Seafood New Zealand comments on TTR's application under the FTAA 2024

Contents

Summary

SNZ opposes the application unless conditions address uncertainty and adverse effects

TTR's proposed mining activity has uncertain impacts on fisheries resources, fish habitats and commercial fishing. SNZ recommends conditions that are intended to rectify information deficiencies and require TTR to mitigate any adverse effects that arise. If these conditions are accepted, SNZ would not oppose TTR's application. In the absence of conditions to reduce uncertainty and require TTR to mitigate adverse effects on fishing, SNZ opposes the application.

TTR's proposed mining activities overlap with commercial fisheries

The South Taranaki Bight (STB) supports a diverse range of healthy, productive and valuable commercial fisheries. The set net fishery and inshore trawl fishery overlap directly with TTR's mining site and other fisheries – including midwater trawling for jack mackerel, long lining, and the coastal rock lobster and the surf clam fisheries – are potentially affected by off-site impacts. The STB is fished regularly by 68 vessels and has nearly 450 quota owners, including iwi from throughout New Zealand. The STB is becoming increasingly prominent for the fishing industry as a result of changing climatic conditions which affect fish distribution. The fisheries are of considerable importance for New Plymouth, Nelson and other regional ports.

TTR has not understood or provided adequate information on impacts on commercial fishing

TTR has provided insufficient information to properly evaluate the likely effects on the existing interests of the commercial fishing sector. The application rests on an incorrect assumption that if there are no significant adverse biological or ecological effects on fish, there will be no adverse effects on commercial fisheries. TTR has not undertaken any analysis of how environmental changes affecting fish may adversely affect the activity and economics of fishing in the STB. TTR's conclusions about adverse effects on the environment or fisheries at the scale of FMA 8 or the STB are not applicable to the localised scale at which fishing actually takes place or the scale at which fishers may experience adverse effects.

Localised adverse effects on fish will have impacts on commercial fishing

TTR's activities may cause localised changes in the distribution, productivity or abundance of commercially harvested fish. Impacts on fish can have adverse effects on the business of fishing, including making it harder to find and catch fish, requiring changes to the Annual Catch Entitlement (ACE) held by a fisher, increasing the cost of fishing, and reducing revenue and profitability. The significance of the adverse effects will depend on which fish species are affected and the intensity, duration and scale of the impact on fish. There is considerable uncertainty and knowledge gaps in relation to these matters, particularly in relation to cumulative effects of multiple stressors. Impacts will also depend on the circumstances of individual fishers, including their dependence on the affected area, ACE holdings, and the size and resilience of their business.

While SNZ is not aware of any evidence that indicates there are likely to be impacts on fish at the scale of the STB, there is considerable uncertainty in TTR's plume model and other aspects of the environmental assessment. If impacts on harvested fish species occur across a broader scale than has been predicted, then more significant adverse effects on commercial fishing may occur, including reductions in total catch and/or quota value.

Commercial fishing effort will be displaced at and around the mining site

Spatial displacement of commercial fishing will arise as a consequence of direct exclusion from the active mining area and displacement from the area of the sediment plume (i.e., harvested fish species may avoid the plume, or fishers may avoid fishing in the affected area because of uncertainty about adverse environmental effects). Several factors restrict the ability of fishers to 'follow the fish' and catch their entitlements elsewhere in the STB, including the location of QMA boundaries, existing regulatory closures, fish habitat constraints, and ACE availability.

Spatial displacement has adverse effects on commercial fishing and, if significant, may threaten the sustainability of harvested species. SNZ's analysis indicates that over the last five years, the maximum annual percentage of FMA 8 catch taken from within the TTR project area was less than 5% for all species apart from trevally (6.32%). However, a significant proportion of FMA 8 catch was taken from within TTR's Sediment Modelled Domain and is therefore potentially vulnerable to displacement, as follows: school shark 38%-55%; rig 37%-65%; trevally 43%-71%; snapper 34%-39%; and gurnard 39%-50%.

Cumulative spatial displacement is already significant

Commercial fisheries in FMA 8 are subject to extensive existing spatial exclusions, including regulatory closures to trawling and set netting intended to protect Māui dolphins, safety zones and submarine cable and pipeline protection zones around oil and gas infrastructure, and closure of all waters within 20 nautical miles of the coast to fishing vessels over 46m in length. Commercial fishers – particularly, set netters – who are displaced by TTR's proposed activities therefore have limited ability to shift their fishing effort to other areas.

Hazards and safety risks for commercial fishing have been identified

Other adverse effects on commercial fishing include hazards and physical exclusion of fishing as a result of post-mining pits and mounds, actual or perceived impacts on seafood quality, and environmental and safety risks arising from unforeseen events (e.g., oil spills, collisions, biosecurity incursions).

Habitats of particular significance for fisheries management should be protected

The Pātea Shoals and recently identified areas of reef are likely to be habitats of particular significance for fisheries management (HPSFM) – that is, important fish nursery, spawning, or egg laying areas. If these reefs are damaged by TTR's proposed mining activity, the productivity of affected fish populations may be reduced, with consequent impacts on commercial fishing. This is a particular concern given the considerable uncertainty around benthic recovery.

The Fisheries Act 1996 is an "other marine management regime" that must be taken into account by the panel. The Act's provisions relating to the protection of HPSFM are therefore a relevant consideration. Management responses under the Fisheries Act to protect HPSFM such as the Pātea Shoals would be negated if seabed mining were to have adverse effects on HPSFM.

Recommended conditions to address potential adverse effects on commercial fishing

SNZ recommends a new general condition requiring TTR to ensure that adverse effects on fish and shellfish are mitigated and, where practicable, avoided, including specific reference to underwater noise. We also recommend amended conditions relating to pre-commencement monitoring and ongoing monitoring, including the preparation and implementation by TTR of a Fish Monitoring Plan and a mechanism to enable commercial fishers to raise concerns so that they can be transparently investigated and resolved.

Other recommended conditions clarify the “fishing industry relationship”, and require direct notification of hazards, monitoring of HPSFM, and potential payment of a bond to provide greater certainty that benthic recovery will be achieved.

Introduction

1. Seafood New Zealand (SNZ) appreciates the opportunity to provide comments on the application by Trans Tasman Resources (TTR) under the Fast-track Approvals Act 2024 (FFTA) to undertake seabed mining in the South Taranaki Bight.

2. SNZ is a professional organisation that delivers services for the wider benefit of the seafood industry – our members have commercial interests in deepwater, inshore finfish, and highly migratory species. SNZ plays a leading role in developing and presenting the seafood industry's response on regulatory proposals and generic issues affecting the industry.

3. TTR proposes to extract up to approximately 50 million tonnes of seabed material per year, over 20 years, recover up to approximately 5 million tonnes of vanadium-rich titanomagnetite concentrate, return the de-ored material to the seabed, and monitor environmental recovery for up to 5 years post-extraction.

4. The area which TTR proposes to mine overlaps with commercial fishing grounds in the South Taranaki Bight. Commercial fishing interests – i.e., quota owners and fishers – are therefore "existing interests" that may be affected by TTR's application.[1]

5. SNZ's purpose in providing these comments is to:

   a) Set out SNZ's position on the application; and

   b) Ensure that the panel is provided with information that enables the panel members to:

      - Understand the nature and extent of commercial fishing in the South Taranaki Bight and, therefore, what is at stake for the commercial fishing sector (**Part One** of the comments);
      - Understand the potential effects of TTR's proposed activities on commercial fishing (**Part Two**);
      - Understand the relevance of the Fisheries Act 1996 (**Part Three**); and
      - Impose appropriate conditions on any approvals that may be granted in order to ensure that effects on commercial fishing and commercially-harvested species are dealt with appropriately by TTR (**Part Four**).

SNZ's position

6. SNZ considers that TTR has not taken steps to adequately inform itself of the potential adverse effects of the proposed seabed mining on fisheries resources, fish habitats and commercial fishing. As a result, significant uncertainty remains. In Part Four of our comments, we recommend conditions that are intended to rectify information deficiencies and require TTR to mitigate any adverse effects on fisheries resources, fish habitats or fishing that may arise should consent be granted. Provided that our recommended conditions are included on any approval that may be granted, SNZ does not oppose TTR's application. In the absence of conditions to

[1] The Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 defines an 'existing interest' as *…the interest a person has in… any lawfully established existing activity, whether or not authorised by or under any legislation, including rights of access, navigation, and fishing…* (s.4).

reduce uncertainty and require TTR to mitigate adverse effects on fisheries resources, fish habitats and commercial fishing, SNZ opposes the application.

Long history of involvement in TTR's application

7. SNZ has been involved in TTR's application since 2014. SNZ's Inshore Council – known at the time as Fisheries Inshore New Zealand (FINZ) – submitted on TTR's original 2014 application under the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ Act). That application was refused due to uncertainty and the applicant providing insufficient information, including in relation to impacts on existing fishing interests.[2] In 2016, FINZ submitted on TTR's second application under the EEZ Act. Following the approval of that application, FINZ and other fishing industry submitters jointly appealed the decision to the High Court and were a respondent party in the subsequent Court of Appeal and Supreme Court proceedings. SNZ then participated in the 2023 reconsideration of the application before TTR withdrew it in March 2024.

8. In July 2025 SNZ approached TTR with a view to discussing, and potentially reaching agreement on, the conditions recommended in these comments. To date, no resolution has been reached but SNZ remains open to further discussion.

9. Throughout this time – now well over a decade – SNZ's concerns about TTR's application have not been addressed. We continue to hold the view that the impact of the proposal on the commercial fishing sector is not properly understood and that TTR has provided insufficient information to properly evaluate the likely effects of its proposed activities on the existing interests of the sector.

10. SNZ appreciates that the panel is considering TTR's current application *de novo* under the FFTA rather than the EEZ Act. However, the current application is substantially identical to the two earlier applications. We therefore consider that reports, evidence and findings from previous iterations of TTR's application are relevant to the current consideration and we refer to them where appropriate, rather than going over old ground. However, it is concerning and confusing for submitters that TTR has filed an extremely large volume of very old, and potentially irrelevant, reports from the first two applications in support of its current application – for example, a report on commercial fishing that has not been updated since July 2013.[3]

11. Our comments also highlight new matters (i.e., new information or changed circumstances) relevant to the assessment of impacts on commercial fishing that have arisen since TTR's application was last considered under the EEZ Act in 2016-2024.

Inadequate information about commercial fishing impacts

12. Our main concern about the information provided by TTR is that when assessing impacts on the fishing industry, TTR's focus has been on the biological effects *on fish*. While impacts on fish are part of any analysis of the effects on fisheries, TTR's assessment fails to appreciate that a fishery

[2] Trans Tasman Resources Ltd Marine consent decision. Environmental Protection Authority.17 June 2014. Paragraphs 9 & 846.

