZ) efforts to improve management of rock lobster (*Jasus edwardsii*, crayfish, kōura) stocks in CRA 2 including measures aimed at rebuilding populations and beginning to address the ecosystem effects of fishing rock lobster.
- We acknowledge there has likely been some recovery in the CRA 2 lobster population since previous TACC cuts in 2018, but our extensive fisheries independent surveys over the last 6 years and anecdotal reports from the HGMP indicate the 2022 stock assessment overestimated the rate of recovery. The subsequent 2023 and 2024 rapid updates of the fishery have supported our assertion and shown that the 2022 assessment overestimated the state of the fishery and rate of recovery. Based on our fisheries independent data we believe populations in the HGMP remain severely depleted and that uncertainty in the fishery assessments and projections have not been clearly communicated in the consultation paper or taken into consideration with the proposals, in particular the proposal to increase the TACC.
- We also note that FNZ do not appear to have heeded the warnings from our published fishery independent information on the state of populations in the HGMP and their interpretation of recent increases in catch per unit effort (CPUE). Instead, the consultation document presents unsubstantiated arguments that cast doubt on the application of our empirical fisheries independent estimates of lobster abundance to the management of CRA 2. This raises questions about the extent to which robust scientific evidence is being integrated into the decision-making process.
- We therefore support the most precautionary of the proposed options to ensure the greatest chance of further rebuilding lobster populations as fast as possible. This is critical given the poor state of lobster populations, major uncertainty in the potential for and dynamics of recovery, and to help FNZ meet their legal requirements under the Fisheries Act given the important ecological role of lobster.
    - We support increasing the management target for CRA 2 to 3.5x current B_R
    - We strongly oppose any increase in the TACC and support the status quo in terms of current catch settings.
    - We support a closure of the inner Hauraki Gulf where lobster populations are at particularly low levels. However, we recommend the northern boundary of

the inner Gulf closure area be extended to Te Arai Pt and that the packhorse lobster (*Sagmariasus verreauxi*) be included in the closure. These measures will aid in compliance and improve the overall effectiveness of the inner Gulf closure.

A detailed explanation of our position is provided below in response to the questions posed by FNZ:

6. **Do you support using a higher biomass management target for long-term management of the CRA 2 stock? Why?** The NZ Reefs Lab supports the need to set a higher management target for the CRA 2 fishery. Establishing a higher management target is necessary for rebuilding kōura populations to sustainable and ecologically impactful levels as part of a long-term management plan. Under current management levels, densities of spiny rock lobster are too low to apply meaningful predatory pressure on sea urchins to prevent the loss kelp forests and the proliferation of kina barrens. Estimates of stock rebuilding in CRA 2 are uncertain with consecutive rapid updates following the 2022 full stock assessment showing less optimistic projections and a flattening of projected trajectories. Implementing a higher biomass management target will ultimately encourage a shift from reactionary to more precautionary management of CRA 2.
7. **What do you think of the long-term biomass management targets discussed? Do you support a particular biomass management target?** The NZ Reefs lab recommends increasing the biomass management target to 3.5 x the current B_R as a starting point (i.e., option 3). An increase of this magnitude aligns best with international recommendations of greater precaution in fisheries management. The adoption of the most precautionary target will provide resiliency against uncertainties in assessment estimates and better align the CRA 2 fishery with the ecosystem-based management requirements of the Fisheries Act 1996.
8. **Do you support the 2x BR preliminary management target? Why?** We do not support the 2x BR preliminary management target as this option prioritises utilization over stock rebuilding. FNZ considers it appropriate to adopt a "*stepwise approach towards increasing the stock biomass*" where a moderately increased long-term management target is adopted now and then increased in the future. With this option, FNZ has ignored the uncertainty associated with their modelling and instead assumed

rebuilding to be guaranteed. It is the NZ Reefs Labs position that an increase of 2 x the existing B_R does not provide an adequate precautionary buffer against this uncertainty and risks a continuation of the *status quo*. We outline in the next section that there is considerable uncertainty in projections and the potential for recovery.

9. **Which option do you support for revising the TAC and allowances? Why?** The NZ Reefs Lab strongly opposes increasing the TACC and recommends it should be left as status quo (option A1). The rationale for exploring TACC increases is entirely based upon uncertain estimates of rapid rebuilding in CRA 2 following the 2018 quota reduction. In our research paper, Nessia et al. (2024), we show this rapid increase is not evident on shallow (<20 m) rocky reefs in the HGMP where ~70% of catch in the 905 and 906 statistical areas is taken (calculated based on georeferenced catch data provided by MPI). We also raise concerns in our paper that the purported increase in the fishery is due to the stock assessment's heavy reliance on fisheries-dependent CPUE data and that the rapid increase in CPUE likely reflects changes in fisher dynamics rather than increases in lobster populations. We argue the combination of a diminished fleet size (from 29 to 19 vessels) and a reduced available catch following 2018 allowed fishers to target their effort in high productivity areas (i.e., areas where greatest recovery occurred), while also exercising greater self-organisation. The abrupt increases in CPUE reported following catch reductions likely reflected a change in fisher behaviour associated with reduced allowable catch and were likely due to fewer vessels focussing their fishing on high productivity areas, rather than a rapid rebuilding of the wider fished population.

   Using biomass levels within marine reserves as a proxy for unfished levels, Nessia et al. (2024) estimated SSB on fished Hauraki Gulf rocky reefs was 4.6% of the unfished biomass (SSB_0), substantially lower than the 2022 stock assessment's estimate of recovery to 40% of SSB_0. Likewise, trajectories in kōura densities at protected and fished locations indicated little evidence of population rebuilding on shallow reefs following 2018 (Fig. 1). In 2024, in partnership with the Department of Conservation, we undertook the largest fisheries independent survey of kōura in the Hauraki Gulf Marine Park to date. Compared to marine reserve unfished levels, these data suggest the SSB for kōura on fished Hauraki Gulf rock reefs was 7.2% of unfished levels. While this may indicate a small increase from our 2022 estimates, populations remain

low and underscores the need for cautious management decisions. Further, this degree of recovery is very small compared to that reported in the fishery assessments.

In sections 186-191 of the discussion document, FNZ discuss and largely dismiss the value of our fisheries independent data in informing the status of lobster populations in CRA2. Our fisheries independent approach uses population estimates from dive surveys on shallow reefs inside marine reserves and in comparable reef habitats across numerous fished locations. The size and density of lobster are measured on 50 x 10 m transects providing, which allows direct estimates of abundance and area-based estimates of total, vulnerable and spawning stock biomass. In contrast, the main source of information on these metrics in stock assessment models is CPUE, which is widely known to have a numerous and well documented limitations in estimating population abundance.

Our measurements of population metrics from marine reserves provide a current-day empirical estimate of an unfished population to which surrounding fished populations can be compared. However, reserve populations are widely known to be impacted to some extent by fishing on reserve boundaries so at best these populations can be considered a "lightly fished population" (MacDiarmid et al., 2013). As such, estimates from reserves provide a conservative estimate of what an unfished lobster population would look like. It is therefore very surprising that FNZ argue that higher abundances within marine reserves "cannot be attributed solely to fishing effort targeting this species" and are "in part due to rock lobster's preference for a biological environment that has developed in the absence of fishing for all species (and other human activities), which in turn attracts rock lobster and causes aggregations of localised high rock lobster abundance". This claim is unsubstantiated (no references are provided to support this) and is in fact at odds with the best available information. Over the last three decades multiple kōura tracking studies have been undertaken (Hanns, 2021, Kelly and MacDiarmid, 2003, Kelly, 2001, Freeman et al., 2009). None show movement into marine reserves exceeding movement out of marine reserves. Further, if FNZ's argument was correct we would have expected to have recorded exaggerated population increases within the marine reserves compared to adjacent fished locations as populations rebuild. This is not evident in our data (Figure 1).

FNZ considers their 2024 rapid update assessment “constitutes the best information on the state of rock lobster populations within CRA 2”. They caution against extrapolating findings from our empirical fisheries independent research beyond the Hauraki Gulf and making direct comparisons between our study and the 2022 CRA 2 stock assessment. However, this level of caution has not been applied to the uncertainty in the stock assessment, its biomass projections, or its ability to capture localized depletions at spatial scales smaller than the CRA2 QMA. The reported recovery to 40% unfished SSB is an average across the vast CRA2 QMA. By blending data from productive areas and healthy populations with areas that have not experienced the same level of recovery, while also misinterpreting increased CPUE as recovery, FNZ has potentially obscured and therefore failed to represent localized declines within the Hauraki Gulf.

Successive rapid updates from 2023 and 2024 have estimated lower rates of recovery, while the 2024 rapid update also showed CPUE had declined from 2022 to 2024. This supports assertions we made in Nessia et al. (2024) that the 2022 assessment had seriously overestimated the state of the fishery and rate of recovery. This highlights major uncertainty in the potential for and dynamics of continued recovery in CRA 2. It also contrasts FNZ’s narrative and expectation in the consultation document of further recovery where they claim that biomass “is projected to increase over the next five years under current catch levels”. While FNZ acknowledge uncertainty around the rate at which CRA 2 biomass will increase beyond their five-year projections, uncertainty within the five-year projection is not discussed. Instead, there is a blanket assumption that stock recovery across CRA2 is guaranteed. However, this assumption is not clearly supported by the 2024 rapid update (i.e., the best available information on the state of rock lobster populations within CRA 2). Furthermore, our survey data has indicated low numbers of juveniles across the HGMP, which is of concern given the increased uncertainty around recruitment in warming seas, as highlighted in the most recent Plenary Report (page 336). Here, FNZ state “high temperatures impair the survival of lobsters around the size of recruitment”, underscoring the need for a more precautionary approach to management.

Finally, increasing the TACC while simultaneously reducing available fishing areas through closures, such as the proposed inner Gulf closure and the High Protection Areas proposed under the Hauraki Gulf / Tīkapa Moana Marine Protection Bill,

represents poor ecosystem-based fisheries management practice. This approach risks placing increased pressure on the remaining accessible areas, potentially exacerbating stock declines. Given the uncertainty surrounding stock recovery and the recovery within the proposed closures, a reduction in TACC would have been a more prudent and appropriate measure. Surprisingly, neither reductions in TACC nor the potential effects of spatial closures were considered in the 2024 rapid update, which further questions the robustness of the management strategy.

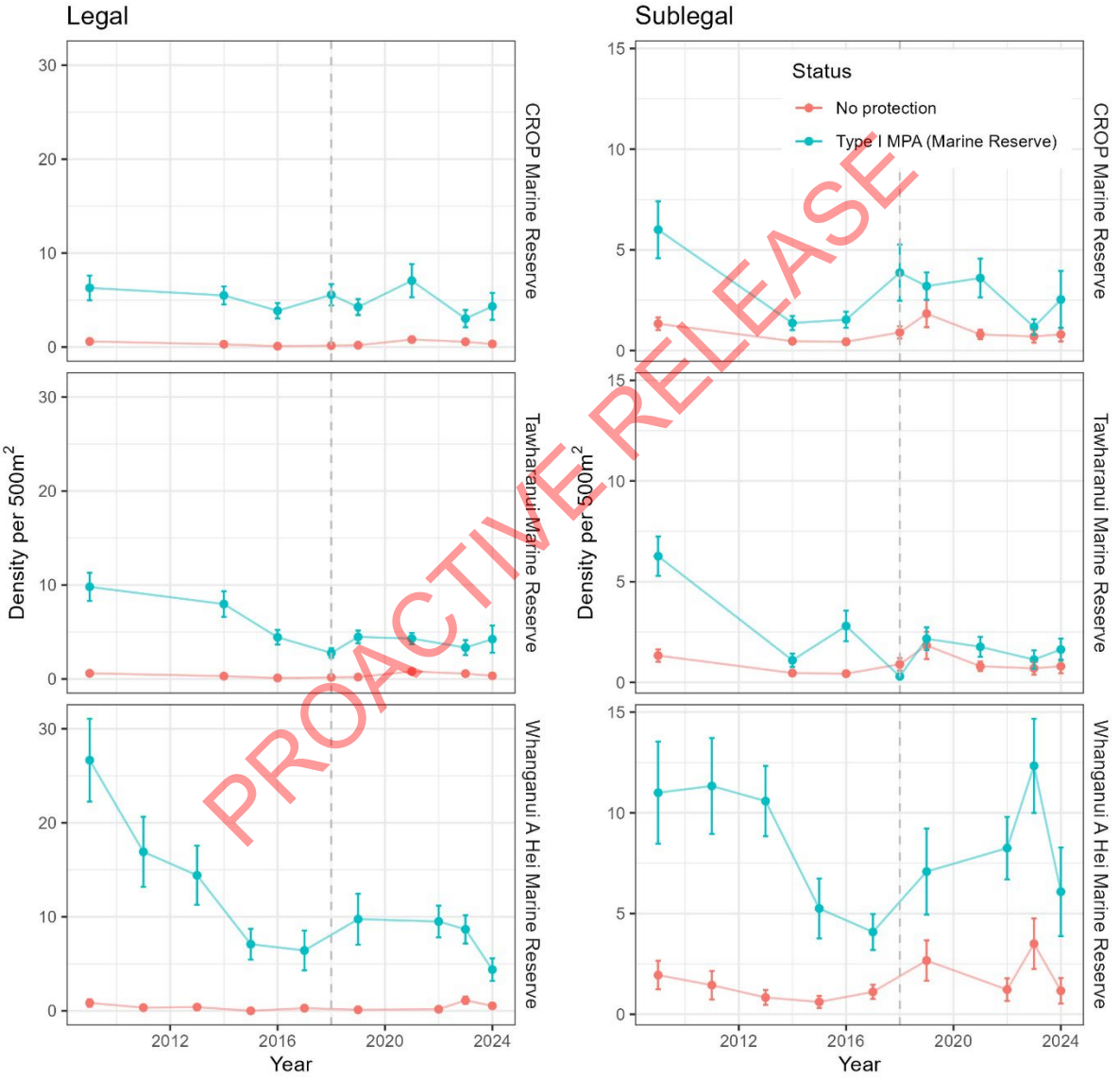

Figure 1: Density of legal (≥ 95 mm carapace length; CL) and sublegal (<95 mm CL) *Jasus edwardsii* since 2009 in and adjacent to CROP, Tāwharanui, and Whanganui-o-Hei marine reserves. The dashed vertical line indicates the 2018 TACC reduction in the CRA 2 lobster fishery, Error bars are ± SE.

10. **Do you support the proposed spatial closure? Why?** The NZ Reefs Lab strongly supports the proposed spatial closure for all commercial and recreational rock lobster fishing within the inner Hauraki Gulf, but recommends it also include the packhorse lobster (*Sagmariasus verreauxi*). Our recent surveys found kōura densities and biomass were exceedingly low across all surveyed inner Gulf locations (Fig. 2), while sub-legal packhorse lobster were proportionally more prevalent. The inner Gulf is both physically and ecologically distinct from the remainder of the CRA 2 QMA. For example, MacDiarmid (2025) suggest the inner Gulf likely experiences lower and more infrequent larval recruitment compared to the remainder of the CRA 2 QMA due to its more distant position relative to the continental shelf break at 200 m water depth. Given these conditions and the existing poor state of rock lobster across inner gulf rocky reefs, a closure with a ten-year review represents a prudent management decision.

    In addition, we recommend that the closure include all spiny lobster, i.e. both *Jasus edwardsii* and packhorse *Sagmariasus verreauxi*, will ultimately simplify compliance and maximise ecological impact of the closure area as both species are known to predate sea urchins. Our surveys indicate that packhorse are increasing in some areas, but generally only juveniles are present and legal-sized packhorse are extremely rare in the proposed inner Gulf closed area. Given a lack of legal-sized lobster this would not impact on fishers but simplify compliance and avoid confusion.

11.

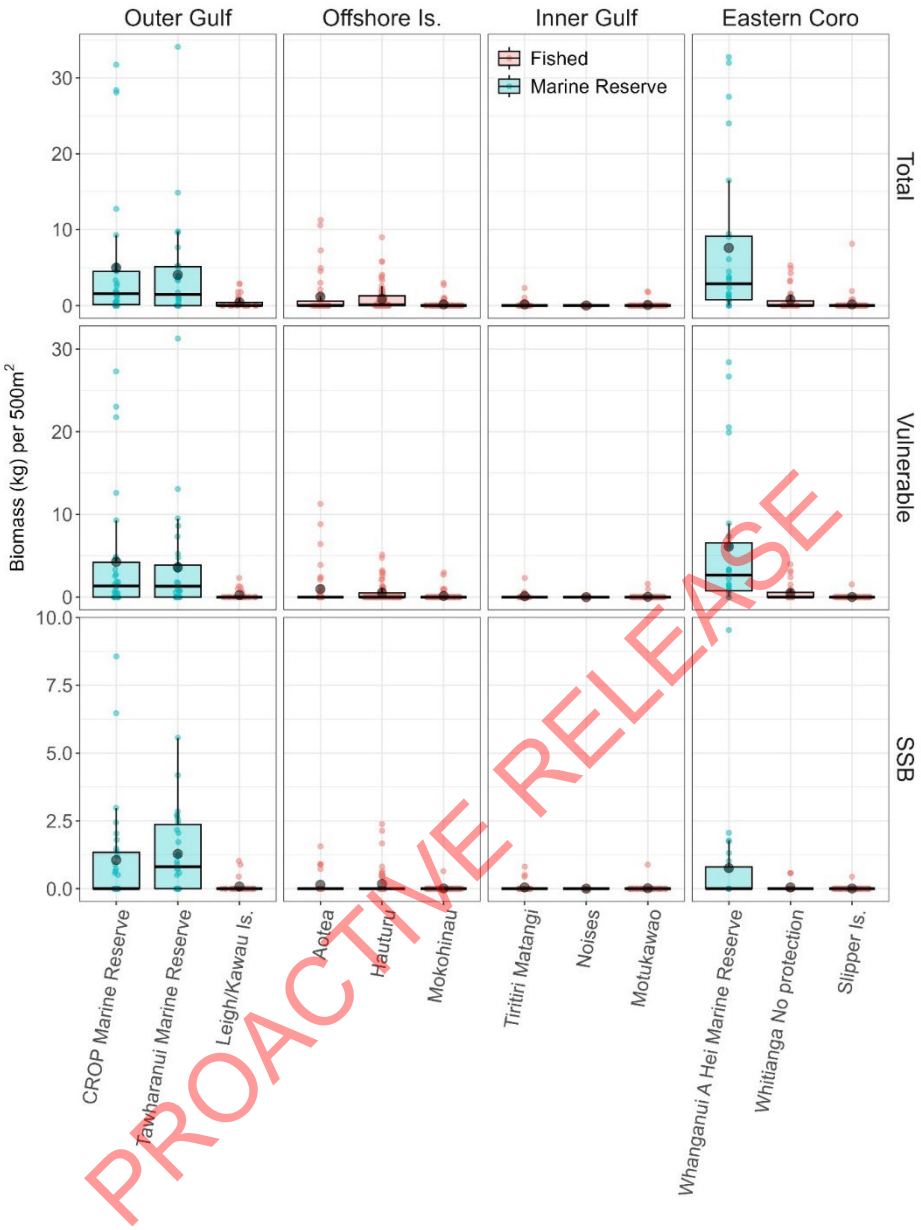

Figure 2: Biomass (kg) of *Jasus edwardsii* per 500 m^2 across marine reserves and fished locations in the HGMP in 2024. Coloured points show raw transect level values, larger grey points indicate arithmetic means. Note the Leigh/Kawau Is fished area is also in the proposed inner Gulf closure. This data is unpublished and has been written up in a technical report for the Department of Conservation that is currently under review.

12. **Do you support the boundaries that FNZ has suggested for the proposed inner Hauraki Gulf closure? Why?** The NZ Reefs Lab recommends minor adjustments to the boundaries of the proposed inner Gulf closure. We recommend shifting the northern boundary of the closure from Cape Rodney to Te Arai Point (the boundary

between CRA 1 and CRA 2). The proposed boundary leaves a gap between Cape Rodney and the eastern boundary of the Cape Rodney to Okakari Point Marine Reserve (CROP or Goat Is. marine reserve) and leaves the reef to the west of the CROP marine reserves (Kemps Beach area) open to fishing (Fig. 3). The proposed boundary will therefore result in fishing effort concentrating on rocky reef habitat in these areas surrounding the reserve. This fishing risks depleting the local kōura population and putting added stress on the boundaries of the CROP marine reserve, negatively impacting its ability to effectively conserve kōura. Our proposed amendment will see the entirety of the CROP marine reserve, including the extension proposed under the Hauraki Gulf/Tīkapa Moana Marine Protection Bill and the surrounding rocky reef habitat included in the inner Gulf closure area. This amendment will consolidate the inner Gulf closure and maximise its effectiveness, while also simplifying compliance in the Leigh/Omaha area.

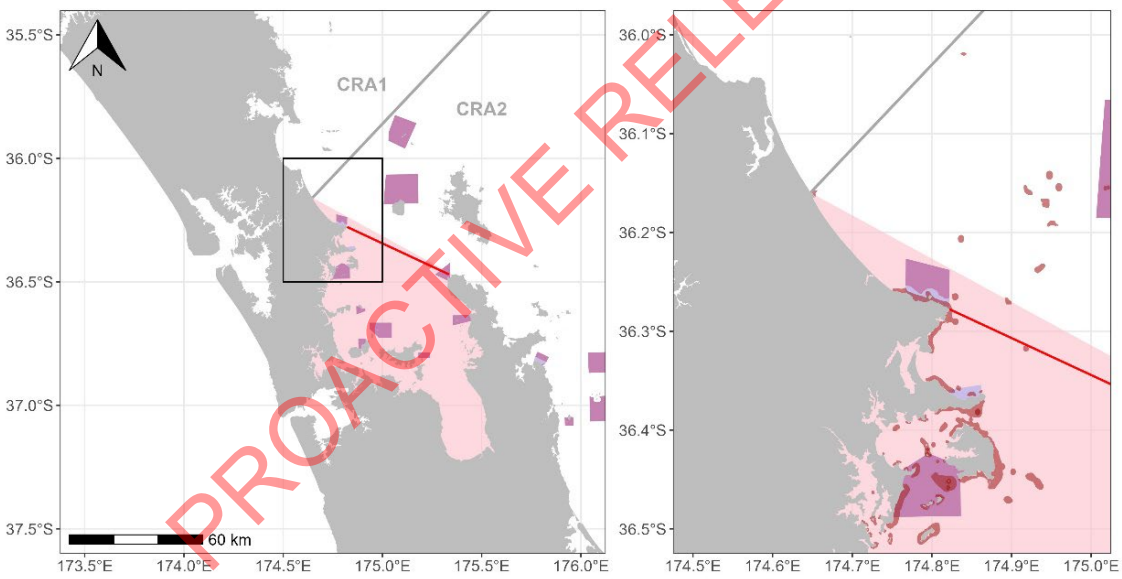

Figure 3: Map showing the northern limit of the proposed spatial closure for all commercial and recreational rock lobster fishing within the inner Hauraki Gulf (red) and line our amended northern which extends north to Te Arai point (pink area). Existing marine reserves indicated as light purple areas, High Protection Areas proposed under the Hauraki Gulf / Tīkapa Moana Marine Protection Bill indicated as dark purple areas, rocky reef shown in right figure shown as brown areas.

13. Do you think any additional measures should be considered?

We recommend splitting and managing CRA 2 as smaller separate spatial entities. As it stands, the stock assessment assumes CRA 2 opporates as a single homogeneous

stock. However, this largely ignores evidence of smaller-scale spatial patterns in larvae settlement, juvenile and adult movements, abundance, ecological interactions, and fishing pressure. Recently, this assumption was found to have violated the foundational modelling principle of a "unit stock" and misrepresented the state of populations in areas like the HGMP (MacDiarmid, 2025). Managing CRA 2 at smaller spaital scales supports a shift toward ecosystem-based fisheries management (EBFM) and would provide a more accurate framework for assessing localized dynamics. This approach could enable targeted rebuilding strategies that are ecologically relevant and tailored to the specific needs of subregions such as the Hauraki Gulf. In doing so, this management strategy would better align with the sustainability goals of the Fisheries Act 1996, protect vulnerable subpopulations, and better support the communities that depend on these fisheries. We recommend CRA 2 be split into two sub-regions representing the HGMP (905 and 906 statistical areas) and the Bay of Plenty (907 and 908 statistical areas).

14. Are the allowances for customary, Māori, recreational, and other sources of mortality appropriate? Why?

In the discussion document, the existing estimate for 'All other mortality caused by fishing' is 42.5 tonnes. This is the sum of estimates for fishing mortality (30 tonnes), handling mortality (1.48 tonnes) and non-size-limited mortality minus the customary allowance (25.65 – 16.65 = 11 tonnes). The proposed increases in TACC under options A2 and A3 are shown to coincide with decreases in 'All other mortality caused by fishing'. However, how these decreases in other mortality are achieved is not suffiently explained in the document. In section 92, FNZ state "For Options A2 and A3, the proposed increase (from 30 tonnes [fishing mortality]) is scaled as the same increase to the TACC under these options (12.5% for Option A2 and 25% for Option A3)". The proposed increases in TACC do not appear proportioanl to the reductions in other mortality. It is not clear how increasing the TACC by 10 or 20 tonnes can lead to a decrease in other mortality by 8.5 or 4.5 tonnes, respectively. This lack of clarity in FNZ's justification for these reductions is concerning as these reductions ulitmately obscure the proposed TACC increases relative to the TAC, where the proposed increases to the TACC are shown as greater than the overall TAC increase.

15. Do you have any concerns about potential impacts of the proposed options on the aquatic environment?

The proposals do not provide a holistic approach to managing CRA 2, rather, they are singular fishery-based approaches that do not integrate effectively with one another. The proposal to increase TACC and implement spatial closures are counter-intuitive and risks placing increased pressure on the remaining accessible areas, potentially exacerbating stock declines (McDonald et al., 2024). Furthermore, reduction in available fishing grounds in the HGMP resulting from the HPAs proposed under the Hauraki Gulf / Tīkapa Moana Marine Protection Bill have also not been considered. Overall, the package of proposals do not align with each other or with other management measures proposed for the HGMP and therefore do not represent a holistic ecosystem-based approach to fisheries management.

16. Is there any relevant literature or research you are aware of that you think should have been referred to in this paper?

MacDiarmid, A. (2025). What is an appropriate spatial scale for ecosystem based fishery management of kōura, spiny lobster Jasus edwardsii, in the Hauraki Gulf Marine Park, Aotearoa New Zealand? *Fisheries Research*, *281*, 107261.

In this study Dr Alison MacDiarmid, a pioneer of kōura research in Aotearoa, highlights the pressing need for a transition from large-scale Quota Management Area (QMA) fisheries assessments to smaller-scale spatially nuanced approaches which better align with the biology and ecology of species like kōura. The current assessment for CRA2 assumes a single homogeneous stock, ignoring evidence of smaller-scale spatial patterns in larvae settlement, juvenile and adult movements, abundance, ecological interactions, and fishing pressure. This assumption was found to have violated the foundational modelling principle of a “unit stock” and misrepresented the state of populations in areas like the HGMP. Dr MacDiarmid suggests a shift toward ecosystem-based fisheries management (EBFM) at smaller spatial scales, such as six subregions within CRA2, would provide a more accurate framework for assessing localized dynamics.

Edgar, G. J., Bates, A. E., Krueck, N. C., Baker, S. C., Stuart-Smith, R. D., & Brown, C. J. (2024). Stock assessment models overstate sustainability of the world's fisheries. *Science*, *385*(6711), 860-865.

This study published in the top scientific journal 'Science' and led by renowned Australian marine scientist Professor Graham Edgar found stock assessment models often overstate the sustainability of fished populations due to high levels of uncertainty and bias in biomass estimates. Their analyses highlighted that older stock assessments tended to be overly optimistic compared to the most recent assessments, particularly for overfished stocks. From 230 fisheries worldwide they found that biomass estimates from earlier assessments were frequently overestimated compared to more recent assessments. This led to a phenomenon termed "phantom recoveries," where assessments suggested stock recoveries that were not supported by actual data. The study emphasizes the need for greater precaution in fisheries management and advocates for improved methodologies to account for biases in stock assessments, ultimately presenting a more cautious view of global fisheries sustainability.

17. Do you have any further information to share on the location of urchin barrens in CRA 2?

Members of our research group currently have a contract with FNZ mapping kina barrens so the information we have will be provided through this contract.

18. Are there other fishery management measures that you feel could be appropriate in CRA 2? Why?

See Section 12 above.

19. Reference:

FREEMAN, D. J., MACDIARMID, A. B. & TAYLOR, R. B. 2009. Habitat patches that cross marine reserve boundaries: consequences for the lobster Jasus edwardsii. *Marine Ecology Progress Series,* 388**,** 159-167.
HANNS, B. J. 2021. *Marine Reserves, Fisheries and the Spiny Lobster Jasus edwardsii.* ResearchSpace@ Auckland.
KELLY, S. 2001. Temporal variation in the movement of the spiny lobster Jasus edwardsii. *Marine and Freshwater Research,* 52**,** 323-331.
KELLY, S. & MACDIARMID, A. 2003. Movement patterns of mature spiny lobsters, Jasus edwardsii, from a marine reserve. *New Zealand Journal of Marine and Freshwater Research,* 37**,** 149-158.
MACDIARMID, A. 2025. What is an appropriate spatial scale for ecosystem based fishery management of kōura, spiny lobster Jasus edwardsii, in the Hauraki Gulf Marine Park, Aotearoa New Zealand? *Fisheries Research,* 281**,** 107261.

