Fisheries New Zealand
Tini a Tangaroa

# Review of sustainability measures for green-lipped mussels (GLM 7A), horse mussels (HOR 7), and dredge oysters (OYS 7) for 2025/26

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### Guide to this discussion document and consultation

We are consulting on changes to the catch limits and allowances for three fish stocks (GLM 7A, HOR 7, and OYS 7) under the Fisheries Act 1996 (**the Act**). We welcome your feedback on the proposed options for these stocks and any alternatives. Your feedback will be incorporated into our final advice to the Minister for Oceans and Fisheries and will help to inform their decisions on any changes.

### Further information

If you are interested in the evidence used to develop the proposals, you can refer to the Fisheries Assessment Plenary. For more information about fisheries management in New Zealand, see our fisheries management webpage, and our webpage about the Quota Management System (QMS).

### Sending us your views

Submissions on these proposals will be received by Fisheries New Zealand through to **5pm on 23 July 2025**, by email to FMSubmissions@mpi.govt.nz. Submissions are public information and subject to the Official Information Act 1982.

More information about how to send us feedback is on page 10 of this document.

# Executive summary

1. FNZ is proposing TAC, TACC and allowance adjustments to three shellfish stocks at the top of the South Island; green lipped mussels (GLM 7A), horse mussels (HOR 7) and dredge oysters (OYS 7). These stocks are being reviewed together due to the similarity of the issues leading to their review, and broadly overlapping distribution.
2. There are no (GLM 7A, HOR 7) or no recent (OYS 7) stock or biomass assessments to show that the current TACs/ TACCs for these stocks would be sustainable if fully caught. There is also no information on GLM 7A and HOR 7 stock structure, recruitment patterns or other biological characteristics. For OYS 7, growth and mortality are poorly estimated, and there have been no biomass surveys or stock assessments since 2012.
3. There has been negligible catch reported for GLM 7A and OYS 7 for 18 years and little catch for 35 years for HOR 7. Available information suggests the habitat in the areas historically fished has changed and can no longer support these fisheries at the scale of the current TAC/TACCs. In addition, the oyster disease *Bonamia* may have caused significant oyster mortality since the last survey of OYS 7 in 2012.
4. Green lipped and horse mussels are habitat-forming species potentially important in supporting wider productivity. Unsustainable removal of these species by fishing could adversely affect their resilience and have wider consequences for other species.
5. The GLM 7A wild mussel beds are a source of spat for aquaculture. If the current TACC level was fully caught this could impact the availability of spat for the continuation of GLM aquaculture in this area.
6. Decisions on the proposed TAC changes would be made by the Minister under section 13(2A) of the Fisheries Act (1996) (**the Act**) for OYS 7 and HOR 7 and under section 14 of the Act for GLM 7A and take effect from the start of the upcoming October fishing year beginning on 1 October 2025.
7. FNZ welcomes feedback on the proposed options for these stocks (see Table 2), or any alternatives.
8. While the proposed reductions are substantial, the current TACCs (particularly for GLM 7A and OYS 7) present a risk of unconstrained harvest. Feedback on the economic impact of the proposals is sought, including any intermediate or alternative options that may better provide for utilisation while still addressing the concerns outlined in this paper.

**Table 1: Species, areas, and rationales for the stocks being reviewed.**

| Species | Stock/Area | Rationale |
|---|---|---|
| **Green-lipped mussel**<br>kutai, *Pernia canaliculus*<br>  | **GLM 7:**<br>West and top of the South Island<br>  | The TAC for GLM 7A was set under s 14 of the Act at a high level (1500 t) to allow for bycatch from the scallop fishery (currently closed), for catch taken from fallen mussels under mussel farms (which has not occurred) and on the basis it was an 'enhanced' fishery. However, catch declined from a peak in the early 2000s to negligible by 2006, with no recorded catch since 2015 and there are no stock assessments, or biomass estimates for the wild stock of green-lipped mussels. Therefore, it is unknown whether the current TAC would be sustainable if fully caught. As mussels are habitat-forming species, overfishing may have wider consequences in terms of ecosystem diversity and productivity. |
| **Horse Mussel**<br>Hururoa, *Atrina zelandica*<br>  | **HOR 7:**<br>West Coast and top of the South Island<br>  | Catch has been negligible for the past twenty years. For years when there has been catch there has been no obvious trend. There are no estimates of fishery parameters, abundance or biomass for any horse mussel fish stock. Therefore, it is not known whether the current TAC is sustainable. As mussels are habitat-forming species, overfishing may have wider consequences in terms of ecosystem diversity and productivity. |
| **Dredge Oyster** (not Bluff)<br>tio para, *Ostrea chilensis*<br>  | **OYS 7:**<br>Nelson/ Marlborough<br>  | Catch levels have declined since OYS 7 was introduced into the QMS, with negligible catch since 2008 and no recorded catch since 2017. This decline in catch could be due to mortality from the oyster disease *Bonamia* or habitat changes in Tasman and Golden Bay (believed to have contributed to the decline of the associated scallop fishery). There has not been an oyster-specific survey since 2012 so recent biomass is unknown, but it is unlikely that the current TACC would be sustainable if fully caught. No TAC or allowances have been set for this fishery. |

**Table 2: Proposed management options (in tonnes) for GLM 7A, HOR 7 and OYS 7 from 1 October 2025.**

| Stock | Option | TAC | TACC | Allowances | | |
|---|---|---|---|---|---|---|
| | | | | Customary Māori | Recreational | All other mortality caused by fishing |
| **GLM 7A** | Option 1 (*Status quo*) | 1548 | 1500 | 29 | 19 | 0 |
| | Option 2 | 54 (↓ 1494) | 10 (↓ 1490) | 29 | 10 (↓ 9) | 5 (↑ 5) |
| **HOR 7** | Option 1 (*Status quo*) | 50 | 16 | 1 | 1 | 32 |
| | Option 2 | 9 (↓ 41) | 2 (↓ 14) | 1 | 1 | 5 (↓ 27) |
| **OYS 7** | *Status quo* | - | 505 | - | - | - |
| | Option 1 | 516 | 505 | 5 | 5 | 1 |
| | Option 2 | 26 | 15 (↓ 490) | 5 | 5 | 1 |

## Rationale for review and proposed management options for each stock

9. There is currently no TAC or customary, recreational or other mortality allowance set for OYS 7. None of the three fisheries (OYS 7, GLM 7A or HOR 7) have had their TACs/TACCs reviewed since entering the QMS.

10. There is evidence these shellfish stocks were overexploited prior to entering into the QMS and have since failed to recover, with little catch being taken in the last 18 or more years. Recovery may be limited by the lack of settlement surfaces and reduced survival of spat caused by high turbidity near the seabed driven by a significant increase in sedimentation and resuspension of sediments.