[3] South Taranaki Bight iron sand mining proposal. Assessment of potential impacts on commercial fishing. Prepared by Nici Gibbs, Fathom Consulting Ltd for Trans-Tasman Resources Ltd Final: 5 July 2013.

is an economic activity that is conducted subject to a complex regime. The joint experts (2017) agreed that a fishery is: [4]

> *a combination of a biological resource to exploit, economic investment, fishing technology and knowledge and rules and regulations to administer the fishery*.

13. In order to properly consider the effects on fisheries, it is therefore necessary to start with the effects on fish, but then go further to assess how those effects might manifest in the fisheries in question. TTR has not conducted that analysis. It has therefore not adequately understood or analysed the effects on fisheries that may result from the proposed mining operation and has not conducted an economic impact analysis on the commercial fishing sector.

14. This is demonstrated most recently in TTR's memo to the panel convenor which states that *the assessment of **effects on parties with commercial fishing interests** (as distinct from effects on fished species) was updated in line with TTR's evidence for the reconsideration.*[5] In fact, the updated assessment TTR refers to is a simply a quantitative analysis of commercial catch in the vicinity of the project site – this falls far short of an assessment of the actual and potential impacts on the businesses and activities of commercial fishing interests. [6]

15. Furthermore, the scale of the information and assessments provided by TTR is typically too broad for adequately assessing adverse effects on commercial fishing. For example:

- TTR's assessment of effects on harvested fish species*… is sometimes described at the scale of the relevant Fisheries Management Area (FMA) and sometimes at the scale of the STB. TTR consider that **the scale of FMA is appropriate for species managed by quota as impacts need to be assessed for the population***; [7] and

- TTR's assessment of water column primary productivity impacts states *…water column primary production **averaged over the [sediment modelled domain]** would reduce by 1% and 0.8% … with the main reduction focused close to the extraction site. However, because of natural variability, these effects would be essentially indistinguishable from the existing (background) situation **when considered at the [sediment modelled domain] or [South Taranaki Bight] scale**.*[8]

16. These are just two examples of many. TTR's conclusions about adverse effects at the scale of a FMA, or the entire sediment modelled domain, or the South Taranaki Bight are <u>not</u> applicable to the localised scale at which fishing actually takes place within the affected area or the spatial scale at which fishers experience adverse effects.

17. SNZ is also concerned that TTR has provided insufficient baseline information about commercial fisheries in order to assess the potential impacts of their proposed activities. The basis for the Fisheries Submitters' 2017 appeal to the High Court was that there was insufficient baseline information to support the application, and that the decision-making committee's way of

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[4] Joint Statement of Experts in the Field of Effects on Fishing, 15 February 2017, page 7.
[5] MEMORANDUM OF COUNSEL FOR TRANS-TASMAN RESOURCES IN RESPONSE TO PANEL CONVENER DIRECTIONS 4 AUGUST 2025.
[6] See section 5.13.2 of the application and NIWA (2024) South Taranaki Bight Fishing 1 October 2007 - 30 September 2023. Prepared for Trans Tasman Resources Ltd. March 2024.
[7] TTR Application (2025), page 191.
[8] TTR Application (2025), page 166.

addressing this uncertainty – i.e., via pre-commencement monitoring – was incorrect. We understand that this position was essentially upheld by the Supreme Court.[9]

18. Since the 2016 application, TTR has commissioned a single additional report from NIWA[10] which analyses updated commercial catch information up to September 2023, but – as noted above – provides no information on the actual impacts of the proposal on commercial fishing or fisheries (as defined by the joint experts).

19. In our comments for the panel, SNZ seeks to rectify some of these information deficiencies but we remain concerned that TTR has not, in the course of over a decade, engaged effectively with the fishing industry, obtained information or undertaken analysis to adequately understand and assess the impact of their proposed activities on existing commercial fishing interests.

Changes in information relevant to effects on commercial fisheries

20. We include new information throughout these comments. Some of the more notable changes since the last consideration of TTR's application in 2017 are:

- Changes to the Fisheries (Reporting) Regulations 2017 mean that commercial catch information is now available at a much finer spatial scale;
- Major new regulatory closures for trawling and set netting intended to protect Māui dolphins were implemented in 2020 and will further restrict the ability of commercial fishers to shift fishing effort in response to TTR's proposed activities;
- Better information is available on areas of reef in the South Taranaki Bight that are or may be habitats of particular significance for fisheries management (i.e., areas of importance for fish productivity such as spawning or nursery areas);
- A significant 40% increase in the Total Allowable Commercial Catch (TACC) for snapper (SNA 8) on 1 October 2024 means that historic fishing data do not fully reflect the current and potential future value and importance of the inshore trawl fishery for snapper and associated species;
- The surf clam fishery along the coast of FMA 8, which was not utilised commercially in 2017, has begun to be developed in recent years and shows considerable potential; and
- New research indicates an increasing number of fish species vocalise and are sensitive to underwater noise and consequently a larger proportion of fish will be affected by underwater noise from TTR's activities than was formerly assumed.

Part One: The nature and extent of commercial fishing in and around the project area

21. SNZ commissioned a report from Fathom Consulting Ltd characterising commercial fisheries in the vicinity of TTR's proposed seabed mining site. That report is attached (**Attachment 1**) and should be referred to for further detail and references. The report describes commercial fisheries that overlap spatially with:

[9] TRANS-TASMAN RESOURCES LIMITED v TARANAKI-WHANGANUI CONSERVATION BOARD, [2021] NZSC 127 [30 September 2021], at [118]–[131] per William Young and Ellen France JJ, [274]–[276] and [279] per Glazebrook J, [294] and [299] per Williams J and [328] per Winkelmann CJ.

[10] NIWA (2024) South Taranaki Bight Fishing 1 October 2007 - 30 September 2023. Prepared for Trans Tasman Resources Ltd. March 2024.

- TTR's proposed project area; and
- The 'affected area', that is, a rectangular area in which commercial fishing may potentially be affected by TTR's proposed activities (see Figure 3 in **Attachment 1**).

Overview of FMA 8 commercial fisheries

22. The South Taranaki Bight is part of the Central (West) Fisheries Management Area known as FMA 8, which runs from Tirua Point in north Taranaki to a point north of Titahi Bay near Wellington (Figure 1 in **Attachment 1**). The area supports a productive and diverse range of valuable inshore commercial fisheries.

23. The main commercial fisheries that directly overlap the area of TTR's proposed mining activities in the South Taranaki Bight are:

    - Set netting for school shark and rig; and
    - A mixed inshore bottom trawl fishery for gurnard, snapper, trevally and other species.

24. Adjacent fisheries that may be affected by mining activity include:

    - The coastal rock lobster fishery;
    - The coastal surf clam fishery; and
    - A mid-water jack mackerel trawl fishery seaward of the proposed mining site.

25. Other fisheries operate occasionally in the vicinity, including:

    - Bottom longlining for snapper, school shark, hapuka and bass;
    - Potting for blue cod, crabs or other species;
    - Purse seining for tuna and English mackerel; and
    - Trolling for albacore.

Inshore trawl fishery

26. Bottom trawling is the most common fishing method within the TTR project area and is also a very common fishing method in the affected area.

27. The bottom trawl fishery in the South Taranaki Bight is a mixed species fishery. As is typical in inshore trawl fisheries, trawl vessel operators target a range of different species at different times and in different places, meaning that the overall pattern of commercial fishing is complex and variable. Species typically targeted or caught include trevally, gurnard, snapper, tarakihi, barracouta, warehou, flatfish, John dory, kahawai, rig and school shark.

28. The trawl fleet currently operating in the affected area consists of:

    - 2 New Plymouth-based trawlers owned by Egmont Seafoods;
    - 2 trawlers that fish for Moana and are based in New Plymouth for periods of time; and
    - Up to 10 South Island-based trawlers, including 4 to 5 trawlers of 20-30m in length that operate regularly in the general area comprising Cook Strait, South Taranaki Bight and off Farewell Spit, and smaller trawlers which may occasionally fish in the South Taranaki Bight. Most South Island trawlers land their catch in Nelson, but trawlers from other ports such as Picton or Wellington may fish the area occasionally.

29. Catch for inshore trawl fisheries is not evenly distributed and centres around specific areas in the South Taranaki Bight. Generally, bottom trawling effort in the affected area is concentrated

between the 30m to 50m contour lines from Opunake south to Pātea and at similar depths southwards along the Manawatu coast. The highest bottom trawl fishing effort is typically reported in the southernmost and coastal areas of the South Taranaki Bight, whereas the highest reported catch numbers are in waters within and adjacent to the TTR project area. This implies that these waters are more productive than other areas of the South Taranaki Bight.

30. Over the last five fishing years, 34% - 71% of the FMA 8 catch of each of the three main species (trevally, snapper and gurnard) was taken from within the affected area. This indicates that the inshore trawl fishery could be significantly affected by TTR's proposed mining activity if adverse effects on fish or fishing are experienced in the affected area.

31. A major change in the years since TTR first applied for marine consents is that snapper abundance has increased substantially. On 1 October 2024 the Minister for Oceans and Fisheries increased the SNA 8 TACC by 40% and reduced the deemed value rate. The Minister's decisions will result in additional utilisation opportunities not only for snapper, but also for other stocks targeted and taken in conjunction with snapper in mixed inshore trawl fisheries in the South Taranaki Bight. More generally, changing climatic conditions are bringing fish further south than previously, making the area increasingly important for the trawl fishery. Therefore, the value of the inshore trawl fishery prior to 2024 under-represents its potential current and future value and importance.

Set net fishery

32. Set netting is the second most common fishing method in the TTR project area and is also a very common fishing method within the wider affected area. The FMA 8 set net fisheries primarily target school shark and rig. The South Taranaki Bight is currently fished by 1 full time and several part-time set net vessels based in New Plymouth and other North Island ports.

33. FMA 8 set net effort reached a very low level in 2021 following the implementation of extensive regulatory closures intended to protect Māui dolphins but has shown a slight upward trend since then. The South Taranaki Bight is becoming increasingly important for New Plymouth-based set netters. Over the last two years, these fishers have been spending more time in the South Taranaki Bight than in areas north of New Plymouth, reflecting stronger catches of rig and school shark than in areas further north. Seasons and weather play a big part in how often the proposed mining site is fished by small set net vessels.

34. In most of the last five fishing years, more than 40% of the catch of both school shark (SCH 8) and rig (SPO 8) was taken from within the affected area, with a maximum of 65.62% for SPO 8 in 2019/20. This indicates that the set net fishery could be significantly affected by the proposed mining activity if adverse effects on fish or fishing are experienced in the affected area.

Jack mackerel mid-water trawl fishery

35. Seven large mid-water trawlers target jack mackerel offshore from the TTR project area. The South Taranaki Bight jack mackerel fishery is part of JMA 7, a large QMA which comprises FMAs 7, 8 and 9.

