



**Fisheries New Zealand**

Tini a Tangaroa

# **Review of Sustainability Measures for Hāpuku and Bass (HPB 1 & HPB 2) for 2021/22**

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# 1 Stocks being reviewed

**Hāpuku and Bass (HPB 1, HPB 2) –Northland and Auckland, Bay of Plenty and East Coast North Island**

**Hāpuku** - *Polyprion oxygeneios*,  
Groper, Wreckfish



**Bass** - *Polyprion americanus*,  
Moeone, Groper

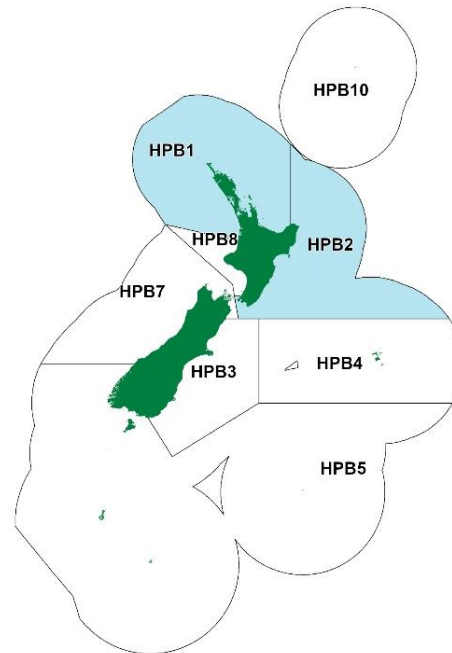


Figure 1: Quota Management Areas (QMAs) for hāpuku and bass, with HPB 1 and HPB 2 highlighted.

## 2 Summary

1. Fisheries New Zealand is reviewing sustainability measures for hāpuku and bass in Quota Management Areas HPB 1 and HPB 2 for the 1 October 2021 fishing year (Figure 1).
2. HPB 1 and HPB 2 are shared fisheries highly valued by customary Māori, recreational, and commercial fishers. Collective concern has been raised about the health of these stocks, with reports of declining abundance in areas where hāpuku and bass are commonly targeted.
3. Despite research efforts, scientific information on hāpuku and bass is limited. Action has recently been taken to require individual species reporting of hāpuku and bass by commercial fishers, with this change expected to provide more robust data to inform future research and management.
4. Fisheries New Zealand has also recently engaged Iwi Fisheries Forums and held multi-stakeholder meetings in the areas covering HPB 1 and HPB 2 to gather on the ground knowledge from tangata whenua and commercial and recreational fishers regarding hāpuku and bass and to listen to suggestions for improved management.
5. Fisheries New Zealand is now proposing to set a Total Allowable Catch (TAC) for HPB 1 and HPB 2, noting that currently only a Total Allowable Commercial Catch (TACC) is set. This will include the setting of allowances for customary and recreational fishers, as well as other sources of mortality caused by fishing.
6. As part of setting a TAC for HPB 1 and HPB 2, consideration is being given to whether:
  - a. A reduction to the TACC is warranted - HPB 1 and HPB 2 are under-caught relative to the TACC which has not been reached since 2005/06 (in HPB 2) and 2006/07 (in HPB 1).
  - b. Changes to recreational bag limits are needed, including consideration of an accumulation limit – This would ensure recreational catch is maintained within the proposed allowance and recognises that HPB 1 and HPB 2 are important shared

fisheries and that actions to provide for the sustainability of these stocks should be shared across sectors.

7. Fisheries New Zealand is proposing three options for HPB 1 and HPB 2 (Table 1). All options propose to set a TAC for the first time, a decrease to the TACC and a change to the recreational limits.

**Table 1: Proposed management options (in tonnes) for HPB 1 and HPB 2 from 1 October 2021.**

HPB 1							
Option	TAC	TACC	Allowances			Recreational Measures	
			Customary Māori	Other mortality	Recreational	Daily Limits	Additional regulations
<b>Current settings</b>	N/A	480.8	N/A	N/A	N/A	5 per person	Included in the combined daily limit of 5 with kingfish with a maximum of 3 kingfish
<b>Option 1</b>	379	280 ↓ (200.8 t)	10	14	75	3 per person	Remain in the combined daily limit of 5 with kingfish, but include a maximum of 3 hāpuku/bass
<b>Option 2</b>	289	210 ↓ (270.8 t)	10	11	58	2 per person	Remove from the combined daily limit of 5 with kingfish and:
<b>Option 3</b>	215	140 ↓ (340.8 t)	10	7	58		-Introduce daily limit of 2 hāpuku/bass -Introduce accumulation limit of 3
HPB 2							
Option	TAC	TACC	Allowances			Recreational Measures	
			Customary Māori	Other mortality	Recreational	Daily Limits	Additional regulations
<b>Current settings</b>	N/A	266.2	N/A	N/A	N/A	5 per person	Included in the combined daily limit of 5 with kingfish with a maximum of 3 kingfish
<b>Option 1</b>	233	160 ↓ (106.2 t)	10	8	55	3 per person	Remain in the combined daily limit of 5 with kingfish, but include a maximum of 3 hāpuku/bass
<b>Option 2</b>	174	120 ↓ (146.2 t)	10	6	38	2 per person	Remove from the combined daily limit of 5 with kingfish and:
<b>Option 3</b>	132	80 ↓ (186.2 t)	10	4	38		-Introduce daily limit of 2 hāpuku/bass -Introduce accumulation limit of 3

8. Fisheries New Zealand welcomes feedback and submissions on the options proposed, or any other alternatives. It is noted that changes to catch settings will come into effect on 1 October 2021 with the exception of any change to the recreational limits. Subject to the Minister's decision, a regulatory process to amend recreational limits would need to follow.

## 3 About the stocks

### 3.1 Biology

9. Hāpuku (*Polyprion oxygeneios*) and bass (*Polyprion americanus*) are widely distributed around New Zealand, generally over rough ground, from the central shelf (100 m) to an estimated lower depth limit of 300 m for hāpuku and 500 m for bass.
10. Hāpuku mature between 10 and 13 years (size at 50% maturity: 80-85 cm TL males; 85-90 cm TL females) and may live in excess of 60 years. Estimates from southwest Australia indicate that bass are also long-lived, with males reaching a maximum age of 55 years and females a

maximum age of 78 years<sup>1</sup>. Female bass mature at 14 years (size at 50% maturity: 94 cm TL) and male bass mature at 11 years (size at 50% maturity: 81 cm TL).

11. Hāpuku aggregate around pinnacles, reefs, and ledges, and can be rapidly depleted from these areas by fishing with long recovery times suggesting a high level of site fidelity (except during the spawning season).
12. For hāpuku, spawning occurs over winter months (May-August). Evidence from northerly migrations of pre-spawning hāpuku from Southland (and other observations from the Cook Strait hāpuku and bass fishery) indicate that the Cook Strait may be a key spawning area for hāpuku, although the exact location is unknown.
13. Hāpuku and bass prey on a wide variety of fish and invertebrates, including red cod, tarakihi, blue cod, hoki and squid. In Cook Strait, they are preyed upon by sperm whales, although probably neither heavily nor selectively.

### 3.2 Fishery characteristics

14. HPB 1 and HPB 2 are important shared fisheries that are highly valued by customary, commercial, and recreational fishers.
15. In the early 2000s, almost all commercial catch of hāpuku and bass caught in HPB 1 and HPB 2 was bycatch. However, in recent years, the proportion of targeted catch has increased to approximately 80% in HPB 1 and 50% in HPB 2. Hāpuku and bass are caught as bycatch in commercial fisheries targeting bluenose, tarakihi and ling (HPB 1 and HPB 2) and to a lesser extent snapper and school shark (HPB 1).
16. Hāpuku and bass in HPB 1 and HPB 2 are mainly caught via bottom long line and Dahn line (approximately 90% targeted catch). In the last four fishing years, setnets have accounted for approximately 10% of the targeted catch in HPB 2.

