Fisheries New Zealand
Tini a Tangaroa

Review of sustainability measures for Tarakihi for 2026/27

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Guide to this discussion document and consultation

We are consulting on management changes for New Zealand's main tarakihi fisheries under the Fisheries Act 1996 (**the Act**). We welcome your feedback on the proposed options for these fisheries 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.

Separate summary document

This paper is a technical discussion document intended to support consultation on proposed management changes for eastern and western tarakihi. A shorter and less technical summary has been developed to support this paper. This can be found on MPI's website here: consultation summary.

Further information

If you are interested in the scientific information 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 (**FNZ**) through to **5pm on 24 July 2026**, by email to FMSubmissions@mpi.govt.nz.

Submissions are public information and subject to the Official Information Act (OIA) 1982. Your submission may be published on the FNZ website. If you consider there are grounds to withhold information under the OIA, please advise FNZ of this in your submission.

Please see our consultation webpage for related information, a helpful submissions template, and more information on how to submit your feedback.

Part 1: Overview

Tarakihi – TAR 1, TAR 2, TAR 3, TAR 7 & TAR 8

Tarakihi, also known as terakihi
Nemadactylus macropterus

Tarakihi supports shared fisheries across New Zealand which are highly valued by commercial fishers, recreational fishers, tangata whenua, and the wider public. Around 95% of tarakihi catch is consumed domestically in New Zealand.

There are thought to be two main tarakihi stocks in New Zealand; one on the east coast from Northland down to the bottom of the Otago region, and one on the west coast from Northland down to the bottom of the West Coast region of the South Island.

Around two thirds of tarakihi catch is taken in fishing events where tarakihi is reported as the target. Most tarakihi catch is taken in commercial trawl fisheries targeting a mix of inshore species, including tarakihi, with smaller amounts taken in longline and set-net fisheries. Recreational catch is mainly taken by rod or line from small vessels.

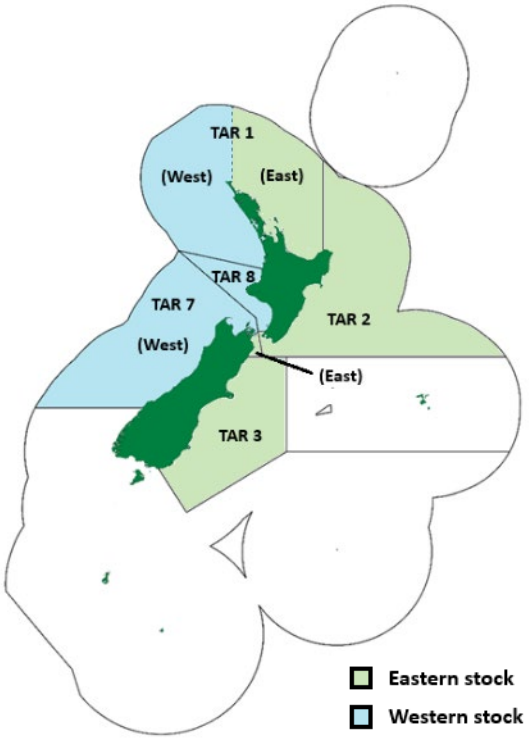


Figure 1: Summary of New Zealand's main tarakihi fisheries and Quota Management Areas, with the western and eastern tarakihi stocks highlighted.

Executive summary

1. Tarakihi is one of New Zealand's most important inshore finfish species. It supports commercial fisheries and associated supply chains, customary and recreational fishing, and domestic seafood supply. It is highly valued by tangata whenua, recreational fishers, commercial fishers, processors, retailers, and consumers.

2. Fisheries New Zealand (**FNZ**) is seeking feedback on proposed changes to management settings for tarakihi in Quota Management Areas (**QMAs**) TAR 1, TAR 2, TAR 3, TAR 7, and TAR 8 from 1 October 2026 (Figure 1). The paper consults on options for Total Allowable Catches (**TACs**), Total Allowable Commercial Catches (**TACCs**), customary and recreational allowances, allowances for other sources of mortality caused by fishing, deemed value rates, and recreational daily limits. FNZ is also seeking feedback on any other supporting measures that may be needed to reduce fishing mortality and support the recovery of tarakihi.

3. The best available information indicates there are two main biological stocks around mainland New Zealand: an eastern stock and a western stock (Figure 1). Evidence for the east/west stock structure includes differences in age composition, recruitment patterns, catch trends, nursery areas, movement, and growth patterns between eastern and western fisheries. Further information on this structure and the connectivity among QMAs on each coast is provided below under *'stock structure'*.

4. The eastern stock includes TAR 2, TAR 3, and the eastern portions of TAR 1 and TAR 7. The western stock includes TAR 8 and the western portions of TAR 1 and TAR 7 (Figure 1). The overlap of TAR 1 and TAR 7 with both eastern and western stocks creates practical challenges for setting catch limits for those QMAs while responding to the different status of the eastern and western stocks.

New information

5. This consultation responds to new 2026 stock assessment information for both eastern and western tarakihi. These assessments are considered to provide the best available information on current stock status, fishing pressure, and uncertainty affecting future stock productivity. The assessments incorporate updated data and modelling, including catch, catch-per-unit-effort (**CPUE**), trawl survey, age composition, recruitment, biological, and mortality information. For eastern tarakihi, the 2026 assessment also includes improvements to the assessment model and corrections to issues identified in the previous assessment. The assessment results have been accepted through the 2026 Fisheries Assessment Plenary.

6. The 2026 eastern tarakihi assessment indicates that the eastern stock is in a substantially more depleted state than previously understood, and recent recruitment has been well below long-term averages. Biomass was estimated to be around 7.7% of its virgin spawning biomass in 2025 (refer to Figure 5 below). The Plenary assessed the stock as exceptionally unlikely (<1% probability) to be at or above the default 40% SB_0 [1] target reference point, very likely (>90% probability) to be below the default soft limit reference point of 20% SB_0, and about as likely as not (40-60% probability) to be below the default 'hard limit' reference point of 10% SB_0. Overfishing is assessed as virtually certain (>99% probability) at current levels, with fishing mortality estimated to be around 2.6 times the $FSB_{40\%}$ target level [2] (also known as the overfishing threshold).

7. Previous catch limit reductions in 2018, 2019, and 2022 were intended to rebuild the eastern stock and were supported by an industry-led rebuild plan, including voluntary measures (see Figure 2 below). However, the 2026 assessment indicates that eastern tarakihi is more depleted than previously assessed. This difference is driven by changes in the assessment model, including updated biological parameters, revised spatial modelling, and new data inputs since 2022, as well as correction of an error in the previous model (refer to *'new information and context'* below for more details).

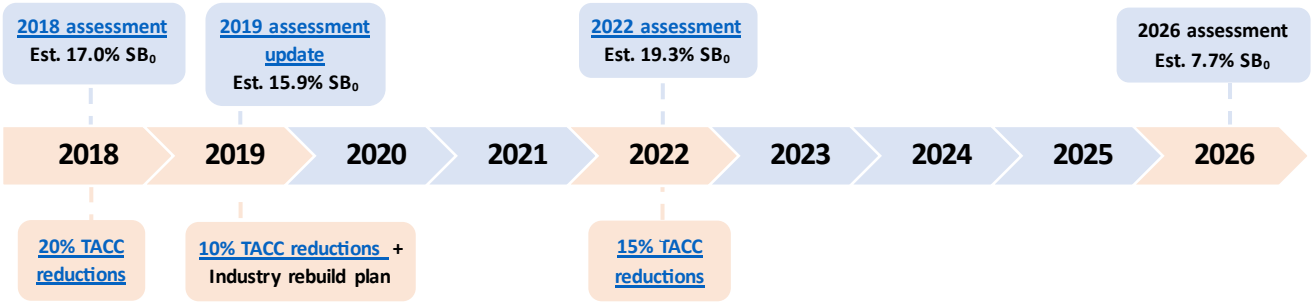


Figure 2: Timeline of eastern tarakihi assessments and management changes since 2018. Spawning biomass estimates presented are those produced at the time of each assessment. The 2026 assessment indicates biomass in those years was likely much lower than earlier estimates suggest. This is discussed further below under '*changes and corrections from previous assessment model*'.

8. The 2026 western tarakihi assessment indicates that biomass of tarakihi is also declining on the west coast. Biomass was estimated to be around 29% of its virgin spawning biomass in 2025 and is expected to be at 26% of its virgin spawning biomass by the end of the current fishing year (refer to Figure 6 below). The Plenary assessed the stock as unlikely (<40% probability) to be at or above the default 40% SB_0 target reference point in 2025, unlikely (<40% probability) to be below the 20% SB_0 soft limit reference point, and very unlikely (<10% probability) to be below the 10% SB_0 hard limit reference point. However, overfishing is assessed as very likely (>90% probability) at current catch levels, with fishing mortality in 2025 estimated to be around 1.6 times the overfishing threshold.

9. The 2026 assessments indicate that fishing under current management settings would pose sustainability risks for both eastern and western tarakihi stocks. If current TACC levels were fully utilised

[1] SB_0 (also known as virgin spawning biomass, or unfished biomass), is the theoretical carrying capacity of the spawning biomass of a fish stock. In some cases, it refers to the average spawning biomass of the stock in the years before fishing started. More generally, it is the average over recent years of the biomass that theoretically would have occurred if the stock had never been fished.

[2] $FSB_{40\%}$ represents the specific fishing rate required to keep biomass of a fish population at 40% of its unfished biomass level (the biomass level it would reach in the absence of fishing). This reference point is discussed in more detail in the supporting information section of this paper in Part 5.

for the next five years, eastern tarakihi biomass is projected to remain around 7% SB_0 by 2030/31, while western tarakihi biomass is projected to decline to around 9.2% SB_0 by 2030/31. If current catch levels continued instead, western tarakihi biomass is projected to decline to around 19.3% SB_0.

10. These short-term projections are based on available trawl survey estimates of recruitment for the next few years. They do not predict how recruitment may respond to future environmental conditions. As discussed in the following section, there is considerable uncertainty in how recruitment of these stocks may respond to changes in both fishing pressure and environmental influences in future. This uncertainty significantly reduces confidence in long-term projections of biomass.

11. FNZ recognises that we have consistently heard from a range of commercial fishers that their on-the-water observations and experiences for tarakihi are not aligned with what these 2026 assessments are showing. Further, some fishers report steady or increasing catch rates despite changes in fishing behaviour to avoid tarakihi and other species such as snapper. FNZ is open to further information and feedback on this, to inform the management settings and further work that could be done to reduce uncertainties in the 2026 assessments.

Key uncertainties for management

12. The 2026 assessments indicate that recent recruitment for both eastern and western tarakihi has been well below long-term averages. This has coincided with a period of warming sea temperatures. The Plenary noted that productivity may be declining in response to environmental changes and discussed whether the 40% SB_0 targets remain appropriate.

13. It is unclear whether recent low recruitment reflects a temporary state that may improve as fishing pressure is reduced, or whether it reflects a more persistent change in productivity that would affect the biomass level capable of producing maximum sustainable yield (MSY). This is important because the default 40% SB_0 target which has been used for tarakihi stocks estimates MSY based on the assumption that changes in productivity are temporary and addressable through changes in fishing. However, for stocks facing more persistent changes in productivity, MSY can be more reliably estimated using other approaches. [3]

14. The 2026 assessment indicates that productivity of eastern tarakihi has declined more than would be expected from reduced stock size alone. This means the question is not whether factors outside of fishing are affecting productivity of tarakihi, but to what extent these other factors are affecting productivity relative to fishing.

15. This uncertainty around the influence of environmental impacts on productivity does not reduce the need for actions in response to the 2026 stock assessments. Rather, it affects how the TAC decisions proposed should be approached under the Fisheries Act 1996 (**the Act**). FNZ's view is that the TAC decisions should be considered under section 13(2A). The assessments provide reliable information about current biomass, fishing mortality, and sustainability risk. However, given the high level of uncertainty regarding the relative influence of environmental changes on tarakihi productivity, FNZ considers that the biomass level capable of producing MSY cannot be reliably estimated for either stock in the current circumstances. FNZ also considers that it cannot be reliably projected in the long-term because any long-term projections are strongly affected by assumptions about whether recent low recruitment will continue.

16. Section 13(2A) requires the Minister to act on the best available information where the current stock level, or the level of the stock that can produce MSY, cannot be reliably estimated. It does not allow action to be deferred because of uncertainty, and it does not change the need to ensure sustainability in line with the purpose of the Act. Under section 13(2A)(c)(ii), a TAC must be set that is not inconsistent with the objective of maintaining the stock at or above, or moving the stock towards or above, a level that can produce MSY.

17. While FNZ considers that MSY cannot be reliably estimated at this time, the default 40% SB_0 target reference point and associated $FSB_{40\%}$ overfishing threshold estimates remain important and have been

[3] F-based (or U-based) targets are often used to estimate MSY for stocks with persistent productivity shifts. These approaches estimate a target level of fishing mortality, rather than a target level of biomass. They do not depend on the unfished biomass level which may shift with changing productivity.

used to inform the options in this review. They provide useful default benchmarks for assessing the seriousness of depletion, the extent of overfishing, the scale of fishing mortality reduction likely to be required, and the relative risk of different TAC options. They also provide a common basis for comparing projected outcomes. However, given uncertainty about productivity, FNZ is not treating those reference points as reliable stock-specific estimates of B_{MSY} or MSY.

Proposed management changes for consultation

Catch limit, allowance, deemed value rate, and recreational daily limit proposals

18. In line with information from the 2026 stock assessments and the requirements of the Act, FNZ is consulting on substantial catch limit reductions for both eastern and western tarakihi. The options represent different levels of caution, sustainability confidence, and utilisation impact. Less cautious options would reduce fishing pressure and may better mitigate immediate social and economic impacts but would provide less confidence that overfishing will be addressed if low recruitment continues. More cautious options would provide greater confidence of reducing fishing mortality is reduced, addressing overfishing, and moving the stocks towards levels capable of producing MSY but would also have greater impacts on fishers and associated businesses and may create additional bycatch, displacement, or implementation issues.

19. FNZ is also proposing changes to deemed value rates, recreational daily limits, and allowances for customary, recreational, and other sources of mortality caused by fishing. These settings are important to ensure that reduced catch limits are effective, incentives to avoid over-catch are appropriate, and all sources of fishing mortality are considered.

20. FNZ has combined these settings into three main packages of options for consultation, alongside the status quo. These options are briefly summarised below, with full details, including information and rationale to support the individual settings proposed for each QMA, provided in Part 2 of this paper.

21. FNZ has provided an initial assessment of potential social, cultural and economic impacts from these options in Part 4 and Appendix 1. A more comprehensive economic analysis is currently being progressed and will support final advice to the Minister following consultation. Feedback is welcomed to help inform that analysis.

Status quo

- This would involve retaining the catch limits at their current settings.
- Retaining current settings would not respond to the 2026 assessments, which indicate that eastern tarakihi is already very depleted and that overfishing is very likely to be occurring for both east and west tarakihi at current catch levels. FNZ's assessment is that retaining the status quo would not meet the requirements of the Act, however, we invite views on these settings and any alternative rationale to consider maintaining settings for the stocks and areas under review.

Option 1

- Option 1 would reduce eastern tarakihi catch limits by around 39% and western tarakihi catch limits by 55%. It would also substantially increase tarakihi deemed value rates and reduce recreational daily limits to ten tarakihi per fisher in both eastern and western areas.
- The TACCs under this option may allow a moderate but reduced target fishery for tarakihi to continue in all QMAs except TAR 7 where only negligible targeting may be viable. It would have a less significant impact on utilisation of tarakihi compared to Options 2 and 3. It is expected to allow both stocks to increase in the short term if recent recruitment continues, but would provide the lowest rate and likelihood of recovery of the options proposed.

Option 2

- Option 2 would reduce eastern tarakihi catch limits by around 58% and western tarakihi catch limits by around 69%. It would also substantially increase tarakihi deemed value rates, though less than Option 1, and reduce recreational daily limits to five tarakihi per fisher in the east and west areas.
- The TACC levels under this option would substantially constrain targeted fishing for tarakihi, with the effect differing by QMA. Target fishing may continue at a reduced scale in some areas, but TAR 7

would be below recent average bycatch levels and would require significant changes in fishing behaviour to avoid tarakihi. It is expected to allow both stocks to start increasing in the short term and would provide a greater rate and likelihood of recovery than Option 1, but with greater immediate socioeconomic impacts.

Option 3

- This option would reduce eastern tarakihi catch limits by around 78% and western tarakihi catch limits by around 84%. It would also increase tarakihi deemed value rates, though less than Options 1 and 2, and reduce recreational daily limits to three tarakihi per fisher in the east and west areas.
- The TACCs under this option would be below recent bycatch levels in TAR 3, TAR 7, and TAR 8, and would leave limited headroom above recent bycatch levels in TAR 1 and TAR 2. This option is expected to effectively remove target fishing for tarakihi across most areas, although some limited target fishing may remain possible in TAR 1 and TAR 2 depending on fisher behaviour, ACE prices, bycatch avoidance, and deemed value incentives. It would also require significant changes in other fisheries to avoid or substantially reduce tarakihi bycatch. Of the options proposed, this option would provide for the greatest rate and likelihood of recovery but would have the greatest immediate socioeconomic impacts, particularly for commercial fishers and associated businesses.

22. FNZ is proposing catch limit reductions and deemed value rate increases across all eastern and western tarakihi QMAs. FNZ recognises that observations of tarakihi abundance vary across the QMAs, and may appear higher in some QMAs, including TAR 2 and TAR 8. We understand this may be due to fish aggregating more in certain areas, allowing fishers in those areas to maintain higher catch rates of tarakihi. However, as noted above, and discussed further under the *'stock structure'* section below, there is substantial evidence to support the connectivity of the tarakihi populations among the QMAs on each coast, and that removals of tarakihi from one QMA can have flow on effects for the other QMAs and the stock as a whole.

23. All of the TAC options proposed for eastern and western tarakihi are intended to reduce fishing pressure and support movement of the stocks towards levels capable of producing MSY, as required by the Act. The key question for consultation is the level of reduction and supporting measures that are needed to provide sufficient confidence that the TACs will be consistent with the objective of maintaining the stocks at or above, or moving the stocks towards or above, levels that can produce MSY, having regard to the best available information, uncertainties, and the social, cultural, and economic impacts of the options (see further discussion of these impacts in Part 5 – Table 6).

24. Submissions are sought on the range of TAC and TACC options, proposed allowance and deemed value settings, recreational daily limit options, the likely impacts of the options, and whether additional measures should be considered. Following consultation, FNZ will provide final advice to the Minister on management settings for tarakihi from 1 October 2026.

Closure consideration for eastern tarakihi

25. The 2026 assessment indicates eastern tarakihi is about as likely as not to be below the default Harvest Strategy Standard (**HSS**) hard limit of 10% SB_0. When a stock's biomass falls below this limit, the HSS recommends that closure should be considered for target fisheries, and that it may also be appropriate to consider curtailment or closure of fisheries that incidentally catch the species concerned.[4] In line with this, FNZ is consulting on a highly restrictive option that is expected to substantially remove the target-fishing component of eastern tarakihi catch, while also requiring substantial avoidance of tarakihi bycatch (Option 3, see Part 2 for more detail). FNZ is also consulting on possible restrictions in key nursery and juvenile areas for eastern tarakihi alongside the proposed catch limit changes in this review (discussed further below).

26. FNZ's view is that the best available information, including the 2026 stock assessment, Plenary conclusions, and projections under reduced fishing mortality, supports substantial and timely

[4] Harvest Strategy Standard – Page 9.

reductions in fishing mortality but does not indicate that TACs of zero would be required to ensure sustainability or meet section 13(2A).

27. FNZ considers that this review responds to the recommendation of the HSS by consulting on a highly restrictive option expected to remove most target fishing opportunity and substantially constrain catch, as well as possible spatial restrictions for key nursery and juvenile areas. The assessment indicates that a substantial reduction in fishing mortality should increase the eastern stock towards a biomass level capable of producing MSY, accounting for uncertainty in the best available information. FNZ considers that substantial TAC and TACC reductions as in Options 1-3 would meet the Act's obligations, while avoiding the more severe utilisation impacts of zero TAC settings. However, FNZ welcomes feedback on whether more restrictive TACs, closures, or additional supporting measures should be considered based on the eastern stock's current state of depletion.

Proposals for other supporting measures

28. While catch limits are the primary tool for controlling the impacts of fisheries on tarakihi, there are a range of other management tools which could further support recovery of tarakihi and the sustainability of its fisheries. This paper therefore also seeks feedback on what additional measures should be developed to support recovery or reduce fishing mortality.

29. The impact of any supporting measures is likely to be strongest for eastern tarakihi because of the stock's relatively low assessed biomass and higher sustainability risk. However, FNZ is also seeking feedback on additional tools for western tarakihi where biomass is expected to decline more sharply relative to the eastern stock due to projected poor recruitment. These tools could reduce fishing mortality and protect juveniles and their nursery areas and better align management settings with the assessed biological stocks.

30. FNZ considers that spatial measures to support juvenile fish to reach maturity and recruit to the stock are likely to be effective in supporting recovery of tarakihi. FNZ is consulting on two options which package spatial measures for tarakihi. These options are briefly summarised below. More details and supporting information on these options is available in Part 3 of this paper.

Option A: restrict fishing (trawl and Danish seine) to avoid adverse effects on tarakihi nursery habitats,[5] and restrict trawling in one key juvenile aggregation area, which is estimated to avoid over 1.5 tonnes of juvenile catch per year from the east coast stock and almost 140 kg from the west coast stock;

Option B: Option A with additional trawling restrictions in two juvenile aggregation areas. For the east coast this could avoid approximately 2.3 tonnes of juvenile catch per year, and approximately 230 kg per year for the west coast.

31. In addition to these spatial measures, FNZ is seeking feedback on the potential to change the QMA boundaries for tarakihi to better align with the eastern and western stock areas and to allow catch limits and other settings to be set individually within the east and west parts of TAR 1 and TAR 7. FNZ notes that any QMA boundary changes involve regulatory processes that take time to implement and would not come into effect for the upcoming fishing year.

32. FNZ has considered a range of other measures for tarakihi, and an initial discussion of these measures is provided in Part 3 of this paper. Spawning closures have not been proposed due to the lack of evidence they would improve the productivity of the tarakihi stock. Some measures, for example, gear modifications and changes to minimum legal-size, are not currently being proposed due to limited evidence of post capture survival of tarakihi, particularly in trawl fisheries. Similarly, move-on rules are not proposed by FNZ. However, FNZ invites feedback on these measures and any other measures which may support the options proposed as part of this review. Any additional measure will need to be assessed against the evidence available for that measure, including the risk it is intended to address, its likely effectiveness, costs and benefits, implementation issues, and relationship with TAC and TACC settings.

[5] Nursery habitat for a number of stocks is included on a register of habitat of particular significance for fisheries management. Section 9(c) of the Fisheries Act 1996 requires that the Minister take into account that habitat of particular significance for fisheries management should be protected.

Background

Stock structure

33. Tarakihi is currently assessed and managed in New Zealand as two separate stocks (east and west). There is some uncertainty regarding the overall stock structure and movement dynamics of tarakihi in New Zealand however evidence for this approach includes substantial differences between the stocks in age patterns, recruitment and catch trends. Figure 3 below illustrates the two main areas and the ontogenic movement patterns[6] that are thought to occur in each area. Some general information on the age structure and movement of fish in each area is described below, with further details in Appendix 1 under '*Biological characteristics'.*

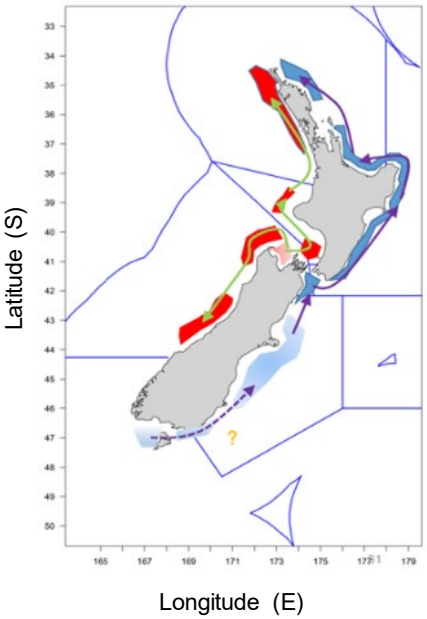


Figure 3: Map of east and west tarakihi stock assessment areas. Light shading indicates juvenile areas, and arrows show patterns of dispersal as they grow.

East coast

34. Tarakihi shows a highly connected population on the east coast. The main nursery grounds for young fish on the east coast are found south around Canterbury Bight and Pegasus Bay, with other smaller nursery areas expected across the distributional range of the stock. As tarakihi grow, they generally move northward along the coast and move into deeper water. The largest and oldest adults tend to be found further north in Bay of Plenty and East Northland. Spawning on the east coast mainly occurs in two areas: Cape Runaway to East Cape, and Cape Campbell to Pegasus Bay, during summer and autumn. Tarakihi then likely migrate through ocean currents back to the southern nursery areas, helping to keep the stock well connected.

West coast

35. There appears to be less large-scale movement and mixing for the western tarakihi stock compared to the east. The main nursery grounds for young fish on the west are thought to be in Tasman Bay and Golden Bay, with some juveniles in the Taranaki Bight. The main spawning areas appear to be south around the Westland coast, and north near Cape Egmont and Ninety Mile Beach. As with the east, tarakihi larvae are thought to migrate to the main nurseries through ocean currents.

Previous management

Eastern tarakihi

36. Figure 2 above in the executive summary shows the timeline of previous assessments and management changes for eastern tarakihi since 2017.

37. Prior to this year, the most recent assessment for eastern tarakihi was completed in 2022, and that assessment informed management changes later that year. The 2022 assessment indicated the stock was around 19% of its virgin biomass at the time and projected to rebuild to 40% of its virgin biomass by 2037. However, it has recently been identified that errors in the 2022 assessment model impacted this conclusion (see '*changes and corrections from previous assessment model'* below). The earlier model was also less complex and had slightly different assumptions than the latter model (where additional model complexity and slightly different assumptions were required to incorporate data that was not available earlier). This earlier assessment is now understood to have therefore presented a more optimistic scenario for biomass and recruitment.

[6] The patterns of movement, growth and development thought to occur throughout the lifetime of the fish.

38. Further information on previous management of the eastern tarakihi fishery, including court findings relevant to previous management decisions for the fishery, is provided in Appendix 1 under *'Additional management background'*.

Western tarakihi

39. This year's stock assessment is the first ever fully quantitative stock assessment for western tarakihi. Prior to this, there had been some assessments of tarakihi biomass for parts of the western stock, but not for the stock as a whole. Tarakihi biomass in TAR 7 was assessed in 2008 using data on ageing, trawl survey biomass and CPUE (Manning 2008). The TACC in TAR 8 has remain unchanged since it was introduced to the QMS in 1986, and a TAC is yet to be formally set.

40. FNZ notes that the catch limits of TAR 1 and TAR 7 (which overlap the western stock) have been reviewed several times over the last decade and adjusted in line with assessment results for the eastern stock (refer Figure 2 above). TAR 1 TACC was reduced by 24% in 2018, 5% in 2019 and 6% in 2022; a combined 32% reduction since 2018. TAR 7 TACC was reduced by 4% in 2018, 2% in 2019 and 3% in 2022; a combined 9% reduction since 2018. The western TACC portions of TAR 1 (579 tonnes) and TAR 7 (863 tonnes) have remained the same since 2018.

New information and context

2026 stock assessments

41. The 2026 stock assessments for western and eastern tarakihi incorporate a range of available data inputs (e.g. fish length and age, recruitment, relative abundance, mortality, catch and effort) into a statistical model and use this to estimate a range of parameters, including stock biomass and recruitment. A summary of results from the assessments is provided below. Further details of these assessments can be found in the Fisheries Assessment Plenary.