11. The historical (pre-QMS) removal of significant quantities of shellfish by dredging is considered to be a driver of change in the seabed substrate and communities in Golden Bay and Tasman Bay, with flow-on effects to biodiversity (since mussel beds host higher biodiversity compared to soft-sediment habitats) and shellfish productivity.[1]

### GLM 7A

**Green Lipped Mussel** / *Perna canaliculus*


12. The green-lipped mussel is a filter-feeding mollusc. While distributed throughout New Zealand, it is most common in central and northern parts where it frequently forms dense beds of up to 100 $m^2$. It is typically a bivalve of the lower shore and open coast and is found from the mid-littoral to depths of over 50 m. The species can grow to over 240 mm in shell length.

13. There appears to be strong genetic structuring of the New Zealand green-lipped mussel population, with a northern and southern group being differentiated. The southern-northern population split occurs south of Cook Strait.

14. Green-lipped mussels filter seawater, create habitat for fish and invertebrates to shelter in and settle onto, stabilise the seafloor preventing erosion, and provide food for fish and invertebrates. This includes snapper and other larger fished species.

15. Green-lipped mussels are distributed in seven of the ten FMAs (1–3, 5 and 7–9) but are most common in the central and northern parts of New Zealand.

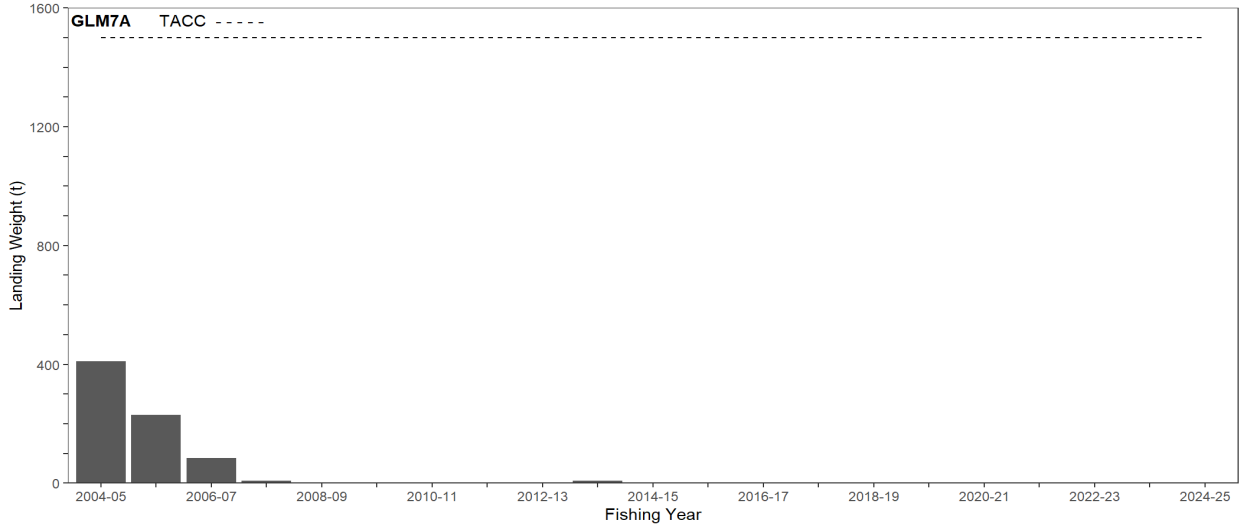


**Figure 1: Landings for GLM 7A in tonnes between 2004/5 and 2024/25.**

[1] https://docs.niwa.co.nz/library/public/NIWAis84.pdf

16. Green lipped mussels entered the QMS in October 2004 with a TACC of 1500 t and TAC of 1548 t. The TAC/TACC have not been revised since that date. Figure 1 shows reported catch has been consistently well below the 1500 t TACC in the 21 years since entering the QMS. Landings have only reached 400 t once (2004) and declined to negligible or zero since 2006.

17. There are no stock or biomass assessments to indicate that the current level of TACC is sustainable. The GLM 7A wild mussel beds are believed to be important for spat production for local aquaculture and also perform an important ecosystem function. FNZ proposes to reduce catch settings for GLM 7A to align with those of most other GLM stocks (Table 3).

**Table 3: all current GLM area TACCs.**

| **Area** | GLM 1 | GLM 2 | GLM 3 | **GLM 7A** | GLM 7B | GLM 8 | GLM 9 | GLM 10 |
|---|---|---|---|---|---|---|---|---|
| **TACC (t)** | 10 | 10 | 10 | **1500** | 10 | 0 | 135 | 0 |

## Fishery characteristics

18. Commercial harvesting of green-lipped mussels began with handpicking of intertidal beds in the late nineteenth century and expanded in 1927 with the development of a dredge fishery for subtidal mussels in the Hauraki Gulf. A second dredge fishery developed in Tasman Bay and Kenepuru Sound in 1962; however, under an open access regime this fishery also declined within five years.

19. The TACC was originally set at a high level when it entered the QMS in 2004 (1500 t), to allow for bycatch from the scallop fishery, for catch from beneath mussel farms and on the basis it was an 'enhanced' fishery. However, catch declined from a peak in the early 2000s to negligible by 2006, with no recorded catch since 2015. The only recent enhancement activity involving green shell mussels is associated with habitat restoration initiatives in an effort to stabilise degraded ecosystems in FMA 7.

20. Recreational catch was estimated to be between 36 t – 55 t between 2002 – 2018 (in total across this time period). The methodology used to estimate catch is thought to be less accurate in fisheries such as mussels and likely underestimates catch. For Amateur Charter Vessels between 0.015-0.22 t (pa) were reported caught between 2019 – 2024, with no recorded data prior to that.

21. Green-lipped mussels are important to customary fishers, however there is currently limited quantitative information on the level of customary take available with no recorded catch since 2016-17.

22. Wild mussel beds provide a source of local spat caught for the many large scale marine farms consented to collect spat in GLM 7A. Overfishing of these mature mussel beds may have a detrimental effect on spat availability for aquaculture collection.

23. There is no quantitative information available for other sources of mortality for GLM 7A.

**Option 1 – *Status quo* (current settings)**

| TAC | TACC | Customary Māori | Recreational | All other mortality caused by fishing[2] |
|---|---|---|---|---|
| 1548 | 1500 | 29 | 19 | 0 |

**Benefits**

24. The *status quo* provides for development of the fishery in the future. It assumes the reasons for the current settings when it entered the QMS in 2004 remain valid (i.e. that it is an enhanced fishery, bycaught in the scallop fishery, and that mussel biomass around marine farms requires removal by fishing).

