Catherine Somerville-Frost
Chair
Bream Bay Sand Extraction Project Expert Panel
Environmental Protection Authority
Private Bag 63002
Waterloo Quay
Wellington 6140

By email substantive@fasttrack.govt.nz

26 May 2026

Dear Catherine Somerville-Frost,

Re: Comment on Bream Bay Sand Extraction Project [FTAA-2511-1150]

I am writing to provide comments on the Bream Bay Sand Extraction Project Fast-track Application which is currently under consideration by the Expert Panel. Please note, that due to competing priorities and the limited timeframe provided, I have not had the opportunity to alter my comment to account for any responses by the applicant to panel questions after 19 May 2026.

The application for marine sand extraction in the Te Ākau Bream Bay area, lodged by McCallum Brothers Limited (MBL), rests heavily on two principal propositions:

1. An economic case advanced in support of the proposed activity via a report prepared by ME Consulting, which sets out the projected economic benefits of the proposal.[1]
2. An environmental impact assessment which relies on a series of technical reports commissioned by the applicant. These reports self-determine that the proposed activity would have low to negligible environmental effects, and that any such effects could be adequately mitigated through conditions such that are not out of proportion to the purported benefits.

In my view, however, both the assessment of economic benefits and the environmental effects reporting contain significant limitations and shortcomings. These raise important questions about the robustness of the evidence currently before the Expert Panel. I address these concerns in more detail below.

Economic benefits

The economic assessment developed by ME Consulting for MBL attempts to demonstrate that consenting the application to extract marine sand at Te Ākau Bream Bay would result in

[1] ME Consulting (2025) Te Akau Bream Bay Sand Extraction: Economic Assessment.

significant regional economic benefits. This conclusion is based on two assumptions that the panel should examine closely.

Firstly, and most importantly, the panel needs to ascertain whether Bream Bay sand is indeed essential to meet Auckland's growth needs. Analysis from the Infrastructure Commission[2] suggests that there is plenty of sand available onshore on the West Coast to meet demand. The applicant argues that there is a qualitative difference in the marine sands. The panel needs to gain clarity on whether this is the case and if so, whether more marine sand is needed in addition to that currently taken from the Kaipara Harbour. The renewal status of the Kaipara Harbour consents and the potential to increase the use of that resource are also important considerations.

Secondly, the economic analysis excludes social and environmental costs. These can be difficult to include in a numerical analysis but should be explored, nonetheless. The panel needs to understand the potential social and environmental impacts compared with using other sand sources (such as Kaipara Harbour or, if appropriate, onshore). I covered the issues of placing values on non-market impacts in my submission on the Taranaki VTM proposal.[3] While these can be challenging, they are tractable. Simply ignoring them does not make them immaterial. I suggest the panel notes my commentary in that submission and considers the impacts on tourism, recreation, fisheries, and other coastal values.

Environmental impacts

The Fast-track Approvals Act 2024 stipulates that a panel may decline consenting if "*adverse impacts are sufficiently significant to be out of proportion to the project's regional or national benefits*".[4] The Bream Bay Sand Extraction Project Fast-Track Application Expert Panel must therefore consider the actual or potential effects on the environment and the proposed mitigation measures for this application.

The MBL application asserts that "*The sand extraction at the proposed Bream Bay proposal site can be undertaken in a manner where significant adverse effects are avoided.*" [5] Yet, it accepts that "*most infauna invertebrates and sessile epifauna in the upper 100 mm within the dredging area will be removed through the use of a trailing suction hopper dredger (TSHD) such as the one proposed*". In my view, this represents a significant direct impact from the proposed activity.[6]

I note, in support of my concern regarding the rigour of the environmental impact assessments, that the Environment Court recognised that sand mining in the Mangawhai/Pākiri Embayment Sand Extraction Project, situated a short distance south of Bream Bay, has had an impact on coastal dune systems.[7] The similarities between the two sites are raised in several of the reports contracted by the applicants. This is particularly relevant since MBL is relying on the same models that the Mangawhai/Pākiri application would have relied on.