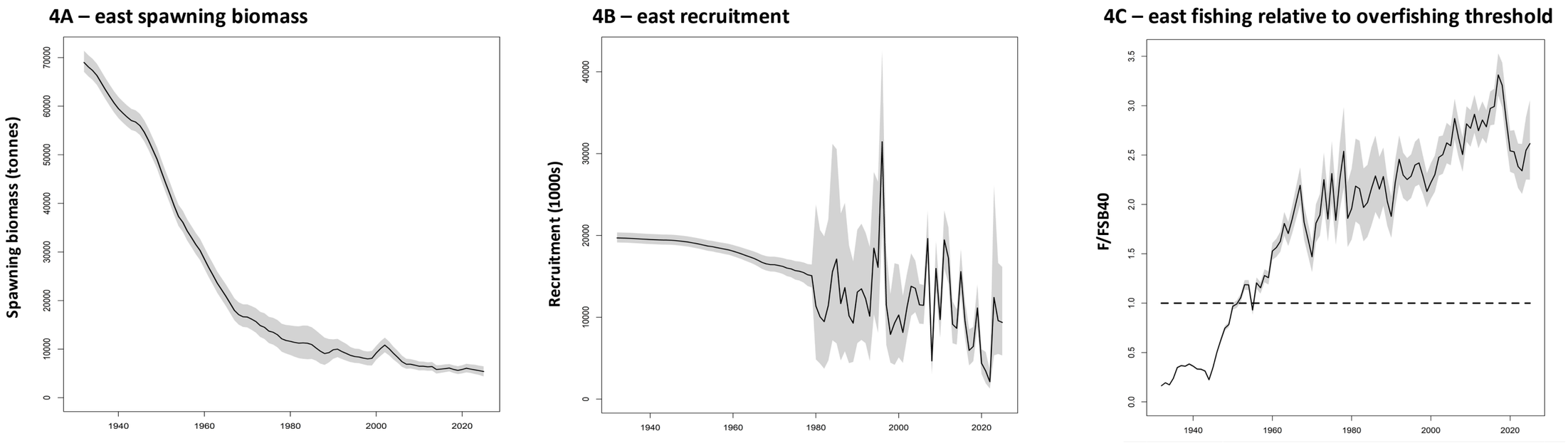
Eastern tarakihi

42. The 2026 assessment estimated biomass of the eastern tarakihi stock to be around 7.7% of its virgin biomass level in 2025 (i.e. 7.7% SB_0). The Fisheries Assessment Plenary determined that the stock is exceptionally unlikely (<1% probability) to be at or above the default 40% SB_0 management target, very likely (>90% probability) to be below the default soft limit of 20% SB_0, and about as likely as not (40-60% probability) to be below the default hard limit of 10% SB_0. The assessment suggests that spawning biomass declined most rapidly between 1940 and 1960 and then continued to decline at a slower rate since (Figure 4A).

43. Overfishing is virtually certain to be occurring at current catch levels (99% probability), and fishing mortality is estimated to be around 2.6 times the overfishing threshold (the level of fishing mortality that corresponds to default target 40% B_0 biomass level ($F_{SB40\%}$)) (Figure 4C). The model estimates that fishing mortality has exceeded the overfishing threshold since 1960 and that fishing mortality rate has steadily increased over the last several decades. This trend is based on the best available information from the 2026 assessment. FNZ notes that prior decisions on catch settings were responding to best available information on fishing mortality at the time.

44. Estimates of recent stock recruitment are well below the estimated long-term average (Figure 4B). Lower recruitment has coincided with a period of warmer sea temperatures (refer to '*environmental conditions affecting the stocks*' in Appendix 1), and the Fisheries Assessment Plenary have suggested that the stock's productivity may be declining in response to environmental changes. In light of this uncertainty regarding environmental changes on productivity, the Plenary discussed whether the default 40%SB_0 target was appropriate.

Eastern tarakihi



Western tarakihi

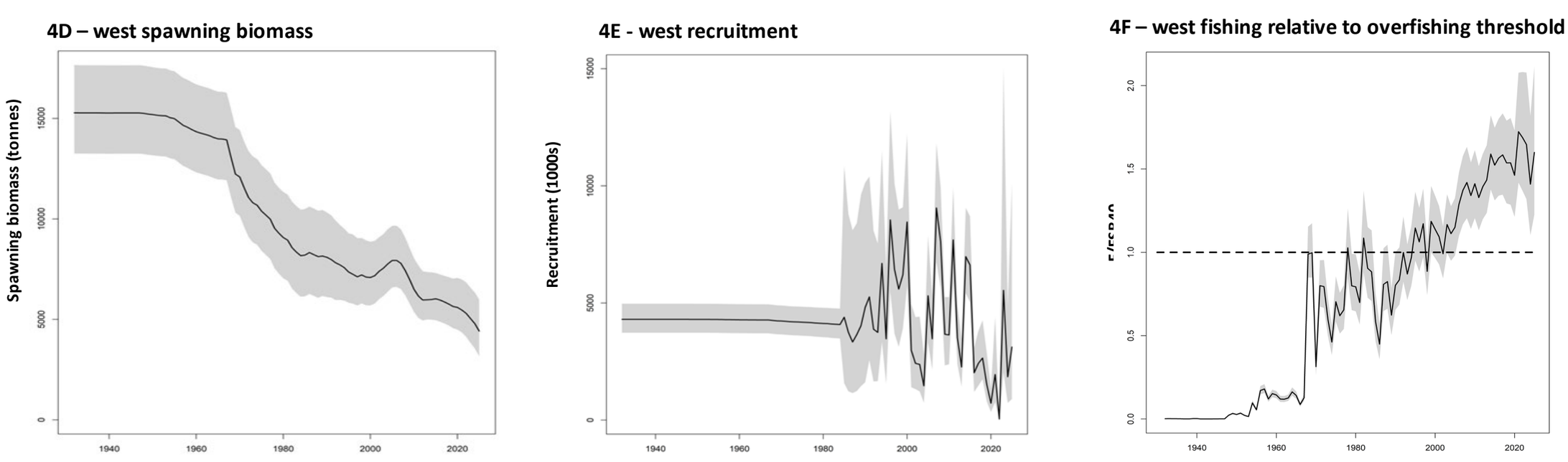


Figure 4: (A) annual spawning biomass, (B) annual recruitment, and (C) annual trend in fishing relative to the FSB40% overfishing threshold for eastern tarakihi, and (D) annual spawning biomass, (E) annual recruitment, and (F) annual trend in fishing relative to the FSB40% overfishing threshold for western tarakihi. In each figure the solid black lines represent median estimates, and the shaded grey areas show 95% confidence intervals around these estimates.

45. There is considerable uncertainty in how stock recruitment may respond to changes in both fishing pressure and environmental influences such as sea surface temperature. This uncertainty significantly reduces confidence in long-term projections of biomass. However, using the base stock assessment model, five-year biomass projections have been developed to show how biomass would change if recent recruitment (average recruitment from 2014 to 2023) continues. These projections estimate that:

- Biomass would be around a similar level (7.6% SB_0) by 2030/31 if the current whole eastern tarakihi stock TACC is fully utilised over the next five years (Figure 5).
- Biomass would be increased to 12% SB_0 by 2030/31 if fishing levels are reduced to $F_{SB40\%}$ (estimated 1,074 tonnes per year) over the projection period.

46. These short-term projections use available information from trawl surveys about eastern tarakihi recruitment for the next three years and assume recruitment will continue at a similar level over the remaining two years of the five-year period. They do not predict how recruitment may respond to future environmental conditions from that fourth year.

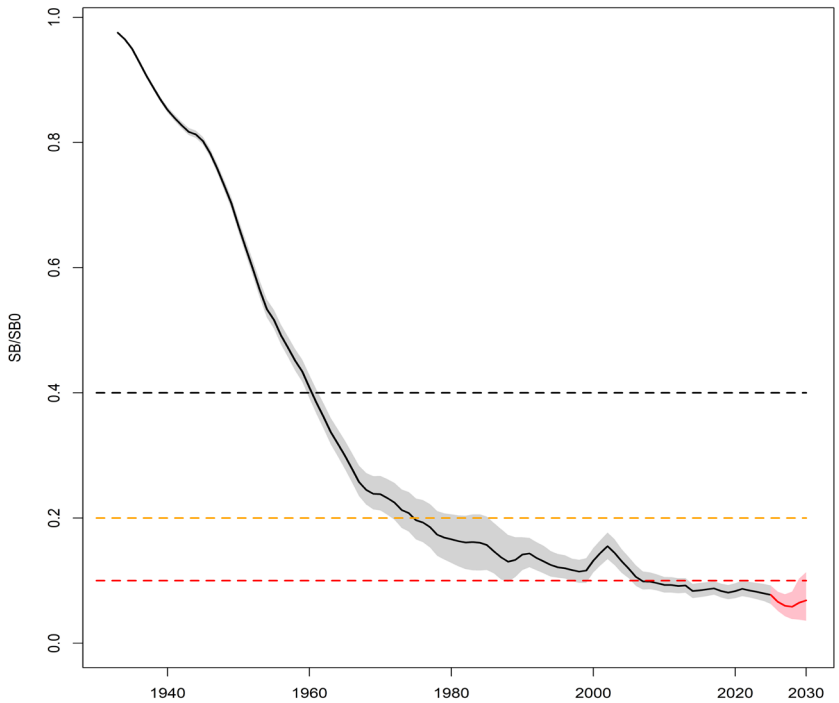


Figure 5: Annual trend in east tarakihi spawning biomass relative to the default 40% SB_0 target (black dashed line), 20% SB_0 soft limit (orange dashed line), and 10% SB_0 hard limit (red dashed line) for the base model. The line represents the median and the shaded area represents the 95% credible interval. The red line represents the 5-year projected biomass at 2024-25 TACC levels (2025-26 to 2029-30).

Changes and corrections from previous assessment model

47. While eastern tarakihi biomass is estimated to have declined since its last stock assessment in 2022 (Figure 5), the actual decline accounts for a small part of the difference in estimated stock biomass between 2022 and 2026. The reduction in estimated biomass between 2022 and 2026 was driven predominantly by changes to the assessment model (summarised below).

- The previous assessment models for eastern tarakihi (from 2017 to 2022) contained an error. This was corrected in the 2026 model and accounted for approximately 40% of the change in estimated stock biomass since 2022. Correcting for this, the 2022 assessment model would have produced a stock status close to 12% B_0, instead of the 19% B_0 estimated at the time.
- The 2026 model was improved by changing to a two-sex model with updated growth parameters and refined spatial modelling. If the new corrected and upgraded 2026 model was used to assess stock status in 2022, i.e. excluding the new data, biomass would have been estimated at just over 8% SB_0 In 2022.

- Several new inputs were added to the 2026 model, including age composition data, trawl survey data and CPUE data since 2022. The integration of these inputs, along with the applied corrections and model upgrades noted above, estimated stock status in 2025 to be 7.7% SB_0.

48. FNZ notes that the 2026 assessment model has been independently reviewed to ensure its robustness (including to check the coding implementation). The 2026 assessment results have been accepted by the 2026 Fisheries Assessment Plenary and are considered to constitute the best available information on stock status of eastern tarakihi.

Western tarakihi

49. The first full assessment completed for the stock this year suggests that spawning biomass of western tarakihi has declined substantially over the last few decades. It was estimated to be at 29% of its virgin biomass level in 2025 (i.e. 29% SB_0). The 2026 Fisheries Assessment Plenary determined it is unlikely (<40% probability) to be at or above the default 40% SB_0 management target, unlikely (<40% probability) to be below the default soft limit of 20% SB_0, and very unlikely (<10% probability) to be below the default hard limit of 10% SB_0.

50. The assessment suggests that spawning biomass of western tarakihi declined considerably during the 1960s and 1970s following the development of the fishery (Figure 4D). Subsequent years saw spawning biomass continue to decline, albeit at a lower rate, until 2020, after which time biomass declined more sharply in conjunction with low recruitment from 2017 – 2022 (Figure 4D).

51. Overfishing is very likely (>90% probability) to be occurring at current levels and the assessment model suggests overfishing has likely been occurring for decades (Figure 4F). The model estimates that fishing mortality has exceeded the overfishing threshold since the mid-1990s and the fishing mortality rate has steadily increased since then (Figure 4F). Fishing mortality in 2025 was estimated to be around 1.6 times the overfishing threshold.

52. The recent recruitment estimates are well below the estimated long-term average (Figure 4E). However, as with eastern tarakihi, reduced recruitment levels also coincide with a period of warmer sea temperatures (refer to '*environmental conditions affecting the stocks*' in Appendix 1). The Fisheries Assessment Plenary suggested productivity may be declining in response to environmental changes and, as with eastern tarakihi, discussed whether the default 40%SB_0 target was appropriate.

53. There is considerable uncertainty in how stock recruitment may respond to changes in fishing pressure, and environmental influences such as sea surface temperature. This uncertainty significantly reduces confidence in long-term projections of biomass. However, using the base stock assessment model, five-year biomass projections have been developed to show how biomass would change if recent recruitment (average recruitment from 2014–23) continues. These projections estimate that:
    - Biomass would be reduced to 9.2% SB_0 (below the hard limit of 10% SB_0) by 2030/31 if the current whole western tarakihi stock TACC is fully utilised over the next five years, (Figure 6).
    - Biomass would be reduced to 19.3% SB_0 (below the soft limit of 20% SB_0) by 2030/31 if current catch levels continue.
    - Biomass would still decline slightly to around 27.2% SB_0 (below the target of 40% SB_0) by 2030/31 if fishing levels are reduced to $F_{SB40\%}$ (estimated 567 tonnes per year) over the projection period.

54. These short-term projections use available information from trawl surveys about western tarakihi recruitment for the next four years and assume recruitment will continue at a similar level in the fifth year of that period. The projections do not predict how recruitment may respond to future environmental conditions from that fifth year.

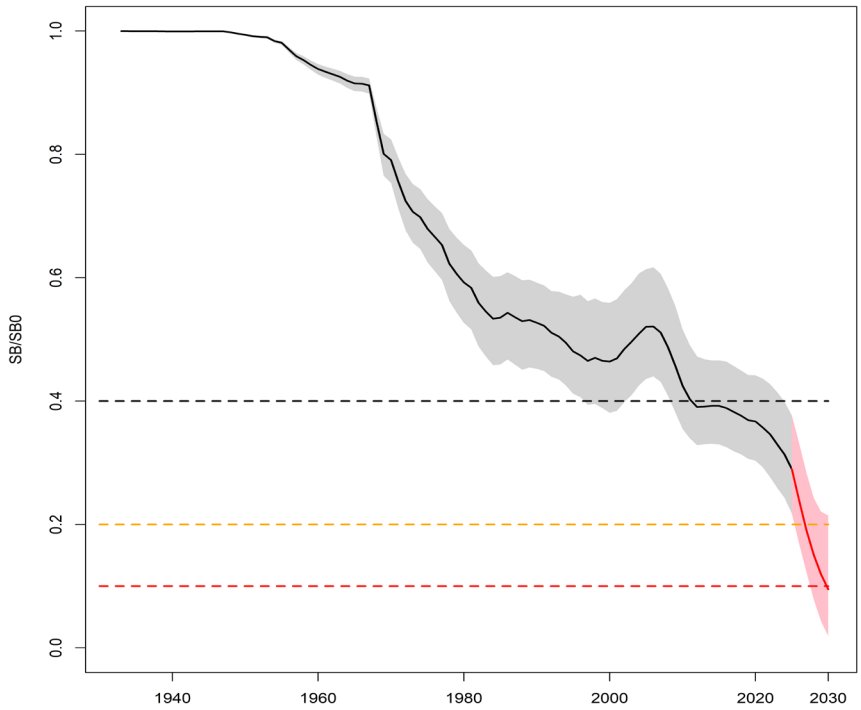


Figure 6: Annual trend in west tarakihi spawning biomass relative to the default 40% SB_0 target (black dashed line), 20% SB_0 soft limit (orange dashed line), and 10% SB_0 hard limit (red dashed line) for the base model. The line represents the median and the shaded area represents the 95% credible interval. The red line represents the 5-year projected biomass at 2024-25 TACC levels (2025-26 to 2029-30).

New information following 2026 Plenary

55. Two recent trawl surveys have been conducted in eastern tarakihi areas (TAR 2 and TAR 3). These surveys provide some information on tarakihi in those areas which has not been incorporated into the 2026 eastern tarakihi assessment. Indicative information from these surveys, and their potential relevance to this review, is summarised below.

FMA 2 Hybrid trawl survey

56. An inshore trawl survey using several commercial vessels was completed in FMA 2 (the fisheries management area which overlaps with TAR 2) in March 2026. This followed a similar pilot commercial trawl survey in northern FMA 2 in March 2025. These surveys are scientifically designed, with data collection protocols comparable with NIWA led surveys, and participation from Earth Sciences NZ, commercial fishery participants and FNZ. They collect data that allows the relative abundance of key inshore finfish species to be estimated within FMA 2, including tarakihi.

57. Currently the survey is not considered to be reliable for estimating relative abundance of tarakihi in FMA 2. However, the design is being improved to rectify issues for tarakihi so that future surveys will be more informative for the abundance of tarakihi in this area.

ECSI trawl survey

58. The 2026 East Coast South Island trawl survey has been completed. This survey collects data which can provide estimates of relative abundance and distribution of key inshore finfish species in FMA 3, including tarakihi. The survey time series is incorporated into eastern tarakihi stock assessments.

59. Preliminary analysis of the 2026 trawl survey data, which was not available to inform the 2026 assessment, indicates a high abundance of juvenile tarakihi compared to previous surveys. However, it should be noted this represents a single year of data, and recruitment is known to vary considerably between years (refer Figures 4B and 4D).

60. Further analysis of the trawl survey results will be conducted later this year. This will not be finalised before the beginning of the next fishing year but will be incorporated in future assessments of tarakihi.

61. While this preliminary trawl survey estimate is a positive signal for eastern tarakihi recruitment, future surveys will be needed to confirm an increase in average recruitment. The 2026 assessment remains the best available information on trends in eastern tarakihi recruitment and its overall stock status.

Timing of next stock assessments

62. FNZ has previously aimed to conduct tarakihi stock assessments at least every five years.

63. FNZ considers there may be merit in conducting the next assessments for eastern and western tarakihi sooner. Bringing forward the next assessments would allow FNZ to monitor and respond to any changes in the stocks more quickly.

64. One option is to bring forward the next full assessments 2-3 years. Another is to commission annual rapid updates of stock status between full assessments.

65. FNZ notes that if the assessments are conducted very soon (for example within the next year), there are likely to be fewer insights gained. This is because there would be limited new data to inform the assessment, and it may not yet be clear what impact management measures implemented this year have had on the stocks.

66. FNZ welcomes any feedback from tangata whenua, stakeholders and the public on the timing of the eastern and western tarakihi assessments, and whether more regular full assessments or rapid annual updates of the assessments should be progressed in future. Your feedback will help to inform FNZ's consideration of prioritisation and timing of research, as well as our advice on any management measures.

How this paper is structured

67. **Part 2** below discusses options for changing the catch limits, allowances, deemed value rates, and recreational daily limits of eastern and western tarakihi stocks. The section begins with information on current settings and what information and rationale has been used to inform the development of the options. It then discusses three proposed options and their associated risks and benefits.

68. **Part 3** discusses supporting measures under consideration for eastern and western tarakihi. The section first outlines the measures FNZ considers are likely to be most effective in supporting recovery of tarakihi and what information has been used to inform proposed options for those measures. It then outlines two main options for spatial measures. Following those options is a discussion of other supporting measures FNZ is seeking feedback on.

69. **Part 4** provides information on who is likely to be most affected by the proposed changes in this review and includes a summary of input and participation of tangata whenua. Following this is a series of key questions for submitters and details on how submitter's can have their say on the proposals.

70. **Part 5** outlines FNZ's initial assessment of the proposed changes against relevant provisions of the Fisheries Act 1996.

71. **Appendix 1** provides additional information and analysis relevant to different parts of this review. It includes additional information on fisheries characteristics, economic impacts, evidence used to identify tarakihi nursery and juvenile areas, and a list of references that have been cited throughout this paper.

Separate summary document

72. FNZ has developed a shorter summary document which outlines the consultation proposals for eastern and western tarakihi more concisely and includes only key information for submitters. This document can be found here: consultation summary.

Part 2: Review of TACs, deemed value rates and recreational limits

Current TAC, deemed value rate, and recreational limit settings

Total Allowable Catch (TAC) settings

73. Table 1 below summarises the current catch limits (TACs and Total Allowable Commercial Catches (TACCs)) in each of the east and west tarakihi QMAs.

74. TAR 1 and TAR 7 cover both east and west tarakihi (refer Figure 1). There are non-regulatory commercial sub-area catch limits for east and west tarakihi within these two QMAs and these have been in place (on a voluntary basis) since 2018.

75. The portion of the TACC in TAR 1 and TAR 7 that applies to the east and west tarakihi stocks is reflected in Table 1. The effective sum of commercial limits across these stocks after taking the sub-areas limits into account are:

- Eastern tarakihi – 2,328 tonnes. Average catch since the last (October 2022) eastern tarakihi review has been 2349 tonnes per year.
- Western tarakihi – 1,667 tonnes. Average catch over the last five fishing years has been 1232 tonnes per year.

Table 1: TACs, TACCs and allowances (in tonnes) that apply to TAR 1, 2, 3, 7 & 8.

Stock	TAC	TACC	Allowances				
			East portion of TACCs	West portion of TACCs	Customary Māori	Recreational	Other mortality caused by fishing
TAR 1	1259	978	399	579	73	110	98
TAR 2	1387	1104	1104	-	100	73	110
TAR 3	793	694	694	-	15	15	69
TAR 7	1121	994	131	863	5	23	99
TAR 8	-	225.4	-	225.4	-	-	-

Current deemed value rate settings

76. Deemed value rates are financial costs incurred by commercial fishers who land catch in excess of their Annual Catch Entitlement (**ACE**). These rates, set by the Minister under section 75 of the Fisheries Act, act as a cost-balancing mechanism and encourage sustainability by making it more expensive to overfish than to buy ACE.

77. Table 2 below shows the current deemed value rates of the tarakihi stocks under review. These rates were last reviewed for changes in 2018, except TAR 8 that was last reviewed in 2017. Figure 7 below shows where the annual rates of each stock are set relative to the average ACE price and landed value (port price).

Table 2: Current deemed value rates for tarakihi in TAR 1, 2, 3, 7 & 8.

Stock	Interim rate ($/kg)	Basic annual rate (100-110% of ACE)	Differential rates ($/kg) for excess catch (% of ACE)	
			110-120%	120%+
TAR 1&2	3.15	3.50	4.25	5.75
TAR 3&7	2.25	2.50	4.00	5.50
TAR 8	2.48	2.75	4.00	5.50

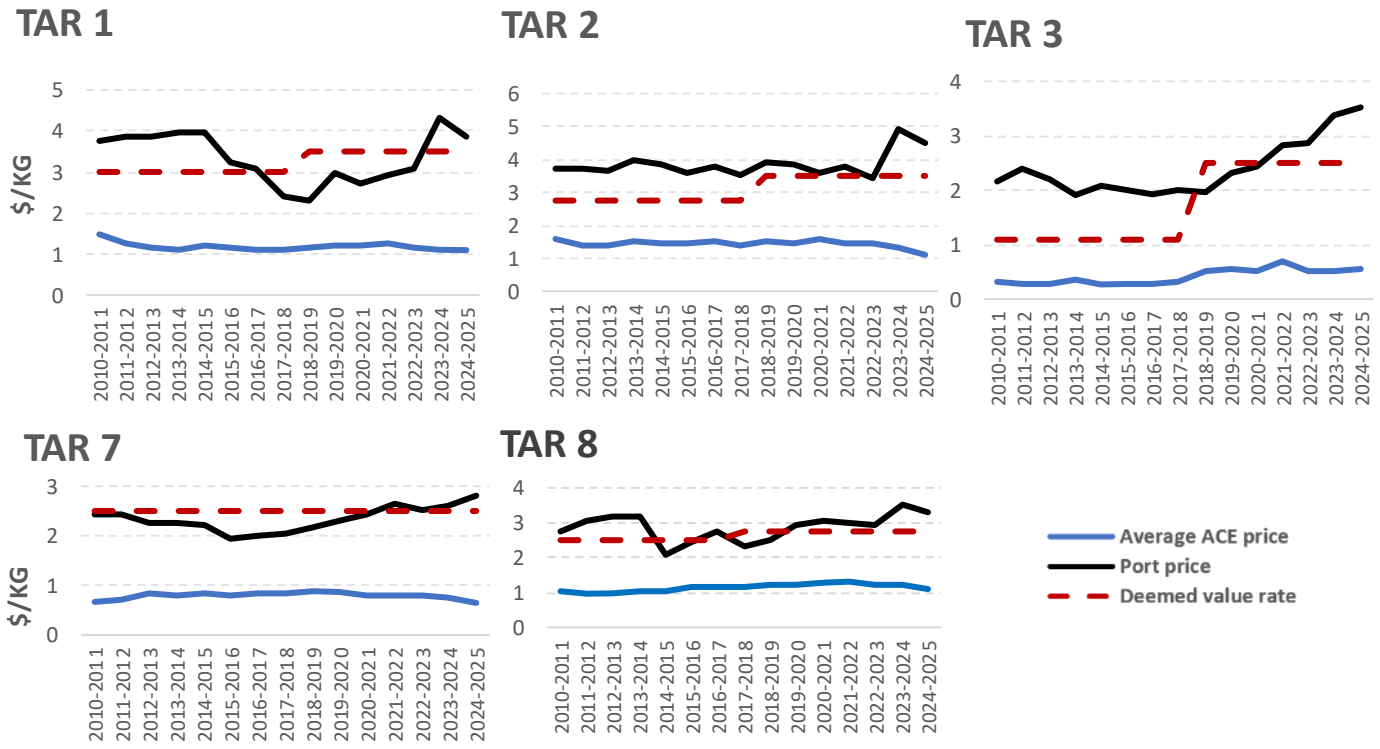


Figure 7: Annual deemed value rates of TAR 1, 2, 3, 7, and 8, relative to their average ACE transfer prices and port prices since 2010.

Current recreational daily limit settings

78. Figure 8 below summarises the recreational daily limits, within the combined daily bag limit,[7] that apply to tarakihi across different parts of New Zealand.

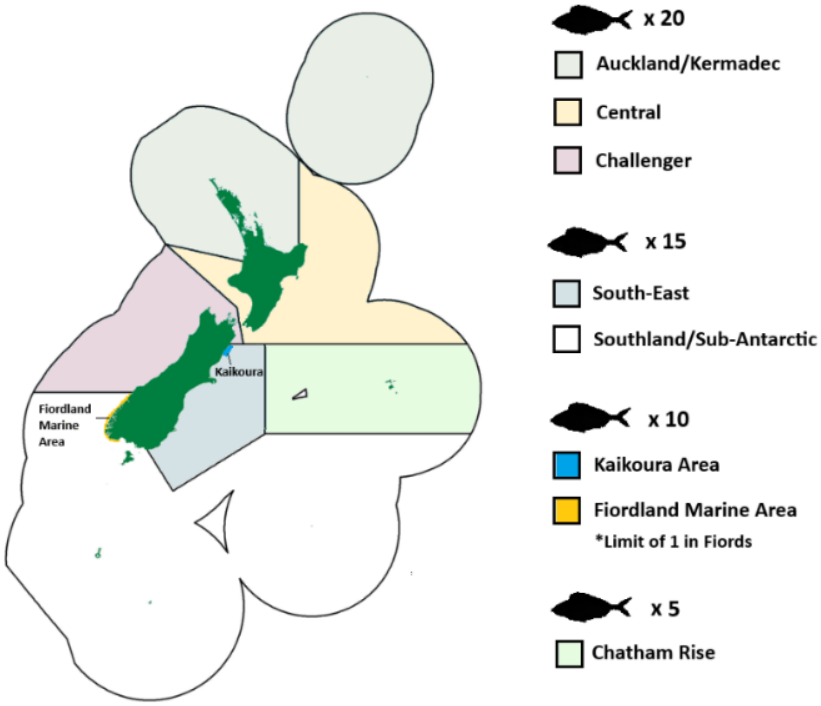


Figure 8: Summary of current tarakihi recreational daily limits (fish per person per day) across New Zealand.