36. No mid water trawling occurs in the TTR project area. However, substantive catches of jack mackerel are taken in the affected area, equivalent to 35% - 69% of total jack mackerel catch taken in FMA 8 and 25% - 39% of total JMA 7 catch. Therefore, if the proposed mining activity has impacts on the local distribution or abundance of jack mackerel, a substantial proportion of the valuable JMA 7 fishery could be at risk.

Rock lobster fishery

37. Spiny (red) rock lobsters are caught using the potting method in coastal waters. The South Taranaki Bight is part of the CRA 9 rock lobster fishery which extends from Kaipara Harbour in the north to Bruce Bay on the West Coast of the South Island (all of FMA 8 as well as parts of FMAs 7 and 9). Although the CRA 9 area is very large, habitat constraints for rock lobsters restrict commercial fishing primarily to much smaller areas either on the northwest coast of the South Island or in the area between Pātea and Kawhia on the Taranaki coastline. In rock lobster statistical area 935 (which includes the South Taranaki Bight) the number of vessels has fluctuated between 1 and 4 annually over the past two decades.

38. No rock lobster potting occurs within the TTR project area. However, over the last five years, on average, 80% of the total rock lobster catch from FMA 8 and 49% of the total CRA 9 catch has been taken in the affected area.

Surf clam fishery

39. Surf clam is a generic term covering different species of molluscs which live on exposed surf beaches. In recent years a single vessel has used hydraulic winnowing clam rakes to harvest three species of surf clams– deepwater tuatua (PDO 8), large trough shell (MMI 8), and triangle shell (SAE 8) – in FMA 8. Currently only a small proportion of the TACC of each species is harvested. However, surf clams are a 'developing fishery' and it has been estimated that FMA 8 could potentially sustain significant levels of commercial catch.

40. No fishing for surf clams occurs within the TTR project area. However, 100% of the FMA 8 surf clam catch is taken from within the affected area.

Line fisheries

41. Line fisheries in the South Taranaki Bight target school shark (SCH 8), hapuku and bass (HPB 8), gurnard (GUR 8) and snapper (SNA 8). One long-line vessel is currently operating out of New Plymouth, but that vessel primarily fishes to the north of New Plymouth. The South Taranaki Bight is fished occasionally by lining vessels based further afield.

Other commercial fisheries

42. Other fishing methods which have been used occasionally within the affected area over the five fishing years up to 2023/24 are:

    - Potting for blue cod (BCO 8), paddle crab (PAD 8), or other species;
    - Diving and spearfishing for finfish;
    - Purse seining for skipjack tuna (SKJ) and English mackerel (EMA 7); and
    - Trolling for albacore tuna (ALB).

Commercial fishing entities

43. The fisheries of the South Taranaki Bight are fished by a variety of commercial fishing interests, ranging from small owner operators to larger vertically integrated seafood companies. Around 450 companies, individuals and Iwi own quota shares in FMA 8. All of these are considered to be 'existing interests' in the area of TTR's proposed mining activities.

Fishing vessels

44. The number of commercial fishing vessels operating in the vicinity of the TTR's proposed activities has remained relatively stable over the last five fishing years – the TTR project area has been fished by 2 to 4 commercial fishing vessels annually and the affected area has been fished by an average of 68 different vessels annually. Fishers may operate from New Plymouth or from more distant ports including Nelson, Picton, Wellington and Onehunga. Vessels may be owned by large or medium-sized integrated seafood companies or by owner-operators.

Quota owners

45. FMA 8 has 97 different QMS fish stocks, each with a different pattern of quota ownership. Quota ownership in a stock typically includes large companies which may own quota across multiple fish stocks, smaller quota owners who may own quota in multiple stocks or a single stock (e.g., CRA 9 rock lobster), and Iwi who own settlement quota in all FMA 8 stocks.

46. The companies with the largest quota ownership across inshore finfish stocks in FMA 8 are Talley's Group and Sanford. Talley's is the largest quota owner in the set net species school shark and rig (owning 10.7% of SCH 8 quota shares and 37% of SPO 8) as well as in gurnard (37% of GUR 8). Sanford is dominant in snapper (70.5% of SNA 8) and trevally (51% of TRE 7). ACE derived from Sanford's North Island inshore quota is used by Moana New Zealand under a long-term arrangement.

47. Other significant FMA 8 quota owners include Māori-owned companies such as Aotearoa Fisheries Limited (Moana New Zealand), Raukawa Moana Seafoods (Tainui), Ngāti Porou Seafoods and Ngāi Tahu Seafood Resources as well as local seafood companies such as New Plymouth-based Egmont Seafoods Ltd and private quota owning entities.

Māori Fisheries Settlement quota owners

48. Settlement quota comprises 10% of quota shares for every fish stock introduced into the QMS prior to 1992 and 20% of quota shares for fish stocks introduced into the QMS subsequently.

49. Settlement quota is allocated among Iwi according to whether a stock is classified as a deepwater stock or an inshore stock. The allocation model for settlement quota means that Iwi that are distant from the mining site will have ownership interests in some fisheries in the affected area.

Licenced fish receivers

50. Egmont Seafoods is the main export licensed fish receiver on the West Coast of the North Island between Wellington and Auckland. Egmont receives fish from its own three vessels and three other commercial fishing vessels, as well as occasionally product from others that are working in the area. Egmont supplies ACE derived from its own quota or purchased from other quota owners to six vessels – three set netters, two trawlers and one longliner. Collectively these vessels provide about 50 direct jobs and supporting jobs (including within Egmont Seafoods). Egmont's processing factory currently processes around 600 tonnes of fish annually with a market value of $5.5 to 6 million. Around 90 percent of the product comes from the West Coast. Egmont currently employs 20 people in processing and retailing and contracts a further two.

51. The other significant processor of finfish caught in the South Taranaki Bight is Talley's Fisheries, which has processing facilities in Nelson and Motueka. Talley's views the South Taranaki Bight

as an important area within their overall fishing operations – it provides variety for vessels that usually operate in the Challenger area (FMA 7), and is known as a productive fishery with good quality fish, particularly snapper and gurnard.

Value of potentially affected fisheries

52. The most recent assessment of the value of commercial fishing in New Zealand was undertaken by BERL in 2022.[11] BERL estimated that the average annual commercial catch value of FMA 8 fisheries was $39.8 million over the period 2016-2020. Catch value increased over this period. BERL estimated the average annual economic contribution from the harvesting of FMA 8 fisheries (excluding seafood processing value) as follows:

- Output value: $107 million;
- GDP: $44 million; and
- Employment: 416 FTEs.

Conclusion: what's at stake for the fishing industry

53. The South Taranaki Bight supports a diverse range of healthy, productive and valuable commercial fisheries. The set net fishery and inshore trawl fishery overlap directly with TTR's proposed project area and other fisheries may be potentially affected by off-site impacts from the mining activity, including midwater trawling for jack mackerel, rock lobster potting, long lining, and the surf clam fishery.

54. Although the South Taranaki Bight fisheries are not the most prominent of New Zealand's commercial fisheries, they are nevertheless of considerable importance and value to the 68 fishing vessel operators who fish regularly in the area and to the nearly 450 quota owners, including iwi from throughout New Zealand, who own quota in FMA 8. The commercial fisheries in the area of TTR's proposed activities are also of considerable regional economic importance – not only for New Plymouth as the major fishing port for the west coast of the North Island, but also as part of the mix of catch landed in Nelson and other ports where fishing vessels that operate in the South Taranaki Bight are based.

Part Two: Potential effects on commercial fishing

55. Commercial fishing is an existing interest under the EEZ Act. Under section 59, the decision-maker must take into account:

> *any effects on… existing interests of allowing the activity, including - (i) cumulative effects; and (ii) effects that may occur in New Zealand or in the waters above or beyond the continental shelf beyond the outer limits of the EEZ.*

56. In Part Two of our comments we identify potential adverse effects of TTR's proposed activities on commercial fishing. We provide information on effects on commercial fishing that may arise from:

- Impacts on commercially-harvested fish species or their habitats;
- Displacement of fishing effort, including cumulative displacement effects; and

[11] BERL (2022). The economic contribution of commercial fishing. Fisheries Inshore New Zealand (FINZ) report. March 2022. See **Attachment 1** for details.

- Other aspects of TTR's proposed activities.

Effects on fishing that arise from impacts on fish

57. As noted above, when assessing adverse effects on commercial fisheries, it is necessary to start with the effects on fish, but then go further to assess how those effects might manifest in the fisheries in question. We summarise the relationship between impacts on fish and impacts on commercial fishing, in relation to TTR's proposed activities, in **Table 1**.

Table 1: Effects on commercial fishing arising from effects on fish

Effect on fish	Effect on commercial fishing	Scale
Localised changes in fish distribution, productivity or abundance	• Harder to find and catch fish • Changes to ACE mix • Increased cost of fishing • Reduced revenue • Reduced profitability	Affected area
Broader-scale impacts on fish	• TACC reduction • Changes to ACE mix • Reduced revenue • Reduced quota value	QMA
Damage to fish habitat	• As above, for localised changes in fish distribution, productivity or abundance	Affected area

Localised changes in fish distribution, productivity or abundance

58. There is agreement among all experts and the Environmental Protection Authority's 2017 decision-making committee (DMC) that TTR's proposed activities may cause localised changes in the distribution, productivity or abundance of commercially harvested fish.[12]

59. Impacts on fish may arise from fish avoiding or being attracted to the sediment plume, fish avoiding underwater noise, fish being attracted to light sources at the mining site, damage to fish habitat (e.g., benthic habitat loss, sediment quality and benthic morphology changes), or other changes to the environment fish live in (e.g., water quality changes, localised changes in primary production). These factors may apply individually or cumulatively and may affect fish species in different ways. Notably:

- Experts (2017, 2024) agreed that some species of fish may be attracted to the mining site and others not, but impacts are likely to be very local;
- Experts (2024) disagreed about whether there was sufficient certainty in the spatial and temporal extent of the sediment plume to determine the effects on fish. The DMC (2017) found that in the worst-case plume scenario modelled, an area of 60-100km^2 could be subject to avoidance behaviours by fish and/or reduction in their prey. Although TTR's expert (Dr MacDiarmid) considered these effects to be 'very small' in the context of the overall distribution of the species, the DMC acknowledged the potential for greater effects at local scale;

[12] Joint Statement of Experts in the Field of Effects on Fish, 17 February 2017; Joint Statement of Experts in the Fields of Effects on Fishing and Effects on Fish; 20 February 2024; Environmental Protection Authority, Decision on marine consents and marine discharge consents application, Trans-Tasman Resources Limited, August 2017.

