Te Ākau Bream Bay Sand Extraction Project

Expert Panel Submission
[FTAA-2511-1150]

Submitted by Bream Bay Guardians

25th May 2026

Contents

1. Context for the Panel

1.1 Thank you for inviting the Bream Bay Guardians (BBG) to comment on the Te Ākau Bream Bay Extraction Project.

1.2 Since our earlier correspondence, we have continued to focus on collection of evidence and engagement with community on McCallum Bros Limited's (MBL) application.

1.3 BBG considers itself to have the support to speak on behalf of a significant part of the interested community:

a. An independent survey seeking opinions was commissioned by BBG from people in and around Te Ākau Bream Bay and Whangarei. 94.7% were strongly not in favour of the proposal, and 2.7% were strongly in favour (Fougere, 2025)

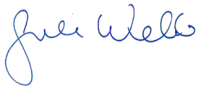
b. Online presence reflected by Facebook (1750 followers and over 72,000 interactions), website (www.savebreambaysand.org), and a network of more than 250 families who receive regular updates on our efforts.

1.4 In response to the Panel's invitation to consider whether the BBG might join with other persons invited to comment [Clause 19(b)(iii) of Minute 3], we have continued to liaise with the Northland Regional Council (NRC) and Patuharakeke Te Iwi Trust Board (PTITB). We have also continued to liaise with Whangarei District Council (WDC), and 24 of the remaining parties listed.

1.5 This comment document is accompanied by a memorandum on legal issues and a series of underlying expert reports and supporting information. A full bibliography is provided at the end of this document.

1.6 While we are not presenting a joint set of comments with other parties, largely due to constraints of time and resources, we have sought to minimize duplication. We wish to acknowledge sincerely the support and co-operation of the many donors, volunteers, advisors, and other interested groups and businesses.

On behalf of the Bream Bay Guardians



Malcolm Morriosn Mary Sinclair Gill Webb

2. Executive Summary

2.1 We oppose the application primarily because the applicant has failed to demonstrate a sufficient (or any material) public benefit that could outweigh the significant environmental, ecological, coastal-process, and community risks that unavoidably arise.

There is no need to mine sand in Te Ākau Bream Bay

2.2 The fundamental premise of the application is the assertion that there is an urgent need for MBL to be able to mine sand in Te Ākau Bream Bay because "Auckland needs it".[1] That is said, along with an economist's report, to establish the national or regional benefit that must be assessed against effects under the FTAA test.

2.3 That premise is incorrect, and MBL's economic analysis does not withstand scrutiny, according to the reports of the experts engaged by BBG. Auckland has more than sufficient sand and there is nothing special about access to Te Ākau Bream Bay sand that justifies giving preference to the applicant to extract it.[2]

2.4 On the question of that premise, we provide with this submission as attachments:

a) A report from Beca on sand supply and alternatives (Beca Report, 2025).

b) A report from Axiom Economics (Axiom Economics Report, 2026), an expert economics consultancy, providing a critique of the MEC report for MBL.

c) A commentary on suitability of various types of sand for concrete by Dr James MacKenzie (Mackechnie, J, 2026).

2.5 The Axiom Economics Report (Axiom Economics Report, 2026) explains how the economic benefits asserted by MBL are overstated and largely represent private commercial gain rather than measurable regional or national public benefit. The proposal provides little demonstrable economic benefit to Northland,

[1] Even the ecologist experts for MBL have been moved to include this assertion in their reports (Bioresearches, attachment 12 to application, p 1, first sentence).
[2] See Sections 3 and 4 below.

creates minimal local employment, and risks significant long-term environmental and economic harm to the region.

2.6 Quantification of public benefit is crucial to the decision before the Panel, and we respectfully suggest that a conference of the experts in this field be convened with a view to a joint statement of the issues for determination being prepared.[3]

2.7 Such weak qualifying benefit that might be identified (and our contention is there is essentially none) cannot justify the adverse effects from the proposal. The nature of the activity is damaging on many levels, particularly to cultural values, the coastal environment, and marine life. We do not seek to comment on every aspect of those matters here but endorse the submissions to be made on those topics on behalf of PTITB and Ngātiwai. Identifying and assessing cultural values and effects on them can only be done by tangata whenua and those holding mana moana. We therefore acknowledge and support PTITB and Ngātiwai's assessment and findings on those matters.

Adverse effects on coastal processes and benthic ecology are subject to uncertainty and, are unikely to be minor or negligible

2.8 We provide expert commentary on two aspects of the effects of the proposal, via the attached reports of:

a) Haskoning, on coastal processes (Haskoning Report, 2026); and

b) eCoast regarding marine ecology (eCoast, 2026).

2.9 The coastal-process evidence (Haskoning Report, 2026) highlights the lack of a sound and certain scientific foundation for approving the application. MBL's investigations underpinning the application are limited in scope and fail to adequately resolve sediment transport pathways, sediment budgets, cumulative effects, and long-term climate change impacts. Sand deposits within Te Ākau Bream Bay are considered effectively non-renewable and form part of a wider coastal sediment system that supports beaches, dunes, and coastal resilience. Removal of these sediments may have irreversible consequences for

[3] We note a similar approach was taken in the Waihi North application, see minute 5, dated 7 October 2025.

shoreline stability, dune recovery, and vulnerable areas such as Mair Bank.