**Risks**

25. The reasons for the current TAC outlined above appear to be no longer valid and there are no estimates of the biomass of GLM 7A. Under these circumstances the TAC, if fished at its current level, may pose a

[2] The allowance for other sources of mortality caused by fishing is an allowance intended to provide for generally unrecorded mortality of fish associated with fishing activity. This includes fish that escape from pots and subsequently die from injuries, accidental loss from lost or damaged fishing gear, predation, and misreporting.

significant risk of overfishing the remaining wild beds of mussels, with wider consequences for seabed habitat.

| **Option 2 – TAC, allowances, and TACC decrease** (in line with other GLM areas). | | | | |
|---|---|---|---|---|
| TAC | TACC | Customary Māori | Recreational | All other mortality caused by fishing |
| 54 (↓ 1494) | 10 (↓ 1490) | 29 | 10 (↓ 9) | 5 (↑ 5) |

**Benefits**

26. This option aligns the TAC, TACC and allowances with most other GLM stocks. As there are no stock assessments, or biomass estimates for the wild stock of green-lipped mussels, it addresses the risks of overfishing if catches were to increase. These risks include the wider consequences overfishing may have on habitat formation, biodiversity, and productivity. Green-lipped mussels are also an important customary fishery, and a source of spat for aquaculture in the region. It is not known where in the area the wild spat originates but unsustainable harvesting of the wild GLM 7A mussel beds may impact the availability of spat.

27. Under this option should fishing for wild mussels become economically viable, fishers would be able to commission surveys and plans demonstrating how a higher TACC could be sustained and any adverse effects managed.

**Risks**

28. There may be reduced economic opportunities in reducing the TACC (noting there has been little to no catch for many years). Fishers may be unable to cover bycatch of GLM with ACE when targeting other fisheries, however past catch indicates there should be sufficient ACE to do so. Some quota holders have expressed interest in developing a fishery for GLM 7A. FNZ invites further feedback on this initiative, the potential lost value associated with a reduction in the TACC to 10 t, and on alternative TACC options that would address the concerns outlined in this paper.

## HOR 7

**Horse Mussel** / *Atrina zelandica*


29. The horse (or fan) mussel, *Atrina zelandica*, is a widespread endemic bivalve that lives mainly on muddy-sand substrates in the lowest inter-tidal and sub-tidal shallows of mainly sheltered waters. Horse mussels are also found in deeper waters (to 50 m) off open coasts. The horse mussel is a filter-feeding mollusc and is New Zealand's largest bivalve. It usually measures 260–300 mm long (110–120 mm wide) but can reach 400 mm in length. Horse mussels often live in groups, forming dense patches of up to 10 $m^2$ or more that support other sea life, stabilising soft sediments, filtering large volumes of water, sequestering nutrients, and supporting diverse and abundant macrofauna. They act as refugia for small fishes, including nursery habitats for juvenile blue cod. (e.g. they provide juvenile blue cod habitat around the Chetwode and Rangitoto Islands)

30. Horse mussels filter seawater, create habitat for fish and invertebrates to shelter in and settle onto, and stabilise the seafloor preventing erosion.

31. Horse mussels entered the QMS in April 2004 with a TACC set for HOR 7 of 16 t and TAC of 50 t. Landings have remained low up to 2024-25 fishing year where one targeted fisher caught 7 t. There have been no biomass assessments for HOR 7, however, many horse mussel beds within HOR 7, particularly in the Marlborough Sounds, are believed to have declined in density[3] and extent over time.

32. While mainly a bycatch species, last year catch was targeted and came from identified ecologically significant marine sites in Marlborough Sounds[3]. The ESMS are included in Marlborough District Council Plan, and therefore should be taken into account when making a decision.

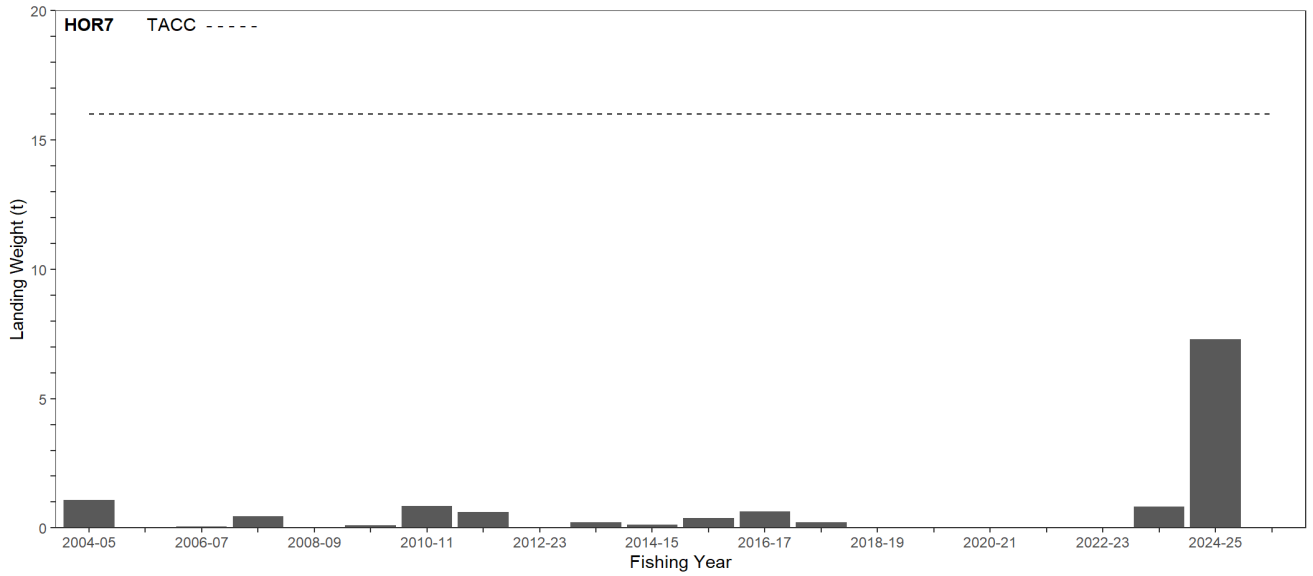


**Figure 2: Landings for HOR 7 in tonnes between 2004/5 and 2024/25.**

33. As Figure 2 indicates landings have been well below the 16 tonne TACC since entering the QMS in 2004. Prior to this annual landings were less than 1 tonne t since 1990/91, with the exception being 2024/25 when just over 7 t were landed (dive). As it is not known whether catches at the level of the current TACC would be sustainable FNZ proposes to reduce catch settings for HOR 7 to better align with those of the other HOR areas (Table 4).

