ATTACHMENT TWO

Fast Track Approvals Act 2024 Application

McCALLUM BROS LTD

Established 1904

Response ID ANON-URZ4-5FYS-V

Submitted to Fast-track approval applications
Submitted on 2024-05-02 12:38:48

Submitter details

Is this application for section 2a or 2b?

2A

1 Submitter name

Individual or organisation name:
McCallum Brothers Limited

2 Contact person

Contact person name:
Christopher Garton

3 What is your job title

Job title:
Environmental Manager

4 What is your contact email address?

Email:
s 9(2)(a)

5 What is your phone number?

Phone number:
s 9(2)(a)

6 What is your postal address?

Postal address:

s 9(2)(a)

7 Is your address for service different from your postal address?

Yes

Organisation:
McCallum Brothers Limited

Contact person:
Christopher Garton

Phone number:
s 9(2)(a)

Email address:
s 9(2)(a)

Job title:
Environmental Manager

Please enter your service address:

s 9(2)(a)

Section 1: Project location

Site address or location

Add the address or describe the location:

Bream Bay, Northland as shown on the Bioresearches Drawing “Map Showing Proposed Extraction Area and Proposed Control Areas”, Dated 17/04/2024 (Attachment 1).

The exact boundary of the proposed sand extraction area and control areas is subject to final detailed investigations.

File upload:
Attachment 1.pdf was uploaded

Upload file here:
No file uploaded

Do you have a current copy of the relevant Record(s) of Title?

No

upload file:
No file uploaded

Who are the registered legal land owner(s)?

Please write your answer here:

The site is an area of seabed within the coastal marine area and there are no records of title.

The application is within the coastal marine area, ownership of which is vested in the Crown.

Detail the nature of the applicant’s legal interest (if any) in the land on which the project will occur

Please write your answer here:

Sand extraction within this part of the coastal marine area is authorised through a Coastal Permit.

Section 2: Project details

What is the project name?

Please write your answer here:
Bream Bay Sand Extraction Project

What is the project summary?

Please write your answer here:

McCallum Bros Limited seeks to obtain a resource consent for 35 years to extract sand suitable for concrete production from an area approximately 17 km2 in size in Bream Bay.

What are the project details?

Please write your answer here:

Basic Details
The project proposes the extraction of
a. up to 150,000 m3 of sand per annum at a rate of up to 15,000 m3 per month for an initial period of three years.
b. up to 250,000 m3 of sand at a rate of up to 25,000 m3 per month for the remainder of the proposed 35 year term of consent.
Sand is to be extracted (predominantly at night) across the entire extraction site as shown in Attachment 1.

Objective
The objective of the proposal is to provide a long-term sustainable source of sand to Auckland (and Northland and Coromandel/Bay of Plenty in the future) which is suitable for concrete production. The efficient and secure production of concrete is essential for infrastructure and commercial/residential development.

McCallum Bros. Ltd.
McCallum Bros Limited (MBL) is a 4th generation, family-owned company, established in 1904. It is an independent sand supplier and does not manufacture concrete itself. MBL predominantly supplies the sand to concrete manufacturers and other customers in Auckland.

Sand Supply to Auckland
The annual requirement for sand in the Auckland region is estimated to currently be 900,000 tonnes. This is down from a high of 1.0 million tonnes in

2021. The volume of sand required per capita is currently 0.5 tonnes so as Auckland grows so too does the demand for sand. Looking forward to 2048 this is expected to increase to between 1.24 and 1.4 million tonnes, depending on the growth estimate used. Sand supplied to the Auckland region is predominantly used for the manufacture of concrete. MBL, through its sand extraction from the Mangawhai/Pākiri embayment, was supplying roughly 40 - 45% of Auckland's market share of sand used in concrete manufacture. This market share has fallen to about 19% due to the reduced capacity that can be extracted under the temporary consent that was granted by the Environment Court in 2023. This temporary consent permits the extraction of up to 76,000 m3 per annum until all appeals with respect to a new consent are determined or until August 2026, whichever is earlier. Given these reduced volumes, MBL prioritised the sale of this sand to customers producing high-strength concrete used in the construction of significant projects such as the Central Interceptor and City Rail Link.

The other main supplier of marine sand to the Auckland market extracts sand from the Kaipara Harbour. The resource consents providing for this are due to expire in 2027. The consented volumes from this resource are large, but there are significant operational constraints on delivering the product to Auckland. These centre around access to the unloading site on the Helensville River due to its shallow and tidal nature. These characteristics place limits on the timing to unload and the size of the vessels that can barge the sand to the depot. On top of this are the lengthy trucking distances required to bring the sand to the main markets (e.g. 55 km to Central Auckland).

Before July 2023, when sand extraction at Pākiri was reduced, marine sand from the Pākiri embayment and the Kaipara Harbour together accounted for about 95% of Aucklands sand used in concrete.

Very limited volumes of sand for the Auckland market are sourced from land-based sand mines (such as Tomarata and Fulton Hogan Tuakau quarries). Brookby Quarries Limited has also recently announced that it will soon manufacture sand using rock from its Brookby Quarry. However, this product is currently unproven in the Auckland concrete manufacturing market and supply capacity and market acceptance are unknown.

An Economic Assessment of the Auckland sand demand and supply market is included in Attachment 2. Obtaining a coastal permit for sand extraction from Bream Bay will significantly improve the resilience of Auckland's sand supply and will be critical if the coastal permit for sand extraction from the Mangawhai/Pākiri Embayment is not granted and the consents for sand extraction from the Kaipara Harbour are not renewed post their expiry in 2027. All of MBL's customers are concerned with the lack of certainty on sand supply in the Auckland market. Attachment 3 demonstrates this with a letter from Andrew Moss, CEO of the Hynds Group outlining the concerns of the Hynds Group in a letter to Hon. Ministers Shane Jones, Chris Bishop and David Seymour. Further to this Attachment 4 contains a statement from Patrick Bridgeman, Managing Director of Bridgeman Concrete regarding the sand supply issues and his experience with securing supply in Auckland and his concerns should no further sand consents be introduced to the Auckland market.

The Sand Resource

The mineralogical properties, particle size distribution and freedom from silt and other contaminants make the sand from the proposed Bream Bay site ideal for ready-mix concrete manufacture, particularly in the use of high-strength specialist concrete for use in infrastructure projects. Paul Donoghue, a concrete engineer with 35 years of experience in the global concrete industry has assessed the Bream Bay sand and Attachment 5 provides a statement that in his expert opinion, the sand is of a quality that can be used in high-strength concrete such as that used in significant projects.

Vibracore samples have established that there is between 2-4 m of suitable sand across the whole of the proposed extraction site. Therefore, the volume of sand within the site exceeds 34,000,000 m3 based on a minimum of 2 m sand depth. The application area is simply a section of Bream Bay, where there are vastly greater volumes of sand. Sand extraction will be undertaken at depths greater than the depth of closure to avoid any potential effects on the foreshore. The depth of closure is the landward side within the coastal marine area where wave-driven cross-shore and long-shore sediment transport processes are confined. This is the depth where, except under very significant storm events, there is relatively little movement of sand landward or seaward. Removing sand from beyond the depth of closure means that there will be no impact on the beaches, the dunes, and surf breaks of Bream Bay because the sand in these systems is not meaningfully connected to sand beyond the depth of closure.

Other Shipping

The proposed sand extraction location is adjacent to the designated anchorage area for large ships visiting Marsden Point in Whangārei so the movement and presence of ships is common in the embayment. The sand extraction proposal area will not affect the use of this area for vessel anchoring or the movements required to access the Port of Whangārei and is clear of all designated navigation routes.

Method of Extraction

The proposal is to extract sand from the sea floor using a trailing suction dredger the "William Fraser". This is the same method which is employed for the current sand extraction operation in the Mangawhai/Pākiri Embayment.

The "William Fraser", built in 2019, is a motorised trailing suction dredge that is 68 m long and has an approximate capacity of 900 m3 of sand. Sand is extracted using a drag head and pump system which fluidises the sand and delivers it into a holding hopper on the vessel. The operation can be likened to a vacuum cleaner operating on the seafloor. The width of the drag head is 1600 mm and it leaves a dredge track approximately 100 mm deep.

The "William Fraser" was designed specifically for sand extraction in the northeastern coastal waters of New Zealand. It can extract sand in depths up to 36 m. This depth allows for a greater area beyond the depth of closure to be dredged which has the benefit of spreading the extraction over a large area and therefore increasing the recovery time and minimising the impact on the marine environment.

The trailing suction sand extraction operation occurs as follows:

(1) Generally during the afternoon of an extracting day, the vessel will leave the Port of Auckland for the sand extraction area and follow a route along the east coast. It cruises at a maximum of 9.5 knots until it is approximately 1 km away from the extraction area.

(2) Once the vessel is within 1 km of the extraction area, it will slow as the dredging gear is prepared. Within 500 m of the extraction area, it will usually

have slowed to a speed of 1.5 to 2.5 knots. This is also the speed the vessel travels while extracting sand.

(3) While the vessel gets into position the drag head is lowered and the pump is started. Water will start to pump through the system in readiness to lower the drag head to the seafloor for extraction to commence.

(4) When the vessel reaches the extraction area, the drag head is lowered to the seafloor and pumping of a sand slurry begins. At this point, the Master of the vessel will start recording the extraction track on the MAXSea navigational software. Recording will continue until dredging is ceased and/or the pump is lifted off the sea floor.

(5) The sand slurry is fluidised at the drag head via the suction pulling sand and water through the drag head. The sand slurry moves up the drag head pipe, through the pump and then on board the vessel where it is discharged into a screen deck that utilises a 2.5 mm screen mesh to prevent larger material from entering the hopper.

(6) The sand passes through the screen deck and into two pipes that run along the sides of the holding hopper and pass into the hopper on board. As the slurry drops into the hopper the water velocity slows and the sand settles into the hopper. The water and any finer sediment in the load then passes out of the hopper into moon pools which discharge into the sea at the keel of the vessel (at least two metres underwater). There are six moon pools in total, three along each side of the hopper.

(7) The barge slowly fills with sand with excess water dropping into the moon pools. As the level of sand increases in the hopper, boards are used to raise the height of the side openings above the moon pools with the excess sea water returning to the sea. Oversized materials pass across the top of the screen and drop via a pipe into the forward port side moon pool. It then drops through the vessel and also exits at keel height under the vessel.

(8) Once the hopper in the William Fraser is full, the drag head is lifted off the bottom, the pump lines are flushed with seawater to clear them of any sand and the pump gear is brought on board and loaded and secured into its cradle on board the vessel. The time it takes to fill the hopper with sand is between 4 and 6 hours. A typical return trip to Bream Bay from the Port of Auckland is expected to take approximately 20 hours, depending on the weather.

(9) When the vessel returns to the Port of Auckland the sand is unloaded via excavator onto a stockpiling barge to drain, and after a day or so is loaded into trucks for distribution to our customers or to a land-based stockpile.

Extraction at Night
The sand extraction is planned to be predominantly undertaken at night and the vessel could expect to be undertaking sand extraction for a 4-6 hour period 3-5 times per week. The sand extraction is weather-dependent.

Lighting
Subdued and downward-facing lighting is used on the vessel. When the vessel is dredging it must display RAM (Restricted Ability to Manoeuver) lighting and have some lighting so the crew can safely work while extracting sand. Lighting is designed and operated to minimise the risk of bird strike.

Risk of Oil Spillage
The William Fraser is designed to reduce the risk of an oil spill. The risks are further mitigated by MBL using biodegradable synthetic oil instead of standard hydraulic oil. There is an approved Oil Spill Response Management Plan currently in place for the current sand extraction operation. In the 80-odd years that MBL has been extracting sand, MBL has not had an oil spill or other accident such as a vessel stranding during sand extraction that produced a release of contaminants to the Coastal Marine Area.

Describe the staging of the project, including the nature and timing of the staging

Please write your answer here:

MBL already operates a loading facility at the Ports of Auckland. No additional equipment or land-based facilities are required in order for MBL to commence sand extraction at Bream Bay.

MBL would commence sand extraction at Bream Bay as soon as possible after a Coastal Permit is granted. It is estimated that at least one month may be required to give effect to any pre-sand extraction consent conditions such as approval of marine mammal management plans etc.

The first stage of the project will be the extraction of 150,000 m3 per annum for the first three years spread across the entire proposed sand extraction area. To meet the current demand for sand, the William Fraser would be required to undertake approximately 14 trips per month.

The second stage of the project will increase this rate to 250,000 m3 per annum over the same extraction area. This second stage is proposed to be commenced after three years if no significant or unexpected adverse effects arising from the extraction have been identified through the monitoring programme and cannot be avoided, remedied or mitigated.

This second stage would allow for the distribution of sand to concrete manufacturers in Northland and the Coromandel/Bay of Plenty (into the MBL depot at Kopu). The Coromandel/Bay of Plenty in particular has had sand supply issues since supply from the Pākiri Off-Shore site to the area was stopped in 2023. Re-opening the sea-based supply to Kopu has potentially significant benefits in terms of reducing truck movements associated with the current sand supply into the Coromandel from the lower Bay of Plenty and the Waikato Region.

What are the details of the regime under which approval is being sought?

Please write your answer here:

The only authorisation required is a Coastal permit under the Resource Management Act 1991

If you seeking approval under the Resource Management Act, who are the relevant local authorities?

Please write your answer here:

Northland Regional Council

What applications have you already made for approvals on the same or a similar project?

Please write your answer here:

No previous applications of any kind have been made for the Bream Bay project.

Is approval required for the project by someone other than the applicant?

No

Please explain your answer here:

The application area is in the coastal marine area and therefore no landowner approval is required.

If the approval(s) are granted, when do you anticipate construction activities will begin, and be completed?

Please write your answer here:

Upon granting the coastal permit, sand extraction would commence as soon as any pre-extraction consent conditions can be fulfilled. It is expected that this process will take at least one month.
It is confirmed that:

• The equipment, training, and other operational processes required are already in operation by MBL at another location and will simply be duplicated at Bream Bay.
• No new significant procurement of resources or staff is required.
• No new funding or capital investment is required.
• No site works are required.
• A 35-year consent period is being sought.

Section 3: Consultation

Who are the persons affected by the project?

Please write your answer here:

Northland Regional Council (as the territorial authority).

The Ngātiwai Trust Board (as the mandated iwi authority of Ngātiwai iwi, whose rohe extends from Rakaumangamanga (Bay of Islands) in the north to Mahurangi (Warkworth) in the south, and across to Aotea (Great Barrier) including the off-shore islands.

Patuharaheke Te Iwi Trust Board (as the Trust Board who represents the Patuharaheke Hapu who are the mana whenua of the subject area)

Northport Limited

Channel Infrastructure Ltd (previously Refining NZ Ltd)

Northport Harbour master.

Applicant Groups under the Marine and Coastal (Takutai Moana) Act 2011:
Claimants MBL has been made aware of are listed below
· Ngapuhi nui tonu-Kota-toka-tutaha-moana o whaingaroa
· Ngapuhi nui tonuu (Te Kotahitanga Marae)
· Ngapuhi nui tonu (Awataha Marae)
· Te Hikutu whanau and hapu
· Iwi, whānau and hapū of Ngātiwai
· Nga Hapu o Ngati Wai Iwi
· Ngā Hapū o Tangaroa ki Te Ihu o Manaia tai atu ki Mangawhai
· Ngati Wai Whairepo Trust
· Patuharakeke Te Iwi (though listed above)
· Reti whanau
· Te Parawhau ki Tai

· Te Uri o Tautohe
· Te Hikutu Whanau and Hapu
· Nga Puhi Ngati Wai Haki Pereki Ngawhetu Sadler Whanau Trust

Detail all consultation undertaken with the persons referred to above. Include a statement explaining how engagement has informed the project.

Please write your answer here:

Refer to Attachment 6 for a copy of MBL's stakeholder consultation document.

Consultation has commenced with the purpose of informing the detail of the proposal (including ongoing monitoring and participation before and after commencement).

The cultural relationship advisor to MBL has had an initial meeting with the CEO of the Ngatiwai Trust Board to introduce the proposal. Contact is ongoing.

A working relationship with the Patuharaheke Te Iwi Trust Board has been established and fortnightly meetings are being held. The Trust Board is being kept updated on the investigations being undertaken and more detailed consultation is currently being planned in the coming months. Patuharakeke is involved in providing feedback on the results of our investigations and providing cultural feedback to help experts identify and take into account matters of significance to Patuharakeke.

We have met with Northport to discuss the project. They have expressed no concerns with the proposed application area. The next stage of consultation will be to provide the results of our investigations in support of the project and the final details of the application.

We have met with Channel Infrastructure and no concerns have been raised to date with the application location. The next stage of consultation will be to provide the results of our investigations in support of the project and the final details of the application.

The Northport Harbourmaster was satisfied there would be no effects on marine traffic or safety arising from sand extraction at the proposed site. We will keep the Harbourmaster informed as the project progresses.

Contact has been made with Northland Regional Council to notify them of the application. MBL awaits a response.

Contact has also been made with Te Parawhau and a meeting is scheduled on the 6th of May.

Upload file here:
Attachment 6.pdf was uploaded

Describe any processes already undertaken under the Public Works Act 1981 in relation to the land or any part of the land on which the project will occur:

Please write your answer here:

N/A

Section 4: Iwi authorities and Treaty settlements

What treaty settlements apply to the geographical location of the project?

Please write your answer here:

Despite enquiry, we are not aware of any Treaty Settlements or Statutory Acknowledgment areas over the proposed extraction area.

Are there any Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019 principles or provisions that are relevant to the project?

No

If yes, what are they?:

Are there any identified parcels of Māori land within the project area, marae, and identified wāhi tapu?

No

If yes, what are they?:

Is the project proposed on any land returned under a Treaty settlement or any identified Māori land described in the ineligibility criteria?

No

Has the applicant has secured the relevant landowners' consent?

No

Is the project proposed in any customary marine title area, protected customary rights area, or aquaculture settlement area declared under s 12 of the Māori Commercial Aquaculture Claims Settlement Act 2004 or identified within an individual iwi settlement?

No

If yes, what are they?:

Has there been an assessment of any effects of the activity on the exercise of a protected customary right?

No

If yes, please explain:

Upload your assessment if necessary:
No file uploaded

Section 5: Adverse effects

What are the anticipated and known adverse effects of the project on the environment?

Please describe:

Description of the Existing Environment

The proposed sand extraction area is located within Bream Bay and at its closest point is approximately 4.2 km from the Bream Bay shoreline.

Bream Bay has a gently curving shoreline aligned northwest to southeast and bound to the north and south by major headlands formed in volcanic outcrops. It runs from Bream Head at the mouth of Whangārei Harbour, 22 kilometres south to the headland of Bream Tail, east of Langs Beach.
The shoreline is generally stable to slightly eroding, although there is evidence of increased erosion from the central to northern areas of the Bay. The Bay has reasonably uniform depth contours from the ebb tide delta off Whangārei Harbour to the north and Waipu Cove. The depth contours extend from the beach to around the -12 m depth contour at a slope of around 1% reaching a flatter slope from around 12 m to 20 m depth contour (around 0.2%), then deepening to around 40 m at around 0.4% steepness.
Bream Bay experiences a low- to moderate-energy wave climate due to its leeward position. Maximum wave heights can reach around 9 m with a mean annual significant wave height of around 0.7 m. Swell predominantly comes from the northeast to easterly sectors with the northern part of Bream Bay more sheltered to swell due to Whangārei Heads than the southern end of the Bay.
The long-term net flow is oriented from north to south (i.e. alongshore). However, there is a residual circulation within Bream Bay due to the sheltering effect of Whangārei Heads. It is expected that mean currents in the lower water column will be weak. Studies for Mangawhai-Pākiri indicate median speed in the range of 4-7 cm/s and a 90% speed less than 15 cm/s and that the tidal contribution to measured currents was less than 25% of the variability in mean current. The remainder of the current was generated by non-tidal effects such as winds, density stratification and oceanic intrusions. Near bed currents, particularly in shallower areas are dominated by wave processes, although mean currents contribute to the mass movement of sediment. This is likely to also be the case within Bream Bay.
There are limited quantities of new sediment entering the bay from the catchment and coastal erosion processes of the adjacent cliffs. The primary sediment source for Bream Bay and the nearshore coastal sediment system was delivered to the continental shelf by the Waikato River via the Firth of Thames when sea levels were lower than they are now during the last glacial maximum.
In terms of landscape, the approaches to Whangārei Harbour are framed by an expansive coastal plain and arcing shoreline that extends from Marsden Point in the north to Waipu Cove and Langs Beach in the south. This expansive ocean beach and bay is bookended by the volcanic peaks of Mt Lion and Bream Head flanking the northern side of the Whangārei Harbour entrance and the Brynderwyn Hills southeast of Langs Cove. Between these features, the coastal terrace around, and on either side of, Ruakaka encloses a broad area of sea that extends out to, then past, the Hen and Chicken Islands. The settlement's coastal terrace edge itself is lined by housing, industrial development, the Ruakaka Sewerage Plant and a racecourse – all of which face out across the open waters of Bream Bay, while the former Marsden Point Oil Refinery (now the Channel Infrastructure Storage Facility) is also prominent at the northern end of the bay. South of Ruakaka, the Uretiti Recreation Reserve, Waipu Golf Course, and farmland follow the ocean beach down to the coastal settlements of Waipu Cove and Langs Beach at its southern end.

Bream Bay itself has a gently shelving profile that is underpinned by its expansive, relatively shallow sand base, except near the entry channel to Whangārei Harbour and marginal reefs of both Bream Head and the seaward edge of the Brynderwyns – between Langs Beach and Mangawhai. Fuel tankers, log carriers, the occasional cruise ship, and fishing vessels are also a feature of this maritime environment, both waiting within Bream Bay to discharge their loads at Marsden Point and Northport or plying their way in and out of the harbour entrance.
Consequently, the majority of Bream Bay and its coastal margins are highly developed and modified. Although the outer Whangārei Heads embracing Mt Lion and Bream Head are identified as an Outstanding Natural Landscape, no such status is attributed to other parts of the Bay and its immediate margins. In a similar vein, while the Whangārei Heads coastline, its outer banks, and parts of the Waipu River mouth, are identified as comprising areas of High and Outstanding Natural Character, most of Bream Bay's coastline and the coastal marine area are devoid of such notation.

The seafloor within the extraction area is typical for a low-energy sandy embayment. A range of benthic species typical of the Mangawhai/Pākiri/Bream Bay embayment could be expected. This may include scallops, starfish and numerous polychaetes and mollusc species but generally not in significant numbers. Based on the known habitat, depth and distribution ranges, it is unlikely that there would be protected species present on the seafloor at the water depths of the proposed sand extraction.

The range of general water quality for parameters including turbidity and suspended solids are expected to be well within the ambient range or below

their respective median values as reported by Stats New Zealand for coastal waters around New Zealand. Previous measurements from consent applications in the Mangawhai – Pākiri embayment to the south of Bream Bay recorded levels that were within the ambient range. It is expected that the results at Bream Bay will be very similar.
No contamination in the seabed sand has been detected through the baseline sampling undertaken as part of this application and therefore no contaminants will be released to the water column when extraction occurs.

A range of marine mammals are expected to traverse through and near the proposed sand extraction area some of which frequent the wider region associated with Mangawhai / Bream Bay year-round or on a semi-regular basis. These species include common dolphins, bottlenose dolphins, orcas, Bryde's whales, leopard seals and fur seals. Seasonal visitors to Bream Bay may include southern right whales and humpback whales. While other species could have an infrequent presence, they would be expected substantially less frequently.

A wide range of common coastal fish and shellfish species are present, including but not limited to snapper, gurnard, John dory, school shark, trevally, rig, kahawai and scallops. Except for scallops which are sedentary, all of the fishes are mobile and likely to be transient in the extraction area.

A range of seabird species typical for the Bream Bay/Mangawhai embayment could be expected to forage in the proposed sand extraction area from time to time. Species would include, for example, flesh-footed and Buller's shearwaters, black petrel, little penguin and red-billed gull.

Several threatened and at-risk seabird species are known to be present in the wider area including those noted above. Landward of the extraction area a number of shorebird and coastal seabird species are known to breed, including, for example, fairy tern, variable oystercatcher and New Zealand dotterel.

Fairy Tern (Tara Iti), classified as 'threatened-nationally critical' under the New Zealand threat classification system, breeds in very low numbers at Waipu to the southwest of the proposed sand extraction area, but given the distance that the proposed sand extraction area is from the closest nesting sites (>5 km), the likelihood of fairy tern foraging in this area is extremely low.

The ambient noise environment at the shoreline, where receivers (members of the public) may be located, is expected to be dominated by coastal noises (ie wave movements etc.) for the majority of the year. There may be periods when wind and swell conditions are very low and ambient noise levels would drop. There may be some receivers that are elevated above the coastline where ambient noise levels may be lower.

The ambient underwater soundscape is expected to be typical of a sandy bottom habitat that is near an open coastline anchorage area with sounds from anchored vessels (ie generators, anchor chains), fish, marine mammals, snapping shrimp, transiting vessels (to and from Northport) and weather (wind and rain).

The application area is expected to be in the swell corridor for five regionally significant surf breaks within Bream Bay namely Marsden Point, Ruakaka River mouth, Waipu River, Waipu Cove and Langs-Ding Bay. The sand extraction area is at least the following distance from these surf breaks:
7.3km from Marsden Point,
4.5km from Ruakaka River mouth,
5.6km from Waipu River,
6.2km from Waipu Cove
and 6.4km from Langs-Ding Bay.

These surf break areas are shown in Attachment 7.

It can be expected that both recreational and commercial fishing occur from time to time in the proposed extraction area. However, about 2/3rds of the extraction area is not open to commercial bottom trawling and Danish seining fishing methods under current fisheries regulations. In addition, the commercial scallop fisheries are also closed in Bream Bay. There is also a small intermittent crab and whelk fishery but this would occur inshore of the extraction area.

Attachment 8 includes the Proposed Northland Regional Plan Overlay Plans with the proposed extraction area and control areas shown.

Effects on Coastal Processes

The potential effect on coastal processes is being assessed in accordance with the United Kingdom's "Marine aggregate dredging and the coastline: a guidance note". In addition, information from previous investigations and monitoring undertaken in the Mangawhai-Pākiri embayment are also being used to inform this assessment.
Indirect impacts on the physical environment can potentially result from:
1. changes in wave transportation of sediment due to the altered seabed bathymetry. It is proposed to undertake the sand extraction seaward of the depth of closure and therefore at a depth where any changes are minor. A minor change does not automatically result in an adverse effect.
2. erosion of sediment from beaches and dunes. The proposed sand extraction area is to be seaward of the depth of closure to avoid this effect. The sand extraction is undertaken in a manner where significant trenches or holes are not created and an even extraction rate across the sand extraction area is proposed.
3. changes in tidal currents. This potential effect is very unlikely due to the low tidal currents, the relatively flat bathymetry and the small changes to the bathymetry which will result from the sand extraction.
4. alteration of regional sediment transport pathways and the supply of sediment to adjacent sandbanks or beaches is unlikely to occur due to sand extraction occurring seaward of the depth of closure.

Ongoing bathymetric monitoring is being proposed to monitor the sand extraction activity and to ensure that it does not result in any adverse effects.

Effects on Marine Mammals

The marine mammals most likely affected by the proposal include the few species that frequent the wider region associated with Mangawhai / Bream Bay year-round or on a semi-regular basis. These species include common dolphins, bottlenose dolphins, orcas, Bryde's whales, leopard seals and fur seals.

It is expected that the overall risk of any significant adverse effects for marine mammals arising (from both the sand extraction activity and transiting of the extraction vessel to and from the site) will be no more than minor.

Proposed conditions of consent will include the requirement for a Marine Mammal Management Plan and adherence to the Ports of Auckland's Hauraki Gulf voluntary transit protocol for commercial shipping.

Effects on Benthic Organisms

Some benthic organisms on the seafloor immediately within the path of the dredge are entrained. Smaller species may pass through the screen into the hopper while larger ones are returned to the coastal marine area via the moon pool system.

Previous monitoring of trailing suction dredging at Pākiri has indicated a low degree of mortality of various benthic species and the majority of gastropods (ie shellfish) are shown to survive the filter process and discharge back into the coastal marine area.

Given the wide distribution of these species in the embayment and the limited area of extraction where entrainment may occur, the overall effect on benthic populations is expected to be negligible.

An ongoing monitoring programme to assess the effects on benthic organisms is proposed. This will utilise multiple control sites to provide feedback on the extraction process and possible changes to reduce any identified significant adverse effects. As part of this monitoring, a baseline assessment utilising sampling will be undertaken before sand extraction occurs. In the unlikely event any protected species or sensitive habitats are identified, then that specific area can be excluded from sand extraction.

Effects on Fish

Given the mobility of fish, they can avoid entrainment during the sand extraction process. If sand divers (which burrow into the top of the seabed) are extracted, they are too big to pass through the sand screen and are discharged back into the coastal marine area.

Disturbance of the seafloor can lead to a very localised loss of food resources. However, given the small area affected compared to the size of the wider embayment, this is expected to be a negligible effect.

Given the very temporary and localised nature of changes in turbidity in the water column resulting from the discharge, no effects on fish from the discharge are expected.

As assessed below, some temporary masking of communication from the noise of the extraction activity could be expected for some species. This is temporary, being limited to the period of extraction only, and overall effects on fish species are expected to be negligible.

Effects on Avifauna

Vessel Strike
The risk of a vessel strike is very low and has never occurred with any of the dredge vessels operated by MBL in the Hauraki Gulf over the last 50 years. Dredging will be at night and lighting will be appropriately controlled using standard and proven light mitigation measures on the vessel.

Extraction and Discharge
The extraction process does not directly impact avifauna. The presence of the vessel and the discharged material in the water column may prevent nocturnally-active seabirds from foraging in that area. However, the likely affected area will be small relative to the area that seabirds can exploit, and so even assuming complete exclusion from an area surrounding the vessel when extracting sand the effects on seabirds are likely to be negligible.

Noise
Based on the monitoring from the current operation of the William Fraser, noise from the vessel is not expected to impact avifauna.

Effect on coastal breeding habitat of shorebirds and seabirds
The proposed sand extraction site is seaward of the depth of closure and will not have any measurable effects on the stability of the beach and shoreline. It follows that there will be no effect on the stability and integrity of avifauna breeding habitat and nesting.

MBL operates an oil spill response plan for the Willliam Fraser and the likelihood of an oil spill, which could potentially affect seabirds and shorebirds, is very low.

Based on the above, it is considered that the risk of adverse effects on avifauna species in this area from the proposed sand extraction operation is very low.

Effects on Water Quality

The effects on water quality from the sand extraction activity have been monitored during sand extraction (including the discharge of excess material) at the Pākiri sand extraction sites. The discharge at the Bream Bay site is expected to be very similar because the sand grain size and mineral composition

are very similar. Based on this monitoring:

(1) The water quality assessments confirm the rapid reduction in both TSS and turbidity so that within a short time and distance, water quality values for turbidity and suspended solids return to the ambient levels expected in a coastal environment. This is due to the use of moonpools so that discharges are well below the surface of the sea, the slow speed of the vessel while dredging which reduces water turbidity and the majority of discharged material being oversized and rapidly descending through the water column to the seabed, with any residual material dispersing via water currents and wave action.

(2) The discharged material is from the same environment – this material has been demonstrated (via laboratory analyses) to be clean and free of all potentially toxic contaminants (i.e. metals, PAHs and PCBs. Thus, during seabed disturbance, there is a negligible risk of mobilisation of contaminants and negligible risk of contaminants impacting local water quality and potential ecological receptors.

Visual and Landscape Effects

The proposed extraction area is close to the anchorage sites used by fuel tankers and log carriers, and with viewing distances to the extraction area starting 4.2 km from the shoreline of Bream Bay, both the "William Fraser" and its sand extraction operations would be difficult to distinguish from other maritime movements and operations. The "William Fraser" would have a smaller profile than the other vessels at anchor and would appear quite remote. Sand extraction occurs underwater and would not be visible from the shoreline or close to it. The plume created by the discharge is both limited in size and temporal in nature and does not result in a long-term or significant adverse visual effect.

As sand extraction would not result in any erosion or instability, it would not result in any visual or other changes in the landscape. The Bream Bay beachfronts and dunes would remain unchanged.

As a result, it is considered that any landscape and visual effects would be of a very low to insignificant order.