2.10 eCoast, and their expert marine ecology dive team, has identified that Te Ākau Bream Bay does support a recovering marine ecosystem containing diverse marine communities and vulnerable species. This includes scallop populations currently subject to a Fisheries closure intended to support recovery. The proposed dredging activity would create ongoing disturbance incompatible with scallop recruitment[4] and population recovery, while also threatening wider marine habitats, shorebirds, and marine mammals.

2.11 Those adverse effects are inherent in the extraction proposed (removal of sand from the area causing disturbance of the marine habitat leading to destruction of life on the seabed), so there is no set of conditions that could effectively mitigate them sufficiently.

2.12 We are aware that other commenters will be providing expert evidence covering other aspects of the adverse effects of the proposal.

Other issues

2.13 In parallel with the coastal process and benthic ecology effects are the legal issues of the scallop taking ban under the Fisheries Act 1996, and the presence of what BBG regards as an existing consent for the same resource for Channel Infrastructure (which we acknowledge the EPA did not regard as such). Submissions on those issues are set out in the accompanying memorandum on legal issues.[5]

2.14 We have also been informed (Bennett, 2026) that there is inadequate consideration and information in the application with respect to marine archaeology issues arising under the Heritage New Zealand Pouhere Taonga Act 2014.[6]

2.15 Compliance is an important consideration, and we provide records of the applicant's breaches of the operational and

[4] The process by which juveniles are added to a scallop population.
[5] See legal memorandum.
[6] See attached overview on Marine Archaeological matters by Kurt Bennett (Bennett, 2026).

reporting conditions in relation to its former similar activities at Pākiri. (Licencing and Regulatory Compliance, Auckland Council, 2026) (Licencing & Regulatory Compliance Auckland Council, 2023 to 2025).

(Licencing and Regulatory Compliance Auckland Council, 2024).

2.16 The record also shows that Auckland Council had relied on MBL's self-monitoring and self-reporting until the discovery of the trenches at Pākiri in 2022 (Auckland Council Privacy and Official Information , 2023). Council then commenced their programme of monitoring leading to Council action.

Next steps

2.17 Accordingly, BBG respectfully submit that the application should be declined.

2.18 We are conscious that the Panel has sought and obtained several rounds of further information from MBL in response to minutes numbered 4, 5, 6, and 9 (regarding timing). While we and the experts we have engaged have been able to consider some of the responsive material provided by MBL so far in part, we seek that the Panel permit replies by BBG to the further information that MBL provides.[7]

[7] Under clause 10(1) of Schedule 3 of the Act, a Panel must regulate its own procedure as it thinks appropriate, without procedural formality. That power encompasses these circumstances and would be an appropriate means to ensure that adequate responsive submissions are available to the Panel.

3. Sand Supply and Alternatives

No evidence of a sand supply crisis in Auckland

3.1 There is no sand supply crisis in Auckland. MBL has not demonstrated any genuine need for additional marine sand supply. Independent expert assessments (Beca Report, 2025) (GNS Science Report, 2024/11), confirm that both current consented, and potential supply sources are sufficient to meet Auckland's needs without the proposal going ahead.

3.2 "There is excellent sand aggregate opportunity in northern Auckland, with extensive sand dune complexes that extend for several kilometres inland along the west coast, as well as some coastal deposits on the east coast that may also provide good resources of sand for concrete." (GNS Science Report, 2024/11)[page 18]

Auckland sand demand

3.3 Current annual ready-mix concrete consented volume is approximately 1.37 million m³. Estimated sand demand is between the current demand of 310,000 m³/year and the peak demand recorded at 610,000 m³/year 2022. The lower estimate aligns closely with other industry benchmarks and is considered a reliable measure of demand (Beca Report, 2025).

3.4 The table below sets out the Beca Report calculations including the Kaipara source consent and the Marsden Point Navigation Channel (now referred to as "Channel Infrastructure").

Table One: Ready-mix concrete sand demand and supply source (Beca Report, Oct 2025)

Ready-mix concrete sand demand / source (Beca Report, Oct 2025)	Potential annual volume (m^3/year)
Demand	
Present Auckland demand	310,000 to 610,000 m^3/year
Sources	
Taporapora Banks Kaipara Harbour (consented, operating)	Up to 600,000 m^3/year
Brookby Quarry, Whitford, Auckland (consented, operating)	Up to 420,000 m^3/year
Tūākau quarry (consented, operating)	Up to 108,000 m^3/year
Mercer quarry (consented, operating)	Volume records not available
Marsden Point navigation channel, Bream Bay (consented, potential)	Varies; could average up to 220,000 m^3/year if capital dredging stockpiled
Tomarata quarry (consented, operating)	100,000 m^3/year
Te Arai quarry (consented, potential)	84,000 m^3/year
Te Arai quarry (not consented, potential)	300,000 m^3/year

3.5 Since the Beca Report of October 2025, Kings Quarry in Silverdale has gained consent through a Fast Track Application. (FTAA, 2025), (Kings Quarry Admin, 2025)

3.6 The table below sets out the current consented and actively operating sources available to the Auckland market of up to 1,368,000 m^3/year. This figure does not include Mercer Quarry, for which volumes are unavailable.