### 3.3 Management Background

17. Hāpuku and bass in HPB 1 and HPB 2 are low knowledge stocks, which means that scientific information is limited to inform management.
18. Since the early 2000s fishers have expressed concerns about the health of these stocks and reported declining abundance in areas where they were commonly targeted. In response to these concerns, Fisheries New Zealand invested in several research projects over the last two decades. Attempts to improve scientific information have unfortunately been unsuccessful. This is largely due to the commercial catch of the two species (hāpuku and bass) mostly being reported together under the combined species code HPB and ongoing uncertainties associated with hāpuku and bass movements and stock structure.
19. Fisheries New Zealand has recently proposed and consulted on amending the reporting requirements for hāpuku and bass to provide for species specific reporting. This would remove the code HPB as an option for reporting catch estimates and leaving only codes HAP (hāpuku) and BAS (bass) to use. This change will provide species specific estimated catch data, that will be more beneficial for future research and management decisions. Species level reporting information will also be important if future consideration is given to splitting the stocks into hāpuku and bass specific management areas.
20. The fishing industry in general supported this decision to amend the reporting requirements as it will improve species knowledge and understanding of species performance. The change to reporting requirements will come into effect on 1 September 2021.
21. Given the ongoing concern for these stocks, Fisheries New Zealand considers that exploring further research in the absence of immediate management action would be detrimental to stock sustainability. This position is consistent with the information principle in the Fisheries Act 1996

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<sup>1</sup> Wakefield, C. Newman, S. Boddington, D. (2013) Exceptional longevity, slow growth and late maturation infer high inherent vulnerability to exploitation for bass groper *Polyprion americanus*

which states that: ‘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.’

22. Fisheries New Zealand has recently engaged Iwi Fisheries Forums and held multi-stakeholder meetings in the areas covering HPB 1 and HPB 2 to discuss the sustainability of HPB 1 and HPB 2. The purpose of the meetings was to gather “on the ground” knowledge from tangata whenua and commercial and recreational fishers regarding hāpuku and bass abundance and to listen to suggestions for improved management.
23. There was general agreement from attendees at these meetings that abundance of hāpuku and bass had declined, and that management action and collaborative solutions were needed to protect the future sustainability of these important shared fisheries. A range of management approaches were suggested and there was recognition that a combination of regulated and non-regulated management measures would be required to improve the state of the stocks and a wider suite of tools may need to be explored. The suggestions received from this early engagement are summarised in [Appendix A](#).
24. Fisheries New Zealand considers that an important first step is to set an appropriate TAC and allowances for HPB 1 and HPB 2, whilst considering options to reduce current catch levels by adjusting the TACC and recreational limits. The options proposed here are focused towards action that can be taken almost immediately while future controls are also considered.

## 4 Quota Management System

25. Hāpuku and bass were introduced to the Quota Management System (QMS) in 1986, with an October fishing year (1 October – 30 September). Hāpuku and bass are managed as combined species (HPB) and historically commercial reporting of catch has been at the combined species level. Neither of these stocks have been reviewed since being introduced into the QMS.
26. For more information about the QMS go to <https://www.mpi.govt.nz/law-and-policy/legal-overviews/fisheries/quota-management-system/>.

## 5 Legal basis for managing fisheries in New Zealand

27. The Fisheries Act 1996 provides the legal basis for managing fisheries in New Zealand, including the Minister’s responsibilities for setting and varying sustainability measures. See the separate document *Overview of legislative requirements and other considerations* at <https://www.mpi.govt.nz/dmsdocument/45235> for more information.

## 6 Treaty of Waitangi obligations

### 6.1 Input and participation of tangata whenua

28. Input and participation into the sustainability decision-making process is provided through Iwi Fisheries Forums, which have been established for that purpose. Iwi Fisheries Forum ideally develop an Iwi Fisheries Forum Plan that describes how iwi in the forum exercise kaitiakitanga over fisheries of importance to them, and their objectives for the management of their interest in fisheries. Particular regard will be given to kaitiakitanga when making sustainability decisions.
29. Iwi Fisheries Forums may also be used as entities to consult iwi with an interest in fisheries.
30. Iwi Fisheries Forums within the HPB 1 and HPB 2 areas have expressed concern over the sustainability of these stocks, a summary of their input is as follows:
  - The Mid North Iwi Fisheries Forum provided some feedback from their last hui in May. They support a decrease to HPB 1 catch limits.
  - Ngā Hāpu o Te Uru o Tainui expressed concern, as historically hāpuku was accessed by tangata whenua closer to shore. There have been no requests for customary permits for this taonga species as tangata whenua can no longer access the fishery like they used to and support a decrease to HPB 1 catch limits.

- Mai Paritu tae atu ki Turakirae advised that more concentrated management efforts should be placed in localised areas of the rohe for HPB 2. These areas included, Flat Point, Riversdale, Porangahau and Ritchie Banks.

## 6.2 Kaitiakitanga

31. HPB 1 covers the rohe of Te Hiku o Te Ika, Mid-North, Ngā Hāpu o Te Uru o Tainui, the Hauraki Iwi Collective and Mai I Ngā Kuri a Whareki Tihirau Iwi Fisheries Forums. Hāpuku and bass have been identified as a taonga species by the Te Hiku o Te Ika and Mai I Nga Kuri a Whareki ki Tihirau forums in their respective Iwi Fisheries Forum Plans.
32. HPB 2 covers the rohe of Ngāti Porou and Mai Paritau tae atu ki Turakirae Fisheries Forum. Neither of these forums have Iwi Fisheries Forum Plans in place. In the absence of an Iwi Fisheries Forum Plan it should be noted that iwi may still consider hāpuku and bass taonga species.
33. Fisheries New Zealand considers that the proposed management options are in keeping with the objectives of the Iwi Fisheries Forum Plans which generally relate to active engagement with iwi and the maintenance of healthy and sustainable fisheries, but seeks further input from iwi to help inform final advice on this review.
34. There are a number of customary fisheries management areas within HPB 1 and HPB 2. These include 14 mātaimai reserves, five taiāpure and five temporary closures implemented under section 186A of the Act (Table 2). It is not anticipated that the options proposed would negatively impact the availability of hāpuku and bass in these areas, however any positive impacts are unknown.

**Table 2: Customary fisheries management areas in HPB 1 and HPB 2.**

QMA	Customary Area	Management Type
HPB 1	Maketu Taiāpure	<b>Taiāpure</b> <i>All types of fishing are permitted within a Taiāpure. The management committee can recommend regulations for commercial, recreational and customary fishing.</i>
	Waikare Inlet Taiāpure	
	Kawhia Aotea Taiāpure	
HPB 2	Porangahau Taiāpure	
	Palliser Bay Taiāpure	
HPB 1	Te Mata and Waipatukahu Temporary Closure - <i>shellfish</i>	<b>S186A Temporary Closures</b> <i>Section 186A temporary closures are used to restrict or prohibit fishing of any species of fish, aquatic life or seaweed or the use of any fishing method.</i>
	Umupuia Beach Temporary Closure - <i>shellfish</i>	
	Marsden Bank and Mair Bank Temporary closure - <i>shellfish</i>	
	Maunganui Bay – <i>all fish species except kina</i>	
HPB 2	Waimārama Temporary Closure - <i>blackfoot pāua</i>	
HPB 1	Te Kopa o Rongokānapa Mātaitai	<b>Mātaitai Reserve</b> <i>Commercial fishing is not permitted within mātaimai reserves unless regulations state otherwise.</i>
	Raukokere Mātaitai	
	Te Rae o Kohi Mātaitai	
	Te Maunga o Mauao Mātaitai	
	Te Puna Mātaitai	
	Aotea Harbour Mātaitai	
HPB 2	Marokopa Mātaitai	
	Te Kopa o Rongokānapa Mātaitai	
	Hakihea Mātaitai	
	Toka Tamure Mātaitai	
	Horokaka Mātaitai	
	Te Hoe Mātaitai	
	Moremore Mātaitai (a)	
	Moremore Mātaitai (b)	