**Table 4: all current HOR area TACCs.**

| **Area** | HOR 1 | HOR 2 | HOR 3 | HOR 4 | HOR 5 | HOR 6 | **HOR 7** | HOR 8 | HOR 9 | HOR 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| **TACC (t)** | 4 | 2 | 2 | 1 | 1 | 1 | **16** | 1 | 1 | |
| | | | | '* No landings, given TACC of 1 | | | | | | |

**Fishery characteristics**

34. HOR 7 is sometimes caught as bycatch in the sea cucumber trawl fishery in SCC7B. HOR target fishing (dive) was recorded in 2024/25. There are no estimates of recreational take for this species.

35. There has been no customary catch recorded since 2017, and no recreational catch estimated through surveys.

36. There is no quantitative information on other sources of mortality, although widespread die-offs appear to be characteristic of this species. Storm scour, shell damage and subsequent predation, and exceeding carrying capacity have been suggested as possible reasons for this. HOR are also known to be highly sensitive to turbidity in the water column due to sediments in suspension.

37.

**Option 1 (*Status quo*)**

| TAC | TACC | Customary Māori | Recreational | All other mortality caused by fishing[4] |
|---|---|---|---|---|
| 50 | 16 | 1 | 1 | 32 |

[3] NIWA 2021.Species Distribution modelling of Horse Mussels in Queen Charlotte Sound, Tory Channel and adjacent Cook Strait. Prepared for Marlborough District Council.

[4] The allowance for other sources of mortality caused by fishing is an allowance intended to provide for generally unrecorded mortality of fish associated with fishing activity. This includes fish that escape from pots and subsequently die from injuries, accidental loss from lost or damaged fishing gear, predation, and misreporting.

**Benefits**

38. The *status quo* provides for development of the fishery in the future. It assumes there is a sufficiently large stock of horse mussels to be sustainably fished at the current settings.

**Risks**

39. The TACC was initially set for HOR 7 at 16 t (ten times the greatest reported catch at that time), and 32 t for other mortality as 200% of the estimated commercial catch. This allowed for HOR being taken as a bycatch in the scallop fishery. Catch levels since that date have remained below 1 t (apart from 2025 targeted catch), with fisheries such as the scallop fishery currently closed. Therefore, the reasons for the current TAC may no longer be valid and there are no estimates of the biomass of HOR 7. Under these circumstances the TAC, if fished at its current level, may pose a risk of overfishing horse mussels, with wider consequences for fisheries habitats.

**Option 2 – TACC decrease. FNZ preferred option**

| TAC | TACC | Customary Māori | Recreational | All other mortality caused by fishing |
|---|---|---|---|---|
| 9 (↓ 41) | 2 (↓ 14) | 1 | 1 | 5 (↓ 27) |

**Benefits**

40. In the absence of survey information, it is not known whether the current TAC is sustainable. Reducing the TAC under this option addresses the risk of overfishing this habitat-forming species with wider consequences in terms of ecosystem diversity and productivity. It would reduce impacts on habitat for juvenile fish and settlement substrate for other invertebrates.

41. Increased benefit derived via their widespread effects on ecosystem structure and function, and associated and dependent species.

42. Under this option should fishing for horse mussels become economically viable, fishers would be able to commission surveys and plans showing a higher TAC could be sustained and any adverse effects managed.

**Risks**

43. Fishers may be unable to cover bycatch of HOR with ACE when targeting other fisheries such as sea cucumber which catch HOR as bycatch. However, apart from 2024/25 this proposed TACC would cover the highest reported catch taken in the past. The higher take for 2024/25 was as target species. A TAC reduction could reduce the potential for targeted catch and therefore could impact those fishers. FNZ invites feedback during consultation on the potential lost value associated with a reduction in the TACC, and on alternative TACC options that would address the concerns outlined in this paper.

## OYS 7

**Oyster dredge,** *Ostrea chilensis*


44. Oysters in OYS 7 (Tasman Bay) tend to be uniformly distributed at a lower density on muddy habitat. Environmental factors such as hydrodynamics, seasonal water temperature, and riverine inputs influence the biological characteristics of these oyster populations. Oyster stocks in the OYS 7 area are generally low and seasonally variable, suggesting high variability in recruitment.[5] The productivity of the fishery is likely to be limited by a paucity of settlement substrate in soft sediment habitat of Tasman Bay and Golden Bay.

45. There has been no OYS 7 commercial catch reported since 2011.

[5] Osborne (1999)

46. The recreational daily limit for oysters is 50 per person. There has been no recreational catch estimated through surveys since 2012. However, the methodology used to estimate recreational catch is thought to be less accurate in fisheries such as oysters and likely underestimates catch.

47. There is little data available on the customary non-commercial catch; data shows 700 oysters harvested between 2010-2012 (in total across this time period).

48. Low levels of incidental mortality of oysters have been reported from dredging.[6]

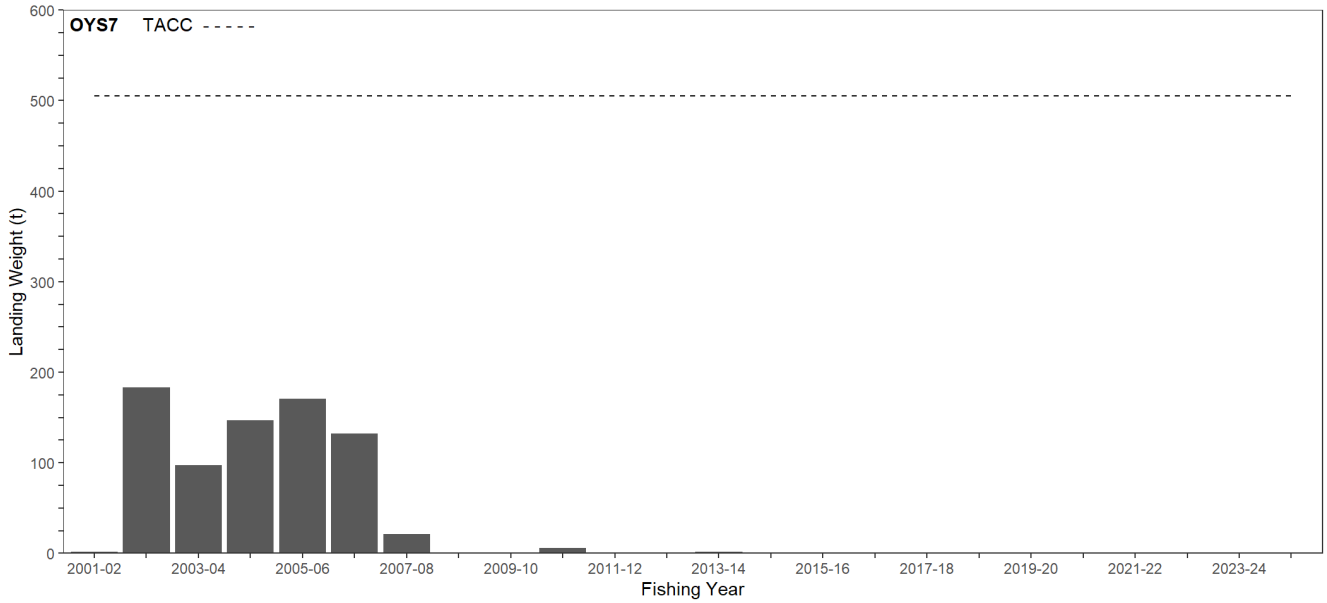


**Figure 3: Landings for OYS 7 (in tonnes) between 2001/2 and 2023/24.**

**Table 5: all current OYS area TACCs.**

| **Area** | OYS 1 | OYS 2A | OYS 3 | OYS 4 | OYS 5A | **OYS 7** | OYS 7A | OYS 7B | OYS 7C | OYS 8A | OYS 9 | OYS 10 | OYS ET |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TACC (t)** | 1 | 1 | 2 | 43.5 | 3 | **505** | 1 | 1 | 63 | 1 | 1 | N/A | N/A |