3.7 Current active consents allow extraction of up to 1,368,000 m^3/year, against the maximum market demand of 610,000 m^3/year with more than 758,000 m^3 /year unused. Existing supply is therefore more than adequate.

Table 2: Ready-mix concrete sand demand and supply source consented and operating

Ready-mix concrete sand demand / source consented and operating	Potential annual volume (m^3/year)
Demand	
Auckland demand range	310,000 to 610,000 m^3/year
Consented Sources	
Taporapora Banks Kaipara Harbour (consented, operating)	Up to 600,000 m^3/year
Brookby Quarry, Whitford, Auckland (consented, operating)	Up to 420,000 m^3/year
Tūākau quarry (consented, operating)	Up to 108,000 m^3/year
Mercer quarry (consented, operating)	Volume records not available
Tomarata quarry (consented, operating)	Up to 100,000 m^3/year
Kings Quarry Silverdale (consented, operating)	Up to 140,000 m^3/year

3.8 MBL suggests, based on their economics effects report (ME Consulting Report, MBL Substantive Application, Attachment 18), that future supply risks may arise if existing marine consents are not renewed. However, any decision not to renew such consents would likely reflect environmental concerns, community opposition, and the availability of more sustainable alternatives. These same considerations apply equally to the MBL application. It is therefore inconsistent to argue that consent should be granted in this case on the basis that other consents may be declined, when the same assessment criteria must be applied to all applications.

3.9 Alternative sources to seabed extraction include manufactured sand, and land-based quarries in Auckland and Waikato. Declining the application would be consistent with a transition to more sustainable sources. Doing so would not create a supply crisis, even with the (speculative) assumption that the Kaipara resource consent will not be renewed.

3.10 A GNS report from 2024 (GNS Science Report, 2024/11) concludes that the region from Auckland North holds excellent potential, specifically for concrete-grade sand. The most significant resources are associated with extensive west coast

sand dune complexes, alongside targeted coastal deposits on the east coast.

3.11 The Kaipara Harbour system has a natural replenishment rate of approximately 2.6 million m³/year, indicating long-term sustainability within existing frameworks (Beca Report, 2025). However, in the unlikely event the Kaipara source is not renewed in 2027, the supply of sand through other consented and actively operating sources (at maximum demand) will still meet the demand with a total available volume exceeding 768,000 m³/year, with the unused volume of more than 158,000 m³/year, even with the "edge case" of demand being at its historic peak.

Table 3: Ready-mix concrete sand demand / source consented and operating without the Kaipara source

Ready-mix concrete sand demand / source consented and operating without the Kaipara source	Potential annual volume (m^3/year)
Demand	
Auckland demand range	310,000 to 610,000 m^3/year
Consented Sources	
Brookby Quarry, Whitford, Auckland (consented, operating)	Up to 420,000 m^3/year
Tūākau quarry (consented, operating)	Up to 108,000 m^3/year
Mercer quarry (consented, operating)	Not available
Tomarata quarry (consented, operating)	Up to100,000 m^3/year
Kings Quarry Silverdale (consented, operating)	Up to 140,000 m^3/year

3.12 These figures do not include the potential volumes of Channel Infrastructure and the Te Arai quarry, which would bring the total of (potential) *unused* volumes to over 462,000 m³/year.

Market experience confirms no shortage since MBL withdrawal

3.13 Since 2022, MBL has reduced the volume of sand supplied into the Auckland market. The terms of the Temporary Pakiri consent allowed up to 76,000 m³/year to be extracted. In August 2025, MBL announced it was ceasing extraction altogether when it withdrew its consent renewal appeal in the High Court (MBL, 2025). Despite this reduction, no verified shortages have

occurred, and notably, no significant price increases have been observed (Blaikie, 2026)

3.14 Predictions of commercial disruption have not materialized; for example, in the MBL first stage Fast Track application in 2024 Patrick Bridgeman of Bridgeman Concrete stated that he would go out of business if MBL was not consented to continue to dredge seabed sand (Bridgeman, 2024)[Clause 9]. When MBL stopped providing sand to Mr Bridgeman's business, sand supply was immediately substituted (and continues to be substituted) from existing consented sources north of Auckland. The industry has continued to operate using alternative supply sources following MBL's withdrawal from Pākiri.

Sand supply is not a constraint on infrastructure development

3.15 Therefore, there is no evidence that sand availability limits Auckland's development of infrastructure. Even during peak infrastructure activity, including the construction phase of the City Rail Link, demand did not approach available supply capacity.

3.16 However, even if demand were to increase, the time period for demand to exceed current supply will be far in excess of the time needed for new sources of supply to be instituted. The recent history of the rapid expansion of supply and the very large potential existing "traditional" sources in sand dune deposits coupled with the likelihood of further manufactured sand capability becoming available from existing quarries gives assurance to that proposition.