## 7 Relevant plans, strategies, statements and context

### 7.1 Draft National Inshore Finfish Fisheries Plan

35. Hāpuku and bass will be managed under the [National Inshore Finfish Fisheries Plan](#) (the Plan) once finalised. The Plan outlines the management objectives and strategies for finfish fisheries for the next five years and was consulted on in early 2020.
36. The Plan is aimed at progressing New Zealand towards ecosystem-based fisheries management. Stocks are grouped within the Plan, with management approaches and objectives tailored accordingly for each group.
37. Hāpuku and bass fall under Group 2, which recognises that Fisheries New Zealand intend to manage these stocks to provide for moderate levels of use with moderate levels of information to monitor its stock status. Section 9 below discusses trends using the catch data and signals how this information has been used to help inform the proposed options.

### 7.2 The Hauraki Gulf Marine Park Act 2000

38. The Hauraki Gulf Marine Park (HGMP) falls within the quota management area of HPB 1. Sections 7 and 8 of the [Hauraki Gulf Marine Park Act 2000](#) are applicable to the management of this fishery. The [Overview of Legislative Requirements and Other Considerations](#) document provides more information on the applicability of the Hauraki Gulf Marine Park Act 2000.
39. As this review aims to address a potential sustainability risk with the HPB 1 fishery, Fisheries New Zealand considers that the proposed options are consistent with obligations under sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000.

### 7.3 Regional Plans

40. There are four Regional Councils that have coastline within HPB 1 and HPB 2 boundaries respectively. Each of these regional councils have multiple plans to manage the coastal and freshwater environments, including terrestrial and coastal linkages, ecosystems and habitats.
41. Fisheries New Zealand considers that the proposed management options presented are in keeping with the objectives of relevant regional plans, which generally relate to the maintenance of healthy and sustainable ecosystems to provide for the needs of current and future generations.

### 7.4 Te Mana o te Taiao (Aotearoa New Zealand Biodiversity Strategy)

42. [Te Mana o te Taiao – the Aotearoa New Zealand Biodiversity Strategy](#) sets a strategic direction for the protection, restoration and sustainable use of biodiversity, particularly indigenous biodiversity, in Aotearoa New Zealand. The Strategy sets a number of objectives across three timeframes. The most relevant to setting sustainability measures for HPB 1 and HPB 2 are objectives 10 and 12:

**Objective 10:** Ecosystems and species are protected, restored, resilient and connected from mountain tops to ocean depths.

**Objective 12:** Natural resources are managed sustainably

43. The Ministry for Primary Industries (MPI) is undertaking work to define specific terms used in the Strategy (e.g. 'environmental limits'), but is required by the Fisheries Act to manage fisheries to balance use and sustainability, including the requirement to avoid, remedy or mitigate adverse effects on the aquatic environment. The Ecosystem Interactions section in this paper provides information on relevant interactions with the wider aquatic environment for this stock.

## 8 Recent catch levels and trends

### 8.1 Commercial

44. Commercial catch of hāpuku and bass has been trending downwards since the mid-2000s and the last time the TACC was reached was 2005/06 (HPB 2) and 2006/07 (HPB 1) (Figure 2).
45. Current annual commercial catch has been calculated as the average annual catch for the past five fishing years with the 2019/20 fishing year data excluded due to the unknown effects of COVID-19 on fishing practices. The current annual commercial catch of HPB 1 is 280 t (58% of the TACC) and the current annual commercial catch of HPB 2 is 160 t (60% of the TACC).

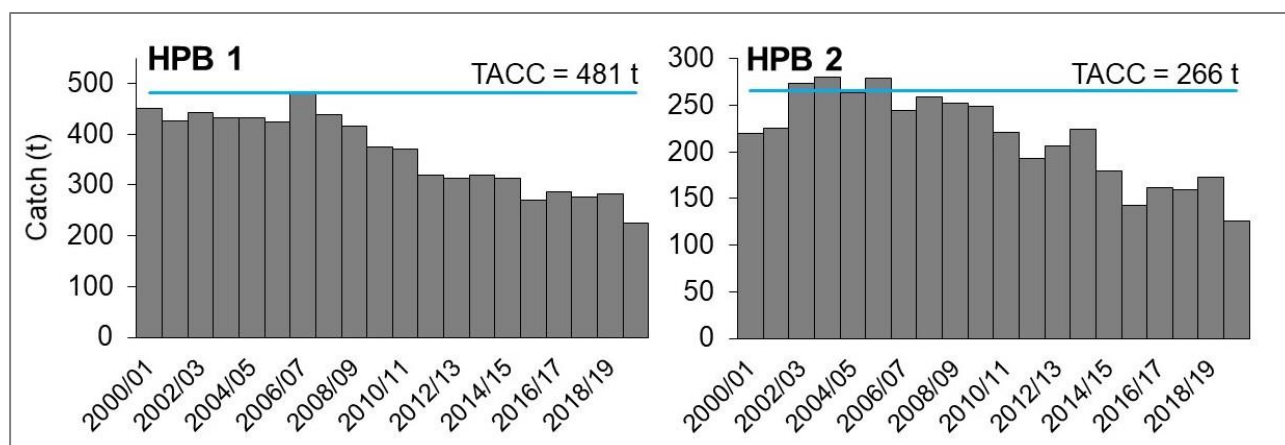


Figure 2: Annual commercial catch (in tonnes) of hāpuku and bass from 2000/01 to 2019/20 in HPB 1 (left) and HPB 2 (right) with the TACC indicated by the blue line. Note the different scaling on the X axes of both graphs.

### 8.2 Customary Māori

46. There is currently no customary Māori allowance set for HPB 1 or HPB 2 and customary catch information for these stocks is highly uncertain. Information supplied from customary fishing permit authorisations is limited with very few permits for HPB 1 or HPB 2 having been reported as issued. Since 1999:
  - a. Three permits have been issued for customary use in HPB 1. One of the three permits reported harvesting half the amount it was permitted. There was no reported harvest from the other two permits.
  - b. Twelve permits have been issued for HPB 2. Three of the 12 permits reported harvesting the numbers authorised, three did not report what was harvested and six reported harvesting less than what was permitted.
47. Fisheries New Zealand recognises that this information is incomplete and unlikely to reflect current customary use. One of the reasons for this is because parts of the North Island are not gazetted under the Fisheries (Kaimoana Customary Fishing) Regulations 1998 and therefore customary catch may be occurring under the Fisheries (Amateur Fishing) Regulations 2013, for which there is no requirement to report catch.
48. Given uncertainty regarding the customary harvest of hāpuku and bass, Fisheries New Zealand seeks input from tangata whenua to inform advice on the provision of an allowance for customary Māori fishing.

### 8.3 Recreational

49. There is currently no recreational allowance set for HPB 1 or HPB 2. However, under the Fisheries (Amateur Fishing) Regulations 2013 hāpuku and bass are included in a combined daily limit of five with kingfish. Within this combined daily limit, a fisher may only take a maximum of three kingfish.