- Experts (2017, 2024) agreed that there could be local effects of mining noise on fish and that fish may move away from the sources of noise. Recent research indicates that more fish species are now thought to be sensitive to underwater noise than was previously thought;[13] and
- Local increases in fish abundance may occur as a result of fish being attracted to light from vessels at the mining site.[14]

60. In addition, the EPA has recently identified information gaps in relation to the potential impacts of TTR's proposed activities on fish and fish habitats arising from:
    - Brine plumes that can lead to hypersaline layers affecting benthic and pelagic communities and sensitive reef habitats; and
    - The use of chemicals and the potential effects of those chemicals on marine organisms, including plankton, filter feeders, and benthic communities.[15]
61. TTR states that demersal and pelagic fish will move away from the project area but:[16]

    > *…[as] commercial fishing will also be excluded from the project operation area,* ***any temporary change in distribution of commercially fished species at the site is unlikely to have a negative effect on commercial fishing****. Such displacement may even mitigate any effects of spatial displacement of fishing activity if the displaced fish are able to be caught elsewhere in the FMA.*

62. With respect to offshore fisheries such as the valuable jack mackerel mid-water trawl fishery, TTR states that:

    > *If sediment disperses further out into the EEZ (away from the coast), it is* ***unlikely to have an adverse effect on pelagic and demersal fish species*** *as these species are mobile and can move away to unaffected areas. Sediment from the project is* ***therefore unlikely to have an adverse effect on commercial fisheries*** *seaward of the project area, such as the mid-water trawl fishery for jack mackerel and barracoota* [sic].

63. Needless to say, SNZ strongly disagrees with these simplistic assessments. TTR wrongly conflates effects on fish with effects on fisheries. Localised changes in fish distribution, productivity or abundance will inevitably have adverse effects on the business of commercial fishing.
64. The significance of these adverse effects on commercial fishing will depend on two main factors. The first is the fish species that are affected and the intensity, duration and scale of the impact on fish. There are significant information gaps and uncertainty about these matters in the material provided by TTR. Almost no information is available about impacts on specific commercially-harvested fish species and there is considerable uncertainty about the cumulative effects of the multiple stressors on fish and fish habitats. SNZ shares the EPA's concerns that:[17]

[13] Joint Statement of Experts in the Fields of Effects on Fishing and Effects on Fish. 20 February 2024.
[14] TTR Application (2025), page 191.
[15] EPA Response to request for section 51 report for Taranaki VTM Project. 22 September 2025.
[16] TTR Application (2025), page 238.
[17] EPA Response to request for section 51 report for Taranaki VTM Project. 22 September 2025.

'…many assumptions regarding effects, consequences, and recovery have been considered in isolation, rather than evaluating the combined and cumulative impacts across ecological receptors… Furthermore, the project is proposed to operate continuously (24 hours a day, 7 days a week) for 35 years. This means pressures will be ongoing and long-term. Although the application suggests that once sand removal ceases in one mining block the stress will stop, this assumption overlooks the uncertainty surrounding recovery timelines. This application does not assess cumulative impacts across ecological receptors, including multiple stressors, against long-term timelines and the uncertainty around recovery.

65. The second factor influencing the significance of adverse effects on commercial fishing is the circumstances of individual fishers – for example, their dependence on the affected area, their ACE holdings, and the size and resilience of their business.

66. The plume will not be static, so any movement of fish species in response to the plume or other sources of environmental change will also be dynamic and difficult for fishers to predict. The level of uncertainty about the location of productive fishing areas will increase and fishers will be required to spend more time than they normally would to search for areas that are economically viable for fishing.

67. Under the Quota Management System (QMS), fishers purchase Annual Catch Entitlements (ACE) to reflect the fish species they expect to encounter at their usual fishing grounds. If seabed mining causes changes in the relative abundance of fish species, even at a small spatial scale, fishers may be left with ACE portfolios that do not reflect the actual biomass available in the fishery. Affected fishers may end up either with ACE they have paid for but cannot use, or excess catch for which ACE is not available (in which case the fisher must pay a 'deemed value' penalty to the Crown). Both scenarios impose financial costs, particularly for smaller fishing operations. While balancing catch against ACE is part of the everyday challenge of fishing in a mixed species fishery, external factors that make catch balancing more difficult or unpredictable are likely to increase the cost of fishing and reduce profitability.

68. If fish move even relatively short distances away from the mining site and sediment plume, several factors restrict the ability of fishers to 'follow the fish' and catch their entitlements elsewhere in the South Taranaki Bight. These factors include:

    - QMA boundaries – the boundary between FMA 8 and FMA 7 bisects the South Taranaki Bight around 20 nautical miles southwest of TTR's project area. Fishers are not legally able to shift their fishing effort beyond this line for species where the QMA boundary is formed by the FMA 7/8 boundary – e.g., gurnard, snapper, tarakihi, warehou, flatfish, john dory, kahawai, rig, school shark;

    - Regulatory closures – many areas in the South Taranaki Bight are closed to different types of commercial fishing (see **Attachment 1** for details). Therefore, if important species such as rig or school shark shift away from the plume into inshore into areas where set netting is prohibited by fisheries regulations, these fish will no longer be accessible to commercial fishers and are effectively removed from the fishery;

    - Fish habitat constraints – for habitat-dependent species such as rock lobster or blue cod, the limited amount of available habitat significantly constrains opportunities for fishers to move to other areas if favoured fishing grounds are affected by the proposed mining activity; and

- ACE availability – fishers avoid areas where the mix of species is not aligned with their ACE portfolios. For example, skippers in the jack mackerel fleet avoid known hotspots for kingfish and snapper if they do not have sufficient ACE to cover their catches for these species when targeting jack mackerel.

69. Although there is general agreement that fish are likely to move around in response to the proposed mining activities, there is significant uncertainty about where particular local fish populations or species may move to.

70. Anecdotal information from fishers can contribute to better understanding the potential impacts of the proposal on particular species of commercially-harvested fish. For example, in relation to rig, long-time set net skipper Lyle Jenkins recently told SNZ:

> *My personal theory is that when we have good catches… that the fish are spread thick over a much larger area than just where we are fishing (I have observed times when there have been 3 or more boats spread out to create a paddock of up to 20 square mile[s] where we all had similar good catches). I wonder what affect the mining will have on those large schools of fish. (will the disturbance to one part of the school affect the movements of the whole school?)*

71. Further relevant information on potential impacts on commercially-harvested fish species and commercial fishing is available in the expert and non-expert evidence of local fishers and fishing companies provided in response to TTR's previous applications in 2014, 2017 and 2023.[18]

Broader scale impacts on fish

72. Although localised impacts on commercially harvested fish species have been identified, the DMC (2017) found that overall effects on fish will be no more than minor (apart from eagle ray) and impacts on fish at a population level are unlikely, especially at the level of the South Taranaki Bight or Sediment Modelled Domain.

73. SNZ is not aware of any evidence that indicates there would be broader-scale impacts on fish (i.e., at the scale of the South Taranaki Bight or relevant fish stock), provided the impacts of TTR's activities align with the predictions of the plume modelling. However, expert conferencing in 2017 questioned the reliability of the plume model, particularly in relation to unvalidated model inputs and inability to predict worst-case scenarios.[19] If the assumptions behind the plume model are incorrect, then the impacts on harvested fish species may occur across a broader scale than the model predicts. The same is true in relation to other predicted environmental effects – i.e., if the assessment of environmental effects is unreliable or uncertain, we cannot be certain that adverse effects on fish will be restricted to localised areas.

74. If fish are affected across a broader spatial scale than has been anticipated, then more significant adverse effects on commercial fishing may occur. These could potentially include

[18] For example, see Expert Evidence of Captain Andrew Peter Smith on Fisheries Management (6 October 2023) here; Primary Expert Evidence of Andrew Peter Smith on Fisheries management (23 January 2017) here; Primary non-expert evidence of Douglas Saunders-Loder (24 January 2017) here and supplementary evidence (7 April 2017) here; Primary non-expert evidence of Anthony Leonard Piper (24 January 2017) here; Statement of Evidence of Keith David Mawson (4 April 2014) here.

[19] Joint Statement of Experts in the Field of Sediment Plume Modelling, dated Monday, 13 February 2017; and Joint Statement of Experts in the Field of Sediment Plume Modelling – Setting Worst Case Parameters, dated Thursday, 23rd February 2017.

impacts that are experienced at a QMA scale (i.e., affecting all quota owners in a stock), such as TACC reductions and/or reductions in quota value. While SNZ does not consider that this scale of impact is likely, it is nevertheless possible if TTR's impact assessment and modelling do not accurately predict the real-world scale and impact of their proposed activities. EEZ Act section 6 provides that "effect" includes *any potential effect of low probability that has a high potential impact.*

Damage to fish habitat

75. The area inshore of and partly overlapping TTR's proposed mining site is known to commercial fishers as the 'rolling ground' because of its undulating seafloor. Trawl operators consider that the seafloor formation makes the area particularly suitable as a fish habitat. It is referred to by fishers as a 'nursery ground' as, in their experience, it supports a relatively high incidence of juvenile fish. One skipper described it to SNZ as follows:[20]

> *TTR claims the area to be [barren]. This is at total odds to my experience, the area is unlike any other around the country. It is a huge plateau with shallow spots over 12 mile[s] from shore and with an undulating bottom profile, hard and soft areas, areas of shell and or weed & scallop beds.*

76. The DMC (2017) found that some localised degradation of fish habitats will occur and identified the level of effects on various ecologically sensitive rocky reef areas in the vicinity, as follows:

- Pātea Shoals — moderate effects on primary production, and the local scale effects on benthic primary productivity may be significant;
- The Crack — significant effects on primary production, effects of concern on rich and diverse benthic fauna, temporary or permanent displacement of species;
- Project Reef — significant effects on primary production;
- Graham Bank — significant adverse effects on fish and primary production, and effects including temporary or permanent displacement of species; and
- The Traps – minor effects on macro algae.

77. SNZ considers that the areas of reef in the South Taranaki Bight are likely to be habitats of particular significance for fisheries management (HPSFM) – that is, habitats that are important as fish nursery, spawning, or egg laying areas.[21] In support of this conclusion, we note that:

- Fisheries New Zealand considers the Pātea Shoals area to be HPSFM because it is: ***a known nursery ground*** *for some finfish species and may also be a spawning ground for some finfish species, including John dory*; [22]

- Morrison et al (2022) identified a large patchy sponge garden at 30-33m on the Pātea Bank that *held high densities of juvenile cod, consistent with it* ***providing important nursery habitat for this species****. Several other* ***smaller nursery habitat areas*** *were discovered on the edges of some reefs*; [23] and

[20] Lyle Jenkins (pers. comm. 30 May 2025).
[21] HPSFM have a particular status under the Fisheries Act (see Part Three of our comments).
[22] Fisheries New Zealand (August 2024). Review of sustainability measures for the 2024 October sustainability round.
[23] Morrison, M. and others (2022). Offshore subtidal rocky reef habitats on Pātea Bank, South Taranaki Prepared for Taranaki Regional Council. NIWA. September 2022.