**Fishery characteristics**

49. Dredge oysters in OYS 7 has not had a TAC or other allowances set, and not had its TACC adjusted since its introduction in the QMS in 1996, catch declined after that time and since 2007/08 the OYS 7 landed catch has been negligible, declining to zero since 2011. Oysters in OYS 7 tend to be uniformly distributed at a lower density on muddy habitat. These low-density stocks are seasonally variable, suggesting high variability in recruitment. It is thought that the productivity of the fishery is likely to be limited by a paucity of settlement substrate in soft sediment habitat of Tasman Bay and Golden Bay. The oyster disease *Bonamia* may have caused significant oyster mortality and be a limiting factor in recovery of these stocks.

**Current settings (*status quo*)**

| TAC | TACC | Customary Māori | Recreational | All other mortality caused by fishing |
|---|---|---|---|---|
| N/A | 505 | N/A | N/A | N/A |

50. FNZ is not proposing the *status quo* as an option as the TAC and allowances need to be set.

**Option 1 – Set allowances and retain TACC**

| TAC | TACC | Customary Māori | Recreational | All other mortality caused by fishing |
|---|---|---|---|---|
| 516 | 505 | 5 | 5 | 1 |

[6] Drummond and Bull (1993)

51. This option would set a TAC and allowances to allow for recent catch levels, while retaining the TACC.

**Benefits**

52. A TAC, customary, recreational and other mortalities allowances would be set for OYS 7.

53. Oyster recruitment is variable, and this option would provide for development of the fishery in the future.

**Risks**

54. There have been no surveys of oyster biomass since 2012, but the biomass is likely to have declined significantly due to mortality from the oyster disease *Bonamia* and habitat changes in Tasman and Golden Bay. Therefore, there is a concern that the current TAC and TACC would not be sustainable if utilised, as productivity of the fishery is likely limited by available habitat for settlement, and *Bonamia* could be limiting recovery of the stock.

**Option 2 – set allowances and substantially reduce the TACC**

| TAC | TACC | Customary Māori | Recreational | All other mortality caused by fishing |
|---|---|---|---|---|
| 26 | 15 (↓ 490) | 5 | 5 | 1 |

55. This option is to set a TAC and allowances and to reduce the TACC to 15 t, in line with other oyster stocks.

**Benefits**

56. A TAC, customary, recreational and other mortalities allowances would be set for OYS 7.

57. The proposed reduction in the TACC would better align catch settings with most other oyster stocks and recent catch levels and protect the OYS 7 stock from risk of overfishing.

58. This option takes into account that in the absence of recent surveys biomass is unknown, and that it is unlikely the current TACC would be sustainable if fully caught.

59. Under this option fishers would be able to commission biomass surveys and plans to show that a higher TAC could be sustained and any adverse effects managed, should the fishery rebuild and again become economically viable in the future.

**Risks**

60. Given the habitat changes in Tasman and Golden Bay that have occurred[1] and the possible impact of *Bonamia*, this option retains some risk of localised overfishing despite the significantly reduced TACC. On the other hand, should the fishery recover, fishers may be unable to cover bycatch or may lose an opportunity to develop the fishery (noting the TAC can be adjusted again subject to an appropriate survey to establish oyster biomass).

# Who will be affected by the proposed changes

61. Commercial interests in these stocks are quota owners, boat-owners, Licensed Fish Receivers and other fishers. HOR 7 is also a bycatch in the sea cucumber fishery. This year there was some targeting of horse mussels in HOR 7 through dive/hand gathering.

62. Table 6 below provides a summary of the number of quota owners for the stocks under review (as of the 2023/24 fishing year).

**Table 6: Summary of quota owners, permit holders, vessels, Licensed fish receivers and % settlement quota, for the three fish stocks under review (average for last three fishing years).**

| Stock | Number of quota owners | % of quota that is settlement quota | Number of permit holders landing stock | Number of vessels landing stock | Number of LFRs landed to |
|---|---|---|---|---|---|
| GLM 7A | 21 | 20% | 0 | 0 | 0 |
| HOR 7 | 13 | 20% | 2 | 2 | 2 |
| OYS 7 | 20 | 20% | 0 | 0 | 0 |

63. Tāngata whenua have both commercial and customary interests in these stocks. The commercial interests are represented through a range of mandated iwi organisations (**MIO**s), and Te Ohu Kaimoana, which represents 58 different MIOs across New Zealand. Individual people, hapū, and iwi have customary interests in these stocks. These customary interests are represented at a higher level by Iwi Fisheries Forums. Further information on the Iwi Fisheries Forums and their input into this review process is provided below under '*Input and participation of tāngata whenua*'.

## Input and participation of tāngata whenua

64. The three fish stocks within this consultation document cover the New Zealand's Top of the South Island coastline. FNZ circulated a summary of the stocks proposed for review to the Chairs of the Iwi Fisheries Forums. FNZ invited feedback from the forums and offered to provide more detailed information upon request.

65. Te Waka a Māui me Ōna Toka is the Te Waipounamu iwi forum that represents iwi with an interest in GLM 7A, HOR 7 and OYS 7. The proposal to review these stocks was provided to the forum on 8 April 2025, where they were supportive of the review.

66. FNZ will engage further with the iwi fisheries forums during consultation. We also welcome any input from tāngata whenua outside of this planned engagement.

## Deemed value rates

67. FNZ is satisfied that the current deemed value rates for these stocks provide sufficient incentives for fishers to balance their catch with Annual Catch Entitlement (**ACE**), consistent with section 75(2)(a) of the Act and the Deemed Value Guidelines. Therefore, no changes are proposed at this time.

68. While no changes are proposed, FNZ welcomes any feedback on these settings. FNZ acknowledges that if the TACCs of these stocks are varied, subsequent changes in fishing behaviour and the ACE market may result in the need for deemed value rates to be re-evaluated in future.