Effects on Recreational Activities

Given the distance to the nearest surf breaks, the extraction methodology, extraction occurring predominantly at night, that extraction will occur seaward of the depth of closure and based on the investigations on the effect of surf breaks from sand extraction at Pākiri, any effects arising will be expected to be less than minor to negligible.

Any impact on the recreational fisheries in Bream Bay from the sand extraction activity is likely to be negligible. Recreational fishing is likely to be closer to the shoreline than the extraction area.

No other specific recreational activities have been identified in this location which may be adversely affected by the proposal.

Effects on Commercial Activities (including Fishing)

Any impact on the commercial fisheries in Bream Bay from the sand extraction activity is likely to be negligible.

The proposal will not impact the anchorage area or the shipping operations of Marsden Point or Northport.

No other existing commercial activities have been identified which may be impacted by the proposal.

Acoustic Effects

Based on previous monitoring of the "William Fraser" operation, it is expected that the noise levels arising from sand extraction will generally be very low on the coastline and further inland. In most meteorological conditions noise from sand extraction will be inaudible on land. The noise levels will be significantly lower than any permitted noise limit for the receiving zones.

In terms of underwater noise, previous monitoring has confirmed the noise level of the "William Fraser" in extraction mode is lower than larger TSHD vessels previously assessed in New Zealand waters for other projects (with an average source level of approximately 168 dB re 1 µPa @ 1m).

It is expected that:
(a) There will be no risk of Temporary Threshold Shift ("TTS") beyond 1m of the "William Fraser".
(b) There is no risk of Permanent Threshold Shift ("PTS") for all species.
(c) There is the potential for masking of other sound signals for some species when animals are within approximately 3 – 5 km of the "William Fraser" operating.
(d) Benign behavioural effects may occur if an animal is within a maximum of 1km of the "William Fraser" operating in the sand extraction area, for example, changing course to avoid the vessel.

This is an area with a degraded underwater soundscape due to existing vessel movements (commercial and recreational) and anchorages where large ships often run generators at anchor for long periods. The sand extraction activity will not change the underwater soundscape of the wider Bream Bay area and cumulative underwater noise effects are not expected to arise from ships beyond the extraction area.

Lighting Effects

The navigation and operational lights on the William Fraser are the minimum required to meet regulatory, navigation, and safety requirements. The "William Fraser" is significantly smaller than many of those vessels, including the occasional cruise ship approaching North Port, Marsden Point, or in the North Port anchorage area. As such, it would have little or no impact on Bream Bay's night-time environment and perception of its night sky.

Cultural Effects

Consultation is continuing with the Patuharaheke Te Iwi Trust Board and a detailed Cultural Impact Assessment is to be prepared. It is expected that the Trust Board will provide input into the various relevant assessments being prepared and the proposed consent conditions. The nature of any ongoing relationship and monitoring by the Trust Board if consent is granted is still to be developed and may evolve over time. A key component of this could be the role of a Mātauranga Māori Liaison Group and cultural liaison agreement.

It is recognised that the removal of sand from the sea is viewed adversely by some iwi but this viewpoint differs from iwi to iwi and hapu to hapu depending on the nature and effects of the activity and their relationship with the moana in their rohe.

To date, the sand extraction site has not been identified as covering an area that has a specific significance to iwi. The sand extraction area does not include large shellfish beds or other kai moana resources. It is recognised that a range of marine mammals and fish are transient in this area and we look forward to Patuharakeke's advice as to their view of the significance of these from their cultural perspective.

It is recognised that Patuharakeke currently enjoys access to Marsden Point's distal spit via a 'ceremonial path' past the current Northport and CINZ facilities. However, it is only the terminus of this pathway that is exposed to the extraction area – outside the confines of Whangārei Harbour. The area of extraction would be more than 4.3 km from this point and operations within it would be juxtaposed against vessels either within the harbour anchorage area in Bream Bay or moving in and out of the harbour.

As outlined above, no effects on the foreshore and sand dunes along Bream Bay are expected. No effects therefore are expected on cultural or archaeological features along Bream Bay.

Expert Evidence That Will Support the Application:

· Planning
· Marine Mammals
· Surf Break Assessment
· Water Quality Assessment
· Statistical Analysis of Ecological Sampling
· Avifauna Assessment
· Hydrography and Bathymetric Assessment
· Coastal Processes Assessment
· Terrestrial Acoustics Assessment
· Economic Assessment
· Underwater Acoustics Assessment
· Marine Ecology Assessment
· Landscape and Natural Character Assessment
· Cultural Assessment
· Concrete Suitability

Upload file:
Attachments 2,3,4,5,7,8,10.pdf was uploaded

Section 6: National policy statements and national environmental standards

What is the general assessment of the project in relation to any relevant national policy statement (including the New Zealand Coastal Policy Statement) and national environmental standard?

Please write your answer here:

New Zealand Coastal Policy Statement 2010 ("NZCPS")

The following assessment assesses the proposal against the relevant objectives and policies of the NZCPS.

Objective 1 – safeguard and sustain the coastal environment

The biological and physical nature of the proposed extraction area and coastal processes of the embayment are known as a result of current and previous studies. The site does not host significant natural ecosystems or sites of biological importance that require protection.

No potential significant adverse effects on the ecology, water quality or natural coastal processes have been identified to date.

Sand extraction on the seaward side of the depth of closure avoids the risk of adverse effects on the foreshore and dunes and any significant natural ecosystems and sites of biological importance in those areas.

It is therefore considered that the integrity, form, functioning and resilience of the coastal environment (including the foredune and beach) and sustaining its ecosystems would not be adversely affected by the sand extraction beyond the depth of closure.

Objective 2 – preserve the natural character of the coastal environment

The coastal environment is dynamic. The proposed extraction site is adjoining an anchorage area and therefore large ships are a common visual element and the seabed in the vicinity has been disturbed by anchoring.

The natural character and natural features in the coastal environment would not be adversely impacted, although shallow and temporary disturbance of the areas dredged would occur from time to time.

The sand extraction area is outside any natural heritage overlays in the Proposed Northland Regional Plan (Outstanding Natural Features, Outstanding Natural Character and High Natural Character). Extraction will be seaward of the depth of closure and will not have any effect on the foreshore/dune system in Bream Bay.

Objective 3 – the Treaty of Waitangi and tangata whenua

The applicant recognises the ongoing and enduring relationship of the tangata whenua over their rohe. MBL has commenced consultation with both the Ngatiwai Trust Board and the Patuharaheke Te Iwi Trust Board. Regular meetings are now being held with the Patuharaheke Te Iwi Trust Board to update them on the scope and findings of investigations.

The objective of MBL is to form a beneficial and enduring relationship with the Trust Boards. As part of developing this relationship, the best ways to incorporate mātauranga Māori will be explored and may evolve over time. A key component of this could be the role of a Mātauranga Māori Liaison Group and cultural liaison agreement with Patuharakeke.

MBL is aware that there are characteristics of the Bream Bay coastal environment that are of particular value to tangata whenua and is working with Patuharakeke and Ngatiwai to identify these so that they can be taken into account as the project is developed further.

To date, no physical features of special value to iwi have been identified which may be adversely affected by the proposal. It is understood that effects on intrinsic or metaphysical values require further consultation and consideration.

Objective 4 – maintain public open space and recreation opportunities

The proposal will not impact on open space or access to it along and within the coastal marine area.

No recreational activities within the proposed extraction area or the immediate surrounds have been identified which may be adversely affected by the sand extraction over night time hours.

No surf breaks are expected to be impacted by the proposed sand extraction.

Objective 5 – coastal hazards risks

The sand extraction activity will not impinge on any natural coastal hazard risks.

Objective 6 – social economic and cultural wellbeing

An Economic Assessment is included as Attachment 2 and concludes:
“Sand is an essential input into a wide range of applications that are critically important to everyday life. Auckland’s sand market is showing signs of supply pressures. Notwithstanding the current economic slowdown, population growth is translating into ongoing demand for infrastructure investments, and therefore concrete and sand. The sand market relies heavily on a small number of consents, with Kaipara consents playing a key role. However, despite access to a large volume of sand in the Kaipara, technical and operational considerations act as a natural limit on the usable capacity that can be accessed.
Auckland needs access to multiple sand sources to ensure that the sand industry can respond to future growth pressures, especially during periods of high growth.”

The proposal is strongly aligned with Objective 6. In particular, an efficient and affordable sand supply continues to be critical for the economic well-being of the Auckland, Northland, Coromandel/Bay of Plenty communities. Auckland remains dependent on marine-sourced sand for concrete production, particularly high-grade concrete required for infrastructure projects of national significance. At the current time, there is not a feasible replacement for marine-sourced sand for the Auckland market. On this basis, there is a functional need for sand extraction to occur in the coastal marine area at a location where a suitable sand source is located and which can be efficiently extracted and delivered to the market.

The sand extraction at the proposed Bream Bay proposal site can be undertaken in a manner where significant adverse effects are avoided.

Sand extraction at this location is considered appropriate and both spatial and volume limits are proposed to avoid the risk of significant adverse effects.

Policy 2 – Treaty of Waitangi, tangata whenua and Māori heritage

As outlined elsewhere, the applicant has commenced consultation with the Ngatiwai Trust Board and the Patuharaheke Te Iwi Trust Board.

In terms of clause (e), there are two iwi management plans of relevance to this area. An assessment of the proposal in terms of these iwi management plans is included in Attachment 9.

In terms of clause (f), the scope and nature of how kaitiakitanga is to be provided for in the long term if consent is being granted is still being developed. A key component of this could be the role of a Mātauranga Māori Liaison Group and cultural liaison agreement.
These would provide an ongoing opportunity for mana whenua input as kaitiaki.

MBL recognises that the final scope of nature of these matters is up to how the Trust Boards wish to participate and exercise their role as kaitiaki and that this may evolve over time.

Policy 3 – precautionary approach

A precautionary approach is inherent in the key features of the project including:
The distance of the extraction area from the shoreline and areas subject to climate change
• Extraction in water depths beyond the depth of closure
• Site selection away from sensitive coastal features
• Volume and rate of take limits
• Benign extraction method
• Predominantly extracting at night to minimise visual effects and interaction with recreational users and marine birds
• Precautionary elements in proposed conditions of consent and management plans

Policy 6 – use and development of the coastal environment, including mineral extraction for infrastructure and social and economic wellbeing

The proposal is for sand extraction for concrete manufacture. Marine sand is an essential ingredient of high-strength concrete which is in turn a vital component of infrastructure and other construction and development. It follows that the provision of an efficient supply of sand is important for the continued economic and social well-being of the Auckland, Northland and Coromandel/Bay of Plenty communities.

The specific properties of the Bream Bay sand and the advantages of using it have been traversed elsewhere in this application. As also covered previously, there is a functional need for marine sand currently required for concrete production in Auckland that is sourced from the coastal marine area.

Policy 11 – indigenous biodiversity

A number of threatened marine mammal species (ie Brydes whale, orca, southern right whale, humpback whale and bottlenose dolphins) are likely to be transient in the area.

A Marine Mammal Management Plan will be implemented which outlines the mitigation actions required to ensure that marine mammals are afforded adequate protection from any actual and potential effects of proposed sand extraction activities.

In particular, the Marine Mammal Management Plan will address the potential effects of underwater noise and the risk of vessel strike on mammals by vessels transiting to and from the site and during sand extraction activities. On the basis of previous studies at Pākiri no damage or injury to marine mammals is expected and significant adverse effects on marine mammal habitat will be avoided.

MBL has been extracting sand from the CMA for over 80 years and has never had an occasion where marine mammals have been struck by their vessels. At all times the extraction vessel travels below the Ports of Auckland Shipping Protocol in relation to marine mammals which requires a speed less than 10 knots.

With respect to avifauna, the risk of threatened avifauna transiting through the sand extraction area and vessel strike is considered to be very low. To date, there have been no occasions of vessel strike by avifauna during MBL's 80+ years of shipping operations in the Hauraki Gulf.

The proposed sand extraction area and the sand extraction methodology have been identified and designed to avoid adverse effects on threatened and at risk species and avoid habitats of threatened indigenous ecosystems.

Overall, the proposal will not adversely impact the indigenous biological diversity of Bream Bay.

Policies 13 and 15 – preservation of natural character and protection of natural features and landscapes

The proposed sand extraction site does not include any Outstanding Natural Features and is not within any Outstanding Natural Character or High Natural Character overlays as identified in the Proposed Northland Regional Plan.

Given the significant distance between the sand extraction area and the closest overlays listed above and the nature of the activity, it is considered that the risk of any adverse effects on identified Outstanding Natural Features, Outstanding Natural Character and High Natural Character overlays is very low.

Any potential effects on the existing natural character of the coastal marine area in this location are considered to be very low.

In terms of effects on the sandy seafloor, if this was considered as part of the seascape, any changes are both minor and temporary in nature.

Policy 16 – surfbreaks of national significance

The proposal will not adversely impact any of the surf breaks identified in Schedule 1 of Policy 16.

Policy 23 – discharge of contaminants

Given the nature of the discharges, the receiving environment, the method of discharge and the temporary and localised nature of the plume granting consents would be consistent with this Policy.

National Policy Statement for Indigenous Biodiversity

In terms of specified highly mobile fauna listed in Appendix Two of the National Policy Statement, it has been confirmed that none of the listed species are expected to traverse the extraction area on a regular basis or if they do they will not be adversely affected by the sand extraction operation.

File upload:
Attachment 9.pdf was uploaded

Section 7: Eligibility

Will access to the fast-track process enable the project to be processed in a more timely and cost-efficient way than under normal processes?

Yes

Please explain your answer here:

The processing of the coastal permit application under the proposed Fast Track Act should result in a significantly shorter processing time than under the Resource Management Act 1991. Based on their experience to date, MBL considers that the time saving could be in the order of 3 years.

Given the importance of marine sand to the concrete component of most infrastructure and development projects and the increasingly serious shortages of sand particularly in Auckland, rapid approval of the project will clearly have regional and national benefits.

Cost efficiency will be achieved in the form of significant cost savings for MBL directly, but more importantly, there are cost savings for the Auckland sand market, concrete manufacturers and the community. In particular, the delays in achieving a sufficient supply of marine sand in Auckland will result in an increase in the price of sand for the concrete industry which has flow on effects for the cost of significant projects that use marine sand. Without a secure supply of sand, the price of sand will increase significantly causing the cost of concrete and construction projects to increase as well.

Supply shortages can be very disruptive to the delivery of major infrastructure projects and can add significant additional costs to their delivery. Since the restriction of the Pākiri sand supply in 2023, the concrete industry has faced at least four instances where sand supply for concrete production was severely constrained causing prices of sand and concrete to rise. This is during a period when concrete production was already down about 20% causing prices of sand and concrete to rise. As the construction industry grows again, the seriousness and costs of sand shortages for concrete production will increase.

Applying for the project through the fast track process will significantly reduce the time required to establish an alternative source of marine sand relatively close to the Ports of Auckland. This has become critical following the Environment Court's refusal to grant consent for the Pākiri Off-Shore Sand Extraction project for when and the temporary consent granted expires, pending any appeals.

What is the impact referring this project will have on the efficient operation of the fast-track process?

Please write your answer here:

MBL has many decades of experience in the operation of sand extraction. This resource consent application is therefore for an activity where both the operational and potential environmental effects are well known and documented. Below is a list of further reasons why the project can be efficiently handled in a way that will not impede or clog up the fast-track process:
• A detailed and complete application will be provided which will provide a sound basis for the fast-track decision-makers to make a decision in an efficient manner
• Baseline ecological and bathymetric monitoring has been completed and assessments are underway
• By August 2024 all remaining baseline monitoring (for example, noise levels) will be complete
• MBL have an agreement with Patuharakeke, the local hapu, for the delivery of their assessment of effects and consultation is underway with the relevant iwi (Ngatiwai).
• The application will include a detailed suite of proposed consent conditions.

In short, MBL expects to have assembled all the information necessary to enable the project to be fully evaluated by the time the fast-track legislation comes into force.

Has the project been identified as a priority project in a:

Other

Please explain your answer here:

For the reasons given below the Bream Bay project has not been separately identified as a priority project.

Will the project deliver regionally or nationally significant infrastructure?

National significant infrastructure

Please explain your answer here:

The Bream Bay sand extraction proposal does not itself directly deliver any particular infrastructure or development project but is critical for the efficient and resilient supply of marine sand which is crucial to the production of high-strength concrete. High-strength concrete is required for the vast majority of regionally and nationally significant infrastructure projects throughout New Zealand and in the projected market area for Bream Bay sand being Auckland, Northland and Coromandel/Bay of Plenty.

For example, MBL sand has been or is currently being used in regionally and nationally significant infrastructure such as:
- the Auckland Harbour Bridge
- the Waterview Tunnels
- the Newmarket Viaduct
- Auckland's Central Rail Link
- Auckland's Central Interceptor Link
- Port of Napier expansion project
- State Highway 2 extension and bridge between Tauranga and Mount Maunganui (NZTA)

Bream Bay has been identified as a suitable sand source as testing shows that it has the qualities required to be suitable for concrete production for infrastructure projects and can be supplied to the Auckland, Northland and Coromandel/Bay of Plenty markets efficiently. Generally speaking, land-based and river sand in the upper North Island is not as suitable for high-strength concrete applications as required in infrastructure, commercial and some residential projects.

Will the project:

increase the supply of housing, address housing needs, contribute to a well-functioning urban environment

Please explain your answer here:

Marine sands are an essential component in high-strength concrete used in multi-storey housing, hotel and commercial development and in roading (e.g. bridges and viaducts), rail, freshwater and wastewater projects which are essential to a well-functioning urban environment.

The efficient and secure supply of marine-sourced sand is critical to the development and maintenance of Auckland’s urban environment and economic output and through this the economic output of New Zealand.

Will the project deliver significant economic benefits?

Yes

Please explain your answer here:

Attachment 2 includes the Economic Assessment. This concludes:
“Sand is an essential input into a wide range of applications that are critically important to everyday life. Auckland’s sand market is showing signs of supply pressures. Notwithstanding the current economic slowdown, population growth is translating into ongoing demand for infrastructure investments, and therefore concrete and sand. The sand market relies heavily on a small number of consents, with Kaipara consents playing a key role. However, despite access to a large volume of sand in the Kaipara, technical and operational considerations act as a natural limit on the usable capacity that can be accessed.
Auckland needs access to multiple sand sources to ensure that the sand industry can respond to future growth pressures, especially during periods of high growth.”

The economic benefits of ensuring a secure and resilient supply of a vital ingredient of high-strength concrete are obvious.
At a more immediate level, the direct delivery of Bream Bay sand by the William Fraser into the Port of Auckland eliminates the truck movements that would otherwise be required to bring the equivalent amount of sand from as far afield as Northland and the Waikato.

In addition, there are reduced social costs because additional truck movements cause increased road maintenance, congestion, and human costs relating to road accidents.

Trucking also generates other costs including increased roading maintenance, more vehicles on already crowded roads, human costs relating to road accidents involving trucks and the costs related to increased congestion on the roads.

Will the project support primary industries, including aquaculture?

Yes

Please explain your answer here:

Yes, these industries are reliant on concrete for construction.

Will the project support development of natural resources, including minerals and petroleum?

Yes

Please explain your answer here:

Sand is a mineral and that term is defined in the Crown Minerals Act 1991. Sand extraction at Bream Bay would result in the use and development of the huge sand resource in the Bream Bay sand system.

Will the project support climate change mitigation, including the reduction or removal of greenhouse gas emissions?

Yes

Please explain your answer here:

This is addressed in the Economic Assessment section 3.2.2 Environmental Costs included as Attachment 2. This confirms:
"The Bream Bay operation would enable significant emission savings", and "based on the estimated distance, the associated emissions and the value of emissions, the potential annual environmental savings is estimated at $1.0m, increasing to $3.5m by 2028."

Due to the mineralogy cleanliness, shape, and composition of Bream Bay sand, less cement is required to make similar strength concrete compared to non-marine sand sources. This represents a significant reduction in the carbon emissions required to make the cement component of concrete. The production of one tonne of cement emits approximately one tonne of carbon dioxide. The use of marine sand reduces the amount of cement required to achieve the same strength concrete and therefore significantly reduces the carbon footprint of the concrete.

In addition, as stated above, delivering the Bream Bay sand via a ship into Auckland is vastly more fuel-efficient compared to trucking Kaipara Harbour sand from Helensville. The average trucking distances saved are in the vicinity of 262 km per trip and approximately (7,700) return truck and trailer trips would be required to transport 150,000 m3 of sand to Auckland by road. For 250,000 m3 the number of return trips would increase to approximately 12,800.

Will the project support adaptation, resilience, and recovery from natural hazards?

Yes

Please explain your answer here:

The sand extraction is neutral in relation to natural hazards as it will not exacerbate their effects or suffer adversely from them.

On the other hand, the sand extracted will be integral in the construction of infrastructure and development projects to enable adaptation and resilience to and recovery from natural hazards.

Will the project address significant environmental issues?

Yes

Please explain your answer here:

The extraction of sand from Bream Bay and its transportation to Auckland by ship will address the issue of CO_2 emissions for the reasons outlined above.

Is the project consistent with local or regional planning documents, including spatial strategies?

Yes

Please explain your answer here:

The relevant planning documents are the Northland Regional Policy Statement and the Proposed Northland Regional Plan (which incorporates the Regional Coastal Plan). The relevant provisions of the Proposed Northland Regional Plan are fully operative.

A coastal permit for sand extraction is required under Rule C.1.15.13 of the Proposed Northland Regional Plan and this is a discretionary activity.

Under the Proposed Northland Regional Plan, the site is zoned General Marine Zone. It is within the Significant Marine Mammals and Bird Area overlay. Within the wider Bream Bay area there are Significant Bird Areas, Significant Ecological Areas, Regionally Significant Surf Breaks, Areas and Places of Significance to Tangata Whenua, Outstanding Natural Areas, Outstanding Natural Features, Outstanding Natural Character and High Natural Character Overlays. The Zoning and Overlay Maps are included as Attachment 8.

An assessment of the proposal against the relevant objectives and policies of the Northland Regional Policy Statement and the Proposed Northland Regional Plan is included as Attachment 10.

Anything else?

Please write your answer here:

Auckland (and New Zealand) require a resilient supply of sand and aggregates for use in the construction of infrastructural, commercial, residential and recreational projects.

Currently in the Auckland region, there are two main sources of sand suitable for concrete production; Pākiri and the Kaipara Harbour. The Environment Court has very recently declined consent for the Pākiri Off-Shore Sand Extraction Site although an appeal to the High Court has been lodged.

The consenting of a new sand extraction site which can efficiently supply the Auckland market is therefore critical to the regional and therefore the national economy.

Granting consent for sand extraction at Bream Bay would achieve this and provide resilience to the Auckland sand supply from at least two sand extraction sites in the coastal marine area.

Does the project includes an activity which would make it ineligible?

No

If yes, please explain:

Section 8: Climate change and natural hazards

Will the project be affected by climate change and natural hazards?

No

If yes, please explain:

Section 9: Track record

Please add a summary of all compliance and/or enforcement actions taken against the applicant by any entity with enforcement powers under the Acts referred to in the Bill, and the outcome of those actions.

Please write your answer here:

MBL was founded in 1904 and over that time has been and is still involved in a range of business activities from sand extraction, quarrying, heavy vehicular transport, marine shipping, and barging all of which are subject to a barrage of regulatory and statutory controls. The company has a clean slate in all of these areas. MBL has no recorded history of any prosecution or other enforcement action against the company or its principals. As a fourth-generation family company, we rely heavily on our reputation as a responsible corporate entity and strive to bring that approach to all our business activities and dealings. MBL's goal is to supply Auckland long-term with high-quality sand in the most efficient and sustainable manner, with the least social, economic, and environmental costs and effects.

Load your file here:
No file uploaded

Declaration

Do you acknowledge your submission will be published on environment.govt.nz if required

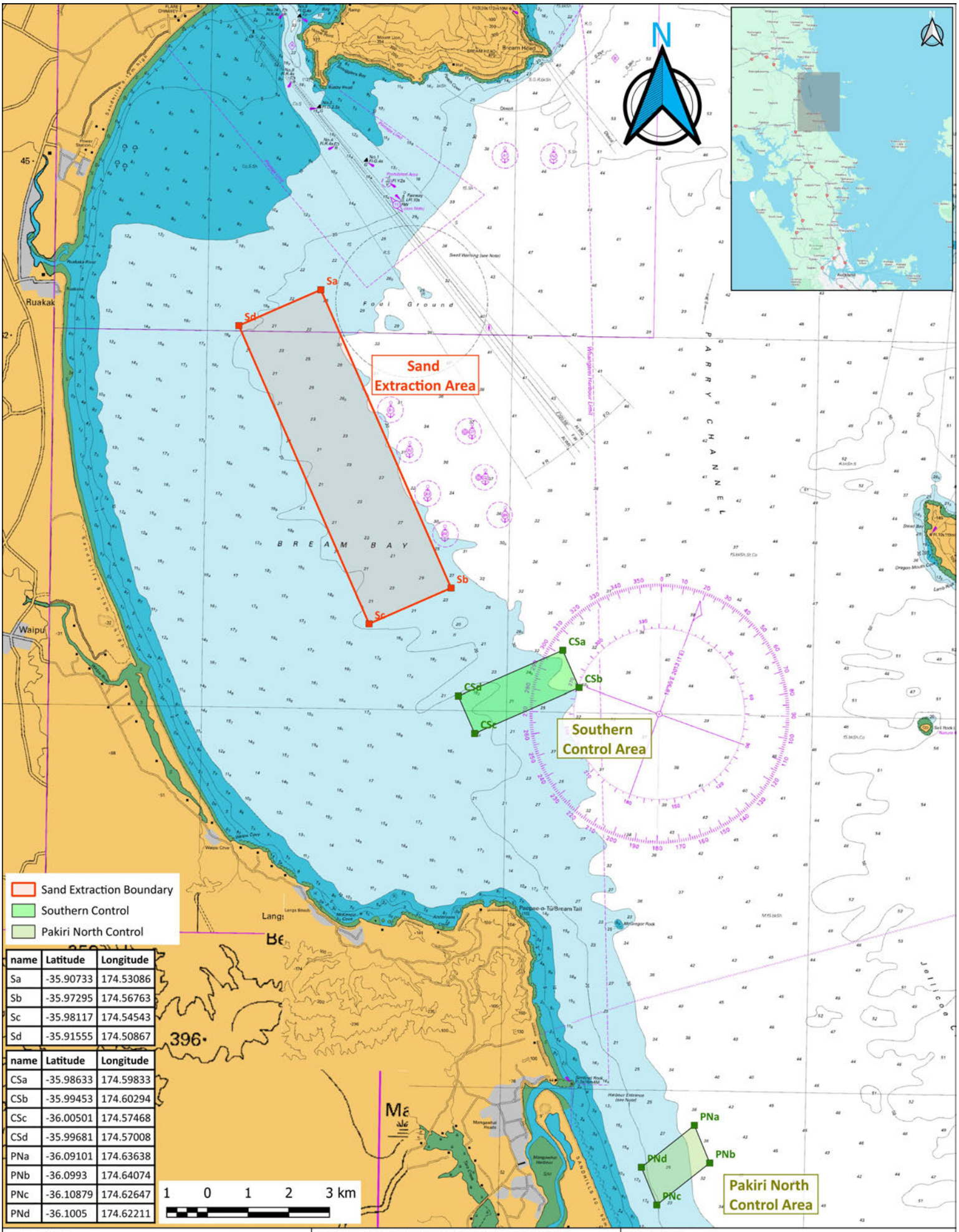
Yes

By typing your name in the field below you are electronically signing this application form and certifying the information given in this application is true and correct.

Please write your name here:
Christopher Garton

Important notes

Attachment 1 - Map Showing the Proposed Sand Extraction Area and Proposed Control Areas



name	Latitude	Longitude
Sa	-35.90733	174.53086
Sb	-35.97295	174.56763
Sc	-35.98117	174.54543
Sd	-35.91555	174.50867

name	Latitude	Longitude
CSa	-35.98633	174.59833
CSb	-35.99453	174.60294
CSc	-36.00501	174.57468
CSd	-35.99681	174.57008
PNa	-36.09101	174.63638
PNb	-36.0993	174.64074
PNc	-36.10879	174.62647
PNd	-36.1005	174.62211

CLIENT / PROJECT
McCallum Bros. Ltd.

CD – Chart Datum as measured at Marsden Point (LINZ code DJM9)
Map projection - NZ Transverse Mercator EPGS:2193
GPS points - WGS 84 EPGS:4326

MAP REVISIONS
Drawing Date: 17/04/2024 Version 1.0.2 by SW.

MAP FILE NAME

Map showing Proposed Sand Extraction Area and Proposed Control Areas

Bioresearches

Bream Bay Sand Extraction – High level assessment of economic effects

1 May 2024

m.e consulting

Bream Bay Sand Extraction:

Assessment of Economic Effects

Prepared for

McCallum Bros Ltd.

Document reference: MCBL 004.24

Date of this version: 1 May 2024

Report author(s): Lawrence McIlrath

s 9(2)(a)

www.me.co.nz

Contents

Figures, Tables and Appendices

1 Introduction

Auckland is New Zealand's largest city, and main economic service centre. The city is experiencing strong population growth and despite challenging economic conditions associated with the inflationary period, investment in buildings and infrastructure is ongoing. In addition to the demands associated with the growth patterns, there are significant infrastructure deficits. The Infrastructure Commission highlights the shortfall and suggests that a business as usual approach to renewals and investment will see the deficit grow. The historical deficit arose out of an investment slump during the 1980s and 1990s and the investment during the 2000s has not been sufficient to meet infrastructure demands.

Construction is an essential part of the infrastructure investment, and the entire supply chain must be efficient to ensure that infrastructure delivery can occur. A central message relating to addressing the infrastructure deficit is that a simplistic approach to building our way out of the deficit is unlikely to succeed. Instead, infrastructure efficiency, and maximising the return on infrastructure spending, are critical considerations. Estimates suggest that New Zealand's infrastructure spending would need to increase from 5.5% of GDP to 9.6% of GDP to deliver the infrastructure we need – a significant increase. This type of increase cannot occur in isolation and with limited financial resources, difficult trade-offs will be needed, reflecting decisions between hospitals, schools, housing, and other areas.

Sand is an essential ingredient in concrete, and specialist sand[1] is required for high-strength concrete applications. Sand is a key component in the production of ready-mix concrete, with between 400 and 450 kilograms of sand in each cubic metre of concrete. Concrete is used throughout the urban environment to meet the needs of residential, business and road construction requirements. Given the importance of concrete for Auckland's economy, Auckland's built future is effectively reliant upon maintaining sustainable sources of sand. Because sand is a key component in a range of different building applications, much of New Zealand's future productive growth is reliant on sand in one form or another. This means that the impact of sand extends significantly further than just the construction sector.

1.1 Objectives

Auckland's sand market is concentrated with most of the market supplied from a handful of sand extraction operations. This concentrated nature presents several risks and arguably the ability to source enough sand, form suitable locations, is the key issue. This economic assessment provides a high-level economic assessment of the Bream Bay sand extraction application and is structured in a way that addresses the eligibility criteria for projects under the Fast-track Approvals Bill. The project's regional or national significance is outlined, and the following sub-clauses are addressed:

- *Clause 17(3) of the Bill:*

  (b) will deliver regionally or nationally significant infrastructure

  (d) will deliver significant economic benefits

  (f) will support development of natural resources, including minerals and petroleum

[1] Principally marine sand.

(g) will support climate change mitigation, including the reduction or removal of greenhouse gas emission

(h) will support adaptation, resilience, and recovery from natural hazards

(i) will address significant environmental issues

Access to suitable, and sufficient volumes of high-quality sand, from appropriate locations is critical. Sand is a high volume, low value commodity – transporting it from source to where it is used is expensive. Beyond the financial costs, environmental externalities also arise from transporting sand.

This economic analysis provides high level estimates of:

- the sand market and the demand-supply outlook,
- the potential benefits associated with enabling sand extraction at Bream Bay.

The results are described in terms of the eligibility criteria listed above.

1.2 Information sources

Several sources were consulted as part of preparing this economic assessment, including:

- Information provided by McCallum Brothers Limited
- Market Economics Limited in-house regional economic dataset
- Auckland Council information and data
- Central government guidance and datasets:
    - Ministry of Transport
    - New Zealand Transport Agency
    - Ministry for the Environment
    - StatsNZ
- Industry sources and releases.