- The Regional Coastal Plan for Taranaki (2023) identifies several relevant areas of significant indigenous biodiversity which provide important fish habitat, i.e.:[24]

    a. The North and South Traps, which are listed as areas of outstanding natural character and outstanding natural features or landscapes. The coastal plan describes the Traps as having *very high biotic values*, particularly kelp beds, diverse fish and sponge communities and species, and providing ***important habitat for crayfish***; and

    b. The Project Reef, which is an area of outstanding natural character, with *unusually high diversity of encrusting sensitive benthic invertebrates including dense assemblages of sponges, hydroids and bryozoa, providing* ***valuable biogenic habitat for invertebrates and fish***. The site has *abundant and diverse fish assemblages with evidence the reef provides* ***an important nursery ground for blue cod***, as well as ***complex habitat supporting crayfish… eels, rays, carpet shark… and many species of reef fish***.

78. Morrison's 2022 survey aimed to find previously unknown reefs and the authors comment that their report *demonstrates that subtidal reefs are in fact common on Pātea Bank, with* ***many more awaiting discovery*** *by multibeam sonar mapping.* [25] It is therefore likely that (a) additional reefs will be discovered in the vicinity of TTR's proposed activities, and (b) these reefs will be found to provide habitats of particular significance for commercially-harvested fish species.

79. This new information about important fisheries habitats supersedes earlier assumptions and findings that the area around TTR's proposed mining site is 'barren' and not particularly important for spawning or for juvenile life stages of the main commercial species taken in the region.[26]

80. If the attributes of known and yet-to-be-identified reefs that make them important for fish lifecycles are damaged as a result of TTR's proposed mining activity, the productivity of affected fish populations may be reduced. The impacts on commercial fishing of localised changes to the productivity of fish populations would be as described in **Table 1** above.

81. Benthic fish habitat at the mining site itself will be destroyed by the proposed mining activity. The DMC (2017) found that mined areas will be repopulated within weeks to months, although some species may take several years to recolonise and the mined area may not be recolonised by exactly the same species as it previously supported. More recently, the EPA identified '*considerable uncertainty'* around assumptions of environmental recovery, stating that:[27]

    Continuous or overlapping pressures, such as those anticipated under this proposal, raise doubt about whether adaptive capacity will be sufficient to prevent long-term or irreversible change.

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[24] Taranaki Regional Council (2023). Operative Regional Coastal Plan for Taranaki.
[25] Morrison, M. and others (2022). Offshore subtidal rocky reef habitats on Pātea Bank, South Taranaki Prepared for Taranaki Regional Council. NIWA. September 2022.
[26] For example, the DMC (2017) noted conflicting claims about whether part of the area affected by the sediment plume has significance in terms of being a fish nursery area, but ultimately accepted the view that it is not a significant nursery ground or significant contributor to the overall health and abundance of the FMA 8 fishery.
[27] EPA Response to request for section 51 report for Taranaki VTM Project. 22 September 2025.

82. If commercially harvested species are slow to recolonise the mined area, or do not recolonise the mined area, commercial fishing may be adversely affected in the ways described in **Table 1** above. If environmental recovery is incomplete or delayed across a wider area (beyond the immediate mining site), QMA-scale adverse effects on commercial fishing such as TACC reductions and/or reductions in quota value may occur.

Effects on fishing that arise from displacement of fishing effort

83. Displacement of commercial fishing effort may arise as a consequence of:

    - Exclusion from the active mining area – TTR describes the area from which fishers will be excluded as a 1 nautical mile buffer from the centre of the mining vessel (i.e., an area of approximately 10km^2). The exclusion zone will be dynamic, moving approximately every ten days. A smaller exclusion zone may be established around vessel transfer areas. This level of exclusion will persist for the length of the consent term;
    - Displacement from the area of the sediment plume – this type of displacement may occur either because harvested fish species avoid the plume, or because fishers choose to refrain from fishing in the affected area because of general concerns about adverse environmental effects and/or uncertainty; and
    - Cumulative spatial displacement arising from the above two sources of displacement, in combination with other existing causes of spatial displacement of commercial fishing effort in the region.

84. Spatial displacement has significant adverse effects on commercial fishing and may threaten the sustainability of fisheries resources. These effects are not simply theoretical – they are acknowledged in legislation, including in the EEZ Act section 60 and in the 'aquaculture decision' under Part 9A of the Fisheries Act. If individual fishers have to move away from their habitual fishing grounds, they may experience economic impacts in the form of:

    - Lower abundance/availability of fish (i.e., less revenue);
    - Changes to the relative abundance of species (requiring changes to ACE mix);
    - Longer navigation time and/or searching time (i.e., increased cost); and
    - Different vessel and/or gear requirements or qualifications (i.e., increased cost).

85. Fishing effort displaced from one area will intensify the fishing effort in the rest of the quota management area (QMA), which may have adverse effects such as:

    - Localised depletion of affected stocks in the surrounding area;
    - More concentrated environmental impacts of fishing;
    - Inability of fishers to catch their ACE; and
    - Increased competition for space and catch within the commercial sector and with customary and recreational fishing sectors.

86. The magnitude of any impacts depends on the size of the exclusion relative to the amount of fishing that took place there, and the duration of the exclusion. If sufficiently serious, the impacts of spatial displacement of commercial fishing can lead to:

    - Stock-wide sustainability impacts;
    - TACC reductions (or forfeiting TACC increases that would otherwise have benefitted commercial fishing interests); and

- Reduced revenue for commercial fishers and quota owners.

Analysis of spatial displacement

87. SNZ considers that potential spatial displacement of commercial fishing has not been adequately analysed by TTR. TTR's most recent report on fisheries impacts does not analyse spatial displacement effects as a consequence of either exclusion from the mining area or displacement from the area of the sediment plume.[28]

88. With respect to displacement from the mining area itself, MPI provided the DMC (2017) with estimates of the percentage of total FMA 8 catch of the ten most important commercially-harvested species taken from the proposed consent area. The most significant estimates were 10.4% displacement for leatherjacket and 5.87% for trevally.[29]

89. With respect to fisheries displacement from the wider area potentially affected by the sediment plume, TTR's 2017 application included a NIWA report which stated that:[30]

> *The fisheries with the greatest overlap with the proposed iron sand extraction operations are the bottom trawl fisheries for leather jackets and trevally, and the set-net fisheries for rig, carpet sharks, trevally, school shark, snapper, and spiny dogfish. Between 5% and 17% of the total catches in the study area for these species occur in the area where SSC exceeds the 2 mg/l threshold for fish avoidance 1% of the time.* [For trawl-caught trevally the figure was 7-12%, and for the important set net species, school shark 10% and rig 17%].

90. The displacement estimates provided by NIWA and MPI in 2016 are not negligible or minor. By way of comparison, MPI has previously applied a non-statutory 'rule of thumb' threshold of 5% when assessing whether the catch displaced by a new aquaculture application may have an '*undue adverse effect'* on commercial fishing.[31] By this measure, the estimated displacement of two species from the proposed mining site and most species from the plume could be considered 'undue'.

91. Nevertheless, both sets of analysis are now very outdated and commercial fishing effort in TTR's proposed project area has changed over the last decade (for example, leatherjacket is no longer targeted in the inshore trawl fishery). In addition, NIWA's analysis expresses the percentage of displaced catch in relation to 'the study area' – i.e., an area which includes parts of FMA 8 and FMA 7. From a commercial fishing perspective, this analysis is misleading and irrelevant as for most of the affected stocks, fishers cannot shift their fishing effort to FMA 7.[32]

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[28] MacDiarmid et al (2024). South Taranaki Bight Fishing 1 October 2007 - 30 September 2023 Prepared for Trans Tasman Resources Ltd. NIWA. March 2024.
[29] MPI response to EPA's s.44 request. 22 February 2017
[30] MacDiarmid and Ballara (2016). South Taranaki Bight Commercial Fisheries. 1 October 2006 – 30 September 2015. Prepared for Trans-Tasman Resources Ltd. NIWA. May 2016
[31] The "undue adverse effect" assessment is undertaken as a requirement of Part 9A of the Fisheries Act. MPI's "rule of thumb" is first documented in *SMW Consortium (Golden Bay) Limited v The Chief Executive of the Ministry of Fisheries* COA CA431/2011 [10 April 2013] where the chief executive is reported as saying "*I am conscious that other marine farming decisions have tended, over time, towards a nominal 5% threshold on the "undue adverse effect test". I am conscious, however, that this will [be] the first time the chief executive formally indicates a level at which effects become undue*" (para 45). The Court of Appeal ruled that the chief executive "did not err in adopting the five per cent threshold in the circumstances of this case" (para 52).
[32] For further discussion on this point, see Primary Expert Evidence of Jeremy Helson on Fisheries Management for the Fisheries Submitters. 23 January 2017, paragraphs 58-60. here.

92. SNZ's own more recent analysis indicates that over the last five years, the maximum annual percentage of FMA 8 catch of key species taken from within the TTR project area was less than 5% for all species apart from trevally (6.32%). Other material estimates were for school shark (2.46%) and snapper (2.29%).[33]

93. SNZ has not analysed the level of potential displacement from the area occupied by the sediment plume because we are not confident that the plume modelling captures the worst-case scenario for potential effects on fish and fishing. Instead, we analysed the level of displacement from an 'affected area', which more or less aligns with TTR's Sediment Modelled Domain, which is described by TTR as '*the area where any potentially significant impacts from sediment discharged by the project could occur*'.[34]

94. A significant proportion of FMA 8 catch of all the main species was taken from the 'affected area' and is therefore potentially vulnerable to displacement. The estimates for the last five years are:[35]

    - School shark: 38% - 55%;
    - Rig: 37% - 65%;
    - Trevally: 43% - 71%;
    - Snapper: 34% - 39%;
    - Gurnard: 39% - 50%.

95. We are not suggesting that the above levels of displacement necessarily will occur or are likely to occur. Instead, these figures are presented to fill an information gap relating to the percentage of FMA 8 catch that is potentially vulnerable to fisheries displacement effects. High levels of displacement of commercial fishing could occur particularly if:

    - The sediment plume behaves in ways that are not within the modelled outputs;
    - Commercially-harvested fish species are more sensitive to high levels of suspended sediment or noise than has been assumed; or
    - Commercial fishers avoid fishing in a large area of the South Taranaki Bight in response to uncertainty about the extent and location of the plume or the adverse effects of the plume on commercially-harvested species.

96. If displacement at this scale occurred, it would likely lead to impacts that are felt at a fishery-wide level, including TACC reductions and potential loss of quota value. Broad-scale displacement is more likely to have flow-on impacts on local and more distant fishing ports and regional supporting industries.

