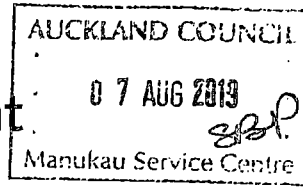
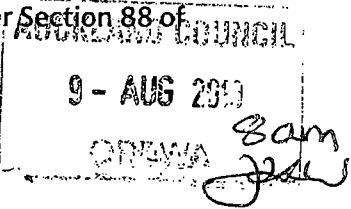


Application for resource consent



Resource Consents Department Under Section 88 of the Resource Management Act 1991

To: Auckland Council
Private Bag 92300
Auckland 1142



Office use only

Application number(s):
CST60343373

Receipt number: _____

Receipt date: _____

Deposit paid: \$4000.00

Consent:
 District
 Regional

Stream number: _____

You may post or deliver your application to your nearest Auckland Council service centre.

This form provides the council with your contact information and details about your proposal. If you need help completing this form or you are unsure about which form to use, visit aucklandcouncil.govt.nz/resourceconsents where you will find helpful guidance notes, or contact the council on 09 301 0101.

If you fail to complete this form and provide the necessary information, including the deposit fee, your application may not be accepted for processing. See [Guidance Note 3](#).

1. Site location details

Site(s) to which this application relates is described as

Number: - Street: Auckland Offshore Sand Extraction Site

Suburb: Coastal Marine Area (Off-Shore from Pakiri)

Legal description(s): -

2. General application details

This application is for (tick all the boxes necessary to cover the proposal):

- Land use consent (district/city)
 Subdivision consent
 Discharge permit
 Coastal permit
 Water permit

The application will be assessed under the Auckland Unitary Plan (Operative in part). If there are any other operative legacy plan provisions that apply, please indicate.

- | | | | |
|--|---|---|--|
| <input type="checkbox"/> Auckland Central Area | <input type="checkbox"/> Hauraki Gulf Islands | <input type="checkbox"/> Auckland Isthmus | <input type="checkbox"/> Franklin |
| <input type="checkbox"/> Manukau | <input type="checkbox"/> North Shore | <input type="checkbox"/> Papakura | <input type="checkbox"/> Rodney |
| <input type="checkbox"/> Waitākere | <input type="checkbox"/> Coastal | <input type="checkbox"/> Air, land, water | <input type="checkbox"/> Farm dairy discharges |

Is consent required under a National Environmental Standard (NES)?

Yes (tick applicable) No

- NES for Air Quality
 NES for Drinking Water
 NES for Telecommunication Facilities
 NES for Electricity Transmission Activities
 NES for Assessing and Managing Contaminants in Soil to Protect Human Health
 Other

3. Additional resource consents required

3.1 Are any additional resource consent(s) required for this proposal but not being applied for under this application?

No Yes (give details)

3.2 Advise of any existing consents and the date at which they expire.

Provide consent numbers and an assessment of the value of the investment of the existing consent holder (for the purposes of section 104(2A)).

20795. Expires February 2023.

4. Applicant's details (all invoices will be made out to and sent to the applicant unless otherwise stated in section 6):

4.1 Applicant's full name

The name of the consent holder who will be responsible for the consent and any associated costs unless otherwise stated in section 6.

Last name: _____ First name(s): _____

Last name: _____ First name(s): _____

or

Company/trust/organisation: **Kaipara Limited**

Contact person/all trustee names:

Steve Riddell

Physical address: **190 Jack Lachlan Drive, Pine Harbour**

Postcode: **2018**

Postal address (if different from above): **PO Box 8, Beachlands**

Postcode: **2147**

Phone (day): **09 536-5152** Mobile: _____

Email: **mary-ellen@kaipara.co.nz**

The applicant is the:

owner occupier leasee
 prospective purchaser (of the site to which the application relates) other (please specify)

Consent Holder for Sand Extraction.