## Supporting information and legal considerations

69. In Part 2 of this document there is additional information to support the above analysis and proposed options. Part 2 outlines our initial assessment of the proposed changes against relevant provisions of the Act.

70. Proposals have been assessed against sections 9, 10, 11, 13, and 14 of the Act in Part 2 below. There is also information on mātaitai reserves and other customary management tools which are relevant to the Minister's decision making under section 21(4).

71. For information on how the proposed changes meet the requirements of sections 5 (Application of international obligations and Treaty of Waitangi (Fisheries Claims) Settlement Act 1992), and 8 (Purpose) of the Act, as well as detail on the statutory considerations relevant to TAC decisions, see the Legal Appendix on our consultation webpage.

## How to have your say

72. We welcome your views on these proposals. Please provide detailed information and sources to support your views where possible.

- Do you support the options provided for setting/revising the TACs and allowances for these stocks? Why?
- If you do not support the options listed, what alternative(s) should be considered? Why?
- Do you have suggestions for development plans for the fisheries, and intermediate options that would better provide for this while still addressing the concerns outlined in this paper?
- 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 (positive or negative) of the proposed options on the aquatic environment?
- Do you have any information relating to these reviews that could assist in developing management options?

73. FNZ invites you to make a submission on the proposals set out in this discussion document. Consultation closes at **5pm on 23 July 2025.**

74. Please see the FNZ sustainability consultation webpage for related information, a helpful submission 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.

# *Part 2: Initial assessment against relevant legal provisions*

## Overview

75. The tables below outline FNZ's initial assessment of the proposed changes against sections 9, 10, 11, 13 and 14 of the Act. Information on kaitiakitanga and mātaitai reserves and other customary management tools has also been provided – this is relevant to the Minister's decision making under sections 12(1)(b) and 21(4).

76. For information on the relevance of sections 5 (Application of international obligations and Treaty of Waitangi (Fisheries Claims) Settlement Act 1992), and 8 (Purpose) of the Act, as well as detail on the statutory considerations relevant to TAC decisions, see the Legal Appendix on our consultation webpage.

## Initial assessment of the proposals against section 13 of the Act

77. Because the biomass of these stocks cannot be reliably estimated in relation to the level that can produce *MSY* using the best available information, section 13(2A) applies when varying the TAC for HOR 7 and OYS 7.

78. When setting a TAC under section 13(2A), the Minister must use the best available information and have regard to the interdependence of stocks, the biological characteristics of the stock, and any environmental conditions affecting the stock. A TAC set under 13(2A) must be consistent with the objective of maintaining the stock at or above, or moving the stock towards or above, a level that can produce the *MSY*.

79. Table 7 below outlines FNZ's initial assessment of the proposed options for HOR 7 and OYS 7 against section 13 of the Act, based on the best available information on these stocks.

## Initial assessment of the proposals against section 14 of the Act

80. The current TAC for GLM 7A was set under section 14 of the 1996 Act. This prescribes an exception to the target stock level based on an assessment of the *MSY* for those stocks where (amongst other things) the stock is managed on a rotational or enhanced basis.

81. Table 7 below includes an outline of FNZ's initial assessment of the proposed options for GLM 7A against section 14 of the Act, based on the best available information.

### Harvest Strategy Standard (HSS)

82. The Harvest Strategy Standard (**HSS**) is a policy statement of best practice in relation to the setting of fishery and stock targets and limits for fish stocks in New Zealand's Quota Management System (**QMS**). The HSS outlines FNZ's approach to relevant sections of the Act and, as such, forms a core input to FNZ's proposals on the management of fisheries, particularly the setting of TACs under section 13.

83. The HSS assists us to decide when a review of sustainability and related settings for a stock may be warranted, by establishing reference points and guidance for the fisheries management responses when stocks are at those reference points.

84. Under the Harvest Strategy Standard, the default management target is 40% $B_0$ (unfished biomass), the soft limit is 20% $B_0$, and the hard limit is 10% $B_0$. However, there is insufficient information to estimate the status of any of GLM 7A, HOR 7, or OYS 7 in relation to these reference points.

**Table 7: Initial assessment under section 13(2A) and section 14 of the Act for the proposed changes to GLM 7A, HOR 7 and OYS 7.**

| Stock | Section 13(2A) | Section 13(2A)(b) Interdependence of stocks | Section 13(2A)(b) Biological characteristics | Section 13(2A)(b) Environmental conditions | Section 13(3) Way and rate the stock is moved towards or above $B_{MSY}$ | Section 14 |
|---|---|---|---|---|---|---|
|  **GLM 7A** | The best available information on the status of these stocks comes from the landings data, which suggests low abundance through no or negligible landed catch. The TACs/TACCs were set higher than those of the other relevant stock areas and now appear to be out of date.<br><br>FNZ's view is that the preferred options proposed for these stocks would be consistent with the concerns over sustainability of the stocks, and with the objective of moving these stocks towards a level that supports their *MSY*s. | This option seeks to reduce potential for fishing pressure and maintain the ecosystem services provided by habitat forming species.<br>These three species are all filter feeders with an important ecosystem function role, and therefore unsustainable catches are likely to pose a risk to the balance of the ecosystem (further supporting why TAC reductions would be appropriate).<br>Likely associated/dependent species are algae, sponges, sea squirts, soft corals (as habitat providers), crabs, starfish, leatherjackets, Spotty wrasse, crayfish, shags, gannets, gulls, terns and oystercatchers (as predators) and plankton (as prey), and other juvenile fish species (refuge etc). We don't have any information to quantify impacts of any TAC options for the three species, although TAC/TACC reductions would mitigate risk of effects for the associated/dependent species. | There is little to no information on stock structure, recruitment patterns, stock or biomass assessments, or other biological characteristics available for these stocks. FNZ considers they are likely to have a low level of resilience to fishing pressure, so more caution is needed when setting a TAC. | All three stocks are at risk from climate change through the impacts of increased sea temperatures, marine heatwaves, ocean acidification and increased adverse weather events. Sessile shell-forming invertebrates are likely to be some of the most heavily impacted fisheries by climate change[7]. Sessile adult phase in shallow water are vulnerable to marine heatwaves, with a reduced chance of adapting to heat stress[8].<br><br>Increased and continued sedimentation along the Top of the South Island has the potential to affect the environmental conditions and impact on resilience to fishing pressure and climate change. | While it is uncertain where these stocks are relative to $B_{MSY}$, the proposed decreases in the TACCs and TACs are considered to be not inconsistent with the objective of moving the stocks towards or above, a level that can produce the maximum sustainable yield. In the absence of quantitative data the available information suggests catch at the level of the TACs/ TACCs may cause overfishing to occur. | The current GLM 7A TAC is set under s 14 recognising the enhanced nature of the stock and development opportunities that stakeholders suggested at the time existed for GLM 7A. However, no enhancement of the stock has occurred and the development opportunities suggested in 2004 have not eventuated. Moreover, there is no evidence the wild stock of GLM 7A is of a size that could sustain harvest at the level of the current TACC. |
|  **HOR 7** | | | | | | |
|  **OYS 7** | | | | OYS 7 occasionally experience diatom blooms and may be vulnerable to *Bonamia* and/or Apicomplexa infections. | | |

[7] AEBR 2021

## Kaitiakitanga

85. Tāngata whenua can provide information on how they exercise kaitiakitanga, and on their values, goals, and objectives for fisheries, through Iwi Fisheries Forums and through Iwi Fisheries Plans, which set out iwi views on the management of fisheries resources and fish stocks.