MACDIARMID, A., FREEMAN, D. & KELLY, S. 2013. Rock lobster biology and ecology: contributions to understanding through the Leigh Marine Laboratory 1962–2012. *New Zealand Journal of Marine and Freshwater Research,* 47**,** 313-333.
MCDONALD, G., BONE, J., COSTELLO, C., ENGLANDER, G. & RAYNOR, J. 2024. Global expansion of marine protected areas and the redistribution of fishing effort. *Proceedings of the National Academy of Sciences,* 121**,** e2400592121.
NESSIA, H. R., HANNS, B. J., HAGGITT, T. R. & SHEARS, N. T. 2024. Using marine protected areas to assess the status and recovery of the spiny lobster Jasus edwardsii fishery in the Hauraki Gulf, Aotearoa New Zealand. *Frontiers in Marine Science,* 11**,** 1440350.

NZ ROCK LOBSTER INDUSTRY COUNCIL LTD

Ka whakapai te kai o te moana

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www.nzrocklobster.co.nz

29 January, 2025

REVIEW OF SUSTAINABILITY MEASURES FOR CRA 2 FOR 1 APRIL 2025

A submission on behalf of the New Zealand rock lobster industry.

Contents

1. INTRODUCTION

1. The NZ RLIC is the umbrella organisation for the nine regional organisations known as CRAMACs, which operate in each of the rock lobster (CRA) management areas of New Zealand. CRAMAC membership comprises CRA quota owners, processors, exporters, and fishermen (quota share owner-operators and Annual Catch Entitlement (ACE) owners) in each region. All nine CRAMACs hold a significant majority

mandate of rock lobster quota shares owned in the regions. CRAMACs are the shareholders in NZ RLIC, and appoint the Board of Directors.

2. NZ RLIC represents about 430 quota share owners in the nine CRA stocks nationally and the PHC stock. CRA rock lobster landings in the 2023/24 fishing year were 2,706 tonnes, almost all of which was exported live to Asian markets. PHC landings were 49 tonnes. Rock lobster generated export revenue (FOB) of around $385 million in calendar year 2023. The industry deploys around 210 vessels[1], employs 1,800 people directly and indirectly in the harvesting sector[2], lands lobster at around 100 landing points with that product going to about 37 depots, processing and export facilities. The industry supports an extensive network of transport, engineering, electronics and provedoring businesses.

2. SUMMARY OF SUBMISSION

3. In 2018 a very large TAC/TACC reduction was implemented for the CRA 2 spiny rock lobster (rock lobster) fishery . The Fisheries New Zealand (FNZ) Discussion document 2024/33 considers options to increase the TAC, but also a closure to the inner Hauraki Gulf intended to further increase the abundance of rock lobsters and contribute to the control of sea urchin populations.

4. The Minister's decision letter in 2018 set a goal of doubling rock lobster abundance – that goal has been met for spawning stock biomass, and substantially exceeded for vulnerable biomass. The biomass projection provides an opportunity to make a modest increase in the TACC to 100 tonnes while still allowing the stock to continue its rebuild trajectory. The projections are based on a high quality assessment and comprehensive and consistent contribution of information from CRA 2 operators. After four years of deferral, some relief is needed from the significant economic impacts of the 2018 reduction and the ongoing stress and insecurity.

5. The decision should take into account the role of rock lobsters as a predator of urchins. However, the biomass level and size composition of rock lobster that will influence the prevalence of urchin barrens is unknown. Whatever the extent of the role of lobsters as a predator of urchins, along with other predators and other a range of other factors that affect both urchins and macrophytes, and the importance of the size distribution of lobsters, the rebuild trajectory will continue and the biomass of lobsters will increase, and the proportion of larger rock lobsters in CRA 2 will continue to grow under the TAC increase option supported.

6. The Discussion Document proposes a closure to recreational and commercial rock lobster fishing (but to allow customary fishing) within the inner Hauraki Gulf to assist in the recovery of rock lobster populations and address the issue of kina barrens. We are very concerned at the cumulative impact of closures in CRA 2. There are already 23 closures to rock lobster fishing currently in effect within CRA 2 (constituting 16.7% of the rock reef habitat in the QMA), 15 of which occur in statistical area 905. There are also ~30 pending closures and proposals. The proposed inner Hauraki Gulf closure contains 51.2 % of the remaining rocky reef habitat in 905 and 20.4% of that in CRA 2.

[1] landing > 1 tonne annually in 2023/24

[2] BERL 2021

7. The failure to date to explicitly consider the cumulative impacts of fisheries displacement has affect fisheries sustainability, including by leading to localised depletion, increasing cost and impacting on economic return and the fisheries settlement, increasing spatial competition and acrimony between recreational, commercial and customary non-commercial fishers, concentrating fishing which can increase environmental impact, leading to further demands for closures and restrictions including from coastal hapu who seek to protect availability of seafood for their cultural and subsistence purposes in their rohe.

8. For these reasons, NZ RLIC suggests that a closure to the Inner Hauraki Gulf, in combination with the large number of other closures in CRA 2, in existence or proposed, is a drastic option that represents a failure to actively manage the issues in the Inner Hauraki Gulf by more targeted management interventions. This is particularly the case when abundance is already increasing in CRA 2 as a result of the management settings including the TAC reductions in 2018, and there are other management measures available to both constrain catch in the Inner Hauraki Gulf and more directly address urchin barrens.

9. The CRA 2 operators fishing in the Hauraki Gulf have recognised the concern of the Ministry and other stakeholders about lobster abundance in the Hauraki Gulf and they are committed to supporting the ongoing recovery of abundance of spiny rock lobster within statistical area 905. To achieve this objective, the operators fishing this area have developed a formal Code of Conduct that will limit catch to recent levels in 905 and the Inner Hauraki Gulf with the TACC increase, close the inner Hauraki Gulf between Labour Day and the end of March each year, return all large lobster (>=F grade) and other measures. This Code of Conduct provides credible alternative to the proposed closure. During discussions in the NRLMG, it was clear that the New Zealand Sport Fishing Council was willing to consider parallel meaningful measures to substantially constrain recreational catch in the area.

10. If the intent of the inner Hauraki Gulf closure is to address urchin barrens, the studies undertaken show that closures need to be to all fishing to be effective. If closures are to be used, they would be far more effective and pose much lower cost to utilisation if they were targeted on barren environments. And their efficacy will be considerably enhanced if supported by urchin removal. Urchin removal on its own may not address underlying issues that have led to formation of barrens. But, to the extent that lobster as a predator play a role – the biomass will continue to increase with the TACC increase option supported, along with the average size of lobsters.

11. The ongoing focus on regulating lobster utilisation, and not implementing more effective and targeted measures to reduce urchin abundance and barren prevalence poses high cost and ignores potentially effective measures. Further management options need to include those that will directly remove urchins, particularly from barren environments, through controlled removal of urchins or directed harvesting of urchins.

12. Management targets need to balance a number of considerations including the Fisheries Act utilisation requirements, managing the adverse effects of fishing and take into account the environmental and information principles including the impact of barrens on biodiversity. However, rock lobster are only one of a number of predators of urchins. Their relative influence on kina abundance, or the biomass of lobster needed to control urchins is not known, and there are a number of other factors that affect both urchin and macrophyte abundance.

13. A management target of 200% B_R provides for a substantially higher biomass and larger lobsters but means foregone yield relative to B_R. It is recognised that the non-commercial sector will prefer the higher catch rates with a larger biomass. CRAMAC 2 support a management target between 175 and 200% of B_R.

14. A target of 350% B_R would mean substantially greater impacts on utilisation including through greatly reduced yield (~87 tonnes). It is not clear that those foregone commercial utilisation benefits are justified given we do not know the extent to which higher lobster biomass would help address the issue of kina barrens. Given this balance of factors, the Minister would need to have compelling information to decide to manage at a biomass higher than 200% B_R at this time. That biomass is already double the default biomass target and takes a material additional step to address the environmental considerations associated with kina barrens and provision for the different management aspirations of non-commercial (recreational and customary) interests. Given that higher biomasses clearly impact on commercial utilisation, if the rationale for a higher target relates to kina barrens, there is good argument that consideration should first be given to other more direct measures to address barrens.

3. CRA 2 STOCK STATUS

15. The Total Allowable Catch (TAC) for CRA 2 was reduced from 416.5 tonnes to 173 tonnes at 1 April 2018, including a 60% reduction in the Total Allowable Commercial Catch (TACC) from 200 tonnes to 80 tonnes.

16. The full stock assessment conducted for CRA 2 in 2022 was used to undertake rapid update assessments in 2023 and 2024. The 2024 rapid assessment suggests that at the end of the 2023/24 fishing year (31 March 2024) vulnerable biomass has increased markedly since 2018 and was 20% of the unfished level for CRA 2. For CRA 2, overall spawning biomass was 38.3% of the unfished level (SSB_0), well above the soft limit of 20%, and around double the spawning stock at the time of the TAC reduction in 2018. The assessment suggests the exploitation rate (U) has been decreasing markedly in recent years in both seasons.

17. The 2024 rapid update estimated vulnerable biomass at 154% of B_R[3], and is projected to increase over the next five years under current catch levels to 196% of B_R. Spawning stock biomass is also expected to increase to 41.1% of SSB_0.

18. Some spatially limited fishery independent surveys have recently been undertaken in statistical areas 904 and 905 in CRA 2 in three marine reserves and six fished locations. These found substantially higher vulnerable and spawning stock biomasses inside the marine reserves and estimated lower biomasses in fished areas than those estimated by the fishery dependent stock assessments. The authors suggested little evidence of recovery since the reductions in 2018[4]. However, the stock assessment is based on a

[3] B_R is the reference level based on the vulnerable biomass level that can produce the maximum sustainable yield (MSY) from the fishery, tailored to the biological and fishery characteristics of CRA 2. This reference level is consistent with the requirement of the Fisheries Act 1996 (the Act) to maintain stocks at or above a level that can produce the MSY.

[4] These authors also question the reliance on CPUE as an index of abundance suggesting operators have focussed on areas with higher catch rate following the TACC reduction. This reflects a misunderstanding of the situation – since the reduction

long time series of data from across the whole of CRA 2. Marine reserves are unlikely to reflect the wider environment and ecosystem outside marine reserves as evidenced by the much higher abundances of sub-legal lobsters unaffected by fishing in both reserves and other areas surveyed. Because of these factors and the limited spatial extent of the studies, the stock assessment is likely to provide the best information on the changes in the CRA 2 rock lobster population and its current status.

4. TAC OPTIONS

19. The Total Allowable Catch (TAC) for CRA 2 was reduced from 416.5 tonnes to 173 tonnes in 2018, including a 60% reduction in the Total Allowable Commercial Catch (TACC) from 200 tonnes to 80 tonnes. The Minister's decision letter in 2018 set a target of doubling rock lobster abundance in four to eight years depending on recruitment. His letter acknowledged the responsible behaviour by industry in shelving 25% of their catching entitlements in each of the previous two years.

20. The 2024 rapid update estimated vulnerable biomass to be 515 tonnes, which is 54% above B_R (335 tonnes), and 20% of B_0. This is a very substantial increase, almost four times the 2017 full assessment estimated vulnerable biomass of 5.2% of B_0. The 2024 rapid update estimates spawning biomass at 38.3% of the unfished level, a marked increase from the 2017 assessment estimate of 18.5% of SSB_0. The Minister's goal in 2018 has been met for spawning stock biomass, and substantially exceeded for vulnerable biomass, the proportion of the population that is fished.

21. Many long term operators in CRA 2 report positively on stock status and recent catch rates and have been frustrated by the successive delays in a review of the CRA 2 TAC/TACC.

22. Vulnerable biomass is projected to increase over the next five years under current catch levels to 217% of B_R and 25.4% of B_0. This provides an opportunity to increase catch levels while still allowing the stock to continue its rebuild trajectory. In 2024, the CRA 2 industry had sought a repatriation of some of the quota reduction made in 2018 to provide a TACC of 120 tonnes. However, following review of the 2024 rapid assessment results showing an adjusted trajectory of rebuild with slightly lower CPUE and recruitment they have revised the requested increase downward to 100 tonnes. This TACC level will still provide an ongoing increase in vulnerable biomass over the projection period to 23.3% of B_0 and to 180% of B_R, and an increase in spawning biomass to 40% of the unfished level.

23. Given the extended delays in review of the CRA 2 TACC, it is important to provide the opportunity to increase utilisation while still providing for continuing rebuild of the stock. CRA 2 operators have consistently contributed to log books, funded additional catch sampling, and have also collected comprehensive harvest pot data. They have made every effort to provide information to support careful management of the stock. The ongoing provision of this data is essential to assessing the forward trajectory of the CRA 2 stock.

24. CRA 2 first sought a review of the TAC in 2020 and 2021 as a result of the clear positive response from the fishery to the 2018 cuts. They were told that any review needed to await the full stock assessment

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there have been strong incentives for operators to focus on fishing periods (and sizes of lobsters) to maximise economic return from the limited ACE available.

in 2022. The 2022 full stock assessment showed a very positive stock rebuild. However, the review was deferred unilaterally by the Ministry because they wanted to focus on the CRA 1 review.

25. It is important that review decisions are consistent with the purpose of the Act with respect to providing for utilisation, while ensuring sustainability. The review process should also consider the legal obligation to act on the best available information. There is a high quality, internationally recognised stock assessment and rapid assessment supported by all of the additional information collected by the industry. Taking measures to achieve the purpose of the Act cannot be indefinitely postponed because of uncertainty in information. Notwithstanding these considerations, the TAC review for CRA 2 was deferred for both 1 April 2023 and 2024.

26. The TACC reductions had very significant impacts on industry, with 13 fewer vessels operating in CRA 2 since the 2018 decision. The business of some of the remaining CRA 2 operators has been economically marginal under the current TACC and they have been holding out financially for return of some of the losses and relief from the financial stress incurred from April 2018. A TACC increase to 100 tonnes would provide approximately $2 million more in landed revenue to operators. In addition there would be returns to the land based supporting economic activities and exporters.

27. In the current circumstances, operators are forced to do short trips at periods where there are windows of good price to try and maximise return from the limited ACE available. It is suggested this fishing pattern may have inflated catch rates – this is not the case as the fishing period is focussed on maximising price, not catch rate. Some have had to take secondary employment as commercial lobster fishing can no longer provide sufficient income. Some have had to diversify into other fisheries and buy new catching entitlements. Those who are carrying debt load are finding it very difficult to service that debt. Those who operate in remote areas have no viable alternative sources of employment/income.

28. Operators have been hanging on in the hope of some level of quota reinstatement. Long term industry operators have lost decades of investment and taken huge financial losses. The landed product is valuable, but entitlements are very expensive, and it is a very high cost fishery to operate in. CRA 2 has lost 13 vessels since the TAC reduction. Plans for succession in the fishery have been stalled or abandoned because operators are unwilling to introduce their family members into an industry with such an uncertain future.

29. There has been a severe toll on the mental health of CRA 2 fishers, processors and staff, quota owners and the families of these people from the continued insecurity rolling from year to year. Morale is poor in CRAMAC 2, accentuated by the other management changes that have impacted on the fishery, particularly ongoing and cumulative spatial access loss.

30. The long delays in willingness by the Ministry to review the TAC in CRA2, and recognise the clearly markedly improved stock status, has impacted on the way QSOs are considering management of other rock lobster fisheries nationally. QSOs are becoming less inclined to take conservative actions or support intervention in fisheries where they would have in the past because of some confidence the TACC would be lifted once the fishery had improved. This confidence has been undermined and the situation is very counterproductive.

31. There are also risks of losing the voluntary cooperation of operators in stock monitoring because of a view the information is not going to be used for management. Frustrated operators are talking about walking away from membership of CRAMAC 2. Successful fisheries management outcomes rely, in considerable measure, on incentives for responsible stewardship and confidence in the management system. This situation is eroding these important factors.

32. A modest TACC increase to 100 tonnes would provide some reinstatement of the losses incurred since 2018. CRA 2 remains very supportive of the re-establishment of a management procedure and certainty about how information generated on the stock from their voluntary efforts will be used for future adjustment of management settings.

33. A management target has not yet been set for CRA 2 and is considered in the consultation document. NZ RLIC provides views in the section 6 below. Given CRA 2 biomass is modelled to continue to increase with a TACC increase to 100 tonnes, whatever target is determined by the Minister does not need to preclude the supported modest TACC increase for 1 April 2025 to 100 tonnes. This TACC increase supported by CRA 2 will maintain the increase the overall abundance of rock lobster biomass, including larger lobsters, that has occurred since 2018.

4.1 Relationship between lobsters and kina barrens

34. The Discussion Document suggest that the TAC increase options should consider the affect on rock lobster biomass, and kina barrens.

35. Under the Fisheries Act there is a need to take into account the effect of different levels of lobster biomass on associated or dependent species, the interdependence of stocks, and the maintenance of biodiversity. The interdependence of stocks involves the consideration of the effects of fishing on associated stocks affected by fishing for the target stock. In terms of trophic relationships, rock lobsters feed on a wide range of small shellfish, crabs, sea stars and kina, depending on local availability. Urchins are however, a low preference prey item for lobsters (Flood 2021, MacDiarmid, Freeman & Kelly 2013, Andrew and MacDiarmid 1991). Experimental studies have shown that lobster have a strong preference for soft-sediment bivalves over rocky reef prey, and urchins are least preferred when lobsters are presented with prey choice. Lobsters avoid urchins in barrens (Flood 2021, Eurich et al 2014). This information is important – studies that show lobsters are capable to eating urchins does not justify a conclusion that lobsters are a key predator that controls urchin abundance. To the extent they are consumed, urchin consumption is likely to vary seasonally with lobster moulting stage and/or urchin roe quality.

36. The relative importance of rock lobster as a predator of kina compared to other species, such as snapper, has not been quantified. Juvenile urchins are considered prey for a wide variety of invertebrates and fish species. It is accepted that snapper is the predominant predator of kina in its geographical range[5], with other fish predators including blue cod, reef species including wrasses and starfish[6]. Urchin predation by fish such as snapper has been linked directly to the predator mouth size (i.e. how wide snapper can open their mouths), with larger fish capable of consuming larger urchins.

[5] Marinovich et all 2023
[6] Doheny et al 2023.

Although two studies suggest large rock lobsters are capable of feeding on the largest size classes of urchin, there is uncertainty about the relative importance of lobsters as a predator on urchins and the effect more larger lobsters might have on the prevalence of kina barrens. Laboratory-based feeding experiments suggest that lobster with a carapace (body) length (CL) greater than 130 mm are capable of feeding on larger kina[7]. A 130 mm CL approximately equates to 83 mm tail width (TW) for female lobster and 68 mm TW for male lobster.[8]

37. Scientific literature suggests that a simple relationship, especially one only considering lobsters as a predator, is a substantial oversimplification. Other factors, including sediment, sea urchin and kelp disease, varying recruitments of all the relevant species, temperature, wave action and other environmental variables, are all contributing factors. The extent of the relationship, or the strength of it, depends on many factors that vary regionally. Biotic factors include (but are not limited to) fishing pressure, population dynamics of predators, prey and kelp and ecosystem resilience. Abiotic factors in include temperature, turbidity and chemistry (among others)[9].

38. This research tells us that we do not know the biomass of rock lobsters that would be necessary to mitigate the prevalence of kina barrens, or the relative importance of lobsters in comparison to other factors. However, the severe TACC reduction in 2018 has resulted in substantially increased rock lobster biomass. Whatever the extent of the role of lobsters as a predator of urchins, along with other predators and other factors, and the importance of the size distribution of lobsters, the rebuild trajectory will continue and the biomass of lobsters will increase, and the proportion of larger rock lobsters in CRA 2 will continue to grow under the TACC increase option supported.

39. As outlined by NZ RLIC in other submissions, if the management objective is to reduce the prevalence of urchin barrens, the most effective measures are more direct interventions focussing on urchins in the barren environments such as controlled removal of urchins and directed harvesting of urchins. This approach is discussed in more detail in section 5.3 below.

4.2 Recreational allowance

40. The recreational allowance was reduced from 140 to 34 tonnes in 2018. The Minister's decision letter at that time acknowledged that the 140 tonne allowance had not reflected actual recreational catch for some time. The reduction in the allowance sought to reflect available information in the current level of recreational catch, acknowledging that catch was affected by state of fishery at the time.

41. In April 2018 the Minister's decision signalled set out that he expected changes to management to better manage recreational catch to the level of the allowance "as soon as possible and prior to October 2018". The recreational daily limit was not amended until 2020 when it was reduced from six to three rock lobsters per fisher per day.

[7] Andrew & MacDiarmid (1991)
[8] Webber et al. (2024). The carapace length to tail width conversion for the neighbouring QMA CRA 2 was used in the absence of a published conversion for CRA 1.
[9] Doheny et al 2023

42. The 2022/23 National Panel Survey estimated recreational catch at 10 tonnes (CV 31%) with total recreational catch including charter catch and section 111 catch estimated at 12.15 tonnes.

43. In the NRLMG, NZ RLIC has raised the importance of consistent application of principles and certainty in the relative treatment of the commercial and recreational sectors when the TAC is changed. These include the need to manage catch to the allowance and implement an equitable approach to the commercial and recreational sectors at the time of both TAC increases and TAC decreases. Applying these principles is compromised when there is poor and there is infrequent information on the amount of catch.

44. In the current circumstances where a TAC/TACC increase is being considered, NZ RLIC would have suggested that consideration should be given to an adjustment to increase the recreational allowance and amending the controls on that catch. However, given catch is estimated to be substantially below the allowance, and the allowance is not constraining that catch, such a change is not likely to have much practical effect. Recreational catch estimation at the time of the NPS survey is likely to have been depressed by adverse prevailing weather conditions affecting recreational catch. If the Hauraki Gulf closure proposed by the Ministry proceeds, it will likely further constrain recreational fishing harvest.

5. PROPOSED SPATIAL CLOSURE

45. The Discussion document acknowledges that rock lobster biomass in CRA 2 has increased markedly since 2018. However, abundance is suggested to be low in the Inner Hauraki Gulf, and there are concerns about increased fishing effort in this area should a TAC increase be made. The Document proposes a closure to recreational and commercial rock lobster fishing (but to allow customary fishing) within the inner Hauraki Gulf[10] to assist in the recovery of rock lobster populations in this area. It is also suggested that this will help address the issue of kina barrens.

46. The proposed closure is an area of ~3571 km^2 and if were to be implemented it would exclude access to approximately half of statistical area 905 – a substantial portion of CRA 2. This would effectively exclude ~142.2 km^2 of the rocky reef habitat that does not occur in existing closures, 51.2 % of the rocky reef documented in 905 and 20.4% of that in CRA 2.

47. In supporting the statements about low rock lobster abundance in the Inner Hauraki Gulf, the consultation document references Miller et al 2023. This reference documents the success of urchin removals in particular locations in providing for the re-establishment of macrophytes in those locations. It does not appear to document any surveys or other information about rock lobster abundance. The other reference used is MacDiarmid et al 2013. This reference contains some limited, dated, information on rock lobster distribution and abundance – but again no specific information surveying rock lobster abundance in the Inner Hauraki Gulf.

[10] Defined as extending from the southern boundary of the Cape Rodney-Okakari Point Marine Reserve to Port Jackson Bay, top of the Coromandel Peninsula

48. NZ RLIC is very concerned at the cumulative impact of closures in CRA 2. There are a large number of existing closures and pending closures and proposals.

49. There are already 23 closures to rock lobster fishing currently in effect within CRA 2, 15 of which occur in statistical area 905 (see those with an * in the text below). These include;

a) Four mātaitai reserves and one 'temporary closure' under s186A of the Fisheries Act:

   a. Te Maunga o Mauao Mātaitai
   b. Te Rae o Kohi Mātaitai
   c. Raukokore Mātaitai
   d. Te Kopa o Rongokānapa Mātaitai
   e. Waiheke Island s186A*

b) There are eight marine reserves and three marine protected areas (MPAs):

   f. Cape Rodney-Okakari Point Marine Reserve*
   g. Tāwharanui Marine Reserve*
   h. Long Bay-Okura Marine Reserve*
   i. Motu Manawa-Pollen Island Marine Reserve*
   j. Te Maktuku Marine Reserve*
   k. Whanganui A Hei Marine Reserve
   l. Tuhua Marine Reserve
   m. Ta Paepae o Aotea Marine Reserve
   n. Motunau Marine Protected Area
   o. Otaiti/Okarapu/Brewis Shoal Marine Protected Area
   p. Schooner Rocks Marine Protected Area

c) There are four cable protection zones:

   q. Whangaparaoa Submarine Cable/Pipeline*
   r. Kawau Submarine Cable/Pipeline*
   s. Hauraki Gulf Cable/Pipeline*
   t. Great Barrier Island Cable/Pipeline*

d) There are two Controlled Area Notices (CANs) relating to three Exotic Caulerpa High Risk Zones, which currently prohibit fishing methods that contact the seafloor, such as rock lobster potting[11]:

   u. Aotea Great Barrier Island CAN*
   v. Ahuahu Great Mercury Island CAN
   w. Waiheke Island CAN*

50. There are also a large number of impending closures and restrictions in CRA 2. In response to the Sea Change – Tai Timu Tai Pari Hauraki Gulf Marine Spatial Plan, the Government are progressing their

[11] The legal rules for boating and fishing to stop the spread of exotic caulerpa

Revitalising the Gulf Strategy through the Hauraki Gulf / Tīkapa Moana Marine Protection Bill[12]. This Bill will establish 12 High Protection Areas (HPAs), five Seafloor Protection Areas (SPAs) and two extensions to marine reserves at Cape Rodney-Okakari Point and Whanganui-a-Hei, as well as potential establishment of additional MPAs in the Hauraki Gulf to fill 'network gaps'. Of these 19 proposed closures (11 of which occur in statistical area 905 – denoted by an * in the text below), 15 will prohibit commercial rock lobster fishing:

a) (Part of) One Seafloor Protection Area (SPA):

    a. Mokohīnau Islands SPA*

b) Two extensions to existing marine reserves:

    b. Cape Rodney-Okakari Point Marine Reserve*
    c. Whanganui A Hei Marine Reserve

c) 12 High Protection Areas (HPA):

    d. Te Hauturu-o-Toi/Little Barrier Island HPA*
    e. Slipper Island/Whakahau HPA*
    f. Motukawao Islands HPA*
    g. Pakatoa and Tarahiki/Shag Island HPA
    h. Rangitoto and Motutapu HPA*
    i. Cape Colville HPA*
    j. Mokohīnau Islands HPA*
    k. Aldermen Islands/Te Ruamahua (north) HPA
    l. Aldermen Islands/Te Ruamahua (south) HPA
    m. Kawau Bay High Protection Area*
    n. Tiritiri Matangi High Protection Area*
    o. The Noises High Protection Area*

51. The Revitalising the Gulf Strategy is also considering implementation of additional area closures under the Hauraki Gulf fisheries plan, including to; protect identified habitats of particular significance for fisheries management, provide for recreational fishing in Special Management Areas that preclude commercial fishing, implement 'voluntary removal agreements' that will restrict fishing in localised depletion areas and support iwi to establish mātaitai and/or taiāpure.

52. The Revitalising the Gulf Strategy also proposes to trial Ahu Moana management areas, which may include prohibitions or restrictions on commercial fishing. While there are no details on how Ahu Moana management will impact commercial rock lobster fishing, the Motairehe Marae Trust have identified that Great Barried Island has been selected as a candidate site. The Motairehe Marae Trust have applied for a s186A closure[13] for the area surrounding:

[12] https://legislation.govt.nz/bill/government/2023/0282/latest/LMS882989.html
[13] Proposed temporary fisheries closure of Great Barrier (Aotea Island) and nearby islands

a. Aotea Island (Great Barrier Island)*
b. Te Hauturu-o-Toi (Little Barrier Island)*
c. The Mokohīnau Islands*
d. Simpson and Horn Rock*

53. NZ RLIC is aware of a s186 application by Ngāti Manuhiri for multiple sites, including; Omaha, Kawau Island, Mahurangi, Great Barrier and Little Barrier Island[14]. An additional proposal for a marine reserve on the north-west of Waiheke Island is also currently being considered by DOC[15]. All of these would proposed closures would occur in statistical area 905.

54. The recent closure of Astrolabe Reef, Schooner Rocks and Motunau Plate under the Resource Management Act (RMA) as part of the Motiti Protection Area is only the initial step in the directions provided by the Environment Court to Bay of Plenty Regional Council. The court's decision made it clear that the judge expects to see further closures implemented by the Bay of Plenty Regional Council. Further closures in within the Bay of Plenty coastal area would directly impact on commercial rock lobster operators harvesting in statistical area 907.

55. Waikato Regional Council (WRC) released a draft Coastal Plan in June 2022, which identified 87 extensive Significant Indigenous Biodiversity Areas (SIBAs) in the coastal marine area, with policies and rules to protect these areas (as per the NZCPS). In response to community feedback, WRC consulted on further marine biodiversity protection options, which proposed policies that would require activities that disturb the foreshore and seabed to be avoided in areas identified as having significant biodiversity value, with an option to implement closures through the same process as the Motiti Protection Areas.