4.2 Name and address of each owner and occupier of land to which the application relates (if different from above):

Name: **-**

Address: _____

Postcode: _____

5. Agent's or consultant's details.

All correspondence will be sent to the agent and may also be sent to the applicant unless otherwise stated in section 6.

Company: **Osborne Hay (North) Limited**

Contact: **David Hay**

Postal address: **PO Box 16, Warkworth**

Postcode: **0941**

Phone (day): **09 425-9844** Mobile: **027 425-0234**

Email: **david@osbornehay.co.nz**

Preferred contact: email phone

6. Alternative addresses for correspondence and payee of invoices

All correspondence (excluding invoices) sent to:

applicant agent/consultant other (name and address)

Name: _____

Address: _____

Postcode: _____

All invoices made out to and sent to:

applicant agent/consultant other (name and address)

Name: **Kaipara Limited**

Address: **PO Box 8, Beachlands**

Postcode: **2147**

7. Description of proposed activity (if insufficient space, please provide on additional pages)

Continuation of the existing sand extraction operation from the Auckland Offshore Sand Extraction Site.

8. Other activities

Choose either:

there are no other activities that are part of the proposal to which this application relates

the other activities that are part of the proposal to which the application relates are as follows:
(Describe the other activities. For any activities that are permitted activities, explain how the activity complies with the requirements, conditions, and permissions of any Plan or regulation so that a resource consent is not required for that activity under section 87A(1) of the RMA).

9. Pre-application information

Have you had a pre-application meeting with the council regarding this proposal?

Yes

No

Copy of meeting record attached

Date of meeting: **Various**

If 'yes', provide the pre-application meeting reference number and/or name of staff member:

Mssrs Moore, Dales and Benson.

10. Site visit requirements

10.1 Is there a locked gate, security system or dog(s) restricting access to the site by council staff?

Yes

No

10.2 Provide details of any entry restrictions or hazards that council staff should be aware of, e.g. health and safety, organic farm, measures to inhibit the transfer of PsA-V etc.

It is some distance off-shore in the Coastal Marine Area.

11. Notification of your application

Are you requesting that the application be publicly notified?

Yes

No

If 'yes', please provide an executive summary below and an electronic version of your application for notification purposes.

Please refer to the Standards for submitting documents electronically found at the council's website aucklandcouncil.govt.nz/resourceconsents

12. Mana Whenua cultural values assessment and the Auckland Unitary Plan (Operative in part) (AUP(OP))

12.1 Is your proposal located within a "Site and Place of Significance to Mana Whenua" as identified in the AUP(OP)

Yes

No

12.2 Is your proposal an activity that has the potential to generate effects on Mana Whenua and their relationship with their ancestral land, water, sites, waahi tapu and other taonga)?

Yes

No

12.3 If 'yes' to 12.1 or 12.2, have you contacted all the relevant Mana Whenua groups to establish whether their values are affected by your proposal?

Yes

No

12.4 If 'yes', please provide details with your application of all Mana Whenua groups contacted and their responses.

Please note that providing this information with the lodgement of your application will assist in processing your application in a timely manner. If you have not provided the relevant information your application may need to be placed on hold while this information is obtained.

In any case, please note that the council can assist you in determining which Mana Whenua groups should be approached. For more information refer to the "Engaging with Mana Whenua" page at aucklandcouncil.govt.nz

13. Information to be submitted with your application

To satisfy the requirements of section 88(2) and Schedule 4 of the Resource Management Act 1991 (RMA), please attach the following information to your application:

Accept/Reject

- two copies (including one unbound) of all information, including application form and plans, for all applications. Refer to Guidance note 2 for guidance on the preparation of plans
- application deposit fee – refer to the council’s fees and charges schedule. Indicate method of payment below:

<input checked="" type="checkbox"/> cheque attached <input type="checkbox"/> credit card amount paid \$ <u>4000.00</u>	<input type="checkbox"/> customer account customer acc/number: _____
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- Certificate(s) of Title less than three months old for the site to which this application relates. Attach the title and any consent notices, covenants, easements attached to the title if relevant or affected by the proposed activity
- locality plan or aerial photo. Indicate the location of the site in relation to the street and other landmarks. Show the street number of the subject site and those of adjoining sites
- optional: detail(s) of the resource consent(s) being applied for including reference to specific rule(s) and reasons for consent
- an assessment of effects on the environment in accordance with Schedule 4 of the RMA at a level of detail that corresponds with the scale and significance of the effects that the proposed activity may have on the environment. This may require one or more technical specialist reports. Include a full description of the proposed activity, the effects that may be generated and how these would be managed. For more information refer to Schedule 4 of the RMA and the council’s Guidance note 1
- an assessment against the matters in Part 2 of the RMA. This may be included in your AEE or in a separate document. For more information refer to Schedule 4 of the RMA and the council’s guidance note 1
- an assessment against any relevant provisions of a statutory document (e.g. district and regional plans, the AUP(OP), National Policy Statements etc.). This may be included in your AEE or in a separate document. For more information refer to Schedule 4 of the RMA and the council’s guidance note 1
- include other information required by the relevant section of the AUP(OP) and legacy district plan and regional plans, the RMA or any regulations made under that act
- include details (name, postal and site address) of consultation undertaken (including with iwi) and any responses from persons consulted. For more information refer to Schedule 4 of the RMA and guidance note 1
- a completed checklist where relevant to your application.

<input type="checkbox"/>
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<input type="checkbox"/>

14. Additional information – for regional consents or permits only under AUP (OP) and legacy operative regional plans

14.1 Map reference of proposed works: mE 1758084.670 mN 5990925.300

Use New Zealand Transverse Mercator (NZTM), e.g. 1756730mE 5919740mN.

Ensure that the location of your activity is marked to an accuracy of 10 metres on your location plan. You can obtain your map coordinates and an aerial photo from the Auckland Council GeoMaps (GIS viewer) found on the home page of the council’s website, aucklandcouncil.govt.nz

14.2 Please provide the map reference of discharge points if relevant.

Map reference of proposed discharge or take point(s): -

Is the discharge/take location on the same property as the application site?

- Yes No

If ‘no’, complete the details below.

Name or property owner (if not the same):

Address:

Postcode:

Legal description:

Documentation confirming easement and/or covenants for wastewater, including a certificate of title for the property where the discharge occurs.

If required, also attach land owner approval.

14.3 Give the name of any stream, river or lake (or if the stream is unnamed, state which water body it is a tributary of).

Stream name: - _____ or tributary of: - _____

14.4 Please indicate the duration for which you are requesting a permit (if relevant):

35 years

15. Signature of the applicant(s) or agent

Please read these notes before signing the application form

Payment of fees and charges

The council may charge the applicant for all costs actually and reasonably incurred in processing this application. Subject to the applicant's rights under sections 357B and 358 of the RMA to object to any costs, the applicant undertakes to pay all and future processing costs incurred by the council. The council may issue interim invoices for applications. If any steps, including the use of debt collectors and/or lawyers, are necessary to recover unpaid processing costs, the applicant agrees to pay all collection costs. If this application is made on behalf of a trust (private or family), a society (incorporated or unincorporated) or a company, in signing this application the applicant binds the trust, society or company to pay all the above costs and guarantee to pay all the above costs in their personal capacity. Refer to the council's fees and charges schedule found at: aucklandcouncil.govt.nz/resourceconsents

Note: some regional permits include ongoing annual charges in addition to the processing fee. These are payable by the consent holder.

Development and financial contributions

When granting consent to certain activities, the council may levy a monetary contribution. Development contributions are levied under the Local Government Act 2002 in accordance with the council's Development Contribution Policy. Financial or reserve contributions are levied under the RMA under the relevant district plan. When such contributions become due, the consent holder is responsible for their payment. Unless otherwise advised, the name and contact address of the person responsible for payment of any contributions will be taken as the applicant.

Alternative contact and address for development and financial contributions:

Name: _____

Address: _____

Postcode: _____

Site visit

By signing this form, if you are the owner of the application site, you confirm that the council may undertake a site inspection.