1.3 Structure

The balance of this brief report is structured as follows:

- Section 2 describes the Auckland growth outlook, specifically the demand for sand and the supply situation. The net position of the Auckland sand market is highlighted, and the economic implication of the net position is illustrated.
- Section 3 draws on the analysis and summarises the potential economic costs of a sand-supply crunch and the flow-on implications.
- Section 4 clarifies the links between the economic analysis and the eligibility criteria.

2 Sand market and outlook

Economic growth is in part related to urban development and expansion, meaning that the ability to cater for increases in population and economic outputs is heavily reliant on and directly linked to the sustained availability of sand. Sustaining GDP growth and economic performance aims, as well as catering for sustained household growth, requires continued access to sand of appropriate quality and quantity, in an accessible location. Ensuring local sources of sustainably mined sand ensures it can be provided to market at a cost-effective price.

This section starts with a summary of key demand parameters describing the sand market. These parameters are then applied to illustrate the demand outlook for Auckland. A short commentary about sand-markets in Waikato and Northland is included. Next, the supply situation is summarised – the anticipated supply crunch is highlighted.

2.1 Demand patterns

Official information about the volume of sand used, or extracted, is not available. There is a statistically significant relationship between population and ready-mix concrete. Sand also has other uses in landscaping, industrial applications, turf and golf, equestrian activities, and beach renourishment. These uses combine for the total demand for sand.

The relationship between sand and concrete is fixed and can be used to express sand demand on a per capita basis. The revealed per capita (concrete) sand demand is:

- 5 year average 0.38 tonnes per capita
- 10 year average 0.37 tonnes per capita
- 20 year median 0.34 tonnes per capita

Construction activity over the past decade. Notwithstanding the effects of disruptions associated with the shock such as the Global Financial Crises (GFC) and the Covid-lockdowns, construction remains solid and a key part of economic activity. The per capita demand for concrete has trended upward over the short term. The GFC saw a period of low investment in infrastructure and capital assets and consequently, demand for concrete slowed down. During this period, the per capita demand for concrete sand dropped to a ratio of 0.26 tonnes per capita (2009, when construction investment was very low). Post GFC, demand for concrete is relatively flat until 2013 when a clear upswing is noticeable. The significant disruptions during Covid are evident in ready-mix data. However, a large upswing in demand was experienced in the period following the lockdowns. Currently, the slowing business cycle is reducing demand, but the construction pipeline remains positive looking forward.

Industry sources indicate the Statistics New Zealand Ready Mix Concrete volume is under-estimated by 10 – 20%. This means that using any ratio based on the StatsNZ ready-mix information is likely to understate total demand.

Historic information indicates that other uses (landscaping, turf and so forth), account for another 25% to 30% of total demand. Expressing this portion on a per capita basis suggests that the per capita use for these other applications is in the order of 0.16 tonnes per capita.

Therefore, the overall demand per capita from all applications, including non-ready-mix concrete is estimated at:

- Bottom end of range 0.50 tonnes per capita
- Upper end of the range 0.53 tonnes per capita.

These demand ratios provide a robust way to estimate current demand and the growth outlook.

Auckland Council has adopted a March 2023 set of population projections to inform its planning processes, specifically the intensification plan change work, and the Future Development Strategy work. The medium projection series is the preferred option underpinning the work. The current demand levels for sand are estimated at:

- Ready-mix concrete sand:
  - Estimated at between 605,000 tonnes and 615,000 tonnes.
- Other applications
  - Estimated at between 261,000 tonnes and 265,000 tonnes.

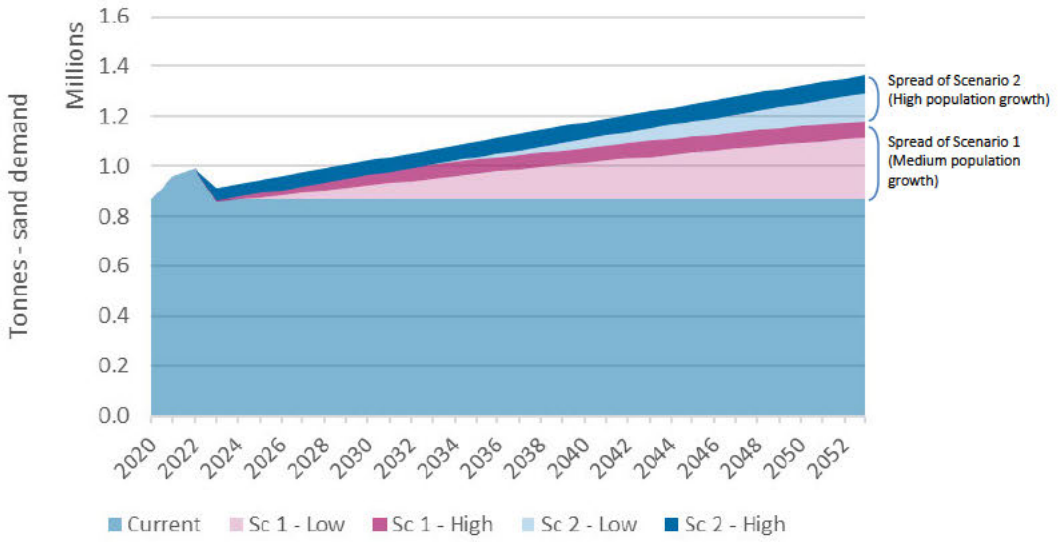
These estimates suggest that currently annual demand of sand in the Auckland market is in the order of 866,000 to 880,000 tonnes. These estimates are below the peaks seen immediately after the Covid-lockdowns when pent-up demand was in the system. The current levels are broadly in-line with the patterns experienced in the 2016/17 period when the economy was growing, but before the very strong growth period seen immediately before Covid.

The growth outlook is presented using two scenarios and the results are shown in Figure 2-1. The scenarios reflect:

- the medium population projections,
- the high population growth settings.

The scenarios are both combined with the lower and upper end ratios (for tonnes per capita). The anticipated increase in demand for sand is illustrated.

Figure 2-1: Demand for sand - outlook



The demand outlook for sand in the Auckland market is positive, and demand is projected to grow under all scenarios. The shift in demand is considerable and by 2053, the annual increase is demand is estimated as follows:

- Under scenario 1, the additional sand that will be demanded (per year), is estimated at between 246,200 tonnes and 313,100 tonnes,
- Using the high population growth suggests that Auckland will require between 421,300 tonnes and 498,800 tonnes of sand (per year).

These changes are substantial, representing a percentage change from current levels of between +28% to over +57%. Based on the current growth pathway and sand use patterns, production levels will need to increase by almost a third, at the low end, to more than doubling at the upper end of estimates.

The ability of the market to deliver the sand is crucial. The supply patterns are a function of appropriate sand (quality) and location. New Zealand has a range of different sand resources, but it is often economically unviable to access due to distance implications.

2.2 Supply patterns

Sand is one of the worlds most consumed raw materials. Globally, 40 to 50 billion tonnes of sand are extracted per year for use in construction, primarily to make concrete. Global rates of sand use have tripled over the last two decades as urbanisation surged. Most sand for concrete needs to be sourced from either the sea, from rivers, or from relict river or dune deposits. This is because the grains do not have all their edges eroded away, meaning that the sand binds better with cement to make stronger concrete. Sand that is wind eroded – such as that found in deserts – has a much rounder profile, meaning it is not good for making concrete. In the New Zealand context, the choices are narrower. Due to the continued eruptions from the silica rich andesitic volcanoes of the central north island, the river sands north of Taupo have high levels of alkali reactive minerals. This makes them less desirable for concrete manufacture and civil construction. Within the Auckland market there are three source typologies for sand:

- Land based sources,
- River based,
- Marine sourced.

There are several existing sand extraction sites within Northland, Auckland and Waikato that supply the upper North Island markets. Most of the consented volumes – as well as extraction sites – are located within the Auckland Region. However, the current sand supply is highly concentrated with most sand supply now sourced from the Kaipara – since off-shore sand extraction at Pakiri has been limited to 76,000 m^3 per annum under a temporary consent. Two key consents are located at the Taporapora sandbank north of Helensville. The recent major reduction in the volumes of sand that can be extracted from the Mangawhai Pakiri embayment has resulted in a significant reduction in availability of proven sand that can be used in the Auckland sand market. At the time, the Pakiri inshore and offshore consents accounted for 28% of Auckland's sand sales (346,600 tonnes). While the offshore consent is currently on appeal to the High Court after its refusal by Environment Court, a temporary consent allowing limited extraction has been granted until a final consent is granted by no later than July 2026. The reduced quantity of Pakiri sand to the Auckland market represents a significant decline in the availability of sand, particularly high quality

marine sand for concrete manufacturing[2]. Available information suggests that during December 2023, the local sand market experienced critical sand shortages, and nearly ran out of sand suitable for concrete production.

Total consented volume of sand provides an indication of the *theoretical* market supply, but this needs to be tempered by practical consideration, such as:

- Sand quality
- Practical and logistical considerations
- Existing allocations
- Location relative to the end-users.

Table 2-1 offers a basic summary of Auckland's key sand sources and additional information is provided in Appendix 1.

Table 2-1: Auckland Sand Sources

Source	Operator	Consented Volume (tonne)	Usable Volume (tonne)	Expiry
Pakiri	**McCallum Bros Ltd**	136,000	**136,000**	2026
Kaipara	**Winstone Aggregate**	475,200	**220,000**	2027
	Altas	604,800	**196,000**	2027
	Semenoff/Winstones Aggregate	45,000	**0**	2025
Tomarata*	**Semenoff Group**	96,721	**75,000**	
Pukekawa	**Winstone Aggregate**	129,600	**82,000**	2046
Tuakau	**Fulton Hogan**	194,400	**96,000**	2038

*Sand Glass Corporation has consented volume of 150,000 tonnes from the Tomarata resource. However, substantial investment in equipment is needed before this resource can be accessed. It is also located a considerable distance from Auckland.

Auckland's sand resources reveal the following key dimensions:

- Total consented volume is estimated at 1.8 million tonnes but the estimated usable value is significantly lower, estimated at 0.81 million tonnes. This includes the Pukekawa and Tuakau resources even though these resources supply non-Auckland users, are at capacity and only a portion if this resource is used in the Auckland market.
- The usable volume reflects adjustments based on sand processing, infrastructure and logistic constraints and market realities. This adjustment process removes around half of the consented volumes.
- The total consented and usable volumes as reported in the preceding points include the Pakiri temporary consent which expires no later than 2026. While the associated volumes form a relatively small part of the consented maximum, this sand is high quality and desirable for high strength concrete applications. It accounts for 17% of usable volumes.

[2] Due to the uncertainty of outcome associated with this consent, and its relatively small size, it is excluded from the wider analysis.

- Excluding the Pakiri resource from the usable values reduces the usable volumes to 669,000 tonnes. At these levels, sand needs to be either imported from other regions, or existing operations need to increase production levels to avoid shortfalls.

The relative importance of marine sand to Auckland's market is evident as shown by the contribution of the Kaipara resource:

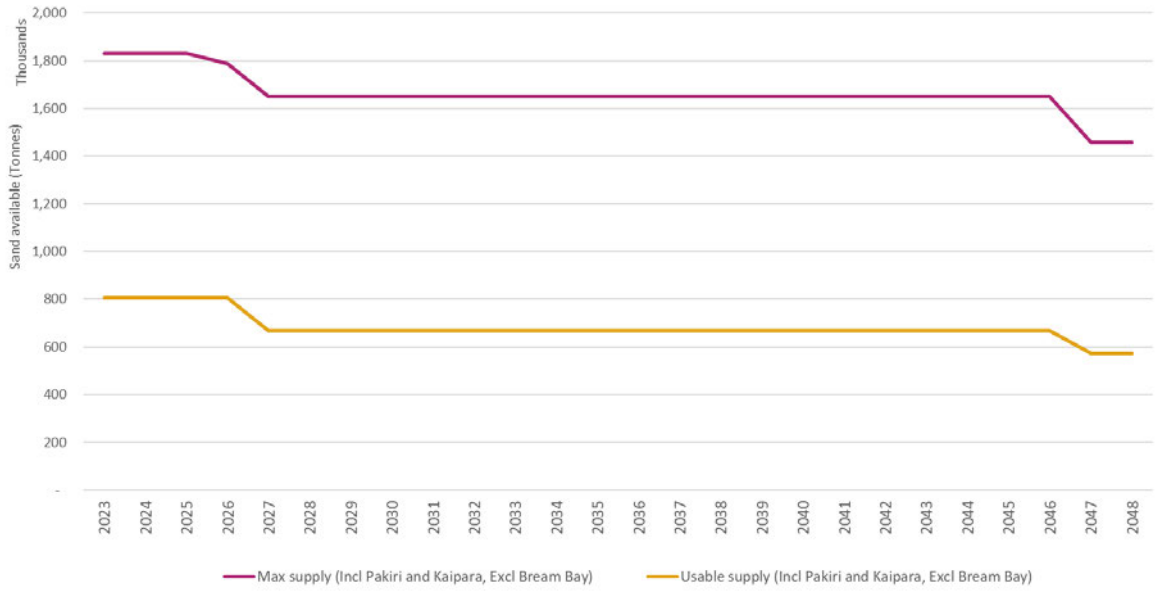
  - 61% of consented volume is associated with the Kaipara resource,
  - 44% of usable sand is associated with the Kaipara sand,
  - Excluding the Pakiri resource from the analysis increases the Kaipara's relative shares to 66% of consented volume, and 50% of usable volume.

Auckland's sand market is heavily reliant on the Kaipara resource, and there are significant concentration risks associated with such reliance. Other sources must be developed to reduce the reliance, and to improve supply chain resilience.

Manufactured sand is often raised as a potential alternative to natural sand. Bringing a new product to the market is normally subject to tests to ensure that the alternative meets all the necessary requirements, and to understand/uncover any limitations and nuances. Some of the proponents of manufactured sand have been operating since 2007. However, there is limited evidence of the market taking up manufactured sand as a mainstream option and substitute for natural sand. While manufactured sand is promoted as a possible alternative, it remains in the testing and piloting stages. There are no clear market signals that users (demand) are accepting this new technology and manufactured sand remains a speculative option.

The effects of consents expiring on the consented maximums and usable sand is crucial, forming a binding constraint. Figure 2-2 illustrates the spread between the maximum volume and usable sand.

Figure 2-2: Maximum and usable sand – outlook



Note: The figure includes the Tuakau and Pukekawa resource even though it is fully subscribed and allocated to other users.

The figure shows:

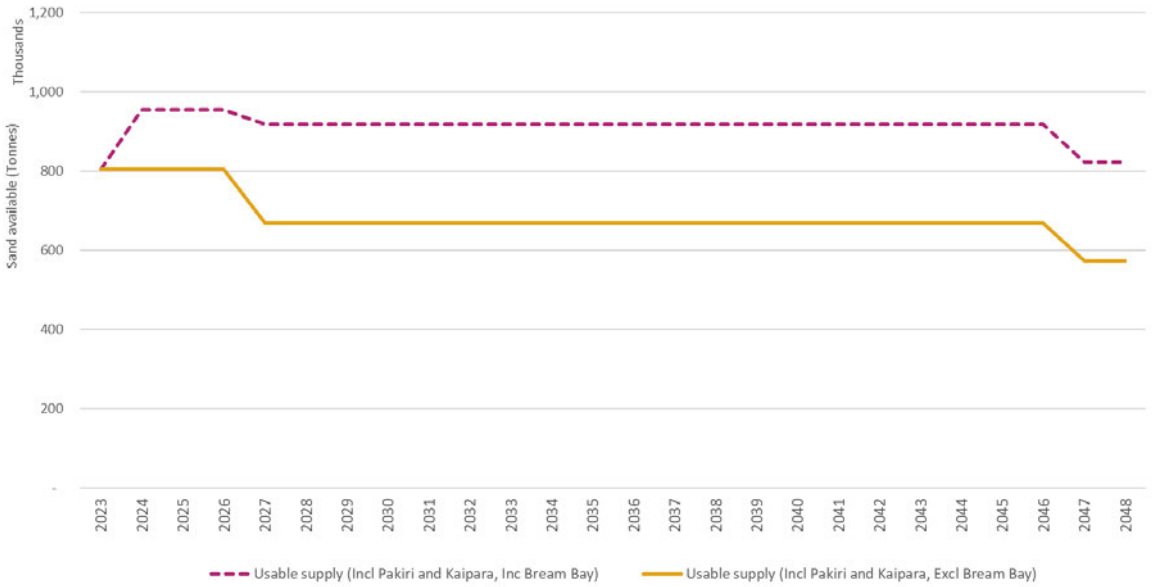
- There is a significant difference between the consented volumes and the usable volumes. This reflects the well-known operational and technical constraints and limits associated with scaling operations associated with the Kaipara resource (e.g., operating barges on the Helensville river, tidal limitations and vessel size and draft constraints).
- The downward step change in usable sand supply that is associated with the temporary Pakiri consent.

As mentioned earlier, the current annual demand of sand in the Auckland market is in the order of 866,000 to 880,000 tonnes, and normal demand levels are greater than the supply. The current supply position shows that the sand market is tight – with the usable sand volumes in-line with the demand levels – this is because the current economic slowdown is also felt in the construction sector, with below average activity. Significant pressures on sand supply will become evident, and constrain construction activity as soon as the economy returns to trend-levels. As mentioned in the preceding section, pressures, and an inability to supply sand to the Auckland market are evident. These pressures are being amplified by the Pakiri consents expiring. Uncertainty around the offshore consent (under appeal) is adding to market concern.

The potential contribution of the Bream Bay resource to providing secure access to high quality sand is illustrated in Figure 2-3. M.E understands that the annual usable sand that could be used is estimated at 150,000 m^3/year for the first three years, before scaling up to 250,000 m^3/year for the balance of the 35 year term requested. These volumes translate into the following weights:

- 270,000 tonnes for years 1 through 3,
- 450,000 tonnes for the balance of the consent period.

Figure 2-3: Contribution of Bream Bay

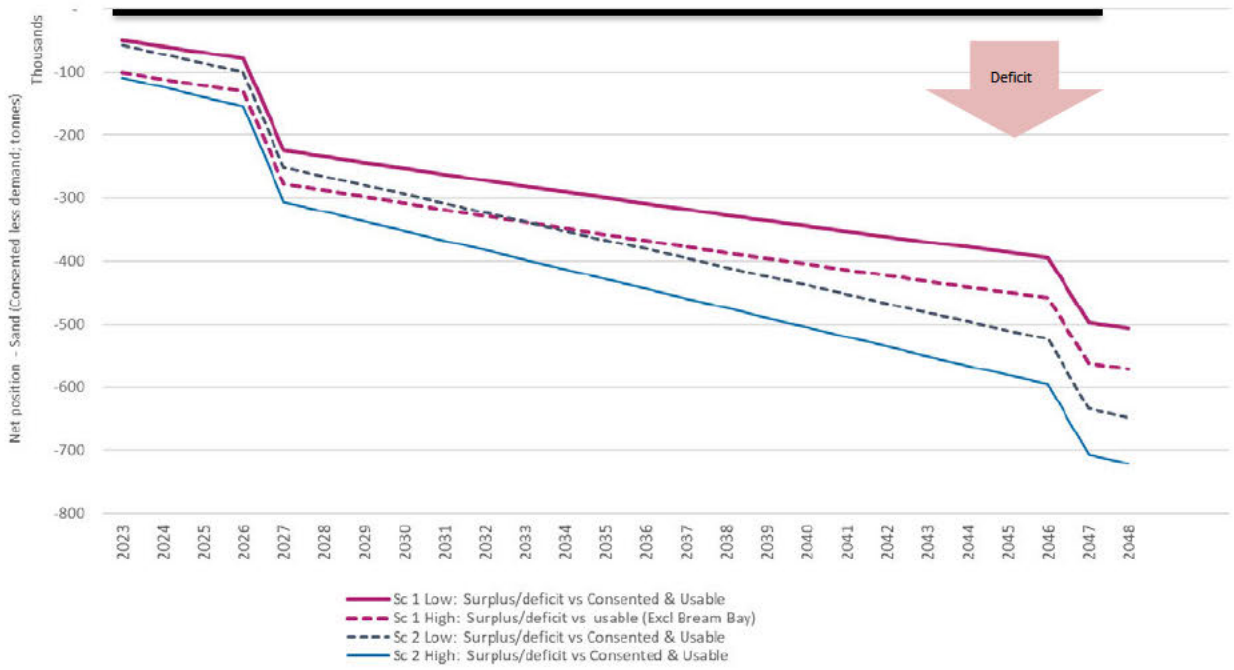


Enabling Bream Bay sand extraction will add a sizable resource to the Auckland sand market. The amount will be immediately usable in the market, alleviating pressures on the supply market. The addition will provide immediate relief to the constrained sand market and ensure that sand shortages do not inhibit investment and growth activities.

2.3 Sufficiency position

The supply position and the demand outlook are combined to identify the future supply-sufficiency position. If demand exceeds supply, then a deficit is expected. Figure 2-4 shows the position of the Auckland market based on Pakiri sand being available until 2026 and the Kaipara sand continuing to be available to the market over the long term. The sufficiency assessment is based on the usable sand volumes, not theoretical maximums.

Figure 2-4: Sufficiency Position

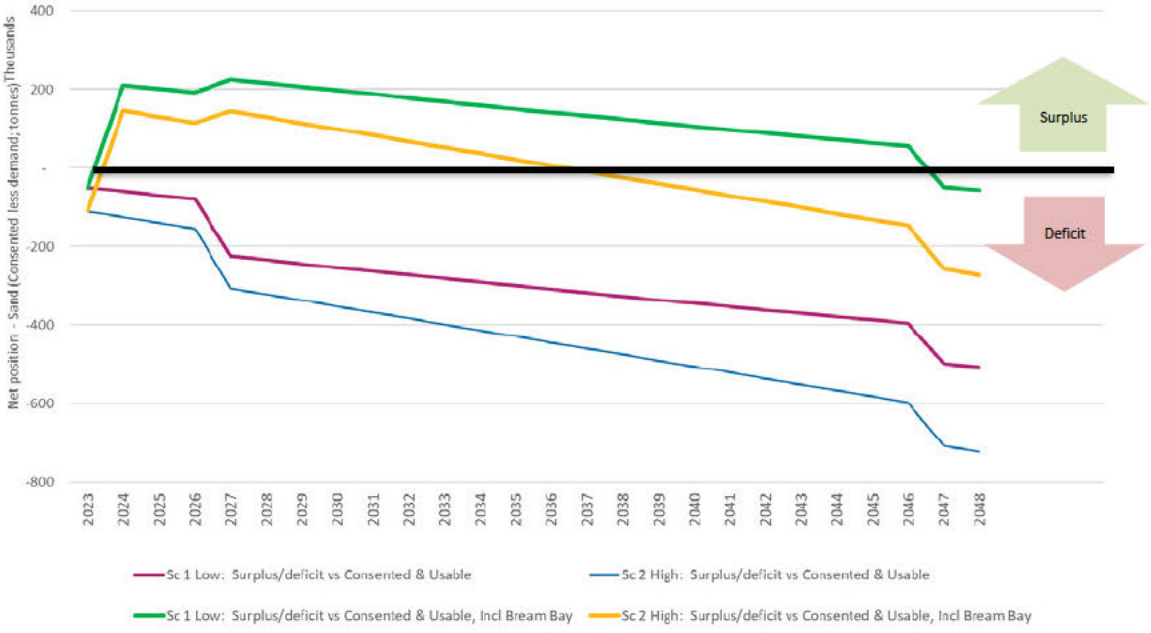


Based on historic sand demand level, the Auckland is expected to see pressures around supply and an ability secure sand. The current economic slowdown and below trend construction and investment are masking the magnitude of the deficit. As the economy recovers, price inflation normalises (returns the Reserve Bank's target range) and interest rates are lowered, an upswing in construction and investment will occur. However, as demand for sand picks up, the true scale of the constrained sand supply issue will emerge. There is limited capacity in the sand market to address any growth pressures. Similarly, the available information suggests that there is inadequate flexibility to respond to short term issues. Looking at the

long term, without new sand supply, a significant shift to alternatives, or a lift in production volumes, the deficit position will increase.

Enabling Bream Bay extraction will ensure that there is sufficient capacity in the sand supply market to provide supply chain resilience, while supporting efficient market operation and avoiding concentration risks.

Figure 2-5: Sufficiency with Bream Bay enabled



Enabling Bream Bay extraction will add to the Auckland market's sand supply options, with an immediate lift in total supply to above demand levels. The loss of Pakiri sand resulted in a substantial downward shift of the overall sufficiency position. Under the high growth scenario, a deficit position is expected around 2037 and under the medium growth position, the deficit position is reached in 2047. The positive contribution that enabling Bream Bay extraction will make is clear in the figure.

Supporting Auckland's ability to grow and deliver infrastructure means that a sand deficit must be avoided. Accessing the Bream Bay sand is a suitable option to avoid the adverse economic effects associated with insufficient supply. Examples of these effects include:

- **Price increases:** One of the most immediate effects of a supply constrained market is price increases. Sellers can increase prices in response to demand because normal competitive pressures are overridden by demand pressures. These price increases then flow into other, related goods and services, generating price pressures elsewhere in the overall value chain. In the sand market context, any price increase will be embedded in the construction costs, including all infrastructure related spending. Consequently, the price increases means that available budgets are even more constrained.
- **Rationing**: One way in which sellers could manage supply constraints is through rationing sand across clients. This could mean that higher-value or priority clients, receive preferential treatment. In such situations, some client might miss out and be forced to change their behaviour, accept higher prices, or use inferior products.

- Shifting demand patterns: If shortages persist, then alternatives are explored, and demand patterns shift. For sand, the shift could include use of manufactured sand or accessing suppliers that are located outside of Auckland in the Waikato or Northland. However, specialist applications have strict requirements and a simple switch between suppliers is not always possible and pricing can prohibit change (transporting sand is expensive, with direct implications for the delivered price).
- Opportunity for new suppliers: High demand relative to supply can signal market opportunities. Expanding existing operations, investing in additional equipment to lift output, or establishing new operations are all potential responses. These responses are however difficult to implement and take some time to implement. The regulatory processes around sand quarrying or extraction present high barriers and the response are normally slow. Nevertheless, this can lead to increased competition in the long run, which may help to alleviate the shortage. McCallum Bros efforts to establish the Bream Bay resource is evidence of this market effect.

2.4 Conclusion

Sand is an essential input into a wide range of applications that are critically important to everyday life. Auckland's sand market is showing signs of supply pressures. Notwithstanding the current economic slowdown, population growth is translating into ongoing demand for infrastructure investments, and therefore concrete and sand. The sand market relies heavily on a small number of consents, with Kaipara consents playing a key role. However, despite access to a large volume of sand in the Kaipara, technical and operational considerations act as a natural limit on the usable capacity that can be accessed.

Auckland needs access to multiple sand sources to ensure that the sand industry can respond to future growth pressures, especially during periods of high growth.

3 Significant benefits

Enabling sand to be extracted from Bream Bay to support the Auckland sand market will have direct benefits associated with the construction sector. The construction sector is regionally significant. It generates $8.7bn of GDP, equal to 6.1% of the City's total GDP. Construction is also a significant employer, with 10% of Auckland employment falling in this sector. However, the true benefits that enabling Bream Bay sand extraction relates to the facilitated effects i.e., it would support construction, and underpin infrastructure delivery. The immediate benefits of high quality infrastructure in the city-wide context are:

- Hard infrastructure requires concrete, and these investments include economic assets such as roads, bridges, ports, and railways. It is critically important to ensure that the infrastructure supports and improves the efficiency of moving goods, people, and information. If sand is not available, and infrastructure cannot be delivered in a cost-efficient or timely manner, then this will lead to cost/budget increases, travel delays and disruptions, long travel times and productivity losses for both individuals and businesses. Overall, these impacts reduce welfare standards.
- Infrastructure enables trade by reducing transaction costs between local boards, and the other regions. These connections stimulate and support growth.
- Well-developed infrastructure attracts domestic and foreign investment. The investment case is stronger for regions with reliable and robust transportation, communication, and energy network.
- Infrastructure investments in areas such as healthcare, education, and three waters contribute to improving the quality of life. This, in turn, enhances productivity, innovation, and economic competitiveness.
- Infrastructure investments can enhance resilience to natural disasters, climate change, and other shocks. For example, flood defences can reduce the economic costs associated with disruptions and damages. In addition, addressing damage after an event requires a strong supply chain, with an ability to access raw materials and processing capacity from diverse sources.
- Infrastructure projects often have long-term benefits that extend beyond immediate economic gains.

Sand is a direct input into Auckland's construction sector, enabling investment in projects delivering significant regional benefits. As New Zealand's primary economic centre – 38% of GDP – the city sees a large share of economic activity and growth. Catering for growth requires investment in infrastructure.

As indicated in the preceding section, the Auckland sand market is tight, with supply not matching demand. Looking forwards these pressures are projected to intensify. Using the Bream Bay resources offers a unique opportunity to deliver sand to the Auckland market. Using this resource offers an ability to supply sand to the Auckland market in a way that not only satisfies market demand but does so in a way that delivers a range of wider economic benefits.

The sand market, and its functioning in the context of construction and infrastructure delivery, is regionally significant. Without sufficient sand, the market cannot operate efficiently, and infrastructure delivery will be constrained with adverse flow on effects. At the same time, if the sand is sourced from alternative regions, such as the Waikato and Northland, then the transport function adds other costs, such as:

- Direct transport costs,

- Emissions costs,
- Social costs.

Avoiding these costs can be seen as a benefit. The relative benefits of using the Bream Bay resource are that the transport function avoids significant emissions, and these can be quantified and expressed in monetary terms. Despite the Kaipara resource's technical/operational challenges, and the considerations around increasing production, this resource is used as a principal alternative because:

- It has theoretical capacity to accommodate growth,
- It is of a quality that can be used in concrete production,
- Is a known resource.

Using the Kaipara resource as alternative means that the estimated costs are the 'at least' cost. All other options face greater transport distances that will generate greater externalities.

The section starts by illustrating the link between infrastructure, growth, and concrete (and sand) demand. This is performed by showcasing the types of projects that are underway or planned in Auckland and how these projects generate demand for sand. Next, the section summarises the avoided costs by firstly offering a short summary of the approach before presenting the results.

3.1 Auckland's significance

Auckland is New Zealand's largest city and is the economic centre. Most of New Zealand's economic and population growth will be centred in Auckland. Building and construction are key parts of Auckland's growth story. Crucially, the growth generates pressures and investment is needed in response to new pressures. However, the city is facing legacy issues that also require investment. Central government and Auckland Council are both undertaking significant investment to address old and new issues. Sand is a key input into concrete that is used in projects that are designed to address these issues.

As mentioned, Auckland is NZ's largest population centre and hosts 1.7m people – a third of NZ's total population. Over the past decade or so (2012 to 2022), Auckland's population grew by 15%. Looking ahead, the five-year period to 2028 will see another[3] 4% increase. Over the longer term (2028-2048) the population is expected to increase by 20%. In contrast, the total New Zealand population is expected to increase by 14%. This outlook underlines Auckland significance in the New Zealand context. The city is a key destination for population growth and economic activity, and it will continue to act as NZ's premier population and investment destination.

Over the past ten years, Auckland has experienced strong growth[4], and GDP is estimated at $133.7bn (in 2022). Overall, the city generates 38% of the national economic value (GDP). Over the last decade, Auckland's growth rate has surpassed that of New Zealand as a whole, with a 3.4% real terms annual increase, compared to the 3.0% national rate.

From 2001 to 2022, Auckland contributed to 41% of New Zealand's overall GDP growth. The growth translates into investment requirements associated with:

- Housing and residential areas

[3] This is based on the medium projections.

[4] Sourced from Infometrics.

- Roads, and transport infrastructure (bridges etc)
- Three waters infrastructure
- Business locations
- Commercial and industrial buildings
- Social and civic amenities and buildings

In terms of GDP per employee (one way to reflect productivity), Auckland is outperforming the rest of NZ. This reflects the city's economic structure and composition. Auckland's GDP per employee is around 6% higher than the national average. Over the past decade (2012 and 2022), Auckland's GDP per capita grew broadly in line with the rest of the economy. Again, this underlines Auckland's role in the national economy, as well as a direct requirement to ensure that the infrastructure and investment activities support the city's growth. Infrastructure spending is critical, including investment in new assets together with ensuring that existing assets are maintained.