56. While WRC have communicated that the most appropriate way of controlling adverse effects of fishing on marine biodiversity is through the Fisheries Act[16], submitters have called for WRC to implement restrictions to commercial fishing in SIBAs under the RMA, which could include rock lobster fishing. The fishing industry has submitted against this approach, and is currently involved in the hearings being held by WRC to determine the outcome of this process.

57. In total, the current closures account for ~1110 km^2 of the CRA 2 QMA and effectively remove ~145 km^2 of the rocky reef documented by DOC (16.7%), leaving ~721 km^2 of fishable rocky reef habitat – 2.7% of the total QMA. The current closures account for ~900 km^2 of statistical area 905 and effectively remove commercial access to ~75 km^2 of rocky reef (21.9%) of 905, leaving ~266 km^2 of rocky reef (fishable habitat). This represents only 2.9% of 905.

58. Together, these impending and potential closures in CRA 2 are expected to preclude access to at least a further ~4500 km^2 of the total CRA 2 QMA. These impending and potential closures will effectively remove ~259 km^2 of the rocky reef documented by DOC within the CRA 2 QMA, reducing the available rocky reef fishing habitat to ~462 km^2. This represents only 1.7% of the total CRA 2 area.

[14] Ngāti Manuhiri Settlement Trust
[15] Proposed Hākaimangō-Matiatia (Northwest Waiheke) Marine Reserve
[16] Proposed Waikato Regional Coastal Plan I Te Mahere Takutai Moana ā-Rohe o Waikato e Marohitia Nei: Section 32 Evaluation Report

59. CRA 2 marine space is subject to multiple competing demands for the use and protection of marine resources under a wide range of statutes. Fishing effort has been displaced as a result of multiple different types of closures implemented and proposed under a range of statutes for different purposes, giving rise to cumulative adverse effects on fishing. The mechanisms are not integrated, occur through ad hoc processes and applications without strategic planning, and their aggregate affect is poorly considered. In CRA 2 the number of successive closures and proposed restrictions also have a high process engagement cost and erode the confidence and security of industry affecting their incentives to invest in the resource and its future.

60. The failure to explicitly consider the impacts of fisheries displacement can result in decisions that are sub-optimal for fisheries sustainability. Displacement of fishing effort will likely lead to localised depletion outside the closed area as fishers compete to take their existing catch entitlements from a reduced area and, consequently, a smaller resource. Depleting the resource can, in turn, lead to stock-wide sustainability risks. Closures affect the economic value of fisheries – displacement of fishing effort adds costs for fishers (e.g., longer travel times, lower catch rates, different species mixes, increased competition, distance from land based facilities).

61. Displacement of effort into the remaining open areas increases spatial competition and acrimony between recreational, commercial and customary non-commercial fishers, can concentrate fishing which can increase environmental impact, and lead to further demands for closures and restrictions including from coastal hapu who seek to protect availability of seafood for their cultural and subsistence purposes in their rohe. In previous advice the Ministry has acknowledged that CRA 2 is fully utilised – where is it suggested the operators displaced from the closures go to fish their ACE without having negative effects ? These cascading impacts and demands create a negative spiral with no overall fisheries management benefits.

62. Fisheries displacement which results in localised depletion and further displacement in other areas may interfere with customary non-commercial fishing rights. The economic impacts of fisheries access loss will reduce the value of the commercial component of the fisheries settlement.

63. For these reasons, NZ RLIC suggests that a closure to the Inner Hauraki Gulf, in combination with the large number of other closures in CRA 2, in existence or proposed, is a drastic option that represents a failure to actively manage the issues in the Inner Hauraki Gulf by more targeted management interventions. Although there are currently only two commercial operators directly affected by the proposed closure[17], it is the cumulative impact of closures in CRA 2 that needs to be considered.

64. The purpose of the Fisheries Act requires provision for utilisation while ensuring sustainability - utilisation means conserving, using, enhancing, and developing fisheries resources to enable people to provide for their social, economic, and cultural well-being. We seriously question whether the sustainability situation is so extreme as to require preventing all commercial and recreational utilisation. This is particularly the case when;

[17] In the Discussion Document FNZ estimate that 0.5-2% of TACC is taken from Inner Hauraki Gulf over last five years. NZ RLIC is verifyinh this figure using a spatial analysis of ER/GPR data

a. abundance is already increasing in CRA 2 as a result of the management settings including the TAC reductions in 2018;
b. there are other management measures available to both constrain catch in the Inner Hauraki Gulf (see section 5.1 below) and more directly address urchin barrens (see sections 5.2 and 5.3 below).

5.1 Industry Code of Conduct

65. The CRA 2 operators fishing in the Hauraki Gulf have recognised the concern of the Ministry and other stakeholders about lobster abundance in the Hauraki Gulf and they are committed to supporting the ongoing recovery of abundance of spiny rock lobster within statistical area 905. To achieve this objective, the operators fishing this area have developed a formal Code of Conduct (See Appendix 1) containing the management and monitoring initiatives outlined below:

a. Ensure that catch in statistical area 905 is limited to levels of recent catch under the reduced 2018 TACC (13 tonnes), including with the implementation of an TACC increase to 100 tonnes for CRA 2 from 1 April 2025. Within that catch limit, catch in the Inner Hauraki Gulf will be limited to recent catch levels of s9(2)(b)(ii) [18]; and

b. Implement a Voluntary Closed Season the inner Hauraki Gulf, inside the area south of the line between Tawharanui (Elephant Point) and Cape Colville between the fourth Monday in October (i.e., Labour Day) and the 31st of March (i.e., end of the April fishing year). This will constrain commercial harvesting to the autumn-winter season, reducing interactions during the period of most activity by other stakeholders (spring-summer); and

c. Implement a Voluntary Maximum Grade Limit by returning to the sea all large spiny rock lobsters above F grade (ie 2.5 kilograms, 78 mm for males and 97 mm for females); and

d. Participate in the Voluntary Logbook Programme; and

e. Facilitate recognised initiatives to address kina barrens.

66. The four operators fishing statistical area 905 support the Code as an alternative to the proposed closure in the Inner Hauraki Gulf, and based on the 100 tonne TACC for CRA 2. They are willing to provide the information to support the implementation and monitoring of the Code. Signatories to the Code of Conduct agree to authorise Licensed Fish Receivers (LFRs) to whom they land to provide grade information on spiny rock lobsters harvested from 905 to NZ RLIC. They have agreed that NZ RLIC compile this information into an annual report that is provided to the Ministry and other stakeholders in the NRLMG and other relevant forums. While this is a voluntary industry initiative, the Ministry also has the ability to monitor the implementation of the Code through information it obtains through the Electronic Reporting and Geospatial Position Reporting (ER/GPR) regime.

67. A further advantage of these proposals is that there is an ongoing ability to monitor the abundance of rock lobster in the Hauraki Gulf through the information collected through the Voluntary Logbook Programme and ER reporting. This provides a time series of relative information on catch rate, length frequency and

[18] This figure is being verified using ER/GPR data and may be subject to change. s9(2)(b)(ii)

other metrics. Without this information there is no programme in place to monitor rock lobster abundance in this area.

68. The measures in this Code of Conduct provide credible arrangements to manage commercial fishing in the Hauraki Gulf to achieve the objective of ongoing recovery of abundance of spiny rock lobster and prevent an increase in commercial fishing effort. During discussions in the NRLMG, it was clear that the New Zealand Sport Fishing Council was willing to consider meaningful measures to substantially constrain recreational catch in the area. They noted there were regulatory options available to control recreational catch including bag limits, seasonal closures and increasing the minimum legal size. The Ministry should consider these options with the objective of controlling recreational catch so that abundance can increase in the inner Hauraki Gulf. An accumulation limit for CRA 2 should also be considered. Although it would not meaningfully constrain recreational take – it would help address illegal take which is still estimated to be at high levels in CRA2 (27.4 tonnes in the 2022 full assessment).

5.2 Closure to address kina barrens

69. The Discussion Document suggests a second purpose of the proposed closure would be to "address"[19] the issue of kina barrens by increasing the abundance of rock lobster. The Document suggest barrens are "particularly prevalent" within the Huaraki Gulf. Table 11 references four studies in the area defined as the Inner Huaraki Gulf, one of which found no barrens and another where barrens were observed but not quantified. Another study referenced is Kerr et al 2024. This study mostly considers areas further north than CRA 2 and uses a range of unpublished data sources from sites that may not be representative and represent a small part of the total area.

70. There is no evidence a closure to only lobster will "address" kina barrens or reduce the extent of kina barrens. This is an overstatement. Evidence from no-take marine reserves suggests that increased abundance of urchin predators (including rock lobster and snapper) can assist in reversing urchin barrens and support the re-establishment of kelp forest habitat. Recovery of kelp forest habitat within no-take reserves can take decades (Babcock et al., 2010; Shears & Babcock, 2003; Leleu et al., 2012). There are no examples in New Zealand of area closures to only rock lobster fishing that indicate how effective this type of closure would be in mitigating urchin barrens and restoring kelp forests.

71. FNZ proposes reviewing the efficacy of this proposed closure after 10 years. Given the evidence from marine reserves which are closed to all fishing, inferring recovery after 10 years seems very optimistic. No information is provided on the research programme or monitoring that would be used to show changes in rock lobster abundance or the benthic environment.

72. It may be administratively simpler to focus only on rock lobster, but it does not reflect the reality that a range of measures across harvested species are likely required. The focus only on lobster does not reflect what is clearly required by the Fisheries Act in considering associated and dependent species, addressing the adverse effects of fishing etc – all of which (and logic) suggest that multi-species focus is necessary. Snapper biomass is increasing in the combined Hauraki Gulf/Bay of Plenty complex, but its status relative to the biomass target is unknown. Rock lobster is currently at 154% of B_R and increasing.

[19] "*There is consensus among marine scientists that spatial closures of areas to rock lobster harvest will be an effective measure to increase the overall biomass and abundance of large rock lobster, that in turn can address urchin barrens*"

There is no rationale for closing the Inner Huaraki to rock lobster, but excluding snapper as a key predator of kina, perhaps more important than lobster (see para 357).

73. The inner Hauraki Gulf is also a receiving environment for run-off of sediment and contaminants, as well as stormwater and wastewater. Sedimentation and eutrophication are clearly factors which adversely affect macrophytes in some locations. Much of the Inner Hauraki Gulf is a severely modified habitat. The Ministry should be using that information to advocate strongly that steps are taken to address those land based contaminants. These issues are not addressed in the Discussion Document.

5.3 Direct measures to address kina barrens

74. Closure of the whole of the Inner Hauraki Gulf is a blunt and inefficient measure that imposes high costs. Closures targeted on identified barren locations would be far more effective (especially if combined with urchin removal – see below), and have much less cost or no cost (if the removed urchins are utilised) on all extractive users. This approach would be more consistent with the purpose and principles of the Act, allowing focus on reducing the extent of kina barrens without unnecessary impact on utilisation.

75. Despite the focus on urchin barren prevalence, information on their locations is incomplete, and has used inconsistent survey approaches. This incomplete information would not prevent trialling closures on those known barren locations and monitoring the outcomes. The approach would need to involve tangata whenua from the location from the outset and obtain their support.

76. The Discussion Document suggests a purpose of the Inner Huaraki Gulf Closure is to address the prevalence of kina barrens. Given the shortcomings and costs of a large closure, more direct measures should be considered. This is not a new suggestion. These sorts of measures were supported in NZ RLIC's submission in February 2022. At the time of the last CRA 1 TAC decision in April 2023, the Minister acknowledged that addressing urchin barrens would require a range of measures beyond a decrease to the catch limits of rock lobster including a direction to consider "targeted culling of kina" and other steps to directly increase removals of urchins.

77. We suggest that increasing removals of kina, particularly in barrens environments needs to have much more emphasis as a measure to address the prevalence of kina barrens. Evidence from marine reserves in northeastern New Zealand suggests that increased abundance of urchin predators can assist in reversing urchin barrens and support the re-establishment of kelp forest habitat. However, this recovery can take decades[20]. A recent study showed that a single large-scale urchin removal event promoted kelp recovery in urchin barrens within two years[21].

78. Urchin removal on its own may not address underlying issues that have led to formation of barrens. But, to the extent that lobster as a predator play a role – the biomass will continue to increase with the TACC increase option supported, along with the average size of lobsters.

[20] Babcock et al. (2010), Shears & Babcock (2003), and Leleu et al. (2012)
[21] Miller et al. (2024)

79. Urchin removals, particularly in barren environments can substantially accelerate recovery and should be an important part of the strategy to address the prevalence of barrens. Importantly, urchin removals have much less impact on extractive users that total closure, and in fact, where able to be used commercially, may represent a gain for utilisation. Urchin removal measures are consistent with the Act and for that reasons there is a responsibility to consider them – they address the environmental impact of barrens, and have less impact on utilisation that some other measures being considered.

80. Some modest steps have been taken to facilitate urchin removals including:

a) Increasing the catch limits for kina in East Northland (SUR 1A) and Auckland, Hauraki Gulf, and Bay of Plenty (SUR 1B). A TACC increase was made in 2023 – but was very conservative given the sustainable options generated based on the assessment information.

b) Increasing the recreational daily limit for kina[22]. We are sceptical that there will be a meaningful increase in recreational take. Any increase harvest will not take place in barrens. High densities of kina result in poor quality roe which is generally not sought for human consumption. Information on current recreational catch is poor, but thought to be significantly less than the previous allowance. There is little information on what proportion of fishers even took the previous bag limit of 50. It is not clear that the bag limit was constraining recreational take.

c) Authorising a new special permit purpose and traditional non-commercial fishing use to provide for urchin culling, translocation, and removal. Since this purpose was approved in July 2024 only 1 application has been received, which was still under consideration by the Ministry[23]. This is not a surprising outcome. The process to obtain the permit is administratively burdensome and poses significant barriers and costs to applicants. At the time of consultation on the special permit purpose NZ RLIC suggested that to get uptake on the use of the permits, the Ministry needed to take a more enabling approach rather than creating obstacles. This could include:

i. The Ministry provide/publish maps that identify the location and extent of barrens. It is acknowledged that mapping information is incomplete, but existing information could be provided, and built on as work continues. This would not exclude applicants identifying other barren areas that meet the criteria, but would facilitate the use of special permits. Requiring applicants to provide evidence of the size and location of barrens is a significant impediment to many smaller applicants.

ii. The requirement that the applicant has to demonstrate they have engaged with appropriate iwi and hapu is a significant barrier given the resources available to some applicants and the difficulty in identifying and contacting the relevant person/entities. The Ministry has a responsibility under s97(2) to consult with interested persons on the issuing of any special permit – this obligation should not be imposed on the applicant. We agree it is important to engage with the relevant coastal hapu – but the Ministry should facilitate that process for the applicant. This would serve as part of an enabling approach by the Ministry given the benefits of supporting removal of barrens.

[22] The recreational daily limit is a combined limit for kina (*Evechinus chloroticus*) and the long-spined urchin (*Centrostephanus rodgersii*).

[23] At the time of a response in October 2024

iii. Other mechanisms should be considered to enable and facilitate these operations including; waiver of permit fees, allowing use of UBA to facilitate the efficiency of removal / culling under a special permit authorisation (on trips where only urchins can be taken to minimise risk of illicit use to harvest rock lobster or paua), encouraging research into potential use of urchins removed (pet food, fertiliser bait, burley, sauces and flavourings etc), and considering the use of other means to eradicate urchins in barrens (e.g. "liming" – used in Norway).

81. The Discussion Document acknowledges the effectiveness of reducing urchin barrens at particular sites – but does not include any effective measures to do this. The Ministry focus on regulating lobster utilisation, and failing to implement meaningful active steps to more pro-actively address urchin abundance poses high cost and ignores potentially effective measures. Other, direct mechanisms to remove urchins need to be considered. These include:

a) Urchins can be removed from defined barren environments by culling. CRAMAC 2 QSOs are supportive of such initiatives. In the Code of Conduct (section 5.1 above) vessel operators in 905 have reinforced that support, potentially through in-kind contributions such as vessel time. Any initiative would need to be done in cooperation with tangata whenua in the location. Some tangata whenua have reservations about removal of kina because of concerns about impacting on availability for customary harvest, or opposition to removal without utilisation. However, given the claimed scale of the issue, test cases or pilots could be found where there was acceptance by tangata whenua. Successful test cases would build momentum;

b) Urchins could also be removed from defined barren environments by directed commercial harvesting. Understandably, given the current conservative TACCs, kina QSOs are unwilling to use current ACE to harvest in barren environments. However, at particular times of the year, a return can be obtained from kina even in barren environments. This could be authorised through a conditional modest TACC increase (e.g. a higher TACC with the increase only being able to be taken in barrens, or only outside areas of concern to tangata whenua, monitored using ER/GPR) or by another type of special permit;

c) Paying a bounty or subsidy for removal of urchins in barrens (as has been done in Australia); and

d) Higher TACCs to enable increased harvest of kina.

e) Seeding of macrophytes may usefully support urchin removal in areas where flora has been completely removed.

6. MANAGEMENT TARGETS

82. B_R is the reference level based on the vulnerable biomass level that can produce the maximum sustainable yield (MSY) from the fishery, tailored to the biological and fishery characteristics of CRA 2. This reference level is consistent with the requirement of the Fisheries Act 1996 (the Act) to maintain stocks at or above a level that can produce the *MSY* and is the default management target. Higher management targets mean reduction in yield, but an increase in CPUE and the average size of lobsters in the population.)

83. The second part of the purpose of the Act requires that the Minister provide for utilisation. Utilisation means conserving, using, enhancing, and developing fisheries resources to enable people to provide for their social, economic, and cultural well-being. The Act allows stocks to be managed at targets higher than B_{MSY} having regard to social, cultural, and economic factors[24].

84. The Act also requires the Minister to manage the adverse effects of fishing and take into account the environmental and information principles. The environmental principles include;

a) associated or dependent species should be maintained above a level that ensures their long-term viability:

b) biological diversity of the aquatic environment should be maintained.

85. The information principles (s10) include the requirement to base decisions on the best available information, be cautious when information is uncertain, and not use that uncertainty to defer taking measures to achieve the purpose of the Act.

86. The environmental principles mean that setting a management targets legitimately take into account ecosystem considerations such as the role the lobster has in the prevalence of urchin barrens. Barrens do represent areas of much reduced biodiversity and impact on associated and dependent species (although very unlikely to be to a level that threatens any species long term viability). However, as outlined above in section 4.1, it is acknowledged that rock lobster are only one of a number of predators of urchins. Their relative influence on kina abundance, or the biomass of lobster needed to control urchins is not known, and there are a number of other factors that affect both urchin and macrophyte abundance.

87. Management targets need to balance the considerations outlined above. A management target of 200% B_R provides for a substantially higher biomass (~670 tonnes versus 350 tonnes) and larger lobsters (approximately 60% increase in the number of lobsters >MLS) but means foregone yield (~14 tonnes) relative to B_R. It is recognised that the non-commercial sector will prefer the higher catch rates with a larger biomass. For commercial operators, catching costs are only one variable factor in the economic return for an operator and the return from landing ACE predominates. CRAMAC 2 support a management target between 175 and 200% of B_R.

88. A target of 350% B_R would mean substantially greater impacts on utilisation including through reduced yield (~87 tonnes) but with an increased catch rate and size of lobsters (~220% increase in lobsters >MLS)[25]. It is not clear that those foregone commercial utilisation benefits are justified given we do not know the extent to which this would help address the issue of kina barrens.

[24] S13(3) In considering the way in which and rate at which a stock is moved towards or above a level that can produce maximum sustainable yield under subsection (2)(c), the Minister shall have regard to such social, cultural, and economic factors as he or she considers relevant.

[25] FNZ – note that your figures for the numbers of larger lobsters with larger biomass appear to be inconsistent with the results provided by the Science Team in their October 2024 report. The table on p10 also suggests "increased survival, reproduction and development" with higher biomasses ? – no information is provided to explain or support that suggestion.

89. Given this balance of factors, the Minister would need to have compelling information to decide to manage at a biomass higher than 200% B_R at this time. That biomass is already double the default biomass target and takes a material additional step to address the environmental considerations associated with kina barrens and provision for the different management aspirations of non-commercial (recreational and customary) interests.

90. Given that higher biomasses clearly impact on commercial utilisation, if the rationale for a higher target relates to kina barrens, there is good argument that consideration should first be given to other more direct measures to address barrens such as outlined in section 5.3 above, rather than further compromise commercial utilisation.

91. NZ RLIC and CRAMAC 2 support an early decision on the biomass management target for CRA 2. Determining a management target is a necessary step in the process of developing and implementing a management procedure (MP) [26]. The high uncertainty about the TACC and its review since 2018 could have been avoided if an MP had been in place.

……..

Inquiries on this submission can be directed to the signatory below. Note that CRA 2 Rock Lobster Management Company Ltd has also made a submission.

NZ Rock Lobster Industry Council

s9(2)(a)

Chief Executive Officer

FNZ - On page 28 of the Discussion Document you reference Gall et al 2020 in suggesting pot damage to vulnerable benthic species. This UK study examined the effect of strings of pots that are hauled across the seabed during retrieval. The results are not applicable to NZ potting.

[26] Management procedures are set 'decision rules' that can be used to guide the Minister's setting of commercial catch limits (TACCs) based on changes in abundance (measured by changes in commercial catch rates ('catch-per-unit-effort' or 'CPUE')). Management procedures allow pre-determined and responsive changes to the TAC and TACC based on changes in stock abundance on an annual basis.

Appendix 1

Code of Conduct: 905 Rock Lobster Operators

Introduction

1. Following the formal rebuild initiated in 2018, the overall abundance of spiny rock lobster (*Jasus edwardsii*) in CRA 2 has increased. However, a number of stakeholders have raised concern that the abundance of these rock lobster in the Hauraki Gulf does not appear to have recovered in comparison to other areas in CRA 2.
2. To address these concerns and ensure that CRAMAC 2 is publicly perceived to be operating sustainably, CRA 2 operators harvesting in the CRA 2 area of 905 (see Fig 1.) are committed to contribute to the ongoing recovery of this area . Operational objectives are proposed by the operators to meet key performance indicators (KPIs) that NZ RLIC will monitor and report quarterly against.

Figure 1. Signatories are committed to contribute to the recovery of the area between the CRA 2 northern boundary (Te Arai Point) and the 905 southern boundary (Cape Colville). Statistical area 905 (black line), encompassing the marine area from Waipu River to Cape Colville, and the CRA 2 QMA (yellow line) northeastern boundary at Te Arai Point.

Objectives

3. The goal is for stakeholders to recognise that resident 905 operators are sustainably harvesting rock lobster, with an objective that the abundance of spiny rock lobster within statistical area 905 continue to increase.
4. To achieve this, parties to this 905 Code of Conduct agree to the following management and monitoring initiatives for the statistical area 905 of the spiny rock lobster fishery:
    f. Ensure as far as possible that the 905 Catch Limit is not exceeded; and
    g. Adhere to the Voluntary Closed Season; and
    h. Adhere to the Voluntary Maximum Grade Limit; and
    i. Participate in the Voluntary Logbook Programme; and
    j. Be willing to facilitate recognised initiatives to address kina barrens.

Scope

5. This Code of Conduct only relates to CRA 2 operators harvesting spiny rock lobster in 905, but is part of the management approaches being implemented by CRAMAC 2 across all of statistical areas (905, 906, 907 & 908).
6. This Code of Conduct is intended to provide a minimum expectation of conduct in statistical area 905.
7. This Code of Conduct does not preclude individual companies or fishers from implementing measures that exceed those included in this agreement.
8. Signatories to the Code of Conduct agree to authorise the release of their Electronic Reporting and Geospatial Position Reporting (ER/GPR) data to NZ RLIC to assess adherence to the relevant initiatives.
9. Signatories to the Code of Conduct agree to authorise Licensed Fish Receivers (LFRs) to whom they land to provide grade information on spiny rock lobsters harvested from 905 to assess adherence to the relevant initiatives.

Catch Limit

10. Signatories agree not to collectively land more than 13.0 tonnes of spiny rock lobster at the 2018 TACC, as outlined for each permit holder/vessel in Table 1.

Client Number	Permit Holder	Vessel	Catch Limit (kg)
s9(2)(b)(ii)			4,000
			3,000
			3,000
			3,000

Table 1. Signatories client name, permit holder name, registered vessel name and individual catch limit for 905.

11. In the event of a TACC increase to 100 tonnes, signatories agree not to collectively land more than 13 tonnes of spiny rock lobster at the 2025/26 TACC as outlined for each permit holder/vessel in Table 1.

12. Signatories agree not to collectively land more than 2 tonnes of spiny rock lobster from the inner Hauraki Gulf (see paragraph 15) at the 2025/26 TACC.
13. If the TACC is increased beyond 120 tonnes the individual, inner Hauraki Gulf and 905 Catch Limit will be reviewed.
14. The Code's KPI for the Catch Limit is 100% adherence by signatories.

Voluntary Closed Season

15. The Voluntary Closed Season applies to the inner Hauraki Gulf – the area south of the line between Tawharanui (Elephant Point) and Cape Colville (see Fig 3).
16. Signatories agree not to harvest spiny rock lobsters in this area between the fourth Monday in October (i.e., Labour Day) and the 31st of March (i.e., end of the April fishing year). This will constrain commercial harvesting to the autumn-winter season, reducing interactions during the period of most activity by other stakeholders (spring-summer).

Figure 3. Seasonal closure area in the inner Hauraki Gulf (grey line), encompassing the marine area southwest between Elephant Point at Tāwharanui Peninsula and Cape Colville.

17. The Code's KPI for Voluntary Closed Season is 100% adherence by signatories.

Voluntary Maximum Grade Limit

18. Signatories agree return spiny rock lobsters above 2.5 kilograms (i.e., F grade, presumed to be 78 mm for

males and 97 mm for females) to the sea.

19. Where signatories harvest in statistical are 905 and 906 on the same fishing trip, they will end their fishing event at the last pot in 905, start a new fishing event in 906 and detail in the comments of the Fish Catch Report the number of spiny rock lobsters harvested above 2.5 kilograms.
20. Where signatories harvest spiny rock lobsters above 2.5 kilograms outside of 905 and place or remove them from holding, they will detail in the comments of the Fish Catch Report the number of spiny rock lobsters above 2.5 kilograms.
21. The Code's KPI for the Voluntary Maximum Grade Limit is 100% adherence by signatories.

Voluntary Logbook Programme

22. Signatories agree to collect data as specified in the Voluntary Logbook Programme Instructions (see Appendix 1) on spiny rock lobsters from 4 representative pots each fishing trip.
23. The Code's KPI for the Voluntary Logbook Programme participation is 100% adherence by signatories.

Facilitation of Initiatives to Address Kina Barren

24. Where initiatives to address kina barrens have been recognized by NZ RLIC and CRAMAC 2, signatories agree to facilitate reasonable, pre-arranged requests to assist these initiatives (e.g., transportation to barren sites within 905 to support urchin removal).
25. The Code's KPI for facilitating initiatives to address kina barrens is 100% adherence by signatories.

Assessment and Review

26. NZ RLIC will request ER/GPR data from Fisheries New Zealand (FNZ) quarterly and undertake an analysis to confirm:
    a. The amount of CRA ACE harvested from fishing events within 905; and
    b. Whether any fishing events (and associated GPR positions) indicate spiny rock lobster are being harvested from with the Voluntary Closed Season area between Labour Day and March 31st; and
    c. Whether logbook information is being collected from all fishing trips.
27. NZ RLIC will request landed grade information from LFRs quarterly and undertake an analysis to confirm whether any spiny rock lobsters landed from 905 are above F grade.
28. NZ RLIC will provide an individual report to each of the signatories, and an overall report at the end of each quarter to CRAMAC 2. A yearly report will be presented to relevant organisations (e.g., the National Rock Lobster Management Group, the Hauraki Gulf Forum, etc.).
29. The Code's KPI for is 100% adherence by signatories.

Agreement

30. I agree to abide by the Code of Conduct, and respective initiatives, described above.

NZ ROCK LOBSTER
INDUSTRY COUNCIL LTD
Ka whakapai te kai o te moana

OTAGO ROCK LOBSTER
INDUSTRY ASSOCIATION INC.

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29th January 2025

REVIEW OF SUSTAINABILITY MEASURES FOR CRA 7 FOR 1 APRIL 2025

A submission on behalf of the New Zealand rock lobster industry.

Contents

CRA 7 STOCK STATUS

INTRODUCTION

1. The New Zealand Rock Lobster Industry Council (NZ RLIC) is the umbrella organisation for the nine regional organisations known as CRAMACs, which operate in each of the rock lobster (CRA) management areas of New Zealand. CRAMAC membership comprises CRA quota share owners (QSOs), Licensed Fish Receivers (LFRs), and fishermen (QSO and Annual Catch Entitlement (ACE) operators) in each region. This includes the Otago Rock Lobster Industry Association (ORLIA), the organisation representing *Jasus edwardsii* (hereafter referred to as rock lobster) quota share owners and operators from CRA 7, the Quota Management Area (QMA) extending from the Waitaki River South Head Aero Beacon to the southernmost point of Long Point.