97. Finally, SNZ emphasises that even if likely levels of displacement are assessed as being relatively small, it does not follow that there would be no or negligible impacts on commercial fishing – the impact of displacement on individual commercial fishers will depend on the circumstances of those fishers (e.g., their dependence on the affected area, ACE holdings, and size and resilience of their business).

[33] See **Attachment 1** for details.
[34] TTR Application (2025), Figure 5.1, page 132, and page 134.
[35] See **Attachment 1** for details.

Cumulative spatial displacement

98. Commercial fisheries in FMA 8 are subject to extensive spatial exclusions. Details of the existing regulatory closures are provided in **Attachment 1**. In summary, they include:

- Extensive regulatory closures intended to protect Māui dolphins. For set net fisheries, in FMA 8 the exclusion zone extends along the entire length of the coastline, out to 12 nautical miles north of New Plymouth, out to 7 nautical miles north of Hawea and out to 4 nautical miles in the south of the FMA. For inshore trawl fisheries, the coast north of New Plymouth is closed out to 4 nautical miles offshore;
- Safety zones and submarine cable and pipeline protection zones around oil and gas infrastructure for Kupe, Maui A, Maui B, Tui and Pohokura;
- Closure of all waters within 20 nautical miles of the coast to fishing vessels over 46m in length; and
- Fishing prohibitions in Tapuae Marine Reserve and under fisheries regulations at an adjacent area at Sugarloaf Islands south of New Plymouth.

99. These regulatory closures mean that commercial fishers who are displaced by TTR's proposed activities have limited flexibility in terms of shifting their fishing effort to other areas. This is particularly serious for set netters because the regulatory closure extends the entire length of FMA 8, providing no available areas within 4 nautical miles of the shore for set netting, and only limited areas within 7 nautical miles of the shore.

100. The cumulative impact of spatial displacement on FMA 8 set net fisheries is already significant – any additional displacement arising from TTR's proposed activities will exacerbate it.

101. The most recent Māui dolphin closures for trawling and set netting were imposed in 2020. The cumulative impacts of TTR's proposal on existing fisheries interests in the area will therefore be higher than it would have been in 2017 given the smaller area now available for fishing.

Other potential effects on commercial fishing

102. In submissions and evidence in 2016-2024, affected fishing industry members identified additional potential adverse effects on commercial fishing arising from TTR's proposed activities. These effects are summarised in **Table 2**.

Table 2: Effects on commercial fishing arising from other sources

Source of impact	Effect on commercial fishing	Scale
Post-mining pits and mounds	• Hazard for fishing vessels • Physical exclusion of fishing	Project area Long duration
Impact, actual or perceived, on seafood quality	• Market access barriers • Reduced export price • Reduced revenue • Reduced quota value • Additional marketing cost • Reputational risk to seafood industry	Regional/ national
Unforeseen events e.g., biosecurity incursion, oil spill	• Maritime safety • Fisher health and safety	Variable

	• Loss of fishing access arising from control measures • Effect as for other changes to fish distribution, abundance or productivity

Post-mining pits and mounds

103. TTR's application states that a 10m deep pit and a 9m high mound, at 35m water depth, would take approximately 100 years for waves and currents to reduce the pit volume by 90% and 20 years for the mounds to be reduced by 90%. SNZ considers that these significant changes in bathymetry may cause safety risks for trawlers operating in the area. Long-term exclusion of bottom trawling at the mining site may occur if trawl operators seek to avoid steep-sided pits and mounds for safety reasons.[36]

Seafood quality and reputational risks

104. SNZ generally accepts the conclusions of the DMC (2017) that the risk of human health effects arising from metal contaminants in the sediment plume will be negligible and the effects undetectable. We note, however, that the EPA has identified an information gap in relation to TTR's consideration of mercury, a trace metal of significant concern for human health.[37]

105. We are also aware that seafood consumers frequently base their purchasing decisions on their own perceptions of the health of a particular product and the environment it is harvested from, rather than on the balance of scientific evidence. Trade and market access risks may arise as a consequence of prevalent misinformation even if the environmental effects of seabed mining are adequately controlled. As an export-dependent sector, the seafood industry is extremely exposed to these risks. SNZ therefore considers that seafood quality and reputational risk are matters that remain relevant to the panel's decision.

Unforeseen events

106. Unforeseen events such as oil spills, operational accidents (e.g., involving vessels), or biosecurity threats may have a range of impacts, including impacts on maritime safety and fishers' health and safety, and impacts on commercially-harvested fish species. Impacts on fish may affect commercial fishing in similar ways to other changes to fish distribution, abundance or productivity, as set out in **Table 1** above. Commercial fishers may also be adversely affected by control measures put in place to manage the effects of an unforeseen event – for example, exclusion zones or vessel movement restrictions can contribute to cumulative spatial displacement and increase the cost of fishing.

EEZ Act section 60

107. Section 60 of the EEZ Act requires that, when considering the effects of an activity on existing interests, the decision-maker must have regard to four specified matters. The first is *the area the activity would have in common with the existing interest*. As set out in Part Two of our comments and in **Attachment 1**, TTR's proposed seabed mining site overlaps in its entirety with the existing commercial set net fishery and inshore trawl fishery. The off-site impacts of the

[36] For further discussion of this point, see Primary Expert Evidence of Andrew Smith on Fisheries Management for Fisheries Submitters. 23rd January 2017. Paragraphs 47-49. here

[37] EPA Response to request for section 51 report for Taranaki VTM Project. 22 September 2025.

proposed activity (in particular, the sediment plume) potentially overlap with other commercial fisheries, including the jack mackerel fishery and a coastal rock lobster fishery.

108. The second matter is *the degree to which both the activity and the existing interest must be carried out to the exclusion of other activities.* Commercial fishing is a non-exclusive activity – i.e., the existence of commercial fishing in an area does not exclude any other uses of the area. In contrast, TTR's proposed activity will exclude commercial fishing.

109. TTR has indicated that '*at any given time, existing interests will only be excluded from the locations presently being mined, a small safety area around the mining vessel and any safety area around related vessels*.'[38] This significantly understates the potential degree of exclusion of commercial fishing because it ignores:

- The potential for fishing to be excluded from the area in which fish may be affected by the sediment plume; and
- The exclusion that may occur as a consequence of commercial fishers avoiding a wide area of the South Taranaki Bight because of uncertainty about the effect of the mining activity on the distribution and abundance of commercially-harvested species.

110. The third matter is *whether the existing interest can be exercised only in the area to which the application relates*. While commercial fishing can feasibly be undertaken in areas other than the area affected by TTR's proposed activities, a significant portion of commercial catch in FMA 8 is potentially vulnerable to TTR's proposed activities (see paragraph 94). There is uncertainty about exactly how much commercial catch could be affected. Individual commercial fishers will be affected to different extents, which may in some cases be significant. Fishers are also limited in their ability to move elsewhere in the South Taranaki Bight as a consequence of cumulative spatial displacement (paragraphs 98-101) and for the practical reasons set out in paragraph 68.

111. The final matter is any *other relevant matter*. The other matters relevant to considering effects on existing commercial fishing interests are discussed throughout Part Two of our comments.

Part Three: Other marine management regimes: The Fisheries Act

112. When assessing approvals related to the EEZ Act, the FTAA requires the panel to take into account EEZ Act section 59 which includes *the nature and effect of other marine management regimes*.[39] The Fisheries Act 1996 is identified as a marine management regime in EEZ Act section 7(2)(f). The Supreme Court confirmed that the decision-maker must consider the key features of other marine management regimes and how they would apply if the activity were being pursued under those regimes, including whether TTR's proposal would produce outcomes inconsistent with the objectives of other management regimes or effects that are inconsistent with the outcomes sought to be achieved by those regimes.[40]

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[38] TTR Application (2025), page 329.
[39] EEZ Act s.59(2)(h).
[40] TRANS-TASMAN RESOURCES LIMITED v TARANAKI-WHANGANUI CONSERVATION BOARD, [2021] NZSC 127 [30 September 2021], At [175]–[187] per William Young and Ellen France JJ, [280] per Glazebrook J, [298] per Williams J and [331] per Winkelmann CJ.

113. In this section of our comments, we describe some key aspects of the Fisheries Act and set out why they are relevant to the consideration of TTR's application.

Objective of the management regime

114. The objective, or purpose, of the Fisheries Act is to provide for the utilisation of fisheries resources while ensuring sustainability (section 8). Ensuring sustainability means (a) maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations, and (b) avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment. The definition of 'fisheries resources' includes:

> *stocks or species of fish, aquatic life,* [i.e., *any species of plant or animal life that, at any stage in its life history, must inhabit water, whether living or dead, … [including] seabirds (whether or not in the aquatic environment)], or seaweed.*

115. The purpose of the Fisheries Act and its broad definition of 'fisheries resources' are relevant to the assessment of TTR's seabed mining application because:

- 'Fisheries resources' includes non-fish components of the marine environment, such as protected species (e.g., Māui dolphins or seabirds), that may be adversely affected by TTR's proposed activities. As a result of the requirement to maintain the potential of fisheries resources to meet the needs of future generations, the fishing industry has a strong interest in ensuring that the adverse effects on fisheries resources of all other (non-fishing) activities are avoided, remedied or mitigated under the relevant legislation – in this case, the FTAA; and
- If adverse effects of non-fishing activities on fisheries resources are not adequately avoided, remedied or mitigated under the relevant legislation, then this may (a) undermine the purpose of the Fisheries Act, and (b) have a constraining effect on the exercise of commercial fishing rights. For example, if TTR's activities have adverse effects on Māui dolphins, this may result in further restrictions on commercial fishing being imposed under the Fisheries Act in order to ensure that the management of the Māui dolphin population remains consistent with the purpose of that Act.

116. The Fisheries Act also contains 'environmental principles' and 'information principles' that decision makers must take into account (sections 9 and 10), and provides for regulatory tools to avoid, remedy or mitigate any adverse effects of fishing on the aquatic environment.

The Quota Management System

117. In relation to commercial fishing, the primary way in which the Fisheries Act provides for the utilisation of fisheries resources is the Quota Management System (QMS). The Act divides New Zealand's territorial sea and EEZ into ten fisheries management areas (FMAs). Each species managed under the QMS is divided into a number of fish stocks in defined Quota Management Areas (QMAs) which are based on various combinations of FMA boundaries. Therefore, for management purposes, a fish stock is a particular species within a defined QMA – for example, "SNA 8" refers to snapper in FMAs 8 and 9. Currently 642 separate fish stocks, representing 98 species or species groups, are managed under the QMS.