3.1.1 Infrastructure investment

New Zealand's infrastructure challenges are well-documented. Auckland is in a similar position and the 2023 flooding events highlighted infrastructure deficiencies, caused widespread damage, and initiated a renewed interest in the city's infrastructure resilience and risk exposure. Supporting population and economic growth will require ongoing investment to cater for that growth. At the same time, legacy issues must be addressed, and resilience must be built into the infrastructure landscape.

A NZTA report noted there has been a deficit in infrastructure re-investment for the medium term which, when coupled with strong population growth, means that much public infrastructure is coming to the end of its useful and/or economic life[5]. Combining the historic shortfalls with growth means that the demands on infrastructure investment are likely to become even more acute over the short-, to medium terms.

The investment pipeline shows the size of the infrastructure challenge. There are several large-scale infrastructure projects that will generate considerable demand for concrete, and therefore sand. The National Construction Pipeline report (MBIE) shows infrastructure construction activity in Auckland is forecast to grow consistently and by 12% to 2027 – this is despite the economic slowdown. The Infrastructure Commission's work lists several large projects that will generate significant demand for concrete, and sand. Examples of current, and funded (or funding sources confirmed) projects include:

- Kainga Ora projects:
    - Mt Roskill Precinct Project Bundles 1- 3, stormwater and utilities,
    - Mangere Precinct Projects and rail station upgrades.
    - Tamaki Precinct Projects Bundles 1 and 2, and stormwater and water supply projects.
- Watercare
    - Central Interceptor,
    - Queen Street wastewater diversion and piping,
- Ministry of Education
    - 24 projects ranging from new schools, to expanding facilities in response to roll growth.
- Auckland Transport
    - Several projects, including the Carrington Road projects.

[5] https://www.nzta.govt.nz/assets/resources/research/reports/693/693-aggregate-supply-and-demand-in-new-zealand.pdf

- Eke Panuku projects
    - Including Osterley and Amersham Way Streetscape works.

These projects' budgets sum to $1.8bn and are occuring over the next 4-5 years. Projects beyond this time horizon are not funded (so not included in this list). Other high-profile projects that are in the pipeline include:

- **Auckland Airport:** The airport is a crucial component of New Zealand's domestic and international economy. The investment in the airport and associated facilities is a $3.9bn programme over the next 6 years. Some of the announced projects were put on hold due to the uncertainty introduced by Covid-19, but these are now starting up again.
- **Second harbour crossing and North Shore Light Rail**: The Government have announced approximately $40bn of investment for North Shore rail ($25bn) and the second harbour crossing under Waitematā Harbour ($15bn), with work expected to begin within the decade. While the future of light rail is uncertain, ongoing investment in transport infrastructure will be needed.
- **Penlink corridor**: this project is underway and is a 7km transport connection between the Whangaparāoa Peninsula and SH1 at Redvale, which will include new local road connections and a bridge crossing the Wēiti River. These works are estimated to be completed in late 2026 and will cost around $830m.
- **Maungarongo Unitec Rc2 Project:** This project relates to a mixed-up development at 1 Carrington Road, Mt Albert. This project is described as five 6-10 story buildings that are mostly residential in nature. The total area is 7,860m^2. The buildings will contain 274 residential apartments as well as commercial and retail space.

In addition to the very large items listed above, NZTA, Auckland Transport and various other public bodies and agencies have numerous ongoing and planned projects to improve the region. Taken together, their cumulative demand is a large part of total demand.

The Central Rail Link is a large project that will transform Auckland's urban form. Using basic facts about this project highlight the critical nature of high quality sand in supporting infrastructure investment.

Example project: Central Rail Link

Over the course of the project, more than 20,000 truckloads of concrete have been delivered to site, nearly 100,000m^3 of concrete has been poured and over a dozen concrete mixes have been used – including some unique mix designs. On average, more than 880m^3 of concrete was delivered to site every week. The sand component associated with this volume of concrete is 42,500 – 45,000 tonnes. The vast majority of this sand was from the McCallum Bros Ltd's Pakiri site.

Infrastructure spending is often designed with a specific purpose of supporting economic productivity and subject to extensive cost-benefit analysis. These evaluation process consider all costs and all benefits – direct, indirect and consequential. It is essential to have enough natural resource, including sand, to support any infrastructure delivery programme.

3.1.2 Concentration risk

Have access to sufficient sand is an important aspect, but supply chain resilience is also key. Currently, more than half Auckland's usable sand is located in the Kaipara. Using two or more sources at different locations adds resilience to the supply side of the market. Relying on only one resource means that the entire concrete system is at risk because there is limited redundancy to cope with any failure of an individual part, or critical piece of infrastructure. If the Kaipara sandbank is the only source of sand and delivery is disrupted[6], then the wider construction supply chain will face significant delays and disruptions. Any disruption is likely to be expensive with unnecessary costs. The importance of having resource on Auckland's west and east cost is further highlighted when considering Waikato sand as a potential replacement source. Waikato sand is nearly fully allocated to existing users, so reallocating Waikato sand to Auckland users will simply create a shortfall elsewhere. But crucially, Waikato sand is less suitable for high strength concrete due to the Alkali Silica risks it presents. This limitation is in addition to the transport costs that are likely to be prohibitive. It is difficult to see the Waikato sand resource as a meaningful substitute for Auckland sand issues.

3.2 Avoided costs are benefits

Transporting sand is expensive, with costs directly linked to distance. Industry information indicates that to move a tonne of sand 1km along the road network costs 27 cents. Transporting sand further has an immediate impact on the delivered cost, and therefore infrastructure budgets. For example, delivering sand to Auckland from Helensville (serving the Taporapora sand banks) to the concrete plants in Penrose needs a 65km road trip. After accounting for different transport distances and accounting for transportation from the Port to Penrose, the additional cost of supplying sand to Penrose (compared to Bream Bay option) is estimated at $535/truck – a 36% cost increase due to greater distances. Furthermore, this transport cost can effectively be doubled to $1,070 as the truck needs to return to the plant and is unlikely to have any load to offset the price. This brings the cost of transport up to 72% of the base sand cost. Because McCallum Bros Ltd use a barge for dredging and transport, they can deliver the sand to Auckland CBD (and then to concrete plants in Auckland via truck) at a significantly lower rate, without adding to congestion issues already seen on Auckland's motorways as would be the case with sand shifted from Helensville.

To put this direct cost into context, the Central Rail Link used more than 20,000 truckloads of concrete. Using this quantum and applying it to the cost difference shown above that the associated sand movements would have costed an additional $3.3m in transport cost alone.

Auckland uses concrete throughout the city and sand is delivered to concrete plants that are located at key points, forming a network. In addition, the sand is used for non-concrete applications (e.g., turf and pre-cast) and these are also distributed throughout the city.

Currently, most of the sand extracted from Kaipara is allocated to users that are in the west and north of Auckland. Bream Bay sand will be barged to Ports of Auckland, and then distributed to concrete plants and

[6] This could include mechanical issues, logistic issues, weather events or related disruptions.

other users. There are considerable transport cost savings in avoiding a portion of the transport function when distributing the sand from the CBD compared to Helensville.

In addition to the direct transport costs that flow through to end users, other costs can be distinguished, including:

- Emission costs
- Social costs
- Other costs

3.2.1 Direct transport cost savings

The distance sand is transported has a direct bearing on the delivered price. Using the Bream Bay resources, instead of Kaipara sand to meet demand in central and south Auckland will avoid direct transport costs estimated at $6.3m per year for the first three years, before increasing by $10.5m per year as tonnages increase. This represents a significant portion of the total value of the sand. Currently, sand sells for approximately $45 per tonne (delivered). Servicing the market using the principal alternative would see costs increase to $10.6m per year for the first three years, increasing to $17.7m as operations scale up– the exact increase is subject to the final contract details around quantity, quality, timing, and so forth. The potential cost saving relates to the change in costs. The avoided costs are substantial, and incurred every year.

On a cost per tonne basis, the additional transport drives the price up by at least 54% - a significant price increase that will have an inflationary impact on all construction, including residential developments, infrastructure, social amenities, and other sand applications.

Clearly, enabling Bream Bay sand extraction will generate direct transport cost savings relative to the principal alternative. These saving arise because the need to transport sand over land is reduced i.e., a more efficient transport mode is used to supply sand to end-users. Other benefits that arise from enabling a lower-cost provider include:

- Lower sand prices reduce, or at least suppress, the concrete price component of infrastructure project budgets.
- Extra competition ensures that the market remains efficient.
- End users have wider choice in terms of sand supply options. This supports competition and helps to keep prices low.

3.2.2 Environmental Costs

The role of transport in generating emissions is well document and undisputed. Therefore, reducing transportation distances and costs and seeking the most efficient means of transporting goods is vital to ensuring New Zealand meets its obligations under the Paris Agreement.

Avoiding sand delivery trips, or using a distribution approach with less total distance will avoid environmental costs associated with emissions. Total emissions include all transport modes, including the barges associated delivering the sand from the marine sources, i.e., Taporapora (Kaipara) or Bream Bay.

The emission calculation also includes road movements and travel distances are based on historic supply patterns.

The Bream Bay operation would enable significant emission savings. Delivering the sand from Helensville to central Auckland's sand users generates considerably more emissions than a Bream Bay approach. The additional road transport generates (for every km travelled):

- 5,240g of CO_2 for every km travelled,
- 10.6g of CO,
- 32.83g of NOx,
- 1.15g of hydrocarbons and
- 0.64g of PM_{10} particulates.

When applied to the additional distance required to meet McCallum's current client need, there is an additional 4,319 tonnes of carbon dioxide generated annually over the short term (3 years), before increasing to 7,198 tonnes from year 4 onwards. This estimate includes the emissions associated with barging the sand to Helensville or Auckland CBD as well as truck movements. It does not include any flow-on emission arising from congestion on the road network due to extra trucks.

Emissions are valued using official, whole-of-government, parameters and we considered the shadow price of emissions. This means that CO_2 emissions are valued in a range and projected to rise over time. To take account of this, the annual shadow price between 2023 and 2048 is used in the analysis. The current estimates for 2023 prices range between $64/tonne and $184/tonne. The mid-point value of $87/tonne is used. Over time, the shadow price increases considerably, with the mid value increasing to $286/tonne by 2048. This increase highlights the critical importance of reducing emissions.

Based on the estimated distance, the associated emissions and the value of emissions, the potential annual environmental savings is estimated at $1.0m, increasing to $3.5m by 2048.

3.2.3 Social Costs

Additional to the direct transport and environmental costs are the social costs associated with injuries and deaths. For every extra truck kilometre travelled, there comes an increase in the likelihood of injuries, serious injuries, and deaths.

Using official valuation approaches, the risks associated with travel distances are translated into social costs, specifically deaths, serious injury and minor injuries. Applying the Ministry of Transport's metrics suggests that avoiding the additional transport function would generate savings. Considering that the Value of a Statistical Life (VoSL) is estimated at $14.2m, a serious injury is valued at around $739,200 and minor injury is $78,200, then there is value in removing/mitigating the risk of injuries.

Annual avoided cost is estimated at $281,000 in the first three years, increasing to $468,700 as tonnages increase, if the Bream Bay sand can be used for the Auckland sand market. As with the environmental costs, these are likely to rise as the Value of Statistical Life, and other social cost metrics increases overtime.

3.2.4 Cement requirements

The physical attributes of sand play a critical role in cement requirements when preparing specialist (high strength) concrete applications. The amount of cement needed has direct cost implications based on cement costs. In addition, cement has high CO-emissions associated with its manufacturing. While advances and innovation in cement manufacturing and concrete production are lowering overall emissions, and cement requirements, the potential savings are substantial. While the specific attributes and cement requirements associated with Bream Bay sand are unknown, the potential savings could be significant.

If Bream Bay sand attributes are consistent with sand from the Pakiri Embayment, and the same cement requirements, then the annual cement (direct costs) and production emissions can be estimated. Assuming that on a per cubic meter of concrete basis, 4kg less cement is required (relative to Kaipara sand), then using Bream Bay resource would:

- Save on cement costs:
  - During first three years $544,000/y
  - Subsequent years $906,700/y
- Emissions saving[7]
  - During first year $108,000/y
  - Value in year 4 $329,600/y
  - Value in year 35 $612,970/y

3.3 Total benefits

The benefits associated with adding Bream Bay sand to Auckland's supply network will be felt over multiple years. The annual values can be expressed in present value terms by discounting future values. Essentially, the discounting process reduces the relative importance of future benefits (or costs) relative to short term benefits. Using a default rate of 5%, and a 35-year period suggests that the present value of the benefits are:

- Direct transport costs $196.0m
- Environmental costs $39.3m
  - *Health related costs* *$15.8m*
  - *Shadow price of Carbon* *$23.4m*
- Social costs $7.5m
- Cement use and emissions $22.7m
- **Total** **$265.5m**

Based on the above transport, environmental and social costs that would be avoided by enabling Bream Bay extraction, is valued at $265.5m.

This is based on the costs required to transport the 270,000 tonnes - growing to 450,000 tonnes of sand from Bream Bay to end users in central and south Auckland, as compared to a principal alternative of serving the market from Kaipara. This represents the economic benefit (in the form of avoided costs) that

[7] Values increase over time because the shadow price of carbon increases.

accrue to Auckland's economy - and ultimately households. This is likely to be conservative, as it assumes that the Helensville plants can meet Auckland's growing appetite for sand. However, looking forwards, the transport costs will be significantly higher if sand is transported from sources that are located further than the Kaipara resource (e.g., from Northland and Waikato).

4 Conclusions

Efficient and sustainable access to sand will be an important factor in both facilitating Auckland's economic growth aspirations and providing infrastructure such as roading, buildings, and other infrastructure to support Auckland's rapidly growing population and economy. Table 4-1 provides commentary illustrating how the Bream Bay application aligns with the eligibility criteria as outlined in Clause 17(3). The presence of the sand and the ability to utilise it sustainably contributes significantly to the economic wellbeing of Aucklanders.

Table 4-1: Alignment with Fasttrack legislation criteria

Eligibility criteria Clause 17(3):	Comment
(b) will deliver regionally or nationally significant infrastructure	Sand is an essential ingredient of concrete, and concrete is needed across the entire urban landscape. Bream Bay sand offers an opportunity to avoid the adverse effects of a constrained sand market, while also reducing cost pressures. These are critical considerations associated with business as usual processes, but the processes will be critically important when delivering any significant infrastructure. Auckland generates 38% of New Zealand's GDP, and without sufficient, high quality sand, the city's economic performance will suffer.
(d) will deliver significant economic benefits	Supplying the Auckland sand market using the Bream Bay resources will avoid considerable costs. The avoided costs are seen as benefits and the analysis shows that the present value of these avoided costs is $265.5m – avoiding these costs translates into a significant economic benefit.
(f) will support development of natural resources, including minerals and petroleum	Auckland's sand market is showing signs of constraints with demand levels starting to exceed supply capacity. The current economic slowdown is masking the size of these pressures Developing the Bream Bay resource as a mineral option is consistent with developing resources in a responsible and efficient way.
(g) will support climate change mitigation, including the reduction or removal of greenhouse gas emission	Minimising the distance that sand, and concrete, travels to end users ensures that the associated emissions are kept to a minimum. The analysis illustrates that barging sand to Auckland CBD and then distributing the sand to end users generates less emissions than souring sand from the principal alternative (Kaipara). However, the Kaipara consents are expiring in three years, and renewal is not guaranteed. Sourcing sand from other resources will generate even greater emissions than those estimated here. The value of the saved emissions is estimated at $23.4m using the mid-point values (the emissions associated with using additional cement is estimated at $7.0m).
(h) will support adaptation, resilience, and recovery from natural hazards	Apart from ensuring that there is enough sand to support Auckland's growth, enabling Bream Bay will enhance the sand market's resilience because key supply sources will be available from Auckland's east and west coasts. The Kaipara resource is the largest resource and sand is barged to Helensville. Operational factors, such as tidal and marine conditions present risks. Enabling multiple sources reduces concentration risk. In a post-disaster situation, reinstating infrastructure as fast as possible is crucial. It is plausible that the natural event that caused widespread damage could also damage the sand-infrastructure at Helensville. Developing and maintaining multiple sources for sand is prudent.
(i) will address significant environmental issues	High quality sand is used in specialist concrete applications in infrastructure that is designed to address legacy issues. Auckland's Central Interceptor is an example of such project. Without

enough high quality sand, there will be delays in delivering the concrete used to deliver such projects. Limited sand supply will mean that sand is rationed across concrete suppliers, and investments in environmental infrastructure will compete for concrete, and other resources, meaning that delivery timeframes will be pushed out.

Appendix 1: Sand extraction operations – key facts

Region	Region Supplied	Owner	Operator	Consent expiry	Max. Annual Volume	Converted Saleable Tonnes	Estimated Tonnes Sold	Theoretical Spare Capacity	Comment
Taporapora Sand Bank Kaipara	Auckland	Winstone Aggregates	Winstone Aggregates	21/05/2027	264,000	475,200	220,000	255,200	Extracted by Mt Rex Shipping. They are currently unable to supply any further volume due to operational constraints.
	Auckland	Atlas	Mt Rex Shipping	21/05/2027	336,000	604,800	196,000	408,800	Extracted by Mt Rex Shipping. They are currently unable to supply any further volume to customers due to operational constraints.
	Auckland/Northland	Semenoff Group/Winstone Aggregates	Kaipara Water Transport	30/05/2025	25,000	45,000	-	45,000	Currently not being extracted from. Is a partnership with Firth concrete and was used to supply the northern plants from Whangarei north
Tomarata	Auckland/Northland	Semenoff Group	Semenoff Group		53,734	96,721	75,000	21,721	Volume sold into at least one concrete plant in Auckland (Holcim) . Volume going into some Northland plants but spare capacity for Holcim created by start of Ruakaka sands and supply to Firth block and concrete plant
		Tomarata Sand Glass Corporation	NA		80,000	150,000	5,000	145,000	Small volumes going locally. There is no processing plant on site so it is not a finished product
Pukekawa Sand Plant	Auckland / Waikato	Winstone Aggregates Ltd	Winstone Aggregates	30/06/2046	120,000	129,600	82,000	47,600	Volume not sold into Auckland concrete plants but sold into Firth block plant. MBL purchase sand from quarry and they are at capacity with supply based on a quota. Therefore no spare capacity assumed as an operational issue
Tuakau sand Plant	Auckland / Waikato	Fulton Hogan	Fulton Hogan	7/02/2038	180,000	194,400	96,000	98,400	Volume sold into some Auckland concrete plants that MBL cant supply. They also supply some Waikato plants and a lot of the turf customers now. Yield of No.1 sand is 60% as per Winstone Aggs sand extraction in Pokeno. We have been told they have no spare capacity but have managed to supply concrete plants needing sand. They may have installed a new spiral to increase capacity

Attachment 3 - Andrew Moss Letter of Support

Hynds Pipe Systems Limited
PO Box 58142, Botany,
Auckland 2163, New Zealand
P +64 9 274 0316
F +64 9 272 7485
www.*hynds*.co.nz

29 April 2024

Hon Chris Bishop, Minister of Housing, Minister for Infrastructure, Minister Resource Management
Parliament Buildings
Wellington 6160

Email: Chris.bishop@parliament.govt.nz

Dear Minister Bishop

Re: Auckland Concrete Market – Sand Supply Security

Hynds Pipe Systems is the largest manufacturer of pre-cast concrete products for use in NZ's water infrastructure. We also manufacture a broad range of non-water related civil and rural concrete products. For supply into the North Island the large majority of these products are manufactured at our Pokeno plant just south of Auckland. This is a state-of-the-art manufacturing facility utilizing high performing specialized concrete mixes.

Concrete manufactured at this site relies on raw materials being as consistent as possible with minimal variation to achieve performance requirements. Hynds has used sand from McCallum Brothers Ltd as a key ingredient in our concrete for over 20 years.

Due to the restriction on McCallum Brothers Ltd extracting sand offshore from Pakiri Beach, sand supply for the entire Auckland and Northern Waikato concrete markets is under extreme pressure. Fortunately for Hynds, McCallum's have prioritized our supply needs ahead of other concrete and non-concrete customers. However, we remain with significant supply uncertainty and have run short of supply on several occasions. Switching to alternative suppliers would be extremely challenging as none of the other suppliers have capacity to lift production to anywhere near the shortfall faced by McCallum's.

This current tight supply situation is in a market that has declined approximately 20% over the last year as the NZ economy has slowed. Demand will, however, recover over coming years and if there is not secure sources of quality consistent concrete sand the Auckland construction market and the NZ economy will be in serious trouble.

Hynds believe it is critical that McCallum Brothers secure ongoing sand resources, and that utilizing the proposed fast-track consenting process to progress supply options either offshore at Pakiri or in Bream Bay could significantly reduce time and supply risk. McCallum's have already completed extensive research and investigation regarding the impacts of these activities.

Thank you for the time in considering what is an extremely important issue for the Auckland region.

Si y

[redacted]

Andrew Moss
Chief Executive Officer

SUPPORTING STATEMENT OF PATRICK JOHN BRIDGEMAN IN SUPPORT OF MCCALLUM BROS LIMITED APPLICATION TO FAST TRACK A SAND EXTRACTION CONSENT FROM A SITE IN BREAM BAY.

1. My name is Patrick John Bridgeman and I am the Managing Director of Bridgeman Concrete Limited ("BCL").

2. BCL produces and delivers ready mixed concrete throughout the North Island. We primarily produce concrete for the Auckland, Waikato, Bay of Plenty and Hawkes Bay markets.

3. I am making this statement to support the application by McCallum Bros. Ltd (MBL) for inclusion as a fast track project under the Fast Track Amendment Bill. The application is for consent to extract sand from a 17 km^2 site in Bream Bay, Northland.

4. I want to explain some of the issues BCL would face if, following the Environment Court's decision declining the application for a similar offshore sand extraction consent at Pakiri, MBL is unable to supply BCL with marine sand with similar characteristics for concrete manufacture. I understand that Bream Bay offshore sand would be a suitable substitute.

5. BCL supplies between 6% and 7% of the ready mixed concrete used in New Zealand, and between 15% and 18% of the ready mixed concrete used in the Auckland market (for both residential and commercial supply). BCL also supplies from time-to-time specialist concrete mixes for public infrastructure works, including the City Rail Link and the Central Interceptor.

6. BCL has plants in Hastings, Napier, Hamilton, Papakura, East Auckland, Avondale and has interests in plants in Tauranga and Rotorua through joint ventures. BCL's three Auckland plants receive about 40 - 45 truck and trailer loads of sand per week (700 -850m^3). The plants in Papakura, East Tamaki and Avondale use the Pakiri sand and Avondale supplies have more recently been supplemented by some Kaipara Harbour sand from MBL. At present sand from the Kaipara Harbour supplied by Mt Rex shipping Ltd is the only other sand

suitable in sufficient quantities for the majority of our concrete making processes.

7. From time to time, the plants in Hawkes Bay and Tauranga have also used some Pakiri sand. This need arises when the quality of sand from the Hawkes Bay and the Waikato falls in quality. The Pakiri sand is needed to help balance out the lower quality sand from those areas.

8. I am also involved in a cement plant in Mt Maunganui, HR Cement. HR Cement supplies about 10% of the New Zealand market with cement. HR Cement's plant is currently producing a low carbon cement product "Ecocem", which it supplies to the market. Ecocem is a cement product with significantly lowered embodied carbon compared to standard concrete.

9. BCL are wholly reliant on sand from MBL for its three Auckland plants. If MBL were unable to provide us with sand, the three Auckland plants would have to close and the cement plant would reduce to half its productivity (as it would not be providing the cement for our Auckland plants).

10. As part of my role as Managing Director at BCL, I have investigated the availability of alternative sand supplies and I am in regular contact with others within the industry, including various sand suppliers. I am aware that there is a shortage of sand suitable for high strength concrete in the Auckland market. Since the end of July 2023 when MBL had to greatly reduce the volume of sand from Pakiri there has been a worsening shortage of marine sand in the Auckland market. As stockpiles of the Kaipara sand have been seriously depleted, MBL has begun to introduce rationing of its sand supply to all of its customers including BCL. We have been forced to purchase a re-screened aggregate contaminated sand to maintain production at the rate required by our customers. These problems would have been far worse had the Auckland construction market not suffered a downturn in the last 12 months.

11. The current position is that if further marine sand is not made available Auckland concrete manufactures will have to accept further cuts in supply and face reduced concrete production. The result would be a shortage of concrete for development and construction in the Auckland market and in particular for any infrastructure projects which rely on the high strength concrete for which marine sands is an essential component. As the construction industry picks up the position will only become worse and could become critical.

12. Access to Kaipara Harbour sand is controlled by Mt Rex Shipping, which is controlled by the owners of Atlas Concrete Limited ("Atlas"). I doubt that BCL would be able to obtain reliable supplies of Kaipara Harbour sand from Atlas/Mt Rex Shipping in sufficient amounts to keep the Auckland plants running.

13. As Atlas is also a concrete producer and a direct competitor to BCL, I am doubtful that they will be prepared to sell Kaipara sand to us on acceptable terms or possibly at all. Whilst MBL are able to act as a middle man for a short period of time to provide us with some Kaipara sand, that is not a long term solution.

14. In addition, if the entire Auckland concrete market was reliant on the Kaipara Harbour sand source and only one supplier, it would be highly exposed to the risk of supply failure. For example, if Mt Rex Shipping ran into an issue and the supply of this sand was affected (i.e. because a barge broke down, or production and extraction rates dropped), there would be a material impact on the sand available for supply to the wider Auckland concrete industry.

15. If MBL is unable to supply us with marine sand and BCL cannot source a suitable alternative, BCL's ongoing ability to operate in Auckland would be threatened. BCL does not hold a stockpile of sand. Once sand is received, it is used to make concrete. Without suitable sand coming in regularly, we will no longer be able to produce and deliver concrete.

16. If BCL's three Auckland plants were to close, this closure would affect approximately 100 employees and/or contractors who work with those plants (including 19 independent owner/operator truck drivers who rely on BCL). The Auckland plants would not be able to operate until an alternative supply is found which could be significantly more expensive. This closure would have a flow on effect with an immediate reduction in concrete supplied to the Auckland market and a corresponding effect on the construction industry.

17. A recent development has been the introduction of a trial production of sand manufactured from rock at Kaipara Ltd's quarry in Brookby. BCL's previous experience with manufactured sand has not been satisfactory. We have, however, undertaken trial manufacture of concrete with the new Brookby product but have found it in its present form unsatisfactory in a number of aspects. It is not easy to pump and does not finish as well in certain inferior characteristics.

18. I believe that the shortage of marine sand in the Auckland market and the possibility of worse shortages to come as construction and infrastructure development increases in the future is the most serious threat that our business has faced in our 56 years of operating.

PATRICK JOHN BRIDGEMAN

STATEMENT OF PAUL DONOGHUE IN SUPPORT OF MCCALLUM BROS LIMITED APPLICATION TO FAST TRACK A SAND EXTRACTION CONSENT FROM A SITE IN BREAM BAY.

1. My name is Paul Donoghue
2. I am a Registered Engineering Associate and a NZCE (Civil), I hold a National Diploma Civil Engineering from Technikon Witwatersand, Johannesburg and National Higher Diploma Material Testing from Technikon Pretoria, both from South Africa. I have spent over 36 years in the concrete industry with 16 years in New Zealand and 20 years internationally in South Africa and Dubai.
3. I currently have two jobs. My primary role is as the Manager – Training and Certification for Concrete New Zealand. My other role is an independent plant engineer and concrete consultant.
4. My role for Concrete New Zealand entails presenting training courses to concrete technicians, plant auditors and ready mix concrete plant managers.
5. I am also:
    - The chair of the plant audit committee which oversees the plant audit scheme to ensure all concrete plants maintain their audit status in accordance with NZS3104:2021; and
    - The convenor of the Concrete New Zealand Health and safety forum, cement technical committee and the ready-mix technical committee.
6. As an independent plant engineer my role involves the evaluation of raw materials and designing concrete mixes for some of the smaller independent producers. I also provide consulting services and dispute resolution assistance.
7. Prior to these two roles, I was a plant engineer for Firth Industries for 15 years and have considerable experience with concrete in Waikato, the Bay of Plenty, Hawkes Bay and the Taranaki region.
8. I have been approached by McCallum Bros Limited to provide an assessment of the Bream Bay sand for its use in the Auckland concrete industry.
9. As part of the preparation of my statement, I viewed a consolidated sample of the Bream Bay sand and compared it to other similar sand types. A consolidated sample means that it was made up from a number of sub-samples (16 in this case) taken across the proposal site, in order to take out point sample differences. A photograph

of the sand is below in Figure 1. This photograph does show the characteristics of the sand.

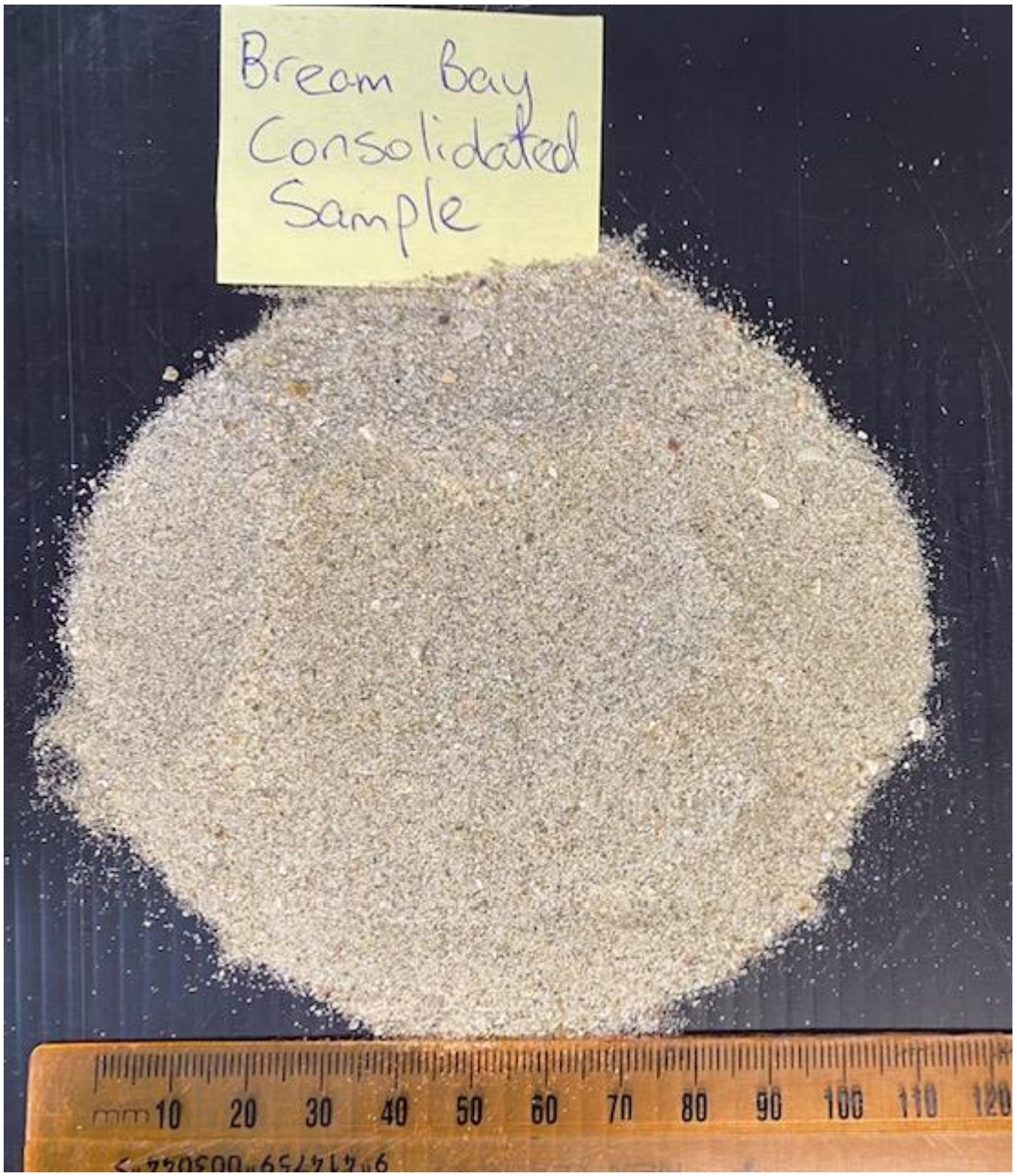


Figure 1: A consolidated sand sample of the Bream Bay sand.