[7] In the North Island, Challenger area and Fiordland area the combined daily bag limit is 20 finfish per fisher. The South-East and Southland/Sub-Antarctic areas the combined daily bag limit is 30 finfish per fisher. Note that this excludes specified baitfish and freshwater eels.

79. With respect to the tarakihi QMAs, tarakihi is currently subject to a recreational daily limit of 20 per fisher in TAR 1, TAR 2, TAR 7, and TAR 8), and a daily limit of 15 per fisher in TAR 3 (though noting the limit is 10 in the Kaikoura area within TAR 3) (Figure 8).

Review of changes for 2026

Status quo (current settings)

80. The 2026 stock assessment for eastern tarakihi indicates that its biomass has declined over time and is now in a severely depleted state. The 2026 assessment for western tarakihi indicates that its biomass is not in a depleted state, but that biomass will decrease sharply within the next few years unless strong preventative actions are taken to prevent further decline. For both stocks, recent recruitment has been poor compared to historical averages and this could be influenced by changing environmental conditions. The assessments suggest poor recruitment is likely to persist for at least the next few years and that retaining current settings could allow overfishing and lead to depletion (or continued depletion in the case of eastern tarakihi), which would be inconsistent with the purpose of ensuring sustainability.

81. The assessment indicates that the current TAC settings, if fully utilised, is projected to enable further declines in stock biomass that would not meet the requirement under section 13(2A)(c)(ii) of the Act for the Minister to set TACs which are not inconsistent with the objective of moving the stocks towards or above levels that would produce maximum sustainable yield (MSY).

82. The current deemed value rates align with what was previously understood about the status of these stocks and the TACCs that have applied historically, but there is a high risk of continuing to use these rates given the material change in stock status and need for significant reductions in commercial catch levels (which may increase the risk of fishing on deemed values).

83. With respect to the recreational daily limits, FNZ recognises that current levels of recreational take of eastern and western tarakihi are low relative to commercial take, and that changes to recreational take are likely to have a much smaller impact on recovery of tarakihi compared with changes to commercial settings. However, FNZ also notes that the current recreational daily limits for tarakihi across these areas (15-20 fish per person per day) are high given the low estimated biomass levels and associated sustainability concerns. Reducing the recreational daily limits in these areas (Auckland/Kermadec, Central, Challenger, and South-East) would help to reduce fishing pressure on the east and west stocks and support their recovery, while also reducing the potential for recreational fishing of tarakihi to increase in the immediate future.

84. FNZ welcomes feedback from tangata whenua, stakeholders and the public on this assessment of the status quo. We invite views on these settings and any alternative rationale to consider maintaining settings for the stocks and areas under review.

How the proposed options in this paper have been developed

85. FNZ is consulting on three main options which package TAC, deemed value rate and recreational daily limit changes together. Each of the options includes:

- A set of proposed TAC, TACC and allowance reductions across the relevant stock QMAs.
- A breakdown of the reductions that would apply at the eastern and western stock level.
- A set of proposed deemed value rate changes.
- A recreational daily limit that would apply alongside the other measures.

86. FNZ has packaged the options in this way because:

- FNZ considers that changes need to be considered for all of these settings.
- The 2026 assessments provide information on stock status at the biological stock level (eastern and western tarakihi), however TACs are set by the Minister at the QMA level. Both of these levels must be considered with respect to any TAC changes to ensure sustainability across the western and eastern tarakihi stocks.

- The TAR 2 and TAR 3 QMAs fully overlap with the eastern stock, and TAR 8 fully overlaps with the western stock. However, TAR 1 and TAR 7 include both eastern and western components. Because of this linkage between the east and west coasts in some QMAs, it makes sense to consider the changes for east and west stocks together.
- The recreational allowances proposed under each TAC are affected by the decision on the recreational daily limit. Therefore, it makes sense that these are considered in conjunction.
- Deemed value rates and TACCs are related as deemed values define the costs of commercial overcatch. How the TACCs are set may influence the appropriateness of different deemed value rate settings.
- Grouping these measures together presents a clearer picture of how they may be used in conjunction to represent different risk positions relative to the available information on current biomass, fishing mortality, and sustainability risk.

87. FNZ welcomes any feedback from stakeholders on the three proposed options, any alternative packages of options, or proposals for individual measures within each option.

Application of section 13(2A) vs section 13(2)(b) for TAC changes

88. FNZ's view is that the proposed TAC changes for eastern and western tarakihi should be considered under section 13(2A) of the Fisheries Act 1996 rather than section 13(2)(b).

89. Previous TAC decisions for eastern tarakihi (in 2018, 2019, and 2022) have been made under section 13(2)(b). Those decisions were based on the view that the current biomass of the stock, and the biomass level that would produce maximum sustainable yield (MSY), could be reliably estimated using the best available information. In that context, previous Ministers applied TAC reductions intended to rebuild the stock towards the default 40% SB_0 management target over an appropriate period.

90. The 2026 assessments materially change the context for this review. They provide the best available information on current stock status, fishing mortality, recent recruitment, and the relative risk associated with different catch settings. They also support the need for further management action for both eastern and western tarakihi. However, FNZ considers that they do not allow the biomass level that would produce MSY to be reliably estimated for either assessment area in the current circumstances. This is because there is substantial uncertainty regarding the influence of environmental changes on the decline in productivity. It is unclear whether recent low recruitment reflects a temporary state that may improve as fishing pressure is reduced, or a more persistent change in productivity that would affect the biomass level capable of producing maximum sustainable yield (MSY).

91. The effect of a lower stock size on productivity is also uncertain. However, the assessment indicates that productivity has declined more than would be expected based solely on the reduced size of the stock. This means the question is not whether factors outside of fishing are affecting productivity of tarakihi, but to what extent are these other factors affecting productivity relative to fishing.

92. This uncertainty affects whether the historical productivity assumptions underpinning the default 40% SB_0 proxy remain sufficiently reliable as an estimate of the biomass level that would produce MSY for tarakihi at this time, and this is important for considering the statutory pathway.

93. Section 13(2)(b) applies where the Minister considers that the current level of the stock is below the level that can produce MSY, and where the current level of the stock that can produce MSY can be reliably estimated using the best available information. Section 13(2A) applies where the current level of the stock, or the level that can produce MSY, cannot be reliably estimated using the best available information. In this case, FNZ considers the assessments do not provide a sufficiently reliable estimate of the biomass level that would produce MSY accounting for uncertainty in the impact of environmental changes on the recruitment and productivity of tarakihi. On that basis, FNZ's view is that section 13(2A) is the more applicable statutory pathway.

94. Section 13(2A) does not allow uncertainty to be used as a reason to defer action, and it does not lower the requirement to ensure sustainability in line with the purpose of the Fisheries Act. The Minister must still set the TACs using the best available information and these TACs must not be inconsistent with the

objective of maintaining the stocks at or above, or moving the stocks towards or above, levels that can produce MSY. The information principles in section 10 of the Act also require decision makers to consider uncertainty and not use uncertainty as a reason for postponing, or failing to take, measures to achieve the purpose of the Act.

95. The practical effect of applying section 13(2A) is that the Minister may act on the best available information about current stock status, fishing mortality, recruitment, projections, biological characteristics, environmental conditions, and risk, without treating the default 40% SB_0 reference point as a reliable stock-specific estimate of the biomass level that will produce MSY in the current circumstances.

96. The default 40% SB_0 target reference point and associated $FSB_{40\%}$ estimates remain important. They provide useful default benchmarks for assessing the seriousness of depletion, the extent of overfishing, the scale of fishing mortality reduction likely to be required, and the relative risk of different TAC options. They also provide a common basis for comparing projected outcomes. However, FNZ is not treating those reference points as reliable stock-specific estimates of the biomass level capable of producing MSY in the current circumstances. That is because the 2026 assessments indicate substantial uncertainty about whether recent low recruitment and reduced productivity are temporary or reflect a more persistent change in productivity.

97. FNZ considers that all of the options proposed in this review would meet the requirements of section 13(2A), because each of the options would reduce fishing pressure from current settings and are intended to support movement of the eastern and western tarakihi stocks towards higher biomass levels capable of producing MSY. This is FNZ's preliminary view for the purposes of consultation, and final advice will be informed by submissions and further analysis.

98. The options differ, however, in the level of confidence they provide and the sustainability risk they carry. Lower TAC options would provide greater confidence that overfishing will be addressed and that the stocks will move in the required direction particularly if recent low recruitment continues. Higher TAC options would reduce short-term utilisation impacts but would provide less confidence and carry greater sustainability risk. This risk is greatest for the least restrictive option and would need to be considered alongside any supporting measures, monitoring and information received through consultation.

99. For eastern tarakihi, the key issue is the level of reduction needed to provide sufficient confidence that the TAC is not inconsistent with moving the stock towards a level capable of producing MSY, given the stock's low current biomass, continuing overfishing, and uncertainty about future recruitment and productivity. For western tarakihi, the key issue is the level of reduction needed to address overfishing and reduce the risk of further decline, while recognising that the current depletion risk is less acute than for the eastern assessment area.

100. FNZ has provided a more detailed assessment of the proposed options against section 13(2A) in Part 5 of this paper (Table 6).

General effects of different TAC settings

101. Different TAC options provide for different levels of utilisation and caution with respect to ensuring sustainability. In recognition of uncertainty in aspects of available information, the options also differ in how they take into account environmental and information principles (see Part 5 for FNZ's analysis of the proposed changes against relevant provisions of the Act).

102. TAC changes can influence fishing effort and the risk of fisheries interactions with protected species and the benthic environment, and higher catch limit settings generally carry greater risk. In this case, FNZ is proposing options to reduce the catch limits of tarakihi stocks. These changes will likely lead to less effort in these fisheries, and therefore less potential environmental impacts from these fisheries. However, these changes could also result in a shift of fishing effort into other fisheries, and a higher risk of interactions in those fisheries (refer to Part 5 and Appendix 1 for more information and analysis).

Calculation of TACC changes based on the assessments

103. As noted above, the 2026 stock assessments estimate stock status at the biological stock level, and not within each individual QMA. FNZ has translated changes at the eastern and western stock level into TACC changes proposed in each QMA by applying an even proportional reduction across each QMA as modelled in the 2026 stock assessments. This approach provides a basis for consultation and means each tarakihi commercial fishery would take an even proportional share of the required catch reduction proposed under each option.

104. FNZ welcomes feedback on whether the proposed reductions should be allocated differently between QMAs to reflect biological characteristics of eastern and western tarakihi. Both stocks have specific population dynamics, including movement between nursery, juvenile, and adult spawning areas. In eastern tarakihi, most fish spend their juvenile life stage in the Canterbury Bight and then move northwards overtime with older fish mostly found off the north-east North Island. It appears western tarakihi juveniles are mostly found in the Tasman/Golden Bay area, before migrating either north or south along the west coast of New Zealand.

105. These biological characteristics are important to the overall management approach. The stock assessments do not contain information that enable us to be certain that a different allocation of TACC reductions between QMAs would better support recovery of the eastern or western stock while managing risks elsewhere. The assessments do not estimate stock status, productivity, or recovery contribution at the level of each QMA or sub-area. A different allocation could also displace effort or leave higher fishing pressure on parts of the stock that may be important to recovery, unless supported by clear evidence and appropriate management responses.

106. FNZ's proposed TACC options use an even proportional reduction as the consultation baseline. Place-based and life-stage risks are more directly addressed through the proposed supporting spatial measures, including measures focused on nursery habitat and juvenile aggregation areas (refer to Part 3 below).

107. FNZ acknowledges that other allocations among the QMAs may be capable of achieving a similar or better outcome for the overall status of eastern and western tarakihi and welcomes submitter comment on alternative TAC and TACC allocations across these QMAs. Suggested alternatives should explain how they would support sustainability of both tarakihi stocks while allowing utilisation, how commercial fishery participants across different QMAs would be affected, any possible changes in fishing effort displacement, associated benefits and risks, and how any risks could be managed.

Why proposed reductions are proportionally larger for western tarakihi

108. Under each option below, the proposed catch reductions are proportionally greater for western tarakihi compared to eastern tarakihi. FNZ understands that this may appear counterintuitive given that the eastern stock is in a more depleted state than western tarakihi. However, the western stock assessment signals that there will be less recruitment into the western tarakihi fishery in the next few years, and that strong reductions in fishing pressure will be needed to allow the stock to increase within the short term (refer Figures 4 and 6).

109. FNZ also notes that the western tarakihi catch limits have not been fully utilised in recent years, and the western stock did not have full assessments to inform changes prior to 2026. In contrast, eastern tarakihi catch limits have been reduced several times over the last decade in response to assessments, and the TACC has remained fully caught.

East and west sub-limits and the QMA boundaries

110. As noted above, there are non-regulatory commercial sub-area catch limits for the east and west portions of TAR 1 and TAR 7. In TAR 1, these sub-area limits have been well adhered to. For TAR 7, FNZ notes that there have been some previous incidences of overcatch in eastern sub-area by non-signatories to the industry voluntary agreement to adhere to these sub-area limits. Overcatch occurred in 2022/23, 2023/24 and 2024/25 (albeit lower than in the previous two years). At the time there was a

high quantity of available TAR 7 ACE, the majority of which the industry agreed would be apportioned to the western sub-area in TAR 7.

111. Within this review FNZ is proposing large TACC reductions across both the east and west portions of TAR 7. Under all options, the proposed reductions are more significant for the western part of the QMA and will result in TAR 7 ACE being significantly constrained from current levels. This constraint on ACE availability across the QMA is likely to substantially lower the risk of any overcatch to the eastern part of the QMA in future.

112. FNZ recognises there may still be some residual risk of overcatch for the eastern part of the QMA, and the potential consequences of not adhering to the sub-area limits is now greater considering the new information on sustainability concerns for eastern tarakihi. In light of this, FNZ is seeking feedback on the use of QMA subdivision as a management tool to support sustainability of these fisheries (this proposal is outlined further below in the supporting measures section '*Subdivide QMA 1 and QMA 7*'). Aligning the QMAs with the assessment areas would enable TACs and deemed value rates to be set specifically for the east and west part of each area. FNZ understands that regulatory east/west sub-area catch limits cannot be set within the existing TAR 1 and TAR 7 QMAs. In the absence of subdivision, the immediate catch-setting tool is therefore a QMA-wide TAC and TACC.

113. FNZ notes that a review of QMA boundaries involves regulatory processes that would take time and will not come into effect before the upcoming fishing year begins. In the interim, the catch limits in TAR 1 and TAR 7 must be set to ensure sustainability at the QMA level, using the best available information about the eastern and western biological stocks. Because separate legally binding east/west catch limits cannot be set within those QMAs without subdivision, more conservative QMA-wide TAC and TACC settings may need to be considered to manage risk to the more vulnerable component of a QMA. This is a blunt tool and may constrain utilisation in the less depleted component of the QMA. FNZ considers each option proposed for consultation is capable of meeting section 13(2A), but larger QMA-wide reductions would provide greater confidence and have greater utilisation impacts.

114. FNZ welcomes feedback on how best to manage catch distribution between the eastern and western components of TAR 7 under the existing QMA structure, including the role and limits of voluntary arrangements, the implications of more conservative QMA-wide TAC and TACC settings, and whether QMA subdivision should be progressed as a longer-term structural response.

Rationale for allowance settings and deemed value rates

Customary non-commercial allowances

115. The current customary allowances across each of the tarakihi QMAs are:

- TAR 1 = 73 tonnes,
- TAR 2 = 100 tonnes,
- TAR 3 = 15 tonnes, and
- TAR 7 = 5 tonnes.

116. The customary allowance for TAR 8 has not yet been formally set.

117. Combined, this equates to an allowance of 193 tonnes for customary take across TAR 1, TAR 2, TAR 3 and TAR 7. Based on available information, customary take of tarakihi is likely to be negligible relative to these allowances, with less than one tonne of customary harvest reported annually across all of the eastern and western tarakihi areas. Though FNZ recognises this information may be incomplete as not all customary take is required to be reported (customary regulations differ by region). It is also likely that some customary fishing of tarakihi is conducted under recreational fishing rules.

118. FNZ is proposing that the customary allowances of TAR 1, 2, 3 and 7 would be retained at the same level under any of the three options proposed and set at a nominal level of 5 tonnes in TAR 8.

119. As customary harvests make up a very small portion of tarakihi removals, FNZ acknowledges that changes in customary take are unlikely to have much impact on biomass of the stock and its recovery.

Similarly changes to the customary allowances are unlikely to have any tangible impact on overall tarakihi biomass.

120. However, FNZ considers that there could be merit in reductions to the customary allowances in TAR 1 and TAR 2 to better align with recent information on customary take and to reflect that abundance of tarakihi is much lower than when these allowances were originally set (the current allowances have applied since 2004 for TAR 2, and since 2007 for TAR 1). Lower allowances in these areas may still account for current use while allowing room for aspirational customary harvest.

121. FNZ welcomes input from tangata whenua on this view and the allowances for these areas. FNZ also welcomes any feedback from tangata whenua to better inform levels of customary take in these areas.

Recreational allowances and daily limits

122. The current recreational allowances across each of the tarakihi QMAs are:

- TAR 1 = 110 tonnes,
- TAR 2 = 73 tonnes,
- TAR 3 = 15 tonnes, and
- TAR 7 = 23 tonnes.

123. The recreational allowance for TAR 8 has not yet been formally set.

124. Combined, this equates to an allowance of 221 tonnes for recreational take across TAR 1, TAR 2, TAR 3 and TAR 7. Based on the 2022/23 National Panel Survey for recreational fishers, total recreational take was estimated to be approximately 91 tonnes across the eastern tarakihi areas, and 18 tonnes across western tarakihi areas.

125. FNZ acknowledges that the level of recreational take across both stocks is low relative to commercial take (recreational take is approximately 5% of recent commercial catch levels for eastern tarakihi, and 2% of commercial catch levels for western tarakihi). Therefore, changes to recreational take are likely to have a much smaller impact on recovery of eastern tarakihi compared with changes to the commercial catch settings. However, FNZ also notes that the recreational daily limits for these tarakihi stocks have not been reviewed or changed since 2018 and the current daily limits in these areas (15-20 tarakihi per person) are high for stocks with low biomass levels and associated sustainability concerns.

126. Reducing the daily limits will help to reduce overall fishing pressure on the stocks and support their recovery, both by reducing immediate recreational fishing levels and reducing the potential for recreational fishing pressure on tarakihi to increase in the immediate future.

127. FNZ is proposing three options to reduce the recreational daily limits of tarakihi across both the east and west coast of New Zealand:

- A daily limit of 10 per person, which would apply under Option 1.
- A daily limit of 5 per person, which would apply under Option 2.
- A daily limit of 3 per person, which would apply under Option 3.

128. These options would apply to the following recreational fishing areas (illustrated above in Figure 8):

- Auckland/Kermadec,
- Central,
- Challenger, and
- South-East.

129. Any reduction in the daily limit below 10 in the South-East area would also apply to the Kaikoura area.

130. The allowances proposed under each of the three options reflect what recreational take is anticipated to be as a result of applying these daily limit changes across the areas. The combined recreational allowances across the five tarakihi QMAs would be 103 tonnes for Option 1 (daily limit of 10), 85 tonnes for Option 2 (daily limit of 5), or 67 tonnes for Option 3 (daily limit of 3).

131. FNZ is not proposing changes for the Chatham Rise and Southland/Sub-Antarctic areas, or for the Fiordland Marine Area. These areas do not overlap with the tarakihi QMAs under review.

132. FNZ acknowledges that as there is more recreational catch in some areas than others, the daily limit options will not have a uniform impact on recreational take among areas. Lower daily limits will be more constraining in areas such as Gisborne and Hawke's Bay where catchability remains higher. The potential social, cultural and economic impacts of the proposed options are discussed in Appendix 1.

133. Available information suggests that the tarakihi stocks are connected down the east and west coasts, and fishing pressure in one area has the potential to affect other areas and have flow on impacts for the stock as a whole. Because of this, FNZ considers that reducing the daily limit equally across the areas would be appropriate. However, we welcome feedback on this view and any alternative options for varying the recreational daily limits (and associated recreational allowances) in each area.

134. Further information and analysis on recreational catch is provided in Appendix 1 under '*Fisheries characteristics and settings*'.

Other sources of mortality allowances

135. The allowance for other sources of mortality caused by fishing is intended to provide for unrecorded mortality of fish associated with fishing, including incidental mortality from fishing methods (including incidental mortality of sub-MLS fish) or illegal fishing. Information on potential sources of other mortality for tarakihi is provided in Appendix 1.

136. Based on the limited information available, FNZ is proposing that the allowances for other mortality caused by fishing be set at a level equivalent to 10% of the TACCs for each of the five stocks under Options 1, 2, and 3. This level is consistent with the previous settings for these allowances for eastern tarakihi stocks. FNZ welcomes any feedback and rationale on alternative proposals for these allowances.

Deemed value rates

137. As shown in Figure 7 above, the annual deemed value rates for west and east tarakihi stocks are currently set above average ACE prices and below recent landed values (port prices). Annual deemed value rates are often set above average ACE prices to incentivise fishers to acquire ACE to cover catch and below landed values to promote accurate catch reporting.

138. For these tarakihi stocks, there has been a material change in stock status and FNZ is proposing options to significantly reduce the commercial catch limits. If the commercial limits are substantially reduced, FNZ considers that the current deemed value rates are unlikely to continue providing adequate incentives for fishers to acquire or maintain sufficient ACE to cover catch. This is because under these changes the cost of fishing on deemed values will likely not be as high relative to the cost of fishing on ACE (i.e. ACE prices are likely to increase, and if deemed value rates remain the same there will be less incentive for fishers to acquire ACE).

139. To mitigate this risk, under all three options FNZ is proposing to increase the annual deemed value rates of these tarakihi stocks above their landed values. This will provide much stronger incentives for fishers to acquire or maintain ACE for these stocks to balance with any catch.

140. FNZ is proposing that the strength of the deemed values applied would differ among the options according to the TACCs proposed and the potential risk of those TACCs. Under Option 1, which sets the least cautious TACCs, the annual deemed value rates would be set the highest relative to landed values, and the differential deemed values (ramping costs at higher levels of excess catch) would be set higher to ensure there are very strong incentives for fishers to acquire ACE and a negligible risk of overcatch (given the higher risk it may have for the stocks). In contrast for Option 3, which entails significantly lower and more cautious TACCs, the annual deemed value rates would be increased to a lesser extent. The rates would still be increased from current levels to promote strong avoidance of tarakihi and reduce the risk of overcatch, but with less stringent differentials than those proposed for Option 1. This is to reflect that low levels of incidental bycatch would not have the same level of risk for the stock as they would under higher catch limit options.

141. The proposed deemed value rate settings under all of these options emphasise the importance of harvesters having access to ACE before they go fishing, because ACE will be much more limited with these TACC settings. FNZ recognises that the proposed increases are significant, particularly under Option 1, and would provide little room for fishers to use deemed values to adjust for very minor incidental catches of tarakihi in excess of ACE. FNZ invites submitters to comment on whether the proposed adjustments under these options appropriately balance the need to strongly discourage fishing on deemed values against the need for adequate flexibility in catch balancing.

142. FNZ is proposing that the deemed value rates would be set at the same level across all of the east and west tarakihi QMAs (TAR 1, 2, 3, 7 & 8). Setting the deemed value rates at the same level across these areas will help to reinforce incentives for fishers to accurately report catch across these QMAs.

143. FNZ recognises that there are greater sustainability concerns for eastern tarakihi than for western tarakihi. However, deemed value rates apply at the QMA level, and one set of rates will apply across all of TAR 1 and TAR 7. Currently there is no mechanism to set individual deemed value rates for the east and west sub-areas within these QMAs. The deemed value rates in TAR 1 and TAR 7 must be set to adequately enforce incentives to avoid over catch of tarakihi across both areas, including in the eastern portions which have greater sustainability concerns.

144. FNZ welcomes feedback on this proposal to align the rates for these stocks, and any rationale for different settings between the east and west areas, or in any of the individual QMAs.

145. FNZ acknowledges that the changes proposed as part of this review may result in significant changes in commercial fishing behaviour and the ACE market. FNZ invites comment on possible increases in port price and ACE price under these changes, and how deemed value rate settings should anticipate these changes in port and ACE prices.

146. FNZ will continue to monitor these fisheries under any settings and consider further reviews of these settings if needed to ensure continued sustainability.

Options proposed for consultation

Option 1 – 46 % reduction across combined TACs

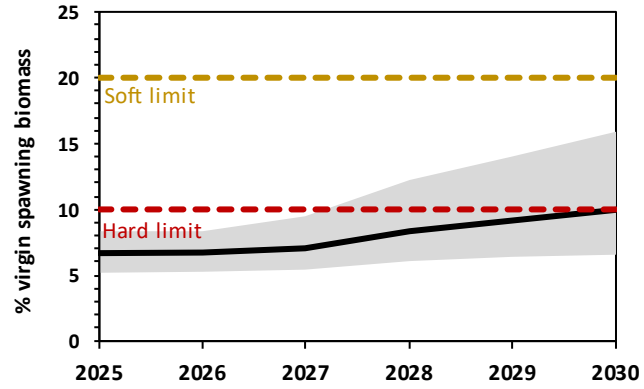
TAC, TACC and allowance settings (all in tonnes)

Stock	TAC	TACC	East portion of TACCs	West portion of TACCs	Allowances		
					Customary Māori	Recreational	Other mortality caused by fishing
TAR 1	633	477 (↓ 501)	243 (↓ 156)	234 (↓ 345)	73*	35 (↓ 75)	48 (↓ 50)
TAR 2	892	684 (↓ 420)	684 (↓ 420)	-	100*	40 (↓ 33)	68 (↓ 42)
TAR 3	511	442 (↓ 252)	442 (↓ 252)	-	15	10 (↓ 5)	44 (↓ 25)
TAR 7	445	393 (↓ 601)	48 (↓ 83)	345 (↓ 518)	5	8 (↓ 15)	39 (↓ 60)
TAR 8	208	175 (↓ 50.4)	-	175 (↓ 50.4)	5	10	18

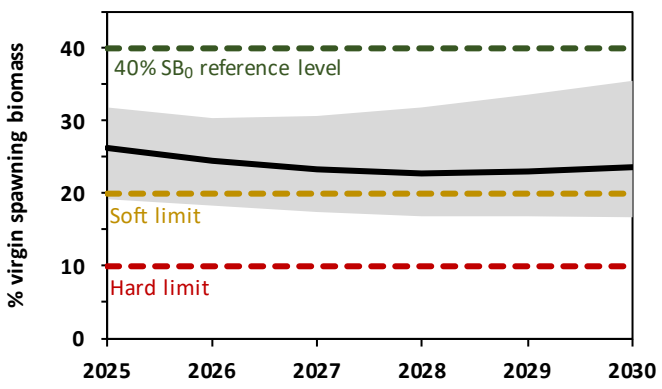
39 % reduction in eastern tarakihi TACCs | 55 % reduction in western tarakihi TACCs

Five-year projected biomass under Option 1 (black line is estimated biomass, grey area is confidence interval)

Eastern tarakihi



Western tarakihi



Deemed value rate settings

Interim ($/kg)	Annual / 100-110% ($/kg)	Differential rates ($/kg) for excess catch (% of ACE)									
		110-120%	120-130%	130-140%	140-150%	150-160%	160-170%	170-180%	180-190%	190-200%	>200%
7.20	8.00	8.80	9.60	10.40	11.20	12.00	12.80	13.60	14.40	15.20	16.00

Recreational daily limit (refer to recreational areas in Figure 8)

- Reduction from 20 to 10 per person per day in the Auckland/Kermadec, Central, and Challenger recreational areas
- Reduction from 15 to 10 per person per day in the South-East recreational area.