86. The Te Waka a Māui me Ōna Toka Iwi Fisheries Forum has produced Te Waipounamu Iwi Forum Fisheries Plan, which outlines a vision, values and objectives to support and provide for the interests of South Island iwi. Relevant management objectives in the plan are summarised in Table 8 below.

**Table 8: Relevant Iwi Fisheries Forum Plans and management objectives.**

| Iwi Fisheries Plan | Relevant Management Objectives contained in plan |
|---|---|
| Te Waka a Māui me Ōna Toka Iwi Forum –Te Waipounamu Fisheries Plan | • To create thriving customary non-commercial fisheries that support the cultural well-being of South Island iwi and whānau<br>• South Island iwi are able to exercise kaitiakitanga<br>• To develop environmentally responsible, productive, sustainable and culturally appropriate commercial fisheries that create long-term commercial benefits and economic development opportunities for South Island iwi<br>• To restore, maintain and enhance the mauri and wairua of fisheries throughout the South Island. |

87. The proposed options for GLM 7A, HOR 7 and OYS 7 are intended to ensure future sustainability of the stocks, and FNZ considers the proposals to be consistent with the objectives of the plan above but welcomes feedback from tāngata whenua on this view.

## Mātaitai reserves and other customary management tools

88. Section 21(4) of the Act requires that, when allowing for Māori customary non-commercial interests, the Minister must take into account any mātaitai reserve in that is declared by notice in the Gazette under regulations made for the purpose under section 186, and any area closure or any fishing method restriction or prohibition imposed under section 186A or 186B. Table 9 below lists the Mātaitai reserves and other customary management tools that are relevant to the three stocks being reviewed.

**Table 9: Mātaitai reserves and other customary management tools that apply to three stocks.**

| Customary area | | Management type |
|---|---|---|
| Anatori (HOR 7)<br>Kaihoka (HOR 7)<br>Mikonui (HOR 7)<br>Okarito Lagoon (HOR 7)<br>Manakaiaua/ Hunts Beach (HOR 7)<br>Mahitahi/ Bruce Bay (HOR 7) | Paringa (HOR 7)<br>Tauparikaka (HOR 7)<br>Popotai Taumaka (HOR 7)<br>Okuru/ Mussel Point (HOR 7)<br>Ōkahu (HOR 7)<br>Tauneke (HOR 7) | **Mātaitai reserve**<br>Commercial fishing is not permitted within mātaitai reserves unless regulations state otherwise. |
| Whakapuaka (GLM 7A, HOR 7, OYS 7) | | **Taiāpure** |

| | |
|---|---|
| | All types of fishing are permitted within a taiāpure. The management committee can recommend regulations to manage commercial, recreational, and customary fishing. |
| Popotai Taumaka (HOR 7)<br>Ōkahu (HOR 7) | **Temporary closures**<br>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. |

# Initial assessment of the proposals against section 9 of the Act

89. Table 10 below outlines FNZ's assessment of the proposed options for three stocks against the environmental principles in section 9 of the Act which the Minister must take into account when considering the TACs of these stocks. This assessment has been largely informed by our knowledge of the current environmental impact of these fisheries.

**Table 10: Initial assessment of the proposed changes for GLM 7A, HOR 7 and OYS 7 under section 9 of the Act.**

| Stock | **Associated or dependent species should be maintained above a level that ensures their long-term viability -** Section 9(a) of the Act | **Biological diversity of the aquatic environment should be maintained -** Section 9(b) of the Act | **Habitat of particular significance (HoPS) for fisheries management should be protected -** Section 9(c) of the Act |
|---|---|---|---|
| **GLM 7A**<br>**HOR 7**<br>**OYS 7** | A variety of species are associated with these stocks including algae, sponges, sea squirts, soft corals (as habitat providers), crabs, starfish, leatherjackets, Spotty wrasse, crayfish, shags, gannets, gulls, terns and oystercatchers (as predators) plankton (as prey), and other juvenile fish species (refuge/nursery grounds etc).<br><br>The current high TACs/TACCs could negatively affect associated and dependent species and biological diversity if caught. The extent of any effects would depend on the fishing methods used for utilisation, noting that some methods pose greater risks for damage to the benthic environment and captures of protected species.<br><br>However, the suggested preferred options for these three stocks would prevent potential overfishing and it is expected that these options would maintain associated and dependent species into the future. | There will be no change in fishing effort under FNZ's preferred options, nor should they have any effect on biological diversity of the aquatic environment, as there is currently no fishing occurring. Habitats created by organisms such as these take time to recover.<br><br>Should the TAC/TACC remain at *status quo* fishing effort has the potential to increase and biodiversity may be impacted. | There are 17 potential HoPS identified[9] (e.g. nursery areas for juvenile fish/egg laying/spawning) in the FMA 7 area that these three species are caught within. A TAC decrease for these species is unlikely to negatively affect potential HoPS as the reduction should reduce the likelihood of increases to bottom contact fishing in the future. However, these stocks are located in identified Ecologically Significant Marine Sites (Marlborough) and potential HoPS (e.g. Chetwode Banks/Rangitoto Island). |

[9] The Duck Pond; Chetwode Banks/Rangitoto Islands; Clifford Bay; Fitzroy Bay to Saville Bay; Garne Bay, Pelorous Sound; Grove Arm, Pelorous Sound; Iwirua Point, Queen Charlotte Sound; Kumutoto Bay; Penzance Bay; Cape Campbell; Hikapu Reach; Kenepuru Sound; Mahau Sound; Inner Golden Bay & Tasman Bay (Adele Island-Moutere Bluffs-Nelson Lighthouse); Separation Point; Tasman Bay & Golden Bay