118. The total allowable catch (TAC), which is set and adjusted by the Minister for Oceans and Fisheries, is the primary tool for ensuring the long-term sustainability of fish stocks managed

under the QMS. Each QMS stock also a total allowable commercial catch (TACC) and allowances for non-commercial fishing. To support the setting and adjustment of catch limits, the government contracts approximately $20 million in research annually, much of which is recovered directly from quota owners. For example, in 2024/25 the seafood industry is contributing $39.4 million through cost recovery levies, largely to pay for research and enforcement in support of managing New Zealand's fisheries.

119. Each QMS stock has 100 million quota shares (referred to formally as Individual Transferable Quota or ITQ). A quota share represents a fixed percentage of the total commercial rights for a fish stock in perpetuity. Each quota share generates Annual Catch Entitlement (ACE) which is the right to harvest that tonnage of the TACC for the stock during one fishing year. ITQ and ACE are fully and independently tradable, enabling ACE to change hands throughout a fishing season. Commercial catch is closely monitored by the government and financial penalties known as deemed values must be paid by fishers who catch more fish than their ACE holdings in any year.

ITQ is a property right

120. The courts have consistently acknowledged that ITQ is a property right, albeit one that is the product of, and subject to, the constraints of the Fisheries Act. The strong property right characteristics of ITQ enabled it to be used as the currency of the commercial component of the Māori Fisheries Settlements in 1989 and 1992.

121. ITQ is the fishing industry's main asset. The perpetual and proportional nature of ITQ means that its value is related primarily to (a) the current abundance of the stock and its perceived future abundance and (b) access to the fishery and perceived threats to future access. The QMS has been recognised internationally as a successful management regime because it provides strong incentives for quota owners to ensure fisheries sustainability. Stocks that are healthy and sustainable, with secure access rights, will maximise the capital value of ITQ. Quota owners are therefore incentivised to act to safeguard the sustainability of fish stocks and their continued access to fishing grounds.

122. This is important and relevant to TTR's application because new activities such as seabed mining can have adverse effects on quota value if they threaten – or even if it is perceived that they may in future threaten – the sustainability of a fish stock, access to fishing grounds, or the profitability of fishing. If quota value is threatened by new activities or environmental changes, the sustainability incentives that lie at the heart of the QMS will be weakened and the purpose of the Fisheries Act may be compromised.

Spatial scale considerations in the QMS

123. Although the spatial scale of ITQ is defined by the QMA, the location of fishing activity within a QMA is not evenly distributed. It depends on factors such as where the species lives (i.e., habitat availability), the economics of fishing, regulatory constraints, fishery management considerations, and environmental conditions (e.g., weather, water quality). It is therefore not correct to assume – as TTR assumes[41] – that commercial fishers displaced from one area will necessarily be able to catch their entitlements nearby.

124. This is particularly the case when assessing fisheries impacts in the South Taranaki Bight as the QMA boundary of many of the commercially important stocks runs in a NW-SE direction

[41] See, for example, TTR Application (2025), pages 191 and 238.

between TTR's proposed project area and the top of the South Island. This means that fishers displaced by mining activity are not legally able to transfer their fishing effort south of the boundary because it is a separate QMA.

125. Localised changes to the distribution and relative abundance of fish species may be assessed as 'ecologically insignificant' because the same species are present in the same numbers when considered at a broader spatial scale. However, a localised change in distribution or relative abundance can make catching those species economically unviable if a fisher has to source a different combination of ACE or pay a deemed value penalty if no ACE is available. Similarly, if catching costs increase due to greater dispersion of target species, or greater distance from port, the fisher will be adversely affected.

126. These scenarios illustrate SNZ's concerns about (a) the need to assess impacts at a spatial scale relevant to fishing, and (b) the important difference between biologically or ecologically significant impacts on fish, and impacts on commercial fishing.

Habitat of particular significance for fisheries management

127. The Fisheries Act includes a principle that *habitat of particular significance for fisheries management should be protected* (section 9). Habitat of particular significance for fisheries management (HPSFM) is not defined in the Act, but Fisheries New Zealand (FNZ) considers that it refers to habitats of importance for fish productivity, such as fish nursery, spawning, or egg laying areas. When providing advice to the Minister for Oceans and Fisheries, FNZ uses the best available information (based on peer-reviewed, published sources) to identify relevant HPSFM.

128. As noted above, within the area potentially affected by TTR's proposed activities, FNZ has identified the Pātea Shoals as HPSFM.[42] The Taranaki Regional Council (TRC) has also identified several significant indigenous biodiversity areas within the Pātea Bank which are known to provide important fish habitat.[43] A NIWA report by Morrison et al (2022) identifies further areas in the Pātea Bank that may be HPSFM. Morrison describes the fisheries habitat attributes of the Pātea Bank as follows:[44]

> *subtidal reefs are … common on Pātea Bank... Associated with these reefs are extensive areas of biogenic habitat, dominated by macroalgae (notably Ecklonia forests, Caulerpa meadows, mixed macroalgal meadows, and soft bryozoan fields), as well as areas of sponge garden (areas of higher sponge cover more than 5 metres in width). The* ***associated fish assemblages are abundant****, dominated by blue cod, scarlet wrasse, butterfly perch, leatherjackets and tarakihi, with other fisheries species likely to be common (e.g., snapper, trevally, kingfish, and kahawai). …****They are worthy of careful management by the TRC, and other governance entities****.*

129. Although no bottom trawling takes place at any of these sites, FNZ has indicated that it is considering options (including regulated or non-regulated area closures to trawling) to manage the risk of adverse effects of fishing at the Pātea Shoals to support the ongoing function of this

[42] Fisheries New Zealand (August 2024). Review of sustainability measures for the 2024 October sustainability round.
[43] Taranaki Regional Council (2023). Operative Coastal Plan for Taranaki.
[44] Morrison, M. and others (2022). Offshore subtidal rocky reef habitats on Pātea Bank, South Taranaki Prepared for Taranaki Regional Council. NIWA. September 2022.

area in maintaining productive fisheries and ecosystems.[45] This management response under the Fisheries Act would be negated if another activity such as seabed mining were to have adverse effects on the attributes of the Pātea Shoals that make the area a HPSFM.

130. Of interest as a precedent, the decision-maker for Chatham Rock Phosphate's application for marine consents (2015) under the EEZ Act determined that the proposed seafloor mining activity would be inconsistent, and effectively negate, the existence of a benthic protection area established under the Fisheries Act that overlapped with the mining area. This was a significant factor in the decision to refuse consent for that application.[46]

131. Following the Supreme Court's guidance on consideration of other management regimes, SNZ suggests that approval of any activity under the FTAA that has adverse effects on areas that are potential HPSFM would be contrary to the principle in section 9 of the Fisheries Act that HPSFM should be protected. While section 9 of the Fisheries Act is not an 'environmental bottom line', it sets out principles that are central to achieving the purpose of the Fisheries Act and that are therefore relevant matters to be weighed up when making a decision under the FTAA. It is also relevant in relation to EEZ Act section 59(2)(e) which requires decision-makers to take into account the importance of protecting rare and vulnerable ecosystems.

Part Four: Conditions

132. In Part Two of our comments we identify a number of potential impacts on commercially-harvested fish species and commercial fishing that may arise from TTR's proposed activities. SNZ considers that the conditions that TTR has proposed to address these impacts are inadequate. TTR's proposed conditions that are most relevant to commercial fishing are:

- Conditions 26, 28 and 29 that provide size limits for the residual pits and mounds at the mining site;
- Condition 31 which relates to management of biosecurity risks;
- Conditions 33 and 34 which relate to oil spills;
- Condition 38 which relates to loss of equipment or machinery overboard;
- Condition 47, pre-commencement environmental monitoring, which includes seafood resources and commercial fishing, as detailed in the Pre-commencement Environmental Monitoring Plan (PCEMP);
- Condition 54, environmental monitoring and management plan (EMMP), including monitoring of seafood resources;
- Condition 60, establishment of Technical Review Group including a suitably qualified person nominated by Fisheries Inshore New Zealand. If Fisheries Inshore New Zealand do not accept the invitation to nominate a representative, TTR must invite Sanford to do so; and
- Condition 86, fishing industry relationship, which provides for six-monthly meetings between TTR and representatives of the commercial fishing industry, including any representatives nominated by Fisheries Inshore New Zealand.

[45] Fisheries New Zealand (August 2024). Review of sustainability measures for the 2024 October sustainability round.

[46] Environmental Protection Authority "Decision on Marine Consent Application — Chatham Rock Phosphate Limited — To mine phosphorite nodules on the Chatham Rise" (EEZ000006) at paragraphs 736 and 906.

TTR's approach to conditions

133. SNZ considers that, in relation to potential impacts of TTR's proposed activities on commercially harvested species and commercial fishing, there is considerable uncertainty and insufficient baseline information which means that potential environmental changes resulting from TTR's proposal cannot be addressed through consent conditions which set clear parameters for environmental triggers or limits.

134. In response to similar concerns about uncertainty and the lack of baseline information, the DMC in 2017 imposed a condition requiring TTR to undertake pre-commencement monitoring. This condition, which has been carried through to TTR's current proposal, requires the collection of two years of pre-commencement baseline monitoring data, including for "seafood resources" and "commercial fishing".

135. However, the Supreme Court in 2021 found that the DMC's decision to impose conditions requiring pre-commencement monitoring and management plans (in relation to marine mammals and seabirds) was a fundamental error of law. The court found that the level of uncertainty and absence of baseline information meant that the conditions did not comply with the requirement to favour caution and environmental protection in EEZ Act sections 61 and 87E. Three judges also emphasised that the attempt to rectify information deficits by imposing conditions requiring pre-commencement monitoring, which would subsequently inform the creation of management plans, inappropriately deprived the public of the right to be heard on a fundamental aspect of the application.[47]

136. It is apparent that any information on seafood resources and commercial fishing gathered by pre-commencement monitoring *after* the consent is granted cannot be used to inform:

- The input of existing commercial fishing interests, in relation to proposed measures to avoid, remedy or mitigate adverse effects on those interests; or
- The panel's decision and the imposition of consent conditions.

137. More than ten years after TTR's original application, the unsatisfactory reality is that many of TTR's proposed conditions rely on pre-commencement monitoring to gather baseline information and to inform the development of management plans, rather than on clearly stated environmental limits, triggers, and required actions.

138. We nevertheless provide comments on the proposed conditions below, within the constraints of TTR's general approach to conditions which we find to be unsatisfactory and inadequate.

139. Although our focus is on the conditions that are most relevant to managing adverse effects on commercial fishing and commercially harvested fish species, it should be noted that SNZ has an interest in the full suite of conditions because all environmental changes have the potential to adversely affect fisheries resources, fish habitats and commercial fishing.