2. ORLIA is a fully constituted and registered incorporated society that has oversight of an annual workplan funded by statutory levies and fees for service income, and are actively involved in rock lobster stock monitoring programmes in support of stock assessments and sustainability decisions. ORLIA members take an active interest in consultations that may impact the sustainability of the wild fishery, and the right of ACE owners to harvest under the Quota Management System (QMS) as set out in the Fisheries Act 1996 (Fisheries Act)

3. NZ RLIC represents about 430 quota share owners in the nine CRA stocks nationally and the PHC stock. CRA rock lobster landings in the 2023/24 fishing year were 2,706 tonnes, almost all of which was exported live to Asian markets. PHC landings were 49 tonnes. Rock lobster generated export revenue (FOB) of around $385 million in calendar year 2023. The industry deploys around 210 vessels[1], employs 1,800 people directly and indirectly in the harvesting sector[2], lands lobster at around 100 landing points with that product going to about 37 depots, processing and export facilities. The industry supports an extensive network of transport, engineering, electronics and provedoring businesses.

4. This submission is made jointly by ORLIA and NZ RLIC in regard to the consultation by Fisheries New Zealand (FNZ) on the review of sustainability measures for spiny rock lobster (CRA 7) for 2024/25. The statements and positions outlined below should be attributed to each organisation separately in any subsequent reference material, such as advice to the Minister for Oceans and Fisheries.

Stock Assessment

5. Due to the movement of larvae and migration of adults between CRA 7 and CRA 8, these stocks are considered to be interrelated and so were assessed together in 2021 by a fully quantitative stock assessment as one biological stock across two regions. The two region model combined the two CRA 7 statistical areas with four CRA 8 Southland statistical areas (including Stewart and Snares islands) as one region, and a second region consisting of the three CRA 8 Fiordland statistical areas (Fiordland).

6. The 2021 full stock assessment modelled the combined stocks vulnerable biomass to be above the maximum sustainable yield (MSY) based reference level (B_R)[3] at 146%, projected to increase to 169% of B_R by 2025. Vulnerable biomass was modelled to be 21% of the

[1] landing > 1 tonne annually in 2023/24
[2] BERL 2021
[3] This reference level is designed to meet the requirements of section 13 of the Fisheries Act to manage stocks at or above a level that will produce the MSY

unfished vulnerable biomass (B_0) in 2021 and projected to increase to 25% of B_0 by 2025. Spawning stock biomass (SSB) was modelled to be 48% of the unfished biomass (SSB_0) in 2021, well above the soft limit of 20% SSB_0, and projected to increase to 54% of B_0 by 2025.

7. Based on the 2021 full assessment, in 2022 the total and commercial catch limits (TACs and TACCs) of the CRA 7 & 8 stocks were increased. The CRA 7 TAC was increased from 126.2 tonnes to 134.5 tonnes (7% increase). Within this, the allowance for other sources of mortality caused by fishing was increased from 5 tonnes to 8 tonnes (60% increase), and the TACC was increased from 106.2 tonnes to 111.5 tonnes (5% increase). The TAC in CRA 8 was also increased from 1,282.7 tonnes to 1,453 tonnes (13% increase). Within this, the allowance for other sources of mortality caused by fishing was increased from 28 to 139 tonnes (396% increase), and the TACC was increased from 1,191.7 tonnes to 1,251 tonnes (5% increase).

8. Rapid assessment updates (rapid updates) are conducted annually between full stock assessments, incorporating the most recent data into the base case stock assessment. This includes length frequency data from the logbook and catch sampling stock monitoring programmes, tagging data and the commercial catch statutorily reported in the intervening years.

9. The most recent rapid update for CRA 7 & 8 was undertaken in 2023, which indicated that vulnerable biomass in CRA 7 and CRA 8 has increased in recent years. The CRA 7 and CRA 8 combined vulnerable biomass has been estimated to be at 25% of B_0 and above B_R. The combined spawning stock biomass of these stocks is now estimated to be at 54% SSB_0, above the default management target of 40% SSB_0. A rapid update for CRA 7 & 8 was not undertaken in 2024 at the direction of FNZ.

10. The status of CRA 7 in relation to the default management target of 40% SSB_0 cannot be reliably estimated. However, the best available information suggests that CRA 7 is likely to be at or above 40% SSB_0 and is likely to increase in abundance in the near future. Abundance of spiny rock lobster in CRA 7 has increased in the last decade and remains high compared to historical levels.

Management Targets

11. Management targets can be set at or above the B_R reference level, depending on social, cultural, ecological, and economic factors, as well as views provided by tāngata whenua and stakeholders to the Minister. In setting targets, the environmental principles in the Act, including the role of spiny rock lobster in maintaining biodiversity in the marine environment, need to be considered. Management targets also take into account fishery implications such as predicted yields and catch rates.

12. The estimate of B_R for the combined CRA 7 and CRA 8 stocks is no longer considered to be reliable, following unsuccessful attempts to estimate B_R for each of the regions independently of each other. While a default B_R management target of 40% of the unfished spawning stock biomass (SSB_0) could be used to provide guidance, the stock characteristics meant this approach was not appropriate for CRA 7.

CRA 7 MANAGEMENT PROCEDURE

13. Management procedures (MPs) are simulation-tested decision rules, or functions, often referred to as harvest control rules (HCRs), that specify one or more inputs and return an

output value. New Zealand rock lobster MPs use standardised catch per unit effort (CPUE) as the input and a catch limit as the output. Other controls, such as minimum or maximum change thresholds, may also be used to modify the output.

14. MPs provide for responsive (annual, if appropriate) changes to catch limits based on stock abundance as assessed by commercial catch rates. Rock lobster MPs are developed through the stock assessment process and incorporate offset year data to reduce the time lag in response to information from the fishery. Simulations are used to assess and test MPs, included testing to assess the robustness of the proposed procedures to any known uncertainties, model assumptions (e.g., variable levels of recruitment and non-commercial catches) and management settings (such as a high probability of remaining above the soft limit of 20% SSB_0).

15. MPs provide greater certainty about how fishery information will be applied to address sustainability issues or provide for utilisation and achieve management goals. They can significantly reduce the transaction cost of the process between the Ministry and stakeholders to interpret and apply fishery information.

16. In 2023, the Working Group and Plenary approved CPUE series for CRA 7 and CRA 8 to support the reinstatement or development of MPs for both fisheries. For CRA 7 the Plenary accepted standardised CPUE based on catch effort landing returns (CELR) until 2019 and ERS data from 2020 as the abundance metric to inform the MP.

17. The improved CPUE standardisation is considered to be conservative because it takes into account vessel effects and efficiency gain over time (and therefore the MP will be more conservative). The Plenary agreed that the ERS CPUE series in CRA 7 was considered to be reliable due to the quality of ERS data in this area, allowing an extension of the previously used CELR CPUE time series index.

18. For CRA 7, the current MP is a reinstatement of the procedure which applied to CRA 7 prior to 2019. This procedure was successful for the stock resulting in marked overall increase for the stock over an eight-year period. Although the MP could not be evaluated against the 2021 assessment, the Plenary considered there to be little risk given the degree of increase in CRA 7 biomass, the annual use of rapid updates to assess the stock status, and the four-year term of the MP – it is scheduled to be revised/replaced following the 2027 full assessment.

19. The use of the 2024 MP to guide management of the CRA 7 stock through to the 2027/28 fishing year (when the next full stock assessment is scheduled) was supported by the majority of CRA 7 stakeholders during the 2024 consultation. This included Te Rūnanga o Ngāi Tahu, Te Ohu Kaimoana, several commercial fishing stakeholders, ORLIA and NZ RLIC.

20. FNZ considered that "*implementing the management procedures would have significant benefits for management of both* [CRA 7 & 8] *fisheries, including helping maintain the combined CRA 7 and CRA 8 stocks at or above MSY until the next stock assessment"* and "*considers that the risks of implementing the management procedures are limited and outweighed by the potential benefits*"[4]. They recommended that the CRA 7 MP be reinstated, which was agreed by the Minister in 2024[5].

[4] Fisheries New Zealand Discussion Paper No: 2024/04

[5] Minister's decision letter for 1 April 2024

21. The operation of the CRA 7 MP, using the 2023/24 CPUE of 3.105 kg/potlift (up from 2.503), corresponds to a TACC of 123.4 t, indicating that there is an opportunity for increased utilisation of the stock. The Otago Rock Lobster Industry Association (ORLIA) and NZ RLIC and support Option 2 – a moderate increase in the TAC to 150 t from 1 April 2025, effected through a ~10% increase to the TACC to 123 t and other sources of mortality to 12 t. This aligns with the position of Te Rūnanga o Ngāi Tahu, who also support the option to increase the TACC to 123 t.

Considerations

Independent review of rock lobster assessment process

22. In 2024, an international, fully independent panel of three scientists reviewed the assessment models, associated biological reference points, rapid assessment updates and MPs used to inform the management of rock lobster stocks in New Zealand (de Lestang, Haddon & Hoyle; 2024). The panel endorsed the modelling framework as "*a sophisticated state-of-the-art modelling approach, utilising the latest statistical methods with excellent performance*" and strongly supported it's continued use with further development and a number of recommendations.

23. The panel raised concern with approaches that facilitate increases in TACCs between full assessment years due to increased uncertainty, stating "*… it is good practise to allow for the TACC to decrease between full assessments but not increase. Increasing a TACC between full assessments can only increase potential risks to the stock.*". All TACC increases can increase the potential risks to the stock, though a TACC increase in the year immediately following a full assessment is likely to have the least risk. However, it is not clear:

a) what good practices the panel is referencing; and
b) whether these good practises account for updated information between full assessments, such as rapid assessment updates and current CPUE used to inform MPs.

24. Assuming good practises account for updated information between full assessments, recent literature on good practices in stock assessments does not seem to support the statement that adjustments to TACCs between full assessments should only be decreases (Cope, 2024; Punt, 2023; Punt, 2024). Cope (2024) notes that risk tolerance in HCRs is often expressed via buffers on management metrics – for rock lobster MPs, minimum or maximum change thresholds are incorporated to provide risk tolerance. For CRA 7, the MP requires that the CPUE input result in a minimum change of 10% to the current TACC, and no more than a maximum change of 50%.

25. The panel highlighted that CPUE-based MPs assume that increases in CPUE are directly related to increases in the stock's vulnerable biomass, rather than other factors (such as a change in fishing behaviour or gear). However, the stock assessment process includes a CPUE standardisation to account for vessel effects and efficiency gain over time, so the CPUE used in the full assessment, rapid update assessments and MPs do take into account these factors.

26. The panel acknowledged that MPs based on rapid updates would be a preferred way of managing stocks between full assessments. While the rapid updates for CRA 7 & 8 are not directly applicable to CRA 7, the rapid assessment update for Region 1 estimated an increase in vulnerable biomass from 18.1 to 19.5% of B_0. This supports that the assumption that an increase in the CRA 7 CPUE is due to increases in the stock's vulnerable biomass.

27. Further good practise in developing risk tolerance of MPs is to ensure they are pre-agreed and understood by managers, stakeholders and rightsholders. CRA 7 has had MPs since 1996, with the most recent MP operating since 2013 and is well understood by these groups. ORLIA and NZ RLIC would agree with FNZ that "*the previous successful operation* [of the CRA 7 MP] *reduces any sustainability risk that might occur from using a CPUE-based procedure*".

Environmental Considerations

28. The interdependence of stocks involves the consideration of the effects of fishing on associated stocks affected by fishing for the target stock. The consultation document places particular focus on fisheries induced trophic cascades and the formation of urchin barrens. An outline of the relationship between rock lobsters and urchins and the associated considerations under the Fisheries Act is detailed in the corresponding NZ RLIC submission on CRA 2 (paragraphs 35-39 & 74-81).

29. While urchin barrens occur in southern New Zealand, they do not appear to be extensive, and bottom-up forces like marine heatwaves and land-based inputs may play a stronger role in controlling kelp distribution than fishing effects on the food web (Udy et al., 2019, Wing et al., 2022). Other environmental stressors (such as sedimentation, nutrient pollution and SST warming) have been shown to be important in reducing kelp density (for example in Marlborough) and these factors are not as prevalent in Fiordland (Udy et al 2019). Urchin barrens do not seem to be the issue that they are in some locations (northeast of North Island, Marlborough). At survey sites in CRA 7 (including the Catlins), urchins were relatively rare and urchin barrens were not reported (Shears & Babcock, 2007).

30. While there is uncertainty in the threshold of abundance and size structure of spiny rock lobster required to reverse or prevent further spread of urchin barrens (along with other predators and a range of other factors affecting urchin and kelp distribution and abundance), the relatively high biomass in CRA 7 is expected to be maintained under the operation of the MP and overall biomass of rock lobster in CRA 7 may not reduce compared to the current level. Therefore, to the extent there is a relationship between lobsters, urchins and kelp in CRA 7, the current lobster abundance is expected to maintain predation pressure on urchin and mitigate against the formation of barrens.

31. The consultation document also notes that, as CRA 7 & 8 are considered to be one biological stock, a TAC decision for one of these two stocks can have an influence on the status of the other interdependent stock. As the combined status of CRA 7 & 8 is estimated to be well above the interim management target and the proposed CRA 7 TACC increase being relatively modest (<9% of the CRA 8 TACC), ORLIA and NZ RLIC agree with FNZ that *"it is unlikely to have any significant impact for the CRA 8 stock*".

SEMPA

32. Productivity is an essential consideration in assessing and managing a stock – for rock lobster, the amount of suitable habitat is directly related to yield. Rock lobster settlement is limited to rocky reef habitat and once they settle and start to grow, tag recapture data from most CRA QMAs supports the absence of any alongshore movements of significant distances along the coastline. Therefore, the closure of an area that contains rock lobster habitat

effectively prevents this from being available to fishing, reducing the available yield for a QMA[6].

33. CRA 7 & 8 are the exception to the absence of longshore movement of rock lobster. Tag recapture data indicate a south-westerly migration of rock lobsters from CRA 7 to CRA 8, and an absence of mature females in CRA 7. However, these migrations do not occur consistently, limiting the opportunity for operators to target rock lobsters as they leave rocky reef habitat. Migration is also unlikely to occur for several years after the lobster has settled and grown. For these reasons, a closure in CRA 7 or 8 also effectively reduces the available yield for these stocks.

34. The consultation document notes that the proposed TACC increase and CRA 7 MP does not take into account "*the risk of increased relative fishing pressure in CRA 7 from displacement of ~5.1% commercial fishing effort that could occur from implementation of potential marine reserves* [the South-East Marine Protection Areas (SEMPA)]". There is uncertainty as to how this increase may impact fishing in areas outside of the marine reserves.

35. NZ RLIC and CRAMACs such as ORLIA have consistently raised concerns with the impact of displacement that can occur due to the exclusion of commercial fishing from rocky reef habitat through area closures such as SEMPA. There is currently a judicial review on the decisions made by the relevant Ministers to promulgate these marine reserves. ORLIA and NZ RLIC welcome FNZ's acknowledgement that closures such as these need to be considered in setting sustainability measures such as the TACC.

36. However, it would be premature to account for the loss of productivity in CRA 7 that would occur, as there is genuine uncertainty as to whether the areas as consulted on will be implemented. Until these closures have been ratified by Parliament, these areas are able to be accessed and continue to contribute to the current productivity of the CRA 7stock. ORLIA and NZ RLIC agree with FNZ that "*the proposed TAC increase is considered small, and ongoing CPUE updates allow for timely management response*". Further, the use of commercial CPUE as the input of the CRA 7 MP will account for any impact on effort and associated catch caused by this displacement. If there is a significant decrease in CPUE, the MP will suggest a corresponding TACC adjustment for consultation.

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Inquiries on this submission can be directed to the signatories below.

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[6] Dr Webber affidavit. Para 26-36, CIV-2020-485-320

Submission by the

Royal New Zealand Society for the

Prevention of Cruelty to Animals Inc.

on

Review of Sustainability Measures for Fisheries - April 2025 Round

29 January 2024

Executive Summary

- SPCA advocates that all aquatic animals should have a Good Life, where their needs are met, and they experience positive welfare.
- SPCA supports greater regulation and oversight of the CRA 7 fishery due to the negative impacts of commercial and recreational fishing on the ecosystems and animals that call these places home.
- SPCA supports using a higher biomass management target for managing the CRA 2 rock lobster stock. Given the recent conflicting assessments of rock lobster biomass and the uncertainties of climate change, our organisation favours a more precautionary approach to rock lobster management.
- SPCA supports Option A1 for maintaining the status quo for the Total Allowable Catch of rock lobster in CRA 2. We do not think the biomass levels reflect gains that warrant an increase in Total Allowable Catch and think a more precautionary approach is needed.
- SPCA supports Option B2 to close the inner Hauraki Gulf to rock lobster fishing for CRA 2.
- SPCA supports research that aims to clarify the impacts of anthropogenic stressors on rock lobster populations, including the impacts of climate change, land use, and fishery closures.
- SPCA is concerned about the impacts of fishing practices on non-target animals such as cetaceans and further supports research into reducing welfare harms caused by entanglements with sea gear.
- SPCA supports Option 1 for CRA 7 which increases the allowance for all other mortality caused by fishing based on updated information but does not increase the Total Allowable Commercial Catch.
- SPCA does not support an increase to the Total Allowable Commercial Catch for the TOR 1 fishery due to the risks of bycatch of seabirds, mammals, sea turtles, and sharks in surface longline fishing.

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Introduction

The following submission is made on behalf of The Royal New Zealand Society for the Prevention of Cruelty to Animals (trading as SPCA).

SPCA is the preeminent animal welfare and advocacy organisation in New Zealand. The Society has been in existence for over 150 years with a supporter base representing more than 100,000 New Zealanders across the nation.

The organisation includes 28 Animal Welfare Centres across New Zealand and approximately 60 inspectors appointed under the Animal Welfare Act 1999.

SPCA welcomes the opportunity to submit on the consultation for the Review of Sustainability Measures for Fisheries- April 2025 Round.

Submission

SPCA advocates that all aquatic animals should have a Good Life, where their needs are met, and they experience positive welfare. Animal welfare refers to how an animal feels based on their situation, which is impacted by factors such as nutrition, health, environment, and behavioural interactions with their environment, other animals, and people (Mellor et al., 2020).

Healthy habitats are important for wild animal welfare. The welfare of wild animals is directly impacted by their ability to use their habitat to express important behaviours such as resting, sleeping, exploring, rearing offspring, building nests, and social interactions. Wild animals need healthy habitats to find appropriate amounts and types of food and maintain their physical health.

Below we provide feedback on the proposed Sustainability Measures April 2025 Round for CRA 2, CRA 7, and TOR 1.

CRA 2

SPCA supports greater regulation and oversight of the CRA 7 fishery due to the negative impacts of commercial and recreational fishing on the ecosystems and animals that call these places home.

Do you support using a higher biomass management target for managing the CRA 2 stock?

What do you think of the ranges of biomass management targets discussed? Do you support any management target in particular?

SPCA supports using a higher biomass management target for managing the CRA 2 rock lobster stock. We support the protection and recovery of ecosystems within the CRA 2 fishery at the fastest rate and therefore, support setting the biomass management target greater than 3X B_R.

SPCA acknowledges recent stock assessment indicates an increase in adjusted vulnerable biomass of rock lobsters. As discussed in the consultation document, independent assessments of rock lobster biomass based on comparisons between no-take marine protected areas and fished areas indicate recent stock assessments have overestimated rock lobster biomass after the 2018 reduction in Total Allowable Catch.

SPCA appreciates the uncertainties involved in setting biomass targets for rock lobsters in CRA 2 and agrees with Fisheries New Zealand that the impacts of climate change (Oellermann et al., 2020; Roberts & Webber, 2024 – in review) and coastal development make it difficult to anticipate the recovery of kelp forest / reduction in kina barrens. It is also unclear how the increase in rock lobster biomass relates to the health of kelp forests and impacts on urchin barrens (Doheny et al., 2023).

Given these uncertainties, our organisation values a more precautionary approach that values the long-term sustainability of the marine habitats in CRA 2 over the immediate economic benefits of keeping the biomass targets at a lower level.

What do you think of the proposed TAC options? Do you support one of the options in particular?

SPCA supports Option A1 for maintaining the status quo for the Total Allowable Catch of rock lobster in CRA 2. We do not think the biomass levels reflect gains that warrant an increase in Total Allowable Catch and think a more precautionary approach is needed. Keeping the status quo for Total Allowable Catch will also complement setting higher targets for biomass targets for rock lobsters.

Do you support the proposal to close the inner Hauraki Gulf to all commercial and recreational rock lobster fishing?

SPCA supports Option B2 to close the inner Hauraki Gulf to rock lobster fishing. SPCA is pleased to see that ongoing monitoring will be undertaken to determine the impact of closing the Hauraki Gulf for rock lobster fishing.

How could the proposed measures impact you?

SPCA will not be directly impacted by the closing of the inner Hauraki Gulf to rock lobster fishing. Our organisation views the closure of the inner Hauraki Gulf for rock lobster fishing as important for the welfare of all animals living in the Hauraki Gulf by helping ensure their environments are healthier.

Do you think any additional measures should be considered?

SPCA supports continued research on the relationship between predators such as rock lobster and snapper, other potential predators such as pack horse lobsters, and the impacts of Total Allowable Catch on the presence of kelp forests and urchin barrens. SPCA supports research that aims to clarify the impacts of anthropogenic stressors on rock lobster populations, including the impacts of climate change, land use, and fishery closures.

SPCA is concerned about the impacts of fishing practices on non-target animals such as cetaceans and further supports research into reducing welfare harms caused by entanglements with sea gear (Pierre et al., 2022). SPCA advocates for more oversight of fishing gear that becomes lost, abandoned, or discarded. Discarded and lost gear is a major threat to many

marine animals (Stelfox et al., 2016), including seabirds (Gilman et al., 2016; Good et al., 2009), therefore our organisation advocates that policy for reducing the fishing-related threats to seabirds include more oversight of derelict gear.

What are your aspirations for the CRA 2 fishery? Do you think there is another way to realise this outside of this discussion document?

SPCA supports an ecosystem-based approach to fisheries management that identifies the impacts of fishing on ecosystems and the welfare of target and non-target species. Animal welfare and the humane treatment of fish and marine mammals is an important societal expectation that impacts the sustainability of the commercial fishing industry in New Zealand (Office of the Prime Minister's Chief Science Advisor, 2021). Current fisheries management has created disincentives for using good fishing practices to reduce the catch of unwanted fish; this contributes to fish wastage, illegal activity, and the unnecessary suffering of target and non-target species.

Our organisation supports the establishment and maintenance of marine reserves and conservation zones in areas of ecological significance to preserve genetic diversity, promote biodiversity, and protect the environment and animals from human impacts. All aquatic animals should have a good life and have places where they can thrive, such as sanctuaries and refuges. Their welfare is intimately linked with their ability to find food, rear offspring, build nests, find roosts or habitats suitable for laying eggs, and engage in social interactions and normal behaviours.

CRA 7

Which option do you support for revising the TAC and allowances of CRA 7? Why?

SPCA supports Option 1 which increases the allowance for all other mortality caused by fishing based on updated information, but does not increase the Total Allowable Commercial catch, consistent with recommendations in de Lestang et al. (2024).

SPCA also supports Option 1 because this is a more precautionary approach towards the number of rock lobsters removed from kelp forest ecosystems in CRA 7. Given the increased attention

to rock lobsters' role in maintaining kelp forest health, we think it prudent not to increase the Total Allowable Commercial Catch.

Do you support the use of the management procedure in informing the TACC in CRA 7? Why?

SPCA is pleased to see the recommendations of independent scientists are followed instead of management procedures that would increase the Total Allowable Commercial Catch.

SPCA is concerned that there is a reported 10.9 tonnes of handling mortality discussed in the consultation document. SPCA considers reducing the handling mortality as an opportunity to further increase the sustainability of the CRA 7 fishery and minimise harm to rock lobster welfare.

TOR 1

Which option do you support for revising the TAC and allowances? Why?

SPCA does not support an increase to the Total Allowable Commercial Catch for the TOR 1 fishery due to the risks of bycatch of seabirds, mammals, sea turtles, and sharks in surface longline fishing.

SPCA does not support an increase in the recreational allowance. SPCA opposes big game fishing due to the prolonged pain, injury, and distress caused to the fish. Fish that are released face mortality. Therefore, we do not support any allowance for recreational fishing of southern bluefin tuna.

Commercial fishing interactions with gear and vessels are the leading causes of mortality and morbidity for many seabirds (Crawford et al., 2017; Dias et al., 2019; Jiménez et al., 2012; Yeh et al., 2012; Žydelis et al., 2013). Seabird interactions with fishing gear can lead to injuries that cause immediate or eventual death (Bull, 2007; Wilson et al., 2014). Seabird interactions with fishing gear can lead to pain, and injuries may impede their ability to swim or capture food thus, likely leading to hunger and frustration (see Mellor, 2017). The dependent offspring's welfare is an important consideration in fishing-related mortality and morbidity (Whitehead et al., 2019).

Losing a parent or having a compromised parent can lead to a chick experiencing hunger, dehydration, and thermal vulnerability which can lead to pain, fear, and distress (see Mellor, 2017), and eventual death.

Different shark species are at risk of being caught as bycatch in surface longline fisheries with estimated at-release and post-release survivability ranging from high to low depending on the species (Moore & Finucci, 2024). SPCA advocates for mitigation methods that reduce the risk of capture and at-release and post-release mortality for sharks caught in surface long lines.

Leatherback turtles are bycatch primarily in surface longline fisheries (Dunn et al., 2023, 2024; Finucci & Dunn, 2024). SPCA is concerned that this number has been reported to be increasing and that the reports are entirely fisher-based (Dunn et al., 2023, 2024; Finucci & Dunn, 2024). SPCA acknowledges the uncertainties with the post-release survivability of leatherback turtles caught in surface longline fisheries (see Dunn & Finucci, 2024). Therefore, we advocate for mandatory training of surface longline vessel staff in the handling and releasing of leatherback turtles to help increase the post-survival rate (see Dunn and Finucci, 2024).

Do you have any concerns about potential impacts of the proposed options on the aquatic environment?

SPCA urges Fisheries New Zealand to include bycatch mitigation measures such as seasonal and temporal restrictions on commercial fishing to reduce the negative impacts on animals such as seabirds and turtles (see Dunn et al., 2023, 2024; Yeh et al., 2012).

Background

Wild animals face multiple anthropogenic threats that lead to heavily degraded ecosystems where meeting basic biological needs becomes more difficult (Aguirre, 2017; Groner et al., 2016; Paquet & Darimont, 2010; Shields, 2019). Aquatic animals face immediate threats from the cumulative impacts of commercial fishing, aquaculture, mining, chemical pollution, coastal nutrient and sediment input, invasive species, and harmful algal blooms (Gordon et al., 2010; Rae et al., 2023). Cumulative pressures from anthropogenic activities increase the vulnerability

of marine animal populations to further threats of habitat loss, depleting prey stocks, water pollution, and the overarching longer-term threats of climate change (Joseph et al., 2023).

Climate change, including global warming, rising air and water temperatures, heat waves, water acidification, and extreme weather events negatively impact the welfare of animals (Aguirre, 2017; Almiron & Faria, 2019; Fraser et al., 2012). We are experiencing a devastating decline in biodiversity and the condition of marine habitats (Ministry for the Environment, 2019), which impacts all aquatic animals and renders our marine environments less resilient to climate change.

SPCA supports the rapid rollout of onboard cameras on 100% of New Zealand's commercial fishing fleet to improve the level of monitoring, compliance, and verification of catch and thus quality of fishing data. Improved monitoring can also help mitigate the cascading effects of overfishing and over-harvesting of specific species. Improved monitoring is also necessary to better understand the true impacts of commercial fishing on non-target species that end up dead or released as bycatch (Emery et al., 2019).

SPCA advocates for establishing marine reserves and conservation zones in areas of ecological significance to preserve genetic diversity, promote biodiversity, and protect the environment and animals from human impacts. Protected marine areas can play a powerful role in safeguarding a wide range of coastal and estuarine habitats and feeding areas for aquatic animals, increasing public awareness and support for marine conservation, and providing sites for research and monitoring (Sobel, 1993). The New Zealand public believes that more of the country's marine environment should be protected by no-take marine reserves (Eddy, 2014).

Conclusion

SPCA appreciates the opportunity to contribute to the Review of Sustainability Measures for Fisheries- April 2025 Round. Our organisation is happy to discuss this matter if further information is required.

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From: Michael Weaver - Southern Ocean Seafoods
To: FMSubmissions
Subject: CRA2 Submission
Date: Wednesday, 29 January 2025 4:17:27 pm

Dear Minister,

I wish to write to you in strong support of the following proposal's

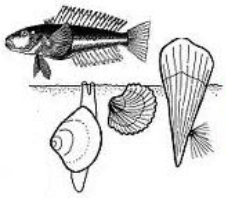
Support
Option 3 TACC to 100MT

Reason -
The strong scientific evidence clearly shows the Biomass in CRA2 has increased and can support an increase in the TAC. The Biomass will continue to improve with both option 2 and 3 although marginally slower with option 3 at a difference of just .08 to 2028 this is slower but is an insignificant difference to option 2 with a much larger benefit being option3. Continued increase of the biomass and a moderate increase in TAC with option 3 is strongly supported

Option 3 will have a meaningful economic benefit to NZ option 1 or 2 will have none or negligible

Support
Partial closure of the Inner Hauraki Gulf
This area is not used or has very limited use for commercial harvest, so this is mainly a recreational take area. I would like to see the rebuild in this area continue and support the proposed closure

No Support
Increase Biomass
I do not support the increase Biomass - FNZ are proposing to "raise the goal post" CRA2 is now above its current biomass targets there is proposal to increase this further. A productive fishery is valuable fishery on balance would support
however biomass levels are a fairly blunt tool and would support a more managed approach as in CRA8 the TACC can vary with CPUE data



SPECIALTY & EMERGING FISHERIES

s9(2)(a)

s9(2)(a)

29th January 2025

To: Fisheries New Zealand, Wellington.