# Initial assessment of the proposals against section 11 of the Act

**Table 11: Initial assessment of the proposed changes for GLM 7A, HOR 7 and OYS 7 under section 11 of the Act.**

| **The Minister must take into account:** | |
|---|---|
| **Effects of fishing on any stock and the aquatic environment**<br>– section 11(1)(a) | 90. "Effect" is defined widely in the Act. The direct effects of fishing on the stocks being reviewed need to be considered, as well as the indirect effects of this fishing for associated stocks and species, and the surrounding ecosystem.<br>91. The effects of fishing on the three stocks being reviewed, on associated species, and on the environment, could be influenced by changes in the TAC of GLM 7A, HOR 7 and OYS 7, and the Minister should take this into account in any decision on its TAC.<br>92. **GLM 7A** is a dredge fishery developed in 1962. FNZ considers that the preferred option (Option 2) presented will not change fishing behaviour in this fishery which has had a stable zero to negligible landed catch since 2007. Should effort increase in this fishery it has potential to have an adverse effect on HoPS in the QMA.<br>93. **HOR 7** is a bycatch fishery of the sea cucumber trawl fishery. Landings of horse mussels in HOR 7 as a target species using dredge/dive fishery were negligible until the current year. FNZ data indicates this catch may be being taken from a few of the Marlborough District Council identified sites of marine ecological significance (ESMS). As this take is through diving/hand gathering the effect on species may not be significant. Sea cucumber harvesting using has potential to negatively affect a range of biogenic habitat (generally fished using a light trawl system) and poses a risk for potential HoPS in the area. FNZ notes that these stocks are essentially unfished, likely due to decline, and vulnerable to climate change. FNZ preferred option (Option 2), reducing the potential for catch would mitigate future fishing risk to the stocks in this paper and other biogenic habitat in the area.<br>94. The FNZ option to decrease the TACC for **OYS 7 dredge oysters** (Option 2) is expected to have little or neutral effect on stocks and the aquatic environment and have little effect on the current level of impact on any associated species as there is no landed catch of dredge oysters reported in area 7. However, should fishing effort increase options to avoid, remedy or mitigate adverse effects on HoPS would need to be considered.<br>95. The FNZ preferred options proposed for GLM 7A, HOR 7 and OYS 7 are not expected to cause a change in fishing behaviour for the target species, and FNZ considers that the options proposed are unlikely to result in changes to fishing effort. |
| **Existing controls that apply to the stock or area**<br>– section 11(1)(b) | 96. The Fisheries (Benthic Protection Areas) Regulations 2007 define areas that have been closed to all trawling within 100m of the seafloor since 2007 **– All stocks**<br>97. There is a network of no take Marine reserves throughout the Territorial Sea (five within FMA 7) that have been designated under the Marine Reserves Act 1971 – **All stocks**<br>98. Areas closed to recreational fishing in addition to the reserves are Double Cove, and Maud Island area. |

| | |
|---|---|
| | 99. Marlborough Sounds, Tasman Bay, Golden Bay, and Port Underwood are closed to commercial and recreational scallop fishing.<br>100. Set netting is banned from Farewell Spit to Cape Soucis, then from Cape Jackson to the Clarence River out to 4 nautical miles, and on the West Coast, from Farewell Spit to Awarua Point out to 2 nautical miles.<br>101. Recreational controls for these stocks are summarised on MPIs website here. A recreational daily limit of 50 applies for each of the species in this area (for horse mussels this is a combined limit of 50 including other species). For redge oysters have a minimum legal size of 58 mm. |
| **Natural variability of the stock** -section 11(1)(c) | 102. These three stocks are broadcast spawners (OYS 7 less so), with inherent fluctuations year to year in biomass dependent on the survival and successful settlement of larvae. |
| **Fisheries plans, and conservation and fisheries services** – section 11(2A) | 103. There are no fisheries plans approved under 11(2A) that directly relate to these stocks.<br>**Fisheries and conservation services**<br>104. Fisheries and conservation services of significance for these stocks include tools used to enforce compliance with management settings. Observer and camera verification are negligible for the fisheries associated with these stocks, noting the lack of recent utilisation. |
| **The Minister must have regard to:** | |
| **Relevant statements, plans, strategies, provisions, and documents** - section 11(2) | 105. There are three Regional Councils that have coastline within the GLM 7A, HOR 7 and OYS 7 boundaries (being West Coast, Tasman and Marlborough).<br>106. These councils have their own policy statements and plans to manage the coastal and freshwater environments, including terrestrial and coastal linkages, ecosystems, and habitats. The provisions of these various documents are, for the most part, of a general nature and relate to land-based stressors on the marine environment and the maintenance of healthy and sustainable ecosystems to provide for the needs of current and future generations. FNZ has reviewed the documents and the provisions that might be considered relevant. A summary of these can be found on our website here.<br>107. The Marlborough District Council Plan includes 129 ESMS as areas that support rare or special features, habitats and marine life. Some of the most important sites for sustaining fish and marine diversity are habitats created by living organisms.<br>108. FNZ considers that the proposed management options presented are in keeping with the objectives of relevant regional plans.<br>109. FNZ engages with the Resource Management Act coastal planning processes (including regional authorities) to support marine management decisions to manage not only the fishing effects on the coastal environment, but also land-based impacts on fisheries. |

| Non-mandatory relevant considerations | |
|---|---|
| **Other plans and strategies** | Te Mana o te Taiao (Aotearoa New Zealand Biodiversity Strategy)<br>110. FNZ considers that the sustainability measures proposed for these stocks are generally consistent with relevant objectives of Te Mana o te Taiao – the Aotearoa New Zealand Biodiversity Strategy. This includes Objective 10, which is to ensure that ecosystems are protected, restored, resilient and connected from mountain tops to ocean depths; and Objective 12, which is to manage natural resources sustainably. |

## Information principles: section 10 of the Act

111. Best available information relevant to these stocks is presented throughout this paper, and uncertainties in the information have been highlighted where relevant. Information used includes catch data in the absence of a biomass proxy or $B_{MSY}$. The rollout of onboard cameras to verify fisher-reported data allows greater confidence in this catch data. Decision makers should exercise caution when making decisions as this data does not take into account the market drivers for fishing or other factors (such as Catch per Unit Effort (**CPUE**), gear modifications, number of operators/vessels, spatial distribution of effort.

112. The table below provides an additional summary of the best available information and key areas of uncertainty, unreliability, or inadequacy in that information.

**Table 12: Best available information and key areas of uncertainty.**

| Stock | Best available information | Key areas of uncertainty, unreliability, or inadequacy |
|---|---|---|
| **GLM 7A**<br>**HOR 7**<br>**OYS 7** | Catch trend analysis of GLM 7A using reported landed catch allocated to fishing trips and events. Biological characteristics of the species including life cycle, habitat, and age of recruitment summarised in the May 2025 and November 2024 Fisheries Assessment Plenary reports (see reference list below for relevant links to the chapters for each species). | There is little data available other than catch. There has been little to no landed catch for over ten years. There have not been any stock or biomass assessments, and little information on stock structure, recruitment patterns or other biological characteristics. |

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