50. The best available information on current recreational catch is from the [2017/18 National Panel Survey of Marine Recreational Fishers \(NPS\)](#) and amateur charter vessel returns. The 2017/18 NPS estimated the recreational harvest of hāpuku/bass was 73.1 tonnes in HPB 1 and 54.7 tonnes in HPB 2.
51. According to the 2017/18 NPS, approximately 75% of daily catches in HPB 1 and HPB 2 were one or two hāpuku/bass. The majority of hāpuku and bass (99%) are harvested by recreational trailer motorboat and larger boats and virtually all are taken by rod and line (98%).
52. The 2017/18 NPS estimates of recreational harvest include amateur charter vessel (ACV) catch, but Fisheries New Zealand also has separate information for ACV catch from ACV returns. ACV returns record the number of fish caught and how many were retained and have been reported since 2010/11.
53. Figure 3 provides 10 years of estimated ACV catch data. Annual ACV catch was estimated using the mean weight of 5.96 kg (taken from the 2017/18 NPS) multiplied by the number of fish caught per year. From this information, Fisheries New Zealand estimates current annual catch to be on average 7.5 tonnes in HPB 1 and 8.5 tonnes in HPB 2 and represents 10% and 15% respectfully of total recreational catch in HPB 1 and HPB 2.

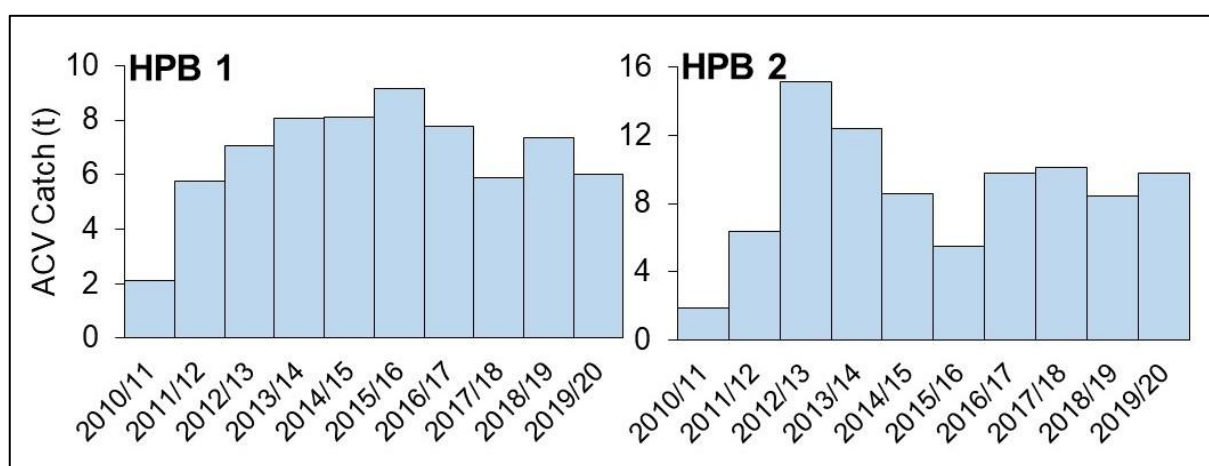


Figure 3: Annual ACV catch (in tonnes) of hāpuku and bass from 2010/11 to 2019/20 in HPB 1 (left) and HPB 2 (right). Note the different scaling on the X axes of both graphs.

## 9 Status of the stocks

54. HPB stocks are low knowledge stocks with no reliable estimates of biomass or yield. [The 2021 Fisheries Assessment Plenary](#) states that it is not known if current catches or the TACCs are sustainable or at levels that will allow the stocks to move towards a size that will support the maximum sustainable yield.
55. These stocks are currently monitored using trends in catch. Monitoring methods used for other species such as, trawl surveys, catch per unit effort (CPUE) data have been unsuccessful in producing series of relative abundance that can be used to assess the status of each species. This is because there has been difficulty in gathering data required to effectively manage these stocks; due to being combined as hāpuku and bass (HPB) and due to uncertainties regarding settlement habitat and movements from juvenile to maturity and spawning.
56. Tagging studies have indicated considerable mixing of hāpuku between Otago, South Canterbury and the Cook Strait indicating that current fish stock boundaries (based on QMAs) may be inappropriate for the management of Cook Strait and South Island hāpuku.

## 10 Current and proposed TAC, TACC and allowance settings

57. Three options for HPB 1 and HPB 2 are proposed for the TAC, TACC and allowances for customary Māori, recreational and all other sources of mortality caused by fishing (Table 1). The options for HPB 1 and HPB 2 are grouped together as the same rationale applies to both stocks.
58. Fisheries New Zealand is not recommending the status quo as an option because initial stakeholder feedback suggests this is inappropriate given the level of concern regarding the sustainability of the fishery. For stocks which do not already have a TAC or allowances set, it is Fisheries New Zealand's policy to propose to the Minister to set these upon review of a stock.
59. TACC options are based on current annual commercial catch calculated as the average annual catch for the past five fishing years with the 2019/20 fishing year data excluded due to the unknown effects of COVID-19 on fishing practices.
60. Options presented in this document are presented differently than other public consultation documents. These options are proposed as a package of changes for both recreational and commercial sectors. Should the Minister decide to adjust the recreational catch limits, a regulatory change process will be undertaken to implement that change. The entire table of options are presented in Table 1 (see section 2).

### 10.1 HPB 1 and HPB 2 Option 1

Stock	TAC	TACC	Customary allowance	Other mortality allowance	Recreational allowance	Daily Limit	Additional regulations
HPB 1	379	280 ↓ (200.8 t)	10	14	75	3 per person	Remain in the combined daily limit of 5 with kingfish, but include a maximum of 3 hāpuku/bass
HPB 2	233	160 ↓ (106.2 t)	10	8	55		

61. Option 1 proposes to set a TAC for HPB 1 of 379 tonnes and includes allowances for customary fishing, recreational fishing and other sources of mortality caused by fishing consistent with best available information. The TACC under Option 1 will be reduced from 480.8 tonnes to 280 tonnes, a level consistent with current annual commercial catch.
62. Option 1 proposes to set a TAC for HPB 2 of 233 tonnes and includes allowances for customary fishing, recreational fishing and other sources of mortality caused by fishing consistent with best available information. The TACC under Option 1 will be reduced from 266.2 tonnes to 160 tonnes, a level consistent with current annual commercial catch.
63. Option 1 takes the approach of setting the TAC in a way that reflects best estimates of current removals from the fishery. This option is unlikely to result in increases in stock biomass, as it simply maintains catch at current levels, whilst limiting the potential for any additional utilisation.
64. Information on customary harvest of HPB 1 and HPB 2 is limited. It is possible that customary harvest of HPB 1 and HPB 2 has been covered by recreational catch with the existing daily limits. A customary Māori allowance of 10 tonnes is proposed under all options for HPB 1 and HPB 2 to accommodate customary harvest.
65. The other sources of fishing mortality allowance accounts for any mortality that occurs due to fishing activity that is not otherwise accounted for in the TAC. Potential sources for other mortality for HPB 1 and HPB 2 could include, unreported bycatch, mortality associated with injury from contact but not captured by trawl and mortality associated with the accidental loss or damage of fishing gear and orca or shark depredation.
66. The main fishing methods for HPB 1 and HPB 2 are bottom longline and Dahn line. These methods are more selective and less likely to create unknown mortality events in comparison

with trawl caught fish. An allowance of 14 tonnes for HPB 1 and 8 tonnes for HPB 2 are proposed for other mortality caused by fishing and equates to 5% of the TACC.

67. Reducing the TACC to 280 tonnes in HPB 1 and 160 tonnes in HPB 2 recognises that commercial catch of both fish stocks has been lower than the TACC for more than a decade, and the assessment within the Plenary which indicates that it is unknown whether the current TACCs are sustainable. Setting the TACC for both HPB 1 and HPB 2 at levels consistent with current annual commercial catch provides for a level of utilisation comparable to recent years but prevents further increases in catch.
68. The economic impacts associated with Option 1 for HPB 1 and HPB 2 are likely to be minimal as TACCs have not been fully utilised for over a decade. Fisheries New Zealand acknowledges that the current TACC provides an opportunity for further utilisation and economic growth, and this may be important to some commercial fishers.
69. Reducing the TACC constitutes a reduction in the overall supply of Annual Catch Entitlement (ACE). This in turn may increase the price of ACE on the open market. A fisher dependent on the revenue from their current levels generated by their quota package may need to source new ACE to maintain their current throughput.