Of particular concern are the treatment of coastal processes, ecological recovery time, sediment plumes, and cumulative effects – including those associated with climate change. Although the application addresses these matters across several reports and within the applicant's responses to the panel's queries, much of the analysis remains qualitative or conceptual. Numerical modelling of wave erosion, bottom current and potential coastal

[2] https://media.umbraco.io/te-waihanga-30-year-strategy/siop2j1p/northern-auckland-aggregate-modelling.pdf
[3] https://pce.parliament.nz/publications/comment-on-the-taranaki-vtm-project-ftaa2504-1048-under-fast-track-approvals-act-2024/ pp9-10.
[4] Fast-track Approvals Act 2024 s 85 (3)(b).
[5] Application FTA082: Bream Bay Sand Extraction Project, p.17.
[6] A comment I also made to the Expert Panel for the Taranaki VTM Fast-track Application (see footnote 3).
[7] McCallum Bros Limited v Auckland Council [2024] NZEnvC 75 (11 April 2024).

erosion, as well as a robust analysis of the relevant limitations and uncertainties, are missing. Therefore, the data provided do not effectively support the assertions made in the application.

The assessment of coastal process effects concludes that the overall impacts of the proposed extraction on coastal processes and landforms in Te Ākau Bream Bay would be negligible to low.[8] However, despite the substantial documentation provided, no comprehensive numerical modelling of sediment plumes, coastal processes, or shoreline response appears to have been undertaken. In my view, the discussion on the Depth of Transport and Depth of Closure variables does not sufficiently compensate for the absence of such modelling, particularly given that much of the information required to undertake it appears to be available.

This application relies in part on empirical plume observations in the Pākiri offshore extraction area as "real world evidence" of plume behaviour.[9] While such data are valuable, the survey referenced was undertaken during relatively calm conditions which represent something close to a best-case scenario for plume dispersion. Numerical modelling would have allowed an assessment more reflective of actual real-world conditions, including less favourable weather and sea states. It would also have quantified the uncertainty associated with predicted plume extent, duration, and sediment concentrations. Such analyses are important for understanding environmental risk and informing adaptive management under conditions of uncertainty.

It is important that the panel ensures that it is not simply relying on most-favourable-case evidence provided by the applicant. I consider that the panel does not have sufficient evidence to weigh the risks. I would therefore urge the panel to request numerical modelling of sediment plumes. Such modelling was presented to the panel for the Taranaki VTM Fast-track Application, where the offshore environment shares several characteristics with Bream Bay, including sand material, similar water depths and extraction within the coastal zone. The modelling provided important evidence for assessing the potential extent and impacts of sediment plumes under different conditions and associated uncertainties.

The **Assessment of Benthic Ecology Effects**[10] looks at a wide range of environmental effects including noise, water quality, and seabed disturbance, as well as direct or indirect effects on coastal processes and landforms. It also mentions cumulative effects. But while these reports overall seemingly address most environmental issues that are needed to be addressed for such a project, many analyses remain overlooked or at a high level.

I agree with the applicant that robust assessments of **ecosystem recovery times** are complex and costly. However, the issue of financial cost is inadequately addressed in this application. To paraphrase the applicant, undertaking such an assessment would be too costly given the limited amount of biota present. Consequently, no robust analysis of recovery times was completed. This is disappointing since the application has considered, and describes what an "*ideal method to determine a biota recovery rate*" would look like.[11] The conclusion of a two to three year ecosystem recovery rate is therefore based on a literature review, it is not site-related and cannot, in my opinion, be considered a valid conclusion.[12]

[8] Attachment 8: Coastal Process Effects Assessment (Tonkin & Taylor).
[9] Evidence of Dr Peter Stanley Wilson on behalf of McCallum Brothers Limited in Response to Minute 4 Further Information Request (RFI 1): Water Quality. Dated 14 May 2026. Paragraphs 36-39.
[10] Attachment Twelve: Assessment of Benthic Ecology Effects (Bioresearches).
[11] Attachment Twelve: Assessment of Benthic Ecology Effects (Bioresearches), s 6.1.1.1.
[12] For example: Attachment Twelve: Assessment of Benthic Ecology Effects (Bioresearches): Executive Summary and s 6.1.1.