147. Of the three proposed options, Option 1 would provide for the greatest level of utilisation. It would apply significant reductions in fishing mortality, including a 47% reduction across the combined TACs of all five stocks, and 39% and 55% effective reductions to the commercial limits of east and west tarakihi, respectively.

148. The TACCs under this option would be higher than under Options 2 and 3. To reflect the more substantial risk that would occur for the stocks if these limits were exceeded, it is proposed that the deemed value rates are set highest under this option. These more stringent deemed value rates will provide very strong incentives for commercial fishers to avoid overcatch, which will support the effectiveness of the reduced TACCs.

149. The recreational daily limits across eastern and western tarakihi areas would be reduced to 10 per person. Based on recent recreational harvest levels this is expected to constrain eastern tarakihi

recreational catch by 8% and western tarakihi recreational catch by 1%. This is less cautious than Options 2 and 3 which propose lower daily limits and associated allowances.

150. Recent recruitment for both eastern and western tarakihi stocks is estimated to have been well below the long-term average, and future stock projections are strongly influenced by whether recent low recruitment continues or improves. This option is the most optimistic in assuming that the proposed reduction may help enable recruitment to recover to higher levels more quickly.

151. Under section 13(2A), the Minister must use the best available information and set TACs that are not inconsistent with the objective of moving the stocks towards or above levels that can produce MSY. This option would materially reduce fishing mortality from current levels, reduce the opportunity and incentive for directed tarakihi catch, and begin shifting the fisheries away from catch levels that the assessment indicates are causing overfishing. It would therefore be a significant sustainability response, rather than a continuation of current management settings. It would directly respond to the 2026 stock assessments, which indicate both stocks are currently subject to overfishing, and that eastern tarakihi biomass is already at a very low level.

152. However, this option would not immediately reduce fishing mortality of eastern or western tarakihi to their respective $FSB_{40\%}$ overfishing thresholds. FNZ does not consider that section 13(2A) requires fishing mortality to be reduced to the $FSB_{40\%}$ reference level in a single year, particularly where the biomass level that would produce MSY cannot be reliably estimated. The relevant question for this option is whether the TACs would be set at levels that are not inconsistent with moving the eastern or western tarakihi stocks towards or above levels capable of producing MSY, taking account of the assessment results, uncertainty about recruitment and productivity, and the expected effect of the reduction on fishing behaviour.

153. FNZ believes Option 1 is consistent with this requirement, but it would provide less confidence compared to Options 2 and 3 which propose greater catch reductions. As illustrated in the figures above, if recruitment continues at recent levels this option is expected to move eastern tarakihi biomass gradually higher within the next five years. For western tarakihi, due to especially poor recruitment in recent years, biomass is expected to initially decline over the next few years under this option but then start increasing from 2028 (towards a level capable of producing MSY).

154. While this option is expected to allow both stocks to start increasing in biomass within the short term, the rate of increase would be lower than under Options 2 and 3, and it would provide less certainty that biomass will move toward or above levels that can produce MSY. This is particularly relevant for western tarakihi, which as illustrated above, has much greater uncertainty surrounding short term biomass estimates. This option therefore carries greater risk of not ensuring sustainability compared to Options 2 and 3, and a risk that more significant management actions may be required in future if stock recruitment does not improve.

155. As noted above, eastern tarakihi is assessed as being at very low biomass and about as likely as not (40-60% probability) to be below the default 10% SB_0 hard limit reference point. Although that reference point is not an automatic closure threshold, it is important in understanding the seriousness of the stock's condition and the need for a cautious response.

156. As discussed in Part 5 of this paper, the Harvest Strategy Standard's recommendation to consider closure for stocks below the hard limit reflects the higher risk associated with severely depleted stocks, including the possibility that reproductive capacity may be impaired, and that continued depletion may reduce the likelihood of successful recovery. Of the proposed options, this option entails the lowest catch limit reductions and therefore the greatest risk of continued depletion and poor recovery for the eastern stock. If recent low recruitment continues, under this option the stock would gradually increase to the default 10% SB_0 hard limit in five years' time.

157. While these risks are important to consider, a 39% reduction in the combined eastern-area TACC represents a strong and immediate reduction in fishing pressure that should move the stock toward a higher level.

158. Compared to Options 2 and 3, Option 1 would provide for a more managed transition for fishers, quota owners, processors, associated businesses, tangata whenua, recreational fishers, and communities affected by the fishery. Based on catch levels in recent years, a moderate target fishery could still continue in all QMAs (although not at the same level as currently), except TAR 7 where only negligible targeting may be viable, and the TACCs would accommodate current bycatch levels.

159. Under Option 1, it is estimated that annual port value[8] from tarakihi would be reduced by $4.7 million (approximately $3.4 million on the east coast and $1.3 million on the west). This reflects only the immediate impact of the reductions in revenue fishers may obtain from landing tarakihi. However, there are likely to be much wider socioeconomic consequences from these reductions, including changes in quota value and flow on impacts for processors, distributors and retailers.

160. Under this option there may be some increase in port and retail prices due to reduced supply of tarakihi. However, these increases are likely to be quite small as there are substitutes for fresh tarakihi in the domestic market, and therefore highly unlikely to be large enough to offset the revenue loss from reduction in landings under the proposed options. There may also be some modest increase in ACE prices due to reduced availability of ACE. While this option is expected to have less impact on tarakihi target and bycatch fisheries compared to Option 2 and 3, it is still likely some changes in fishing behaviour will be required to avoid tarakihi. A more in-depth discussion of potential social, cultural and economic factors and impacts is provided in Part 5 in the context of section 13(3) (refer Table 6) and in Appendix 1.

161. FNZ invites views from tangata whenua, stakeholders and the public on this option, and welcomes any feedback and rationale as to whether it would sufficiently respond to the 2026 assessments for eastern and western tarakihi.

[8] Port price is what the commercial fisher receives, not what the fish is worth at market (which is higher). The port price does not reflect the income for Licensed Fish Receivers (LFRs) (including wholesalers and/or processors) and retailers. The estimated reduction in this case is based on a comparison of the TACCs under this option to the average commercial catches in the last three fishing years.

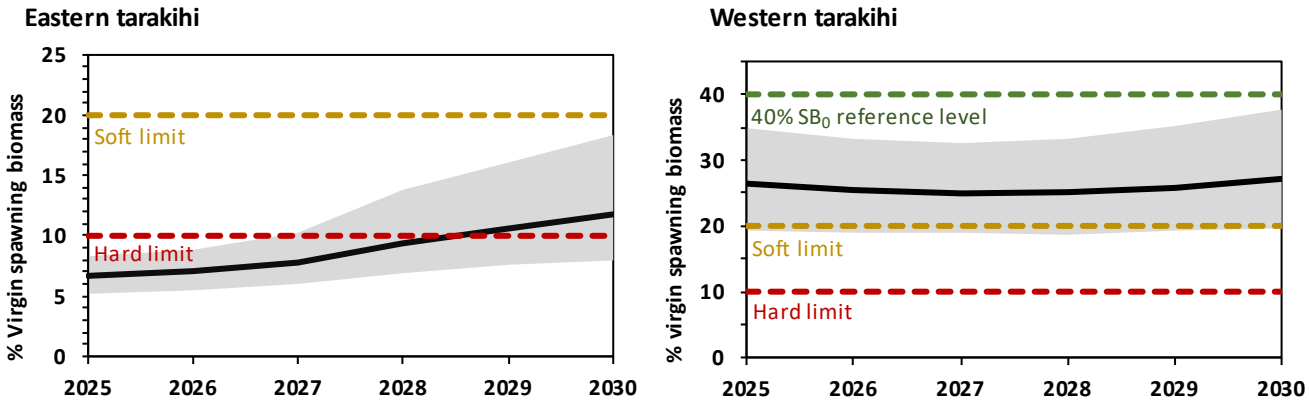
Option 2 – 61% reduction across combined TACs

TAC, TACC and allowance settings (all in tonnes)

Stock	TAC	TACC	East portion of TACCs	West portion of TACCs	Allowances		
					Customary Māori	Recreational	Other mortality caused by fishing
TAR 1	461	327 (↓ 651)	168 (↓ 231)	159 (↓ 420)	73*	28 (↓ 82)	33 (↓ 65)
TAR 2	650	474 (↓ 630)	474 (↓ 630)	-	100*	29 (↓ 44)	47 (↓ 63)
TAR 3	362	306 (↓ 388)	306 (↓ 388)	-	15	10 (↓ 5)	31 (↓ 38)
TAR 7	308	267 (↓ 727)	33 (↓ 98)	234 (↓ 629)	5	9 (↓ 14)	27 (↓ 72)
TAR 8	145	119 (↓ 106.4)	-	119 (↓ 106.4)	5	9	12

58 % reduction in eastern tarakihi TACCs | 69 % reduction in western tarakihi TACCs

Five-year projected biomass under Option 2 (black line is estimated biomass, grey area is confidence interval)



Deemed value rate settings

Interim ($/kg)	Annual / 100-110% ($/kg)	Differential rates ($/kg) for excess catch (% of ACE)									
		110-120%	120-130%	130-140%	140-150%	150-160%	160-170%	170-180%	180-190%	190-200%	>200%
5.40	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00

Recreational daily limit (refer to recreational areas in Figure 8)

- Reduction from 20 to 5 per person per day in the Auckland/Kermadec, Central, and Challenger recreational areas
- Reduction from 15 to 5 per person per day in the South-East recreational area.

162. This option is more cautious than Option 1, but less cautious than Option 3. It would apply a 63% reduction across the combined TACs of all five stocks, and 58% and 69% effective reductions to the commercial limits of east and west tarakihi, respectively.

163. As with Option 1, the deemed value rates would be increased to provide strong incentives for fishers to acquire and maintain sufficient ACE to cover any catch of tarakihi, and to support the effectiveness of reduced TACCs.

164. The recreational daily limits across eastern and western tarakihi areas would be reduced to 5 per person under this option. Based on recent recreational harvest levels this is expected to constrain eastern tarakihi recreational catch by 28% and western tarakihi recreational catch by 11%. This is more cautious than Option 1, but less cautious than Option 3.

165. This option would immediately reduce fishing pressure for both eastern and western stocks to their respective overfishing thresholds, meaning they would not be considered overfished if recruitment continues at recent levels.

166. Compared to Option 1, this option would provide a stronger response in light of the depleted state of eastern tarakihi and noting that it is below its default biomass hard limit. As illustrated in the figure above, this option is expected to move eastern tarakihi biomass above the default 10% SB_0 hard limit reference point within five years. This is more cautious compared to Option 1, which is expected to move the stock to 10% SB_0 in 5 years, but not above it, if recent recruitment continues.

167. For western tarakihi, due to especially poor recruitment in recent years, biomass is expected to slightly decline over the next few years under this option but then start increasing from 2027. Like Option 1, this does not entail a rapid rebuilding in biomass for western tarakihi but will help to avoid a decline towards depleted levels. The trajectory under this option is greater than Option 1, as it will start rebuilding to higher levels more quickly if recent low recruitment continues.

168. This option is likely to have more significant immediate social, cultural, and economic impacts compared to Option 1. Under this option, TACCs could accommodate current bycatch levels and potentially allow for a small to moderate target fishery to continue in all QMAs except TAR 7. For TAR 7, the TACC would be below current estimated bycatch levels. The significant TACC reductions and deemed value rate increases under this option are likely to not only heavily constrain targeting of tarakihi but also require more avoidance of bycatch compared to Option 1. This avoidance will likely vary among QMAs, as bycatches make up a greater proportion of catch in certain areas (e.g. TAR 7).

169. Under this option the annual port value from tarakihi is estimated to be reduced by $7.3 million (approximately $5.1 million on the east coast and $2.2 million on the west). As with other options, although there may be modest increases in port and retail prices, they would be unlikely to offset the loss of revenue for industry. There are also likely to be modest to large increases in ACE prices, depending on how avoidable tarakihi bycatch is in target fisheries for other species. A more in-depth discussion of potential social, cultural and economic factors and impacts is provided in Part 5 in the context of section 13(3) (refer Table 6) and Appendix 1.

170. While there are likely to be substantial immediate socioeconomic consequences from these large reductions in catch, as noted above larger reductions will provide a higher likelihood and rate of recovery for the stocks.

Option 3 – 78% reduction across combined TACs

TAC, TACC and allowance settings (all in tonnes)

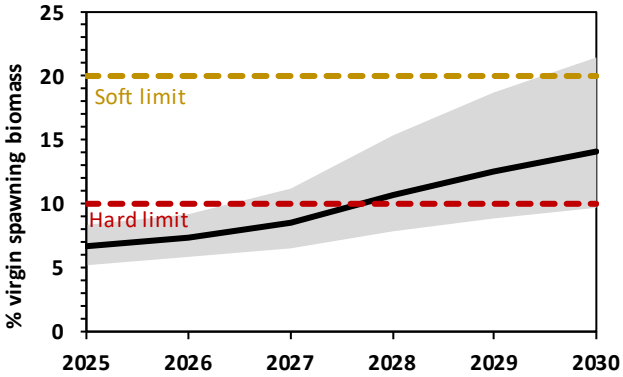
Stock	TAC	TACC	East portion of TACCs	West portion of TACCs	Allowances		
					Customary Māori	Recreational	Other mortality caused by fishing
TAR 1	281	169 (↓ 809)	88 (↓ 311)	81 (↓ 498)	73*	22 (↓ 88)	17 (↓ 81)
TAR 2	393	247 (↓ 857)	247 (↓ 857)	-	100*	21 (↓ 52)	25 (↓ 85)
TAR 3	201	160 (↓ 534)	160 (↓ 534)	-	15	10 (↓ 5)	16 (↓ 53)
TAR 7	162	136 (↓ 858)	17 (↓ 114)	119 (↓ 744)	5	7 (↓ 16)	14 (↓ 85)
TAR 8	78	60 (↓ 165.4)	-	60 (↓ 165.4)	5	7	6

*FNZ is seeking input from tangata whenua on potential reductions to these allowances

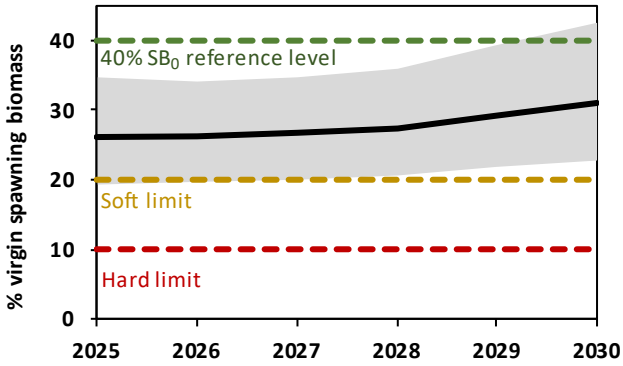
78% reduction in eastern tarakihi TACCs | 84% reduction in western tarakihi TACCs

Five-year projected biomass under Option 3 (black line is estimated biomass, grey area is confidence interval)

Eastern tarakihi



Western tarakihi



Deemed value rate settings

Interim ($/kg)	Annual / 100-120% ($/kg)	Differential rates ($/kg) for excess catch (% of ACE)				
		120-140%	140-160%	160-180%	180-200%	>200%
4.5	5.00	6.00	7.00	8.00	9.00	10.00

Recreational daily limit (refer to recreational areas in Figure 8)

- Reduction from 20 to 3 per person per day in the Auckland/Kermadec, Central, and Challenger recreational areas
- Reduction from 15 to 3 per person per day in the South-East recreational area.

171. This option is more cautious than Options 1 and 2. It would apply an 80% reduction across the combined TACs of all five stocks, and 77% and 84% effective reductions to the commercial limits of east and west tarakihi, respectively.

172. As with Options 1 and 2, the deemed value rates would be increased to provide strong incentives for fishers to acquire and maintain sufficient ACE to cover any catch of tarakihi. This increase, combined with the significant TACC reductions proposed, is likely to completely constrain targeting of tarakihi across both east and west coasts, and also substantially constrain bycatch levels (see Figure 9 and 10 below). Of the proposed options, this will necessitate the strongest avoidance of tarakihi due to the low TACC settings and cost incurred for catching tarakihi without available ACE.

173. While the deemed value rates proposed under this option would be much higher than current rates and set above landed values for tarakihi stocks to promote avoidance, the deemed value rates under this

option would not be as stringent as those under Option 1 and 2. This is to reflect the lower risk to the stocks from small incidental over catches of ACE (since this TACCs would be set much lower).

174. The recreational daily limits across eastern and western tarakihi areas would be reduced to 3 per person under this option. Based on recent recreational harvest levels, this is expected to constrain eastern tarakihi recreational catch by 44% and western tarakihi recreational catch by 24%. This is more cautious than Options 1 and 2 which propose higher limits.

175. This option would immediately reduce fishing pressure for both eastern and western stocks substantially below their respective overfishing thresholds, meaning they would not be considered overfished if recruitment continues at recent levels.

176. Of the catch limit options proposed, this option would provide the strongest response in light of the depleted state of eastern tarakihi and noting that it is below its default biomass hard limit. It would lead to faster recovery of eastern tarakihi and is more likely to enable improvement in stock recruitment. As illustrated in the figure above, if recruitment continues at recent low levels this option is expected to move eastern tarakihi biomass to around 14% SB_0 in the next five years (almost doubling the stock size in that period). This is higher above the default 10% SB_0 hard limit compared to Options 1 and 2.

177. For western tarakihi, this option is highly cautious. It will significantly reduce catch levels to prevent a decline in biomass, and the stock will move more quickly to a higher level (estimated to reach 31% SB_0 after 5 years if recent recruitment continues. FNZ reiterates that while this reduction for the western stock would be more significant than the proposed reduction for eastern tarakihi on a percentage basis, the western tarakihi catch limits have not been fully utilised in recent years, so the constraint on actual catch levels would be less significant. Moreover, while eastern tarakihi catch limits have been reduced several times over the last decade in response to assessments, the western stock did not have full assessments to inform changes prior to 2026.

178. This option would have the most substantial negative immediate socioeconomic impacts of the proposed options. Under this option the combined TACCs across the eastern and western stocks would be below recent estimated bycatch levels (see Figures 9 and 10 below). The impact of this option on bycatch of tarakihi is likely to be greatest in TAR 3, 7 and 8 as the TACCs in those areas are below or well below recent bycatch levels. Effects on bycatch may be smaller in TAR 1 and TAR 2 because there has been higher proportions of targeted catch in those areas in previous years. However, this option would remove around 80% of the catch from those areas (809 tonnes from TAR 1, and 857 tonnes from TAR 2), leaving little headroom for any targeted catch.

179. This is likely to require significant changes in associated target fisheries for other species to avoid tarakihi bycatch, with particularly significant changes required in TAR 7 where there is a greater proportion of tarakihi bycatch. While there is some uncertainty about fishers' ability to avoid tarakihi while utilising other inshore species, there are some examples from overseas which suggest that bycatches in mixed trawl fisheries can be substantially reduced if there are sufficient management controls and incentives in place.[9]

180. Under Option 3 it is estimated that annual port value from tarakihi would be reduced by $10 million (approximately $7 million on the east coast and $3 million on the west). The significant TACC reductions under Option 3 are likely to result in noticeable increases in tarakihi port and retail prices.

181. Because this option is expected to remove targeting and significantly constrain current bycatch levels, the ACE price of tarakihi is likely to increase and move close to its landed value (port price) as vessels targeting other species will likely bid up the ACE price to cover their bycatch. If bycatch is very hard to avoid, it is possible that ACE prices could exceed the landed value of tarakihi. Effectively these changes will further incentivise fishers to avoid areas where tarakihi is abundant, both by not targeting it, and by fishing for other species in areas where tarakihi is known to be less abundant. Some fishers taking tarakihi as bycatch may have increased costs to cover their ACE, and if they need to spend longer out at sea to avoid tarakihi yet still catch their ACE for other stocks they could also experience increased labour

[9] Miller and Deacon (2017a, 2017b; Abbott, Haynie, and Reimer (2015); Branch and Hilborn (2006, 2008).

and fuel costs. If tarakihi is highly unavoidable, there is a risk that this option could limit sustainable utilisation of other species, which may result in greater losses in the revenue from those species.

182. While this option entails the most substantial negative immediate socioeconomic consequences of the proposed options, it would greatly improve the probability of eastern tarakihi recovering from its current state of depletion quickly and help western tarakihi to stabilise and increase in biomass more quickly. A more in-depth discussion of potential social, cultural and economic factors and impacts is provided in Part 5 in the context of section 13(3) (refer Table 6) and Appendix 1.

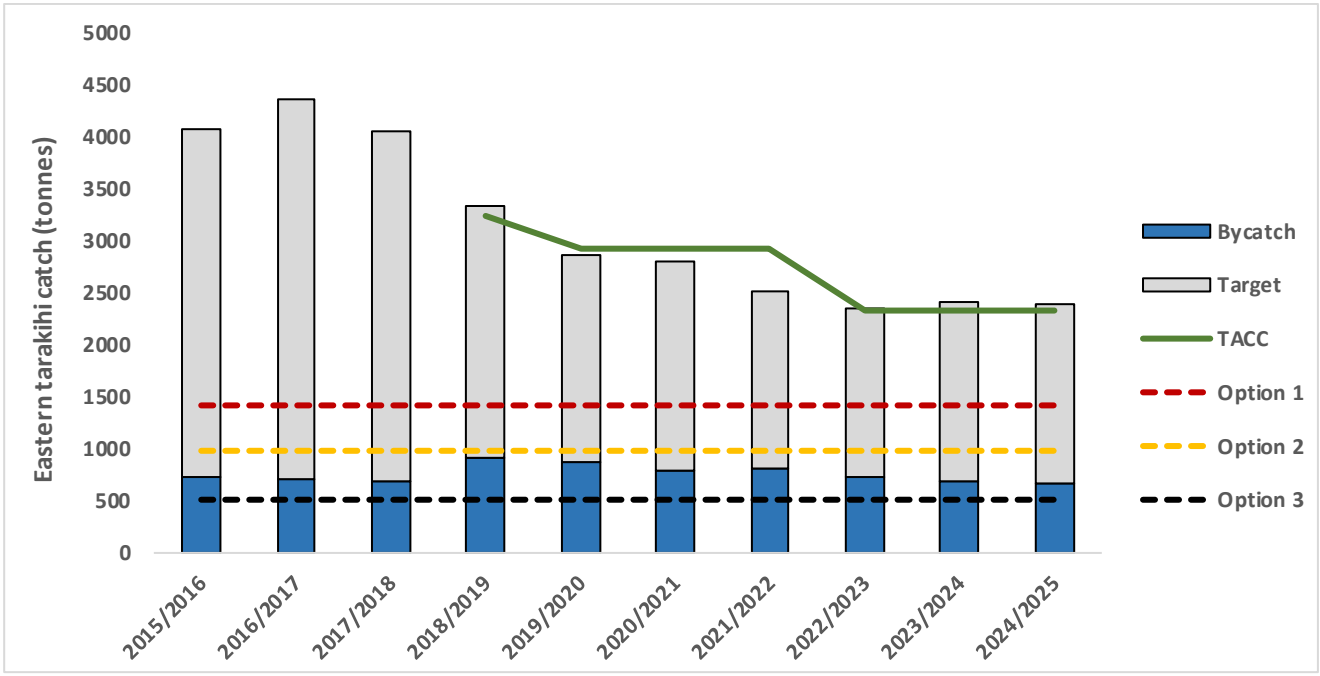


Figure 9: Catch and TACC for eastern tarakihi since 2015/16, and proposed TACC settings under different options. All figures in tonnes. The TACC is shown from 2018 (when the first full eastern tarakihi assessment was completed).

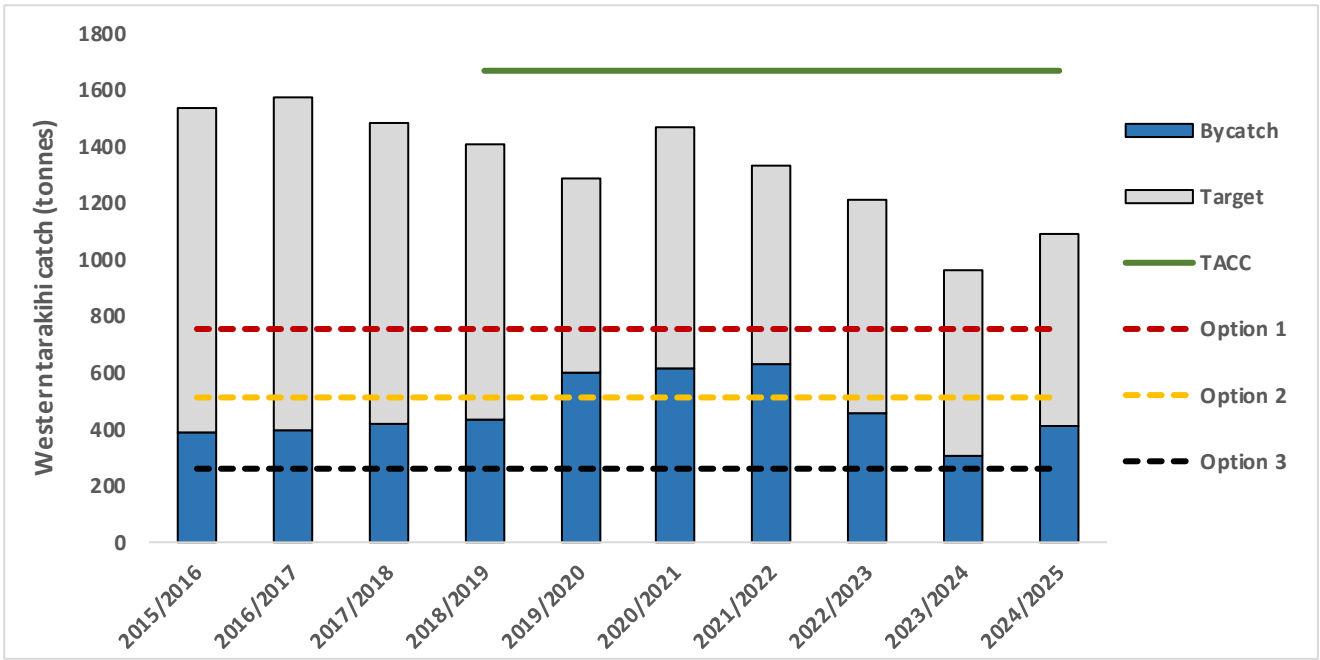


Figure 10: Catch and TACC for western tarakihi since 2015/16, and proposed TACC settings under different options. All figures in tonnes.

Part 3: Review of other supporting measures

Purpose of supporting measures

183. Catch setting decisions made under section 13 of the Act are the primary mechanism for reducing overall fishing mortality for tarakihi and enabling the stocks to recover. In addition to the catch setting proposals, FNZ is considering a range of other supporting sustainability measures under section 11 of the Act which could further support recovery of tarakihi. This includes spatial measures to support the juvenile life stage of tarakihi development (nursery areas and juvenile).

184. Nursery and juvenile areas are a focus for this consultation because evidence indicates measures in these areas would effectively improve recruitment and productivity of tarakihi. Reducing fishing impacts in areas identified as supporting tarakihi nurseries and juveniles should increase the likelihood that the juvenile fish survive, reach maturity, and recruit to the adult populations.

Summary of areas being considered

185. FNZ has used best available information to identify several areas that support tarakihi nursery habitat and identify areas with high densities of juveniles across the eastern and western tarakihi areas (Table 3). Map boundaries of these areas are provided below in FNZ's analysis of the proposals for supporting measures (with larger maps available in Appendix 1).

186. FNZ is not consulting on a full closure of all fisheries across these areas. As noted above, these measures are intended to support catch limit changes in rebuilding the stocks. Their effectiveness in supporting tarakihi productivity is likely to vary among area types and locations. The impact of these measures on utilisation is also likely to vary among areas, and will depend on the extent, nature and duration of measures in each area.

Table 3: Overview of supporting measure proposals.