Manufactured sand is a sound alternative

3.17 We have obtained expert evidence from Dr James MacKechnie (Mackechnie, J, 2026); reply from Professor Allan Scott (Scott, 2026)and ajoint statement from Allied Concrete and Brookby Quarry (Allied Concrete and Brookby Quarry Joint Response , 2026) coupled with evidence from Kayasand that refutes the negative opinion presented by MBL regarding manufactured sand (Donaghue, MBL Substantive Application Attachment 20).

3.18 Modern manufactured sand is considered technically suitable for all grades of concrete, including high-strength and prestressed

concrete, when proper processing and quality controls are applied. New Zealand-focused research has shown the technical benefits of manufactured sand as a replacement for natural sand in concrete, including more efficient use of cement, increased strength, and reduced carbon emissions (Mackechnie, 2024).

3.19 Dr McKechnie states "when the correct controls and processing are implemented, there is no technical limitation to using manufactured sand" and that manufactured sand is now used routinely in Japan and Australia (Mackechnie, J, 2026)

3.20 The New Zealand Concrete Association has released a roadmap report (Concrete NZ, 2023) to improved carbon emissions, including approximately 9% emissions reductions achievable through improved design and material efficiency pathways. Industry leadership supports the growing international trend of using manufactured sand as an acceptable alternative.

Sand supply to Northland

3.21 The two largest sand suppliers in Northland have confirmed that within their own land resources there is a continuing surplus of sand to supply Northland (Semenoff, 2025) making MBL's suggestion of also supplying sand to this region redundant.

4. Economic Assessment

The Economics of Te Ākau Bream Bay Sand Extraction do not add up

4.1 The ultimate question that the Panel faces concerns the "national or regional benefit" balanced against adverse effects and conditions. That benefit must be public, rather than just profits to a private person or entity.[8]

4.2 Expert analysis of Te Ākau Bream Bay proposal (Axiom Economics Report, 2026) sets out how the claimed economic benefits are overstated by the applicant's report, not supported by robust evidence, relying on flawed assumptions, lack of transparency, and methodological weaknesses.

4.3 Economic assessment requires a clear distinction between private profitability and public benefit. "A project being privately profitable is not the same thing as it delivering a significant national or regional public benefit." (Axiom Economics Report, page 18).

4.4 Northland itself does not stand to see any economic benefit. The proposal does not create any employment opportunities locally, and there is no investment in local communities or infrastructure apart from the arrangement set out with local hapū in MBL Substantive Application Attachment 22.

4.5 In fact, there is risk of economic harm for local communities as a result of coastal degradation and its effect on coastal businesses and private property. We are aware that some of the community groups' submissions amplify this with local examples.

4.6 The economic benefit to Auckland as a region is also questionable once it is recognised that there is no established sand crisis in Auckland; having a bigger pile of unused sand does not create employment anywhere.

No demand for sand

4.7 MBL's projected demand for sand is not substantiated, and its assumptions that existing supply will cease without replacement

[8] See Legal Memorandum for BBG, at [11]-[13].

are unrealistic.[9] "Sand appears to have been supplied from alternative sources and there has been no reported collapse in market activity" (from Axiom Economics Report, page 9)

4.8 After MBL's Pākiri supply ceased, Auckland continued operating normally, experienced no reported shortages or price spikes and sourced sand from alternative suppliers. The Axiom report further concludes that "the Auckland sand market has been capable of adapting to the loss of a major coastal source without… systemic failure" (Axiom Economics Report, page 9)

4.9 Below is a table modelling of a future potential loss of sand supply source, in this instance from the Kaipara source. The consented supply has resilience to withstand its non-renewal in 2027.

Table Four: Ready-mix concrete sand demand/sources with operating consents excluding Kaipara Source

Ready-mix concrete sand demand / source excluding Kaipara Source and with operating consents	Potential annual volume (m^3/year)
Demand	
Present Auckland demand	310,000 to 610,000 m^3/year
Sources	
Kings Quarry, Silverdale, Auckland (consented, operating since Pākiri source closure)	Up to 140,000 m^3/year
Brookby Quarry, Whitford, Auckland (consented, operating)	Up to 420,000 m^3/year
Tūākau quarry (consented, operating)	Up to 108,000 m^3/year
Mercer quarry (consented, operating)	Records of volumes not available
Tomarata quarry (consented, operating)	100,000 m^3/year
Te Arai quarry (consented, potential)	84,000 m^3/year
Total available without Kaipara Source	**Up to 852,000 m^3/year**
Unused Volumes	**Up to 242,000 m^3/year**

Claimed transport savings are unsubstantiated

4.10 Claimed transport cost savings using the William Fraser, which make up a significant proportion of the purported benefits, are not verifiable (Axiom Economics Report, page 18) and may

[9] See above at [3.12]-[3.13].

simply increase private company profits rather than provide any wider economic advantage.

4.11 The applicant's report fails to account for the carbon emissions associated with the operation of the William Fraser, including the use of dual diesel engines for return voyages to Auckland and the additional diesel consumption required to power onboard generators that drive the suction dredging system.