### 10.1.1 Recreational settings for Option 1

70. For recreational fishers, allowances of 75 tonnes in HPB 1 and 55 tonnes in HPB 2 are proposed to be consistent with the best available estimates of current recreational catch. The most recent National Panel Survey (2017/18) estimated recreational catch of hāpuku and bass as 73.1 tonnes in HPB 1 and 54.7 tonnes in HPB 2.
71. Under Option 1, Fisheries New Zealand also proposes amending the recreational daily limit to three hāpuku/bass in the combined daily bag limit with kingfish (with a maximum of three kingfish). The National Panel Survey (2017/18) suggests that the majority of HPB catch is represented by three or fewer HPB being retained by fishers per day and thus this amendment is consistent with maintaining catch at current levels.

## 10.2 HPB 1 and HPB 2 Option 2

Stock	TAC	TACC	Customary allowance	Other mortality allowance	Recreational allowance	Daily Limit	Additional regulations
HPB 1	289	210 ↓ (270.8 t)	10	11	58	2 per person	Remove from the combined daily limit of 5 with kingfish and:
HPB 2	174	120 ↓ (146.2 t)	10	6	38		-Introduce daily limit of 2 hāpuku/bass -Introduce accumulation limit of 3

72. Option 2 for HPB 1 proposes a TAC of 289 tonnes be set and includes allowances for customary fishing and other mortality caused by fishing that are consistent with Option 1. This option proposes to set the recreational allowance at 58 tonnes and to decrease the TACC to 210 tonnes, representing a 25% decrease to current annual commercial catch.
73. Option 2 for HPB 2 proposes a TAC of 174 tonnes be set and includes allowances for customary fishing and other mortality caused by fishing that are consistent with Option 1. This option proposes to set the recreational allowance at 38 tonnes and to decrease the TACC to 120 tonnes, representing a 25% decrease to current annual commercial catch.
74. Reducing the TACC to 210 tonnes in HPB 1 and 120 tonnes in HPB 2 recognises that annual commercial catch for both fish stocks has been trending downwards since the mid-2000s and that current annual commercial catch in both management areas is approximately 60% of the respective TACCs. It also recognises the concerns for the fishery that have been voiced by tangata whenua and commercial and recreational fishers.



75. Given the low-productivity nature of hāpuku and bass and the fact that catch has been declining for over a decade, a 25% decrease to current commercial catch adopts a cautious approach based on the uncertainty of whether current catch levels are sustainable.
76. The economic impacts associated with this option are difficult to calculate when the TACC for both fish stocks has not been fully utilised in recent years. However, the estimated economic value of the proposed decrease under Option 2, based on the 2019/2020 port prices and commercial catch data, suggests a \$570,500 deficit to the commercial sector in HPB 1 and a \$272,800 deficit to the commercial sector in HPB 2.

### 10.2.1 Recreational settings for Option 2

77. Option 2 for both HPB 1 and HPB 2 proposes that the recreational daily limit be decreased to two per person and recognises that HPB 1 and HPB 2 are important shared fisheries and that a decrease in catch for sustainability concerns should be shared across sectors. Some recreational clubs have already adopted a voluntary recreational bag limit of two per fisher, this option supports their efforts and extends them across the recreational community.
78. Fisheries New Zealand has estimated that a recreational bag limit of two fish per person per day would decrease the recreational harvest by approximately 17 tonnes in both HPB 1 and HPB 2, representing a 23% and a 31% decrease to current recreational catch in HPB 1 and HPB 2 respectively. Therefore, for Option 2, Fisheries New Zealand proposes a recreational allowance of 58 tonnes for HPB 1 and 38 tonnes for HPB 2. These measures are aligned with the TACC reductions proposed in Option 2 that represent a 25% decrease to current commercial catch.
79. Option 2 also proposes decoupling HPB from the combined daily bag limit with kingfish and introducing an additional control in the form of an accumulation limit. An accumulation limit is the maximum number of hāpuku/bass that a person can accumulate and possess over a period of more than one day. An accumulation limit of three hāpuku/bass per person is proposed under these options. This addition is to further manage recreational catch to better align with the recreational allowance while acknowledging the initial feedback received, and the sustainability concern expressed.

### 10.3 HPB 1 and HPB 2 Option 3

Stock	TAC	TACC	Customary allowance	Other mortality allowance	Recreational allowance	Daily Limit	Additional regulations
HPB 1	215	140 ↓ (340.8 t)	10	7	58	2 per person	Remove from the combined daily limit of 5 with kingfish and:
HPB 2	132	80 ↓ (186.2 t)	10	4	38		-Introduce daily limit of 2 hāpuku/bass -Introduce accumulation limit of 3

80. Option 3 for HPB 1 proposes a TAC of 215 tonnes be set and includes allowances for customary fishing and other mortality caused by fishing that are consistent with Options 1 and 2. This option proposes recreational settings that are consistent with Option 2 and proposes to decrease the TACC to 140 tonnes, representing a 50% decrease to current annual commercial catch.
81. Option 3 for HPB 2 proposes a TAC of 132 tonnes be set and includes allowances for customary fishing and other mortality caused by fishing that are consistent with Options 1 and 2. This option proposes recreational settings that are consistent with Option 2 and proposes to decrease the TACC to 80 tonnes, representing a 50% decrease to current annual commercial catch.
82. Reducing the TACC to 140 tonnes in HPB 1 and 80 tonnes in HPB 2 recognises that annual catch has been trending downwards since the mid-2000s and that current annual catch is 60% of the TACC. It also recognises the concerns for the fishery that have been voiced by commercial and recreational fishers and tangata whenua. This option adopts an approach based on feedback and declining trend that may indicate that current catch levels are

unsustainable. Given the low productivity of hāpuku and bass and the fact that catch has been declining for over a decade, this option is the most severe, but may be justified in light of concerns for this stock.

83. This option places the most emphasis on the declining trends of catch and concern received from pre-consultation engagement with stakeholders and feedback received from tangata whenua. This option holds the least amount of sustainability risk in both fisheries with the intent to constrain catch whilst further monitoring and other management options of the stock are explored.
84. The economic impacts associated with this proposed change are difficult to calculate when the TACC has historically, not been fully utilised. However, the estimated economic value of the proposed decrease under Option 3, based on the 2019/2020 port prices and actual catch data, suggests a \$1,141,000 deficit to the commercial sector for the decrease in HPB 1 and a \$545,600 deficit to the commercial sector for the decrease to HPB 2.

### 10.3.1 Recreational settings for Option 3

85. Option 3 for both HPB 1 and HPB 2 proposes to treat the recreational settings the same as that for Option 2 (refer to section 10.2.1). This results in a recreational fishing allowance of 58 tonnes for HPB 1 and 38 tonnes for HPB 2 and proposes a decrease to the recreational bag limit from a maximum daily limit of five per fisher (combined with kingfish, with no more than three kingfish) to a maximum daily limit of two per fisher (decoupled from kingfish) and introduce an accumulation limit of three.

## 11 Environmental interactions

86. The key environmental interactions with this fishery, which must be taken into account when considering sustainability measures, concern marine mammals, seabirds, fish and invertebrate bycatch, benthic impacts and habitats of particular significance.
87. It is important to note in some cases Fisheries New Zealand has made assumptions about environmental interactions based on fisher reported data that may not have been independently verified (for example, by an on-board Fisheries New Zealand Observer). Observer coverage of the HPB 1 and HPB 2 fisheries has been very low in recent years (less than 5%).