Eastern stock:	
Nursery areas: • North Waitaki River Mouth • Pegasus Bay • Canterbury Bight • Hay Paddock	**Juvenile (sub-MLS) areas:** • North Otago Canyon • Pegasus and Hurunui
Western stock:	
Nursery areas: • Outer Tasman Bay and Golden Bay	**Juvenile (sub-MLS) areas:** • Chetwode • Kapiti

187. The section below provides more detail about the spatial measure options FNZ is consulting on, and the key benefits and risk of these options. Supporting information about how the areas were identified, and how risks from fishing could be managed, is provided in Appendix 1.

188. FNZ has presented options with combinations of these spatial measures noting that the nature, scale, number and longevity of management measures within these areas could vary. FNZ is proposing that these measures would be regulated but welcomes any feedback and rationale for non-regulatory implementation of any of these measures.

189. FNZ welcomes your views on the evidence informing these spatial measures, their likely benefits, impacts on other uses and values, and any alternative approaches that could further support recovery of the tarakihi stocks.

How the proposed supporting measure options in this paper have been developed

190. FNZ is consulting on two options which package together different combinations of nursery habitat protection and juvenile aggregation area protection. FNZ has packaged the options in this way to allow

submitters to comment on different levels of spatial protection, evidence confidence, and social, cultural, and economic impact. Option B builds on Option A by adding further spatial restrictions. In developing the packages, FNZ has applied the following design principles:

- The supporting measures should sit alongside, and not replace, the proposed TAC and TACC reductions.
- The measures should recognise the biology and connectivity of the eastern and western tarakihi stocks, including the importance of nursery habitats and juvenile aggregation areas (see 'stock structure' in Part 1).
- The strongest current evidence is for spatial measures that would improve the likelihood that juvenile tarakihi survive, reach maturity, and recruit to the adult stock. For that reason, both options include measures focused on identified nursery habitats and areas with persistent catches of sub-minimum legal size juvenile tarakihi. (Table 4).
- The packages have also been developed with regard to likely effects on fishing activity, including seeking to minimise unnecessary disruption to fishers where possible.

Table 4: Supporting measures options summary.

Option	Spatial measure	Benefits	Evidence confidence	Impact
Option A	Fishing restrictions in identified tarakihi nursery habitats and restrictions in one juvenile tarakihi aggregation area	Targets strongest-evidence risks while limiting wider disruption	Moderate to high confidence for the nursery/juvenile evidence	Lowest direct impact; some method/area impacts
Option B	Option A, plus restrictions in an additional juvenile tarakihi aggregation area	Provides greater juvenile protection and support for juvenile survival	Similar evidence pathway to Option A, with broader juvenile-area coverage	Greater impacts on affected trawl activity; more displacement risk

191. Following consultation, the Minister may decide to adopt one of these packages, a variation of a package, a different combination of management measures, or none at all, provided the final decision is supported by the information and submissions received.

192. The extent, nature and duration of measures in any of these areas will also be informed through feedback received through input and participation of tangata whenua and public consultation.

193. The proposed management measures for these areas focus on controlling fishing methods to help meet the objectives for each area:

- **Nursery areas:** Year-round restriction on trawling, Danish seining and dredging over part or all of the area to protect seabed habitats that provide a nursery function for tarakihi.
- **Juvenile tarakihi aggregation areas:** Year-round restriction on trawling to reduce the catch of sub-minimum legal size tarakihi.

194. Some proposed management measures in these options overlap in their areal extent. Where this occurs, the management approach will be determined based on risk. For example, if an area is both a nursery and a juvenile tarakihi aggregation area, restrictions may need to address both habitat protection and juvenile catch reduction.

195. FNZ welcomes any feedback from stakeholders on alternative packages of options, as well as proposals for the individual measures within each option. Submitters proposing alternative packages are encouraged to clearly identify which areas, methods, and seasons would be included, and how the alternative would support tarakihi recovery while managing social, cultural and economic impacts and implementation risks. This will allow FNZ to provide clearer advice to the Minister on any alternative proposals to inform decision.

196. The options are expected to have economic impacts on fishers operating in the areas. These impacts are discussed under each option. However, the estimates are indicative only and should not be treated as a complete assessment of net economic impact.

197. The estimates are based on the recent value of catch taken by vessels using affected fishing methods within the proposed areas. For the proposed closure areas on the east and west coasts, Fisheries New Zealand estimated the value of catch by multiplying the volume of QMS stocks caught in those areas by the relevant port price, based on information from the 2024/25 fishing year. This approach was only applied to QMS stocks because equivalent price information is not available for non-QMS stocks. This does not mean non-QMS stocks have no value; rather, their landed value cannot currently be quantified.

198. Tarakihi catch within the proposed closure areas was excluded from these estimates because the economic effects of changes to tarakihi catch are already considered under the TACC-setting options. Excluding tarakihi avoids double counting the same potential catch impacts. However, under the TACC options that would continue to provide for some, but reduced, level of target fishing, the proposed closures could further impact fishers catching tarakihi by displacing effort into areas with lower abundance.

199. There is uncertainty about how fishers may respond to the proposed measures, including whether they could reduce impacts by changing fishing patterns or fishing in other areas. The estimates do not fully account for fisher adaptation, changes in operating costs, processing or supply-chain effects, regional impacts, or the potential displacement of fishing effort. FNZ seeks further information through consultation on the likely practical and economic effects of the proposed measures, including whether displaced fishing effort could create additional environmental or utilisation impacts.

200. Separately, FNZ has assessed that the two options are not expected to add significant monitoring or enforcement costs.

Proposals for supporting measures

201. The maps and tables below describe the proposed supporting measure options intended to support recovery of the eastern and western stocks. For each option, FNZ describes the proposed management measures, expected benefits, social and economic impacts, and uncertainty about likely stock recruitment benefits. Each option includes proposed measures for both east and west tarakihi, with separate maps for each area.

202. Environmental impacts associated with tarakihi fisheries are considered against the environmental principles in section 9 of the Act, summarised in Table 11 (Part 5). This includes ecosystem considerations, interactions with associated and dependent species, biodiversity, and habitats of particular significance for fisheries management. More detailed information on the proposed areas, including full-sized maps, is provided in Appendix 1: Supporting information.

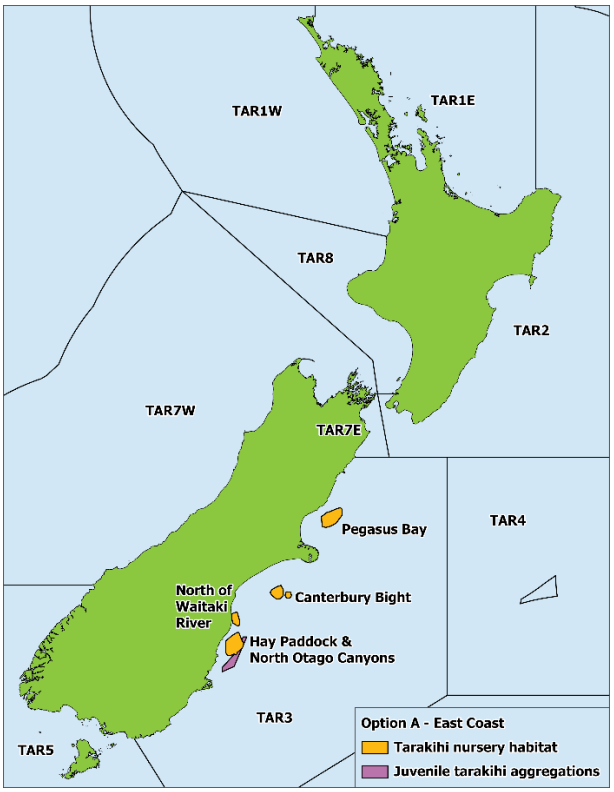
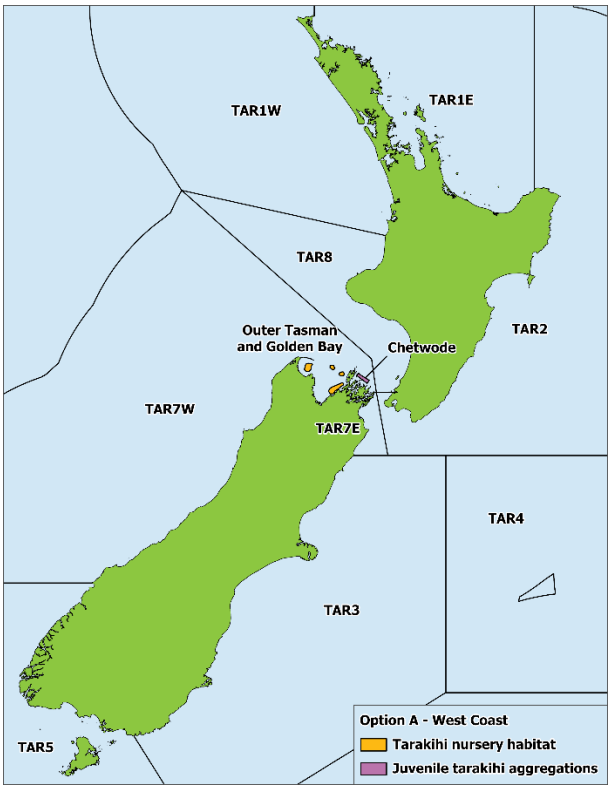
Option A - East	Option A - West
	
Proposed year-round restriction of trawl, Danish seine and dredging to avoid adverse effects on tarakihi nursery habitat • North Waitaki River Mouth • Pegasus Bay • Canterbury Bight • Hay Paddock	Proposed year-round restriction of trawl, Danish seine and dredging to avoid adverse effects on tarakihi nursery habitat in Tasman Bay/Golden Bay
Proposed year-round restriction of trawling to reduce catch of juvenile tarakihi in North Otago Canyons	Proposed year-round restriction of trawling to reduce catch of juvenile tarakihi in Chetwode

Figure 11: Option A supporting measures for East and West coast tarakihi.

203. Option A would restrict trawl, Danish seine and dredging to avoid adverse effects on all identified tarakihi nursery habitats,[10] and restrict trawling in one identified juvenile aggregation area on each coast.

204. Option A is proposed as the base spatial package because it focuses on the measures with the clearest evidence pathway: protecting identified nursery habitats and reducing fishing mortality on juvenile tarakihi in areas where juvenile catch is persistently high.

205. This option would provide the lowest level of spatial restriction of the two options while still addressing key risks to nursery habitat and juvenile fish. It may be possible to refine the extent of restrictions within some nursery areas if submissions provide evidence that a less restrictive approach would still protect the nursery function of those habitats.

[10] Nursery habitat for a number of stocks is included on a register of habitat of particular significance for fisheries management. Section 9(c) of the Fisheries Act 1996 requires the Minister to take into account that habitat of particular significance for fisheries management should be protected.

206. As discussed above and in Appendix 1, avoiding capture of juvenile tarakihi is expected to support a greater proportion of fish surviving to maturity, although the stock-level benefit remains uncertain and depends on the effectiveness of the measure and fisher response.

207. The juvenile aggregation measures focus on trawling, which is the method with the highest incidence of catching juvenile tarakihi in the proposed areas. Other fishing methods with little or no catch of juvenile fish will not be impacted.

208. Avoiding trawling in the Otago Canyons and Chetwode juvenile aggregation areas is estimated to avoid, on average, over 1.5 tonnes of juvenile catch from the east coast stock per year, and 140kg from the west coast stock. These figures may be underestimates as they do not include juveniles that were damaged by going through the trawl mesh but not landed.

209. Of the two options, Option A is estimated to have a lower impact on commercial fishers. The main impacts would be in TAR 3 in the eastern fishery and TAR 7 W in the western fishery, particularly fishers operating in North Otago, Canterbury Bight, Pegasus Bay, and Tasman and Golden Bays. Five permit holders on the east coast and seven permit holders on the west coast caught between 10-20 percent of their catch within the areas identified in Option A.

210. Under Option A, the estimated average annual value (based on port price) of the trawl (and Danish seine where relevant) QMS catch from the east areas is approximately $840,000. For the west coast fishery, the estimated value (based on port price) of the QMS catch from the areas is approximately $850,000. These estimates reflect the immediate revenue impact of the proposed spatial restrictions, noting fishers may be able to adjust by fishing elsewhere. FNZ seeks feedback from submitters on how impacts on nursery habitats could be avoided and how the costs to fishers can be reduced where possible. FNZ also seeks feedback from submitters on the wider economic effects of the options.

211. Restricting fishing in areas may displace effort into adjacent or alternative areas. This could increase fishing pressure elsewhere, contribute to localised depletion, increase bycatch or habitat impacts in new areas, or reduce economic efficiency for fishers. However, the scale and distribution of these effects are uncertain because they depend on fisher behaviour, the availability of alternative fishing grounds, and wider management settings, which can vary considerably between areas.

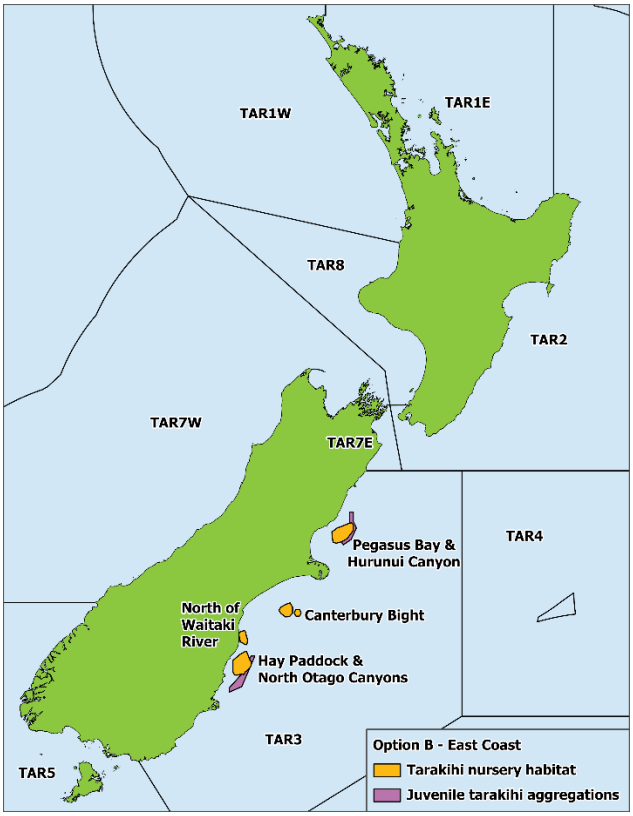
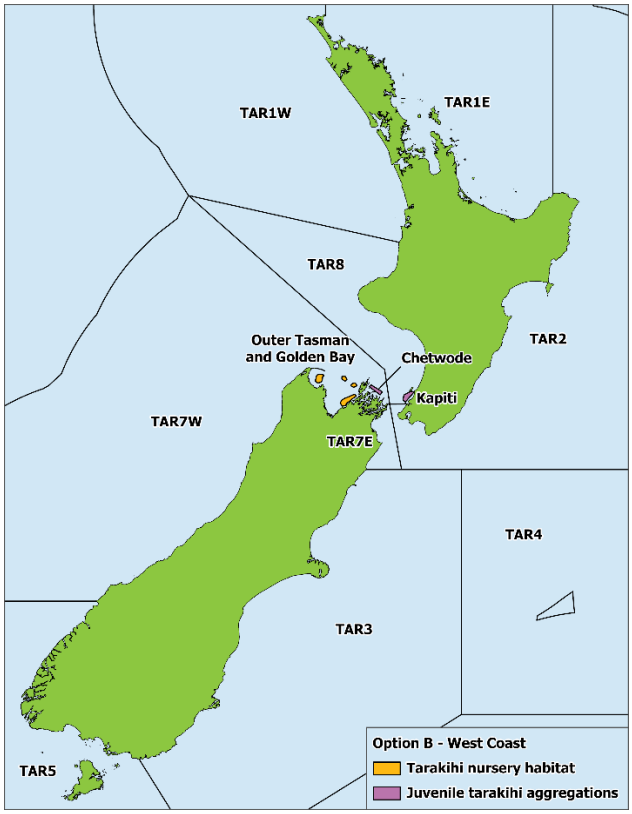
Option B East	Option B West
	
Proposed year-round restriction of trawl, Danish seine and dredging to avoid adverse effects on tarakihi nursery habitat • North Waitaki River Mouth • Pegasus Bay • Canterbury Bight • Hay Paddock	Proposed year-round restriction of trawl, Danish seine and dredging to avoid adverse effects on tarakihi nursery habitat in Tasman Bay/Golden Bay
Proposed year-round restriction of methods catching juvenile tarakihi in: • North Otago Canyons • Pegasus and Hurunui	Proposed year-round restriction of methods catching juvenile tarakihi in: • Chetwode • Kapiti

Figure 12: Option B supporting measures for East and West coast tarakihi.

212. Option B builds on Option A by adding one further juvenile aggregation area on each coast. It is proposed as a stronger juvenile focused package to provide broader protection for areas where juvenile tarakihi are persistently caught.

213. By adding the Pegasus and Hurunui juvenile aggregation area on the east coast and the Kapiti juvenile aggregation area on the west coast, this option is estimated to avoid, on average, over 2.3 tonnes of juvenile catch from the east coast stock and approximately 230 kilograms from the west coast stock per year.

214. The addition of these areas to Option B is likely to increase the impact on fishers compared to Option A. The main additional impacts would be in TAR2, particularly fishers operating in Pegasus Bay, and in the western fishery, particularly for fishers operating off the Kapiti Coast. Six permit holders on the east coast, and eight permit holders on the west coast caught between 10 and 20 percent of their total QMS catch within the areas identified in Option B.

215. Under Option B the estimated average annual port value of the trawl catch, and Danish seine where relevant, from the proposed eastern areas is approximately $1 million. For the west coast fishery, the estimated value of catch from the proposed areas is approximately $1.3 million. As discussed under Option A, these estimates reflect the immediate revenue impact of the proposed spatial restrictions, and fishers may be able to adjust by fishing elsewhere.

216. The inclusion of additional juvenile aggregation areas in Option B may result in more displacement of effort compared with Option A. As for Option A, the scale and distribution of these effects are uncertain.

Summary

217. Both options are likely to support the objective to maintain the nursery function of the identified tarakihi nursery habitats. Both supporting measure options are intended to support the proposed TAC and TACC reductions by protecting identified tarakihi nursery habitats and reducing fishing pressure on juvenile tarakihi in areas where juvenile catch is persistently high.

218. A full area closure of these nursery areas to certain fishing methods would provide the most certainty that this habitat and its nursery function would be protected. However, it may be possible to achieve this objective with a less restrictive area closure.

219. Option A is a less restrictive spatial package than Option B. It would provide protection for identified nursery habitats and one juvenile aggregation area on each coast.

220. Option B builds on Option A by adding further juvenile aggregation areas. It would provide stronger juvenile-focused protection but would have greater impacts on affected trawl activity and may create greater displacement risk.

221. The key trade-off across the options is whether the additional protection provided by Options B is justified by the likely benefits for tarakihi recovery, given the greater impacts on fishers, possible displacement of fishing effort, and uncertainty about the stock-level benefits of some measures. FNZ also welcomes feedback on whether any of the proposed areas or method restrictions could be refined to reduce impacts while still achieving the intended sustainability benefits.

Other measures considered but not proposed in this review

222. Fisheries New Zealand has considered a range of other measures that are not being proposed for specific changes as part of this review. These are discussed below. Some of these measures, including gear modifications and minimum legal-size changes, are not proposed because available information indicates tarakihi has low survival when caught and released, particularly from trawl. Move-on rules are not proposed by FNZ, however industry may choose to continue to implement these voluntarily.

223. FNZ welcomes feedback and information on these and any other measures which could support the TAC options to increase biomass for both stocks.

Spawning area closures

224. There is limited evidence to indicate how spatial measures in mature tarakihi aggregation areas that overlap with known tarakihi spawning locations will improve recruitment and productivity. The benefit of these would be contingent on whether they increase successful spawning of tarakihi, and there is little information on the impact of fishing in tarakihi aggregation areas vs. non aggregation areas on spawning and overall productivity.

225. Factors that have potential to affect spawning events such as the disturbance caused by fishing activity, the importance of large breeding females, and changes in environmental conditions are not well understood for tarakihi. These could all influence the effectiveness of spawning area protection.

226. Fisheries New Zealand is consulting on significant commercial catch reductions, and these are likely to require significant avoidance of adult aggregations without the need for specific spatial measures. For these reasons, specific spatial measures in adult aggregation areas have not proposed as part of this consultation, and more emphasis has been placed on measures in nursery and juvenile areas.

Move on rules

227. Move-on rules are rules which require fishers to relocate or stop fishing in a specific area when a certain event happens, such as when they catch too many juvenile fish, encounter a restricted species, or exceed a specific bycatch limit. The nature of the rule means it is reactive to what is caught rather than proactively avoiding catch.

228. Under the industry led eastern tarakihi management strategy and rebuild plan (2019) industry already implement voluntary move-on rules in all eastern tarakihi QMAs. These require that the fisher move at least 10 m deeper or 1 nm away when more than 15% of the catch is under MLS (where TAR is more than 10% of the catch). The June 2025 quarterly report for the rebuild plan noted adherence to this rule averaged about 60% across the 2024/25 fishing year (FNZ, 2025).

229. While move-on rules can reduce repeated high catches of juveniles, they do not prevent the initial mortality associated with capture events. Although tarakihi is subject to a minimum legal size, juvenile tarakihi are estimated to have low survivability when caught by trawl.

230. The Fisheries Act does not provide for the making of regulations to require fishers to move on when catches exceed a predetermined limit. While move-on rules can be implemented as non-regulatory measures with industry agreement, they have not been included in this consultation because they cannot be given regulatory effect under the Act.

231. Given the low survivability of juvenile tarakihi once caught, FNZ is focusing on measures that can prevent capture in the first place. Catch reductions and spatial management approaches are therefore preferred, as they are more likely to improve survival and support stock rebuild.

232. Voluntary approaches implemented by industry could continue to be applied and we welcome industry initiatives to strengthen effectiveness and compliance with the existing move on rule.

Fishing method and gear controls

233. Fishers have responded to a number of fish stock changes by adjusting their fishing gear or how they operate. This has included changes in gear for example shifting to larger mesh sizes (6” instead of 5” or 4”) and moving to square mesh designs. Escape panels, cod end design and different trawl configurations are other examples of innovations fishers have made to try to improve fishing gear selectivity and reduce the catch of small or unwanted fish.

234. The effectiveness of fishing method and gear controls for tarakihi will be influenced by juvenile tarakihi biology and their likely survival if caught, as well as the extent to which these methods can avoid their capture. For example, tarakihi are susceptible to barotrauma when retrieved from depth and are prone to scale-loss injury. Juvenile tarakihi are considered less robust than adults.

235. Fisheries New Zealand notes limited research is available to assess the effectiveness of gear and method controls in either improving juvenile tarakihi survival or avoiding their capture. As a result, method or gear controls are not included as consultation options. Instead, the proposed measures focus on measures that would minimise the likelihood of juvenile fish capture.

Adjusting MLS for tarakihi

236. FNZ does not consider adjusting the minimum legal size (MLS) for tarakihi is a viable option given biological constraints. The current commercial MLS for tarakihi is 25 cm fork length, which is below the size and age tarakihi typically reach sexual maturity (33–37 cm and 6–7 years of age). Although increasing the commercial MLS could, in principle, allow more fish to reach maturity before capture, this benefit depends on post-release survival. Tarakihi caught by trawl (the primary capture method) are estimated to have a low likelihood of post-release survival when returned to sea (McKenzie et al. 2024). As a result, a higher MLS would likely lead to higher fishing-related mortality through additional returns, with limited opportunity for those fish to survive and reproduce.

237. In this context, any benefit of raising the MLS is likely to be outweighed by the increased mortality it would generate. More effective and defensible management approaches may be to minimise the

capture of juvenile tarakihi, rather than relying on size-based retention controls that do not change whether small tarakihi is caught and depend on survival after release.

Subdivide QMA 1 and QMA 7

238. Fisheries New Zealand is seeking feedback on whether QMA subdivision should be progressed as a future management tool for tarakihi in TAR 1 and TAR 7. These QMAs each include areas associated with both the eastern and western biological stocks. This limits the precision with which QMA-level TACs and TACCs can manage fishing pressure on the two stocks separately. Legally binding east/west sub-area catch limits cannot be set within TAR 1 or TAR 7 under the existing QMA structure. The immediate catch-setting tool is therefore a single TAC and TACC for the whole QMA, supported by voluntary sub-area arrangements where those arrangements provide operational confidence.

239. This creates a practical management problem. Where one component of a QMA presents greater sustainability risk than the other, Fisheries New Zealand may need to manage that risk through a more conservative QMA-wide TAC and TACC. That is a blunt tool. It may reduce the risk of catch being taken from the more vulnerable component, but it may also constrain utilisation in the less vulnerable component. The issue may be less pronounced in this review because the 2026 assessments indicate that substantial reductions are needed for both eastern and western tarakihi. However, it could become a significant future management issue if the status, productivity, or management needs of the eastern and western stocks diverge.

240. QMA subdivision could provide a more direct regulatory mechanism for setting separate TACs, TACCs, allowances, and deemed value rates for the eastern and western components of TAR 1 and TAR 7. It could also reduce reliance on non-regulatory sub-area catch limits to manage catch distribution within those QMAs. Fisheries New Zealand is therefore seeking early feedback on whether subdivision should be progressed, including whether it would improve the ability to manage sustainability risk while avoiding unnecessary utilisation impacts in the less depleted or lower-risk component of a QMA.

241. Fisheries New Zealand is not proposing QMA subdivision as part of the immediate 2026/27 sustainability decision. Subdivision would require a separate statutory and regulatory process under the Act. That process could be initiated either through a quota-owner agreement pathway or through the sustainability pathway. It would require further analysis and consultation on proposed boundaries, quota-share allocation, non-commercial fishing interests, tangata whenua interests, commercial interests, settlement quota, and whether subdivision would better achieve the purpose of the Act or is necessary to ensure sustainability. Cabinet approval and regulatory amendments would also be required before any new QMAs could be created.

242. Any future subdivision would not remove the need for the 2026/27 TACs and TACCs to meet the Act on the basis of the existing QMA boundaries and the best available information now available. For the 2026/27 fishing year, Fisheries New Zealand's proposed TAC and TACC options have therefore been developed at the existing QMA level. Those options must be assessed on their own terms against the requirements of the Act. Voluntary sub-area catch limits within TAR 1 and TAR 7 are relevant to expected catch distribution and operational implementation, but they cannot be relied on as the legal mechanism for controlling catch in the eastern and western components. If those voluntary arrangements do not provide sufficient confidence that catch will be distributed consistently with the sustainability needs of each biological stock, that uncertainty may need to be managed through the level of the QMA-wide TAC and TACC.

243. Fisheries New Zealand is seeking feedback on the adequacy of existing voluntary sub-area arrangements as an interim measure. This includes feedback on the ability to monitor catch against eastern and western sub-area limits, the risk of catch displacement, the role of non-signatory fishers, what should occur if catch in the eastern component of TAR 1 or TAR 7 exceeds expected levels, whether more conservative QMA-wide TAC and TACC settings are needed in the absence of subdivision, and whether QMA subdivision should be progressed as a future management response.

244. To guide feedback, one option could be to subdivide TAR 1 and TAR 7 along existing voluntary sub-QMA boundaries used under the industry-led rebuild plan. Those boundaries are a possible starting point

because they have been used operationally, but Fisheries New Zealand is not assuming they are necessarily the most appropriate statutory QMA boundaries. Quota shares for any new QMAs could be apportioned in the same proportions as existing TAR quota shares.

245. For TAR 7, one approach would create a small TAR 7E QMA covering waters south of the Brothers and excluding areas within the Marlborough Sounds. Another approach could be to create TAR 7W as a separate QMA and amalgamate the east coast portion currently described as TAR 7E to either TAR 2 or TAR 3. FNZ is not proposing a preferred boundary option in this review.

246. These examples are included to help submitters provide feedback on whether existing voluntary boundaries are a useful starting point, or whether alternative boundaries would better reflect the biological stock structure and management risks. Allocation of settlement quota would be a key consideration in any subdivision proposal given the importance of settlement quota for tangata whenua. We welcome feedback on the approach submitters consider most appropriate.