Submission on: on Review of Sustainability Measures for Spiny Rock Lobster (CRA7) for 2024/25

The Specialty and Emerging Fisheries Group (S&EF) is a representative collective of commercial fishing associations operating mainly niche fisheries and markets. It does not include CRA7. S&EF is the only stakeholder fisheries group which has a primary focus on future and potential commercial fisheries, as opposed to current utilisation. The contact person is Mr Bill Chisholm, s9(2)(a)

S&EF believes that robust scientific information is always the "best available information" for informing TAC/TACC reviews. Accordingly, the improved CPUE calculated from the CRA7 Harvest Control Rule justifies the TACC increase proposed by Option 2 in the discussion document. However, S&EF also supports the finding of the kina survey (McKenzie *et al* 2024), which found potential kina barrens forming off the Moeraki Coast. Consequently, S&EF cannot support a TACC increase for CRA7 until such time as this potential for forming kina barrens is monitored and mitigated. Cando Fishing Ltd has proposed a Harvest Plan for kina which includes the Moeraki Coast. This Harvest Plan includes selective harvest of kina in areas where barrens are forming, along with monitoring kina in harvested areas and other areas throughout the Otago Coast.

S&EF therefore supports the concurrent implementation of the CRA7 TACC increase and the kina Harvest Plan proposed by Cando Fishing Ltd. S&EF opposes any TACC increase for CRA7 without implementing the proposed kina Harvest Plan.

Yours faithfully

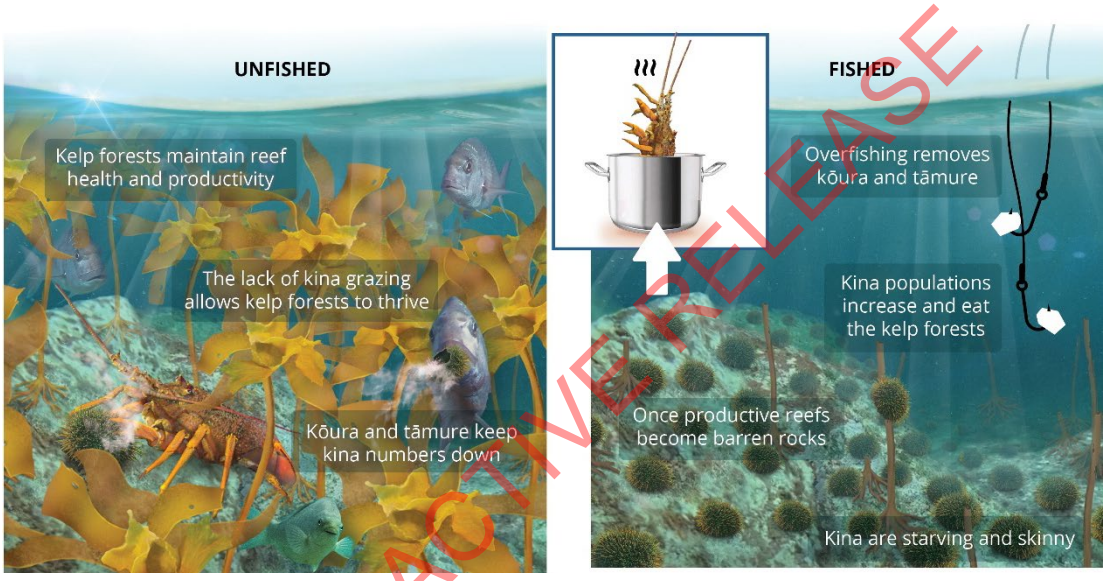
s9(2)(a)
Bill Chisholm

For: SPECIALTY AND EMERGING FISHERIES GROUP

Submission on Review of sustainability measures for fisheries – April 2025 round (CRA 2)

28/01/2025

STET Limited supports robust and enforceable management measures to address the ecological imbalance caused by overfishing kōura (spiny rock lobster) in CRA 2. The proliferation of urchin barrens along Northland's east coast due to reduced predator populations, including kōura, is a critical environmental issue that demands urgent and effective action.



Kina barrens are created by overfishing. Graphic State of Our Gulf 2020.

General Comments

1. **Value of kelp forests**

Research from overseas has estimated the economic value of *Ecklonia* kelp forests to be up to USD 147,100 per hectare annually[1]. These values highlight the significant lost ecological and economic value of the Hauraki Gulf Marine Parks kelp forests. We understand Fisheries New Zealand is currently quantifying the area of kina barrens in the Gulf and suspect the lost productivity far outweighs the value of the CRA 2 TACC ($10.17 million annual exports).

2. **Kina Barrens as adverse effects of Fishing:**

Under the Fisheries Act 1996, FNZ has a duty to manage the adverse effects of fishing on the aquatic environment. Kina barrens are a significant adverse impact, undermining the productivity of entire ecosystems. Efforts to eliminate barrens must begin immediately, addressing the problem within the generation responsible for their creation rather than leaving the burden to future generations. Kina barrens hold no ecological or economic value, and the proportion of Northland's reefs left barren should be reduced to near zero.

Disagreement with stock assessment

Fisheries New Zealand (FNZ) disputes the fisheries independent data provided by Nessia et al.[2] and suggest that the higher abundance of kōura in marine reserves is due to kōura being more attracted to these areas. However, in the same discussion document, FNZ acknowledges that MRs are "lightly fished" because kōura leave the reserves and are caught outside their boundaries.

Nessia et al. explain that "*current populations, even within reserves, are below natural or unfished levels.*" This aligns with historical data (Department of Conservation[3]) in 1995, the kōura population density in the Goat Island Marine Reserve was approximately 255% higher (39.8 per 500 m2) than the current estimate of 11.2 kōura per 500 m^2 reported by Nessia et al. (2024). *Jasus edwardsii* can live for over 30 years in the wild[4] and the population drop to 7.9 kōura per 500 m^2 in 2000 is best explained by fishing on the boundary of the marine reserve. The historical density provides the best available estimate of an unfished population.

Any small differences in density that FNZ might attribute to kōura preference for marine reserve are far outweighed by the use of the 1995 baseline as a more accurate measure of an unfished population. The higher density of kōura within reserves is better explained by the reduced fishing pressure within these areas, not by attraction or aggregation. This makes FNZ's argument that kōura "prefer" reserves irrelevant because the historical population densities far exceed today's levels, regardless of any potential aggregative behaviours.

[1] https://ethicalhour.com/environment-sustainability/kelp-forests-a-500-billion-powerhouse-for-global-economy/
[2] https://www.frontiersin.org/journals/marine-science/articles/10.3389/fmars.2024.1440350/full
[3] https://www.doc.govt.nz/nature/habitats/marine/type-1-marine-protected-areas-marine-reserves/marine-reserve-report-cards/cape-rodney-okakari-point-goat-island-marine-reserve/rock-lobster/

[4] https://www.mpi.govt.nz/dmsdocument/45628-Life-cycle-of-the-spiny-red-rock

Additionally with regard to higher abundances of sub-legal kōura within marine reserves. It's unlikely that this is due to a) enhanced settlement within the marine reserves or b) immigration of sub-legals into marine reserves.

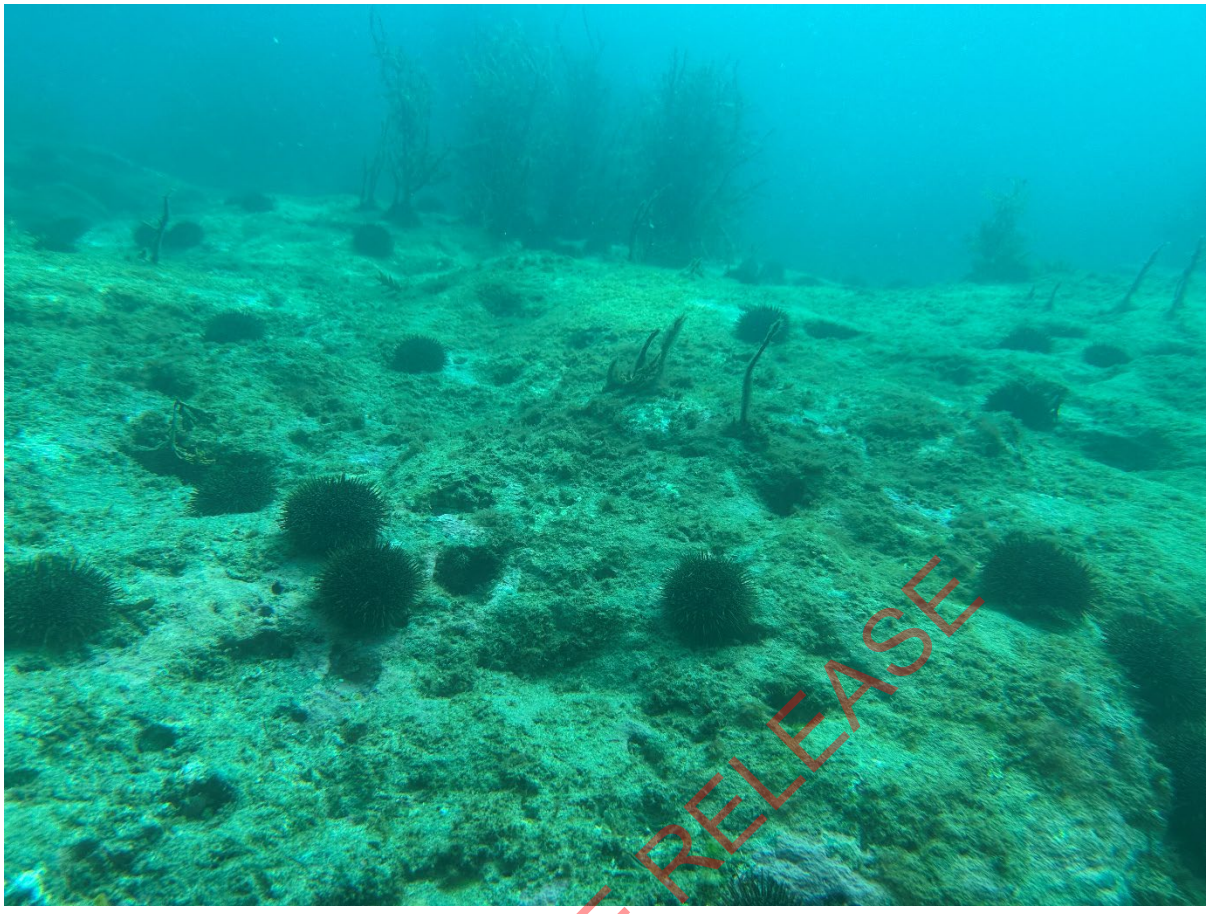
a) In species with long larval lifespans rates of settlement may vary at larger regional scales[5] but are unlikely to differ across the smaller site level spatial scales used to assess marine reserve effects. Even though settlement in kōura larvae is influenced by different habitats, cues for settlement vary between physically different habitats (i.e., reef vs. sand habitat) rather than ecologically different habitats such as kina dominated fished reef habitats and algal dominated protected reef habitats[6]. Higher densities of sub-legal J. edwardsii within marine reserves are therefore more likely driven by post settlement mechanisms rather than variability in recruitment.
b) Kōura are very social animals and higher densities of may encourage post settlement movements into marine reserves. However, there is little evidence for 'spill-in'. Tracking has shown sub-legal kōura moving into the Cape Rodney-Okakari Point Marine Reserve[7] but there is no evidence rates of spill-in are higher than rates of movement out of reserves.

Mortality of kōura caught and returned to the sea is estimated at 10% for the CRA 2 fishery; this population impact does not occur in marine reserves. Sub-legal poaching is more common in overfished populations. These factors better explain the increased abundance of sub-legal kōura in marine reserves.

FNZ urges caution in extrapolating from Nessia et al.'s findings yet does not apply the same caution to their stock assessment model, which relies on data sources (Catch Per Unit Effort and fisher-reported catches) known to have biases. FNZs reliance on CPUE—a fisheries-dependent metric influenced by fisher behaviour, gear configuration, and target-site selection—introduces much greater bias than the idea that kōura aggregate in marine reserves.

Nessia et al's finding align with our observations and conversations with other divers. STET Limited agree with the findings and support a full closure of the CRA 2 fishery to restore kelp forest productivity.

[5] https://www.int-res.com/abstracts/meps/v354/p201-217/
[6] https://link.springer.com/article/10.1007/s00442-015-3251-4
[7] https://www.tandfonline.com/doi/abs/10.1080/00288330.2003.9517153



Kina barren in Tryphena / Aotea Great Barrier Island. Photo Shaun Lee 2024.

Disagreement with measures proposed for outer Gulf

Fisheries independent data shows that kina barrens off Te Hauturu-otoi have increased from 0.4% of the rocky reef system in 1953, to 11.6% in 1979 and 32.73% in 2019[8]. It is incomprehensible that Fisheries New Zealand supports increasing the catch of kina predators in areas where kina barrens are growing. Under Section 9 of the Fisheries Act 1996, Fisheries New Zealand is obligated to avoid, remedy, or mitigate the adverse effects of fishing on the aquatic environment. Allowing further depletion of kina predators based on a stock assessment that excludes fisheries independent data exacerbates the spread of barrens, violating their duty to protect biodiversity and maintain ecosystem productivity. Fisheries New Zealand must urgently account for the broader ecological impacts of fishing and prioritise predator recovery to restore the productivity of these degraded ecosystems.

It is astonishing that Fisheries New Zealand would propose significantly greater increases in commercial catch allowances compared to recreational take, given the importance of equitable and sustainable management for all sectors. Effective management requires a full understanding of all removals from the fishery, yet recreational and customary catch remains underreported or unquantified. To ensure kōura stocks are managed responsibly and sustainably, Fisheries New Zealand must mandate accurate reporting of recreational and customary catch. This data is essential for informed decision-making and for addressing the

[8] Dartnall, L. (2022). The extent of kina barrens over time at Hauturu-o-Toi and the Noises Islands (Doctoral dissertation, ResearchSpace@ Auckland)

ecological challenges facing CRA 2, including the spread of kina barrens due to predator depletion.

Increasing the TAC is inconsistent with Management Objective 1.3 of The Hauraki Gulf Fisheries Plan 2023 to Mitigate the direct and indirect impacts of fishing on the marine food chain. Specifically, *"Management Action 1.3.4 Facilitate the co-development of a management plan for restoring healthy kelp forests, which will consider the causes and address the environmental impacts of kina barrens and include management considerations for predator species such as snapper and crayfish."*

STET Limited supports members of the Mai i ngā Kuri a Whārei ki Tihirau Forum who have also expressed opposition to increasing the TAC of CRA 2 until an abundance increase has been observed. STET Limited thinks a 95% kelp forest coverage target should be the key measure before increasing TAC.

Our understanding is that kina barrens are prevalent along the entire northeast coast of the North Island of Aotearoa.

Support for inner Gulf closure

The proposed closure of the inner Hauraki Gulf to commercial and recreational kōura fishing represents a landmark opportunity to restore ecosystem balance in one of New Zealand's most heavily used marine areas. As the first species-specific closure of its kind, this measure directly addresses the critical role of kōura as predators of kina, whose unchecked populations have led to the widespread formation of destructive kina barrens. A closure, with a ten-year review, allows time for kōura populations to recover and fulfil their ecological function, which is essential to reversing the loss of kelp forests and associated biodiversity.

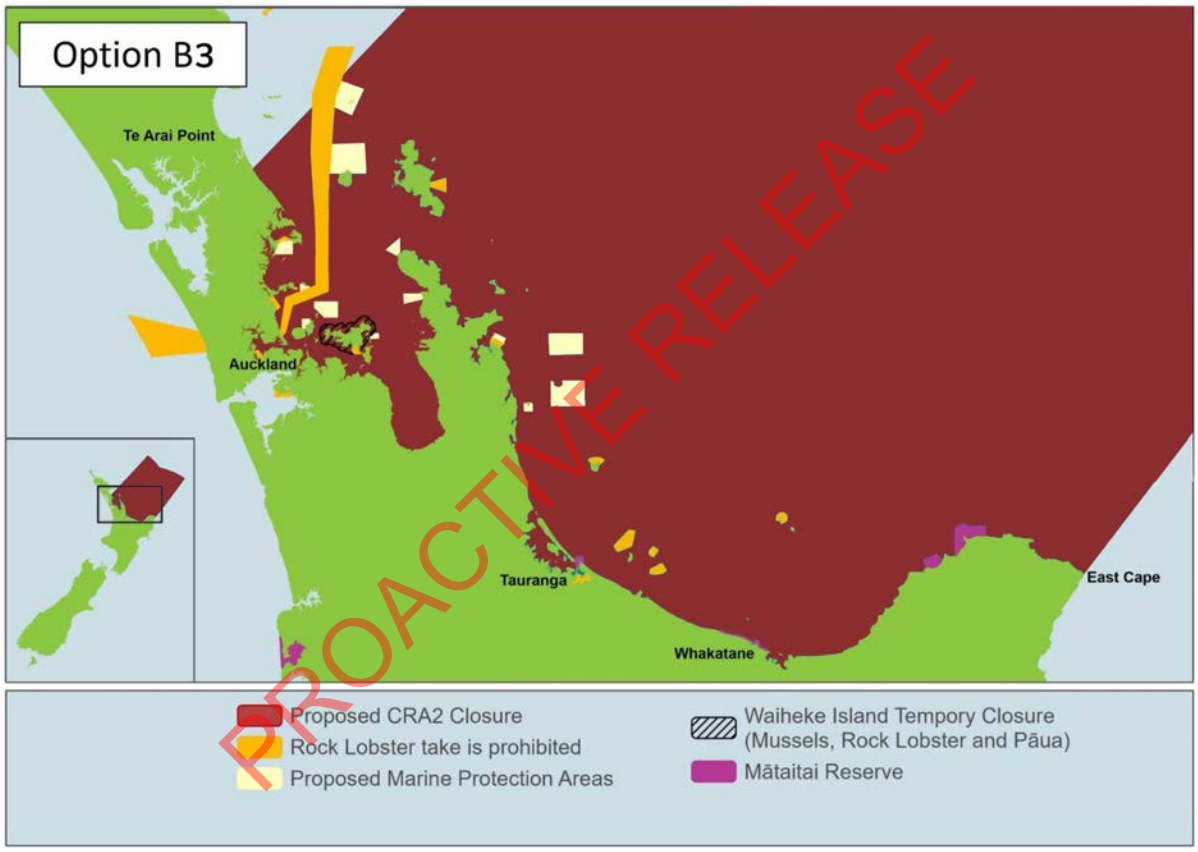
STET Limited recommends extending the western boundary of the closure area to the Pākiri River Mouth. We would also like to see customary take measured and quantified to better understand its impact on the recovery of kōura populations. This is a vital step toward sustainable fisheries management and healthier marine ecosystems, in line with Fisheries New Zealand's obligations to avoid and mitigate the adverse effects of fishing under the Fisheries Act 1996.

Support for 3x B_R target

Like the 2018 TAC cuts for CRA 2 that failed to meet public expectations for ecosystem recovery, the proposed 2x B_R target is likely to fall short. The 2018 cuts were too little, too late to meaningfully address the ecological imbalance caused by decades of overfishing. Kōura numbers have not increased and barrens continue to grow (with the exception being kina removal areas) at the most studied site (The Noises) where kina barrens covered 49.5% of reef in 2019[9]. Adopting a 2x B_R target risks repeating the same mistakes, offering only marginal improvement while failing to restore kōura populations to the levels necessary to control kina and halt the spread of unproductive barrens. A more ambitious target is needed to achieve meaningful ecological and fisheries outcomes.

[9] Dartnall, L. (2022). The extent of kina barrens over time at Hauturu-o-Toi and the Noises Islands. University of Auckland Thesis.

STET Limited supports a biomass management target of 3x B_R which offers the most promising pathway for achieving ecological and fisheries sustainability in CRA 2. This ambitious target will accelerate the recovery of kōura populations, helping to identify thresholds for ecosystem balance faster. A substantial increase in biomass is expected to significantly boost the abundance of large kōura, which are critical for controlling kina populations and reducing or preventing the spread of destructive kina barrens. The ecological benefits of this target—such as enhanced survival, reproduction, and recruitment—are likely to exceed those achieved under lower targets, further supporting the long-term health of the marine environment. Additionally, the reduced mortality from handling undersized kōura and high-grading (currently 42.5 t) will contribute to sustainable management practices. The best available information suggests that this target better aligns with the abundance of kōura required to fulfil their ecological role, making 3x B_R the optimal choice for the recovery and resilience of CRA 2 ecosystems.



Recommended option.

Conclusion

STET Limited urges FNZ to prioritise enforceable, science-backed measures that address the root causes of urchin barrens. Acknowledging fisheries independent data in stock assessments and taking a precautionary approach are critical steps to restoring kelp forest habitats and ecological balance. The Ministers decision on CRA 2 should be informed by knowledge of kina barren extent. It's logical to close the entire fishery (new Option B3 above). Delayed action will only exacerbate environmental and economic costs of lost kelp forest.

Thank you for considering our submission.

Shaun Lee
Director
STET Limited

shaun@stet.co.nz
021 555 425

THE UNIVERSITY OF AUCKLAND
FACULTY OF SCIENCE

7 December 2024

FMSubmissions@mpi.govt.nz

Submission on review of sustainability measures for spiny rock lobster (CRA 2) for 2024/25

The purpose of the Fisheries Act is to "provide for the utilisation of fisheries resources while ensuring sustainability." Where ensuring sustainability means:

11(a) maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations; and (b) avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment.

Section 9 of the Fisheries Act sets out mandatory environmental principles. It says:
"Environmental principles

All persons exercising or performing functions, duties, or powers under this Act, in relation to the utilisation of fisheries resources or ensuring sustainability, shall take into account the following environmental principles:

(a) associated or dependent species should be maintained above a level that ensures their long-term viability;
(b) biological diversity of the aquatic environment should be maintained;
(c) habitat of particular significance for fisheries management should be protected."

Scientific evidence that is widely publicly available confirms that the current management of CRA2 fishery is resulting in widespread adverse effects on the aquatic environment and is compromising habitat of particular significance for fisheries management. The large-scale loss of kelp habitat in CRA2, as in other large areas or north-eastern New Zealand, will be dramatically reducing primary productivity, biodiversity and overall fisheries productivity. This is widespread adverse environmental damage resulting from rock lobster fishing, which is not just confined to CRA2 but through much more extensive areas of the country.

For example, around 32% of Hauturu – Little Barrier Island's reefs have converted from productive kelp forest to urchin barrens, around 300 hectares. That same amount of kelp habitat would have produced around 20,000 tonnes of kelp food material into the coastal ecosystem every year that would be eaten by shellfish, crayfish, snails and fishes. It would have also provided important habitat for recruiting lobsters and fishes. Using standard marine trophic estimates, the loss of kelp productivity equates to around 200 tonnes a year of secondary consumers, such as lobsters and fishes a year from this one confined area of the Hauraki Gulf.

Given the scale and extent of this environmental impact caused by the ongoing loss of kelp forests in CRA2 it could be expected that Fisheries Managers would be acting decisively to rectify the situation, especially as CRA2 has the potential to set the precedent for resolving this environmental crisis throughout other impacted coastal regions of New Zealand. Maintaining ecosystem integrity and primary productivity in CRA2 is also important because of its wildlife significance, especially for seabirds and marine mammals.

However, the discussion document underplays the spatial extent and seriousness of the adverse ecological impacts being generated by rock lobster fishing and fails to offer any decisive and directed

management measures that will specifically address this adverse environmental impact across all of CRA2. Rather, the presented management options are essentially business as usual around managing total harvest from a single stock in relation to MSY, without a clear pathway put forward as to how these widespread adverse environmental impacts in CRA2 will be measured and reversed through the management of the rock lobster harvest. Despite Fisheries New Zealand advocating for many years for ecosystem management for achieving sustainability in our fisheries, the agency is continuing to rely on outdated fisheries stock models for decision making around harvesting rock lobsters, when it is critical (and a legal requirement) for the ecosystem effects of harvesting to be incorporated into the decision-making process.

The best available scientific evidence points toward fisheries closures being the only proven method for reversing kina barrens at scale. While a closure has been put forward as a possible management measure for the inner Hauraki Gulf, which is to be congratulated as a small step in the right direction, it fails to address the widespread adverse ecological effects of rock lobster fishing being manifested throughout much of the vast remainder of the rocky habitat throughout CRA2. More extensive spatial closures are required in all areas of the Hauraki Gulf where kina barrens have proliferated to allow the rock lobster population to recover sufficiently to reverse kina barrens, and restore productivity to these coastal areas.

Thank you for considering my submission.

s9(2)(a)

Professor Andrew Jeffs

From:	Wai Whare Charters
To:	FMSubmissions
Subject:	Submission to Reinstate the Total Allowable Commercial Catch (TACC) for Rock Lobster in CRA2
Date:	Wednesday, 29 January 2025 5:48:21 pm

To the Decision-Makers,

I am writing to advocate for the reinstatement of the Total Allowable Commercial Catch (TACC) for rock lobster (Jasus edwardsii) in CRA2 to a minimum of 100 tonnes.

I support Option A3 proposes:
TAC 188.5t
TACC 100t
Customary 16.5t
Recreational 34t
other fishing mortality 38t

I support Option B1 proposes:
to maintain status quo with no additional management of rock lobster fishing.

As a 2nd generation commercial Rock Lobster Captain and Charter Fishing business owner, long-time resident of Maketu. I believe a 20tonn reinstatement is scientifically proven to be able to be sustainable a reinstatement and justified or deserved for those who depend on it. A 5yr budget pushed to 7yrs is unfair on the families affected by this delayed reinstatement. The TACC review has been postponed twice. The comical idea of Rock Lobster aline with Kina barron issues is ridiculous. No scientific data or definition of a kina barron available. No location or baseline of kina barren areas of interest or the known extent of Kina Barren areas.
How can this theory or opinion be affecting the reinstatement of TACC or the management plan of Rock Lobster?
Why is all this scientific data that's been highly scrutinized by many scientists not getting the recognition it's deserved and clearly signals for the reinstatement of the TACC?

Voluntary Industry-Led Management and Recovery
In 2015, CRA2 commercial fishermen implemented a self-enforced voluntary reduction of 50 tonnes from the TACC to initiate an industry driven stock recovery. Within two years, the fishery began showing measurable signs of improvement. This proactive approach demonstrates the industry's commitment to sustainability and a balanced ecosystem.
No acknowledgement, recognition or compensation for this initial industry lead management plan.

Evidence of Stock Recovery
A stock assessment for CRA2 was completed in 2022, with a Rapid Update completed in 2024. Both assessments used industry sourced data. These have both consistently shown significant increases in biomass since the over the top TACC reduction in 2018.
This recovery of rock lobster biomass is directly creditable to the management practices lead by the industry's 50T TACC voluntary shelving in 2015.
The Rock Lobster fishery's biomass is on an upward trajectory, and can sustain a TACC increase without jeopardizing the stock’s health.The 2024 Rapid Update data, scientifically confirms the increased rock lobster biomass since 2015.
CRA2 has 20 years of a voluntary logbook program, funded entirely by the commercial fisherman. This provides invaluable data on length range, sex status, and catch per unit effort (CPUE). This data has been critical for stock assessments also by enabling the ability to accurately create yearly Rapid Assessments to ensure sustainable practices

continue.
A tag-recature data set provides information on growth also funded by the commercial fisherman.

Current TACC Impact

The 2018 reduction of the TACC to 80 tonnes was a drastic measure by the minister. Reducing the allowable catch 40 tonnes below the agreed sustainable limit proposed by science and industry stakeholders (120 tons). Over the past six years, this decision has caused significant hardship for CRA2 fishermen. With the constant increase of operational costs, reinstating the TACC to at least 100 tonnes is essential for the financial sustainability of the families involved in the industry. Logbook data can still ensure that maintaining sustainable fishery is paramount.

Concerns Over Kina Barren Justifications
Delays in the TACC review have been due to concerns about kina barrens and their role in Rock Lobster management. However, this approach lacks scientific validity.
• Research and industry observations indicate that rock lobsters do not preferentially feed on "skinny" kina found in barren areas.
The impact of sediment runoff and other environmental factors on coastal environments is much greater than that of kina barrens.
It is incorrect to use kina barrens value for Rock Lobster management. No robust scientific evidence available on Kina barren areas.
Decisions should be based on high-quality stock assessments and reliable data, such as the 2022 and 2024 assessments.

The proposed increase to 100 tonnes is supported by:
• Scientific proof of the recovery of CRA2 biomass.
• Continued industry-funded data, monitoring programs and management
• The need to relieve the extended financial hardship and stress on the fishing families while maintaining sustainable practices.
The 100-tonne TACC (20 tonne reinstatement) aligns with sustainable fisheries management. While still being able to protect the fishery by maintaining a safety threshold through the rapid assessments.