10. The Bream Bay sand is a fine sand with a uniformly graded distribution with sub rounded but sound strong particles. The sample contains very little silt but this small amount can be controlled by washing. There are also some minor shell fragments but of insufficient quantity to be detrimental. It is of the same provenance as Pakiri sand, being the Waikato River when it emptied in the Firth. Being of the same provenance as Pakiri sand, it will be non-reactive in terms of the risks of an Alkali Silica reaction which can cause concrete to deteriorate over time. This will permit its use in applications where higher cement quantities are needed such as in high strength concrete mixes.

11. This sand would work well in concrete when blended with the much coarser crushed PAP sand sources found in the upper North Island. The PAP sand sources are missing the particle sizes offered by the Bream Bay sand. The resultant concrete would pump and finish well resulting in resilient concrete with a hard durable finish.

12. The blend ratios would be dependent on the final particle size distribution of both sands but I would expect to see a sand blend of 35% to 45% Bream Bay sand and 65% to 55% PAP.

13. The cleanness of this coastal sand will also help reduce the risk of plastic shrinkage and long term drying shrinkage.

14. When concrete is still fresh/wet or plastic and used in flat slabs there will be a layer of water form on top of the concrete. This water is called bleed water. Having a correctly graded sand and thus mix means the rate of bleed is controlled. If the bleed rate is wrong and the rate of evaporation is too high and this bleed water is lost to the concrete very quickly, as happens on hot windy days, it causes cracks to form in the plastic or wet concrete.

15. All concrete shrinks with time. This is mostly due to moisture loss within the concrete. This is called long term drying shrinkage. Having clean sands with a good particle shape, consistent grade and very little ultra- fine particles helps reduce the initial water demand for a mix leading to a lower water demand and thus lower long term drying shrinkage and less cracking which in turn means increased durability.

16. This sand is suitable for making high strength self-consolidating concrete and standard high strength concrete. Due to the good shape and correct particle size these sands make it easier to make this special concrete more easily and consistently.

17. Whilst the sand is sourced from the coastal marine area it will contain some soluble chlorides and shell fractions, however these do not cause any issues within the concrete. Having used similar sands regularly and tested for chlorides as required by NZS3101 and NZS3109 for many years I have never seen any test result showing chloride levels near or above the limits imposed by the concrete industry. Even when chloride calculations are done assuming high levels of chloride content in the sand, resultant chloride levels in the concrete are always well below any limits set in the standards.

18. The physical and mineralogical attributes that Bream Bay sand has make it suitable for use in high strength and specialist concrete mixes of the type used in large infrastructure projects. It would be a suitable replacement for Pakiri or Kaipara Harbour sand and could be used in applications where a high quality marine sand is required for the mix. The availability of this sand would avoid the major supply issues facing the concrete industry following the reduction in supply from McCallum Bros Limited at Pakiri.

Paul Donoghue.

Attachment 6 - Stakeholder Consultation Register

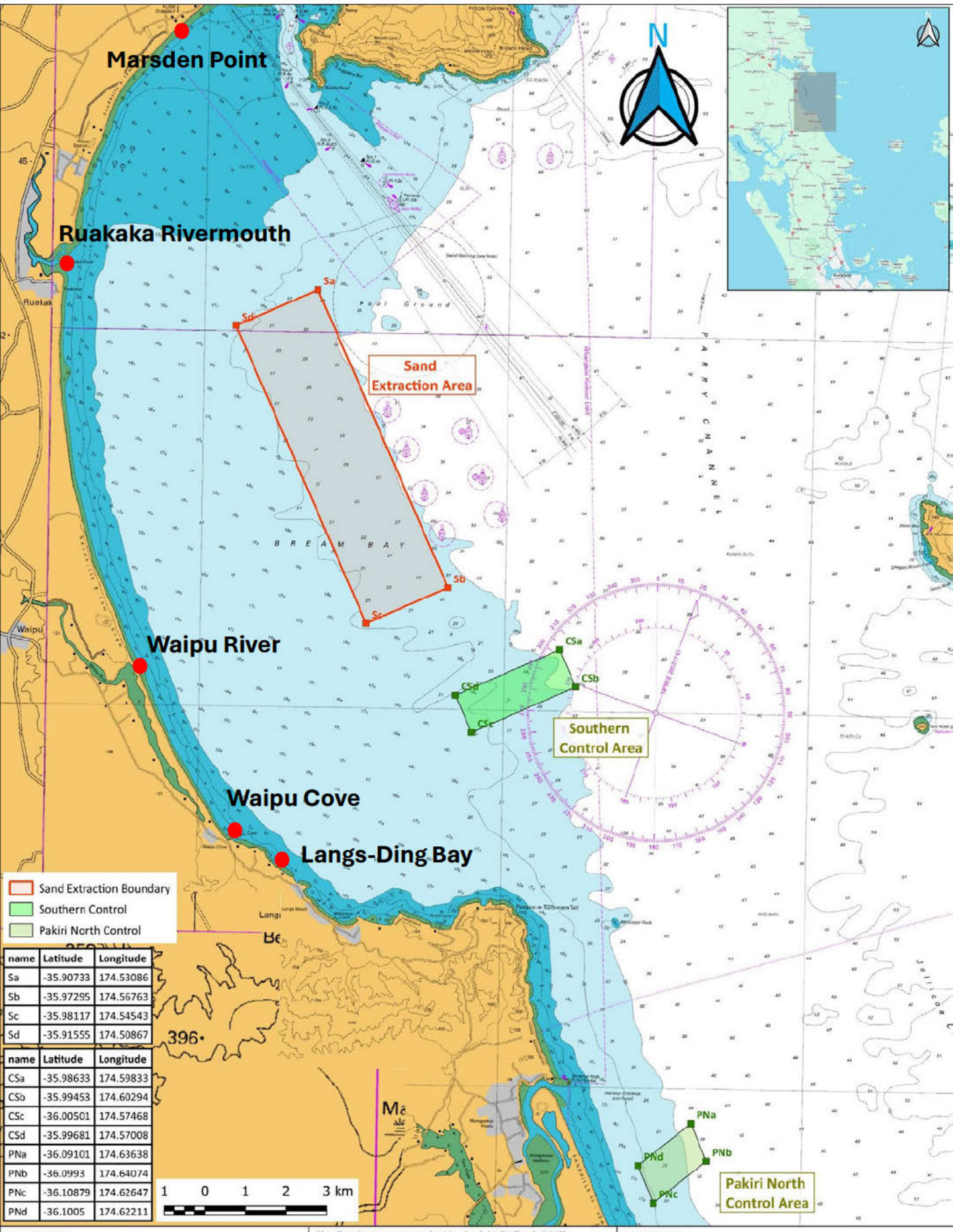
Stakeholder Communication/ Feedback Register - Bream Bay Sand Extraction Resource Consent Application							
Stakeholders Personal Name	**Date of contact/ feedback**	**Organisation or Group**	**Contact Method**	**Contact Theme**	**Summary of conversation/ feedback**	**Follow up action required (Yes/No)**	**Summary of follow up action required**
Simon Mitchell	13/12/2023	Ngāti Wai Trust	Meeting	Initial discussion	Tame TeRangi had a meeting with the Ngāti Wai Trust Board about our idea to dredge the Marsden Point shipping land Channel		
Simon Mitchell	14/12/2024	Ngāti Wai Trust	Meeting	follow up meeting	Tame TeRangi: follow up meeting regarding the meeting on the 13/12/23		
Simon Mitchell	22/01/2024	Ngāti Wai Trust	email	setting up a meeting	Tame TeRangi emailed Simon: told him MBL are seeking a meeting, offered the 24th of January	No	Simon emailed back on 22/1/24 to say that he was unavailable that week.
Simon Mitchell	22/01/2024	Ngāti Wai Trust	email	setting up a meeting	Tame TeRangi emailed Simon: told him that he will email Simon back with options for dates that are after Waitangi Day.		
Deborah Harding	5/02/2024	Patuharakeke	email	setting up a meeting	Tame TeRangi: emailed Deborah with a project brief and to set up a meeting		Deborah emailed back on 16/2 to say the board met to discuss the brief and directed Tame to liaise with Juliane and Dave.
Deborah Harding, Dave Milner, Juliane Chetham	17/02/2024	Patuharakeke	email	setting up a meeting	Tame TeRangi emailed Deborah back saying he will follow-up with Juliane and Dave in a separate email		
Juliane Chetham, Dave Milner	17/02/2024	Patuharakeke	email	setting up a meeting	Tame TeRangi emailed to confirm a meeting for the week beginning 19/2. If that week was not suitable then offering the week of 26/2.		Dave Milner replied on 21/2 to offer 1/3 as a potential date to meet at their office in Marsden
Dave Milner, Juliane Chetham, Deborah Harding, Alyssa Thomas	21/02/2024	Patuharakeke	email	setting up a meeting	Tame TeRangi replied to Dave's email to confirm the 1st of March as a meeting date		
Dave Milner, Juliane Chetham, Alyssa Thomas	28/02/2024	Patuharakeke	email	info for meeting	Chris Garton emailed to send Patuharakeke members an updated briefing paper of the proposal in preparation for the meeting on 1/3		Dave Milner replied on 29/3 to this email stating that the intention for this meeting was to whakawhanaungatanga and get a mutual understanding of the process and agree an engagement strategy
Simon Mitchell	29/02/2024	Ngāti Wai Trust	email	setting up a meeting	Tame TeRangi emailed Simon: asking if he was available 1/3/24 in Whangarei for a meeting		

Dave Milner, Juliane Chetham, Alyssa Thomas	1/03/2024	Patuharakeke	Meeting	Initial discussion	Chris Garton, Shayne Elstob, Callum McCallum, Tame TeRangi met at Patuharakeke Office in Marsden to discuss the project brief, make introductions, and take following steps.		Dave emailed on 4/3 the draft meeting notes/minutes from the meeting and thanking the group for the meeting
Dave Milner, Juliane Chetham, Alyssa Thomas	11/03/2024	Patuharakeke	email	follow up	Chris Garton emailed: agreeing that the minutes looked good, and stating that MBL would be in contact regarding opportunities to help with fieldwork and agreed to send reports		
Dave Milner	13/03/2024	Patuharakeke	email	Follow Up	Callum asked Dave for a list of the other Māori groups including Ngatiwai that MBL should approach.		Dave replied on 15/3/24 suggesting that Tame TeRangi advise MBL on which other hapu or iwi MBL should approach.
Selwyn & Mira Norris	20/03/2024	Te Parawhau	Phone	setting up a meeting	Tame TeRangi phoned to discuss the application and set up a meeting		
Selwyn & Mira Norris	21/03/2024	Te Parawhau	email	setting up a meeting	Tame TeRangi emailed to share the MBL Briefing Paper (240228) that was sent to Patuharakeke with Te Parawhau and stated that MBL are very keen to have initial discussion with them on the proposal at a time and venue that works for Te Parawhau		Mira Norris replied to Tame's email on 21/3/24 to say that Te Parawhau would like a face to face meeting. Te Parawhau are an interested party in the rohe
Selwyn & Mira Norris, Georgia Olsen, Pari Walker	22/03/2024	Te Parawhau	email	setting up a meeting	Tame TeRangi emailed to say MBL are very keen to meet at a time and location that suits you. Please provide a range of dates over the next two weeks that suits Te Parawhau representatives		
Selwyn & Mira Norris, Georgia Olsen, Pari Walker	27/03/2024	Te Parawhau	email	setting up a meeting	Tame TeRangi emailed them again following up from the email on 22/3 asking them to send dates for a meeting		Mira replied on 27/3, apologising, saying she has not had time to discuss this with the RMUnit and asked if Tame could email some dates that suit MBL
Selwyn & Mira Norris, Georgia Olsen, Pari Walker	27/03/2024	Te Parawhau	email	setting up a meeting	Tame TeRangi replied to Mira's email stating that he will ask MBL for dates		
Selwyn & Mira Norris, Georgia Olsen, Pari Walker	28/03/2024	Te Parawhau	email	setting up a meeting	Tame TeRangi replied to Mira's email: offering any day between 8-15 April, at venue of their choosing in Whangarei		
Dave Milner, Alyssa Thomas	8/04/2024	Patuharakeke	email	setting up a meeting	Chris Garton emailed to set up an online meeting on Friday 12/4 to discuss the project and potential field work opportunities		Dave replied on 10/4 offering a different time on 12/4
Dave Milner, Alyssa Thomas	10/04/2024	Patuharakeke	email	setting up a meeting	Chris Garton emailed re setting up the meeting at 1pm on 12/4 and sent meeting invites		
Dave Milner, Alyssa Thomas	12/04/2024	Patuharakeke	Meeting	catching up	Chris Garton, Shayne Elstob, Callum McCallum, Tame TeRangi met Dave and Alyssa online. Chris emailed a revised map and Gantt chart and timetable of the project.		

Dave Milner, Alyssa Thomas	16/04/2024	Patuharakeke	email	update	Chris Garton emailed to tell them that permission is needed before the consultant expert scoping documents can be sent to Patuharakeke for their consideration.	yes	Dave replied acknowledging the email and informing MBL that they will finalise their scopes and send them through soon.
Simon Mitchell	16/04/2024	Ngāti Wai Trust	email	setting up a meeting	Callum emailed Simon letter of proposal for MBL's Bream Bay application, and copies of the 1998 project agreement and memorandum of understanding between Kaipara Ltd and Ngāti Wai (which MBL inherited).		
Jim Lyle, Bruce Goodchild, s 9(2)(a)	16/04/2024	Northland Regional Council, and Whangarei Harbour Master	email	informing	Callum emailed MBL's proposal for sand extraction at Bream Bay to NRC for their information and requesting to meet when this is suitable		
Dave Milner, Alyssa Thomas	17/04/2024	Patuharakeke	email	update	Chris emailed about when Helen McConnell would be free to consult them regarding marine mammals (mid-late May onwards)		Alyssa emailed to acknowledge and agree that mid-late May suits them too. Dave followed up with an email on 18/4/2024 providing the rates for staff at Patuharakeke
Dave Milner, Alyssa Thomas	17/04/2024	Patuharakeke	email	update	Chris emailed the schedule for the William Fraser.		Dave replied.
Dave Milner, Alyssa Thomas	19/04/2024	Patuharakeke	email	update	Chris emailed the updated work schedule and Gantt chart for the project		
Dave Milner, Alyssa Thomas	19/04/2024	Patuharakeke	meeting	Fortnightly meeting	The first of fortnightly meetings to discuss the project and coordinate activities		
Dave Milner, Alyssa Thomas	19/04/2024	Patuharakeke	email	minutes from meeting	Chris emailed the minutes/action points from the meeting on 19/4/2024		
Dave Milner, Alyssa Thomas	19/04/2024	Patuharakeke	dropb box	file sharing	Chris set up a drop box to share project files with Dave and Alyssa.		
Dave Milner, Alyssa Thomas	19/04/2024	Patuharakeke	email	document	Chris emailed Dave and Alyssa the scoping document for Stephen Brown, the landscape architect		
Dave Milner, Alyssa Thomas	22/04/2024	Patuharakeke	email	document	Chris emailed Dave and Alyssa a copy of the scoping document for the Marine Mammal expert Helen McConnel		none
Dave Milner, Alyssa Thomas	22/04/2024	Patuharakeke	email	availability	Chris emailed to state that our skippers would be unavailable to attend the culteral induction due to scheduled work in the William Fraser		
Dave Milner, Alyssa Thomas	23/04/2024	Patuharakeke	email	document	Chris emailed Dave and Alyssa a copy of the Tonkin & Taylor letter of engagement which contains a scope of the work		
Dave Milner, Alyssa Thomas	23/04/2024	Patuharakeke	email	meeting	Chris emailed to ask what day would be suitable to have an online meeting with Stephen Brown, our landscape architect.		
Dave Milner, Alyssa Thomas	23/04/2024	Patuharakeke	email	meeting	Chris emailed to state that the skippers can attend an induction at a later date if we are granted a consent and we should just holf that date		
Dave Milner, Alyssa Thomas	24/04/2024	Patuharakeke	email	meeting	Helen McConnell (marine mammal expert) emailed to confirm her availability for the 21st of May as the meeting date		

Dave Milner, Alyssa Thomas	24/04/2024	Patuharakeke	email	meeting	Chris Garton emailed confirming the availability of MBL experts for a cultural induction on the 15th of May, and confirming this date for the meeting		
Simon Mitchell	26/04/2024	Ngāti Wai Trust	email	meeting	Callum McCallum emailed Simon and attached the Ngatiwai Project Agreement for Pakiri, the memorandum of understanding, and a letter from MBL introducing Ngatiwai to MBL's proposal for sand extraction in Bream Bay		
Dave Milner, Alyssa Thomas	24/04/2024	Patuharakeke	email	field work	Chris Garton emailed to notify Dave and Alyssa upcoming days that MBL planned to do field work and which a representative of Patuharakeke could attend		
Dave Milner, Alyssa Thomas	24/04/2024	Patuharakeke	meeting	landscape report	We had an initial meeting between Dave, Alyssa, Stephen Brown (landscape architect), Chris Garton, and Callum McCallum, to discuss cultural aspects of the landscape and make a plan for how Stephen and Patuharakeke can communicate and work together to inform Stephen of the cultural significance of the Bream Bay landscape		

ATTACHMENT 7: LOCATIONS OF REGIONALLY SIGNIFICANT SURF BREAKS



Sand Extraction Boundary
Southern Control
Pakiri North Control

name	Latitude	Longitude
Sa	-35.90733	174.53086
Sb	-35.97295	174.56763
Sc	-35.98117	174.54543
Sd	-35.91555	174.50867

name	Latitude	Longitude
CSa	-35.98633	174.59833
CSb	-35.99453	174.60294
CSc	-36.00501	174.57468
CSd	-35.99681	174.57008
PNa	-36.09101	174.63638
PNb	-36.0993	174.64074
PNc	-36.10879	174.62647
PNd	-36.1005	174.62211

CLIENT / PROJECT
McCallum Bros. Ltd.

CD – Chart Datum as measured at Marsden Point (LINZ code DJM9)
Map projection - NZ Transverse Mercator EPGS:2193
GPS points - WGS 84 EPGS:4326

MAP REVISIONS
Drawing Date: 17/04/2024 Version 1.0.2 by SW

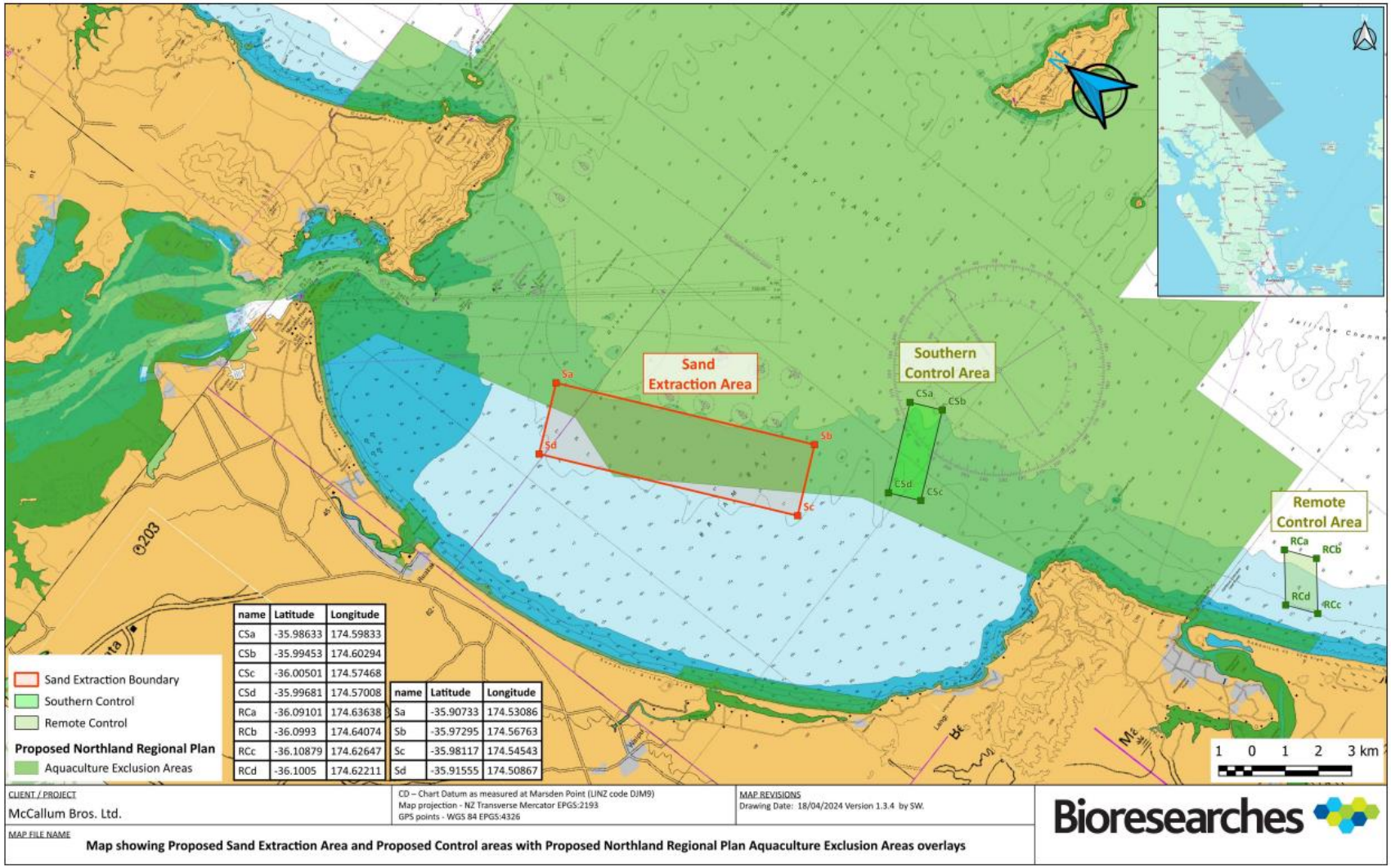
MAP FILE NAME

Map showing Proposed Sand Extraction Area and Proposed Control Areas

Bioresearches

ATTACHMENT EIGHT: PROPOSED NORTHLAND REGIONAL PLAN OVERLAYS (7 MAPS)

Aquaculture Exclusion Area Overlay:



name	Latitude	Longitude
CSa	-35.98633	174.59833
CSb	-35.99453	174.60294
CSc	-36.00501	174.57468
CSd	-35.99681	174.57008
RCa	-36.09101	174.63638
RCb	-36.0993	174.64074
RCc	-36.10879	174.62647
RCd	-36.1005	174.62211

name	Latitude	Longitude
Sa	-35.90733	174.53086
Sb	-35.97295	174.56763
Sc	-35.98117	174.54543
Sd	-35.91555	174.50867

CLIENT / PROJECT
McCallum Bros. Ltd.

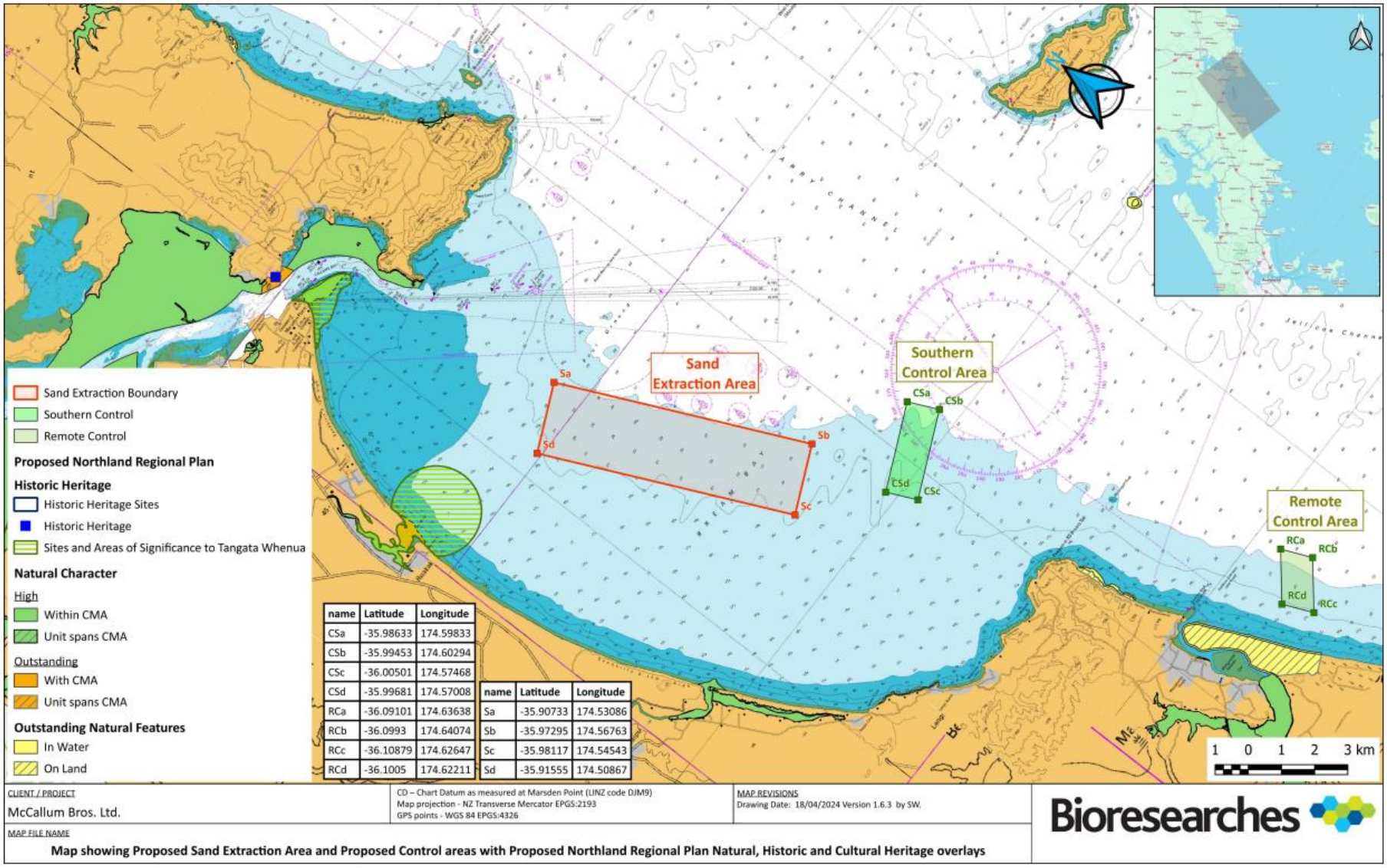
CD – Chart Datum as measured at Marsden Point (LINZ code DJM9)
Map projection - NZ Transverse Mercator EPGS:2193
GPS points - WGS 84 EPGS:4326

MAP REVISIONS
Drawing Date: 18/04/2024 Version 1.3.4 by SW.

Bioresearches

MAP FILE NAME
Map showing Proposed Sand Extraction Area and Proposed Control areas with Proposed Northland Regional Plan Aquaculture Exclusion Areas overlays

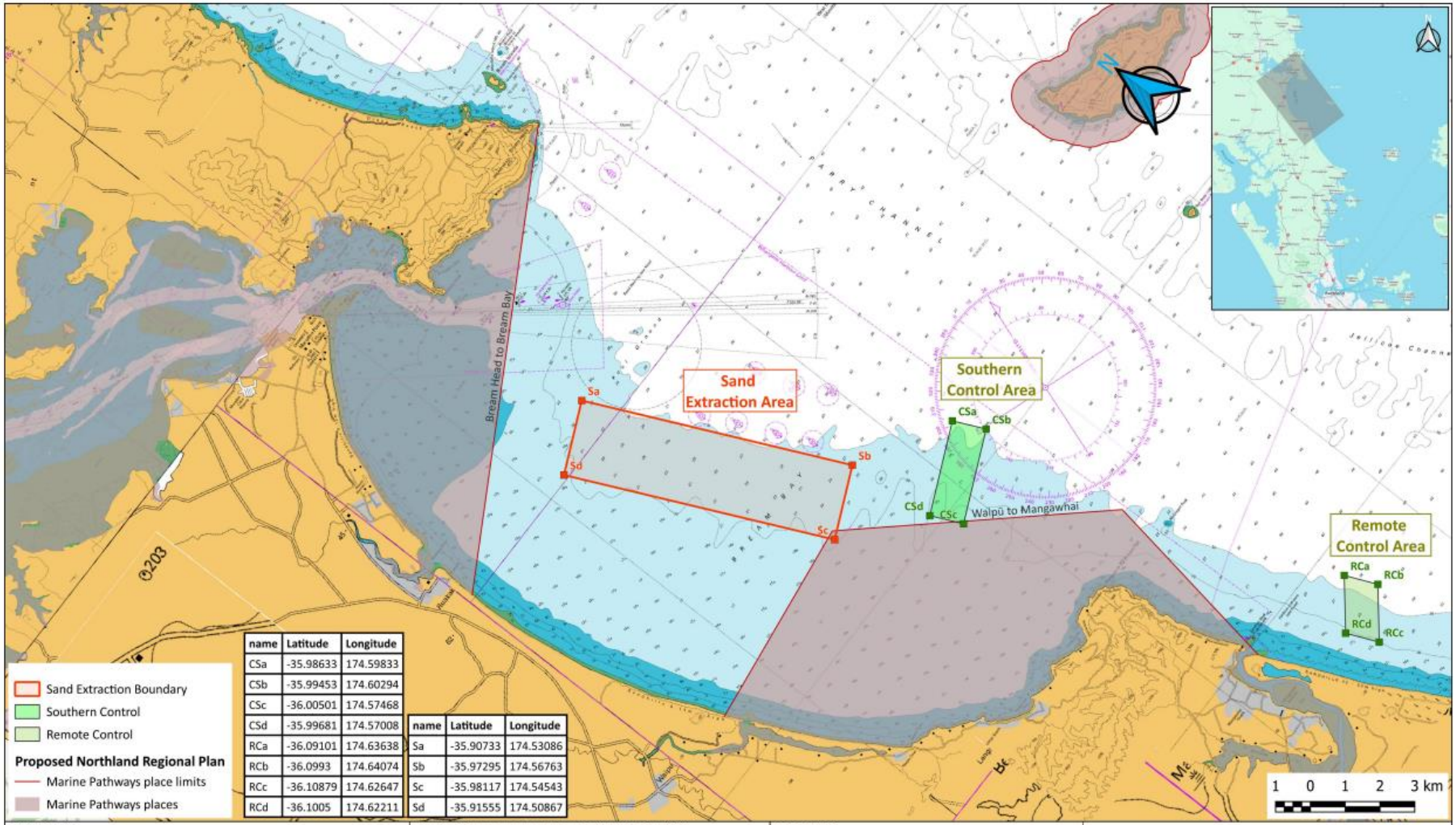
Natural, Historic and Cultural Heritage Overlays:



name	Latitude	Longitude
CSa	-35.98633	174.59833
CSb	-35.99453	174.60294
CSc	-36.00501	174.57468
CSd	-35.99681	174.57008
RCa	-36.09101	174.63638
RCb	-36.0993	174.64074
RCc	-36.10879	174.62647
RCd	-36.1005	174.62211

name	Latitude	Longitude
Sa	-35.90733	174.53086
Sb	-35.97295	174.56763
Sc	-35.98117	174.54543
Sd	-35.91555	174.50867

Marine Pathways Overlay:



name	Latitude	Longitude
CSa	-35.98633	174.59833
CSb	-35.99453	174.60294
CSc	-36.00501	174.57468
CSd	-35.99681	174.57008
RCa	-36.09101	174.63638
RCb	-36.0993	174.64074
RCc	-36.10879	174.62647
RCd	-36.1005	174.62211

name	Latitude	Longitude
Sa	-35.90733	174.53086
Sb	-35.97295	174.56763
Sc	-35.98117	174.54543
Sd	-35.91555	174.50867

CLIENT / PROJECT
McCallum Bros. Ltd.