Part 4: Consultation and input and participation of tangata whenua

Who will be affected by the proposed changes in this review?

247. Tarakihi is an important species for New Zealanders and it supports significant shared fisheries. The proposed management changes in this paper are likely to have substantial impacts for commercial fishing businesses and associated individuals, recreational fishers, tangata whenua, and the wider public in New Zealand.

248. Commercial interests in these tarakihi stocks include a range of quota owners, vessel owner-operators and contract fishers in the catching sector, as well as Licensed Fish Receivers (LFRs), retailers and exporters (Table 5).

Table 5: Summary of quota owners, permit holders, vessels, Licensed fish receivers and % settlement quota, for the tarakihi quota management areas (average for last three fishing years).

Stock	Number of quota owners	% that is settlement quota	Number of permit holders landing stock	Number of vessels landing stock	Number of LFRs landed to
TAR 1	77	9.9%	61	78	29
TAR 2	37	9.9%	34	45	21
TAR 3	31	9.6%	55	80	18
TAR 7	45	10%	47	66	24
TAR 8	35	10%	34	42	17
All stocks	169	9.9%	162	224	60

249. Commercial tarakihi fishing is dominated by trawl fisheries in both the eastern and western stocks, accounting for the vast majority of catch (around 90% in the east and at least 97% in the west). These fisheries target a mix of inshore species, meaning tarakihi is typically caught as part of multi-species operations. A smaller but still relevant portion of catch, particularly in the eastern fishery, is taken by a target setnet fishery.

250. A more detailed initial assessment of how the proposals in this review may affect commercial interests (including effects for fishers, ACE and quota holders, and downstream impacts for LFRs, consumers and export markets) is provided in Appendix 1 (*'Initial assessment of economic impacts of TACC options')*.

251. Recreational interests in tarakihi are represented by a range of individuals and groups including Amateur Charter Vessels and various local fishing clubs and associations as well as organisations such as the New Zealand Sport Fishing Council and Fish Mainland.

252. Tangata whenua have both commercial and customary interests in tarakihi. These interests are represented at multiple levels by various mandated iwi organisations, iwi, hapu and individuals. There are also Iwi Asset Holding Companies which own and manage quota and provide income to iwi governance entities to invest in social services.

253. Customary rights and interests in tarakihi are represented by several iwi fisheries forums across both the east and west coasts. These forums are described below under '*Input and participation of tangata whenua'*, along with a summary of their input and engagement so far in respect of this review.

Input and participation of tangata whenua

254. Iwi fisheries forums which represent tangata whenua interests in eastern tarakihi include Te Waka a Māui me Ōna Toka (South Island), Mai I Ngā Kuri a Whārei ki Tihirau (Bay of Plenty), Nga Hapu o Te Uru (Waikato), Te Hiku o te Ika (Far North), Mid-North East, Mai Paritu tae atu ki Turakirae (East Coast from Paritu to Turakirae), and Nga Hapu o Ngāti Porou (East Cape).

255. Iwi fisheries forums which represent tangata whenua interests in western tarakihi include Te Hiku o Te Ika (Far North), Mid-North West, Ngaa Hapu o Te Uru o Tainui (Waikato), Te Tai Hauāuru and Te Waka a Māui me Ōna Toka (South Island).

256. FNZ provided summaries of this review to Chairs of the Iwi Fisheries Forums and invited feedback. FNZ also attended hui held by Iwi Fisheries Forums prior to consultation to discuss the review and invite input. Below is a summary of feedback FNZ has received so far on the review from Iwi Fisheries Forums.

Mai I Ngā Kuri a Whārei ki Tihirau (Bay of Plenty)

- FNZ provided the forum with information on the review and attended a forum hui on 8 June 2026.
- The forum recognised that lowering the TACs might not be enough for a recovery plan given the state it is in, but that closing the fishery may not be an option either.
- The forum expressed concern about possible impacts of bottom fishing on nursery habitat and the habitat in which Tarakihi feed. They suggested that the effects of bottom trawling need to be considered, and that mitigating the effects of trawling would give a chance for the seabed to recover, which will help to protect habitat for juvenile tarakihi, and habitat of tarakihi more generally.
- They noted that the main method used to catch Tarakihi for them is set netting.
- Noted increased abundance of tarakihi at mussel farms and attributed this to growth of habitat/food organisms on the seafloor under the mussel farms which are protected from trawl impacts.

Te Waka a Māui me Ōna Toka (South Island)

- FNZ provided the forum with information on the review and attended a forum hui on 16 June 2026.
- Forum members expressed strong concerns about the state of the tarakihi fisheries.
- The Chair of the forum, who was previously a commercial fisher noted they had observed high numbers of juvenile tarakihi bycaught in the Waitaki area in the 1990's.
- One member was concerned about the potential environmental influence on tarakihi and wondered if sedimentation around the Tasman region may also be having a negative impact for tarakihi.
- Several members did not support any proposed options. Forum members recommended closing the two fisheries and support annual management reviews going forward given the rapid decline.[11]

Mai Paritu (North)

- FNZ provided the forum with information on the review and attended a forum hui on 19 June 2026.
- One member of the forum was concerned about the potential impacts of such large commercial reductions for local trawlers who depend on tarakihi, and how the changes might impact fishers who are already struggling financially. They suggested to consider other measures, such as larger fishing mesh size to lessen impacts on juvenile fish. They also questioned if greater measures could be taken in southern areas to protect juvenile fish there if those fish feed all the populations up the east coast.
- Several members suggested recreational catch may be underestimated. However, they also noted that a large amount of customary catch is utilised under recreational regulations and noted large reductions to the recreational daily limits might be too punishing given the low contribution of recreational take to overall fishing.
- Members of the forum suggested other tools should be considered to help manage recreational catches, including recreation permitting (for all species, not just tarakihi).

257. FNZ will undertake further engagement with the Iwi Fisheries Forums and iwi during consultation to seek input on the proposals in this review. FNZ also welcomes any input and submissions from tangata whenua outside of this engagement.

Observations from commercial operators about tarakihi

258. A range of commercial fishers and other sector representatives have provided observations around tarakihi abundance. These observations were provided during the science working group process and during the pre-consultation period.

- Some fishers and fishing companies have strongly emphasised that their on-the-water observations of abundance do not align with what the stock assessments are indicating. In TAR 2 fishers have observed increased catch rates of tarakihi since the previous catch limit reductions in 2019 and 2022 and pointed to this as evidence that the TACC reductions and industry-led rebuild plan are working.

[11] It is uncertain if this was a unanimous recommendation by the forum. FNZ is seeking clarification on this.

- In TAR 1, feedback is more mixed. Some fishers have observed declines in tarakihi catch in FMA 1, while others have said they have been able to utilise their tarakihi ACE without any issues.
- Based on these observations, some in the industry have questioned the robustness of the science, and particularly the assumption that there is one stock across the east coast. Some also question the assumptions around original tarakihi biomass levels and how much the stock has declined.
- Some in the industry also suggest that environmental factors affecting the stocks need to be more seriously considered under the HSS and in management target decisions.
- The industry are also very concerned about further cuts to the tarakihi TACCs, particularly in TAR 2. They have indicated that further catch reductions will make some business uneconomical and some may exit the industry.

259. FNZ acknowledges that observations of tarakihi abundance vary among different quota management areas and welcomes any further observations from fishers across these areas. The eastern tarakihi assessment shows that catch rates of tarakihi in TAR 2 increased over the last several years but started to decline again in more recent years. While catch rates remain higher in central areas (FMA 2 and in the Cook Strait), FNZ reiterates that the best available information indicates tarakihi populations are connected across the QMAs on the east coast. Catches from one area will impact other areas and the overall stock, and recognising this connectivity, FNZ is consulting on changes across all of the QMAs.

260. The western and eastern tarakihi assessments have been considered through fifteen meetings of the multi-sector FNZ Science Working Group (seven for eastern tarakihi and eight for western tarakihi) and accepted by the Fisheries Assessment Plenary. MPI's Chief Science Advisor and team have also assessed the review process used for the eastern tarakihi assessment.

261. The stock assessments are considered to provide the best available information on current stock status, fishing pressure, and uncertainty affecting future stock productivity. However, FNZ welcomes any feedback and submissions on further work that could be done to improve stakeholder confidence in these assessments and their outputs.

262. FNZ notes the concerns regarding the economic impacts of any changes to management settings for tarakihi. FNZ has sought international independent expertise to support the assessment of economic impacts and welcomes further feedback from industry on this issue.

How to have your say

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

Key questions for submitters

- Which package of TAC, recreational daily limit and deemed value rate changes do you support for managing east and west tarakihi stocks? Option 1, 2, 3, or an alternative option?
- Do you support the implementation of spatial measures in tarakihi nursery and juvenile areas for either east or west coast tarakihi? Option A, B, or an alternative option?
- Do you consider that a subdivision of the TAR 1 and TAR 7 quota management areas should be progressed? If so, where do you think the boundaries should be placed?
- What other measures do you believe the Minister should consider to support the recovery of east or west tarakihi?
- Do you consider that the options and measures in this review adequately respond to the 2026 stock assessments for east and west coast tarakihi?
- What options do you believe would best provide for social, economic, and cultural wellbeing?
- How could the proposals outlined in this consultation impact you?
- What have you observed about tarakihi in your area (and what area are you based in)?

264. FNZ invites you to make a submission on the proposals set out in this discussion document. Consultation closes at **5pm on 24 July 2026.**

265. 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 the webpage or require hard copies of documents or any other information, please email FMSubmissions@mpi.govt.nz.

Part 5: Initial assessment of changes against relevant legal provisions

Overview

266. The sections below outline FNZ's initial assessment of the proposed changes for the five tarakihi stocks under review against sections 8, 9, 10, 11, 13, and 75 of the Act. Some information to support this assessment can be found in Appendix 1 (Supporting information). 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).

267. For information on the relevance of section 5 of the Act (Application of international obligations and Treaty of Waitangi (Fisheries Claims) Settlement Act 1992) and details about statutory considerations relevant to TAC decisions, please refer to the Legal Appendix on our consultation webpage.

Initial assessment against section 8 of the Act

268. Section 8 outlines the Act's purpose is to "provide for the utilisation of fisheries resources while ensuring sustainability." In deciding whether a proposal fits within the scope of the Act, the Minister must keep section 8 in mind and act in a way that promotes the Act's objectives. But, subject to this constraint, "the nature and scope of powers and the restrictions on them are as is provided for in the operating provisions of the Act."

269. In the Act, ensuring sustainability means:
- maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations; and
- avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment.

270. Utilisation means conserving, using, enhancing, and developing fisheries resources to enable people to provide for their social, economic, and cultural well-being.

271. The proposed options for tarakihi in this paper have been guided by the purpose of the Act. How they would meet this purpose is discussed throughout the paper, noting that it revolves around options to ensure sustainability of the eastern and western tarakihi stocks.

272. The measures and options under review all intend to provide for utilisation of east and west tarakihi stocks while ensuring their sustainability in line with the purpose of the Act. However, different options provide for different levels of utilisation and caution with respect to ensuring sustainability e.g. Option 3 would be more cautious toward ensuring sustainability but would provide for less utilisation of tarakihi in the short term.

273. The proposed supporting measures, such as spatial fishing restrictions in tarakihi nursery and juvenile areas, are intended to further support sustainability by helping to avoid or mitigate potential fishing impacts on areas which may be important to the productivity of these tarakihi stocks.

Initial assessment against section 13 of the Act

274. Table 6 below outlines Fisheries New Zealand's initial assessment of the proposed TAC options for the tarakihi stocks under review against section 13(2A) of the Fisheries Act 1996. This assessment has been informed by the 2026 stock assessments for eastern and western tarakihi, the Fisheries Assessment Plenary, the information principles in section 10, the purpose of the Act in section 8, and the relevant requirements of section 13 (discussed below).

Table 6: Initial assessment of the proposed TAC changes for tarakihi stocks under section 13(2A) of the Act.

Section 13(2A) – Available information to support the application of this provision
275. Section 13(2A) applies where the Minister considers that the current level of the stock, or the level of the stock that can produce maximum sustainable yield (MSY), cannot be reliably estimated using the best available information. This applies to the east and west tarakihi stocks because FNZ is unable to

reliably estimate the level of these stocks that would produce MSY using best available information. Where section 13(2A) applies, the Minister must set the TAC having regard to the interdependence of stocks, the biological characteristics of the stock, and any environmental conditions affecting the stock. The TACs must not be inconsistent with the objective of maintaining the stock at or above, or moving the stock towards or above, a level that can produce MSY.

276. Under section 13(3), when considering the way in which and rate at which the stock is moved towards or above that level, the Minister must also have regard to any social, cultural, and economic factors the Minister considers relevant. Those factors may inform the choice between TAC options that are assessed as meeting section 13(2A), but they cannot justify TACs that would be inconsistent with moving the stocks towards or above levels capable of producing maximum sustainable yield.

277. FNZ considers that section 13(2A) is the appropriate pathway for eastern and western tarakihi for the reasons set out above in Part 1 in the executive summary and in Part 2 under '*Application of section 13(2A) vs section 13(2)(b) for TAC changes*'. In summary, due to substantial uncertainty regarding the influence of environmental changes on changes in productivity for these tarakihi stocks, it is unclear whether recent low recruitment reflects a temporary state that may improve as fishing pressure is reduced, or a more persistent change in productivity, and this creates substantial uncertainty as to what biomass levels would produce MSY from these stocks.

278. Notwithstanding this uncertainty, the best available information shows a clear need for action. Eastern tarakihi is assessed as severely depleted and overfishing is virtually certain to be occurring at current fishing levels. Western tarakihi is in a healthier state than eastern tarakihi but has also declined and overfishing is very likely to be occurring at current fishing levels. The assessment therefore supports management responses that will materially reduce fishing mortality for both assessment areas and help to move the stocks to higher biomass levels.

279. Recent low recruitment, and uncertainty about whether this reflects temporary conditions or a more persistent productivity shift, means FNZ does not consider the default 40% SB_0 reference point should be treated as a determinative statutory estimate of the biomass level that would produce MSY in the current circumstances. However, it remains an important reference point for assessing depletion, overfishing, and the relative risk of different TAC options.

280. Applying section 13(2A) does not allow the Minister to avoid taking action that the best available information indicates is necessary to ensure sustainability in line with the purpose of the Act. The Minister must act on the best available information, including stock status, fishing mortality, recruitment, projections, biological characteristics, environmental conditions, and risk, without deferring action because of uncertainty. Section 10(c) of the Act also requires the Minister to take into account the principle that decision makers should be cautious when information is uncertain, unreliable, or inadequate.

281. Under section 13(2A) the TACs must also be set at a level that the Minister is satisfied is not inconsistent with moving the stock towards or above a level capable of producing MSY.

Use of reference points and best available information

282. The 2026 assessments and associated reference points are key components of the best available information for comparing proposed TAC options. In particular, the default 40% SB_0 target, the 20% SB_0 and 10% SB_0 limit reference points, and the associated $FSB_{40\%}$ target estimates remain important benchmarks for assessing stock status, the extent of overfishing, and the likely effect of different levels of catch reduction.

283. On that information, it is clear that retaining the current TAC and TACC settings would not adequately respond to the assessed stock status, overfishing risk, and uncertainty about future recruitment and productivity. In particular, it would not provide a tenable basis for concluding that the TACs are not inconsistent with the objective of maintaining the stocks at or above, or moving the stocks towards or above, levels that can produce MSY.

284. Because eastern tarakihi is assessed as about as likely as not to be below the default 10% SB_0 hard limit, FNZ has also considered whether closure, or a TAC set at or near zero, should be proposed.

The HSS is non-statutory guidance that sets out a default harvest-strategy framework, including a recommendation that where a stock is below the hard limit, closure should be considered for target fisheries, and that it may also be appropriate to consider curtailment or closure of fisheries that incidentally catch the species concerned.

285. FNZ has taken that guidance into account. However, the HSS does not create a legal rule that a zero or near-zero TAC must be set whenever a stock is assessed as being below, or possibly below, the hard limit. The courts have confirmed that the HSS does not have the force of law and is not a mandatory relevant consideration in every TAC decision. The HSS may contain best available information for the purposes of section 10, but whether it does so, and the weight to be given to it, depends on the information it contains and the extent to which its assumptions apply to the stock and decision being made.

286. In this case, the stock-specific best available information is the 2026 eastern tarakihi stock assessment, the Plenary conclusions, and the projections under different levels of fishing mortality. That information shows that eastern tarakihi is at very low biomass, that overfishing is occurring, and that a strong and timely reduction in fishing mortality is needed. The HSS hard-limit guidance is relevant context for assessing the seriousness of that depletion and for considering whether closure should be proposed. However, the 2026 assessment and Plenary provide the most directly relevant stock-specific information on the likely effect of different fishing mortality levels. That information does not identify a zero or near-zero TAC as necessary. It indicates that TAC reductions will help the stock to recover, and substantial TAC reductions are expected to help the stock to move above the hard limit relatively quickly.

287. All of the TAC options FNZ is consulting on are projected to support movement of the eastern stock towards a level that can produce MSY, and to above the hard limit level within five years. One of these options is a highly restrictive option (Option 3, see Part 2) which is expected to remove most target fishing opportunity and substantially constrain bycatch-related catch. This option is expected to allow the stock to increase above the hard limit after three years. Alongside this FNZ is also consulting on spatial restrictions in tarakihi nursery and juvenile areas which could improve the likelihood and rate of recovery.

288. The best available information indicates that a zero or near-zero TAC is not required to ensure sustainability, meet section 13(2A), or allow the stock to move above the hard limit. However, FNZ invites feedback on that view, including whether a zero or near-zero TAC, additional closures, or other more restrictive measures should be considered.

289. The key question for this section is whether the proposed TAC options would, on the best available information, be not inconsistent with the objective of maintaining eastern and western tarakihi at or above, or moving those stocks towards or above, levels that can produce MSY. That assessment must be made on the best information that is available without unreasonable cost, effort, or time.

Assessment of options under section 13(2A)

290. The proposed options should be understood as different risk positions under section 13(2A). They are not precise rebuild pathways to a fixed target within a fixed period. All options are intended to reduce fishing pressure and support movement of the relevant stocks towards levels capable of producing MSY, but they differ in the level of confidence they provide that overfishing will be addressed and that stock status will improve.

291. FNZ considers that each option is capable of meeting section 13(2A), while recognising that the options involve materially different levels of sustainability risk. Options with greater reductions would provide greater confidence that fishing mortality will be reduced sufficiently, particularly given the eastern stock's very low biomass and uncertainty about future recruitment. Options with smaller reductions would lessen immediate utilisation impacts, but carry greater sustainability risk, especially if recent low recruitment continues. In line with this, there would be a higher relative risk under Option 1 (which proposes smaller catch reductions) compared to Option 2 and 3.

292. Projections are important for comparing options but must be interpreted in light of their assumptions. Projected outcomes are affected by assumptions about future recruitment and productivity, and the outcomes will be more uncertain the further out the projections are. Projections for the next few years are less impacted by these assumptions because they incorporate recent trawl survey data on recruitment. The short-term projections used to compare options provide information about the expected direction of travel under different levels of fishing mortality, and can be used to assess whether each option is likely to reduce overfishing and support movement towards biomass levels capable of producing MSY.

293. FNZ does not propose to rely on possible future decisions as a substitute for setting appropriate TACs now. Monitoring, further assessment work, engagement with tangata whenua and stakeholders, and possible future reviews may support timely reassessment and adaptive management. However, those matters cannot be relied on to make a TAC lawful if that TAC does not itself meet section 13(2A). The Minister must set TACs through this review that, on the basis of the best available information, are not inconsistent with the objective of maintaining the stocks at or above, or moving the stocks towards or above, levels that can produce MSY. A TAC option should only be selected if it would, on the best available information, reduce fishing mortality sufficiently to be not inconsistent with the objective of maintaining the stock at or above, or moving the stock towards or above, a level that can produce MSY**.**

294. Inclusion of an option for consultation does not indicate a final view that the Minister should adopt that option. Rather, FNZ seeks submitters' views on whether each option provides sufficient confidence that the TACs would not be inconsistent with moving the relevant tarakihi assessment areas towards or above levels capable of producing maximum sustainable yield. Submitters are also invited to comment on whether any option should be amended, whether a more restrictive TAC or closure is required, and whether additional supporting measures are needed to reduce fishing mortality and improve the likelihood of stock recovery.

Option 1

295. As discussed above, FNZ's view is that Option 1 is capable of meeting section 13(2A) because it would lower fishing pressure from current levels and support movement of the tarakihi stocks towards levels that can produce MSY. It would allow more short-term fishing activity than the stricter options, so the immediate social and economic impacts on fishers, quota owners, and related businesses would likely be lower. However, it is also worth noting that there would be longer term social and economic benefits from healthy and rebuilt fish stocks, and relative to Options 2 and 3, this option would entail the slowest and least certain recovery.

296. Option 1 carries the highest sustainability risk of the three options proposed. The eastern stock is in a very depleted state, and both eastern and western stocks are still experiencing overfishing. If recent poor recruitment continues, Option 1 gives less confidence than Options 2 and 3 that overfishing will be fully addressed or that biomass will rebuild in the near term. It would also be less cautious with respect to the vulnerable biological characteristics and potential environmental conditions which may be limiting the productivity of these tarakihi stocks (discussed further below within the context of Section 13(2A)(b)).

Options 2 and 3

297. FNZ's view is that Options 2 and 3 would both meet the requirements for changing the TACs under section 13(2A). Options 2 and 3 would cut catches more than Option 1, so they are more cautious in terms of conserving the stock and give greater confidence that overfishing would be reduced and the stocks would move toward more sustainable levels.

298. Option 2 would be a stronger response than Option 1 but would still carry some risk if poor recruitment continues and the stocks recover slowly. Option 3 is the most cautious option. It would reduce fishing pressure the most and gives the highest confidence that the stocks would rebuild toward levels capable of producing maximum sustainable yield, especially given the very poor state of eastern tarakihi. The trade-off is that both Options 2 and 3 would have greater short-term impacts

on fishers, businesses, recreational users, and affected communities, with Option 3 having the greatest immediate effect (see further discussion of this below with respect to section 13(3)).

299. However, these greater short-term impacts may also be offset by long-term economic benefits of rebuilding the stock. If declines are not entirely environmentally driven, rebuilding the stock would allow earlier return to sustainable harvest levels. A rebuilt stock should also support higher catch rates, improving harvesting efficiency and benefitting all fishing sectors.

QMA-level TAC decisions and eastern/western assessment areas

300. The 2026 assessments distinguish between eastern and western tarakihi biological assessment areas. However, TACs and TACCs must be set for quota management stocks. TAR 1 and TAR 7 include areas that contribute to both the eastern and western tarakihi assessment areas. This creates a practical issue for presenting and comparing the options because the biological assessment areas do not align exactly with the legal QMA stock boundaries.

301. For that reason, the paper presents the likely effect of each option on the eastern and western assessment areas for assessment and comparison purposes, while also setting out the proposed TAC, TACC, and allowance changes for each QMA stock. Where the paper refers to reductions for the eastern or western assessment area, those reductions should be understood as an assessment tool to compare the expected effect of the QMA-level settings on the relevant biological assessment area. The legal decisions would remain TAC and allowance decisions for the relevant QMA stocks.

302. This approach is intended to ensure that the proposed QMA-level TACs are informed by the best available biological information. It also helps submitters understand how the proposed TAC and TACC settings for TAR 1, TAR 2, TAR 3, TAR 7, and TAR 8 would respond to the different status and risk profiles of the eastern and western assessment areas.

Section 13(2A)(b) Interdependence of stocks

Interdependence among the QMAs within the east and west tarakihi stocks

303. As explained above, there are two main tarakihi stocks (western and eastern) and the QMAs included in those stocks are connected (i.e. TAR 2, TAR 3 and the eastern portions of TAR 1 and TAR 7 are part of the same stock, and TAR 8 and the western portion of TAR 1 and TAR 7 are part of the same stock). Thus, there are interdependencies among these QMAs, and any TAC changes in one QMA may affect the other QMAs within the same stock. For instance, removals of tarakihi from the TAR 3 area would affect how many fish reach the northeastern QMAs (TAR 1 & 2) to breed and reproduce, and removals from the TAR 1 and TAR 2 would then affect how many larvae are produced and flow back into nursery grounds in TAR 3.

304. The Minister is required to have regard to these interdependencies when considering TAC changes for tarakihi to ensure that any changes will support sustainability across the stocks as a whole. Because of this, as noted above, FNZ has discussed the proposed changes at both the biological stock level and QMA level.

Potential interdependencies between tarakihi and other stocks

305. There is little information available regarding predator/prey interdependencies for tarakihi. What is known is summarised in Appendix 1 under '*Ecology and predator/prey relationships*'.

306. Tarakihi are benthic feeders with a diet generally dominated by small seafloor invertebrates such as polychaetes (worms) and crustaceans but have also been observed to feed opportunistically on pelagic species like krill. Their main predators are likely to be large fish and benthic sharks. However, there is little direct evidence to suggest any interdependencies between tarakihi and any particular prey or predator species.

307. The proposed changes outlined in this paper aim to help the east and west tarakihi stocks to increase in abundance, which could have some effects for their associated prey and predator species. However, any specific impacts of these changes are uncertain due to the lack of available information on trophic interactions for tarakihi across these areas.

308. These potential interdependencies and related uncertainties should be considered when setting the TAC. A more cautious TAC decision (e.g. Option 3) is likely to help tarakihi rebuild in abundance more quickly. This may have positive effects for abundance of some associated species, and negative effects for others. However, it is unclear whether there would be net positive or negative effects for the wider ecosystem from increased tarakihi abundance based on the limited information available.

Section 13(2A)(b) Biological characteristics of the stock

309. Detailed information on the biological characteristics of tarakihi is provided in Appendix 1 under '*Biological characteristics*'.

310. Tarakihi are considered to have low productivity; they are relatively long-lived, slow to mature, and have a low level of natural mortality. Tarakihi also aggregate to spawn, and fishers may target these spawning aggregations in certain areas and at certain times, which could lead to catch rates remaining high even as stock biomass is reduced.

311. These biological features result in tarakihi being less resilient to high levels of fishing pressure compared to many other species, and thus, more caution is warranted for setting management controls for tarakihi.

312. FNZ notes that the east and west tarakihi stock assessments incorporate some of these biological parameters associated with low productivity (e.g. low natural mortality, maximum age, and slow maturity), and so the outputs used to inform this review and TAC options informed by those outputs already have some regard to the biological characteristics of tarakihi.

313. Notwithstanding this, some of the TAC options proposed are more cautious in stock conservation considerations than others (i.e. Option 3 is more cautious than Option 2, and a lot more cautious than Option 1). More cautious TAC settings would have greater consideration of the biological vulnerabilities associated with tarakihi, and this is something the Minister must have regard to in TAC decisions for these stocks.

Section 13(2A)(b) Environmental conditions

314. As noted throughout this paper, there are some significant uncertainties regarding how these tarakihi stocks are being influenced by changing environmental conditions. In particular, there is uncertainty about the magnitude of climate impacts on tarakihi, including how warming waters, marine heatwaves, and changing ocean circulation could be affecting larval survival, recruitment, and overall productivity. It is also unclear how much of the recent recruitment decline for tarakihi stocks is driven by environmental changes versus low spawning stock size versus fishing pressure, and whether these factors may be compounding each other.

315. There is no direct evidence for how environmental conditions may be affecting tarakihi in New Zealand. A negative relationship has been speculated based on observations of poor tarakihi recruitment during warmer periods. Notably, a recent series of marine heatwave events in New Zealand (e.g. 2017–18, 2021–22) coincided with especially poor recruitment for eastern tarakihi. In addition, there have been similar observations in south-eastern Australia where recruitment failures of tarakihi (known there as jackass morwong) have been linked to rising sea temperatures (Wayte 2013).

316. Further information on potential environmental conditions affecting these tarakihi stocks, and on the susceptibility of tarakihi to environmental conditions, is provided below in Appendix 1 under '*Environmental conditions affecting the stocks*'.