4.12 Even if transport-related emission reductions are as claimed, these are unlikely to represent a net environmental benefit under the Emissions Trading Scheme, where total emissions are capped. "Reduction in emissions from one activity does not reduce total emissions under the scheme; it simply frees up units that can be used elsewhere within the capped system. Emissions are reallocated, not reduced" (Axiom Economics Report, page 23).

4.13 When considered alongside the availability of land-based sources closer than 100 km to Auckland, any marginal transport savings are insignificant compared to the broader adverse environmental and economic effects.

4.14 Additionally, the cumulative and long-term adverse effects of mining a living seabed ecosystem, including carbon release and reduced coastal resilience in the face of climate change, remain uncertain and unquantified.

Local economic harm results

4.15 Environmental and social costs resulting from the degradation caused by sand extraction and the presence of a mining ship in the bay have not been adequately accounted for, including the risks to critical coastal systems such as the Langs Beach, Waipū Cove, Ureititi and Ruakākā dunes and Mair Bank. Degradation could result in substantial economic loss to the region.

4.16 While the applicant may contend this to be unlikely, the coastal process expert engaged by BBG considers that MBL's confidence is unwarranted and that the consequences could be extremely serious. There are clear indications that the Depth of Closure (DoC) calculated by T & T on behalf of the applicant has not been fully investigated and not supported by physical evidence within

the Sand Extraction Area (SEA). This is fully explained in the following section and report (Haskoning Report, 2026), and the Labonte’s submission.

5. Coastal Processes

The impact is uncertain and evidence is insufficient

5.1 MBL's experts, Tonkin and Taylor (T & T),[10] have failed to present sufficient scientific evidence to support their conclusion that the impact of sand extraction will be low to negligible on Te Ākau Bream Bay and its coastline.

5.2 It is claimed that the extraction will have negligible effects because it will occur seaward of the DoC that T & T calculate, through a largely desktop analysis. But this is not reliable. Instead, there is a material risk that the proposed SEA overlaps with sediment pathways that contribute to beach and dune stability.

5.3 T & T themselves have earlier issued a technical paper (Tonkin & Taylor, 1993) highlighting the complexity and importance of sustainable management practices for sustainable coastal sand extraction forecasting. They reported that in-depth and robust investigation of coastal processes is required including:

a) Beach profile monitoring which must be paired with an understanding of local coastal processes and sediment movements.

b) Storm events significantly affect sediment dynamics; the storm frequencies now occurring increasingly over time means that a conservative long-term view is required with responsible factors of safety included.

c) Sustainable sand extraction requires detailed assessment because resource management is challenging in coastal areas.

d) When resources are offshore and inputs/outputs are complex, investigative methods may require extended, sophisticated, and expensive studies.

5.4 The expert review by Haskoning (Haskoning Report, 2026) of the T &T Report identifies that the investigations underpinning the application are extremely limited in scale and scope, relying on

[10] Te Ākau Bream Bay Sand Extraction: Coastal Process Effects Assessment, Attachment 8 to application.

spot sampling, a small number of transects, and no meaningful modelling of sediment transport processes or sediment budgets.

5.5 There remains significant uncertainty around sediment transport pathways in Te Ākau Bream Bay; T & T do not provide even a basic spatial assessment of sediment movement, This information gap translates into uncertainty as to how sand extraction may affect coastal processes.

5.6 The coastal dunes of Ruakākā, Uretiti, Waipu Cove, Langs Beach and Mair Bank are ecologically, culturally, and physically significant. They are not isolated landforms but part of the wider Te Ākau Bream Bay sediment and ecosystem. There is still significant uncertainty regarding sediment transport pathways, closure depth, and the long-term effects of extraction on sediment supply and shoreline stability but this could lead to inundation of coastal land behind the sand dunes. "Before extraction is consented, we need to have a holistic understanding of whole system effects – coastal process effects, ecological effects, and cultural effects". (Haskoning Report, 2026)[page 2]

5.7 This may also include assets of both Northport and Channel Infrastructure Ltd. Changes in seabed bathymetric levels could cause economic harms.

5.8 The precautionary principle should be applied. Where scientific uncertainty is significant, but the potential consequences include irreversible coastal erosion, habitat degradation to endangered and Taonga species, and increased exposure of private property and businesses to coastal hazards, a cautious approach is warranted.

5.9 Our expert notes further that the depth at which MBL assert it is "safe" to start mining at is another uncertain issue that is critical to all Te Ākau Bream Bay (Haskoning Report, 2026).

The DoC calculations are questionable

5.10 Whether we can be confident that extraction will not materially affect beaches, dunes and surf breaks relies in on more than a single methodology (used by the applicant) in the calculation of the DoC. BBG's expert does not have confidence that this has

been adequately achieved because the methodology applied is based on averaged conditions and does not incorporate best practice approaches, including the consideration of extreme storm events and long-term climate change effects.

5.11 If best practice methodologies were applied—particularly those incorporating extreme wave conditions, longer-term datasets, and a precautionary approach consistent with coastal hazard management—the resulting DoC would likely be significantly deeper and therefore located further offshore.

5.12 Similarly, the work of L'Aragonés (Aragonés L, 2018) in determining a more certain methodology to identify the DoC through observations of sand size gradation changes is informative. This is supported in the Haskoning Report Section 5.