Opposition to Additional Closures

I strongly oppose any further closures, marine protected areas, marine reserves and mataitai. Closures concentrate fishing effort on remaining reefs. The current existing management measures are sufficient to sustainably manage the fishery.

Conclusion
The CRA2 rock lobster fishery has undergone a period of recovery. Early action by industry led measures and sound management practices. The reinstatement of the TACC to 100 tonnes is a balanced and evidence-based decision. It ensures sustainability while supporting the financial hardship for CRA2 commercial fishermen.

Thank you for considering this submission
Regards,
Brett Waterhouse

WAIHEKE MARINE PROJECT
WAIHEKE KI UTA WAIHEKE KI TAI WAIHEKE KI TUA

Fisheries New Zealand

by email: FMsubmissions@mpi.govt.nz

Review of sustainability measures for spiny rock lobster (CRA 2) for 2024/25

29 January 2025

Tēnā koe,

Waiheke Marine Project (WMP) appreciates the opportunity to submit on the Review of sustainability measures for spiny rock lobster (CRA 2) for 2024/25.

The Waiheke Marine Project (WMP) is an emergent prototype of community and Mana Whenua taking collaborative action to protect and regenerate Waiheke Island's land and sea. The WMP embodies Ahu Moana (concept from the Sea Change Tai Timu Tai Pari Plan) at scale so the mauri of Waiheke's marine environment is protected and can be regenerated. The WMP enables all voices to find ways through the systemic barriers and resourcing capacity that so often inhibit marine care efforts.

Since April 2019, the WMP has been finding innovative ways to give effect to Te Tiriti and practise active partnership and collaboration between mana whenua and local communities that is built on mutual trust and respect. Dozens of practical and reinforcing actions are underway across and around Waiheke Island that have been either catalysed or supported by the WMP. All of these actions are guided and paced with an emphasis placed on multiple ways of knowing that build on historical knowledge and lean into youth ideas. The recently published WMP Annual Report describes actions of the last year.

The WMP core focus is to bring to life the nine commitments (see Appendix 1) agreed at the 2020 Future Search event by 76 diverse voices of the Waiheke marine social system. This WMP submission on the Review of sustainability measures for spiny rock lobster (CRA 2) is written through the lens of the nine commitments and considers nine different voice groups, with the Review having implications for all of the commitments.

In summary from the Fisheries New Zealand discussion document:

Fisheries New Zealand (FNZ) is reviewing sustainability measures for spiny rock lobster (*Jasus edwardsii*, referred to as kōura or rock lobster from here on) in Quota Management Area (QMA) CRA 2 for the 1 April 2025 fishing year (Figure 1).

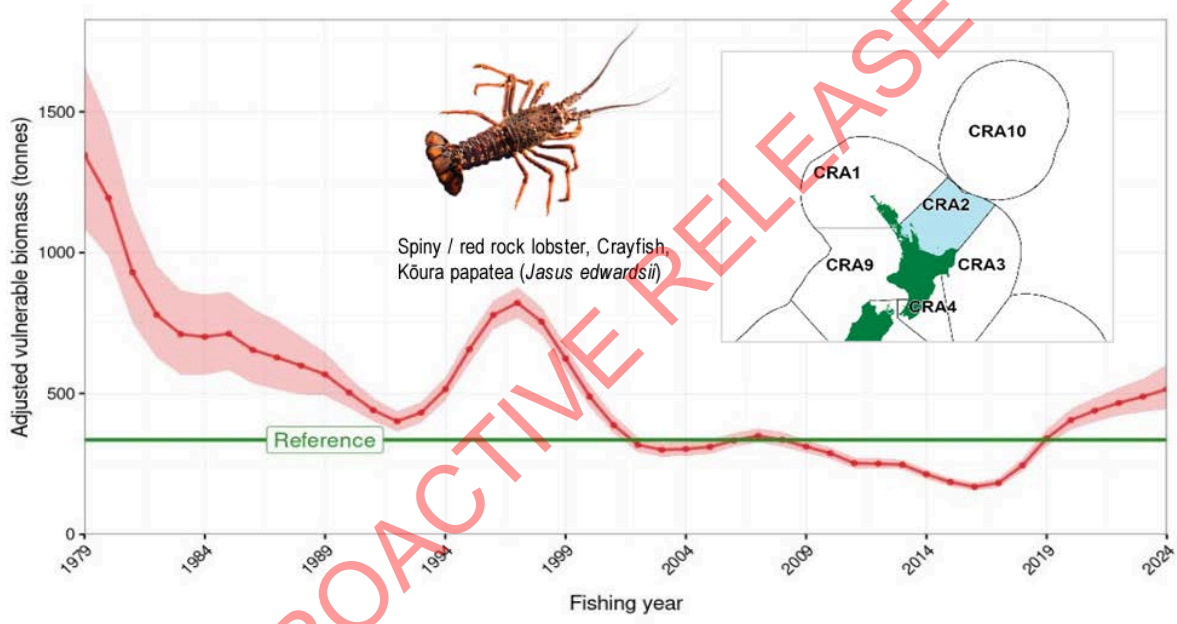


Figure 1: Quota Management Areas (QMAs) for spiny rock lobster with CRA 2 highlighted, and modelled vulnerable biomass (in tonnes) since 1979 in CRA 2.

- Recent stock assessments show that kōura have increased in abundance following a 60% cut to the commercial catch and halving the recreational daily limit from six to three per person.
- The CRA 2 population has now been assessed to be above the maximum sustainable yield (MSY) so there is an opportunity to increase the Total Allowable Commercial Catch.

However, FNZ must also consider other factors

- The ecological role of kōura as a predator of kina, particularly with reference to the formation of kina barrens.
- Localised depletion and the ability of recreational and customary fishers to access the fishery.

Factors currently being considered by FNZ

- Proposed Spatial Management Measures. Whether the inner Hauraki Gulf should be temporarily closed to all kōura fishing. Because the Hauraki Gulf exhibits a high occurrence of sea urchin barrens and a low abundance of rock lobster, FNZ is considering additional spatial closures alongside other measures, to rebuild the rock lobster population in the inner Hauraki Gulf to a level that:

    a) *better provides opportunity for this species to fulfil its ecosystem function as a predator of sea urchins within this area; and*

    b) *supports a sustainable fishery in this area.*

FNZ is seeking feedback on closing the inner Hauraki Gulf, from Cape Rodney (Leigh) to Port Jackson (top of Coromandel Peninsula) to all commercial and recreational rock lobster fishing. (Figure and Table 2, option B2). If a closure was implemented, its effectiveness would be regularly monitored, and it could be removed in the future once the Hauraki Gulf rock lobster population has recovered.

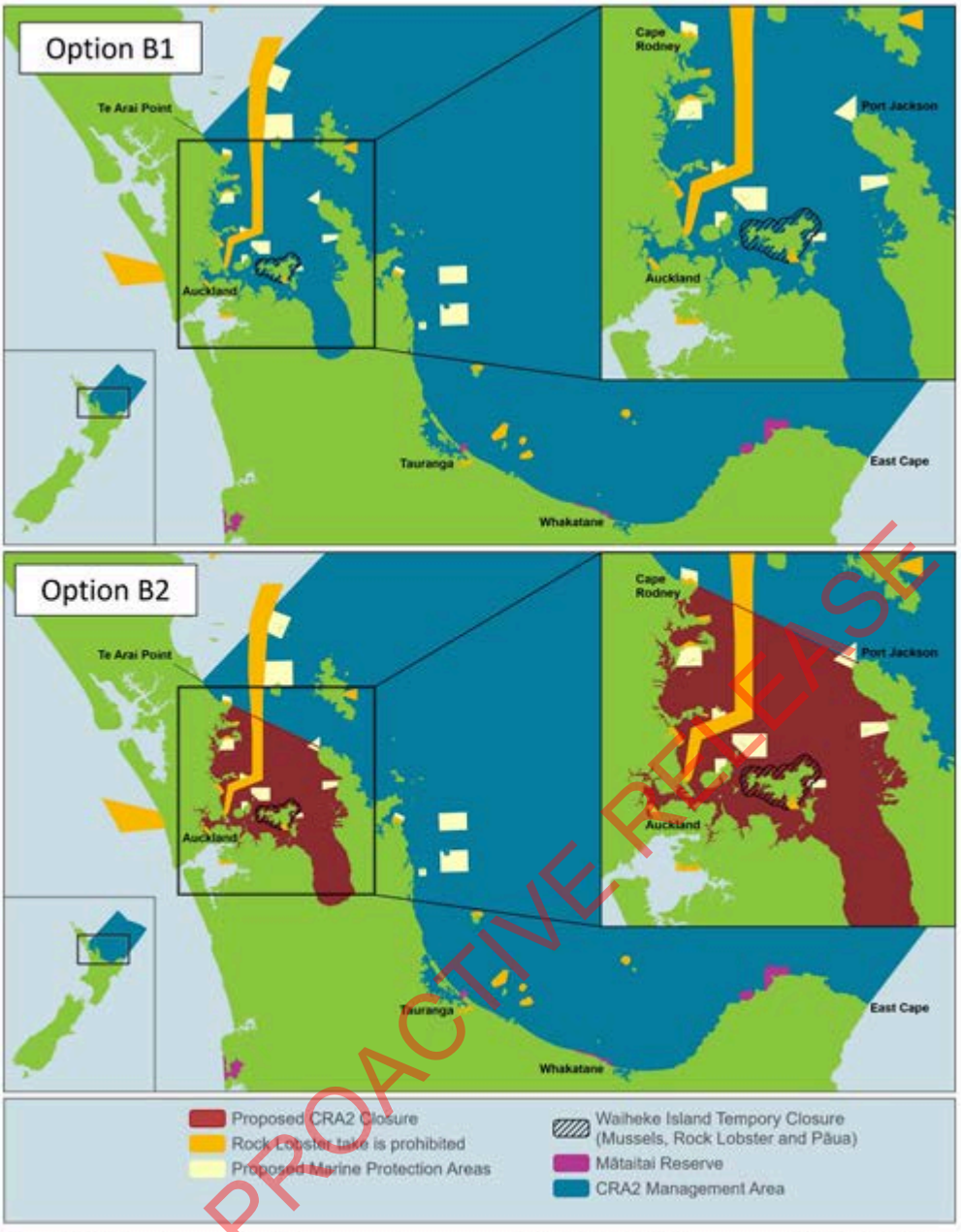


Figure 2: Existing and proposed spatial management measures for the CRA 2 QMA. The upper panel (Option B1) shows existing areas in which harvest of rock lobster is currently or proposed to be prohibited, including marine reserves, mātaitai reserves, section 186A temporary closures, submarine cable and pipeline protection areas, and High Protection Areas proposed in the Hauraki Gulf Marine/ Tīkapa Moana Protection Bill. The lower panel (Option B2) includes the proposed spatial closure for all commercial and recreational rock lobster fishing within the inner Hauraki Gulf.

Table 2: Proposed spatial management measures.

Option	Action	Description
Option B1	Maintain status quo	No additional spatial management of rock lobster fishing is proposed beyond the existing marine reserves, mātaitai, and proposed new High Protection Areas (**HPA**s) provided for in the Hauraki Gulf / Tīkapa Moana Marine Protection Bill.[13]
Option B2	Close the inner Hauraki Gulf to all commercial and recreational rock lobster fishing	Closure of the inner Hauraki Gulf (specifically waters south of a straight line that extends from the southern boundary of the Cape Rodney-Okakari Point Marine Reserve to Port Jackson Bay, top of the Coromandel Peninsula) to all commercial and recreational rock lobster fishing, in addition to existing marine reserves, mātaitai, and proposed new HPAs provided for in the Hauraki Gulf / Tīkapa Moana Marine Protection Bill.

- Whether the current biomass management target should be increased and what is an appropriate CRA 2 biomass management target.

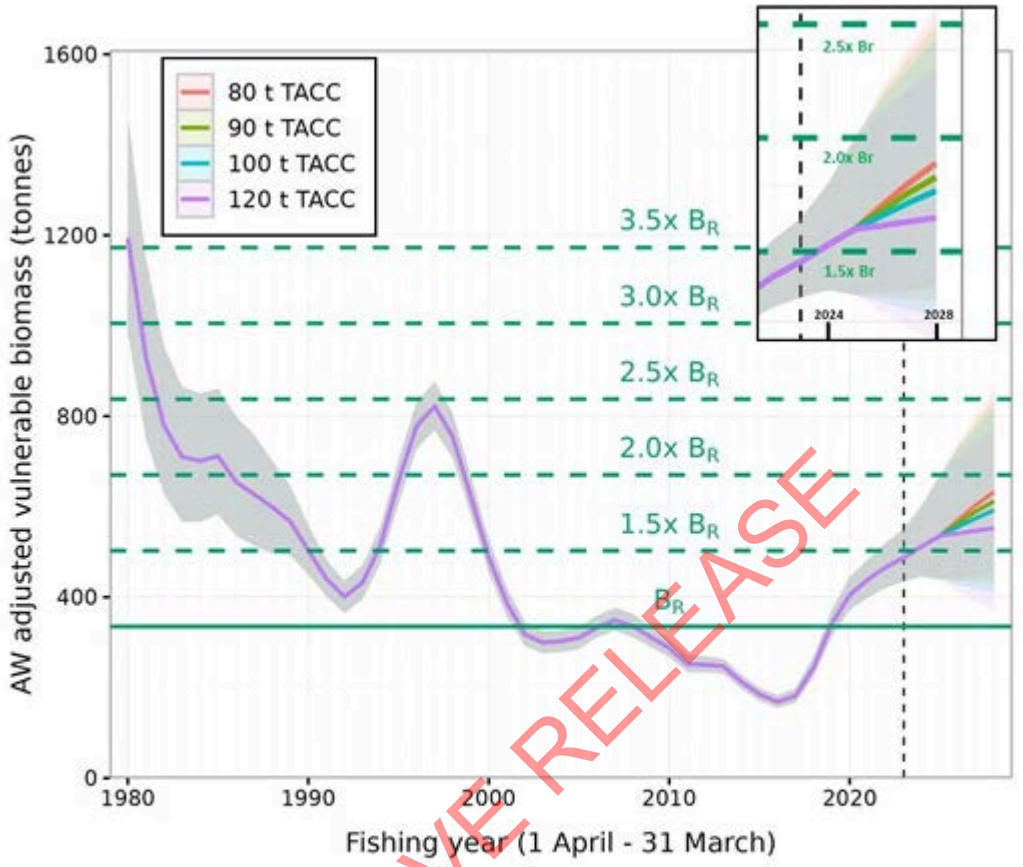


Figure 3: Posterior distribution of the 2024 rapid update model estimates of vulnerable biomass, which have been projected out to 2028. Variable shading intensity indicates the 50% and 90% credible intervals and the solid line indicates the median. The B_R management target is shown as a solid green line. The different projections are based on alternative TACC settings, with 80 tonnes (the current TACC) reflecting the current CRA 2 catch levels.

Table 1: Proposed catch settings (in tonnes) for CRA 2 from 1 April 2025.

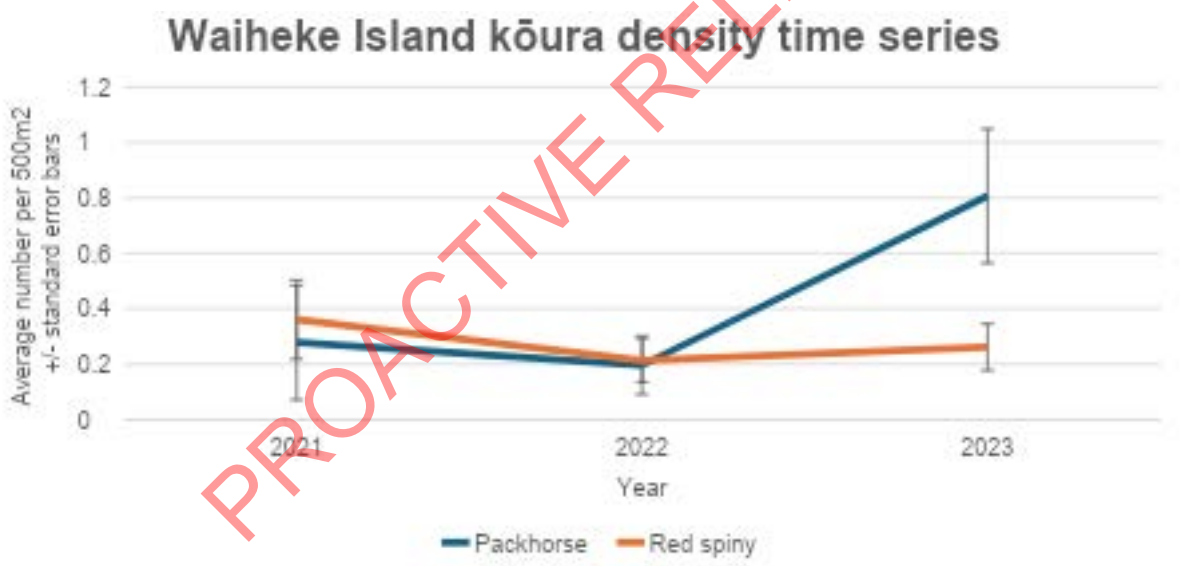
Option	TAC	TACC	Allowances		
			Customary Māori	Recreational	All other mortality caused by fishing
Option A1 (status quo)	173	80	16.5	34	42.5
Option A2	174.5 (↑ 1.5)	90 (↑ 10)	16.5	34	34 (↓ 8.5)
Option A3	188.5 (↑ 15.5)	100 (↑ 20)	16.5	34	38 (↓ 4.5)

12. The proposed TAC increases under Options A2 and A3 include increases to the TACC and reductions to the allowance for all other mortality to the stock caused by fishing. The proposed increase to the TACC is therefore greater than the overall TAC increase proposed. Considerations for the other mortality allowance are discussed in Part 1 under '*Fishery characteristics and settings*').

WMP Submission

Crayfish abundance is varied and complex across the Hauraki Gulf with localised issues requiring information and management at scales smaller than the Fisheries Management Area (FMA). FMA scale stock assessments can smooth or mask out underlying issues. Stock assessment should consider all information, including University of Auckland crayfish surveys, Department of Conservation marine reserve surveys, and mana whenua and community surveys to provide more localised information. The stock assessment should also consider the impact on te taiao and her people.

WMP has undertaken an annual community dive survey over the last four years to monitor the numbers of kōura around the northern side of Waiheke Island. The kōura time series is shown below for both red spiny rock lobster (*Jasus edwardsii*) and the larger green Packhorse lobster (*Sagmariasus verreauxi*).



The density of spiny rock lobster has remained stable since 2021, while the density of green Packhorse lobster increased fourfold in the WMP 2023 survey. However, the density of kōura remains less than 5% of what would be considered a healthy population, and more time is required for the recovery of kōura around Waiheke Island. Option 2B would provide more space and time for the recovery of kōura in the inner Hauraki Gulf.

WMP response to consultation questions.

- **Should the current management target for CRA 2 be increased?**
  No. The TAC should remain at 173 tonnes to maximise the rebuild of this unique fishery. Fisheries NZ figure two shows that an 80 tonne TACC will most quickly restore the abundance of CRA 2 on the trajectory to historical (1980s) levels – further reductions may be required to achieve this in a more acceptable timeframe and therefore the stock and TAC should be reviewed regularly.

- **How should the TAC, TACC, and allowances be set?**
  The TAC and TACC should remain unchanged at 173 and 80 tonnes respectively (See Table 1). The amount allowed for other mortality caused by fishing should also remain unchanged at 42.5 tonnes. WMP believes that the customary Māori and recreational allowances should be considered in partnership with iwi who have shown kaitiakitanga through their proactive implementation of rāhui.

- **Should the inner Hauraki Gulf be closed to all commercial and recreational rock lobster fishing to assist the recovery of rock lobster in this intensively used marine space?**
  Yes this should be considered in partnership with mana whenua. Something needs to be urgently done to address the very low catches of kōura and the proliferation of kina barrens and resulting loss of biodiversity in the inner part of the Hauraki Gulf.

- **Do you support using a higher biomass management target for managing the CRA 2 stock?**
  Yes. WMP supports using a higher biomass management target for managing the CRA 2 stock (i.e., 2.5 x BR, See Figure 3). CRA 2 biomass is currently at about 1.54 x BR and for the management targets above this level, the higher the target is, the longer it will take to reach that target. Further catch restrictions may also be required to reach the higher targets. The interaction between populations in the inner Hauraki and the rest of CRA2 should also be considered. Closing the inner Hauraki may not see sufficient recovery if movement between stocks or recruitment dependencies mean high fishing in the rest of CRA2 has an impact on recovery of the inner Hauraki populations.

- **What do you think of the ranges of biomass management targets discussed? Do you support any management target in particular?**

The management target will depend on the ecological value of the fishery. WMP supports a general target of B50 (i.e., 50% of virgin biomass) in most situations, but a higher target for keystone species or bait species may be required to maintain ecological balance.

- **What do you think of the proposed TAC options? Do you support one of the options in particular?**
  WMP supports the status quo that the TAC and TACC should remain unchanged at 173 and 80 tonnes respectively (See Table 1).

- **Do you support the proposal to close the inner Hauraki Gulf to all commercial and recreational rock lobster fishing?**
  Yes, this should be considered in partnership with mana whenua. Something needs to be done urgently to address the very low catches of kōura and the proliferation of kina barrens in the inner part of the Hauraki Gulf.

- **How could the proposed measures impact you?**
  The proposal to close the inner Hauraki Gulf to all commercial and recreational rock lobster fishing would have a major effect on the WMP. A Ngāti Pāoa rāhui was laid down in January 2021 (Section 186A closure approved in November 2021 and then reinstated in 2024 for closure until August 2026) and extends one nautical mile around Waiheke Island (See below). The rationale for placing the rāhui was due to the declining inshore biodiversity. Ngāti Pāoa believed that if nothing was done urgently their mātaitai and kaimoana beds will not only be severely depleted but will reach the point of collapse. The rāhui is to allow four taonga species (tipa, kūtai, kōura and pāua) to restore and replenish.

  Increasing the scale of this closure out to the inner half of the entire Hauraki Gulf would have a huge beneficial impact on the scale and the rate of kōura recovery around Waiheke Island (Figure 2, Option 2B). Local fishers will have to give up kōura for a foreseeable future, but unlike a marine reserve the situation can be reviewed.

The WMP remains in support of regenerative, ecosystem-based management grounded in Te Tiriti partnership to restore a healthy Hauraki Gulf. This is in line with the intentions of the SeaChange Plan, published in 2016. As such, we are very willing to work more closely with MPI, DOC, local authorities and neighbouring communities (Aotea, Kawau, The Noises) to bring these intentions to fruition.

Heoi anō, nā

Waiheke Marine Project Steering Group.

Appendix 1: The 9 Commitments of the Waiheke Marine Project

Appendix 2

WMP is a movement of the following nine voices:

•Locals •Mana Whenua •Fishers & Boaties •Conservationists •Youth •Land Interests •Marine Businesses •Scientists •Agencies & Politicians

Whangamata Ocean Sports Club
1100 Port Road Whangamata, 3620
s9(2)(a)

fmsubmissions@mpi.govt.nz
29th January 2025

Submission: CRA 2 Review

The Whangamata Ocean Sports Club (**WOSC**) appreciates the opportunity to submit on the review of CRA2. We agree that the quotas for Rock Lobster (referred to here as **crayfish**), is critical and needs to be reviewed but the level of total allowable catch must be precautionary in the face of many unknowns about the species, stock size and ecological interactions.

Introduction and background

The submitters

We, Whangamata Ocean Sports Club (WOSC), the submitters, are a New Zealand Sports Fishing Council (NZSFC) Affiliated Club, with over 7500 members from New Zealand and abroad. We are situated at the southern end of the Coromandel Peninsular. Our members and supporters have a strong interest in restoring marine biodiversity by increasing the abundance of fish in inshore waters, while protecting the marine environment and ensuring a fair go for all Kiwis so they can provide for their whanau's social, economic, and cultural wellbeing from fishing.

While the area off Whangamata is our primary interest we are all concerned about the falling fish and crayfish populations, the lack of biodiversity and the scarcity of indicator species such as seabirds throughout New Zealand, including the Hauraki Gulf Marine Park (HGMP) and other parts of the New Zealand coastline.

Crayfish stocks and proposals

Estimated landings for commercial fisheries in 2023-24 were 79,995t with a TACC of 80 t for commercial catch and 34 t for recreational catch.

Three options are proposed for CRA2 with Option A1 being the status quo, Option A2 an increase for commercial (only) of 10 t to the TACC and Option A3 is an increase of 20 t, for commercial only.

There is also a proposal to develop special management areas with Option B1 being the status quo and Option B2 closure of the inner Hauraki Gulf noting the new High Protection Areas (**HPAs**) will also be exclusion areas.

Discussion

Crayfish are highly valued by customary, recreational and commercial fishers. They are a critical part of marine food webs feeding on shellfish, crabs, kina, other crustaceans and small fish. They are one of the

most important predators of kina and the development of kina barrens has been linked to low crayfish and snapper abundance.

Catch rates

The TACC in 2004 was 80 t for commercial fishers and 16.5 and 34 t for customary and recreational fishers respectively. Actual catch rates for commercial fishers in 2024 was just under 80 t.

Abundance of marine biota can vary considerably at different time scales from years to decades and include linkages to likes of El Nino Southern Oscillation (ENSO) and other climate conditions. Setting higher quotas because of perceived increase in stocks over a few years is not valid.

As noted in various documents Fisheries NZ must take a precautionary approach where there are unknowns or stocks are below a sustainable level. The uncertainties are noted in various parts of FNZ 2024. Examples are

- As stated on p2 of FNZ 2024 "*In the absence of both an agreed management target and a known biomass and density of rock lobster…*". Yet they propose to set a higher TACC and a preliminary biomass management target.
- A full stock assessment is planned for 2025 and any changes should wait until then.
- P6 – In reference to kina barrens "*However, this abundance is unknown*"
- P7 "*A planned stock assessment in 2025 will further inform the development of new CRA 2 management procedures* – thus not enough information is available now.
- P43 – "*there is no comprehensive record or map of their distribution (kina barrens) to support tangata whenua and stakeholder engagement or inform management decision making*". More work is needed before any decisions are made about increasing crayfish quota.

There should be no changes until we have a better understanding of the populations and then long-term biomass limits can be set.

Closures

It is not just the inner Hauraki Gulf where there are concerns about crayfish numbers and kina barrens. There are concerns along the east coast of the Coromandel and when we see commercial pots around islands just off the beach in Whangamata, and low numbers being collected by recreational divers then there is no justification for increasing the TACC for commercial fishers. There is real concern that the TACC for the whole of CRA2 is proposed to be increased when there are areas that should not have any increase (and not just the Inner Hauraki Gulf).

The proposed closure only address the Inner Hauraki Gulf yet FNZ admits that "*rock lobster are not evenly distributed and other parts of the HGMP may have low abundance and biomass*." Limits should not be changed until we have a better understanding of where the issues really occur. Unfortunately, the data for recreational harvest surveys in FNZ 2024 only included data for the Inner HG. Maps show that off the east coast there is considerable interannual variation and it is difficult to discern any trends.

Kina barrens

Having fished the Whangamata area for many years our members have seen dwindling fish and crayfish populations while kina barrens have increased around the islands including in the Marine Reserve at Mayor Island. These barrens are a direct consequence of low crayfish and snapper numbers with high kina numbers having flow on effects reducing kelp habitats, biodiversity and productivity.

The recent allocation of High Protection Areas (**HPAs**) including around Slipper Island and the Alderman Islands took no account of the proposals from local groups (fishing clubs, concerned groups, mana whenua) for locally driven specific management which would make a difference to the environmental health. The high kina numbers occur even in the present reserves and the idea that there will be an increase in

commercial crayfish take from this part of the Coromandel is not at all consistent with the objectives set for the HGMP.

Summary and Recommendations

There is not sufficient data and too many uncertainties to make short- or long-term decisions on crayfish quotas. There is a need to take a precautionary approach for CRA2 and the TACC should not be changed until we have the full understanding based on stock surveys in 2025 and results from other work on the likes of kina barrens. We are not all clear how stocks are really tracking and kina barrens and low numbers continue to be a concern to some areas of the east coast. The HGMP extends as far south as Whangamata on the east coast yet most of the work is in the Hauraki Gulf. There is a critical need to build stocks of crayfish along the east coast of the Coromandel if we want to control kina populations, not increase the take as proposed by FNZ.

We fully support the recommendations proposed by the NZSFC as follows:

- No increase in the TACC for commercial fishers (Option A1) until at least 2025/26 when we will have more information to base decisions.
- An assessment be made of where there are subareas with low crayfish abundance and issues with kina barrens i.e Option B2 but expanded to other areas where3 closures may be needed. Consider increasing commercial kina take to better control kina, including in HPAs (such locally driven management approaches were recommended in our submissions but rejected by the Bills select committee).
- Greater use of independent scientific studies on abundance, sustainable levels and appropriate targets.

In addition, we want to see:

- A more holistic approach which covers the likes of crayfish, kina and snapper as these are linked in the food web.
- Smaller areas defined and assessed than CRA2, in closer consultation with local recreational fishers and mana whenua.
- We are not convinced there is a good case at all for increase in commercial quotas, noting most are exported. We need to learn lessons from the recent scallop closures that were implemented because stocks were virtually wiped out along our coast. We need more crayfish in the water not less.