317. The Minister must have regard to uncertainty in the potential environmental effects for tarakihi when setting the TACs of the east and west tarakihi stocks, and be cautious when information is uncertain, unreliable, or inadequate. It is anticipated that warming sea surface conditions are likely to increase in future (Behrens et al 2025), so if recruitment is vulnerable to this, then environmental impacts could potentially become more intense.

318. FNZ is proposing options to significantly reduce the TACs of these stocks to help their

biomass to recover. Retaining higher biomass levels is likely to help provide more resilience to the stocks against any negative impacts that could be occurring due to climate change and more frequent marine heatwaves. Lower TAC settings would help biomass to increase more quickly, with more certainty, and could therefore provide more resilience to these potential effects.

Section 13(3) Factors to have regard to in considering the way and rate the stock is moved towards or above B_{MSY}

319. Section 13(3) is relevant to the proposed TAC changes for eastern and western tarakihi because the TACs are being considered under section 13(2A), and the proposed options are directed at moving the relevant tarakihi assessment areas towards or above levels that can produce maximum sustainable yield.

320. Section 13(3) provides that, in considering the way in which and rate at which a stock is moved towards or above a level that can produce maximum sustainable yield under section 13(2A), the Minister must have regard to any social, cultural, and economic factors that the Minister considers relevant.

321. Section 13(3) does not reduce the requirements of section 13(2A). The Minister must still set TACs using the best available information that are not inconsistent with the objective of moving the stocks towards or above levels that can produce maximum sustainable yield. Social, cultural, and economic factors cannot justify TACs that would be inconsistent with that objective.

322. However, where TAC options are assessed as meeting section 13(2A), social, cultural, and economic factors are relevant to the Minister's assessment of the way and rate of movement, including the extent and timing of catch. In practical terms, this means the Minister may consider the relative effects of different legally available options on tangata whenua, customary users, recreational fishers, commercial fishers, quota owners, processors, retailers, consumers, and fishing communities.

323. The relevance and weight of social, cultural, and economic factors must be considered in light of the best available information about stock status and risk. Where a stock is at very low biomass, overfishing is occurring, and recruitment or productivity is uncertain, the Minister's ability to give weight to short-term utilisation impacts is more constrained. In those circumstances, social, cultural, and economic factors may inform the Minister's choice between TAC options that are assessed, on the best available information, as meeting section 13(2A). However, those factors cannot justify selecting an option unless the Minister is satisfied that the TAC would itself be based on the best available information and would not be inconsistent with moving the stock towards or above a level capable of producing maximum sustainable yield. For that reason, the Minister must consider whether the proposed level of fishing mortality, taking account of uncertainty about recruitment and productivity, provides a sufficient basis for that statutory judgment.

324. The 2026 assessments indicate that eastern tarakihi is at very low biomass and subject to substantial overfishing, and that western tarakihi is also below the default management target and subject to overfishing risk. The assessments also identify uncertainty about recent and future recruitment, productivity, and the relationship between fishing pressure, environmental conditions, and stock response.

325. This uncertainty means FNZ cannot precisely predict the long-term way and rate at which the stocks will move towards levels capable of producing maximum sustainable yield under each TAC option. However, the best available information does support a relative comparison of the options.

326. All options presented for consultation are intended to meet section 13(2A) but reflect different risk positions. More cautious options, with larger TAC reductions, would generally be expected to reduce fishing mortality more quickly. This would provide greater confidence that overfishing will be addressed and increase the likelihood that biomass will move towards levels capable of producing maximum sustainable yield. Less cautious options, with smaller TAC reductions, would reduce immediate social, cultural and economic disruptions by enabling greater short-term utilisation and

more managed transition. However, they carry a greater sustainability risk - particularly if recent low recruitment continues or productivity remains lower than historical levels - and provide less certainty of stock response, potentially requiring closer monitoring and further management action if the stocks do not respond as expected.

Cultural importance and tangata whenua interests

327. Tarakihi is a taonga species for tangata whenua. Several Iwi Fisheries Forums have developed plans that include objectives relevant to the management and long-term sustainability of fisheries within their rohe, including tarakihi.

328. The proposed TAC reductions could support the long-term availability of tarakihi for customary use, while also supporting commercial utilisation and economic development opportunities for iwi with fisheries interests. Rebuilding tarakihi abundance would also support the ability of tangata whenua to exercise kaitiakitanga and provide for customary harvest over time.

329. FNZ recognises that customary reporting may be incomplete and that some customary harvest may occur under recreational rules. FNZ seeks input from tangata whenua on whether the proposed customary allowances are appropriate and whether additional measures could better support restoration of tarakihi abundance and customary access.

Effects on recreational fishers

330. Tarakihi is an important recreational species in parts of the eastern and western areas. Reductions to recreational allowances and daily limits would constrain short-term recreational utilisation, particularly for fishers who currently catch tarakihi at higher rates in areas where the species remains accessible.

331. The most recent estimates of recreational tarakihi harvest are significantly below the current allowances, with daily take estimated to be well below current limits (see Appendix 1 for further information). Based on this, the proposed options to reduce recreational allowances and daily limits are unlikely to significantly impact immediate recreational take. However, FNZ acknowledges that as there is more recreational fishing and catch in some areas than others, the proposed options will not have a uniform impact on recreational take among areas. Lower daily limits will be more constraining in areas such as Gisborne and Hawke's Bay where catchability remains higher.

332. However, maintaining higher recreational allowances would not be appropriate if that would prevent the TAC from meeting the Act's sustainability requirements, including the requirement under section 13(2A) that the TAC is not inconsistent with the objective of maintaining the stock at or above, or moving the stock towards or above, a level that can produce MSY. In the longer term, larger TAC reductions may provide benefits for recreational fishers if the TAC changes support increased abundance, improved catchability, and local availability of tarakihi.

333. FNZ seeks feedback on the proposed recreational allowances and daily limits, including whether they appropriately balance short-term recreational access with the need to support stock recovery.

Effects on commercial fishers, quota owners, processors, and associated businesses

334. Tarakihi is an important inshore commercial species, taken both as target and bycatch in mixed-species fisheries. The proposed TACC reductions and deemed value changes would directly impact commercial fishers and quota owners by reducing revenue from tarakihi catch, ACE, and quota. They may also affect revenue from other species if fishing activity changes to avoid tarakihi or where tarakihi catch is has usually been an important component of a vessels catch. Larger TACC reductions may make inshore fishing operations less viable, particularly in areas where tarakihi is difficult to avoid. Fishers could face higher costs from avoiding tarakihi, including from changing fishing locations, methods, or trip planning, as well as increased fuel use. They may also face increased deemed value costs if tarakihi is incidentally caught above available ACE holdings.

335. The impacts of reduced TACCs on employment, both directly in the fishery and indirectly in associated sectors, has not been fully quantified but are likely to be greater under options with larger immediate cuts. Impacts may be felt across the supply chain, including fishers, processors, transport providers, wholesalers, retailers, and communities that rely on inshore fishing.

336. These impacts are relevant social and economic considerations under section 13(3) and may support selecting an option that provides for a more gradual transition, provided that the option still meets section 13(2A). However, they cannot justify TAC or TACC settings that allow for fishing mortality inconsistent with the objective of maintaining the stocks at or above, or moving the stocks towards or above, levels that can produce MSY**.** This reflects the Act's purpose of providing for utilisation while ensuring sustainability. Fishing can only be provided for to the extent it can occur consistently with that sustainability requirement.

337. Rebuilding tarakihi stocks may also deliver longer-term commercial benefits, including higher catch rates, more efficient fishing, greater stability in future catch settings, and stronger market and consumer assurance that tarakihi is being managed sustainably.

Effects on domestic supply and consumers

338. Tarakihi is a popular table fish in New Zealand. Reductions in commercial catch limits are expected to reduce domestic supply in the short term and may increase prices for consumers. This could affect retailers, food service businesses, and consumers who value access to locally caught tarakihi.

339. These are relevant social and economic considerations but must be weighed within the limits of the TAC required to ensure that the stocks are moved towards or above levels capable of producing maximum sustainable yield.

Overall assessment

340. FNZ's preliminary view is that all options consulted on would make meaningful reductions to fishing mortality and support rebuilding eastern and western tarakihi towards biomass levels capable of producing maximum sustainable yield. The options differ in the level of confidence they provide, the likely rate of stock response, and the scale of immediate social, cultural, and economic impacts.

341. The more cautious options would provide greater confidence that fishing mortality is sufficiently reduced, particularly given the assessed status of eastern tarakihi, low spawning stock biomass, low recent recruitment, and uncertainty about productivity. The less cautious options would enable a more managed transition and reduce short-term social and economic impacts but carry higher sustainability risk and may require further management actions if monitoring indicates that fishing mortality has not been reduced sufficiently, or the stocks are not responding as expected.

342. FNZ seeks submissions on the relevant social, cultural, and economic impacts of each option, including whether those impacts support a more gradual or more precautionary way and rate of movement, and whether additional measures could reduce impacts while still meeting section 13(2A) requirements.

Harvest Strategy Standard (HSS)

343. The Harvest Strategy Standard (HSS) and associated Operational Guidelines set out Fisheries New Zealand's general approach to fishery targets, limits, and rebuilding responses for fish stocks managed in the Quota Management System. They provide important fisheries management guidance and may assist in assessing stock status, the seriousness of depletion, the risk associated with different TAC settings, and the scale of management response that may be required.

344. The Supreme Court has confirmed that the Harvest Strategy Standard and Operational Guidelines are not mandatory relevant considerations in every TAC decision and do not have legal effect. However, they may contain best available information for the purposes of section 10 of the Fisheries Act 1996. Their relevance to a particular TAC decision depends on the accuracy of the information they contain and the extent to which their underlying assumptions apply to the stock and decision being made.

345. As discussed above, the default 40% SB_0 target, the 20% SB_0 soft limit, the 10% SB_0 hard limit reference points are all important for assessing depletion and the relative risk of the proposed TAC options. These are the default reference points recommended under the HSS.

346. The 2026 assessments indicate that both eastern and western tarakihi are below the default 40% SB_0 reference point and are subject to overfishing at current fishing levels, and FNZ is proposing TAC changes which aim to reduce fishing mortality and support movement of the stocks towards levels capable of producing MSY.

347. The eastern stock raises a more serious issue because it is assessed as about as likely as not to be below the default HSS hard limit of 10% SB_0. The HSS states that, where a stock is below the hard limit, closure of the fishery should be considered. More specifically, it notes that where a stock is below the hard limit, closure should be considered for target fisheries, and that it may also be appropriate to consider curtailment or closure of fisheries that incidentally catch the species concerned. This recommendation reflects the higher risk associated with severely depleted stocks, including the possibility that reproductive capacity may be impaired, and that continued or further depletion may increase the risk of poor recovery.

348. FNZ has therefore considered whether closure, or a TAC set at or near zero, should be proposed for eastern tarakihi in this review. Closure would provide the greatest immediate reduction in fishing mortality and the highest level of confidence that fishing pressure would not impede rebuilding.

349. The Plenary does not identify a zero or near-zero TAC as necessary to move the stock in the required direction or to ensure its sustainability. Rather, it provides projections comparing current catch settings with substantial reductions in fishing mortality, including reductions to $FSB_{40\%}$. Those projections suggest that biomass will increase if fishing mortality is reduced toward $FSB_{40\%}$. While the stock would remain well below the default 40% SB_0 reference point over the five-year projection period, all three of the options FNZ is proposing are expected to move eastern tarakihi to or above its hard limit reference point in the next 5 years.

350. FNZ is proposing a highly restrictive option (Option 3, see Part 2) which would reduce eastern tarakihi catch limits by around 80%, rather that proposing an option to set the TACs at or near zero. This option is expected to remove most target fishing opportunity (refer Figure 9), while requiring substantial avoidance of tarakihi bycatch where practicable. The extent to which any target fishing could continue would differ by QMA and would depend on fisher behaviour, ACE prices, bycatch avoidance, and deemed value incentives. Short-term projections indicate this option would allow the eastern tarakihi stock to increase above the hard limit in three years.

351. In addition to this option which would effectively close target fishing for tarakihi, FNZ is consulting on potential closures of tarakihi nursery and juvenile areas across the east coast. Restrictions on fishing in any of these areas would provide further precaution against biological or ecological risks to the stock from fishing.

352. FNZ considers that consulting on these measures aligns with the intent of the HSS recommendation to consider closure, while recognising that a full closure or zero TAC is not required where the best available information supports other TAC options as capable of meeting the statutory test.

353. Section 13(2A) requires the Minister to set TACs using the best available information that are not inconsistent with the objective of maintaining the stocks at or above, or moving the stocks towards or above, levels that can produce MSY. Section 13(5) allows a TAC to be set at zero where that is required, but the Act does not require a zero TAC solely because a stock is assessed as being below, or possibly below, a default HSS hard limit.

354. The statutory question is whether the TAC would reduce fishing mortality sufficiently, on the best available information, to be not inconsistent with the objective of maintaining the stock at or above, or moving the stock towards or above, a level that can produce MSY. Applying that test, FNZ does not consider that a zero or near-zero TAC is required for consultation in this review. The best available information supports substantial and timely reductions in fishing mortality but indicates that positive TAC options are capable of meeting the requirements of section 13(2A). The proposed options for eastern tarakihi would all substantially reduce TACs, TACCs and allowances from current settings, with Option 3 expected to remove most target fishing opportunity and substantially constrain bycatch-related catch.

355. Option 3 would provide the highest level of confidence in ensuring sustainability and promoting recovery of the stock quickly from depleted levels short of a zero or near-zero TAC, because it is expected to remove target fishing and constrain catches to below recent bycatch levels. Less restrictive options would provide for greater continued utilisation and lower immediate social, cultural, and economic impacts, but would carry greater sustainability risk and provide less confidence that fishing mortality has been reduced sufficiently.

356. FNZ has also considered whether the ecological role of tarakihi provides a separate basis for proposing a zero or near-zero TAC. The available information identifies eastern tarakihi as being at very low biomass and supports a strong response to reduce fishing mortality. However, it does not identify a specific ecosystem-function threshold, predator-prey effect, or other ecosystem impact that would require a zero or near-zero TAC in place of substantial reductions in catch limits and potential spatial measures.

357. The absence of a specific ecosystem-function threshold does not remove the need to assess the proposed TACs and supporting measures against the Act's wider sustainability requirements. For TAC-setting, the statutory question remains whether the TACs are based on the best available information and are not inconsistent with the objective of maintaining the stock at or above, or moving the stock towards or above, a level that can produce MSY. The broader assessment also needs to consider relevant ecosystem matters, including the effects of fishing on associated or dependent species, biological diversity, habitat of particular significance for fisheries management, and the aquatic environment.

358. FNZ invites submitters to comment on these views, and whether a zero or near-zero TAC, more restrictive closures, or any other more restrictive measures should be considered in light of the recent assessment for eastern tarakihi. If submissions or further information materially alter FNZ's assessment, further targeted consultation may be appropriate before final decisions are made by the Minister.

Kaitiakitanga

359. Before making decisions on sustainability measures, under section 12(1)(b) of the Act the Minister is required to provide for the input and participation of tangata whenua, and in doing so must have particular regard to kaitiakitanga[12] (section 12(1)(b)(ii)). Information provided by forums, and iwi views on the management of fisheries resources and fish stocks, as set out in Iwi Fisheries Plans, are ways that tangata whenua can exercise kaitiakitanga in respect of fish stocks.

Eastern tarakihi

360. Of the iwi forums with rohe moana in the eastern tarakihi area, Iwi Fisheries Plans have been developed by Te Waka a Māui me Ōna Toka (South Island), Mai I Ngā Kuri a Whārei ki Tihirau (Bay of Plenty), Nga Hapu o Te Uru (Waikato), and Te Hiku o te Ika (Far North). All of these forum plans identify tarakihi as a taonga species. FNZ has summarised the objectives specified within the plans of these forums in Table 7 below.

361. Nga Hapu o Ngāti Porou (East Cape) has not developed an Iwi Fisheries Plan, but the hapu affiliated with Nga Rohe Moana o Ngā Hapū o Ngāti Porou have developed management plans, and 10 of 11 hapu have listed tarakihi as a taonga species.

Table 7: Summary of management objectives from Iwi Fisheries Forum and Iwi fisheries plans, which are relevant to the review of eastern tarakihi.

Iwi Fisheries Forum	Relevant Management Objectives contained in plan
Te Waka a Māui me Ōna Toka (South Island)	• Create thriving customary non-commercial fisheries that support the cultural wellbeing of South Island iwi and our whānau; • Develop environmentally responsible, productive, sustainable and culturally appropriate

[12] The Fisheries Act defines kaitiakitanga to mean "the exercise of guardianship; and, in relation to any fisheries resources, includes the ethic of stewardship based on the nature of the resources, as exercised by the appropriate tangata whenua in accordance with tikanga Māori", where tikanga Māori refers to Māori customary values and practices.

Iwi Fisheries Forum	Relevant Management Objectives contained in plan
	commercial fisheries that create long-term commercial benefits and economic development opportunities for South Island iwi; and • Restore, maintain and enhance the mauri and wairua of fisheries throughout the South Island.
Mai I Ngā Kuri a Whārei ki Tihirau (Bay of Plenty)	• Iwi fisheries management activities support the growth and wellbeing of our people; • Iwi are actively engaged with others to increase their potential within environmental limits; and • The fisheries environment is healthy and supports a sustainable fishery.
Nga Hapu o Te Uru (Waikato)	• Support and help deliver the fisheries plan's vision to 'preserve, sustain and enhance the fisheries me ona tikanga', and deliver a key outcome/objective which is to ensure that the 'Fishery and its environment is healthy and sustainable'.
Te Hiku o te Ika (Far North)	• objectives to support and provide for the interests of iwi in the far north. The management options proposed for tarakihi support and help deliver the fisheries plan's objectives.

Western tarakihi

362. For iwi with interests in western tarakihi, Iwi Fisheries Plans have been developed by four Iwi forums; Te Hiku o Te Ika, Ngaa Hapuu o Te Uru o Tainui, Te Tai Hauāuru and Te Waka a Māui me Ōna Toka.

363. The Mid-North West Iwi Forum are currently developing an Iwi Fisheries Plan.

364. The Plans regard all species as taonga, and the plans of Te Hiku o Te Ika, Ngā Hapū o Te Uru o Tainui and Te Waka a Māui me Ōna Toka explicitly list tarakihi as a taonga species.

365. In Table 8 below, FNZ has summarised the objectives specified within these plans.

Table 8: Summary of management objectives from Iwi Fisheries Forum and Iwi fisheries plans, which are relevant to the review of western tarakihi.

Iwi Fisheries Plan	Relevant Management Objectives contained in plan
Te Hiku o Te Ika Iwi Fisheries Plan	Outcome area 1: Te Hiku's fisheries management decisions and directions reflect a strong leadership. Outcome area2: Fisheries are developed and used in a manner that gains best value for Te Hiku iwi and hapu. Outcome area 3: The fisheries environment supports a healthy fishery.
Ngā Hapū o Te Uru o Tainui Forum Regional Customary Fisheries Management Plan (Waikato)	Outcome Area 1: Ngaa Hapuu o Te Uru kaitiaki are able to participate in and influence fisheries decision-making. Outcome Area 2: Relationships and partnerships with key stakeholders, managers and agencies are established and maintained. The forum generally considers all fish and shellfish species to be taonga (treasures).
Te Tai Hauāuru Iwi Fisheries Plan (Taranaki to Titahi Bay)	1. Our customary non-commercial fisheries are healthy, sustainable and supports the cultural wellbeing of Te Tai Hauāuru iwi. 2. Our commercial fisheries are sustainable and support the economic wellbeing of Te Tai Hauāuru iwi. 3. Mana and rangatiratanga over our fisheries is restored, preserved and protected for future generations. 4. Iwi collaborate in fisheries and environmental resource management to achieve iwi driven objectives.
Te Waka a Māui me Ōna Toka Fisheries Forum Plan	• To create thriving customary non-commercial fisheries that support the cultural well-being of South Island iwi and our whānau. • South Island iwi are able to exercise kaitiakitanga. • Develop environmentally responsible, productive, sustainable, and culturally appropriate commercial fisheries that create long-term commercial benefits and economic development opportunities for South Island iwi.

366. FNZ considers that the management options proposed in this paper are generally consistent with objectives of the above plans relevant to tarakihi on the east and west coasts. The catch limit options all aim to ensure the sustainable utilisation of tarakihi and the long-term economic wellbeing and prosperity for iwi that would be associated with healthy and sustainable fisheries for tarakihi. The supporting measures aim to further support recovery of tarakihi by managing fishing impacts on critical nursery habitat and protecting key life-cycle stages.

367. FNZ recognises that there is a risk of immediate negative impacts on social and economic wellbeing for some iwi as the result of the proposed changes, and that tangata whenua may have different views on what management options best align with their aspirations for the fishery and their ability to exercise kaitiakitanga with respect to tarakihi. Some Iwi Fisheries Forums have already provided feedback in response to the proposed changes, summarised above in Part 4 under '*Input and participation of tangata whenua*'.

368. FNZ welcomes feedback from tangata whenua on the above views and on which proposed options (if any) best align with their plans and aspirations for these tarakihi stocks.

Mātaitai reserves and other customary management tools

369. 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.

Eastern tarakihi

370. There are 30 mātaitai reserves and eight taiāpure within the eastern tarakihi area (Table 9). Outside of the broad prohibition on commercial fishing activity within mātaitai reserves, none of these customary management areas have any specific restrictions on the taking of tarakihi.

Table 9: Mātaitai reserves and other customary management tools that apply in the eastern tarakihi area.

Customary area		Management type
Te Puna Mātaitai	Whakaraupō Mātaitai	**Mātaitai reserve** Commercial fishing is not permitted within mātaitai reserves unless regulations state otherwise.
Te Maunga o Mauao Mātaitai	Rapaki Bay Mātaitai	
Te Rae o Kohi Mātaitai	Koukourārata Mātaitai	
Raukokere Mātaitai	Wairewa Mātaitai	
Te Kopa o Rongokānapa Mātaitai	Te Kaio Mātaitai	
Te Tapui Mātaitai O Hakihea	Ōpihi Mātaitai	
Horokaka Mātaitai	Waitarakao Mātaitai	
Toka Tāmure Mātaitai	Te Ahi Tarakihi Mātaitai	
Te Hoe Mātaitai	Tuhawaiki Mātaitai	
Moremore Mātaitai	Waihao Mātaitai	
Te Waha o te Marangai Mātaitai	Moeraki Mātaitai	
Mangamaunu Mātaitai	Waikouaiti Mātaitai	
Kahutara Mātaitai	Ōtāhau Mātaitai	
Oaro Mātaitai	Puna-wai-Tōriki Mātaitai	
Tūtaeputaputa Mātaitai	Waikawa Harbour Mātaitai	
Waikare Inlet Taiāpure	Te Taumanu o Te Waka a Māui Taiāpure	**Taiāpure** All types of fishing are permitted within a taiāpure. The management committee can recommend regulations to manage commercial, recreational, and customary fishing.
Maketu Taiāpure	Oaro-Haumuri Taiāpure	
Porangahau Taiāpure	Akaroa Harbour Taiāpure	
Palliser Bay Taiāpure	East Otago Taiāpure	

Western tarakihi

371. There are 13 mātaitai reserves, three taiāpure and one temporary closure within the western tarakihi area (Table 10). Outside of the broad prohibition on commercial fishing activity within mātaitai reserves, none of these customary management areas have any specific restrictions on the taking of tarakihi.

Table 10: Mātaitai reserves and other customary management tools that apply to western tarakihi.

Customary area	Management type
Te mataitai o Te Hikutu, Aotea Harbour, Marokopa, Te Tai Tapu (Kaihoka), Te Tai Tapu (Anatori), Mikonui, Okarito Lagoon, Manakaiaua/ Hunts Beach, Mahitahi/ Bruce Bay, Paringa, Tauparikaka, Popotai Taumaka, Okuru/ Mussel Point, Ōkahu, Tauneke	**Mātaitai reserve** Commercial fishing is not permitted within mātaitai reserves unless regulations state otherwise.
Waka-te-haua, Kawhia Aotea, Whakapuaka (Delaware Bay)	**Taiāpure** All types of fishing are permitted within a taiāpure. The management committee can recommend regulations to manage commercial, recreational, and customary fishing.
Western Taranaki Temporary Closure - Western Taranaki closed in respect of all shellfish (except rock lobster), all seaweed (except beach cast seaweed), all sea anemones, all stingrays, and conger eel species.	**Temporary closures** 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.

372. The aim of the proposed measures in this paper is to promote recovery of tarakihi and ensure take of tarakihi throughout the eastern and western QMAs remains sustainable. The specific impacts of this for these areas is uncertain, but there may be some benefits for local abundance of tarakihi in these areas if overall stock abundance increases following the implementation of the proposed measures.

Initial assessment against section 9 of the Act

373. Table 11 below outlines FNZ's assessment of the proposed options for eastern and western tarakihi against the environmental principles in section 9 of the Act, which the Minister must take into account when making decisions on sustainability measures. This assessment has been informed by FNZ's knowledge of the current environmental impact of this fishery, which is summarised below and supported by more detailed information in Appendix 1 (See *'information on environmental impacts'*).

Table 11: Initial assessment of the proposed changes for Tarakihi under section 9 of the Act.

Associated or dependent species should be maintained above a level that ensures their long-term viability - Section 9(a) of the Act
374. Most catch of tarakihi across both the east and west coasts is taken in inshore bottom trawl fisheries. For eastern tarakihi lesser amounts are taken in northern bottom longline fisheries and the East Coast South Island tarakihi setnet fishery. 375. These fisheries interact with a range of associated and dependent species including marine mammals, seabirds, sharks and turtles. Some key risks for associated and dependent species from these tarakihi fisheries include: • Hector's dolphin interactions in the southern mixed trawl fisheries that catch tarakihi, and bottlenose dolphin interactions across both east and west coasts (both dolphins are identified as threatened under the New Zealand Threat Classification System (NZTCS)). • Interactions with black petrels (NZTCS – threatened) particularly in the north-east bottom long-line snapper and tarakihi fishery. • Interactions with white-pointer sharks (NZTCS – threatened), particularly in the northern (FMA 1 & FMA 9) trawl and longline fisheries that catch tarakihi. • Captures of royal albatrosses and Salvin's albatrosses in the TAR 3 trawl and setnet fisheries. 376. The TAC and spatial measures proposed in this review are likely to result in significant reductions in effort in the fisheries where tarakihi is caught, which is likely to result in fewer interactions with

associated and dependent species in those fisheries. FNZ acknowledges, however, that the proposed reductions could also cause a shift in effort away from areas where tarakihi is abundant and into other areas, which could result in more or different interactions with associated and dependent species in other areas. This is uncertain and difficult to predict; however, it is possible there may be a net reduction in effort despite potential changes in fishing behaviour.

377. While there is general uncertainty as to what level of interactions may occur based on the changes proposed in this paper, FNZ believes the proposed changes for eastern and western tarakihi are not inconsistent with the aim of maintaining the long-term viability of associated or dependent species.

378. There are a range of government and industry initiatives in place to help avoid and mitigate threats from fishing to protected and high-risk species (discussed in Appendix 1 under '*protected species mitigations*'). FNZ will continue to use risk assessments and verified fisheries data to monitor risks to protected species, and in line with this principle, will take actions where needed help avoid and mitigate fishing impacts on the long-term viability of associated and dependent species.

Biological diversity of the aquatic environment should be maintained - Section 9(b) of the Act

379. As noted above, most catch of eastern and western tarakihi is taken in bottom trawls targeting a range of inshore species. These bottom trawl fisheries interact with the seabed and the associated benthic environment. This may lead to the disturbance or loss of some benthic habitat and in turn a reduction in biodiversity.