CD – Chart Datum as measured at Marsden Point (LINZ code DJM9)
Map projection - NZ Transverse Mercator EPGS:2193
GPS points - WGS 84 EPGS:4326

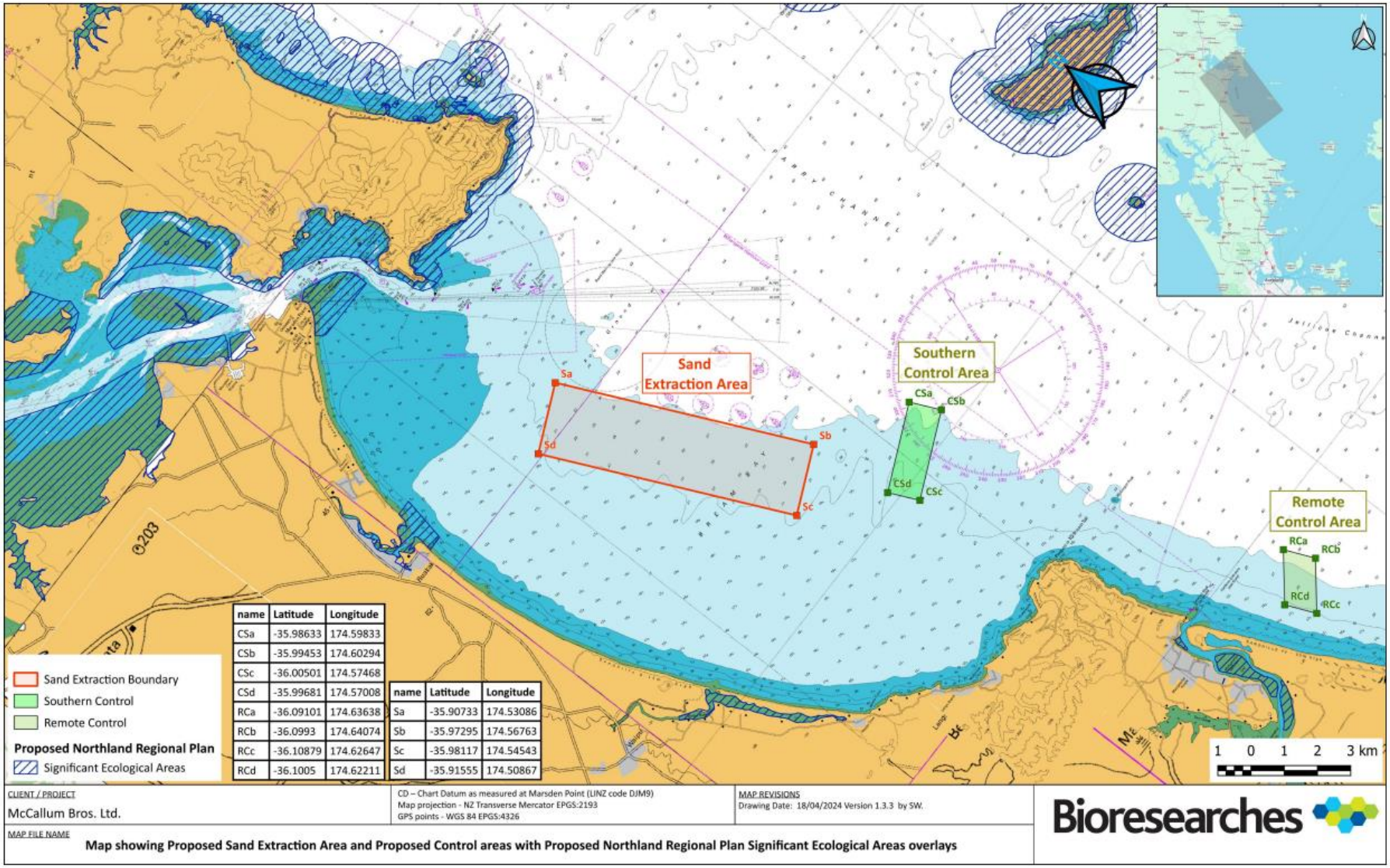
MAP REVISIONS
Drawing Date: 18/04/2024 Version 1.4.3 by SW.

MAP FILE NAME

Map showing Proposed Sand Extraction Area and Proposed Control areas with Proposed Northland Regional Plan Marine Pathways overlays

Bioresearches

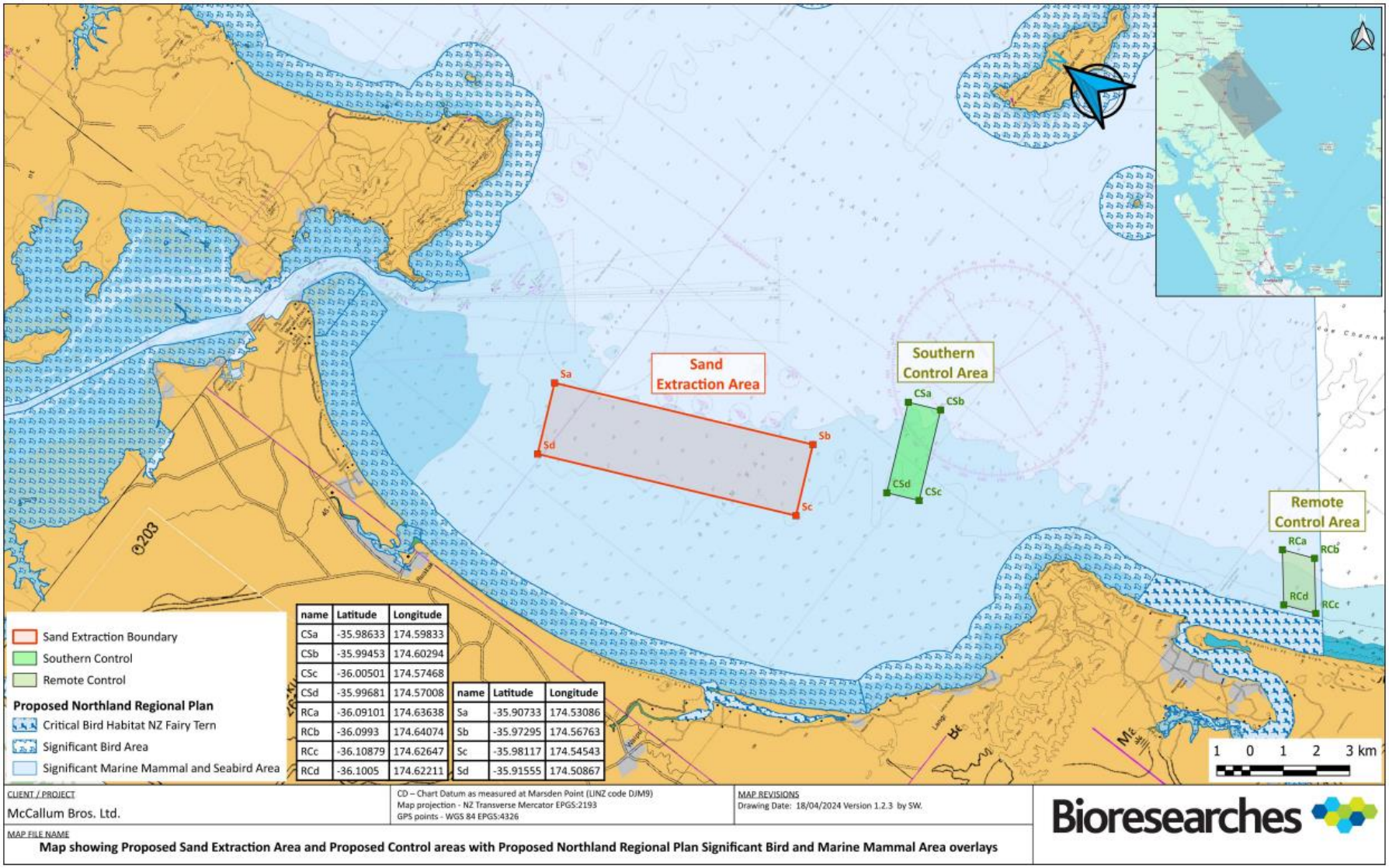
Significant Ecological Areas Overlay:



name	Latitude	Longitude
CSa	-35.98633	174.59833
CSb	-35.99453	174.60294
CSc	-36.00501	174.57468
CSd	-35.99681	174.57008
RCa	-36.09101	174.63638
RCb	-36.0993	174.64074
RCc	-36.10879	174.62647
RCd	-36.1005	174.62211

name	Latitude	Longitude
Sa	-35.90733	174.53086
Sb	-35.97295	174.56763
Sc	-35.98117	174.54543
Sd	-35.91555	174.50867

Significant Bird and Marine Mammals Overlay:



name	Latitude	Longitude
CSa	-35.98633	174.59833
CSb	-35.99453	174.60294
CSc	-36.00501	174.57468
CSd	-35.99681	174.57008
RCa	-36.09101	174.63638
RCb	-36.0993	174.64074
RCc	-36.10879	174.62647
RCd	-36.1005	174.62211

name	Latitude	Longitude
Sa	-35.90733	174.53086
Sb	-35.97295	174.56763
Sc	-35.98117	174.54543
Sd	-35.91555	174.50867

CLIENT / PROJECT
McCallum Bros. Ltd.

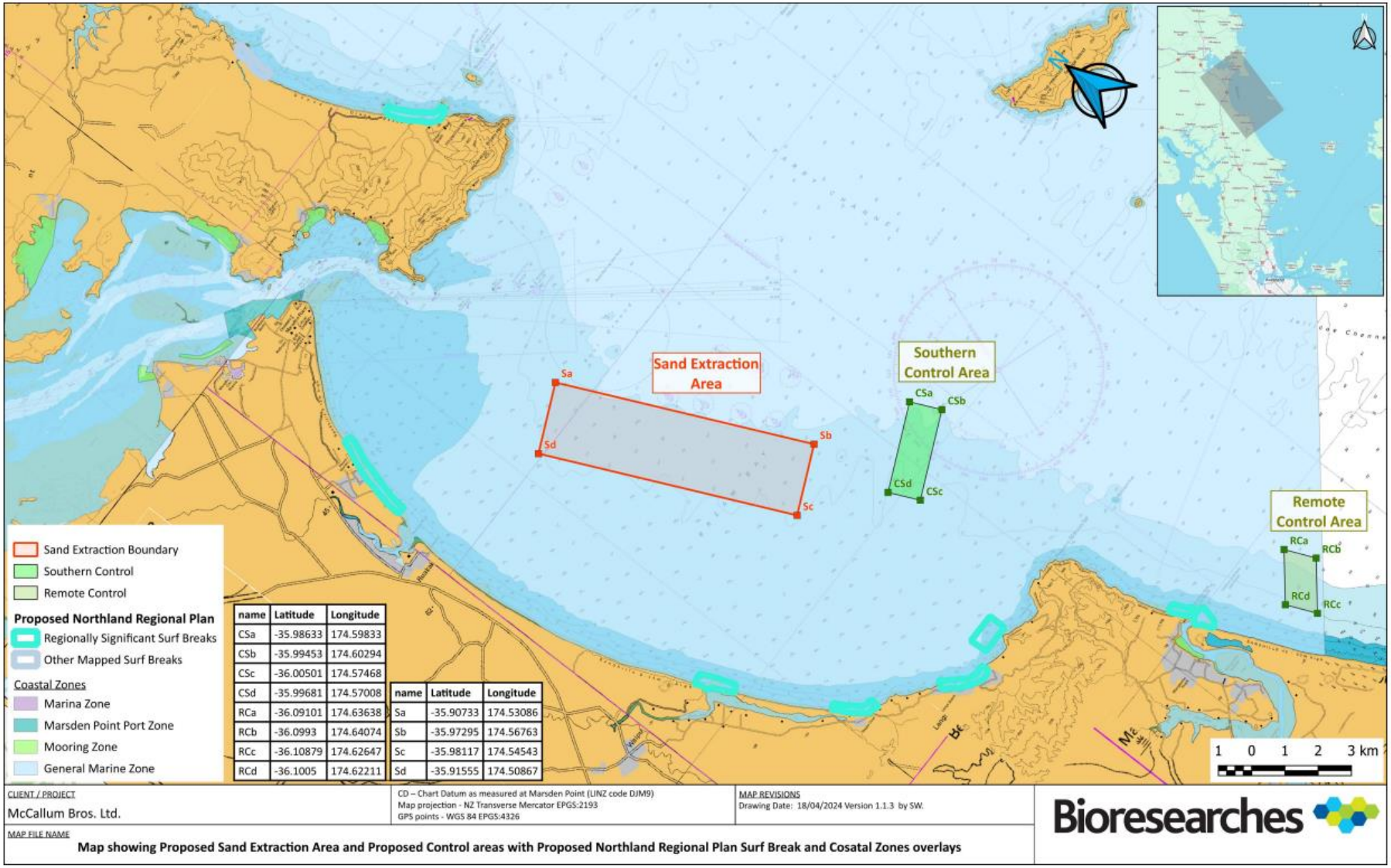
CD – Chart Datum as measured at Marsden Point (LINZ code DJM9)
Map projection - NZ Transverse Mercator EPGS:2193
GPS points - WGS 84 EPGS:4326

MAP REVISIONS
Drawing Date: 18/04/2024 Version 1.2.3 by SW.

Bioresearches

MAP FILE NAME
Map showing Proposed Sand Extraction Area and Proposed Control areas with Proposed Northland Regional Plan Significant Bird and Marine Mammal Area overlays

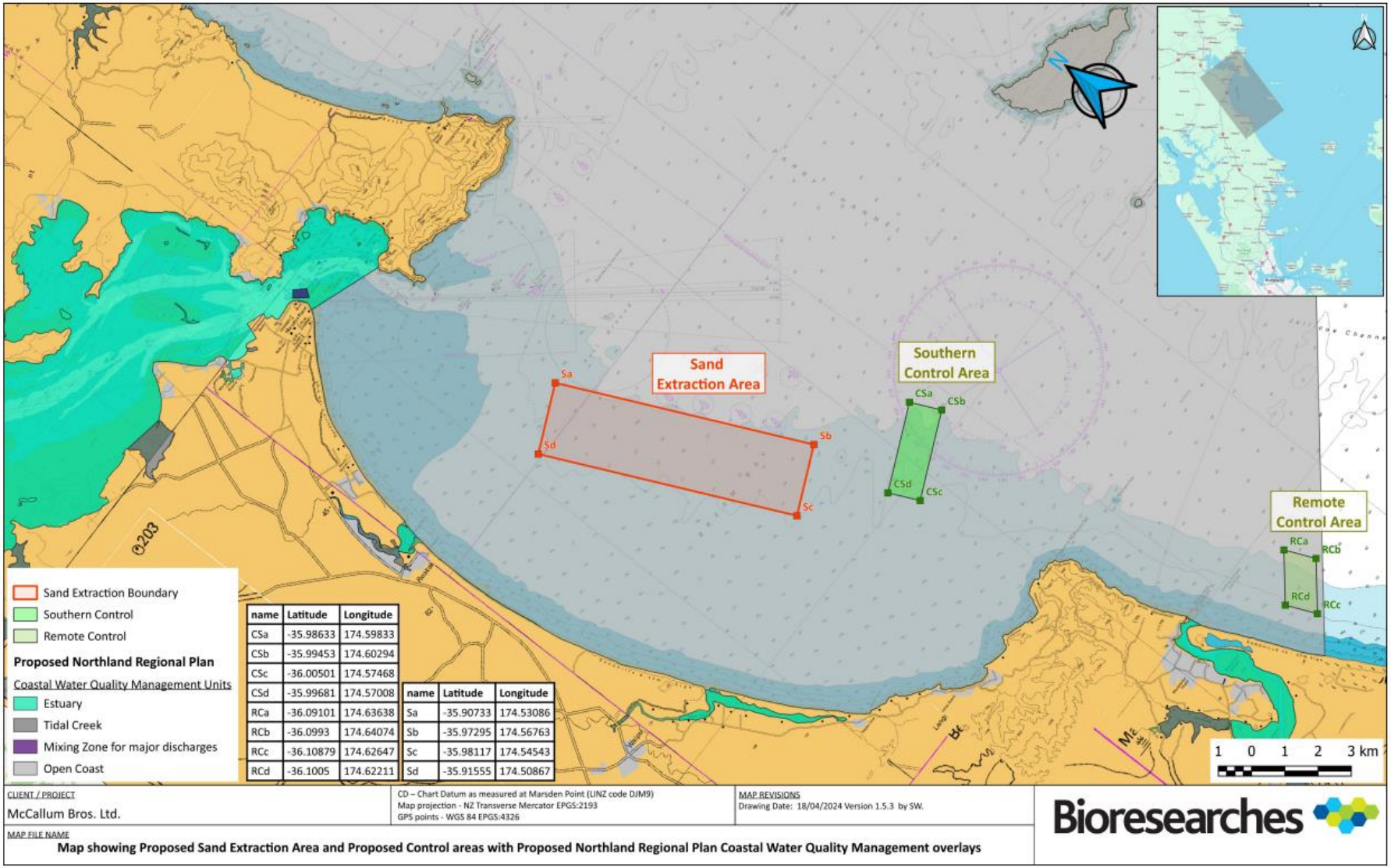
Zoning and Surf Breaks Overlay:



name	Latitude	Longitude
CSa	-35.98633	174.59833
CSb	-35.99453	174.60294
CSc	-36.00501	174.57468
CSd	-35.99681	174.57008
RCa	-36.09101	174.63638
RCb	-36.0993	174.64074
RCc	-36.10879	174.62647
RCd	-36.1005	174.62211

name	Latitude	Longitude
Sa	-35.90733	174.53086
Sb	-35.97295	174.56763
Sc	-35.98117	174.54543
Sd	-35.91555	174.50867

Coastal Water Quality Management Overlays:



name	Latitude	Longitude
CSa	-35.98633	174.59833
CSb	-35.99453	174.60294
CSc	-36.00501	174.57468
CSd	-35.99681	174.57008
RCa	-36.09101	174.63638
RCb	-36.0993	174.64074
RCc	-36.10879	174.62647
RCd	-36.1005	174.62211

name	Latitude	Longitude
Sa	-35.90733	174.53086
Sb	-35.97295	174.56763
Sc	-35.98117	174.54543
Sd	-35.91555	174.50867

ATTACHMENT NINE: ASSESSMENT OF IWI MANAGEMENT PLANS

TE IWI O NGATIWAI IWI ENVIRONMENTAL POLICY DOCUMENT (2007)

Minerals Objectives for Ngatiwai rohe

- *The sustainable extraction and management of mineral and geothermal resources without adverse impacts upon the earth.*
- *The mauri of mineral and geothermal resources is protected and enhanced in ways that enable Tāngata Whenua to provide for their social, economic and cultural wellbeing; and that of generations as yet unborn.*
- *Tāngata Whenua are acknowledged as the kaitiaki of mineral and geothermal resources within their rohe.*
- *The relationship of Tāngata Whenua and their culture and traditions with their ancestral taonga, mineral and geothermal resources, is recognised and provided for as a matter of national importance by councils.*
- *There is an increased Tāngata Whenua involvement in the management and monitoring of mineral and geothermal resources.*
- *Tāngata Whenua traditional environmental knowledge in relation to mineral and geothermal resources is appropriately acknowledged and utilised.*

Minerals Policies for Ngatiwai rohe

1. *Prospecting, exploration and mining activities under the Crown Minerals Act are not permitted in areas significant to Tāngata Whenua. Areas significant to Tāngata Whenua include wāhi tapu, fresh waterways, mahinga kai and other places, as identified by Tāngata Whenua.*
2. *Tāngata Whenua promote innovative, sustainable management practices concerning mining, including restoration and rehabilitation programmes.*
3. *Tāngata Whenua are the kaitiaki of mineral and geothermal resources in their rohe.*
4. *Tāngata Whenua are an affected party to any resource consent application within their rohe concerning or potentially affecting mineral or geothermal resources, including applications for sand relocation for beach renourishment, because of their special relationship with these taonga.*
5. *Use will be made of all relevant forms of knowledge and practises and information, including Tāngata Whenua traditional environmental knowledge, in assessments and decision-making around mineral and geothermal resources.*

6. *Whenever Tāngata Whenua are involved in setting conditions for consent, they will then be resourced appropriately by the applicants or council to monitor compliance with those conditions.*

Assessment

To date, the proposed site has not been identified as being wahi tapu or of specific special significance to iwi and it does not contain significant shellfish beds.

Consultation is currently underway and the on-going kaitiaki role for mana whenua is still to be developed.

Water Objectives for Ngatiwai rohe

• The mauri of water and soil is protected and enhanced in ways which enable Tāngata Whenua to provide for their social, economic and cultural wellbeing; and that of generations as yet unborn.

• The life-supporting capacity of creeks, streams, water bodies, wetlands, swamps, springs, aquifers, thermal waters, estuarine waters and coastal waters enables optimum health and wellness for all Tāngata Whenua; those they host within their rohe; their plants, animals and other whanaunga.

• The sustainable management of water, soil and air in a collaborative manner considering all flow on effects.

• The relationship of Tāngata Whenua and their culture and traditions with their ancestral waters is recognised and provided for as a matter of national importance by councils.

• Tāngata Whenua are acknowledged as the kaitiaki of creeks, streams, water bodies, wetlands, swamps, springs, aquifers, thermal waters, estuarine waters and coastal waters within their rohe.

• There is an increased Tāngata Whenua involvement in the management and monitoring of water.

• Tāngata Whenua traditional environmental knowledge in relation to water resources is appropriately acknowledged and utilised.

• Water use, allocation, and flow will be sustainably managed within Ngatiwai territory.

• Water use, allocation, and flow management will enable Tāngata Whenua to provide for their social, economic and cultural wellbeing; and that of generations as yet unborn.

• Tāngata Whenua, because of their special relationship with their waters, will be involved in water allocation planning for consumption from their streams, rivers and groundwater resources.

Water Policies for Ngatiwai rohe

1. Tāngata Whenua promote innovative, sustainable management practices concerning water. All natural water has value and sustains some form of natural life in the environment. Water is a sacred resource to Tāngata Whenua, to be given the highest level of protection.

2. No hierarchical values will be placed on water bodies within any councils planning documents to decide differing levels of protection.

9. Water must be seen and managed in an integrated, holistic way as per its cycle, and as an element of the life supporting the natural and physical environment. Water should not be viewed just as a running stream, a lake, or an aquifer, with no relationship to the other resources within its environment.

10. All activities concerning or potentially affecting creeks, streams, water bodies, wetlands, swamps, springs, aquifers, thermal waters, estuarine waters and coastal waters within a water catchment will be managed in an integrated way on a catchment basis.

13. Tāngata Whenua are the kaitiaki of water in their rohe.

14. Tāngata Whenua are an affected party to any resource consent application within their rohe concerning or potentially affecting water use, allocation, flow, quality, or quantity because of their special relationship with this taonga.

15. Use will be made of all relevant forms of knowledge and practises, including Tāngata Whenua traditional environmental knowledge, in assessments and decision-making around water.

16. Whenever Tāngata Whenua are involved in setting conditions for a consent, they will then be resourced appropriately by the applicants or council to monitor compliance with those conditions.

Assessment

The effects on water quality from the sand extraction activity have been monitored during sand extraction (including the discharge of excess material) at the Pakiri sand extraction sites. Based on this monitoring:

(1) The water quality assessments confirm the rapid reduction in both TSS and turbidity so that within a short time and distance, water quality values for turbidity and suspended solids return to the ambient levels expected in a coastal environment. This is due to the majority of discharged material being oversized and rapidly descending through the water column to the seabed, with any residual material dispersing via water currents and wave action.

(2) The discharged material is only material extracted from the same environment – this material has been demonstrated (via laboratory analyses) to be clean and free of all

potentially toxic contaminants (i.e. metals, PAHs and PCBs. Thus, during seabed disturbance, there is a negligible risk of mobilisation of contaminants and negligible risk of contaminants impacting on local water quality and potential ecological receptors.

It is therefore considered that no ongoing effects on water quality and its mauri will result from the sand extraction operation.

Indigenous Fauna Objectives for Ngatiwai rohe

- *The maintenance and restoration of natural species.*
- *The enhancement of endemic and endangered indigenous animals.*
- *Tāngata Whenua are acknowledged as the kaitiaki of all indigenous animals and their associated ecosystems within their rohe.*
- *There is an increased Tāngata Whenua involvement in the management of indigenous animals.*
- *Tāngata Whenua traditional environmental knowledge in relation to animals is appropriately acknowledged and utilised.*

Indigenous Fauna Policies for Ngatiwai rohe

5. Indigenous fauna are taonga tuku iho to Tāngata Whenua.

6. Tāngata Whenua are the kaitiaki of their indigenous fauna.

7. Ngatiwai kaitiakitanga will be recognised as a viable management approach with respect to its indigenous fauna.

8. Tāngata Whenua are an affected party to any resource consent application within their rohe concerning or potentially impacting indigenous biodiversity, because of their special relationship with these taonga.

9. Use will be made of all relevant forms of knowledge and practises and information, including Tāngata Whenua traditional environmental knowledge, in assessments and decision-making around indigenous fauna.

10. Whenever Tāngata Whenua are involved in setting conditions for a consent, they will then be resourced appropriately by the applicants or council to monitor compliance with those conditions.

11. Only after appropriate effective engagement and adequate remediation or mitigation, or safety or security reasons, will Tāngata Whenua support any negative or destructive impacts on their indigenous fauna.

<u>Assessment</u>

Adverse effects on threatened species can be avoided. The site is not identified as a significant ecological area and does not contain any rare or significant habitats. No

effects are expected on significant ecological areas in the wider area or on any rare or significant habitats.

Consultation is currently underway and the ongoing kaitiaki role for mana whenua is still to be developed.

Engagement Objectives for Ngatiwai rohe

• *Tāngata Whenua are acknowledged as the kaitiaki of their rohe.*

• *The relationship of Tāngata Whenua and their culture and traditions with their ancestral taonga, is recognised and provided for as a matter of national importance by councils.*

• *There is an increased Tāngata Whenua involvement in the management and monitoring of environmental resources.*

Engagement Policies for Ngatiwai rohe

1. Tāngata Whenua are an affected party to any resource consent application within their rohe concerning or potentially affecting environmental resources, because of their special relationship with these taonga.

2. Whenever Tāngata Whenua are involved in setting conditions for consent, they will then be resourced appropriately by the applicants or council to monitor compliance of those conditions.

Assessment

As outlined elsewhere:

The Ngatiwai Trust Board (as the mandated iwi authority of Ngātiwai iwi, whose rohe extends from Rakaumangamanga (Bay of Islands) in the north to Mahurangi (Warkworth) in the south, and across to Aotea (Great Barrier) including the off-shore islands. An initial meeting has been held with this Trust Board.

Patuharaheke Te Iwi Trust Board (the Trust Board that represents the Patuharaheke Hapu who are the mana whenua of the subject area). Consultation is well underway with this Trust Board and fortnightly meetings are now being held.

The nature of any ongoing relationship and monitoring by the Trust Board(s) if consent is granted is still to be developed and may evolve over time. A key component of this could be the role of a Matauranga Maori Liaison Group and cultural liaison agreement.

Ngatiwai Landscapes Objectives for Ngatiwai rohe

- *The relationship of Tāngata Whenua and their culture and traditions with their ancestral lands, water, sites, Wāhi tapu and other taonga is recognised and provided for as a matter of national importance by councils.*
- *The protection of areas or sites of customary value.*

Assessment

The proposed extraction area is close to the anchorage sites used by fuel tankers and log carriers, and with viewing distances to the extraction area starting 4.2km from the shoreline of Bream Bay, both the William Fraser and its sand extraction operations would be difficult to distinguish from other maritime movements and operations. The William Fraser would have a smaller profile than the other vessels at anchor and would appear quite remote. Sand extraction occurs_underwater and would not be visible from the shoreline or close to it. The plume created by the discharge is both limited in size and temporal in nature and does not result in a long-term or significant adverse visual effect.

On the basis that the sand extraction would not create any significant holes or trenches that might give rise to sand eroding from Bream Bay's beachfront and dune corridor, the shoreline would, for all intents and purposes, remain as it currently is.

It is recognised that Patuharakeke currently enjoys access to Marsden Point's distal spit via a 'ceremonial path' past the current Northport and CONZ facilities. However, it is only the terminus of this pathway that is exposed to the extraction area – outside the confines of Whangarei Harbour. The area of extraction would be more than 4.3km from this point and operations within it would be juxtaposed against vessels either within the harbour anchorage area in Bream Bay or moving in and out of the harbour.

As a result, it is considered that any landscape and visual effects would be of a very low to insignificant order.

PATUHARAKEKE HAPU ENVIRONMENTAL MANAGEMENT PLAN 2014

3.1.2 Objectives

a) Patuharakeke are acknowledged as the kaitiaki of all resources within our rohe and are actively involved in the decision-making, management, monitoring and enhancement of those resources including water, soils, mineral, air, flora and fauna and heritage.

b) The relationship of Patuharakeke and our culture and traditions with our ancestral taonga is recognised and provided for as a matter of national importance by Councils and other statutory agencies. c) Matauranga Patuharakeke or traditional Patuharakeke environmental knowledge is acknowledged, protected and utilised.

3.1.3 Policies

a) Patuharakeke are recognised as the kaitiaki of all resources, including water bodies, energy, soils, minerals, air, flora, fauna and heritage, in our rohe.

a) Use will be made of relevant Matauranga Patuharakeke/traditional Patuharakeke environmental knowledge and practice in management and decision-making associated

with all resources, including water bodies, soils, minerals, air, flora, fauna, energy and heritage. The intellectual property rights associated with that knowledge will be respected and protected.

b) PTB are an interested and potentially affected party to any notified and non-notified resource consent application within our rohe concerning or potentially affecting any resource because of our special relationship with these taonga. When PTB is involved in setting conditions for a consent, the applicant or council will resource PTB to regularly monitor and review those conditions.

Assessment

Consultation is well underway with this Trust Board and fortnightly meetings are now being held. Information exchange is underway and dialogue is expected between the various specialists used by MBL and the Trust Board so that use is made of relevant Matauranga Patuharakeke/traditional Patuharakeke environmental knowledge.

The nature of any ongoing relationship and monitoring by the Trust Board if consent is granted is still to be developed and may evolve over time. A key component of this could be the role of a Matauranga Maori Liaison Group and cultural liaison agreement.

The Sites of Significance Plan for Patuharakeke is provided below and the proposed sand extraction site is outside any of the identified sites of significance.

5.4 Soils and Minerals

5.4.2 Objectives

a) The mauri of mineral and soil resources is protected and enhanced in ways that enable Patuharakeke to provide for our social, economic and cultural wellbeing; and that of generations to come.

b) The sustainable use and management of mineral and soil resources without adverse impacts.

5.4.3 Policies

a) Prospecting, exploration and mining activities are not permitted in areas significant to Patuharakeke.

b) Patuharakeke promote innovative, sustainable management practices for mining and quarrying operations, including rehabilitation.

Assessment

As outlined above consultation is currently underway and this will determine over time the position of the proposal in terms of Policy 5.4.3 a).

9.1 Coastal Water Quality

9.1.2 Objectives

a) Whangarei Terenga Paraoa, Bream Bay and our estuaries are precious taonga and the home of myriad species and are respected for their taonga value above all else.

b) The mauri and cultural health of the harbour, Bream Bay and our estuaries is protected and enhanced in ways that enable Patuharakeke to provide for our physical, social, economic and cultural wellbeing.

c) Patuharakeke have a leading role in managing, monitoring and enhancing coastal water quality in our rohe.

d) The management of coastal water quality in Te Tai Tokerau occurs on an integrated catchment basis and is led by tangata whenua.

e) Coastal water quality standards relevant to Patuharakeke are developed and implemented by agencies and monitored by kaitiaki.

9.1.3 Policies

a) Coastal water quality is required to be consistent with protecting and enhancing customary fisheries, and with enabling Patuharakeke to exercise their customary rights and safely harvest kaimoana.

b) Patuharakeke will participate fully in any decision-making over the management of coastal waters in our rohe.

c) Decision-makers will ensure that economic costs do not take precedence over the cultural, environmental and intergenerational costs of degrading coastal water quality.

e) PTB will oppose any new consent applications seeking the direct discharge of contaminants to coastal water, or where contaminants may enter coastal waters.

g) NRC will implement rigorous controls restricting the ability of boats to discharge sewage, bilge water and rubbish in our harbour, estuaries and coastal waters.