Please keep us informed on developments with CRA2. Our primary contact is Dr Mark James s9(2)(a) . or Phil Keogh s9(2)(a)

References:

FNZ (2024). Review of sustainability measures for spiny rock lobster (CRA2) for 2024/25.

Fisheries New Zealand
Tini a Tangaroa

Submission form
Review of sustainability measures for 1 April 2025

Once you have completed this form, send it by email to FMsubmissions@mpi.govt.nz
While we prefer email, you can also post your submission to:
2025 Sustainability Review, Fisheries Management, Fisheries New Zealand, PO Box 2526, Wellington 6140, New Zealand.

Submissions on the proposals must be received no later than 5pm on Wednesday 29 January 2025.

Anyone may make a submission, either as an individual or on behalf of an organisation. Please ensure all sections of this form are completed. You may either use this form or prepare your own. If preparing your own, please use the same headings as used in this form.

Submitter details

Name of submitter or contact person	Andy Abraham
Organisation (if applicable)	
Email address	s9(2)(a)
Fish stock(s) this submission refers to	Review of sustainability measures for spiny rock lobster (CRA 2) for 2025/26
Your preferred option as detailed in the discussion paper (write 'other' if you do not agree with any of the options presented)	Option B2 -

Submissions are public information

Note that all, part, or a summary of your submission may be published on this website. Most often this happens when we issue a document that reviews the submissions received. People can also ask for copies of submissions under the Official Information Act 1982 (OIA). The OIA says we must make the content of submissions available unless we have good reason for withholding it. Those reasons are detailed in sections 6 and 9 of the OIA. If you think there are grounds to withhold specific information from publication, make this clear in your submission or contact us. Reasons may include that it discloses commercially sensitive or personal information. However, any decision MPI makes to withhold details can be reviewed by the Ombudsman, who may direct us to release it.

Official Information Act 1982 – NZ Legislation

Fisheries New Zealand
Tini a Tangaroa

Submission:[1]

Details supporting your views:
Close the inner Hauraki Gulf to all commercial and recreational rock lobster fishing. We need to restore the population and also get on top of sea urchins etc. A lot of people don't bother to try and once people realise it is easier, a lot will switch back into gathering and trying. Free diving is also growing in popularity. Modern boats, get skis etc can also cover greater distances and increase pressure.

[1] Further information can be appended to your submission. If you are sending this submission electronically, we accept the following formats: Microsoft Word, Text, PDF, and JPG.

From:	Andy Saunders
To:	FMSubmissions
Subject:	Review of sustainability measures for fisheries – April 2025 round
Date:	Wednesday, 29 January 2025 11:21:38 am

Submission to Fisheries New Zealand
Regarding CRA 2 Rock Lobster Sustainability Measures 2025/26

As a regular freediver and resident of Aotea/Great Barrier Island, I strongly oppose any increase to the Total Allowable Catch for CRA 2. Over two decades of diving these waters, I've witnessed firsthand the devastating decline in crayfish populations, particularly accelerating in recent years.

The impact of Caulerpa is particularly concerning. Recent dives (in the Southwest of the island) revealed this invasive seaweed clogging traditional crayfish habitat, including their nest holes. This habitat destruction compounds the pressure on already depleted populations. During recent dives, I've observed Caulerpa advancing into new areas as far east as Waterfall Bay, creating additional stress on our marine ecosystem.

The contrast in population numbers is stark. Twenty years ago, a dive at any of our local spots would reliably yield sightings of multiple crayfish. Today, even at remote spots previously teeming with life, finding a single crayfish is noteworthy. Last month, I spent five hours with another island resident, exploring traditionally productive spots around the Southern end of the island and between us, saw only two undersized crayfish. This is sadly becoming a typical dive. A similar dive in Schooner Bay revealed just three juveniles amongst the bales of floating Caulerpa.

Your proposal to close the Inner Hauraki Gulf while simultaneously increasing the TAC to 90 or 100 tonnes is particularly concerning. This will inevitably push more fishing pressure toward our waters, which are already struggling to maintain viable populations. Commercial operators and recreational fishers will likely redirect their effort to our area, if the Inner Gulf closure proceeds without the inclusion of Aotea.

Local knowledge from long-term residents, particularly those from our divers, indicates that crayfish populations have never been this low. Many spots that were reliable for gathering kai moana even five years ago are now completely devoid of legal-sized crayfish.

The proposed management approach appears to ignore:the severe local depletion around Aotea, cumulative impact of multiple environmental stressors and historical evidence of failed stock recovery. Additionally seemingly left unconsidered is local ecological knowledge and the current impact of Caulerpa on inshore habitat availability.

Instead of increasing catch limits - which will almost certainly increase the pressure on an already fragile population, we should ideally look to:
1. Maintain or reduce current catch limits
2. Extend protection measures to Aotea waters
3. Implement more robust local population monitoring
4. Consider the combined impacts of fishing pressure and Caulerpa

The recent collapse of the scallop fishery should serve as a warning. We cannot afford to repeat the same mistakes with our crayfish stocks. As someone who has watched this decline unfold over twenty years, I implore you to take a more conservative approach to managing this precious resource so it is there in the future.

Kind regards,

Andy Saunders
Aotea/Great Barrier Island Resident

Fisheries New Zealand
Tini a Tangaroa

Submission form
Review of sustainability measures for 1 April 2025

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Submitter details

Name of submitter or contact person	Brigitte Grace de Lambert
Organisation (if applicable)	
Email address	s9(2)(a)
Fish stock(s) this submission refers to	Spiny rock lobster
Your preferred option as detailed in the discussion paper (write 'other' if you do not agree with any of the options presented)	Option A1 Option B2

Submissions are public information

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Official Information Act 1982 – NZ Legislation

Fisheries New Zealand
Tini a Tangaroa

Submission:[1]

Details supporting your views:
I live on Waiheke Island and very strongly support the view that the default management target should be increased, that the TACC limits should stay at their current reduced limits and that the inner Hauraki Gulf should be closed to commercial and recreational rock lobster fishing to assist their recovery. It is well recognised that the Spiny Rock Lobster is nearly functionally extinct in the Hauraki Gulf and so if you do not act now, it will never recover. I encourage you to be bold and secure this Taonga for future generations and for the health of the Hauraki.

[1] Further information can be appended to your submission. If you are sending this submission electronically, we accept the following formats: Microsoft Word, Text, PDF, and JPG.

Fisheries New Zealand
Tini a Tangaroa

Submission form
Review of sustainability measures for 1 April 2025

Once you have completed this form, send it by email to FMsubmissions@mpi.govt.nz
While we prefer email, you can also post your submission to:
2025 Sustainability Review, Fisheries Management, Fisheries New Zealand, PO Box 2526, Wellington 6140, New Zealand.

Submissions on the proposals must be received no later than 5pm on Wednesday 29 January 2025.

Anyone may make a submission, either as an individual or on behalf of an organisation. Please ensure all sections of this form are completed. You may either use this form or prepare your own. If preparing your own, please use the same headings as used in this form.

Submitter details

Name of submitter or contact person	Benn Winlove
Organisation (if applicable)	
Email address	s9(2)(a)
Fish stock(s) this submission refers to	CRA2
Your preferred option as detailed in the discussion paper (write 'other' if you do not agree with any of the options presented)	Other. We need a recovery plan

Submissions are public information

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Official Information Act 1982 – NZ Legislation

Fisheries New Zealand
Tini a Tangaroa

Submission:[1]

Details supporting your views:

I believe we need to take a precautionary approach to Crayfish all over the country. Fishery by fishery they are being depleted (even the Chathams where I was lucky enough to go last year).

There is no reason why we shouldn't aim for abundance with crayfish (and all species). If we had abundant fisheries, our tourism would go through the roof. The marine industry would thrive and we could feed our people properly.

With CRA2 specifically, it sounds like the data and science used to justify an increase is unreliable and manipulable. Effort based assessment is in the hands of the cray potters and they will always be skewed to show there is more crayfish than there is. For this reason we need to be more precautionary with our approach. We can't trust the data, so we need to allow for it to be showing to much.

I believe we need to do the following:

1. Separate CRA2 into 3 management areas. The Hauraki Gulf Marine Park, BOP and the westerns side of East Cape.
2. Close the HGMP to all crayfishing.
3. Commission a proper survey for CRA2.
4. Establish management targets of at least B50.

We need abundant crayfish in our future. For the ecology of the marine environment (they do after all eat a lot of kina!), for our people and future generations, and for our economy.

[1] Further information can be appended to your submission. If you are sending this submission electronically, we accept the following formats: Microsoft Word, Text, PDF, and JPG.

Fisheries New Zealand
Tini a Tangaroa

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Submitter details

Name of submitter or contact person	Colin Patchell
Organisation (if applicable)	
Email address	s9(2)(a)
Fish stock(s) this submission refers to	CRA2
Your preferred option as detailed in the discussion paper (write 'other' if you do not agree with any of the options presented)	Other

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Official Information Act 1982 – NZ Legislation

Fisheries New Zealand
Tini a Tangaroa

Submission:[1]

Details supporting your views:
I have been diving off the coast of Tauranga for 40 years now and have never seen as many Crayfish as I am now seeing. You have suggested that the total biomass is now above maximum sustainable yield, and suggested an increase in TACC. No increase to the recreational fishers in terms of daily allowable take from 3 crayfish, back to 6. Appears at face value to be a commercial $$ grab, rather than a fair increase across the commercial and recreational sectors.

[1] Further information can be appended to your submission. If you are sending this submission electronically, we accept the following formats: Microsoft Word, Text, PDF, and JPG.

From: Charlotte Reed
To: FMSubmissions
Subject: Review of sustainability measures for fisheries – April 2025 round
Date: Wednesday, 18 December 2024 9:29:35 pm

[You don't often get email from s9(2)(a) Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

I write in support of the option to ban rock lobster harvesting across the inner Hauraki Gulf for all but (monitored / accountable) customary takes, for the purpose of reducing the scale and scope of kina barrens.

Sent from my iPad

From:	David Guccione
To:	FMSubmissions
Subject:	My say on Review of sustainability measures for spiny rock lobster (CRA 2) for 2024/25
Date:	Friday, 13 December 2024 10:40:12 am
Attachments:	ATT00001.png ATT00002.gif ATT00003.gif ATT00004.gif ATT00005.gif

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I support option A1 maintaining the status quo.
This fishery in the Bay of Plenty is only just starting to recover to a useable state for recreational fishers. It still has a long way to go. The cuts are working, let's let them work a little longer.
Option A2 in contrast looks like only an increase of 1.5 tonnes, but I think the assumptions on reducing "other mortality" seem weak enough that a more precautionary approach needs to be taken. A bit more time with current commercial utilisation levels is reasonable considering it will allow for a greater catch in the future. The wider ecological effects of more and bigger crays are not being adequately factored in if the TACC were to increase. The cray fishers, or at least the quota owners, are still doing very well financially with being able to catch their Ace in a short period with limited operational costs. We're nowhere near MEY.
Potential climate change uncertainty needs to be more heavily weighed in setting precautionary limits.
You're doing great. Hold the line a little longer. Another 2 years at current levels and then start *inching* the TACC upwards.
Thanks,
Dave Guccione

David Guccione
Senior Academic Staff Member
Marine and Environmental Management
s9(2)(a)

Windermere Campus, Tauranga

toiohomai.ac.nz | 0800 86 46 46 | info@toiohomai.ac.nz

Fisheries New Zealand
Tini a Tangaroa

Submission form
Review of sustainability measures for 1 April 2025

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Submitter details

Name of submitter or contact person	Emily Daly Ferguson
Organisation (if applicable)	
Email address	s9(2)(a)
Fish stock(s) this submission refers to	Spiny Rock lobster
Your preferred option as detailed in the discussion paper (write 'other' if you do not agree with any of the options presented)	Option 1

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Official Information Act 1982 – NZ Legislation

Fisheries New Zealand
Tini a Tangaroa

Submission:[1]

Details supporting your views:

I reluctantly support option 1 as it is the option that most in alignment with current research and evidence from independent technical advisors, the gold standard .

I propose that the new sustainability system included a limit on legal size at 120mm and an increase in minimum size by 10mm and mandatory reporting of recreational spiny rock lobster catch.

I am concerned about the impact that commercial spiny rock lobster fishing has on kelp eco system in the Coastal Otago area. Spiny rock lobster are an important predator species and an increase in catch allowance will decrease pressure on one of there target species, kina. Kina are responsible for creating collapsed kelp eco systems, a trophic cascade occurs. This has a significant impact on the whole marine eco system.

Any management strategy needs to take a habitat protection approach to maximizing sustainability of the biomass. The Ministry must establish a kelp forest monitoring system.

The Ministry needs to develop clear management goals to avoid urchin barrens and remedy existing barrens. This needs to included monitoring and direct action where necessary.

There are other significant causes of kelp damage in Coastal Otago this includes light levels caused by sediment run off and sea temp increases. As our climate shifts we need to take all measures possible to stop our oceans reaching a tipping point. Option one along with the recommendations for reporting, habitat monitoring and size changes will help to prevent collapse of spiny rock lobster bio mass and the associated impacts on our marine eco systems.

[1] Further information can be appended to your submission. If you are sending this submission electronically, we accept the following formats: Microsoft Word, Text, PDF, and JPG.

Submission in response to the April 2025 Sustainability Round: Review of sustainability measures for Spiny Rock Lobster (CRA2) for 2025/26.

28 January 2025

Submitter Details:

Name: Glenn Edney MSc, Principal marine ecologist at Ocean Spirit Ltd and Trustee of Te Wairua o te Moananui - Ocean Spirit Charitable Trust.

Address: 316 Clements Road, Matapouri, Whangarei 0173.

Contact details: s9(2)(a)

Introduction:

This is a personal submission on the proposed changes to the harvest of rock lobster in CRA2 for April 2025 Sustainability Round. In my capacity as both principal marine ecologist for Ocean Spirit Ltd and as a Trustee for Te Wairua o te Moananui – Ocean Spirit Trust I have been working with the Ngāti Rehua Ngātiwai ki Aotea Trust since June 2022 in relation to their 186a closure application as well as the Ahu Moana Pilot project, as part of the Government's "Revitalising the Gulf" strategy to restore the Hauraki Gulf/Tīkapa Moana. In addition, the Ahu Moana Pilot project has been a core component of my PhD research within Te Wānanga o Waipapa (Māori Studies Department) of Waipapa Taumata Rau (University of Auckland). As part of this research, I have been working with Aotea tangata whenua and other local community members to develop community-based ecological monitoring, using a specifically designed, qualitative ecological monitoring method (Hauora Moana).

This monitoring, along with diver-based surveys conducted by University of Auckland and DoC scientists in which I participated, paint a very different picture of rock lobster abundance than the modeling undertaken by FNZ, which describes a significant recovery since 2018. Considering this stark discrepancy, and the very serious repercussions for the entire CRA2 area, I submit the following recommendations.

Proposed biomass management targets.

It is commendable that FNZ are proposing lifting the biomass management targets. This is more in line with an ecosystem-based approach and recognizes the responsibility the FNZ has, as per the outcomes of recent court decisions. I note that in the discussion document that FNZ calculates the current biomass at approximately 1.54 x B_R and is recommending an initial target of 2 x B_R for these sustainability rounds. I believe that FNZ is in error with their calculation of 1.54 x B_R because it is failing to take a **precautionary approach** in their interpretation of the modeling data they are using (something they have been criticized for in previous court cases), which is the primary reason for the current poor state of rock lobster populations. Whilst increasing the target to 2 x B_R is a step in the right direction, I submit that the option to increase the management biomass to greater than 3 x B_R is more in keeping with the ecosystem-based approach FNZ has been instructed to adopt. The discussion document also acknowledges the strong link between low rock lobster numbers and the increase in kina barrens. The science is clear on this relationship and the need for a significant

increase in rock lobster numbers, especially larger adults. Increasing the biomass to at least 3 x B_R is therefore a much more appropriate management action.

Total allowable catch (TAC)

I do not support any increase in the TAC or the TACC. I do not agree with FNZ's modelling assumptions that increasing the TACC (Options A2 and A3) would still achieve 2 x B_R. I also fail to see how FNZ can justify the manipulation of the mortality figures downwards to the exact tonnage increase in the TACC for both options A2 and A3. In keeping with the **required** precautionary approach I am disappointed that FNZ has not also included an option to decrease the TAC and TACC to achieve a higher than 2 x B_R as a matter of urgency. This shows an inherent reluctance and lack of commitment towards ecosystem-based fisheries management. Given that, and as there is no option for a reduction, I support option A1, keeping the TAC at the status quo.

Proposed spatial management measures

I support option B2, closing the inner Hauraki Gulf to all commercial and recreational rock lobster fishing. There is overwhelming scientific, as well as wide-spread observational evidence that the inner Gulf rock lobster population is close to, or has reached functional extinction. Even with the addition of the proposed HPAs within the Hauraki Gulf/Tīkapa Moana Marine Protection Bill, there is still a desperate need to pause all rock lobster fishing throughout the inner Gulf until such time as sustained recover can be verified.

However, whilst I agree that closing the inner Gulf is appropriate at this time, I am concerned about the very strong likelihood of this closure resulting in significantly increased fishing pressure in the outer Gulf, specifically around Aotea/Great Barrier and the surrounding islands, which are already suffering the negative effects of increased recreational and commercial fishing. The following section outlines my recommendations to mitigate this risk and redress the already fragile rock lobster population.

Ahu Moana local management for Aotea

For the past three years Ngāti Rehua Ngātiwai ki Aotea Trust, with support from the Aotea/Great Barrier Local Board and the wider local community, have facilitated and participated in the Ahu Moana Pilot project, as described in the Government's Revitalise the Gulf Strategy. This has included several kaumatua and public hui to introduce and develop the Ahu Moana concept, the setting up of an Ahu Moana steering group, as well as the afore-mentioned Hauora Moana ecological monitoring. These regular surveys have provided a continuous record of the dynamics of the local moana ecosystems over the past three years (and will continue), which is a richer and more comprehensive ecosystem-based record of the actual state of the rock lobster population, compared to FNZ's broad-scale stock assessment using catch data modeling.

This has led to community-wide discussions about local management of Aotea's coastal moana, and in particular, local bylaws for the rock lobster fishery. FNZ has already been involved in these discussions via the FNZ Ahu Moana liaison, Phil Ross.

The management options already discussed include: reduced daily bag limits, the introduction of daily boat limits, reduced accumulation limits, increased minimum size limit and the introduction of a maximum size limit, and the introduction of a minimum potting depth to decrease commercial/recreational overlap in shallower areas. Other important measures discussed include: implementing rāhui in certain areas to enhance recovery of depleted populations and protect critical

habitants, introducing a closed breeding season to protect reproduction periods and enhance reproductive success. There appears to be broad support for these measures amongst the Aotea community. I am aware that Ngāti Rehua Ngātiwai ki Aotea Trust (along with other organisation and individuals from Aotea have made submissions and I support their request to work with FNZ collaboratively to develop and implement appropriate bylaws. This will not only ensure culturally appropriate and locally relevant management measures, but will also offer the best opportunity to ensure a healthy and sustainable local koura fishery into the future.

Conclusion

In conclusion, I believe that the combination of a higher management target (at least 3 x B_R), keeping the TAC and TACC at current levels (option A1) and closing the inner Gulf to commercial and recreational fishing (option B2) are steps in the right direction, but do not go far enough to ensure recovery of the CRA2 management area. I believe FNZ will need to evolve its understanding and commitment to ecosystem-based management principles significantly further to achieve long-term sustainable rock lobster fisheries. However I acknowledge the positive intent of this sustainability round and urge FNZ to take the opportunity to work with the Ngāti Rehua Ngātiwai ki Aotea Trust, the Aotea Local Board, the Ahu Moana steering group and the Aotea community to ensure they do not bear the brunt of these measures.

Nga mihi nui

s9(2)(a)

Glenn Edney

Emma Hopkins

From: Shane Jones <Shane.Jones@parliament.govt.nz>
Sent: Thursday, 23 January 2025 10:35 AM
To: George Clark
Cc: s9(2)(a)
Subject: FW: SJC1332 | Re Crayfish catch

Logged SJC1332

From: Gabrielle McKone s9(2)(a)
Sent: Wednesday, 22 January 2025 9:51 PM
To: Shane Jones <Shane.Jones@parliament.govt.nz>
Subject: SJC1332 | Re Crayfish catch

Dear Minister Jones
I am so disappointed to hear that Fisheries NZ is planning to INCREASE the commercial catch for crayfish, when it is very obvious that crayfish are on the decline.
This is obviously a dwindling resource, have we learnt nothing from the decimation of our scallop beds? Fisheries NZ should be DECREASING the commercial crayfish catch and not increasing it.
Nine years ago crayfish in the Hauraki Gulf were all but depleted but here are increasing the commercial catch allowance, give these fish at least a fighting chance for survival and do not allow this to happen.

Yours sincerely
Gabrielle McKone

From: Heather Grace
To: FMSubmissions
Subject: Submission: Crayfish quotas around Great Barrier Island
Date: Sunday, 26 January 2025 10:28:19 am

[You don't often get email from s9(2)(a) . Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

Hi
As a regular diver in the waters around Great Barrier Island for over 20 years, I am writing to make a submission on proposed changes to quota for cray fishing in these waters.
Over the past 5 years there has been an accelerating decline in crayfish stocks around the island and many areas once covered in kelp have become kina barrens.
The decline has been so dramatic that many of our previously popular diving spots are not nice places to dive anymore. Instead of plenty of kelp and a wide variety of fishes, large areas look like a wasteland.
I wish to reject the proposal to increase quota for commercial crayfish gathering. In fact, it would be best for the area if a 2 year ban was imposed on crayfish gathering to allow time for stocks to replenish.
Once an area is devoid of kelp the crayfish are not to be found and the kina take over. I am not sure what can be done to reverse this, but we certainly should not be making it worse.
I am not sure what information you need from me to accept my submission, but my contact details are below if you need additional information.
Heather Marie Grace
s9(2)(a)

Thank you for taking this information forward to enable the right decisions to be made in this matter.

Cheers
Heather

Sent from my iPhone

Fisheries New Zealand
Tini a Tangaroa

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Submitter details

Name of submitter or contact person	Izzy Fordham
Organisation (if applicable)	-
Email address	s9(2)(a)
Fish stock(s) this submission refers to	Spiny rock lobster CRA2 Inner Hauraki Gulf closure, and TAC
Your preferred option as detailed in the discussion paper (write 'other' if you do not agree with any of the options presented)	Other

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Fisheries New Zealand
Tini a Tangaroa

Submission:[1]

Details supporting your views:

I strongly oppose the proposed increases to the Total Allowable Catch (TAC) for CRA2 rock lobster fishery.

Recent comprehensive surveys around Aotea Great Barrier Island show critically low rock lobster populations despite periods of reduced fishing activity during COVID-19 and exotic *Caulerpa* CAN closures. Any proposed increases would be to the detriment of our already depleted stocks as well as potential destabilization of our already fragile marine ecosystems.

Whilst in theory, the proposed closure of the Inner Hauraki Gulf sounds like a good idea it would be to the detriment of Aotea Great Barrier Island and its surrounding rocky outcrops. The impact on our already over fished waters, by both the recreational and commercial sectors, would have dire consequences. The closure of the Inner Gulf leaves Aotea Great Barrier Island vulnerable on all fronts, leaving it as one of the only areas where recreational and commercial rock lobster fishing can occur.

I would urge consideration of the following management options in preference to a total closure of the Inner Hauraki Gulf OR should that occur offer some protection for Aotea Barrier Island:

- Seasonal Closure for the breeding season
- Smaller year-round no take areas
- Lowered daily recreational bag limits
- Maximum recreational and commercial size limits. Currently there is minimum size limits but not maximum noting that it's the larger adult females that produce many more eggs than their smaller counterparts, therefore protecting the large breeders
- Minimum depth limit for pots

[1] Further information can be appended to your submission. If you are sending this submission electronically, we accept the following formats: Microsoft Word, Text, PDF, and JPG.

From:	jlaurence
To:	FMSubmissions
Subject:	Review of sustainability of rock lobster CRA 2 for 2025
Date:	Wednesday, 29 January 2025 1:47:28 pm

Thank you for the opportunity to make a submission regarding the review sustainability measures of rock lobster in the CRA 2.

1. I believe the complete spatial closure of the inner gulf area should be extended to include the area from Te Arai Point to Mokohinau Islands to Arid Island to Cuvier Island to Port Charles.

2. The closure should include commercial, recreational, and customary fishing of spiny rock lobster.

3. The collapse of the ecological benefits provided by well functioning marine reefs caused by excessive numbers of kina which normally would be controlled by spiny rock lobster has had vast detrimental effects on a balanced ecological system.

4. Allowing spiny rock lobster to control kina will allow a severely degraded marine ecological system to rebuild.

5. A balanced ecological system of abundant marine life will in the long-term be far more valuable to society than the continued harvest of spiny rock lobster in the short term.

6. The biomass target should be greater than 3x and this target should be reached soon at the expense of utilization in the short term.

7. I believe that CRA 2 should be split into 2 zones and be managed separately. A zone east of Cuvier Island and a zone which is west of Cuvier Island.

8. I think a comprehensive economic analysis is required to compare complete closure of spiny rock lobster fishing in the area east of Cuvier Island against not closing the fishing, and take into account the recovery of kina barrens and hopefully the recovery of the abundance of many other important marine species and generally the total marine biomass in the wider Hauraki Gulf.

9. I believe that CRA 2 should be managed with extreme caution having considered the man made collapse of green lipped mussels and scallops in Hauraki Gulf.

10. I believe the short term loss of spiny rock lobster fishing will have an effect on customary fishing, employment, and recreational activities, but a significant long term recovery of a balanced ecological system will easily outway the effects on human utilization of such an important ecological species.

John Laurence
s9(2)(a)

From:	Karen Lombard
To:	FMSubmissions
Subject:	Crayfish quota submission
Date:	Monday, 27 January 2025 10:44:50 am

Dear MPI,
I would like to make the following submission to your proposal on changing the crayfish quota in area CRA2

I am in support of option B2 with an increased area that includes the islands of Little Barrier and Great Barrier Islands.

Reasoning:
I am a local GBI resident who frequently recreationally dives (I do not take crayfish as I do not think there are enough). I am in agreement that they are also functionally extinct around GBI and there is the existence of Kina barrens here (and loss of kelp beds) to prove this.
I would expect an increase in fishing for crayfish on these two islands should you implement B2 as is (as these areas would be just outside the banned area) and I would find this incredibly non environmentally friendly towards the restoration of the sea environment around these two precious islands.

Kind regards
Karen Lombard
s9(2)(a)

From: Kirsty Prior
To: FMSubmissions
Subject: Support Option B2
Date: Thursday, 23 January 2025 2:01:08 pm

> You don't often get email from s9(2)(a) . Learn why this is important

To whom it may concern,

I'm writing to give support for the inner Hauraki Gulf closure for all rock lobster fishing.

This should be extended to include the outer hauraki gulf, Aotea, otherwise pressure will be pushed out there.

Thanks,

Kirsty

--
s9(2)(a)

From: Meg Graeme
To: FMSubmissions
Subject: Review of sustainability measures for fisheries – April 2025 round
Date: Tuesday, 17 December 2024 10:10:28 am
Attachments: image001.gif

You don't often get email from s9(2)(a) . Learn why this is important

Kia ora,

I support Option B2 to close the Hauraki Gulf (as indicated in review document Figure 2) to all commercial and recreational rock lobster fishing. The reason for my support for this option is the dire need to address the loss of kina predators including rock lobster. Overfishing is a key pressure responsible for this ecological imbalance.

Ngā mihi,
Meg

Meg Graeme

s9(2)(a)

Fisheries New Zealand
Tini a Tangaroa

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Submitter details

Name of submitter or contact person	Neil Rist
Organisation (if applicable)	
Email address	s9(2)(a)
Fish stock(s) this submission refers to	Cray quota and blue fin tuna limits
Your preferred option as detailed in the discussion paper (write 'other' if you do not agree with any of the options presented)	Leave limits as they are.

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Official Information Act 1982 – NZ Legislation

Fisheries New Zealand
Tini a Tangaroa

Submission:[1]

Details supporting your views:
Blue fin don't belong to the government and mearly pass through our waters during the course of their life span. Therefore who said that the government can control who catches how many... Just look at all the foreign ships fishing on the boarder of our economic zone. As too do the crayfish they are merely passing through various waters. Reduce the business raping of our oceans for the benefit of foreign countries. Allow kiwis to catch kaimoana to feed ourselves and others that can't.

[1] Further information can be appended to your submission. If you are sending this submission electronically, we accept the following formats: Microsoft Word, Text, PDF, and JPG.

From: s9(2)(a)
To: FMSubmissions
Cc: s9(2)(a)
Subject: Review of sustainability measures for spiny rock lobster (CRA 2) for 2024/25
Date: Saturday, 25 January 2025 8:52:57 pm

Dear Sirs;

Sorry, but I could not locate any handy template to follow for making a submission despite numerous links offering to help.