New general condition for fish and shellfish

140. The proposed conditions include general requirements for TTR to avoid, remedy or mitigate adverse effects on seabirds (condition 9) and marine mammals (condition 10). However, there is

[47] TRANS-TASMAN RESOURCES LIMITED v TARANAKI-WHANGANUI CONSERVATION BOARD, [2021] NZSC 127 [30 September 2021], paragraph 11.

no similar requirement in relation to other marine life, particularly fish and shellfish. In addition, while the consent conditions address noise impacts on marine mammals (condition 10), there is no condition addressing noise impacts on harvested fish species, even though fish are known to be very sensitive to underwater noise.

141. We consider that TTR should be required to take reasonable steps to avoid, remedy or mitigate adverse effects on fish and shellfish, including noise-related effects, because fish and shellfish:

- Are important components of the marine ecosystem in the South Taranaki Bight; and
- Are utilised by lawfully established existing interests in the South Taranaki Bight and are highly valued by commercial, customary and recreational fishers.

142. SNZ therefore **recommends** a new condition that requires TTR to ensure that adverse effects on fish and shellfish are mitigated and, where practicable, avoided, including but not limited to effects arising from:

- The sediment plume;
- Underwater noise;
- Lighting; and
- Effects on fish habitats, water quality or primary production.

143. The new condition should also require that once underwater noise has been monitored and verified in accordance with proposed condition 11, the noise profile of the mining operation should be compared to noise frequencies and fish sensitivities of species that are known to occur in the area. If there is a strong overlap between mining noise frequency and fish sensitivities then TTR should be required to instigate mitigation measures to reduce underwater noise production. This condition is consistent with findings of the joint experts in 2017 and 2024.[48]

Pre-commencement monitoring

144. Proposed condition 47 identifies monitoring of "seafood resources" and "commercial fishing" as minimum requirements of the PCEMP. However, TTR's Draft Baseline Environmental Monitoring Plan (BEMP), does not address the monitoring of seafood resources or commercial fishing.[49]

Seafood resources

145. Monitoring of seafood resources should focus on species that are identified as being of particular importance for commercial fishing, customary fishing or recreational fishing in the area potentially affected by seabed mining activities.

146. SNZ **recommends** that, as a condition related to the scope of the PCEMP, TTR should be required to prepare a Fish Monitoring Plan that is developed by a Suitably Qualified and Experienced Person in consultation with persons nominated by SNZ, representatives of the local recreational fishing sector, and relevant non-commercial customary fishing interests.

147. The aim of the plan and monitoring programme would be to improve information on the impacts of the mining operation on the local distribution and behaviour of fish (including

[48] Joint Statement of Experts in the Fields of Effects on Fishing and Effects on Fish. 20 February 2024.
[49] Draft Baseline Environmental Monitoring Plan (August 2016). TTR Taranaki VTM FTAA Application, Appendix, Section 5.

shellfish) in order to: (a) provide baseline information in relation to species of interest to fishing sectors; (b) detect changes that may be attributable to mining activities; and (c) provide a basis for actions to be implemented by TTR to manage any adverse effects on fish populations arising from the mining activity.

148. When developing the Fish Monitoring Plan, consideration should be given to the spatial extent of the monitoring, the species to be monitored, data collection methodologies (including spatial and temporal considerations, fish counts, fish capture, sampling design) and data processing and analysis. The plan should also include targeted research to clarify any residual areas of material uncertainty (e.g., impacts of elevated levels of suspended sediment on commercially harvested fish species).

Commercial fishing

149. TTR should be required to familiarise itself with existing commercial fishing activity that may be affected by seabed mining activities, at a scale that is relevant to understanding the potential impacts of the mining on commercial fishing. Our comments identify that anecdotal information provided by fishers will be extremely important to developing this understanding.

150. SNZ therefore **recommends** that, as a condition related to the scope of the PCEMP, TTR should be required to:

- Engage with commercial fishers to understand how they fish in the affected area (including spatial, temporal and economic considerations) and the attributes that make parts of the affected area important for their fishing operations; and
- Obtain updated information annually from Fisheries New Zealand on:
  i. commercial fishing catch and location in the affected area, at the finest scale that can be provided within data confidentiality constraints; and
  ii. any new regulations affecting commercial fishing in FMA 8.

Environmental monitoring

151. Proposed condition 54, environmental monitoring and management plan (EMMP), includes the monitoring of seafood resources but omits any reference to commercial fishing. In spite of the reference to seafood resources in condition 54, TTR's draft EMMP does not include the monitoring of seafood resources (other than 'kaimoana') and the only fishing activity that the draft EMMP seeks to monitor is recreational fishing. [50]

152. Ongoing monitoring under the EMMP is intended to ensure that TTR's mining activity does not result in any adverse effects that were not anticipated at the time of granting the consents. It is important that TTR monitors effects on seafood resources and commercial fishing in order to be able to detect and respond to any adverse effects that arise.

153. SNZ therefore **recommends** that proposed condition 54 should be amended to specifically refer to monitoring of commercial fishing in the EMMP, as detailed below.

[50] Draft Environmental Monitoring and Management Plan (August 2016). TTR Taranaki VTM FTAA Application, Appendix, Section 5.

Seafood resources

154. As a condition related to the scope of the EMMP, TTR should be required to undertake ongoing monitoring of seafood resources under the Fish Monitoring Plan, as we discuss above in relation to pre-commencement monitoring. With respect to fish, the EMMP should also include testing of relevant fish species under MPI's National Chemical Residues Programme or similar.

Commercial fishing

155. As conditions related to the scope of the EMMP, TTR should be required to:

- Obtain annual updated information from Fisheries New Zealand on commercial fishing in FMA 8 (i.e., a continuation of the monitoring provision we recommend in relation to the PCEMP). TTR should discuss any significant changes in commercial fishing activity via the fishing industry relationship mechanism (condition 86) in order to assess whether any changes are reasonably attributable to TTR's activities; and
- Within six months of commencement of mining operations, establish a mechanism to enable commercial fishing interests to present any concerns about impacts on their fishing operations to TTR, and for those concerns to be investigated using a transparent process. If the concerns are found to be valid and reasonably attributable to TTR's activities, remedies or mitigation should be determined by agreement between the parties. This process could be facilitated under the 'fishing industry relationship' mechanism referred to in condition 86.

Technical Review Group

156. SNZ **recommends** that proposed condition 60 should be amended by:

i. Replacing reference to "Fisheries Inshore New Zealand" with "Seafood New Zealand"; and
ii. Deleting reference to Sanford.

157. These changes are necessary because FINZ and SNZ merged (together with the Deepwater Group) to form Seafood New Zealand in 2023. If a Technical Review Group is established, then SNZ will nominate a member.

Fishing industry relationship

158. Condition 86 requires six-monthly meetings between TTR and fishing industry representatives. While SNZ appreciates the intent of this condition, we are concerned that:

- Starting these meetings six months before the mining starts is too late; and
- The purpose of the meetings is inappropriately limited to operational matters.

159. TTR's proposed activities may have adverse effects on commercial fishing operators, as outlined in Part Two of our comments. However, the actual impacts on commercial fishing remain uncertain, in part because of uncertainty in the available information. Fishing industry representatives should therefore be involved in the design of pre-commencement monitoring, and not simply provided with information by TTR once mining commences. If TTR's activities cause adverse effects on commercially-harvested species, fish habitats, or commercial fishing activities, then the "relationship" mechanism is the appropriate venue for reaching agreement on remedies or mitigation.

160. SNZ therefore **recommends** that proposed condition 86 should be amended to:

i. Replace “Fisheries Inshore New Zealand” with “Seafood New Zealand”;
ii. Require the meetings to start within six months of consent being granted;
iii. Expand the purpose of the meetings to cover:

- Matters relating to pre-commencement monitoring (including design of the Fish Monitoring Plan, monitoring of commercial fishing, and discussion of monitoring results);
- Sharing of relevant information and establishing a coordinated approach between the seabed material extraction activities and commercial fishing activities, including communications protocols; and
- Developing agreed remedies or mitigation measures if TTR’s activities cause adverse effects on commercially-harvested species, fish habitats, or commercial fishing activities.

Hazards should be reported directly to the fishing industry

161. Several of the proposed conditions require TTR to report known hazards arising from the mining activity to various agencies – for example condition 29 regarding the reporting of the location of unfilled pits; condition 34 regarding the reporting of oil spills, and condition 38 regarding loss of equipment or machinery overboard. All of these hazards create direct and immediate operational risks for commercial fishers working in the vicinity of TTR’s proposed activities. SNZ therefore **recommends** that:

i. Conditions 29, 34, and 38 should require TTR to directly notify Seafood New Zealand or a nominated local commercial fishing representative of the hazards dealt with in each of those conditions; and

ii. TTR should make annual bathymetric survey information available to commercial fishing interests.

Habitat of particular significance for fisheries management

162. TTR’s proposed condition 7, benthic ecology, refers to Schedule 4 which sets out a list of benthic monitoring sites. As noted in Part Three of our comments, habitat of particular significance for fisheries management (HPSFM) has a special status under the Fisheries Act and that Act is an “other marine management regime” that must be taken into account by the panel.

163. SNZ therefore **recommends** that the conditions should require that all areas of HPSFM that are identified by Fisheries New Zealand in the affected area (i.e., the Sediment Modelled Domain), whether identified before or after the commencement of mining, should be added to the Benthic Monitoring Sites in Schedule 4. We also consider that fish monitoring should be undertaken at the benthic ecology monitoring sites, particularly at those sites that are considered to be HPSFM.

Monitoring benthic recovery

164. While we support the monitoring of benthic recovery in proposed condition 8 and the post-extraction monitoring in proposed condition 57, the conditions do not address what will happen if monitoring shows that the benthic environment is not recovering. SNZ **recommends** that further consideration should be given to measures necessary to ensure benthic recovery occurs, potentially including the payment of a bond by TTR to the EPA to guarantee that necessary research and remedial actions will be undertaken and the intended recovery will be achieved.

165. This is particularly important because of the considerable uncertainty around TTR's assumptions about environmental recovery, as discussed earlier in these comments.

Conditions not more onerous than necessary

166. The FTAA in section 83 provides that:

> *When exercising a discretion to set a condition under this Act, the panel must not set a condition that is more onerous than necessary to address the reason for which it is set in accordance with the provision of this Act that confers the discretion.*

167. SNZ considers that the conditions, and changes to proposed conditions, that we recommend above are necessary to address the reason for which the condition is recommended. The reasons for each of our recommended conditions are set out above.

168. In each case, the provision of the FTAA that confers the discretion is Schedule 10 clause 7, which provides that sections 63 to 67 of the EEZ Act apply. EEZ Act section 63 provides the decision-maker with discretion to set *any condition that it considers appropriate to deal with* ***adverse effects of the activity authorised by the consent on the environment or existing interests****.*

Attachment One:
Commercial fisheries in the vicinity of TTR's proposed mining site (September 2025)