### 11.1 Marine Mammals

88. HPB 1 and HPB 2 extend to parts of the West Coast of the North Island, an area associated with multiple marine mammal species including the critically endangered Māui dolphin. The [Hector's and Māui Dolphins Threat Management Plan](#) (TMP) guides management approaches for addressing both non-fishing and fishing-related impacts on Hector's and Māui dolphins.
89. Bottom longline and Dahn line fisheries pose a low risk of dolphin capture. Since the 2008/09 fishing year to the present day, there have been no reported interactions with marine mammals (including dolphins) in HPB 1 and HPB 2 target fisheries, but low observer coverage of bottom longline fisheries makes the frequency of interactions uncertain.
90. Fisheries New Zealand notes that, in recent years, the use of setnets has increased in HPB 2 (Wairarapa and Hawke's Bay) and now accounts for approximately 10% of targeted catch.
91. Nationwide, the majority of marine mammal interactions reported with HPB fisheries have involved New Zealand fur seal captures in setnet fisheries. Alongside the risk to marine mammals during active fishing events, setnets can also become tangled on rocky reefs and continue to fish and trap animals as ghost fishing gear.
92. As options proposed involve either maintaining current catch levels or a decrease in fishing effort, it is not expected that the use of setnets will continue to increase in HPB 2. However, Fisheries New Zealand will continue to monitor the use of setnets in HPB 2.

## 11.2 Seabirds

93. The management of seabird interactions with New Zealand's commercial fisheries is guided by the National Plan of Action to Reduce the Incidental Captures of Seabirds in New Zealand Fisheries ([NPOA-Seabirds](#)).
94. The seabird species considered most at risk from bottom long line fisheries targeting hāpuku and bass are black petrels and flesh-footed shearwaters. Total fishery related deaths of seabirds in HPB bottom longline (BLL) fisheries was estimated as 154 for the period between 2014-15 and 2016-17<sup>2</sup>. Although low observed coverage (estimated 3% of fishing events observed in the hāpuku and bass BLL fishery in 2017/18 fishing year) makes the frequency of interactions uncertain.
95. As options proposed involve either maintaining current catch levels or a decrease in fishing effort for both fish stocks, they are not expected to increase seabird captures.

## 11.3 Fish bycatch

96. The species most commonly caught alongside hāpuku and bass as bycatch in HPB 1 and HPB 2 bottom longline and Dahn line fisheries are school shark and bluenose (in HPB 1 and HPB 2), tarakihi (in HPB 1) and ling (in HPB 2).
97. Bluenose in the North and Central (east) management areas (BNS 1 and BNS 2) and East coast tarakihi (including TAR 1(east) and TAR 2) stocks are currently undergoing rebuilds due to low abundance. Options proposed present a low risk to the rebuild of these stocks as the options are unlikely to result in increased fishing effort that could lead to increased bycatch of these stocks.

## 11.4 Benthic impacts

98. HPB 1 and HPB 2, are mainly caught by bottom longline and Dahn line fisheries. These methods generally pose a low risk to the benthic environment with approximately 56 kg of coral, sponges and bryozoans reported as bycatch across all HPB fisheries since 2008/09 to the present day.
99. Small to moderate quantities of hāpuku and bass are also caught as bycatch in trawl fisheries targeting tarakihi (approximately 14% of total catch in HPB 2 and 3% of total catch in HPB 1). Mobile bottom contact fishing methods e.g. trawling pose a higher risk to the benthic environment than static bottom contact fishing methods such as bottom longlining.
100. As options proposed involve either maintaining current catch levels or decreasing fishing effort for both fish stocks, they are not expected to increase benthic impacts.

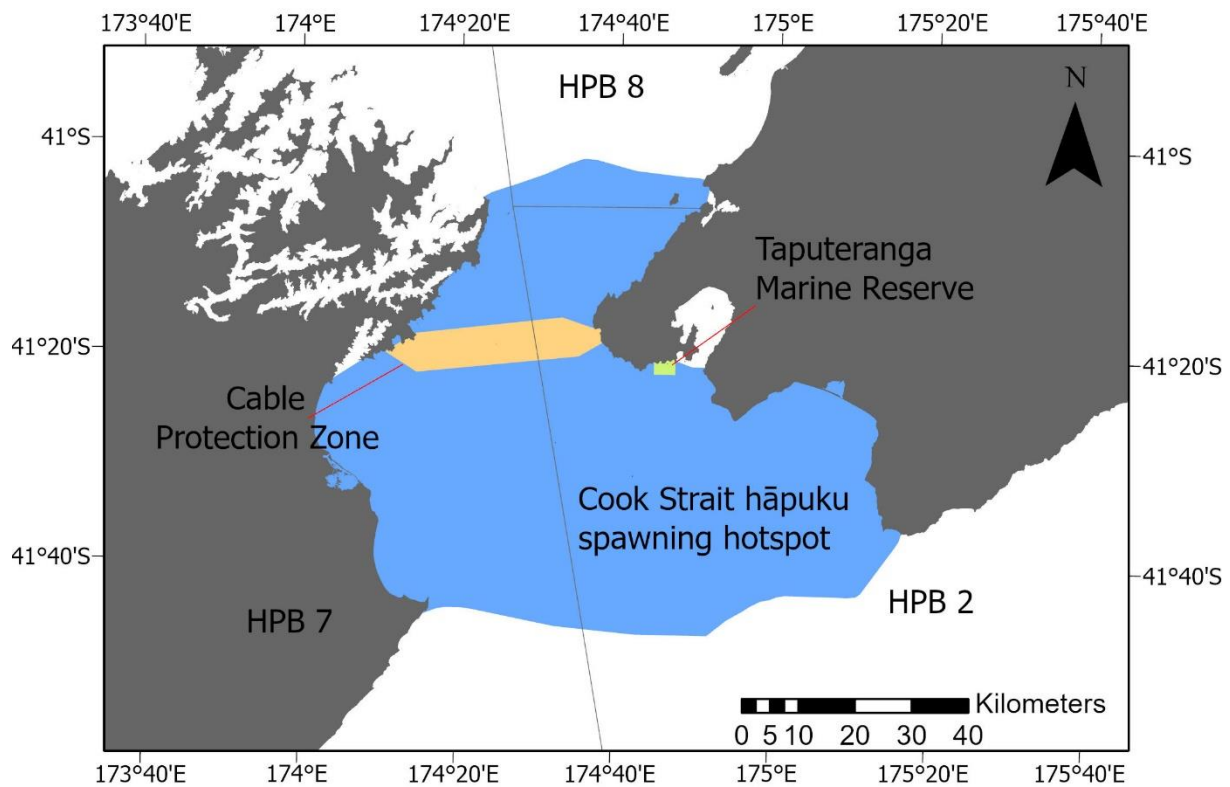
## 11.5 Habitats of particular significance

101. Fisheries New Zealand considers that habitats of particular significance for fisheries management are areas of critical importance in supporting the productivity of harvested species. In considering potential threats faced by the habitat and the need for protection, habitat areas are expected to be localised, ecologically important, and sensitive.
102. The Cook Strait has been suggested as a hotspot for spawning hāpuku (Figure 4), justified by observations reported by Beentjes & Francis (1999) of northerly migrations of pre-spawning hāpuku from Southland (and other observations from Cook Strait hāpuku fishery) (Paul, 2005). Although the exact location is unknown, it is thought to be south of Brothers Islands (Johnston 1983). The attributes of this habitat are not thought to be under threat from any development activities (Table 3).