REVIEW of SUSTAINABILITY MEASURES FOR SPINY ROCK LOBSTER (CRA 2) for 2024/ 25

From:

-
Patrick Clark
-
Independent recreational fisher

Phone s9(2)(a)

I would like to make a few points concerning the state of the crayfish fishery in CRA 2

- I own a seaside property near Te Kaha eastern BOP
-
- I have fished for crayfish regularly along an approx. 4 km stretch of coastline since 1998 – 26 years
- .
- Mainly potted for crays with some limited diving
-
- Since year 2000 I have kept daily records of fishing excursions including catch records of fin fish and crayfish.
-
- My records show that there has been a dramatic decline in crays caught over the last 24 years and that my results roughly mirror the graph in Figure1 showing "vulnerable biomass"
  Except that catch figs for 2022 keep on plummeting not the upward curve above the reference line as shown in your graph fig 1 from 2019.

- Annual (June t o May) catch of crayfish is now only < 40% of what it was in the stable years 2005 to 2014
-
- Present day (Jan 2025) cray catch is abysmal and many recreational fishers in the Te Kopua have given up crayfishing
- .

- Commercial cray fishing has obviously faltered alarmingly in the last 26 years and whilst there was once 4 commercial boats operating along the coast line and overlapping in front of Te Kopua and now there appears to be only one commercial operator and that is only for a short period of time – barely 6 weeks.
-
- Kina barrens are quite evident now adjacent to Te Kopua and Waikawa Pnt. and were not so approx. 10 years ago .I had never seen a kina barren in my early diving years around Gisborne and Waiheke Island

- There is huge numbers of kina now , far more than previous and for the first time last year I have seen the odd long spined urchin

- .
- Snapper numbers are very variable but size has dropped off remarkably and the far greater portion of snapper hooked now are non keepers, less than legal size.

,

<u>YES, I DO SUPPORT A HIGHER Biomass management target for CRA2 stock</u> -

In the Te Kopua area where I fish, the crays are rapidly following the path of Hauraki Gulf crays, population wise and I believe are also heading for "extinction" . Our present day Spring/early summer total catches are often only 1 or 2 crays or zero crays/day but they are nearly all of legal size+. Very few potted are lesser sized.

I cant really offer a specific long term biomass target as I don't know enough about the subject but do know what I have seen and observed over the last 65 years fishing in Gisborne/ East Coast , Waiheke Island and last 20 plus years at Te Kopua. My catch figs show that I would prefer a sustainable biomass of crays perhaps similar to what was current in about 1995 approx Adjusted Vulnerable Biomass 750 tonnes CRA2 supported approx. 750 t AVB only 30 years ago and why couldn't we plan to re establish those numbers ?

<u>YES, I DO SUPPORT A REVISION OF THE TAC AND ALLOWANCES</u>

Of course there will have to be a revision downwards of TAC and that number will need to go down a lot and it could well be necessary to have a hard look at all the components of quotas which make up the TAC. It may well be necessary for Fisheries NZ to fairly buy out and retire a fair portion of commercial quota in order to re establish control of the fishery. All quota components should be revised not just commercial . If you take a pragmatic view of the annual returns from crayfishing (<$10,000,000) CRA2 it is insignificant compared to other primary industry in the region such as kiwi fruit, dairy, forestry, wood processing, horticulture mussel farming etc. A similar industry which had to face reality was native forest logging and those logging contractors never received a shut down payment. Pay out the commercial crayfishermen a generous amount and perhaps help them into some other marine endeavour if they preferred. It wouldn't take many kiwi fruit orchards to out perform monetary wise the whole of the CRA2 crayfish harvest and jobs created.

YES, I DO SUPPORT THE PROPOSED SPATIAL CLOSURE

If you don't give the crayfish the chance to recolonize the Gulf it will never happen and adjoining parts of CRA1 and CRA2 will go the same route.

Perhaps if kina barrens are better mapped and studied more areas could be re assessed for more regulated fishing or perhaps even seasonal spatial closure. and I am thinking that perhaps the area I am more familiar with in E BOP – TeKopua. would benefit from some sort of practical management aid.

ADDITIONAL MEASURES TO BE CONSIDERED

Lift the daily limit of kina able to be harvested to 150 or perhaps unlimited until reefs become revegetated.

Ban bottom trawling which is having a huge effect on average snapper size within BOP and elsewhere.

Encourage commercial line fishing as a substitute to trawling.

Put a slot size limit on crayfish – protect the large and the small crays and allow harvesting of medium sized crays only.

Put a slot size limit on snapper. Release all the big snapper over 4 kilos.

Establish a catch season on crayfish – say open after "berry" November to February - 4 months?

ALLOWANCES

Yes, I think the allowances for customary Maori and recreation are appropriate but am not so certain about mortality which appears to be reduced in Option 2 , yet TAC is increased from TAC 1.

I think the mortality figs are being used here as a buffer to bolster other figs.

OTHER RESEARCH

I am aware through personal communication with a professional abalone diver/ harvester operating in NSW/ Victoria border area that he was contracted by abalone quota owner holder's to eradicate kina from a defined area to help promote better grazing for abalone in order to help recover the valuable abalone population. The contract diver very soon combined kina destruction with kina harvesting for sale in Sydney – he seemed to be more than happy combining the 2 jobs. I understand the enterprise was regulated by authorities. Perhaps something similar could be tried here to combat kina over populations?

Fisheries New Zealand
Tini a Tangaroa

Submission form
Review of sustainability measures for 1 April 2025

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While we prefer email, you can also post your submission to:
2025 Sustainability Review, Fisheries Management, Fisheries New Zealand, PO Box 2526, Wellington 6140, New Zealand.

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Submitter details

Name of submitter or contact person	Phil Clow
Organisation (if applicable)	
Email address	s9(2)(a)
Fish stock(s) this submission refers to	CRA2
Your preferred option as detailed in the discussion paper (write 'other' if you do not agree with any of the options presented)	(A) I support using a higher biomass management target for managing this stock and think 2 x Br is appropriate. (B) I think the catch settings for CRA2 should be option A2 (increase to TAC to 174.5 tonne and TACC to 90 tonne). (C) I agree that the inner HG be closed to all commercial and recreational rock lobster fishing.

Fisheries New Zealand
Tini a Tangaroa

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Official Information Act 1982 – NZ Legislation

Fisheries New Zealand
Tini a Tangaroa

Submission:[1]

Details supporting your views:

What the submission wants to hear my thoughts on:

(A) Regarding using a higher biomass management target for this stock:

2XBr is the correct biomass interim management target for this stock as this will help smooth out fluctuations in recruitment. I think the length of time needed to reach 2Br is reasonable for all concerned parties, including the stock. To aim for more than 2Br will have negative effects on utilisation.

As a commercial crayfisher between 1977-1991 we had good CPUE and poor CPUE which had to be related to recruitment. By increasing the biomass this will dampen the effect on CPUE and improve returns to New Zealand's economy.

(B) Re the proposed TAC options.

I support option A2 to increase TACC to 90t. This is because I'm happy that the massive 60% commercial quota catch reduction in 2018 has been the reason for the improved CPUE. This will be therefore delivering some stability to this NZ fishery and the fishers and shows that the stock can handle a small increase in TACC.

(C) Re the proposed closure of the inner HG waters to recreational and commercial harvest of cray fish.

I support this sensible move. The sheer population of Auckland will not allow parts of this inner Gulf to ever recover without a management option such as this.

Regarding how these proposed sustainability measures impact myself:

In the future I am expecting to be able to harvest recreational red rock lobster catch more easily than it has been in the past.

Regarding further comments on managing this CRA2 fishery:

I am concerned there is no explanation as to why the allowance for the "mortality caused by fishing" can be dropped by 8.5t in option A2 and 4.5t in A3. Is it because you think the reduced number of fishers is reducing the number of mortalities due to small fish transition from surface to seafloor? Or do you have other reasons that quantify this?

Even though packhorse is under PCH1 I wanted to comment on this fishery too as packhorse crayfish are making an incredible comeback in Mercury Bay waters. The recreational catch limit of 6 per person is far too much owing to the legal takeable size being easily reached with these fish (they are a large species) and is resulting in greed. I think the catch limit for packhorse should be reduced to 1 per person per day because there is no need to take more given their size.

[1] Further information can be appended to your submission. If you are sending this submission electronically, we accept the following formats: Microsoft Word, Text, PDF, and JPG.

Lastly, I am of the opinion that the impact of storms on kelp beds needs to be of greater importance when talking about urchin barrens. There is significant kelp washup in our area and it is a lot more than people are allowing for. The washup caused by storms proves that for some urchin barrens recurring storms prevent the ecklonia from re-establishing, giving the impression it is a barren.

As a 1976-1991 Whitianga based crayfisherman I saw the results of what large wave generating storms could do to suitably exposed headlands and their corresponding foreshores. These underwater areas would be bare after the removal of tonnes of the prevalent ecklonia kelp which could be seen washed up on the associated foreshore. Because of our local island's exposure to large storm events I don't think we have a high prevalence of kina barrens due to an ecosystem imbalance, but due to Mother Nature.

See the footage of kelp wash-up below:


A


B

A – Kelp wash up on Moturehu (Double Island) following Cyclone Gabrielle.
https://www.youtube.com/shorts/srk-y2LzA9s

B – Kelp wash up on Hot Water Beach following an east coast low pressure system.
https://www.youtube.com/shorts/PnOgGYK4zs8

From:	phil thompson
To:	FMSubmissions
Subject:	Review of sustainability measures for fisheries – April 2025 round
Date:	Tuesday, 28 January 2025 5:59:03 pm

Hello,

It is my honest opinion that there should be no increase in the commercial take for crayfish in and around bay of plenty and east cape. In my experience they are hard to come by already and they are a resource that should a resource that absolutely should not be depleted for a few dollars/for export.

Again, bluefin tuna limit should not be increased. The fact that fish stocks of bluefin are increasing around the world is NOT a reason to increase limits. This is a species of fish that was only removed from the endangered species list in 2021… they are still at a fraction of original population. The increase in population should be seen as a sign that the limits set are working…

I hope this email doesn't fall on deaf ears. I appreciate the opportunity to provide feedback on this matter.

Thank you,
Philip Thompson

Sent from Outlook for iOS

Fisheries New Zealand
Tini a Tangaroa

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Submitter details

Name of submitter or contact person	REBECCA MCCULLOCH
Email address	s9(2)(a)
Fish stock(s) this submission refers to	Lobster CRA 2 Inner Hauraki Gulf closure, and TAC ↑ Review of sustainability measures for spiny rock lobster (CRA 2) for 2024/25
Your preferred option as detailed in the discussion paper (write 'other' if you do not agree with any of the options presented)	Other ,,,complete closure of the Hauraki gulf to all commercial fishing industry's.

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Fisheries New Zealand
Tini a Tangaroa

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Submitter details

Name of submitter or contact person	Rodney Waterhouse
Organisation (if applicable)	
Email address	s9(2)(a)
Fish stock(s) this submission refers to	CRA2
Your preferred option as detailed in the discussion paper (write 'other' if you do not agree with any of the options presented)	A3 B1

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Fisheries New Zealand
Tini a Tangaroa

Submission:[1]

Details supporting your views:

Rational To Support Option A3

- The CRAMAC2 commercial fishers took a proactive approach when stock number showed sign of decline 2015 by shelving 50T for two consecutive years. Industry begged FNZ to use this opportunity to better understand / account for recreational and customary take, this fell on deaf ears and no action was taken. In spite of CRAMAC2 managing to stop the stock decline with this action the then minister decided to reduce the TACC from 200T to 80T this was 40T below the limit recommended by scientists / ministry / industry / recreational / iwi. "*Short pain quick gain*" was the ministers rational. The pain has not been short, two extended unwarranted delays over three years. The gain has been huge with the Spawning biomass more than doubling since 2018 assessment and vulnerable biomass now 154% above the reference level.

  A scientific assessment was run using the recommended 120T TACC as advised to the minister, this assessment proved at that level the fishery would have continued to improve, confirming the extra 40T reduction was not required and has placed severe financial hardship on fishers and communities. Any movement from TACC 80T to 100T is a reinstatement of the unjustified excessive reduction. The fishery could sustain a higher TACC but I feel 100T is a good stepping stone and starting point for a management plan

  A sustainable fishery is in everyone's interest but this needs to be based on good science not emotion or organizations with political agendas. To still hear rock lobster in CRA2 is "functionally Extinct" from such organizations is frustrating and unwarranted. The focus appears to be on the Hauraki Gulf, CRA 2 extends beyond the Gulf, those fishing outside of the Gulf feel unjustifiably penalised as the stock increase has been exceptional.

Rational to Support Option B1

- The proposed Hauraki Gulf Marine reserves will severely impact on the recreational and commercial rock lobster fishers. Until these areas are defined and in place it would be counterproductive to add any additional closure namely the inner Gulf.

General

CRA2 is a shared fishery with undoubtably the highest recreational fishing activity than any other CRAMAC. It astounds more effort is not taken to better estimate recreational catch, there are several methods used successfully overseas i.e. horn tagging, APP based data collection. The CRA2 Voluntary Logbook Program has proven successful for over 25 years and forms the most accurate assessment of commercial effort and stock assessment, it is time recreational and customary account for their share of the fishery

[1] Further information can be appended to your submission. If you are sending this submission electronically, we accept the following formats: Microsoft Word, Text, PDF, and JPG.

Fisheries New Zealand
Tini a Tangaroa

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Submitter details

Name of submitter or contact person	Stuart Harwood
Organisation (if applicable)	
Email address	s9(2)(a)
Fish stock(s) this submission refers to	CRA2
Your preferred option as detailed in the discussion paper (write 'other' if you do not agree with any of the options presented)	A1 & B2

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Fisheries New Zealand
Tini a Tangaroa

Submission:[1]

Details supporting your views:

I believe that A1 & B2 supports the restoration of the red crayfish fishery, and the general health of the ecosystem in the Hauraki Gulf, in the fastest possible time.

As a recreational spearfisher and free-diver, I have noticed the stocks of crayfish have dropped over the last ten years in the Hauraki Gulf, in particular around Little Barrier the Leigh Coast, Kawau Island, and Whangaparoa.

As noted in the discussion document, there is a risk that closing off the areas as proposed in B2 could increase pressure to the outlying areas. However, I agree with the point made that that the stocks are so low within the B2 area at the moment, that fishers are already pushed out beyond B2 to gather reasonable amounts of crayfish.

[1] Further information can be appended to your submission. If you are sending this submission electronically, we accept the following formats: Microsoft Word, Text, PDF, and JPG.

From: tollov morgan
To: FMSubmissions
Subject: Submission on changes to Pacific Bluefin and CRA2
Date: Tuesday, 28 January 2025 9:56:05 am

[You don't often get email from s9(2)(a) . Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

To whom it may concern;

Pacific Bluefin: I support the proposal to increase the TAC of Pacific Bluefin Tuna in line with the international management framework, largely because we use it or lose it.

CRA2: I am alarmed to learn of the proposal to increase the TACC when parts of the FMA have been heavily over utilised for many years and CRA are so depleted in these areas that they are considered functionally extinct. I do not support any increase of the TACC.
I do urge the Minister to seek further advice and consider a more nuanced spatial approach to managing this economically and culturally important resource that allows for the geographical diversity of the QMA.

Thank you for considering my submission

Tollov Morgan
s9(2)(a)
Sent from my iPhone

From:	Andy Spence
To:	FMSubmissions
Cc:	s9(2)(a)
Subject:	Review of sustainability measures for fisheries – April 2025 round
Date:	Tuesday, 17 December 2024 7:46:32 pm

[You don't often get email from s9(2)(a) . Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

I wish to make a submission

The discussion papers are so long winded that only those with a commercial interest will have the time and energy to read the whole dismal description of the state of our lobster and tuna fish stocks.

Suffice it to say that the take must be drastically reduced and many more marine reserves created to give them any chance of meaningful recovery. Already our oceans in the Gulf are dismally devoid of fish life and kina barrens dominate most areas.

I'm sure that you would like me to make a more detailed response However I think this would be a pointless exercise because none of the options listed will result in the recovery needed. And choosing any one of the options would indicate that I think any option presented is a viable and sensible option. I do not.

Rahui and other such methodologies although admirable are also a mere bandaid and grossly insufficient. An industry that relies on maximum removal without creating the necessary places for replenishment is doomed to suffer collapse of stocks.

No farmer on land would dare to behave in such a cavalier way to his stocks of sheep or cows, they always make sure that there is sufficient breeding stock for the coming years.

Why does the fishing business not see that the same must happen in the oceans??

I have been a secondary school science teacher, a long term conservationist working with DoC and then the ARC as Park Ranger and Biosecurity Officer, as well as a member of the Friends of the Hauraki Gulf on Waiheke Island.

Kind Regards

Andy Spence
s9(2)(a)
BSc Hons Zoology
Managing Director LandMan Limited
s9(2)(a)

From:	Cole Edwards
To:	FMSubmissions
Subject:	Review of sustainability measures for fisheries – April 2025 round
Date:	Tuesday, 28 January 2025 6:52:32 pm

Hello, Cole Edwards here from Thames NZ, I disagree with the proposed changes to the crayfish and bluefin tuna stocks due to the reasoning of what has happened in the past with these stocks, they rise, then limits are put up or changed, and it puts pressure back on the fish.

From: dominic guzzo
To: FMSubmissions
Subject: Review of sustainability measures for October 2023
Date: Monday, 23 December 2024 8:32:02 am

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Hi

Please ban all potting around the Leigh area. There is now a pittance of crayfish compared to what there used to be.

regards

Dominic Guzzo

From:	john j
To:	FMSubmissions
Subject:	Review of sustainability measures for fisheries – April 2025 round
Date:	Tuesday, 28 January 2025 4:05:48 pm

I strongly disagree what the news rules as the system is corrupt into keep fisheries for profit make for government Industries quota holders and export make . everytime there's drop in recreational daily bag limits the markets prices go up . the fisheries system need restructured as its agenda for profits

From:	Jessie Smith
To:	FMSubmissions
Subject:	Submission
Date:	Tuesday, 28 January 2025 2:14:57 pm

Review of sustainability measures for spiny rock lobster and pacific blue fin.

Miss Jessie Smith

s9(2)(a)

I wish to object these proposed changes for supposed “sustainable reasons” as a Māori wāhine who hunts and gathers her own Kai to feed my whānau and friends. Instead of limiting the people, those that choose to spend their time and money sourcing Kai in the most sustainable and efficient way possible, maybe look into the commercial limits of fisheries who rape our Kai Moana and do not give back to the Moana and only have profit as their main motive. The people are not to blame for the destruction of our Kai Moana. If anything maybe it’s smarter to put a permanent marine reserve for 5-10 years in certain places where the population of koura (crayfish) can replenish over time and have the opportunity to grow and spread throughout the Moana.

Regards,
Jessie Smith

From:	Lil Ignius
To:	FMSubmissions
Subject:	Fwd: Sent again As requested plz listen to attached submission from Carol
Date:	Monday, 3 February 2025 12:44:01 pm
Attachments:	Ban Trawling from the Hauraki Gulf.m4a

Kia Ora Honestly was hoping the minister would stop talking start listening play it over and over until finally gets the importance of banning commercial fishing from our Gulf for future generations
Peace Carol

---------- Forwarded message ---------
From: **Lil Ignius** s9(2)(a)
Date: Sat, 2 Sep 2023 at 18:54
Subject: Fwd: from Carol
To: <fmsubmission@mpi.govt.nz>

From: Maya Spence
To: FMSubmissions
Subject: Spiny Rock Lobster inner Hauraki Golf
Date: Tuesday, 17 December 2024 7:57:48 pm

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I wish to make a submission

The discussion papers are so long-winded that only those with a commercial interest will have the time and energy to read the whole dismal description of the state of our lobster and tuna fish stocks.

I do not agree with any of the options listed, as it will not result in the desperate recovery needed.

The reality is that the Hauraki Golf is dying. There is less than 15 % fish stock left!! - If we do not protect the Fish stock in the Hauraki Golf NOW the damage over fishing has done will be irreversible - if it isn't already.

Lobsters - and the Spiny Rock Lobster in the Hauraki Golf - are a crucial part of the ecosystem. Without them (and the Snappers) the Kinna take over and destroy what little life is left -until they too starve to death. There are hardly any Lobsters left and no mature snappers either - I have watched their decline over the years.

The only chance for recovery is a Marine Reserve - i.e total no take!!! to give them a chance to breed and recover.

No farmer on land would ever kill off all of his stock without ensuring sufficient breeding stock for the coming years, nor would they ruin their land to the extent that nothing can grow anymore. The animals in the sea and our oceans at large need to be regarded and treated with the same consideration.

The only viable option is NO TAKE MARINE RESERVES.

Kind regards

Maya Spence
s9(2)(a)

s9(2)(a)

Submissions received through LegaSea

During public consultation, there were 2338 submissions received through a template set up on the LegaSea website. This form included several statements which individuals could express support for. These statements, and the number of submitters in support of each statement, are included within Fisheries New Zealand's advice to the Minister on sustainability measures for CRA 2. The template also included a free-text field in which submitters could provide additional comments to support their views. Below is a summary of the common themes raised in these comments.

Environmental concern
There are growing concerns about the significant decline in crayfish populations and overall marine health due to commercial fishing practices. Observations from residents, divers, and recreational fishers highlight the impact on local marine life, affordability, and access to seafood.
Sustainable practices and management
Submitters emphasize the necessity for lower commercial quotas, sustainable practices, and increased community involvement. Many propose closing depleted areas to crayfish harvest, protecting marine ecosystems, and prioritizing sustainable harvesting practices. They emphasize the importance of science-based management and accurate data for informed decision-making.
Government and regulation
There are strong calls for independent regulation and reliable data to safeguard marine ecosystems for future generations. Submitters urge the government to prioritize ecological sustainability over commercial interests, by expanding marine reserves and ensuring science-based decision-making.
Community involvement and economic pressures
Submitters advocate for greater community involvement in decision-making processes. They note the economic pressures on recreational fishers and the public due to government policies and consider it essential to balance commercial interests with the long-term health of New Zealand's fisheries.

From: Oskar Wickbom
To: FMSubmissions
Date: Thursday, 23 January 2025 6:48:49 pm

You don't often get email from s9(2)(a). Learn why this is important

Submission On the spiny rock lobster (CRA 2) for 2025/26 Fisheries Management, Fisheries New Zealand PO Box 2526, Wellington 6140. Name of submitter: Oskar Wickbom s9(2)(a) This submission refers to: Spiny rock lobster (CRA 2) for 2025/26 Date of Submission: 23/01/2025 My preferred option is: A4 - LegaSea view: Develop a recovery plan that includes - No increase to the total allowable commercial catch. Potential closed areas; and Investment in independent science to prove how many crayfish can be harvested sustainably. Details supporting your views: If you dweebs force my once-a-year delicacy, death row meal, and favourite crustacean further into a pit of concern I will make it my mission that you step into small puddles of liquid when you're walking around your house in socks I OBJECT to the Fisheries New Zealand proposal to increase the commercial catch limit for crayfish in the CRA 2 fishery, between Te Arai Point and East Cape. I AM CONCERNED that Fisheries New Zealand is using unverified data to justify increasing the commercial catch limit in the CRA 2 fishery, between Te Arai Point and East Cape. I URGE the Minister, Shane Jones, to acknowledge that there are significant areas on the northeast coast that are seriously depleted and need to be closed to all crayfish fishing. I DO SUPPORT the Minister in splitting the large CRA 2 Quota Management Area between Te Arai Point and East Cape into at least two smaller areas so fine-scale management can be applied, to rebuild crayfish numbers. I URGE the Minister to take action and direct Fisheries NZ to work with recreational, commercial and mana whenua to develop a recovery plan for crayfish on the northeast coast (CRA 2). I URGE the Minister to direct Fisheries NZ to develop and support independent surveys to prove how many crayfish can be sustainably harvested from the whole CRA 2 management area, between Te Arai Point and East Cape. I URGE the Prime Minister, Christopher Luxon, to explain why public concerns and an independent scientific study into the depletion of crayfish in the CRA 2 area are being ignored. I AM CONCERNED that the Prime Minister is allowing fisheries officials to appease commercial demands instead of prioritising the health of our marine environment and our kids' future fishing interests. I BELIEVE that feeding Kiwis and leaving more crayfish in the water needs to take priority over exporting our crayfish to China and the USA. Yours Faithfully Oskar Wickbom

From:	Simon Yates
To:	FMSubmissions
Subject:	Submission on CRA review - 2025
Date:	Wednesday, 29 January 2025 8:49:57 am

Submission
On the spiny rock lobster (CRA 2) for 2025/26

Fisheries Management, Fisheries New Zealand
PO Box 2526, Wellington 6140.

Name of submitter:
Simon Yates
s9(2)(a)

This submission refers to:
Spiny rock lobster (CRA 2) for 2025/26

Date of Submission:
29/01/2025

My preferred option is:
A4 - LegaSea view: Develop a recovery plan that includes - No increase to the total allowable commercial catch. Potential closed areas; and Investment in independent science to prove how many crayfish can be harvested sustainably.

Details supporting your views:
The management of the CRA2 fishery has been a con for so many years. CPUE reporting from commercial harvesters is pretty much like having the fox look after the hen house. We should never have got to a situation where we are talking about closing areas for crayfish take. That is an obvious outcome of poor management over many years. Feeding the world while NZ starves is senseless. Closing the inner Hauraki Gulf to all crayfishing is a joke. There are no crayfish there now and commercial have cleaned it out long ago supported by recreational take. You will just focus all effort onto surrounding areas such as Great Barrier and Coromandel and completely wipe those areas out too. You are sacrificing the health of our crayfish population simply to line the pockets of a very few people. Our economy would benefit more from a healthy marine ecosystem than it does from a few Chinese restaurants selling our ever decreasing crayfish at higher and higher prices. Be a change leader and make some ballsy decisions to restore crayfish numbers in CRA2.

I OBJECT to the Fisheries New Zealand proposal to increase the commercial catch limit for crayfish in the CRA 2 fishery, between Te Arai Point and East Cape.
I AM CONCERNED that Fisheries New Zealand is using unverified data to justify increasing the commercial catch limit in the CRA 2 fishery, between Te Arai Point and East Cape.
I URGE the Minister, Shane Jones, to acknowledge that there are significant areas on the northeast coast that are seriously depleted and need to be closed to all crayfish fishing.
I DO SUPPORT the Minister in splitting the large CRA 2 Quota Management Area between Te Arai Point and East Cape into at least two smaller areas so fine-scale management can be applied, to rebuild crayfish numbers.
I URGE the Minister to take action and direct Fisheries NZ to work with recreational, commercial and mana whenua to develop a recovery plan for crayfish on the northeast coast (CRA 2).
I URGE the Minister to direct Fisheries NZ to develop and support independent surveys to prove how many

crayfish can be sustainably harvested from the whole CRA 2 management area, between Te Arai Point and East Cape.
I URGE the Prime Minister, Christopher Luxon, to explain why public concerns and an independent scientific study into the depletion of crayfish in the CRA 2 area are being ignored.
I AM CONCERNED that the Prime Minister is allowing fisheries officials to appease commercial demands instead of prioritising the health of our marine environment and our kids' future fishing interests.
I BELIEVE that feeding Kiwis and leaving more crayfish in the water needs to take priority over exporting our crayfish to China and the USA.

Yours Faithfully
Simon Yates
Retired;

Simon Yates
LegaSea

From:	Katie Ash
To:	FMSubmissions
Subject:	Submission on CRA review - 2025
Date:	Tuesday, 28 January 2025 9:03:28 pm

Submission
On the spiny rock lobster (CRA 2) for 2025/26

Fisheries Management, Fisheries New Zealand
PO Box 2526, Wellington 6140.

Name of submitter:
Katie Ash

Email:
s9(2)(a)

This submission refers to:
Spiny rock lobster (CRA 2) for 2025/26

Date of Submission:
28/01/2025

My preferred option is:
A4 - LegaSea view: Develop a recovery plan that includes - No increase to the total allowable commercial catch. Potential closed areas; and Investment in independent science to prove how many crayfish can be harvested sustainably.

Details supporting your views:
My family are keen divers and have seen first hand the change in crayfish stocks in the area. Little barrier use to be incredible cray country and is now littered with commercial pots and no crays to be seen. Such a shame that greed is destroying these beautiful areas for our children who will not get to experience this beauty and diversity.

I OBJECT to the Fisheries New Zealand proposal to increase the commercial catch limit for crayfish in the CRA 2 fishery, between Te Arai Point and East Cape.
I AM CONCERNED that Fisheries New Zealand is using unverified data to justify increasing the commercial catch limit in the CRA 2 fishery, between Te Arai Point and East Cape.
I URGE the Minister, Shane Jones, to acknowledge that there are significant areas on the northeast coast that are seriously depleted and need to be closed to all crayfish fishing.
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I URGE the Minister to take action and direct Fisheries NZ to work with recreational, commercial and mana whenua to develop a recovery plan for crayfish on the northeast coast (CRA 2).
I URGE the Minister to direct Fisheries NZ to develop and support independent surveys to prove how many crayfish can be sustainably harvested from the whole CRA 2 management area, between Te Arai Point and East Cape.
I URGE the Prime Minister, Christopher Luxon, to explain why public concerns and an independent scientific study into the depletion of crayfish in the CRA 2 area are being ignored.
I AM CONCERNED that the Prime Minister is allowing fisheries officials to appease commercial demands instead of prioritising the health of our marine environment and our kids' future fishing interests.
I BELIEVE that feeding Kiwis and leaving more crayfish in the water needs to take priority over exporting our crayfish to China and the USA.

Yours Faithfully
Katie Ash;