380. Bottom trawling impacts benthic habitats, with effects varying by habitat type. Biogenic habitat, such as sponge gardens and bryozoan thickets, are likely to incur physical destruction of structures and reduction or loss of associated biodiversity and can be slow to recover. Trawling of soft sediment habitats can result in disturbance and compaction of sediment, loss of habitat structure (e.g. burrows), changes in species composition (favouring opportunistic species), and altered biogeochemistry.

381. Trawl fisheries, targeting different species, may operate in the same area or within the distribution range of the same benthic communities. The effects of trawling are not isolated to individual events or fisheries, instead, they accumulate across space and time. Therefore, assessing the ecological effects of trawling must consider the totality of trawl effort—including all fisheries operating in a region, both current and historical.

382. Protecting nursery and juvenile aggregation areas would reduce fishing pressure on seafloor communities, including corals, sponges and bryozoans in those areas; however, there is considerable uncertainty about where fishing activities could be displaced to, and what interactions might occur in those areas. Displacement is uncertain and difficult to predict.

383. More information about trawling impacts and invertebrate bycatch in the eastern and western tarakihi fisheries is provided in Appendix 1 under '*Trawling impacts and invertebrate bycatch*'.

Habitat of particular significance for fisheries management should be protected - Section 9(c) of the Act

384. FNZ is currently undertaking a process to review evidence of habitats of particular significance for fisheries management (HoPS) through science working groups. At present there is a register of known HoPS, a list of potential HoPS, and list of areas we are reviewing to determine if they will be considered further as HoPS. In addition, we are assessing risks to these habitats, including those posed by fishing activity. Some areas previously proposed as HoPS comprise the tarakihi nursery areas presented here as spatial measures to support the recovery of the east and west coast tarakihi stocks.

385. Trawling can directly impact benthic habitats, particularly where it occurs outside of existing trawl footprints and in areas with three-dimensional habitats. Research has characterised New Zealand's benthic environment and levels of fishing impacts in the Aquatic Environment and Biodiversity Annual Review (Fisheries New Zealand, 2021).

386. Decreasing the TAC for tarakihi, mitigating impacts on tarakihi nurseries, and reducing or preventing catch in juvenile aggregation areas may displace effort to other areas and to other stocks. In turn, this may change the risk of adverse effects on other HoPS and potential HoPS. In particular, displaced trawling may present a risk to habitat function where HoPS and potential HoPS are characterised by three-dimensional habitat. Relevant, known areas are discussed here, arranged by tarakihi management area, with additional detail in Appendix 1.

387. **TAR 1**: A HoPS at Cradock Channel in the Hauraki Gulf is a spawning HoPS for snapper, and the habitat is the water column. We consider the risk presented by TAC changes for tarakihi within this HoPS is very low, given:

- we have no evidence that trawling adversely effects the water column,
- that tarakihi are not the target catch, and
- that only very small quantities of tarakihi are taken at the moment.

The proposed spatial measures are not expected to adversely affect the function of this area as a snapper spawning HoPS.

388. **TAR 2**: HoPS at Clive Hard and Wairoa Hard have three-dimensional habitats on the seafloor that provide a nursery function for various fish species. Both areas are protected from fishing activities which could otherwise present a risk to HoPS function by various regulations, with the exception of small vessels (<13.5 m) which can trawl at Clive Hard. Based on the last five years of fishing, risk to this HoPS from fishing events in which tarakihi are taken is very low. The proposed spatial measures are not expected to adversely affect the nursery function of this area.

389. An important spawning area for tarakihi and blue moki is known from Cape Runaway to Mahia; this area may be a potential HoPS. The characteristics of the habitat needed for spawning for these species are not known and so the likelihood of an adverse effect of fishing on the habitat has not been estimated.

390. **TAR 3**: Four areas previously identified as potential HoPS on the east coast of South Island are included as tarakihi nurseries in the spatial measures intended to support recovery of the east coast tarakihi stock. One of these, the Hay Paddock, appears to be diminishing in areal extent as a consequence of disturbance from bottom trawling (Fisheries New Zealand 2024), and closing the area to bottom impacting methods would protect the remaining habitat and reduce the risk of further disturbance. The other nursery habitats in TAR 3 are:

- just north of the Waitaki River Mouth,
- in the middle of the Canterbury Bight south of Banks Peninsula, and,
- an area in deeper water in Pegasus Bay.

391. FNZ has investigated the risk of adverse effects from fishing for the function of these areas as tarakihi nursery and considers that measures to mitigate effects may support the rebuild of the east coast tarakihi stock.

392. The juvenile area “North Otago Canyons” included in the spatial measures partially overlaps the Hay Paddock nursery area. Similarly, the Pegasus and Hurunui Canyons juvenile area partially overlaps the Pegasus Bay nursery. These spatial measures are close to other potential HoPS, particularly for elephant fish:

- close inshore from Banks Peninsula – Timaru,
- inshore in Pegasus Bay,
- inshore in Blueskin Bay.

393. The egg-laying habitat is thought to be at relatively low risk of adverse effects from fishing for tarakihi, both due to its shallow, soft-sediment structure and because only very small amounts of tarakihi have been taken in these areas in the last five years. It is possible that protecting tarakihi nurseries and juvenile areas may displace fishing into this area, and monitoring will be ongoing.

394. Displacement of effort into a potential nursery HoPS for blue cod on Otago Shelf, resulting from spatial measures proposed here, is considered to be unlikely. The habitat comprises various

bryozoans, sponges, molluscs, and tube worms so is considered sensitive to fishing methods that impact the seafloor. Part of this area will be protected by a marine reserve, and the wider area of this habitat type is generally avoided by trawl fishers.

395. **TAR 7 (West)**: Spatial measures proposed here to support the recovery of the west coast tarakihi stock in could displace effort into potential nursery HoPS for snapper and blue cod.

396. Specifically, snapper nurseries inshore in Tasman and Golden Bays, and juvenile blue cod habitat at Chetwode Bank (an area between Rangitoto ki te Tonga/ D'Urville Island and the Chetwode Islands) are under consideration as HoPS. FNZ is investigating the risk of adverse effects from fishing for these areas, and whether measures to mitigate these effects are necessary. In particular, the proposal to close a partially overlapping area to trawling ("Chetwode juvenile area") may displace fishing pressure and close monitoring will be necessary.

Initial assessment against section 11 of the Act

397. Section 11 of the Act sets out various matters that the Minister must take into account (sections 11(1) and 11(2A)) or have regard to (section 11(2)) when setting or varying sustainability measures such as the proposed TAC changes. The matters relevant to this review under section 11 are set out below.

Table 12: Initial assessment of the proposed changes for Tarakihi under section 11 of the Act.

The Minister must take into account:
Effects of fishing on any stock and the aquatic environment – section 11(1)(a)
398. "Effect" is defined widely in the Act.[13] The direct effects of fishing for eastern and western tarakihi need to be considered, as well as the indirect effects of this fishing on other species and the surrounding ecosystem. 399. Information relevant to the direct effects of fishing for tarakihi is described throughout this paper, particularly within Part 1 under '*new information and context*' and Part 2 in the analysis of proposed catch limit options. The effects of both eastern and western tarakihi for interdependent species and the aquatic environment are considered above in Tables 6 and 11, with more supporting detail and background provided in Appendix 1. 400. The magnitude of the effects of these fisheries on associated species and the environment will vary depending on the catch limits, deemed value rates and other management controls which may affect catches in both eastern and western tarakihi. There is potential for greater effects to occur under higher catch limits and lower deemed value rate settings, and this is something the Minister must take into account in decisions on these measures. 401. Tarakihi is predominantly caught by trawl vessels. Trawling can disturb benthic environments, reduce habitat complexity, increase homogenisation and stir up sediment (Mattern et al., 2013; Thrush and Dayton, 2002) (refer Table 11 above). 402. In addition to the catch limits and other direct controls in place for eastern and western tarakihi, there are several other measures which restrict fishing in the tarakihi QMAs for both stocks. These are described below under '*existing controls*' and above under '*Potential habitats of particular significance for fisheries management*'. FNZ is also consulting on further spatial measures in eastern and western tarakihi areas which are likely to impact the effects of fishing on these stocks (refer to Part 3).
Existing controls that apply to the stock or area – section 11(1)(b)

[13] Section 2(1) of the Act defines "effect" to mean the direct or indirect effect of fishing, and includes any positive, adverse, temporary, permanent, past, present, or future effect. It also includes any cumulative effect, regardless of the scale, intensity, duration, or frequency of the effect, and includes potential effects.

403. The current catch limits (TACs, allowances, TACCs), deemed value rates, and recreational daily limits that apply to eastern and western tarakihi are presented above in Part 2, and customary tools of relevance to both tarakihi stocks are described above in Tables 9 and 10.

404. Other controls which apply to fishing of eastern and western tarakihi include:

- **A Minimum legal size of 25 cm**. Any tarakihi below this size must be returned to the sea and, since the introduction of electronic reporting in 2019, fishers must record an estimate of the quantity of undersize tarakihi returned for each fishing event where undersize tarakihi is caught (noting fishers have been voluntarily doing this since 2018).
- **Commercial method restrictions.** There are a number of general restrictions that apply to commercial trawling and set netting defined under commercial regulations. For trawling of this includes a minimum trawl mesh size of 100 mm to allow escape of undersize fish.
- In 2020, as part of the Hector's and Māui Dolphin Threat Management Plan, a number of measures were introduced to strengthen the protection of Hector's and Māui dolphins and reduce the risk of capture that overlap with eastern and western tarakihi. This includes broader closures for set netting (both commercial and recreational) and extending the area closed to bottom trawling. On the west coast setnet prohibition extends from Cape Reigna to Awarua Point (excluding Marlborough Sounds) and on the southeast coast of the South Island (FMA 3). Trawl restrictions extend from Maunganui Bluff to the Waiwhakaiho River in the North Island and from Cape Jackson to Slope Point on the South Island.
- **Protected species mitigation measures.** There are fishing related mortality limits for Maui and Hector's dolphins and several seabird mitigation requirements defined in circulars which apply in tarakihi fisheries. These are described in Appendix 1 under '*Protected species mitigations*'.

405. All fishing is prohibited in areas off Great Barrier Island, Hauraki Gulf, Kawau Island, Whangaparaoa Peninsula, Muriwai Beach, Taharoa, Cook Strait, Oaonui, Hawke Bay and Maui A/Maui B to protect submarine telecommunication/electrical cables, iron sand mining infrastructure and petroleum installations.[14]

406. While not relevant under this part of the Act, there are a range of other management controls that commercial fishers follow on a voluntary basis. These are discussed below in this table under '*non-mandatory relevant considerations*'.

The natural variability of the stock – section 11(1)(c)

407. Although tarakihi exhibit high inter-annual variability in annual recruitment, the natural variability of tarakihi populations is generally low because they have a low rate of natural mortality[15], long lifespan, low level of intrinsic productivity, and there are many age classes in the population.

408. These features suggest tarakihi is less resilient to high levels of fishing pressure compared to other species with naturally higher productivity, and thus, more caution is warranted for setting management controls for tarakihi fisheries. It is worth noting, however, that the stock assessments used for both eastern and western tarakihi incorporate the above biological parameters associated with low productivity.

409. The assessment outputs that have been used to inform this paper represent the best available science, not a cautious approach to the science. FNZ has presented some options for TAC, deemed value rate, and recreational daily limit settings that would be more cautious, and these options are available to the Minister if they consider further caution is needed in light of both eastern and western tarakihi's low natural variability.

[14] FNZ notes that these closures are outside of the Act, but are relevant existing controls.

[15] The tarakihi stock assessments assume a natural mortality (M) value of 0.1. This means that approximately 10% of the fish population would die from natural causes each year if no fishing occurred.

Fisheries plans, and conservation and fisheries services – section 11(2A)

National Inshore Finfish Fisheries Plan (2022)

410. The National Inshore Finfish Fisheries Plan provides strategic direction and an overarching (5-year) framework for management of inshore finfish fisheries. Stocks in Group 1 stocks are managed using fully quantitative assessments and given their high value, they are intended to be managed in a way that optimises the level of use while mitigating increased sustainability risks due to fishing pressure. The QMAs that make up eastern tarakihi are assessed as a single biological stock and are listed in Group 1 of the plan. While TAR 8 is not currently listed in Group 1, this year's full quantitative stock assessment of western tarakihi means it now fits under the Group 1 stock definition.

411. Under the inshore finfish plan the eastern tarakihi stocks fall within several fishery stock complexes, including the FMA 1 (Auckland East) mixed trawl and bottom longline fishery, the FMA 2 (Central East) mixed trawl fishery, the FMA 3 (South Island East Coast) mixed trawl fishery, the FMA 7 (South Island West Coast) mixed trawl fishery, the FMA 8 (Central West) mixed trawl fishery and FMA 9 (Auckland West) mixed trawl and bottom longline fishery. Fishery stock complexes account for the interrelationships between multiple fish stocks caught in combination and the fishing activity itself. Stocks that are grouped together should be managed in a coordinated and integrated manner. The complex approach shifts the focus from managing stocks independently and instead takes account of multiple fish stocks and recognises that management actions for one stock will also have implications for the associated stocks.

412. In this review there are a number of measures proposed which will constrain fishing for eastern and western tarakihi, and these changes will also impact the wider fishery complexes those stocks are part of. It is likely that significantly constraining catch of tarakihi will also significantly constrain catch of some other species in these complexes. However, the magnitude of these impacts is uncertain and will depend on the degree to which fishers can avoid tarakihi while catching those species.

413. It is important to note that regardless of potential impacts for these complexes, the Minister is ultimately required to take actions to ensure sustainability of eastern and western tarakihi.

Hauraki Gulf Fisheries Plan (2023)

414. The Hauraki Gulf Marine Park lies within the east portion of TAR 1. The Hauraki Gulf Marine Park Act (discussed further below in this table) and Hauraki Gulf Fisheries Plan are therefore relevant to the management of tarakihi within this area.

415. The Hauraki Gulf Fisheries Plan has three desired outcomes:
(1) Healthy, functioning aquatic ecosystems that support sustainable fisheries;
(2) Fisheries resources are at levels which meet the needs of Treaty partners and stakeholders; and
(3) Inclusive and integrated regional participation in the governance of fisheries.

416. There are various objectives and actions associated with these outcomes, and some of these are relevant to this review of tarakihi. In particular, the objective to ensure all harvested stocks of wild marine species (at the QMA level) are at or above target level, and the objective to address localised depletion of fisheries resources within the Hauraki Gulf.

417. FNZ considers that all of the proposals in this review are generally consistent with these objectives in that they all intend to help eastern tarakihi recover to its target and to reduce fishing pressure on tarakihi, which may have benefits for abundance of tarakihi throughout the QMAs (including TAR 1). FNZ notes that this review includes some more cautious options which would provide a greater certainty in meeting these objectives, but with greater impacts for short-term utilisation of tarakihi.

Fisheries and conservation services

418. Fisheries and conservation services of significance have been described throughout this paper where relevant. Fisheries services of relevance include the fully quantitative assessment and science inputs used to monitor abundance of tarakihi (detailed in the Fisheries Assessment Plenary) and the tools used to enforce compliance with management settings in its associated fisheries.

419. Onboard cameras have been operating across most of the inshore trawl fleet and set net vessels that catch tarakihi since 2024. This provides a high degree of confidence in the accuracy of the reported data from these fisheries.

420. FNZ is not aware of any conservation services that specifically relate to tarakihi, or any decisions not to require conservation services or fisheries services.

The Minister must have regard to:

Relevant statements, plans, strategies, provisions, and documents - section 11(2)

Regional plans:

- There are 9 Regional Councils (Northland Regional Council, Waikato Regional Council, Taranaki Regional Council, Horizons Regional Council (Manawatu-Wanganui Region), Hawkes Bay Regional Council, Greater Wellington Regional Council, Environment Canterbury, Otago Regional Council and West Coast Regional Council and 5 Unitary authorities (Auckland Council, Gisborne District Council, Marlborough District Council, Nelson City Council, Tasman District Council) that have coastline within the boundaries of eastern and western tarakihi. Each of these regions have policy statements and plans to manage the coastal and freshwater environments, including terrestrial and coastal linkages, ecosystems and habitats.
- FNZ considers that the proposed management options for eastern and western tarakihi presented in this paper are consistent with the objectives of all of these plans, which are for the most part, of a general nature and focus mostly on land-based stressors on the marine environment. There is nothing specific to the tarakihi stocks. FNZ has reviewed these documents and the provisions that might be considered relevant can be found on FNZ's website at: https://www.mpi.govt.nz/dmsdocument/57115-Regional-plan-provisions-and-policy-statements.

Hauraki Gulf Marine Park Act (HGMPA)- section 11(2)(c)

421. Section 11(2)(c) of the Fisheries Act 1996 requires the Minister to have regard to sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000 when varying measures of stocks intersecting with the park. While there is little commercial fishing for tarakihi within the park area, the park sits within the East portion of TAR 1. These sections are therefore relevant to this review.

422. Section 7 of the HGMPA recognises the national significance of the Hauraki Gulf and section 8 sets out objectives for its management. As the proposals discussed in this paper aim to promote recovery of tarakihi and ensure any utilisation of is sustainable, they generally align with the objectives under these sections relating to the protection, maintenance and enhancement of resources in the Hauraki Gulf Marine Park.

423. The HGMPA also recognises the need to provide for social, economic, recreational, and cultural well-being of people and communities in the Hauraki Gulf, and FNZ acknowledges that the changes proposed for tarakihi in this review could have negative implications for social, economic, recreational, and cultural wellbeing in the short term. However, there would also be benefits in the long term for well-being if abundance recovers as a result of the proposed measures.

Non-mandatory relevant considerations

Other plans and strategies

Industry Rebuild Plan

424. The Industry Rebuild Plan was developed by Seafood New Zealand (previously known as Fisheries Inshore New Zealand), Te Ohu Kaimoana and Southern Inshore Fisheries. It represents the industry's commitment to the sustainable management of the eastern tarakihi fishery, and a desire to work with FNZ to rebuild the East tarakihi fishery while also maintaining a viable inshore fishing industry.

425. The Industry Rebuild Plan comprises a series of voluntary measures that have been in place since the 2019/20 fishing year. These measures (listed below) are aimed at improving the management of the

fishery, while also adopting alternative approaches to contribute to the rebuild beyond simply reducing catch limits:

- Commitment to a time constrained rebuild (20 years);
- Catch Splitting – West/East Split;
- Reporting sub–Minimum Legal Size (now a mandatory requirement);
- Selectivity Research;
- Move on Rules;
- Voluntary Closed Areas;
- Enhancing Science; and
- On-board cameras.

426. Since the 2019/20 fishing year Seafood NZ have committed to quarterly reporting outlining progress towards meeting key performance indicators in the Industry Rebuild Plan. In 2022 the industry also committed to shelving approximately 10% of its eastern tarakihi commercial allowance to further support in rebuilding the stock.

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

427. FNZ considers that the sustainability measures proposed for eastern and western tarkaihi 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

428. The best available information relevant to this review of eastern and western tarakihi is presented throughout this paper, and uncertainties in the information have been highlighted where relevant. The table below provides an additional summary of the best available information and key areas of uncertainty, unreliability, or inadequacy in information. As per section 10(c) of the Act, caution is required in decision making where information is uncertain, unreliable, or inadequate. However, as per section 10(d) of the Act, the absence of, or any uncertainty in, any information must also not be used as a reason for postponing or failing to make a decision.

Table 13: Best available information and key areas of uncertainty for management of eastern tarakihi.

Best available information	Key areas of uncertainty, unreliability, or inadequacy
Stock status • The best available information on the status of both eastern and western tarakihi comes from its fully quantitative stock assessment, which is described in Part 1 under '*new information and context*', with more technical information about the assessment available in the May 2026 Fisheries Assessment Plenary.	Major sources of uncertainty in the 2026 quantitative stock assessment for eastern tarakihi include: • Uncertainty in the stock structure and movement dynamics and productivity, which may be changing due to environmental drivers. • Uncertainty in the distribution of biomass between model regions (approximating QMA areas). • Uncertainty about changes in fishing behaviour (particularly in FMA 2) which may be influencing CPUE. Major sources of uncertainty in the 2026 quantitative stock assessment for western tarakihi include: • Uncertainty in stock structure and movement dynamics. • Strength of recent recruitment (specifically for projections). In addition to these sources of uncertainty, as highlighted throughout this paper there is uncertainty regarding the relative influence of spawning stock size, fishing and other factors on declines in tarakihi recruitment,

Best available information	Key areas of uncertainty, unreliability, or inadequacy
	and therefore considerable uncertainty as to how recruitment may change following different levels of reduced fishing pressure.
Customary, recreational, and other mortality caused by fishing estimates: • The best available information on customary and recreational catch, and other mortality occurring in both the eastern and western tarakihi fisheries is presented in Appendix 1 under '*Fishery characteristics and settings*'.	• The National Panel Surveys provide some spatial information but do not provide detailed spatial data on the distribution of recreational fishing across both tarakihi stocks. • Uncertainty from boat ramp sampling has been incorporated with uncertainty in the annual harvest estimates from the National Panel Survey 2024 publication for the eastern and western tarakihi QMAs. • There is uncertainty in the magnitude and distribution of customary, recreational, and illegal fishing occurring throughout both tarakihi stocks. • The information on authorised customary harvest for both tarakihi stocks is considered incomplete.
Environmental and ecosystem impacts • The best available information on environmental impacts in tarakihi fisheries, including ecosystem considerations, interactions with associated and dependent species, biodiversity, and habitats of particular significance for fisheries management, is discussed below in Appendix 1, and summarised in the above tables where relevant.	• There is little information about important predator/prey interactions for tarakihi, and considerable uncertainty as to how changes in abundance of tarakihi may affect other species or biodiversity. • While sea surface temperature projections (discussed under 'Initial assessment of the proposals against section 13 of the Act') are anticipated to increase, the longer-term implications this has on recruitment is uncertain. However, it is considered unlikely to be positive since recent low recruitment maybe climate driven, with climate vulnerability assessments and habitat suitability modelling suggesting continued warming sea surface temperatures (Cook et al, 2024a; Brough et al, 2025). • Some information on protected species interactions in the fishery comes from fisher reported data that has not been independently verified by observers or cameras. Fisher reported identifications are generally less precise than observer identifications. • The amount of evidence available to describe and define habitats of particular significance varies considerably among habitats, and there is uncertainty regarding the importance of these habitats for overall productivity of the stock.
Supporting measures • The best available information on the supporting measures to enhance recruitment to the stock is discussed below in Appendix One and summarised in the above tables where relevant.	• Additional research would be needed to understand the stock-level benefit of protecting individual nursery and juvenile aggregation areas. Recruitment is influenced by multiple factors, which may make it challenging to isolate the effects of these individual management measures.

Initial assessment of deemed value rate proposals under section 75 of the Act

429. In setting interim and annual deemed value rates, section 75(2)(a) of the Act requires the Minister to take into account the need to provide an incentive for every commercial fisher to acquire or maintain sufficient ACE that is not less than the fisher's total catch of each stock taken.

430. As noted in Part 1, there has been a material change in stock status for east and west tarakihi and FNZ is proposing reductions in their commercial catch limits to ensure sustainability. In light of this, the current deemed value rates of these stocks may no longer provide adequate incentives for fishers to acquire or maintain sufficient ACE to cover catch.

431. Consistent with the Minister's mandatory consideration under section 75(2)(a) of the Act, FNZ is proposing that the interim and annual deemed value rates for these stocks are increased to provide stronger incentives for fishers to acquire or maintain ACE of these stocks to balance with catch.

432. FNZ is proposing different deemed value rate settings depending on the TACC settings for these stocks. These options vary in how they have regard to other relevant considerations for setting deemed values under section 75(2)(b). Table 14 discusses these other relevant factors and how these different options have regard to them.

Table 14: Summary of other relevant considerations to proposed deemed value rate changes for tarakihi stocks.

Permissible statutory considerations relevant to the proposed deemed value rate changes for TAR 1, 2, 3, 7 & 8	
Provision	**Description**
75(2)(b)(i)	Desirability of commercial fishers landing catch for which they do not have ACE.
• All of the proposed options are likely to reduce the desirability of landing tarakihi without ACE because they all entail increased deemed value rates which will result in higher costs for fishers who do not acquire sufficient ACE to cover catch. • Option 1 would set the deemed value rates at a higher level relative to the other options. Higher deemed value rates will have greater impacts on reducing desirability of landing tarakihi without ACE. However, FNZ notes that the other options (Options 2 and 3) include lower TACCs which will result in less availability of tarakihi ACE in the market. Lower TACCs are also likely to also contribute to reduced desirability to land tarakihi without ACE because there will be less ACE available to balance with landed catch. This effect would be greatest under Option 3 which proposes the largest TACC reductions across east and west tarakihi stocks.	
75(2)(b)(ii)	Market value of the ACE for the stock.
• All three of the proposed options would set the annual deemed value rates of these tarakihi stocks well above recent average ACE prices. This accounts for potential increases in ACE price which may occur from reducing the TACCs. Setting the annual deemed value rate above ACE price will help ensure there are strong incentives (under all options) for fishers to acquire ACE for tarakihi rather than paying deemed values. • The proposed deemed value rates, relative to ACE prices, are higher under Option 1 compared to Options 2 and 3 and may therefore provide stronger incentives for fishers to acquire ACE to balance any catch with. However, as noted above, the TACCs will also affect this, and Options 2 and 3 propose lower TACCs compared to Option 1. • FNZ acknowledges that following the implementation of the proposals in this paper, ACE prices for these stocks may increase. This will be monitored and FNZ will consider further deemed value adjustments in future if needed to ensure there are ongoing incentives for fishers to acquire tarakihi ACE to balance with catches.	
75(2)(b)(iii)	Market value of the stock.
• The current deemed value rates are all set below recent market values (based on average landed port prices). • All three proposed options would increase annual deemed value rates above recent landed values. This will lead to greater costs for landing tarakihi without ACE, which will incentivise greater avoidance of landing tarakihi. • Under Option 1 the rates would be set higher relative to market value compared to Options 2 and 3. This would make it more cost negative to land tarakihi without ACE under that option on a $/kg basis. • The more negative costs of landing tarakihi that are likely to result from deemed value increases could pose a higher risk of misreporting of catch. However, FNZ notes that there is now a high level of independent monitoring of catches through onboard cameras in these fisheries, which should mitigate this risk.	
75(2)(b)(iv)	The economic benefits obtained by the most efficient fisher, licensed fish receiver, retailer, or any other person from the taking, processing or sale of the fish or any other fish commonly taken in association with the fish.
• FNZ's preliminary view is that this provision is not relevant to the current review. However, FNZ welcomes feedback from stakeholders on this, and any rationale for why this may be relevant with respect to the proposed deemed value rate options.	
75(2)(b)(v)	Extent to which catch of that stock has exceeded or is likely to exceed TACC for that stock in any year.
• All three of the proposed options will increase the deemed value rates of these stocks and these increases will reduce the risk of the TACCs being exceeded (given the more negative costs for any overcatch of ACE).	

Permissible statutory considerations relevant to the proposed deemed value rate changes for TAR 1, 2, 3, 7 & 8	
Provision	**Description**
• The deemed value rates proposed under Option 1 are more punitive and thus more likely to mitigate the risk of the TACCs being exceeded. This reflects that there would be a greater consequence for sustainability if the TACCs under this option were exceeded. • The deemed value rates under Option 3 would have a greater risk of catches exceeding the TACCs in comparison. The lower TACCs under Option 3 will require catches to be constrained to a greater extent (which will be difficult due to the mixed nature of the fisheries). The deemed value rates proposed under this option are lower relative to Option 1 given that overcatch would pose less risk to sustainability (given the lower TACCs). However, FNZ notes that the deemed value rates would still be substantially increased from current levels and well above ACE prices and landed values, which is likely to mitigate the extent to which the TACCs could be exceeded.	
75(2)(b)(vi)	Any other matters considered relevant.
• FNZ is proposing that deemed value rates would be set at the same level across all of the east and west tarakihi stocks (TAR 1, 2, 3, 7 & 8) to help reinforce incentives for fishers to accurately report catch across these QMAs. FNZ welcomes feedback from submitters on this, and any rationale for setting alternative rates among areas.	