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<sup>2</sup> Richard, Y., & Abraham, E. (2020). Assessment of the risk of commercial fisheries to New Zealand seabirds, 2006–07 to 2016–17. New Zealand Aquatic Environment and Biodiversity Report No. 237. 61 p.





**Figure 4: Estimated distribution of Cook Strait spawning hāpuku<sup>1</sup> (blue area on map) covering three HPB QMAs (HPB 2, 7 and 8), the Cook Strait Submarine Protection Zone (CPZ) and Tauputeranga Marine Reserve.**

103. Current environmental protection in the Cook Strait which could be relevant to this habitat includes The Cook Strait Submarine Protection Zone (CPZ) that extends from Oteranga Bay (North Island) to Fighting Bay (South Island). Within this zone, all fishing and anchoring is illegal except for some fishing activities that are permitted within 200 m of the shore. The Taputeranga Marine Reserve on Wellington’s south coast may also be relevant to this habitat. The reserve is protected under the Marine Reserves Act 1971 and fishing or gathering of marine life of any kind is prohibited.
104. Aside from the Cook Strait hotspot for spawning hāpuku, there is a gap in current knowledge as to specific spawning grounds for hāpuku and bass. Closing spawning areas to fishing during the spawning season was a management measure suggested by stakeholders present at meetings in April and May 2021 ([Appendix A](#)), hence this is an important area for future research. Locating spawning grounds could help define what environmental characteristics make them favourable for hāpuku and bass spawning.
105. As options proposed involve either maintaining current catch levels or decreasing fishing effort, they are not expected to impact any habitats of particular significance in HPB 1 and HPB 2.

**Table 3: Attributes, reasons for significance and risks/threats to the Cook Strait hāpuku spawning area.**

<b>Fish Stock</b>	<b>HPB 2</b>
<b>Habitat</b>	Cook Strait (exact location unknown) but thought to be south of Brothers Islands.
<b>Attributes of habitat</b>	<ul style="list-style-type: none"> <li>• Key spawning area (May - August).</li> <li>• Likely due to current/ circulation patterns and oceanographic features.</li> <li>• The stock is data deficient and the exact location is unknown.</li> </ul>

<sup>1</sup>Annual distribution of spawning hāpuku estimated from scientific observed records, research bottom trawl records and literature sources. Feature layer by MPI Geospatial Management. Credits: Michael Manning, NIWA.

<b>Reasons for particular significance</b>	<ul style="list-style-type: none"> <li>• Spawning is of critical importance in supporting the productivity of a harvested species.</li> <li>• This is the only identified spawning ground for hāpuku in NZ waters to date.</li> <li>• Spawning site fidelity is unknown for hāpuku, but this site could be used by hāpuku from three or possibly four management areas (HPB 2, 8, 7 and potentially 3).</li> <li>• Effects of damage to spawning habitat might not be apparent in the population for many years due to the species being long-lived.</li> </ul>
<b>Risks/Threats</b>	<ul style="list-style-type: none"> <li>• No known development activities are happening or planned.</li> <li>• Oceanographic features could be impacted by extractive processes e.g. mining but these activities are unlikely in this area due to exceptionally fast tidal flows and strong unpredictable currents.</li> <li>• Oceanographic features could be impacted by cable laying but there is an existing cable protection zone therefore it is unlikely cable laying will occur.</li> <li>• Oceanographic features and current/circulation patterns could be impacted by future development of tidal power which would affect flow regimes in the area. A recent Sustainable Seas project investigated the viability of generating electricity from the strong tidal currents within Cook Strait.</li> <li>• Long term - current/circulation patterns could be impacted by climate change (ocean warming, changes to wind patterns)</li> </ul>

## 12 Uncertainties and risks

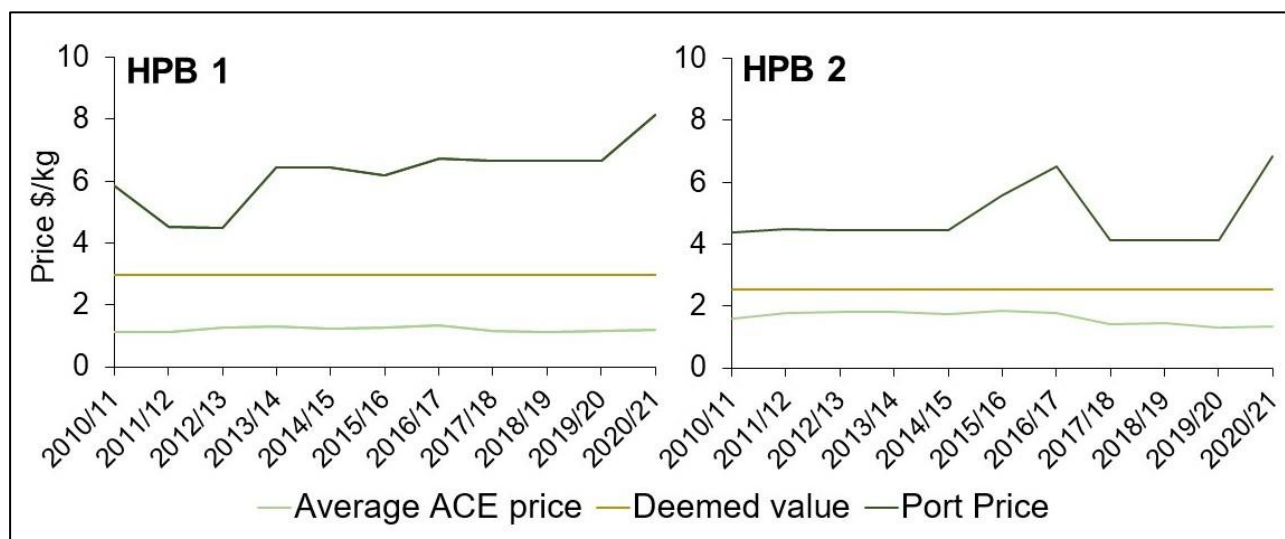
106. When setting a TAC, the requirement is to set it a level that maintains the stock at, or above a level that can produce the Maximum Sustainable Yield (MSY). Due to the limited science information on HPB 1 and HPB 2, there is uncertainty regarding the sustainability of current management settings. In turn, it is uncertain whether the proposed options will also meet this requirement. The options proposed respond to on the water concern for the stock and catch information which indicates there is a potential sustainability concern.
107. Under all options, Fisheries New Zealand will continue to monitor catch for any signals of future sustainability risks and look for opportunities to gather better information on these stocks.

## 13 Deemed values

108. Deemed values are the price paid by fishers for each kilogram of unprocessed fish landed in excess of a fisher's ACE holdings. The purpose of the deemed values regime is to provide incentives for individual fishers to acquire or maintain sufficient ACE to cover catch taken over the course of the year.
109. [The Deemed Value Guidelines](#) set out the operational policy Fisheries New Zealand uses to inform the development of advice to the Minister on the setting of deemed values.
110. The current deemed value rates for HPB 1 and HPB 2 are shown in Table 4. The deemed value rates for all HPB stocks has remained unchanged since 2015.