5.13 Professor L'Argonés' email about DoC calculated by T & T concluded by reinforcing the precautionary principle in a metaphor, *"In Spain, there is a saying that goes "Bread for today, hunger for tomorrow" (Pan para hoy, hambre para mañana)".*

Cumulative effects of climate change are underestimated

5.14 Since extreme storm events typically control the maximum depth of sediment mobilization, any underestimation of extreme wave conditions is likely to lead to an underestimation of the effective DoC.

5.15 MBL's DoC calculations rely primarily on wave hindcast data that may not be fully calibrated with local observations, and the approach appears to focus on representative wave conditions. Their own data shows that their modelling predicts that there will be negative affects based on this. (Haskoning Report, 2026)[page 14]

5.16 This does not adequately consider projected increases in storm intensity, extreme wave heights, or long-term sea-level rise. Given that extreme events are expected to become more frequent and more intense, reliance on average conditions significantly underestimates risk.

5.17 The sand resource proposed to be extracted is a critical and effectively non-renewable sediment reserve. Expert opinion

confirms that sediment inputs into Te Ākau Bream Bay system are now negligible, meaning the system is functionally closed (Beca Report, 2025). Removal of this resource may reduce the ability of beaches and dune systems to recover from erosion and storm events.

Mair Bank Vulnerability

5.18 Mair Bank has already been identified as vulnerable in previous coastal process assessments, including work by MBL's own experts, which recognised net loss of sand and increasing erosion pressure in the area (Tonkin & Taylor, 1993). The current application fails to address how additional extraction—particularly when combined with other projects—may exacerbate this vulnerability.

Cumulative Effects of Dual Consents

5.19 There has been no assessment of the combined coastal-process effects of the existing Channel Infrastructure dredging consent and the MBL application. BBG considers that this equates to two active sand-mining consents over the same period, in similar volumes, within the same closed sand and coastal system. The failure to assess cumulative effects is significant, particularly given expert evidence that the existing application already takes a very light touch to cumulative effects and primarily (and minimally) considers climate change in isolation (Haskoning Report, 2026).

5.20 The proposal may further contribute to adverse coastal-process effects through the loss or redistribution of sand resources connected to Langs Beach, Waipū Cove, Uretiti and Ruakākā sand dunes, and Mair Bank. These areas are ecologically, culturally, economically and physically significant.

5.21 It is understood to be common ground, and BBG's expert evidence (Beca Report, 2025) confirms, that sand deposits in Te Ākau Bream Bay are relict (non-renewable).

5.22 This forms a critical element of the coastal sediment system that supports beaches and dune resilience over long timescales. The removal of this sediment therefore has potential long-term implications beyond the consent duration.

5.23 Our position is supported further by the LaBontes' submission, which we adopt.

6. Ecology Assessment – Life on the Seabed

A rich ecosystem exists in Te Ākau Bream Bay

6.1 The proposed SEA is ecologically diverse, biologically active, and currently recovering, particularly following scallop protections. These findings are supported by recent diving and film surveys and the associated reports regarding the conditions on the bottom of the SEA carried out over December 2025, and January, March and April 2026.

6.2 Our report from eCoast (eCoast, 2026) set out the details of those investigations. Further photographic evidence is seen on the blog of one of the ecologists on (Shaun Lee's blog).

6.3 The surveys found the seabed was "teeming with life" with:

- extensive crab, shrimp, and worm burrows
- tube worm communities
- hermit crabs, seastars, gastropods
- eagle rays and feeding pits
- reef fish, octopus, lobster, and sponges associated with peat reef habitat
- scallops

6.4 In contrast to the applicant's conclusion from its ecological survey of March 2024, the SEA is not barren sand — it is a functioning ecosystem driven by biological activity. The survey conducted on behalf of MBL is now more than two years old and less than two years following the scallop ban that was effective April 2022.

6.5 The contrast over time illustrates a visible improvement, likely facilitated by the ban on scallop taking. The experts are concerned that the ecological impacts of extraction are not adequately understood and that ecological recovery (following extraction) assumptions are weak or unsupported in the application.

Recovering scallop populations

6.6 In particular, the ecological survey findings indicate that scallops are widespread throughout the proposed SEA and occur in far greater numbers than previously reported in earlier studies relied upon by the applicant. The survey commissioned by BBG found that live scallops were observed in 74% of survey transects, with densities ranging from 0.2 to 15.4 scallops per 100m², including several transects that reached commercially viable densities. These findings were substantially higher than those recorded in earlier assessments cited within the MBL application.

6.7 eCoast's report further notes that the survey methodology likely underestimates true scallop abundance, as the preferred dredge survey method could not be used due to current fishery restrictions. Our experts conclude that the SEA is likely to represent important scallop habitat and state that "it would be safe to infer that the entire extraction area contains suitable scallop habitat.". eCoast's report also highlights that the area may currently be regenerating following scallop dredging bans and fishery closures.