The applicant has contracted two recovery monitoring surveys in the Pākiri offshore extraction area, the results of which are expected in late 2026.[13] This falls outside of this Fast-track Application period, but I expect the panel would want to see these results before making any decision.

Cumulative effects in the Assessment of Benthic Ecology Effects are considered only within the extraction area and only for sharks, rays and marine reptiles – and addressed largely at a conceptual level.[14] I note that the application does not look at the combined effects of this proposed project together with the potential impact of two major dredging operations already approved for the deepening of the Whangārei Channel and the expansion of Northport.

The report also references the impact of **climate change** but, again, there is no robust analysis. The applicant merely acknowledges that the cumulative effect of climate change is complex and expensive to analyse, and therefore no specific modelling is proposed.

Determining the impact of seafloor sand extraction, particularly when occurring beyond the zone of strong beach/near-shore sediment exchange, requires robust hydrodynamic and sediment transport modelling, supported by field measurements and long-term monitoring. While the latter is proposed and should be applied in a robust and consistent manner, the modelling component is – again – lacking.

Sediment replenishment is typically extremely limited in the region north of the Waikato River.[15] This means that sand resources are effectively non-renewable from an economic perspective and reduce the ability of the environment to recover to its original state. As a result, impacts on coastal processes may persist for decades.

While the applicant has developed an Environmental Monitoring Management Plan for the Te Ākau Bream Bay Project[16], the document does not include any explicit provision requiring the suspension or cessation of extraction activities where environmental thresholds are exceeded, except at the scale of individual extraction cells measuring 1000 m by 200 m. The applicant therefore does not foresee any situation when an operational shutdown would be needed and does not make provision for this.

Further, it is not clear whether any adverse results arising from the proposed monitoring would trigger any review. In general, adaptive management and appropriate precaution may require further consideration in the proposed set of conditions. Any response to evidence of adverse environmental effects is likely to be slow given the timeframe before effects (such as on coastal processes) become evident in the proposed methods of monitoring.

I am aware that several other submitters have identified the matters I have raised here as critically important and are likely to provide more detailed technical analysis regarding weaknesses in the application and the supporting assessments provided.

Recommendations

I have identified in this letter a number of significant uncertainties in the information provided by the applicant. I am concerned that the application is not based on clear and robust analyses aimed at adequate and timely responses. Should the panel nevertheless decide to

[13] Attachment Five: Consultation Summary (McCallum Bros. Ltd). p.11
[14] Attachment Twelve: Assessment of Benthic Ecology Effects (Bioresearches) s 6.4 and s 6.5.
[15] For example: Hicks, D.M. et al. (2002). Sand change and cross-shore sand transfer, Mangawhai Beach, New Zealand. J. Coastal Res., v.18(4).
[16] Attachment Twenty-nine: Environmental Monitoring Management Plan for the Te Ākau Bream Bay Sand Extraction Site (4 July 2025).

approve the application, a robust and precautionary adaptive management approach should be required. In summary, I recommend that the panel:

1. Investigate the assumptions made for the economic assessment, in particular whether the sand is needed to meet construction demand in the region.

2. Request that numerical modelling of sediment plumes be undertaken for the proposed vessel, the sand extraction method and Bream Bay's environmental conditions.

3. Discuss with the applicant whether any preliminary results from the February 2026 post-extraction monitoring survey can be provided to inform consideration of recovery times.

4. In recognition of the degree of uncertainty regarding some adverse impacts, take a precautionary approach to setting any conditions and include adaptive management mechanisms to mitigate any impacts as they arise.

Yours sincerely,

Rt Hon Simon Upton
Parliamentary Commissioner for the Environment
Te Kaitiaki Taiao a Te Whare Pāremata