**Table 4: Current deemed value rates (\$/kg) for HPB 1 and HPB 2.**

Stock	Interim	Annual 100-120%	Differential rates (\$/kg) of excess catch (% of ACE)				
			120-140%	140-160%	160-180%	180-200	200%+
HPB 1	2.66	2.95	3.54	4.13	4.72	5.31	5.90
HPB 2	2.27	2.52	3.02	3.53	4.03	4.54	5.04



**Figure 5: Average ACE price, average port price and deemed values (\$/kg) for HPB 1 and HPB 2 from 2010/11 to the current fishing year.**

- 111. The port price index and average ACE prices for both stocks are shown in Figure 5. Since the 2019/20 fishing year, port prices have increased for both HPB 1 and HPB 2 and the average ACE price has remained relatively constant.
- 112. The current port prices for HPB 1 and HPB 2 are \$8.14 and \$6.82 respectively. The average price paid by fishers for ACE for the past five fishing years<sup>1</sup>, was \$1.22 kg in HPB 1 and \$1.59 kg in HPB 2.
- 113. Figure 5 shows that the current annual deemed value rates of HPB 1 and HPB 2 are set above the average ACE price, which is consistent with the objective to incentivise fishers to balance catch against ACE rather than pay a deemed value of catch landed in excess of ACE. Fisheries New Zealand acknowledges that options presented in this paper involve a TACC reduction, therefore subsequent changes in fishing behaviour and the ACE market may result in the need for the deemed values to be revaluated in the future.
- 114. Fisheries New Zealand is not proposing a change to the deemed value rates of HPB 1 and HPB 2 at this time; however, we welcome any feedback from submitters regarding the deemed value rates of these stocks.

## 14 Preferential allocation rights (28 N Rights)

- 115. Fisheries New Zealand notes that there are 1.1 tonnes and 30.2 tonnes of preferential allocation rights (28N rights) in HPB 1 and HPB 2, respectively. Preferential allocation rights were granted to permit holders under section 28N of the Fisheries Act 1983 who elected to take administrative rather than compensated reductions to their catch allocations.
- 116. When the TACC is increased for a stock that has 28N rights associated with it, the quota shares of owners who do not have 28N rights are reduced and redistributed to the holders of 28N rights. As the options in this paper suggest reducing the TACC, 28N rights for HPB 1 and HPB 2 are not expected to be triggered as a result of this sustainability round.

## 15 Questions for submitters on options for varying TACs, TACCs and allowances

- Which option do you support for revising the TAC and allowances? Why?
  - If you do not support any of the options listed, what alternative(s) should be considered? Why?
  - Are the allowances for customary Māori, recreational and other sources of mortality appropriate? Why?
  - Do you think these options adequately provide for social, economic, and cultural wellbeing?
  - Do you have any concerns about potential impacts of the proposed options on the aquatic environment?
117. We welcome your views on these proposals. Please note which HPB stock you are submitting on (HPB 1, HPB 2 or both) and provide detailed information and sources to support your views where possible.

## 16 How to get more information and have your say

118. Fisheries New Zealand invites you to make a submission on the proposals set out in this discussion document. Consultation closes at 5pm on 27 July 2021.
119. Please see the Fisheries New Zealand sustainability consultation webpage (<https://www.mpi.govt.nz/consultations/review-of-sustainability-measures-2021-october-round>) for related information, a helpful submissions template, and information on how to submit your feedback. If you cannot access to the webpage or require hard copies of documents or any other information, please email [FMSubmissions@mpi.govt.nz](mailto:FMSubmissions@mpi.govt.nz).

## 17 Referenced reports

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- Wynne-Jones, J.; Gray, A.; Heinemann, A.; Hill, L.; Walton, L. (2019). National Panel Survey of Marine Recreational Fishers 2017-2018. New Zealand Fisheries Assessment Report 2019/24. 104p. Accessible at: <https://www.mpi.govt.nz/dmsdocument/36792-far-201924-national-panel-survey-of-marine-recreational-fishers-201718>

# Appendix A

Fisheries New Zealand conducted stakeholder engagement meetings in Tairua, Whakatane, Leigh, Paihia and Kaitia (HPB 1) and Napier and Wellington (HPB 2). The table below reflects what we heard and management measures that were suggested by stakeholders present at the meetings and further feedback received via email and phone calls.

Topic	What we heard	Stakeholder suggested management measures
<b>Recreational Limits</b>	<ul style="list-style-type: none"> <li>Recreational sector has grown substantially leading to higher pressure on stocks.</li> <li>Concern around multiple day trips and the ability for recreational fishers to travel further and target HPB more successfully than in the past</li> <li>The current bag limit is too high.</li> </ul>	<ul style="list-style-type: none"> <li>Reduce bag limit</li> <li>Introduce accumulation limits</li> <li>Boat limits</li> <li>Remove from combined bag limit with kingfish.</li> </ul>
<b>Recreational input controls</b>	<ul style="list-style-type: none"> <li>Electric reels have made it easy for recreational fishers to target HPB in deeper waters, so they are heading further out as nearshore abundance decreases.</li> <li>Multiple hook dropper rigs mean you can catch multiple fish at once and potentially exceed your bag limit.</li> </ul>	<ul style="list-style-type: none"> <li>Restrict the use of electric reels for HPB fishing.</li> <li>Regulate the number of hooks on a line.</li> <li>Ban setnets in both recreational and commercial fishery for targeting HPB</li> <li>HPB should be removed from fishing competitions and monetary incentives should be removed</li> </ul>
<b>Amateur charter vessels</b>	<ul style="list-style-type: none"> <li>Concern that ACVs can target areas day after day and can 'fish out' areas.</li> <li>ACV operators said that having a law in place was easier than trying to enforce their own boat limits as customers push back.</li> </ul>	<ul style="list-style-type: none"> <li>Reduce bag limits</li> <li>Introduce accumulation limits</li> <li>Boat limits</li> </ul>
<b>Closures</b>	<ul style="list-style-type: none"> <li>The only way for a rebuild of the stock is for all sectors to reduce HPB coming out of the water.</li> <li>Need to restrict access to protect parts of the fishery.</li> <li>There is a need to identify important habitats for HPB.</li> </ul>	<ul style="list-style-type: none"> <li>Seasonal closures</li> <li>Complete closure of fishery</li> <li>Area closures</li> <li>Introduce Marine/Benthic Protected Areas</li> <li>Fishery Protected Areas</li> <li>Voluntary agreements (Rec, Commercial, ACV) e.g. Lachlan Ridge and Ranfurly Banks proposal</li> <li>Buy back quota and sell back when stocks have rebuilt</li> </ul>
<b>QMA is too large</b>	<ul style="list-style-type: none"> <li>Split the QMAs into smaller subsections.</li> <li>Separate HPB 1 into HPB 1E &amp; HPB 1W</li> </ul>	<ul style="list-style-type: none"> <li>Rotate access with open and closed areas.</li> <li>Quota split</li> </ul>
<b>Manage Hāpuku and Bass separately.</b>	<ul style="list-style-type: none"> <li>Managing two separate species in combination is not good for sustainable management.</li> <li>The fact that the two species are managed together has impacted the ability to successfully monitor changes in abundance in the fishery</li> </ul>	<ul style="list-style-type: none"> <li>Split HPB into HAP and BAS to manage as two separate species.</li> </ul>
<b>Decreasing the Total Allowable Commercial Catch</b>	<ul style="list-style-type: none"> <li>A TAC and allowances need to be set for HPB 1 and HPB 2.</li> <li>The TACC is too high and has not been caught for 20 years.</li> <li>Need to consider cutting the TACC – as is consistently being under caught this would need to be drastic to effect tangible change</li> </ul>	<ul style="list-style-type: none"> <li>Review the stock in October sustainability review</li> <li>Set a TAC and allowances.</li> <li>Decrease the TACC</li> <li>Set a recreational allowance and constrain recreational catch to meet the recreational allowance setting.</li> </ul>
<b>Monitoring</b>	<ul style="list-style-type: none"> <li>Further monitoring required.</li> <li>Development of species management plan.</li> <li>Collect better information on recreational and commercial catch</li> </ul>	<ul style="list-style-type: none"> <li>Improve the recreational fishing app so that fishers could report their catch, potentially including length and weight information.</li> <li>There was the suggestion that using 5.96 kg as a standardised weight for HPB to estimate recreational catch should be reviewed</li> <li>Look into using BLL survey to generate CPUE data - would have to be more localised</li> <li>Species specific data could be sought from LFRs through grading information</li> </ul>