<u>Assessment</u>

As outlined above consultation is currently underway and this will determine over time the position of the proposal in terms of the relevant policies. However, it is noted that the proposed does not result in long-term or adverse effects on coastal waste quality, there is no direct discharge of contaminants and there is no discharge of sewage or bilge water during the sand extraction operation. Likewise, there will be no effects on recreational or commercial fishers and there are no known significant shellfish beds within the proposed extraction area.

9.4 Offshore Oil Exploration and Mining

9.4.2 Objective

a) Offshore petroleum exploration and mining is not permitted within the boundaries of our gazetted rohe moana (see 5 below), and extending in an easterly direction from Patuharakeke landward coastal boundaries to the limit of New Zealand's Exclusive Economic Zone ('EEZ').

9.4.3 Policies

a) Patuharakeke will oppose any offshore petroleum exploration and mining proposals within the boundaries of our gazetted rohe moana, and extending in an easterly direction from Patuharakeke landward coastal boundaries to the limit of New Zealand's EEZ.

b) The Crown and petroleum and mining companies are required to engage in early, and good faith consultation with Patuharakeke should any proposed prospecting, exploration or drilling licences be sought within the boundaries of our gazetted rohe moana, and extending in an easterly direction from Patuharakeke landward coastal boundaries to the limit of New Zealand's Exclusive Economic Zone.

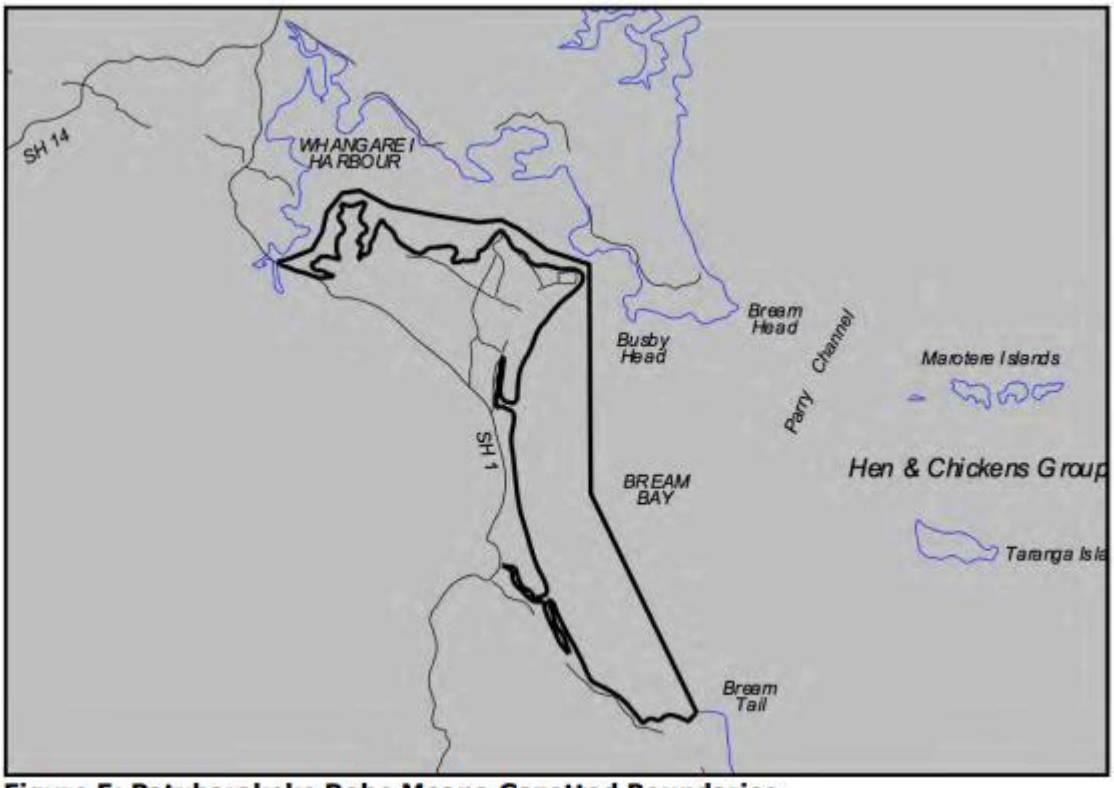


Figure 5: Patuharakeke Rohe Moana Gazetted Boundaries

Assessment

Given the separate objectives and policies on minerals, it is unclear if the oil exploration and mining objectives and policies apply to sand extraction. To date, this has not been raised in consultation with the Trust Board.

9.7 Marine Mammals

9.7.2 Objectives

a) Increased numbers of healthy whales and dolphins inhabiting and migrating through our coastal waters and harbour.

b) A strong partnership between DOC and Patuharakeke with regard to the management of marine mammal strandings and cultural harvest in our rohe.

c) Revival of matauranga and tikanga associated with marine mammal strandings and cultural use.

9.7.3 Policies

a) The cultural, spiritual, historic and traditional association of Patuharakeke with marine mammals, and the rights to exercise rangatiratanga and kaitiakitanga over marine mammals is guaranteed by Te Tiriti o Waitangi.

b) The relationship between Patuharakeke and DOC for the recovery, disposal, storage and distribution of beached marine mammals shall be guided by the principles of partnership.

c) To require that a standard procedure be introduced that Patuharakeke are involved in the determination of burial sites for beached whales that do not survive, and that burial locations are retained as waahi taonga and therefore protected from inappropriate use and development.

Assessment

The marine mammals most likely affected by the proposal include the few species that frequent the wider region associated with Mangawhai / Bream Bay year-round or on a semi-regular basis. These species include common dolphins, bottlenose dolphins, orcas, Bryde's whales, leopard seals and fur seals.

It is expected that the overall risk of any significant adverse effects for marine mammals arising (from both the sand extraction activity and transiting of the extraction vessel to and from the site) will be no greater than minor.

Recommended conditions of consent will include the requirement for a Marine Mammal Management Plan and adherence to the Ports of Auckland's Hauraki Gulf voluntary transit protocol for commercial shipping.

Figure 4: Patuharakeke Sites of Significance Overlay

ATTACHMENT TEN: ASSESSMENT OF NORTHLAND REGIONAL POLICY STATEMENT AND PROPOSED NORTHLAND REGIONAL PLAN OBJECTIVES AND POLICIES

NORTHLAND REGIONAL POLICY STATEMENT

Objective 3.4 Indigenous Ecosystems and Biodiversity

Safeguard Northland's ecological integrity by:

a) Protecting areas of significant indigenous vegetation and significant habitats of indigenous fauna;

b) Maintaining the extent and diversity of indigenous ecosystems and habitats in the region; and

c) Where practicable, enhancing indigenous ecosystems and habitats, particularly where this contributes to the reduction in the overall threat status of regionally and nationally threatened species.

Assessment

The proposed sand extraction area is not within an area identified as having significant habitats of indigenous fauna. Given the distance to the nearest significant ecological areas (as identified in the Proposed Northland Regional Plan) and the nature of the effects arising from the sand extraction operation, no effects on these significant ecological areas are expected.

The site is within a very extensive area identified in the Proposed Northland Regional Plan as a Significant Marine Mammals and Bird Area. In terms of marine mammals, it is recognised that certain marine mammal species will be transient in this area but the proposed sand extraction will not result in affecting the extent and diversity of their habitat or the presence of marine species in this wider embayment. Likewise, no effects on fish or avifauna species are expected.

Given the very localised nature of the sand extraction and its effects, there will not be an overall effect on the extent and diversity of indigenous ecosystems and habitats in the Northland Region.

It is considered, that c) is not applicable to this application.

Objective 3.5 Enabling Economic Wellbeing

Northland's natural and physical resources are sustainably managed in a way that is attractive for business and investment that will improve the economic well-being of Northland and its communities.

Assessment

The proposal is consistent with this objective as the sand resource is predominantly for the Auckland concrete production market and in Stage 2 is expected to be available for the Northland market. Concrete is an essential element for the built environment which is critical for the social and economic well-being of the community.

An Economic Assessment has been prepared and is included as Attachment Two.

Objective 3.6 Economic activities – reverse sensitivity and sterilisation

The viability of land and activities important for Northland's economy is protected from the negative impacts of new subdivision, use and development, with particular emphasis on either:

(a) Reverse sensitivity for existing:

(i) Primary production activities;

(ii) Industrial and commercial activities;

(iii) Mining; or*

(iv) Existing and planned regionally significant infrastructure; or

(b) Sterilisation of:

(i) Land with regionally significant mineral resources; or

(ii) Land which is likely to be used for regionally significant infrastructure.

**Includes aggregates and other minerals*

Assessment

No potential reverse sensitivity effects have been identified. The proposal will not impact on the use or operation of the anchorage area or on Marsden Point or Northport.

Objective 3.10 Use and Allocation of Common Resources

Efficiently use and allocate common natural resources, with a particular focus on:

(a) Situations where demand is greater than supply;

(b) The use of freshwater and coastal water space; and

(c) Maximising the security and reliability of supply of common natural resources for users.

Assessment

The sand resource in this location can be efficiently extracted and delivered to the Auckland, Northland and Coramandel markets. There are no other sand extraction operations within the coastal marine area in Bream Bay.

The rate of the extraction of sand reflects the demand for the sand product by the Auckland and Northland markets. Significant stockpiling of sand is not undertaken, and the sand is not exported outside New Zealand.

The occupation of the coastal marine area for sand extraction is temporal and does not impact on the use of the coastal marine area by other parties.

The first objective of the proposal is to significantly improve the resilience of the sand supply to the Auckland market.

3.14 Natural character, outstanding natural features, outstanding natural landscapes and historic heritage

Identify and protect from inappropriate subdivision, use and development;

(a) The qualities and characteristics that make up the natural character of the coastal environment, and the natural character of freshwater bodies and their margins;

(b) The qualities and characteristics that make up outstanding natural features and outstanding natural landscapes;

(c) The integrity of historic heritage

Assessment

The qualities and characteristics of the natural character of the coastal environment in this part of Bream Bay have been addressed in the existing environment description.

The proposed extraction area is close to the anchorage sites used by fuel tankers and log carriers, and with viewing distances to the extraction area starting 4.2km from the shoreline of Bream Bay, both the William Fraser and its sand extraction operations would be difficult to distinguish from other maritime movements and operations. The William Fraser would have a smaller profile than the other vessels at anchor and would appear quite remote. Sand extraction occurs underwater and would not be visible from the shoreline or close to it. The plume created by the discharge is both limited in size and temporal in nature and does not result in a long-term or significant adverse visual effect.

On the basis that the sand extraction would not create any significant holes or trenches that might give rise to sand eroding from Bream Bay's beachfront and dune corridor, the shoreline would, for all intents and purposes, remain as it currently is.

Given the separation distance to the identified outstanding natural features and outstanding natural landscapes and the temporary nature of vessels associated with the sand extraction in the area, it is considered that these outstanding natural features and natural landscapes will not be impacted upon.

As a result, it is considered that any landscape and visual effects would be of a very low to insignificant order.

No historic heritage features have been identified in the immediate area which may be impacted upon.

Policy 4.4.1 Policy – Maintaining and protecting significant ecological areas and habitats

(1) In the coastal environment, avoid adverse effects, and outside the coastal environment avoid, remedy or mitigate adverse effects of subdivision, use and development so they are no more than minor on:

(a) Indigenous taxa that are listed as threatened or at risk in the New Zealand Threat Classification System lists;

(b) Areas of indigenous vegetation and habitats of indigenous fauna, that are significant using the assessment criteria in Appendix 5;

(c) Areas set aside for full or partial protection of indigenous biodiversity under other legislation.

(2) In the coastal environment, avoid significant adverse effects and avoid, remedy, or mitigate other adverse effects of subdivision, use and development on:

(a) Areas of predominantly indigenous vegetation;

(b) Habitats of indigenous species that are important for recreational, commercial, traditional or cultural purposes;

(c) Indigenous ecosystems and habitats that are particularly vulnerable to modification, including estuaries, lagoons, coastal wetlands, dunelands, intertidal zones, rocky reef systems, eelgrass, northern wet heathlands, coastal and headwater streams, floodplains, margins of the coastal marine area and freshwater bodies, spawning and nursery areas and saltmarsh.

(4) For the purposes of clause (1), (2) and (3), when considering whether there are any adverse effects and/or any significant adverse effects:

(a) Recognise that a minor or transitory effect may not be an adverse effect;

(b) Recognise that where the effects are or maybe irreversible, then they are likely to be more than minor;

(c) Recognise that there may be more than minor cumulative effects from minor or transitory effects.

<u>Assessment</u>

The marine mammals most likely affected by the proposal include the few species that frequent the wider region associated with Mangawhai / Bream Bay year-round or on a semi-regular basis. These species include common dolphins, bottlenose dolphins, orcas, Bryde's whales, leopard seals and fur seals.

It is expected that the overall risk of any significant adverse effects for marine mammals arising (from both the sand extraction activity and transiting of the extraction vessel to and from the site) will be no greater than minor.

The key avifauna species in this wider area are listed in the existing environment description. It is considered that the risk of adverse effects on threatened and at risk avifauna species in this area from the proposed sand extraction operation is very low.

As part of the pre-sand extraction monitoring a baseline assessment utilising sampling is undertaken prior to sand extraction occurring. In the unlikely event any protected species or sensitive habitats are identified, then that specific area can be excluded from sand extraction.

Policy 4.6.1 Policy – Managing effects on the characteristics and qualities natural character, natural features and landscapes

(1) In the coastal environment:

a) Avoid adverse effects of subdivision use, and development on the characteristics and qualities which make up the outstanding values of areas of outstanding natural character, outstanding natural features and outstanding natural landscapes.

b) Where

(a) does not apply, avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of subdivision, use and development on natural character, natural features and natural landscapes. Methods which may achieve this include:

(i) Ensuring the location, intensity, scale and form of subdivision and built development is appropriate having regard to natural elements, landforms and processes, including vegetation patterns, ridgelines, headlands, peninsulas, dune systems, reefs and freshwater bodies and their margins; and

(ii) In areas of high natural character, minimising to the extent practicable indigenous vegetation clearance and modification (including earthworks / disturbance, structures, discharges and extraction of water) to natural wetlands, the beds of lakes, rivers and the coastal marine area and their margins; and

(iii) Encouraging any new subdivision and built development to consolidate within and around existing settlements or where natural character and landscape has already been compromised.

(3) When considering whether there are any adverse effects on the characteristics and qualities of the natural character, natural features and landscape values in terms of (1)(a), whether there are any significant adverse effects and the scale of any adverse effects in terms of (1)(b) and (2), and in determining the character, intensity and scale of the adverse effects:

a) Recognise that a minor or transitory effect may not be an adverse effect;

b) Recognise that many areas contain ongoing use and development that:

(i) Were present when the area was identified as high or outstanding or have subsequently been lawfully established

(ii) May be dynamic, diverse or seasonal;

c) Recognise that there may be more than minor cumulative adverse effects from minor or transitory adverse effects; and

d) Have regard to any restoration and enhancement on the characteristics and qualities of that area of natural character, natural features and/or natural landscape.

Assessment

The proposed sand extraction area is some distance from the nearest outstanding natural character, outstanding natural features and outstanding natural landscapes identified in the Proposed Northland Regional Plan. Attachment Four includes the plans showing the overlays in the Proposed Northland Regional Plan.

Taking into consideration the nature of the proposal and the transitory nature of vessels undertaking the sand extraction in this area, it is considered that any adverse risks to these features is negligible.

Policy 5.2.1 Managing the Use of Resources

Encourage development and activities to efficiently use resources, particularly network resources, water and energy, and promote the reduction and reuse of waste.

Assessment

It is considered that this proposal is an efficient use of the Bream Bay sand resource.

PROPOSED NORTHLAND REGIONAL PLAN

Objective F.1.2 Water Quality

Manage the use of land and discharges of contaminants to land and water so that:

1) existing water quality is at least maintained, and improved where it has been degraded below the river, lake or coastal water quality standards set out in H.3 Water quality standards and guidelines, and

....

3) the life-supporting capacity, ecosystem processes and indigenous species, including their associated ecosystems, of fresh and coastal water are safeguarded, and the health of freshwater ecosystems is maintained, and 302

4) the health of people and communities, as affected by contact with fresh and coastal water, is safeguarded, and

...

8) kai is safe to harvest and eat, and recreational, amenity and other social and cultural values are provided for.

Assessment

The discharge back into the coastal marine area from the extraction vessel is comprised of seawater, shells, oversize sand and fauna. No contamination of this material can occur through the process and before it is discharge back into the coastal marine area through the moon pool system.

The discharge therefore does not affect the life-supporting capacity, ecosystem processes and indigenous species of the receiving environment nor kai moana or the ability to use the coastal water for recreational purposes such as fishing.

F.1.3 Indigenous Ecosystems and Biodiversity

In the coastal marine area and in fresh waterbodies, safeguard ecological integrity by:

1) protecting areas of significant indigenous vegetation and significant habitats of indigenous fauna, and

2) maintaining regional indigenous biodiversity, and

3) where practicable, enhancing and restoring indigenous ecosystems and habitats to a healthy functioning state, and reducing the overall threat status of regionally and nationally Threatened or At Risk species, and

4) preventing the introduction of new marine or freshwater pests into Northland and slowing the spread of established marine or freshwater pests within the region.

Assessment

The proposed sand extraction area is outside any identified significant ecological areas and to date no significant habitats of indigenous fauna have been identified within the sand extraction area.

The proposal will not adversely impact on regional indigenous biodiversity.

MBL undertake regular cleaning of their vessels, and this is undertaken to maintain the vessels' performance and stay within Maritime NZ regulatory requirements. The discharging of any bilge water is to be avoided while at the sand extraction sites. The potential biosecurity effects are therefore considered to be negligible.

F.1.4 Enabling Economic Well-being

The use and development of Northland's natural and physical resources is efficient and effective and managed in a way that will improve the economic, social and cultural well-being of Northland and its communities.

Assessment

The proposal is consistent with this objective as the sand resource is predominantly for the Auckland then Northland concrete production market. Concrete is an essential element for the built environment which is critical for the social and economic well-being of the community.

The efficient supply of concrete is critical for the development and maintenance of a well-functioning urban environment and therefore the economic and social well-being of the community.

F.1.8 Use and Development in the Coastal Marine Area

Use and development in the coastal marine area:

1) makes efficient use of space occupied in the common marine and coastal area, and

2) is of a scale, density and design compatible with its location, and

3) recognises the need to maintain and enhance public open space and recreational opportunities, and

4) is provided for in appropriate places and forms, and within appropriate limits, and

5) is undertaken in a way that recognises it can have effects outside the coastal marine area.

Assessment

The proposal does not require the establishment of permanent structures within Bream Bay or exclusive occupation of the coastal marine area. The vessels undertaking sand extraction are of a form and size which is not dissimilar to vessels currently using the

anchorage area of which could be expected to traverse this general location to and from Northport.

The proposal does not impact on public access or recreational opportunities (including recreational fishing or surfing) within Bream Bay.

F.1.12 Natural character, outstanding natural features, historic heritage and places *of significance to tāngata whenua*

Protect from inappropriate use and development:

1) the characteristics, qualities and values that make up:

a) outstanding natural features in the coastal marine area and in fresh waterbodies, and

b) areas of outstanding and high natural character in the coastal marine area and in fresh waterbodies within the coastal environment, and

c) natural character in fresh waterbodies outside the coastal environment, and

d) outstanding natural landscapes in the coastal marine area, and

2) the integrity of historic heritage in the coastal marine area, and

3) the values of places of significance to tāngata whenua in the coastal marine area and freshwater bodies

Assessment

Given the proposed location of the sand extraction some distance from identified outstanding natural features and areas of historic heritage and places of significance to tangata whenua it is considered that the proposal is not an inappropriate use of this part of Bream Bay.

Jacob Paget

From: Chris Garton s 9(2)(a)
Sent: Thursday, 6 June 2024 12:43 pm
To: Listed Projects
Cc: Anna Galvin; Callum McCallum; Shayne Elstob; s 9(2)(a) Fraser McCallum
Subject: RE: Query regarding Bream Bay Sand Extraction Project application

Kia ora Oliver,

Thanks for your email.

I can confirm that it is the full intent of the applicant to engage with all the groups that have applications for customary marine title under the Marine and Coast Area (Takutai Moana) Act 2011 and other groups who may also have an interest in this project in advance of lodging a full application for the project.

We are having regular and positive consultations with the local hapu Patuharakeke, and since applying to have this project listed in Section 2A of the bill, we have had positive meetings with the other local hapu Te Parawhau and are scheduled to meet the iwi Ngāti Wai next week. We have emailed many of the other groups and will continue to do so in an attempt to engage with them all. Northland Regional Council have just recently come back to us with their updated list of all the groups that have made applications for customary marine title under the Marine and Coast Area (Takutai Moana) Act 2011 in our application area and we are working through it.

Ngā mihi | Regards

McCALLUM GROUP
CHRIS GARTON
ENVIRONMENTAL MANAGER
M s 9(2)(a)
E
P O Box 71 031, Rosebank, Auckland 1348

From: Listed Projects <ListedProjects@mfe.govt.nz>
Sent: Wednesday, June 5, 2024 5:05 PM
To: Chris Garton s 9(2)(a)
Cc: Anna Galvin s 9(2)(a)
Subject: Query regarding Bream Bay Sand Extraction Project application

Good afternoon Christopher

Thank you for your application Fast-track Approvals Bill schedule 2A listing for the Bream Bay Sand Extraction project. We are currently considering the application and have one request for clarification:

Under clause 16 of the Fast-track Approvals Bill, applicants are required to undertake engagement with particular groups before lodging a referral application. Your application has identified a number of groups

that have applications for customary marine title under the Marine and Coast Area (Takutai Moana Act) 2011. However the register of consultation attached to the application includes a number of other groups identified, but does not include any of those groups specifically. Can you please confirm the applicant's intent that engagement with those groups (and others) will occur in advance of lodging a full application for the project (should the project be listed in Schedule 2A of the Bill)?

Please provide feedback by **5pm tomorrow 6 June 2024**.

Kind regards

Oliver Sangster

Ministry for the Environment | Manatū Mō Te Taiao

Jacob Paget

From: Meredith Lawry s 9(2)(a)
Sent: Tuesday, 11 June 2024 12:58 pm
To: Listed Projects
Cc: Neil Deans [EXTERNAL] (DOC)
Subject: RE: [IN-CONFIDENCE]FTA082 for feedback

Hi Ollie,

I'm so sorry for the delay with this.

We do not know of a reason why this project would be ineligible – there isn't any PCL covered, but it is close to the Hen and Chicken Islands Nature Reserve and the Whangārei Harbour Marine Reserves.

- Environmental impacts (general):
  Dredging does not come without a cost for marine species and any incident could have huge impact on Bream Head, Bream Bay and the islands as well as Whangārei Harbour Marine Reserve.
  It impacts marine mammals (noise, collision, degraded ecosystems), degrades habitats, threatens organisms associated with the seabed; disturbs sediments (which accumulate toxins and pollutants such as hydrocarbons and heavy metals) which release contaminants into the water columns and other changes in sediment structures

- Biodiversity Impact (specific local context for the three sites):
  Fairy Terns / Tara Iti (**Nationally Critical**) is present in Mangawhai and surrounds, Tara Iti hunt by sight and dredging increases water turbidity. Most of the coastline in Bream Bay and Bream Head is bordered by land administered by DOC.

- Combine effect (local context):
  Mangawhai Harbour Restoration Society is already undertaking dredging in proximity of the proposed areas, in Mangawhai. It might be good to consider the combined effects of both these activities together.

- Regarding permit applications: I don't believe they would need to apply for a permit except if they wanted to dispose of their dredge material on land administered by DOC. Marine Mammals permit are only if people want to intentionally view or film or swim with marine mammals (or taking, holding, importing, exporting them)

Info on the specific areas:

1. Proposed **Sand Extraction Area** and **Southern Control Area**:

   a. Marine reptiles have been spotted not far from the proposed Sand Extraction Area and Southern Control Area:
      - leatherback turtles (Dermochelys coriacea) (IUCN – Vulnerable);
      - green turtle (Chelonia mydas) - (IUCN - **Endangered**)
      - loggerhead turtle (Caretta caretta) (IUCN - Vulnerable)
      - **hawksbill turtle (Eretmochelys imbricata); (IUCN - Critically Endangered)**
      - yellow-bellied sea-snake (Pelamis platura)

   b. Settlement-wise:

- take into consideration MACAA claims - see Te Arawhiti - Te Raki - email addresses are available at the link for each of those claimants
  - MAC-01-01-013 - Hapu o Te Waiariki, Ngati Korora, Ngati Takapari
  - MAC-01-01-023 - Ihaia Paora Weka Tuwhera Gavala Murray Mahinepua Reserve Trust Ngatirua Iti NgatiMuri Nagatiruamahue NgatiKawau Ngati Haiti Ngaitupango NgaPuhi NgatiKahu Te Auopouri
  - MAC-01-01-131 - Iwi, whānau and hapū of Ngātiwai
  - MAC-01-01-037 - Nga hapu o Ngai Tahuhu
  - MAC-01-01-039 - Nga Hapu o Ngati Wai Iwi
  - MAC-01-01-040 - Ngā Hapū o Tangaroa ki Te Ihu o Manaia tai atu ki Mangawhai
  - MAC-01-01-050 - Ngapuhi nui tonu (Awataha Marae)
  - MAC-01-01-058 - Ngapuhi nui tonu (Waitangi Marae)
  - MAC-01-01-059 - Ngapuhi nui tonu-Kota-toka-tutaha-moana o whaingaroa
  - MAC-01-01-056 - Ngapuhi nui tonuu (Te Kotahitanga Marae)
  - MAC-01-01-073 - Ngati Kawau and Te Waiariki Korora
  - MAC-01-01-079 - Ngāti Manuhiri
  - MAC-01-01-090 - Ngati Wai
  - MAC-01-01-102 - Patuharakeke Te Iwi
  - MAC-01-01-105 - Reti whanau
  - MAC-01-01-125 - Te Hikutu whanau and hapu
  - MAC-01-01-136 - Te Parawhau Hapu
  - MAC-01-01-137 - Te Parawhau ki Tai
  - MAC-01-01-146 - Te Uri o Tautohe
- Hapū are not settled in Whangārei but Te Parawhau, Ngātiwai, Patuharakeke all claim Manawhenua over these two areas.

2. Proposed **Pakiri North Control Area** is within protected area Hauraki Gulf Marine Park (although this is not grounds for ineligibility)
   a. Marine reptiles spotted not far from proposed Pakiri Control Area:
      - Endangered green turtle (Chelonia mydas)
   b. Settlement-wise:
      - take into consideration MACAA claims – see Te Arawhiti - Te Raki - email addresses are available at the link for each of those claimants
   - MAC-01-01-040 - Ngā Hapū o Tangaroa ki Te Ihu o Manaia tai atu ki Mangawhai
   - MAC-01-01-037 - Nga hapu o Ngai Tahuhu
   - MAC-01-01-131 - Iwi, whānau and hapū of Ngātiwai
   - MAC-01-01-023 - Ihaia Paora Weka Tuwhera Gavala Murray Mahinepua Reserve Trust Ngatirua Iti NgatiMuri Nagatiruamahue NgatiKawau Ngati Haiti Ngaitupango NgaPuhi NgatiKahu Te Auopouri
   - MAC-01-01-050 - Ngapuhi nui tonu (Awataha Marae)
   - MAC-01-01-058 - Ngapuhi nui tonu (Waitangi Marae)
   - MAC-01-01-056 - Ngapuhi nui tonuu (Te Kotahitanga Marae)
   - MAC-01-01-073 - Ngati Kawau and Te Waiariki Korora
   - MAC-01-01-079 - Ngāti Manuhiri
   - MAC-01-01-090 - Ngati Wai
   - MAC-01-01-102 - Patuharakeke Te Iwi
   - MAC-01-01-105 - Reti whanau
   - MAC-01-01-125 - Te Hikutu whanau and hapu
   - MAC-01-01-136 - Te Parawhau Hapu
   - MAC-01-01-143 - Te Uri o Hau Settlement Trust
   -
     - Southern Control Area and Pakiri North control Area both border:
     - Protocol Area - Te Uri o Hau
     - Right of First Refusal - Te Uri o Hau
       - Pakiri North Control Area proposed is within:
     - Protocol Area - Ngati Manuhiri
     - Cultural Redress - Te Kawerau ā Maki

- Statutory acknowledgement – Coastal Statutory acknowledgement – Ngāti Manuhiri

Thanks and huge apologies for lateness

From: Listed Projects <ListedProjects@mfe.govt.nz>
Sent: Tuesday, June 11, 2024 11:52 AM
To: Meredith Lawry s 9(2)(a)
Subject: FW: [IN-CONFIDENCE]FTA082 for feedback

Hi Meredith,

Not sure if I missed it but I haven't seen any DOC feedback on this one come through.

Please send through any feedback by 1.30am today.

Cheers
Ollie

From: Meredith Lawry s 9(2)(a)
Sent: Friday, June 7, 2024 11:44 AM
To: Listed Projects <ListedProjects@mfe.govt.nz>
Subject: RE: [IN-CONFIDENCE]FTA082 for feedback

Hi Ollie, yes we are – I will follow up with our colleagues in the region who are working on it and get back to you ASAP.

Thanks,
Meredith

From: Listed Projects <ListedProjects@mfe.govt.nz>
Sent: Friday, June 7, 2024 11:42 AM
To: Meredith Lawry s 9(2)(a)
Cc: Anna Galvin s 9(2)(a)
Subject: RE: [IN-CONFIDENCE]FTA082 for feedback

Hi Meredith – are we expecting any feedback from DOC on this one (082)?

Cheers
Ollie

From: Meredith Lawry s 9(2)(a)
Sent: Friday, May 31, 2024 4:33 PM
To: Oliver Sangster s 9(2)(a)
Cc: Listed Projects <ListedProjects@mfe.govt.nz>; Neil Deans [EXTERNAL] (DOC) s 9(2)(a)
Subject: RE: [IN-CONFIDENCE]FTA082 for feedback

Yes, that should be manageable – thanks!

From: Oliver Sangster s 9(2)(a)
Sent: Friday, May 31, 2024 4:31 PM

To: Meredith Lawry s 9(2)(a)
Cc: Listed Projects <ListedProjects@mfe.govt.nz>
Subject: RE: [IN-CONFIDENCE]FTA082 for feedback

Hi Meredith – would it be possible receive feedback on each of these (082 and 193) by **12pm** Friday 7 June?

Cheers
Ollie

From: Meredith Lawry s 9(2)(a)
Sent: Friday, May 31, 2024 3:12 PM
To: Listed Projects <ListedProjects@mfe.govt.nz>
Cc: Oliver Sangster s 9(2)(a)
Subject: RE: [IN-CONFIDENCE]FTA082 for feedback

Kia ora Oliver, I've had a request from the team that will need to advise on this one on whether there is any scope to delay the deadline slightly, so that the advice would be provided on Friday 7 June? I understand if that isn't workable from your side, but thought it was worth checking. This query would also relate to FTA193 (Far North Sand Supplies)
Thanks,
Meredith

From: Listed Projects <ListedProjects@mfe.govt.nz>
Sent: Friday, May 31, 2024 12:33 PM
To: Meredith Lawry s 9(2)(a) ; Neil Deans s 9(2)(a)
Cc: Anna Galvin s 9(2)(a)
Subject: [IN-CONFIDENCE]FTA082 for feedback

Kia ora Neil and Meredith

Please find attached the application material for listed project application FTA082 Bream Bay Sand Extraction Project.

Application documents are available on the Teams folder you have access to.

The application refers to marine mammals and benthic fauna.

Please let us know anything else you're aware of that would render this project ineligible under Clause 18, or any relevant Treaty settlement provisions you are aware of, or any other potential issues with the application from DoC's perspective?

Please provide feedback by **5pm Thursday 6 June.**

Ngā Mihi

Oliver Sangster
Ministry for the Environment | Manatū Mō Te Taiao
s 9(2)(a) | mfe.govt.nz

Caution - This message and accompanying data may contain information that is confidential or subject to legal privilege. If you are not the intended recipient you are notified that any use, dissemination, distribution or copying of this message or data is prohibited. If you received this email in error, please notify us immediately and erase all copies of the message and attachments. We apologise for the inconvenience. Thank you.