Peat Reefs are a major concern

6.8 The identification of peat reef habitat within and adjacent to the proposed SEA is another significant concern. The survey found that these reef systems provide important hard-structure habitat supporting sponge and red algae communities, as well as numerous associated species including blue cod, trevally, tarakihi, octopus, conger eel, lobster, and mysid shrimp.

6.9 The eCoast report describes these peat reefs as permanent ecological features that contribute significantly to biodiversity and ecological complexity within Te Ākau Bream Bay. It further states that these habitats would "undoubtably be destroyed" by the proposed extraction activities.

Recovery timeframes are speculative

6.10 A major weakness identified by our experts in the MBL application is the reliance on speculative assumptions about the recovery of the ecosystem in the areas from which sand has been extracted. Our report notes that no equivalent New Zealand

studies exist examining recovery from sand extraction under similar environmental conditions, and that overseas studies do not adequately reflect the ecological and oceanographic conditions present in Te Ākau Bream Bay.

6.11 Despite this lack of directly comparable evidence, MBL's application relies heavily on comparisons with the Pākiri sand extraction site, even though their report itself acknowledges that Pākiri differs in sediment transport, ocean conditions, and ecological characteristics. As a result, the applicant cannot confidently claim that Te Ākau Bream Bay ecosystem would recover within the predicted timeframe.

Baseline ecological data is inadequate

6.12 The eCoast report also raises concerns regarding the inadequacy of baseline ecological data used to support the application. The ecological surveys undertaken for MBL to date are limited in scope and do not adequately account for seasonal variation, recruitment events, storm impacts, or the ecological changes currently occurring as a result of scallop fishery closures and ongoing ecosystem recovery. There is no longitudinal data (over time) of any substance.

6.13 eCoast suggests that additional baseline monitoring across multiple seasons would be necessary before an activity of this scale could be properly assessed. This indicates that there remains an insufficient understanding of the ecosystem and its ecological dynamics prior to any approval being granted.

"Recovery" is weakly defined

6.14 Further concerns are raised regarding the way "recovery" has been defined within the MBL application. The report (eCoast, 2026)[Page 5] notes that ecological recovery is considered achieved once 80% of species diversity and biomass has returned. However, our experts caution that this does not mean the original ecological community would recover. Different species and ecological communities may replace those currently present, particularly if sediment composition and habitat structure are altered by extraction activities. The report proposes that dredging may permanently change grain size, sediment

composition, and habitat characteristics, potentially resulting in long-term or irreversible ecological change.

Important ecological effects were overlooked

6.15 Importantly, the eCoast report identifies several ecological effects that have not been properly assessed within the MBL application. These include impacts on peat reef communities, packhorse lobster, eagle rays, reef fish species, microphytobenthos communities, and the inability of scallops to avoid extraction equipment. The omission of these considerations highlights significant gaps within MBL's the ecological assessment and supports the conclusion that the full extent of adverse environmental effects remains uncertain.

Precautionary approaches should apply

6.16 Overall, eCoast's report illustrates that the Te Ākau Bream Bay ecosystem as represented in the SEA is biologically diverse, ecologically active, and currently recovering under existing fishery protections.

6.17 At the same time, it demonstrates that the impacts of sand extraction remain uncertain, potentially irreversible, and insufficiently understood. The report repeatedly points toward the need for a precautionary approach, particularly given the acknowledged gaps in baseline data, uncertainty regarding recovery, and the presence of ecologically significant habitats and species.

Community Supports recovery

6.18 Our community has already demonstrated a strong commitment to sustainability. We have complied with a Fisheries (MPI) ban on scallop harvesting. There has been a collective effort to allow scallop populations to recover. The proposed sand mining activity risks undermining this recovery at a critical stage.

Video evidence is submitted as part of our references.

6.19 For the Panel's assistance, we have included in the attachments a collection of videos taken during the surveys by the eCoast team:

- Reef

- Reef and Conger Eels
- Packhorse Crayfish on Peat Reef
- Scallop video

7. Conditions of Consent

Complexity of Undersea Sand Mining and Monitoring

7.1 Undersea sand extraction differs fundamentally from land-based mining. Its effects are less visible, more complex, and significantly more difficult to monitor in real time.

7.2 Pākiri is our coastal neighbour, and within the extensive legal, scientific, and public experience of the operations of the applicant, MBL, there is direct relevance to this application.

7.3 In reviewing the Panel Commentary on 2025 Sand Extraction Monitoring Report (SEMR) (Johns S, 2025) for the Pākiri offshore sand extraction temporary consent, we note that the independent experts appointed by Auckland Council report that the SEMR and associated Quarterly Reports from MBL were not reliable enough for Auckland Council to determine compliance.

7.4 That experience has generated deep and widespread distrust within our community as to whether MBL can be relied upon to comply with its legal obligations, including any consent conditions, to adequately manage and protect the environment and the values we as a community hold. This is for the applicant to establish. In the application materials, we have found little to no commentary on MBL's compliance problems at Pākiri, let alone evidence that MBL has made substantial or meaningful changes that would materially reduce risks of future non-compliance if this application were granted on similar conditions. (Licencing & Regulatory Compliance Auckland Council, 2023 to 2025) (Licencing and Regulatory Compliance Auckland Council, 2024) (Licencing and Regulatory Compliance, Auckland Council, 2026).