Caution - This message and accompanying data may contain information that is confidential or subject to legal privilege. If you are not the intended recipient you are notified that any use, dissemination, distribution or copying of this message or data is prohibited. If you received this email in error, please notify us immediately and erase all copies of the message and attachments. We apologise for the inconvenience. Thank you.

Caution - This message and accompanying data may contain information that is confidential or subject to legal privilege. If you are not the intended recipient you are notified that any use, dissemination, distribution or copying of this message or data is prohibited. If you received this email in error, please notify us immediately and erase all copies of the message and attachments. We apologise for the inconvenience. Thank you.

Caution - This message and accompanying data may contain information that is confidential or subject to legal privilege. If you are not the intended recipient you are notified that any use, dissemination, distribution or copying of this message or data is prohibited. If you received this email in error, please notify us immediately and erase all copies of the message and attachments. We apologise for the inconvenience. Thank you.

MPI advice on Fast-track Listed Project Application

Application name	Bream Bay Sand Extraction Project
Application number	FTA082
Applicant	McCallum Brothers Limited
Whether the application is ineligible under Clause 18 of the FTA Bill	No
Other authorisations that may be required from MPI	
Aquaculture settlement considerations	The application is not located within an aquaculture settlement area established under section 12 of the Māori Commercial Aquaculture Claims Settlement Act 2004 or within an area reserved for aquaculture within an individual iwi settlement.
Fisheries settlement considerations	The mining sites overlay part of the rohe of Ngāti Wai and Ngā Puhi hapū who exercise customary fishing rights int this area. Individual Treaty settlements have not been concluded with either iwi. The main iwi with commercial fisheries interests in the area are Ngā Puhi, Ngāti Wai and Ngāti Whātua. Treaty settlements have been concluded with Ngāti Whātua. These iwi all have significant fisheries quota holdings which were delivered as part of the Fisheries Settlement, some of which will be caught in the proposed mining area. Customary fishing is managed by the hapū of Ngāti Wai and Ngā Puhi under the provisions of the Fisheries (Kaimoana Customary Fishing) Regulations 1998 which were made to give effect to Fisheries Settlement agreements. Customary fishing and management of important customary fishing grounds can only be conducted under these regulations. The rohe of some,hapū, for customary fishing purposes, overlay the site. An application that affected the ability of hapū/ iwi to exercise customary rights or which affects commercial aspects of the Fisheries Treaty settlement would require careful consideration in relation to Treaty obligations. We would recommend consulting the iwi and hapū to understand the possible impacts of the application (eg for particular customary fishing locations).
Impacts of a project on Māori development and PSGE priorities	No Māori-owned land is adjacent to the coastline covered by the application.
Other matters to note	Notes from Water Availability and Security team - No specific issues of concern from water availability and security perspective

	- The main application includes various environmental and ecological elements but no site specific observations and assessments are available

Disclaimer: This advice has been developed to support MfE advice to the independent Fast-track Projects Advisory Group and is not intended to provide comment on the merits or viability of the application.

Ministry for the Environment
Manatū Mō Te Taiao

FTA#082: Application for listed project under the Fast-track Approvals Bill – Bream Bay Sand Extraction Project for Schedule 2A

Date submitted to secretariat:	11 June 2024
Security level:	In-Confidence
To:	David TAPSELL, Chair – Fast-track Projects Advisory Group

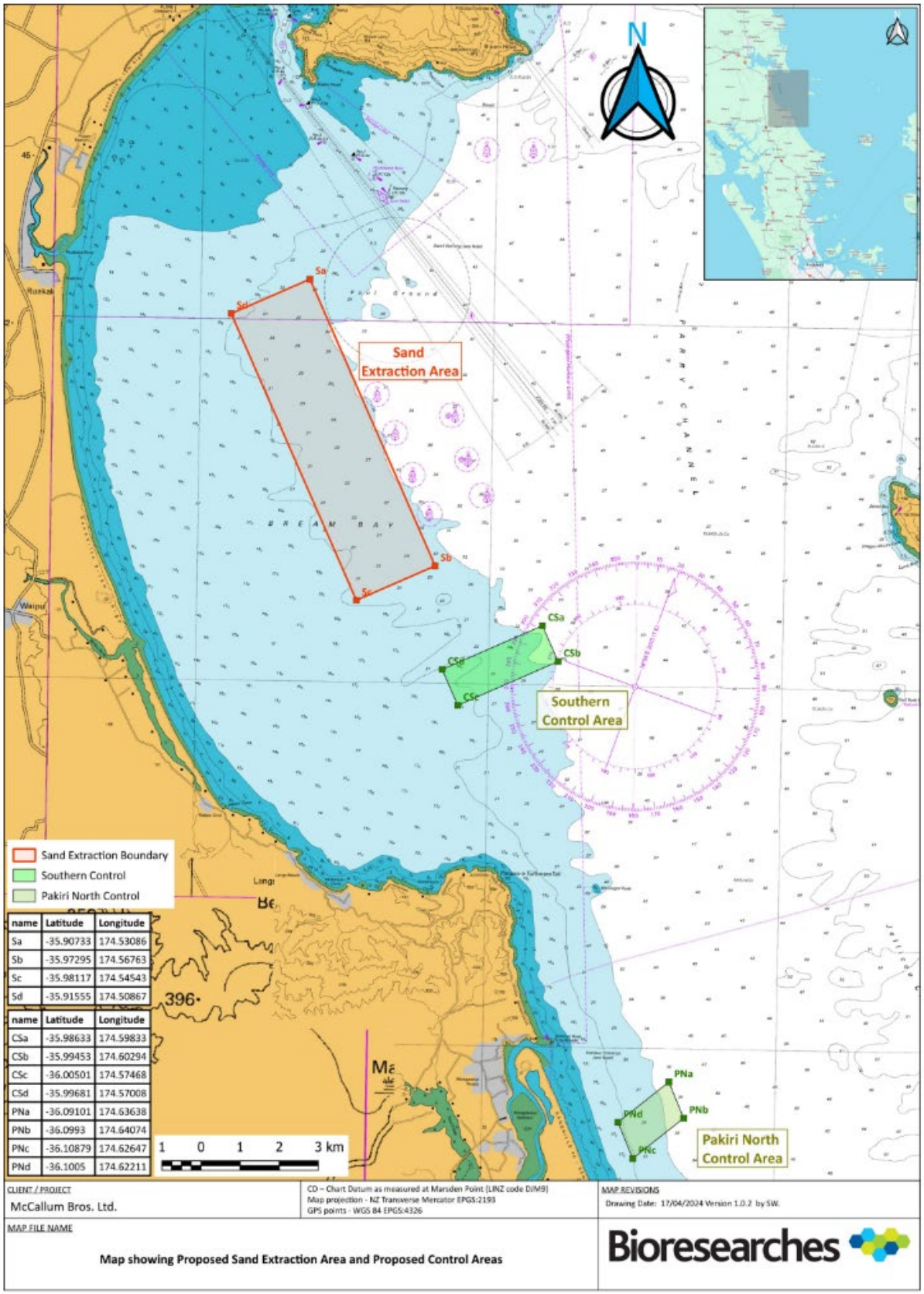
Number of attachments: #	Attachments: 1. Application documents for Bream Bay Sand Extraction Project 2. MPI feedback

Applicant	Sector	Region	Identified in a priority/strategy?
McCallum Bros Limited	Mining	Northland	No

Ministry for the Environment contacts

Position	Name	Mobile	1st contact
Principal Authors	Oliver Sangster, Anna Galvin		
Manager	Stephanie Frame	s 9(2)(a)	✓
Director	Ilana Miller	s 9(2)(a)	

Project location



name	Latitude	Longitude
Sa	-35.90733	174.53086
Sb	-35.97295	174.56763
Sc	-35.98117	174.54543
Sd	-35.91555	174.50867

name	Latitude	Longitude
CSa	-35.98633	174.59833
CSb	-35.99453	174.60294
CSc	-36.00501	174.57468
CSd	-35.99681	174.57008
PNa	-36.09101	174.63638
PNb	-36.0993	174.64074
PNc	-36.10879	174.62647
PNd	-36.1005	174.62211

CLIENT / PROJECT
McCallum Bros. Ltd.

CD – Chart Datum as measured at Marsden Point (LINZ code DJM9)
Map projection - NZ Transverse Mercator EPGS:2193
GPS points - WGS 84 EPGS:4326

MAP REVISIONS
Drawing Date: 17/04/2024 Version 1.0.2 by SW.

MAP FILE NAME

Map showing Proposed Sand Extraction Area and Proposed Control Areas

Bioresearches

Key messages

1. The Bream Bay Sand Extraction project is to extract sand suitable for concrete production, using a motorised trailing suction dredge (a 68m vessel called the 'William Fraser'), from an area approximately 17km^2 in the marine and coastal area of Bream Bay, Northland. Sand extracted would be transported by the William Fraser (which carries an approximate capacity of 900m^3 sand per load) to Ports of Auckland for unloading.
2. The project will comprise:
    a. up to 150,000 m^3 per annum, at a rate of up to 15,000m^3 per month, for the first three years of consent
    b. up to 250,000 m^3 per annum, at a rate of up to 25,000m^3 per month, for the remainder of the total 35-year consent period sought
    c. extraction activity to primarily occur at night, for a 4-to-6-hour period, 3 to 5 times per week (weather depending)
3. The project will require resource consent (coastal permit) under the Resource Management Act 1991 (RMA).
4. The project site is fully within the marine and coastal area. The application states that legal right to undertake the project would be obtained through granting of the resource consent (coastal permit).
5. We have undertaken an initial (Stage 1) analysis of the application, and this is provided in Table A.
6. We consider the applicant **has** provided sufficient information to consider the project for inclusion on Schedule 2A (although we note it could still be included on Schedule 2B based on the information provided). The applicant has stated its intention to consult groups including identified applicant groups for customary marine title before lodging a full application, and that the exact boundary of the extraction site can be resolved through consent conditions.
7. The project does not trigger the ineligibility criteria in clause 18 of the Fast-track Approvals Bill (the Bill).
8. Advice on PSGE development priorities and Māori development is provided in Table A. Table A also includes the relevant PSGEs or Māori groups and the settlement mechanisms, that will/may be impacted by the project and whether the project is low, medium or high impact on Treaty settlement/s and other relevant arrangements. Appendix 1 provides further detail on how this advice should be considered and our approach to analysis. Appendix 2 provides direct feedback from the Ministry of Primary Industries including in relation to fisheries settlement.

Signature

Ray Salter
Principal Analyst – Listed Projects

Table A: Stage 1 initial assessment of project eligibility and Treaty settlement assessment and advice[1]

Project details	Project description	Approvals sought	Consultation undertaken	Does the project trigger the ineligibility criteria [clause 18]?				Discretionary ground to decline [clause 21(2)]	Eligibility [clause 17]	
				Treaty settlement land, Māori customary land, customary marine title, customary rights, aquaculture settlement area, or prevented by RMA clauses [clauses 18(a-e, g)]	Access arrangement under CMA where a permit can't be granted, or is listed in items 1-11, 14 [clauses 18(f,h)]	Activity on a national reserve under Reserves Act which requires approval under that Act [clause 18(i)]	Prohibited activity under EEZA or regulations under that Act, decommissioning-related activities, offshore renewable energy progressing ahead of permitting legislation [clause 18(j-l)]		Is the project eligible [clause 17(2)]	Would the project have significant regional or national benefits [clause 17(3)]
High level summary			Y	N	N	N	N			
Schedule requested 2A **Project Name** Bream Bay Sand Extraction **Applicant** McCallum Bros Limited **Company director** Callum Fraser McCallum **Location** Approx. 17km^2 area of seabed within Bream Bay, Northland. The exact boundaries of the proposed sand extraction and control areas area (shown on map) are subject to final detailed investigations. Seabed at the extraction site is gently sloping between 20m and 30m deep. DOC notes: • close proximity to the Hen and Chickens Islands Nature reserve,	Extraction of: • up to 150,000 m3 of sand per annum at a rate of up to 15,000 m3 per month for an initial period of three years • up to 250,000 m^3 of sand at a rate of up to 25,000 m3 per month for the remainder of the proposed 35-year term of consent • sand is to be extracted (predominantly at night) across the entire extraction site.	The applicant seeks approval under the: • Resource Management Act 1991 DOC notes the applicant may require permits if it were to dispose of dredge material on land administer by DOC. The application does not specify this activity will occur.	The application includes a register of consultation (attachment 6). The applicant has been engaging with Patuharakeke (identified as mana whenua), Te Parawhau, and Ngāti Wai Trust to inform the project. Engagement is ongoing, including fortnightly meetings with Patuharakeke. The applicant has informed Northland Regional Council, which provided the applicant a list of groups that have applied for customary marine title under the Marine and Coast Area (Takutai Moana) Act 2011. The applicant has clarified it intends to consult all of those groups (and others) before lodging a full application. The applicant has consulted Northport and Channel Infrastructure (Marsden Point fuel import terminal company). Both companies raised no	**No**	**No**	**No**	**No**	**The project, or any part of it, is inconsistent with a relevant Treaty settlement, the NHNP Act, the Marine and Coastal Area (Takutai Moana) Act 2011, a Mana Whakahono ā Rohe, or a joint management agreement.** This is discussed further in the substantive Treaty analysis. **It is more appropriate to deal with the application under another Act.** **No –** there is nothing in the application that suggests it is more appropriate that this be dealt with under another Act. **The project may have significant adverse effects on the environment.** **Yes –** marine mammals are regularly present (transient) at the site. The applicant intends to propose a management plan as a consent condition. DOC notes dredging impacts on marine mammals including noise, collision, degraded habitat, sediment disturbance releasing toxins and pollutants into the water column. The dredging activity at the site will likely catch some benthic organisms. The applicant proposes ongoing monitoring to address this. DOC also notes: • the presence of vulnerable, endangered and critically	**Whether access to the fast-track process will enable the project to be processed in a more timely and cost-efficient way than under normal processes.** **Yes –** based on its experience to date, the applicant expects the fast-track process will reduce the timeframe for a consent decision "in the order of 3 years". The applicant also suggests that use of the fast-track process will result in "significant cost savings for MBL directly, but more importantly cost savings for the Auckland sand market, concrete manufacturers and the community". **The impact referring this project will have on the efficient operation of the**	**The project has been identified as a priority project in a central government, local government, or sector plan or strategy (for example, in a general policy statement or spatial strategy) or central government infrastructure priority list.** **No** **The project will deliver regionally or nationally significant infrastructure.** **No –** the project does not itself directly deliver infrastructure. However, the applicant notes that supply of marine sand is critical to the production of high-strength concrete, which is in turn required for the vast majority of regionally and nationally significant infrastructure projects. **The project will increase the supply of housing, address housing needs, or contribute to a well-functioning urban environment.** **No –** the project will not directly deliver housing or a well-functioning environment. The application notes this type of sand is particularly useful for high-strength concrete necessary for housing and urban development, particularly in Auckland. **The project will deliver significant economic benefits.** **Yes –** the applicant provided an economic assessment as Attachment 2. The application notes the supply of sand for concrete is critical to wider

[1] **Disclaimer**: Given time and scope constraints, the initial assessment is solely based on information provided by applicants. There may be additional relevant information which has not been provided to MfE.

and Whangārei Harbour Marine Reserves • the Pakiri North Control Area is within protected area Hauraki Gulf Marine Park (although this is not grounds for ineligibility) **Land Status** Land is in the coastal marine area. The applicant states its right to access would be through issue of a coastal permit (resource consent).			concerns with the application area, and more detailed engagement is planned as the project progresses. The Northport Harbourmaster was satisfied there would be no effects on marine traffic or safety, and the applicant will keep it informed of progress.					endangered marine reptiles (turtle species), and sea snake • nationally critical fairy terns/tara iti which hunt by site (noting dredging increases water turbidity) • potential cumulative impact (there is existing dredging by Mangawhai Harbour Restoration Society in proximity). The application states it will provide expert evidence in support of the application, including in relation to identified surf breaks, water quality, ecology (avifauna, marine), bathymetry (seafloor), coastal processes, noise, landscape, and cultural impacts. For the majority of these issues, the applicant considers impacts will be negligible. The applicant recognizes that the removal of sand from the sea is viewed adversely by some iwi but this viewpoint differs from iwi to iwi and hapu to hapu depending on the nature and effects of the activity and their relationship with the moana in their rohe. **The applicant has a poor compliance history under the relevant legislation.** **No –** the applicant states since the company was founded in 1904, it has no recorded history of any prosecution or other enforcement action against the company or its principals. **The project involves an activity that would occur on land that the Minister for Treaty of Waitangi Negotiations considers necessary for Treaty settlement purposes.** **No** – the project is in the marine and coastal area which is not available for Treaty settlement purposes. **The project includes an activity that is a prohibited activity under the RMA.** **No** – based on its assessment against the Proposed Northland Regional Plan, the applicant states that the project is a discretionary activity.	**fast-track process.** **Yes** – the applicant expects to have assembled all the information necessary to enable the project to be fully evaluated by the time the fast-track legislation comes into force. **Whether the application contains sufficient information to inform the referral decision.** **Yes** – the application provides sufficient information to consider it for listing in Schedule 2A.	developments, and that direct shipping to Auckland via sea will remove truck (reducing associated road maintenance cost). **The project will support primary industries, including aquaculture.** **Yes** – mining is included in the definition of primary production under the National Planning Standards. The application notes the project would supply material for concrete production used by primary industries. **The project will support development of natural resources, including minerals and petroleum.** **Yes** – this is a sand extraction project, for concrete manufacture. **The project will support climate change mitigation, including the reduction or removal of greenhouse gas emissions.** **Potentially** – the application notes that sand from this location requires less cement than other types to produce concrete of similar strength, reducing carbon footprint. The application notes increased fuel efficiency via direct shipping compared to trucking sand by road from elsewhere **The project will support adaptation, resilience, and recovery from natural hazards.** **No** – the project does not directly support this. Indirectly, concrete produced from this sand may be used for infrastructure to support adaptation and resilience. **The project will address significant environmental issues.** **No** – other than suggesting the project will reduce emissions compared (outlined above), the project does not address any significant environmental issues. **The project is consistent with local or regional planning documents, including spatial strategies.** **Yes** – the application includes an assessment against provisions of the Northland Regional Policy Statement Proposed Northland Regional Plan (of which, the provisions relating to this site are stated by the applicant as being operative). We have not assessed the application against those documents.

PSGE Settlement Priorities and Māori Development assessment – ***This table provides an overview. In the time available, it has not been possible to undertake a detailed review of all Treaty settlement and related matters, or to engage with the relevant PSGE, iwi or Māori groups in relation to the potential impacts of the project. If the project does progress through the fast-track process, it will be important this more detailed and comprehensive analysis and engagement is undertaken (there are some mechanisms in the proposed legislation, such as the clause 13 report (which will apply to Schedule 2 Part B (but not Part A) applications) and the requirements to invite comment from these groups, which are intended to address these matters).*** *Advice on Māori development and PSGE settlement priorities includes information relating to:* • *where projects align explicitly with PSGE or iwi strategic objectives/vision/other strategic documents.* • *where projects contribute towards addressing historical or systemic inequities faced by Māori. This would be undertaken through an equity assessment; and/or are being led by or in partnership with a Māori entity or business;* • *to relevant provisions in Treaty settlements, Joint Management Agreements outside of settlement; Mana Whakahono ā Rohe; Iwi Environment Management plans; implications for groups yet to settle their historical Treaty of Waitangi claims; and implications arising under the Marine and Coastal Area (Takutai Moana) Act 2011 and Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019.*	
Ineligible projects - based on the considerations at cl18(a–e) of the Fast Track Approvals Bill (version as at introduction)	The project does not appear to be ineligible according to the information provided in the application.
Affected Māori group/s	The applicant has identified the following groups with interests in the project area: • Ngātiwai Trust Board • Patuharaheke Te Iwi Trust Board The applicant has also identified Te Parawhau as a group with a Marine and Coastal Area (Takutai Moana) Act 2011 application in the area, and with whom the applicant has consulted about the project. <u>Ngātiwai Trust Board</u> Ngāti Wai are yet to settle their historical Treaty of Waitangi claims and so the area of interest of Ngāti Wai is not confirmed. Information from Te Kāhui Māngai confirms the proposed project location as being within the area of interest for Ngāti Wai.[2] Note this area of interest may be refined and confirmed throughout the course of Treaty settlement negotiations. <u>Patuharakeke Te Iwi Trust Board</u> Patuharakeke Te Iwi Trust Board are yet to settle their historical Treaty of Waitangi claims and so the area of interest of the Patuharakeke Te Iwi Trust Board is not confirmed. Information from Te Kāhui Māngai confirms the proposed project location as being within the area of interest for Patuharakeke Te Iwi Trust Board.[3] Note this area of interest may be refined and confirmed throughout the course of Treaty settlement negotiations. <u>Te Parawhau</u> Te Parawhau are yet to settle their historical Treaty of Waitangi claims and so the area of interest of Te Parawhau is not confirmed. There is no information on Te Kāhui Māngai and in the time available, it has not been possible to confirm whether the proposed project location is within the area of interest for Te Parawhau. In addition to the groups identified by the applicant, we have also identified the following additional groups as potentially having interests in the proposed project location: • Te Rūnanga o Ngāti Whātua • Te Uri o Hau • Ngāti Manuhiri • Te Kawerau ā Maki <u>Te Rūnanga o Ngāti Whātua</u> Ngāti Whātua are yet to settle their historical Treaty of Waitangi claims and so the area of interest of Ngāti Whātua is not confirmed. Information from Te Kāhui Māngai confirms the proposed project location as being within the area of interest for Ngāti Whātua.[4] Note this area of interest may be refined and confirmed throughout the course of Treaty settlement negotiations. <u>Te Uri o Hau</u> Te Uri o Hau is an iwi whose area of interest includes or is very close to the proposed project location, based on the Area of Interest agreed between Te Uri o Hau and the Crown in the Deed of settlement signed 13 December 2000.[5] <u>Ngāti Manuhiri</u> Ngāti Manuhiri is an iwi whose area of interest includes or is very close to the proposed project location, based on the Area of Interest agreed between Ngāti Manuhiri and the Crown in the Deed of settlement signed 21 May 2011.[6] <u>Te Kawerau ā Maki</u>

[2] TKM | Iwi | Ngātiwai | Te Kahui Mangai
[3] Patuharakeke_Rohe_new (tkm.govt.nz)
[4] ngati_whatua.png (607×577) (tkm.govt.nz)
[5] AOI-TeUrioHau.jpg (1636×905) (tkm.govt.nz)
[6] Ngāti Manuhiri Deed of Settlement - Attachments 21 May 2011 (tearawhiti.govt.nz)

	Te Kawerau ā Maki is an iwi whose area of interest includes or is very close to the proposed project location, based on the Area of Interest agreed between Te Kawarau ā Maki and the Crown in the Deed of settlement signed 22 February 2014.[7] The applicant has also identified a number of groups with applications under the Marine and Coastal Area (Takutai Moana) Act 2011.
Has the applicant consulted with those Māori groups?	The application states that Ngātiwai Trust Board and Patuharaheke Te Iwi Trust Board have been consulted about the project. Patuharaheke Te Iwi Trust Board have provided cultural feedback on the project. Te Parawhau has also been contacted and a meeting has occurred, and the applicant is scheduled to meet with Ngāi Wai also. The applicant has also noted that they intend to undertake consultation with applicants under the Marine and Coastal Area (Takutai Moana) Act 2011 in advance of lodging a full application for the project.
Impact/s of the project on Māori development and PSGE settlement priorities and related matters	**Please note:** For impacts on Māori Commercial Aquaculture Claims Settlement Act 2004, Fisheries Act 1996, Treaty of Waitangi (Fisheries Claims) Settlement Act 1992and other matters such as customary fishing, taiāpure or mātaitai (legislation and functions that the Ministry for Primary Industries (MPI) administers) please refer to attached MPI advice. **Impacts on PSGE settlement priorities and Māori development** There is no information in the application to suggest that this application is made by or on behalf of a Māori organisation, or that the project will have a direct benefit in terms of Māori development. In the time available, we have identified the following relevant plans and documents: • Te Iwi o Ngatiwai Iwi Environmental Policy Documents 2007 • Ngatiwai Aquaculture Plan 2005 • Patuharakeke Hapū Environmental Management Plan 2014 • Te Uri o Hau Kaitiakitanga o Te Taiao 2011 It is not possible to confirm from those documents that the project does or does not align with the strategic priorities of those iwi or Māori groups. A full analysis of the plan would need to be undertaken in conjunction with the relevant iwi before any firm conclusions can be reached. That is a matter to be considered in more detail in subsequent stages if this progresses through the fast-track processes. **Impact on Treaty settlements and other relevant arrangements** **Te Uri o Hau Claims Settlement Act 2002** *Statutory Acknowledgement* This Treaty settlement contains a number of statutory acknowledgements. It is not clear from the application whether a statutory acknowledgement covers or is adjacent to the project site or is directly impacted by the proposed project. If the project activity is within or adjacent to, or directly affects, the area of the statutory acknowledgement, the following text applies. Generally, a statutory acknowledgement by the Crown of a 'statement of association' between the iwi and an identified area. A council must have regard to the statutory acknowledgement when deciding whether the iwi is an 'affected person' for the purposes of notification decisions under the Resource Management Act 1991 (the RMA). The same applies to the Environment Court when considering participation in hearings under s274 of the RMA. A council must send summaries of applications for resource consents to the iwi. The PSGE (or any member of the iwi) may, as evidence of the association with a statutory area, cite the statutory acknowledgement in submissions that are made to a consent authority, the Environment Court or the Environmental Protection Authority. An impact of listing this project under Schedule 2 Part A is that the Ministers will not have to exercise their 'referral discretion' including considering the Treaty settlement impacts through that process, nor will they have the benefit of the clause 13 report. There is a requirement on the expert panel to invite comment from the PSGE on the application (noting this is an automatic right to participate, which is currently discretionary under the statutory acknowledgement). For a Schedule 2 Part B listing, Ministers will have to exercise their 'referral discretion' including considering the Treaty settlement impacts through that process, and they will have the benefit of the clause 13 report. The expert panel will also be required to invite comment from the PSGE on the application (again, noting this is an automatic right to participate, which is currently discretionary under the statutory acknowledgement). Listing this project, and the fast-track process generally, will not provide equivalent weight to the statutory acknowledgement, which may limit the influence of the iwi compared to the usual consenting regime. For example, under the RMA process, if a PSGE is notified due to the statutory acknowledgement, the PSGE has the right to make a submission, attend a hearing, appeal to the Environment Court, and appeal to the High Court and higher courts. The fast-track process does not provide exactly the same rights to the PSGE (particularly the potential right to make a submission and then participate in a hearing and de novo appeal), but as noted above there are some other enhanced rights of participation. *Conservation/other redress* The Department of Conservation has noted that the within the Southern Control Area and the Pakiri North Control area both border the conservation protocol area and an area over which Te Uri o hau have a right of first refusal. **Ngāti Manuhiri Claims Settlement Act 2012** *Statutory Acknowledgement* This Treaty settlement contains a number of statutory acknowledgements including a coastal statutory acknowledgement which appears to border the proposed project location. Given this, the above text relating to statutory acknowledgements applies. *Conservation/other redress* The Department of Conservation has noted that Pakiri North Control Area is within the conservation protocol area for Ngāti Manuhiri.

[7] Te-Kawerau-a-Maki-Deed-of-Settlement.pdf (tearawhiti.govt.nz)

	Te Kawerau ā Maki Claims Settlement Act *Conservation/other redress* The Department of Conservation has noted that Pakiri North Control Area is within a cultural redress area for Te Kawerau ā Maki. **Mana Whakahono ā Rohe** There is a Mana Whakahono ā Rohe between the Northland Regional Council and the hapū of Te Taitokerau, which includes Te Patuharakeke. The location of the project appears to fall within the area covered by the Mana whakahono ā Rohe. The Mana whakahono ā Rohe provides for an on-going role for Te Patuharakeke in decision-making and resource management. Listing this project may impact the application of the Mana whakahono ā Rohe, which provides for substantive input from Te Patuharakeke, into processes related to this project that would occur through the standard consenting regime, noting in particular, that this is an application for a Schedule 2A listing. **Iwi Environment Management plans** Note the comments above in relation to iwi management plans. **Implications for groups yet to settle their historical Treaty of Waitangi claims** There are groups still working through their Treaty settlement processes, as set out above. It will be important that these interests are considered in more detail if the project progresses through the fast-track process, but in the time available there are no further impacts noted. **Implications arising under the Marine and Coastal Area (Takutai Moana) Act 2011 and Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019** The project area is in the common marine and coastal area. Within this area there are no customary marine title or protected customary rights holders under the Marine and Coastal Area (Takutai Moana) Act 2011 recorded on the register.[8] There are however approximately 35 applications by iwi, hapū and whānau groups (takutai moana applicant groups) who have applied to have their customary interests recognised under the Act. Under the Act, takutai moana applicant groups have certain rights in relation to consenting processes under the Resource Management Act 1991, including the right to be consulted on resource consent applications in their takutai moana application area. The Fast-track Approvals Bill currently provides for consultation with takutai moana applicant groups on Schedule 2B projects at the Ministerial referral stage, and the clause 13 report must include information about the relevant takutai moana applicant groups in the project area. For schedule 2A projects these steps would not apply. For listed projects (both Schedule 2A and 2B), the Fast-track Approvals Bill as currently drafted, does not provide for consultation with takutai moana applicant groups at the expert panel stage. This means that an implication of listing a project under Schedule 2A is that takutai moana applicants would not have the ability to input into the process at all. As the project area is outside of ngā rohe moana o ngā hapū o Ngāti Porou there are no implications for the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019 arising from this application. **Other matters** There are no joint management considerations identified and in the time available, officials have not identified any other relevant matters.
Is the project considered low, medium or high impact (based on assessment criteria above)	From the information available we consider this project is likely to be of medium impact. This is due to the nature and range of interests present in the project area. An impact of listing this project under Schedule 2 Part A is that the Ministers will not have to exercise their 'referral discretion' including considering the Treaty settlement impacts through that process, nor will they have the benefit of the clause 13 report. For Part A projects, there is a requirement on the expert panel to invite comment from the PSGE on the application.
Has the Ministry for the Environment undertaken engagement?	Officials consider engagement would be beneficial given the nature and range of interests present in the project area but were unable to undertake this in the time available.
Additional comments/context	See the attached advice from MPI on potential impacts on aquaculture and fisheries settlement considerations.

[8] Marine and Coastal Area Register | ToitÅ« Te Whenua - Land Information New Zealand (linz.govt.nz)

Appendix One: Approach and considerations for Treaty settlement advice on listed project applications advice in Table A

1. Ministers have advised the Advisory Group should receive advice from officials on “Māori development and PSGE settlement priorities” relevant to each application. Note this differs from section 13 requirements of the current Fast Track Consenting Bill that ‘Ministers must consider Treaty settlements and other obligations report’ as these reports will not be in existence at the time, although matters identified in section 13 (2)(a)-(j) will be considered as part of official's analysis.
2. We have interpreted “Māori development” and “PSGE priorities” to mean primarily projects that:
    a. align explicitly with PSGE or iwi strategic objectives/vision/other strategic documents; and/or
    b. contribute towards addressing historical or systemic inequities faced by Māori. This would be undertaken through an equity assessment; and/or
    c. the project is being led by or in partnership with a Māori entity or business.
3. Given the time constraints and limited engagement this advice cannot be considered as comprehensive and does not intend to reflect their views and should not be read as such.
4. Engagement with PSGEs and other relevant groups has been considered based on potential high-risk factors including, but not limited to, if:
    a. a project will take place on or effect any taonga or areas of significance that are protected by Treaty settlement arrangements.
    b. a project will have a substantive and/or ongoing environment impact on any taonga or areas of significance.
    c. a project will include a consenting arrangement that will require a significant take, or be ongoing for an extended period, in relation to a taonga or area of significance, or in regions where PSGEs have specific planning mechanisms in place.
    d. PSGEs or other Māori entities have previously strongly contested the project or a similar type of project, particularly where court action has been taken.
    e. The project is clearly in conflict with or undermines PSGE priorities.
    f. Engagement would be required to maintain and uphold the Te Tiriti Crown relationship.
5. In limited circumstances where engagement occurs, it has been brief. Where engagement has been undertaken it is reflected in our analysis but should not be taken to mean that our Treaty Partners endorse our advice.