Conditions matter

7.5 Notwithstanding BBG's position that the application should not be approved, we have sought advice from environmental legal expert Dr Marie Doole on how to formulate effective consent conditions. Her report is attached. Her report states, in short, that:

a) Conditions in consents are specific obligations for consent holders that must endure long after the decision-making process has been adjourned. They typically relate to the detail of how the proposed activity will occur, specifically mandate mitigations and provide insights into resolution pathways should issues arise.

b) The interaction between regulatory agencies and regulated parties (consent holders) is strongly determined by the nature and quality of the consent conditions, including their clarity, proportionality and enforceability.

c) Considerable energy is poured into developing the supporting information basis for conditions. Planning processes of all kinds produce vast expert commentary, require complex scientific investigations and conduct consultation and engagement with a wide variety of stakeholders. Ensuring conditions are clear and enforceable recognises that effort and cements its influence through time.

The principles of conditions of consent

7.6 Much of the proposed consent conditions for Te Ākau Bream Bay reflect those in place for Pākiri. Below we outline principles for the Panel to consider regarding the proposed consent conditions.

Operations need to be accurate

7.7 The organisation's governance framework must ensure that operational decisions and practice prioritise compliance with consent conditions above production or extraction targets. We recommend that operational personnel require training and support through independent providers with regular verification.

7.8 The monitoring cell framework is fundamentally difficult to implement, monitor, and verify in practice, particularly because determining the precise location of dredging activity within moving vessel tracks is inherently uncertain. The proposed Te Ākau Bream Bay system inherits the same structural weaknesses previously observed in Pākiri.

Reporting and communication requires integrity

7.9 It appears in Pākiri the reporting systems used were predominantly self-reporting. Our experts advise that independent reporting is required to ensure accuracy and reliability. We also would recommend that reporting has a transparent governance overview process that is agreed.

7.10 Conditions can secure reporting obligations that provide additional transparency and discoverability of important information. Examples of these requirements include:

a) Maintenance and publishing of a complaints register

b) Notification obligations (including timelines) to the relevant regulators of any matters of relevance to the consented activity, including non-compliance

c) Publishing regular monitoring and compliance information

d) Logging of incidents with notification pathways to the regulator

e) Immediate open publication of independently assessed monitoring reports

7.11 Transparency obligations are most effective where timeliness of reporting is mandated (narrow windows of notification), the information to be provided is sufficient to ensure the regulator or a third party can appraise the situation effectively and where they are articulated as a matter of public record (e.g., on a website).

Consents need to be enforceable

7.12 Each condition should be sufficiently definitive that a regulatory decision about whether there has been non-compliance can be made confidently: ambiguity will constrain and thwart any risk management or avoidance required. Matters worth considering include:

a) Detectability (is it possible for anyone but the operator to see or detect non-compliance and if so, how?)

b) Incentives (when offending or non-compliance occurs, what are the incentives for reporting compared with incentives to not provide the information and risk potential sanction?).

c) Ensure responsibility is clearly defined, at what point, and with which person or group, does the final accountability lie?

d) Avoiding ambiguous and aspirational terms that rely on contestable standards and regulatory discretion where they should not exist (for example, "best endeavours", "as far as practicable" or "in general accordance").

Bonds and security

7.13 Setting conditions of consent where the breach of some of those conditions can only be detected sometime well after the event (such as coastal erosion effects occurring over decades) requires a different set of controls for the regulatory authority. Such mechanisms act to shift the risk from the community and the environment to the operator. To best safeguard the public interest, bonds should be collected and held by the regulator, should be of sufficient substance to address the costs of the relevant conditions and be provided prior to the initiation of the activity.

Management plans and operational mindset

7.14 Management plans work best where they are certified (approved by the regulator) and act to support the effective implementation of the consent. However, they are not a substitute for sufficiently detailed and robust conditions. Decisionmakers should have confidence that the timing, scope and nature of the management plan will be of sufficient quality and detail to safeguard the values at risk. Where considerable uncertainty exists, such plans should be prepared and approved at the time of consent being granted, rather than left to an indeterminate date in the future.

7.15 Given the significant uncertainty and associated high risk in this situation, if consent should be granted, the consent conditions, including monitoring and reporting requirements and the resulting management plans, should be determined by a panel of experts comprising community representatives, marine ecologists, coastal process engineers, planners, environmental

and legal counsel, and consent condition specialists, ideally with experience of Pākiri.

Response to MBL Replies to Minute Seven

7.16 We have received the Panel's minute including the SMART review of conditions. We include further commentary from our expert, Dr Maire Doole to further inform the Panel (Doole, Dr Marie, 2026).

Regulatory capacity to manage risk

7.17 Therefore, in setting conditions of consent the Panel must ensure that the NRC and Department of Conservation (DOC) has sufficient capability to manage the risks of MBL mining the seabed. This requires standards of monitoring, reporting and enforcement not previously achieved in the case of Pākiri involving the Auckland Counci and DOC. If there is uncertainty of whether the Council and DOC are properly resourced to manage the risk we would submit the precautionary approach.

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