Privacy information

The council requires the information you have provided on this form to process your application under the RMA and to collect statistics. The council will hold and store the information, including all associated reports and attachments, on a public register. The details may also be made available to the public on the council's website. These details are collected to inform the general public and community groups about all consents which have been processed or issued through the council. If you would like to request access to, or correction of any details, please contact the council.

Declaration for the applicant or authorised agent or other

I/we confirm that I/we have read and understood the notes above.

If a private or family trust is the applicant, at least two New Zealand-based trustees are required to provide contact details and sign this form.

Applicant's name: **Steve Riddell, Director - Kaipara Limited**

Applicant's signature: Steve Riddell Date: 7 August 2019

Applicant's name: _____

Applicant's signature: _____ Date: _____

Continued overleaf...

Applicant's name:

Applicant's signature:

Date:

Declaration for the agent authorised to sign on behalf of the applicant

As authorised agent for the applicant, I confirm that I have read and understood the above notes and confirm that I have fully informed the applicant of their/its liability under this document, including for fees and other charges, and that I have the applicant's authority to sign this application on their/its behalf.

Agent's full name:

Agent's signature:

Date:

Checklist for resource consent applications under a district/unitary plan

This checklist is designed to ensure that you submit all the required information with your resource consent application. Please read it and answer all relevant questions in your Assessment of Environmental Effects (AEE). Please attach this checklist to Form A when submitting your application. If you provide inadequate information, the processing of your application may be delayed.

The level of information provided should be both relevant and appropriate to the scale of the proposal. This may require independent specialist(s) input. This checklist is not exhaustive. Depending on the specific nature of your application, the council may require further information during processing to enable a better understanding of the effects of your proposal.

General to all applications

Flooding						Council use only		
Customer Use (circle as appropriate)			Description			Council use only		
Yes	No	N/A <input checked="" type="checkbox"/>	Does the proposal involve development on land that is subject to flooding or inundation, or an overland flow path? <i>If 'yes', you may be required to provide a flood assessment from a suitably qualified person with the application.</i>			Yes	No	N/A
NB: Flood Hazard information including the mapped locations of overland flow paths, flood prone areas, flood sensitive area and flood plains are variously located on the Auckland Council GeoMaps (GIS Viewer) under the Catchments and Hydrology layer. You should contact council to ensure that you have sourced the correct information for your application.								
						Council use only		

Contamination and hazardous substances			Entire section N/A			<input type="checkbox"/>		
Customer Use (circle as appropriate)			Description			Council use only		
Yes	No <input checked="" type="checkbox"/>	N/A	Has any part of the subject site been used for (including its present use) or is it more likely than not to have been used for an activity on the Hazardous Activities and Industries List (HAIL)? You can find a full list of activities on the Ministry for the Environment's website www.mfe.govt.nz/laws/standards/contaminants-in-soil/hail-contaminants.pdf <i>If 'yes' and your application involves subdividing or changing the use of the land, sampling or disturbing soil, or removing or replacing a fuel storage system, the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health may apply and you may need to seek consent for this concurrently in your application.</i>			Yes	No	N/A
Yes	No <input checked="" type="checkbox"/>	N/A	Does either the site and/or proposal involve the storage or use of hazardous substances. <i>If 'yes', you will be required to provide details of hazardous substances stored on or to be stored on the site, including vehicle or machinery refuelling areas and associated bunds and protection devices, etc.</i>			Yes	No	N/A
						Council use only		

Earthworks and geotechnical issues			Entire section N/A			<input checked="" type="checkbox"/>		
Customer Use (circle as appropriate)			Description			Council use only		
Yes	No	N/A	Does the proposal trigger reason for consent relating to earthworks? <i>If 'yes', you may be asked to provide a site management plan and geotechnical report. This information should include (but not be limited to) the following: a site plan showing the location of the earthworks (including areas of cut and fill), volumes, proposed and existing contours, slope stability, sediment and erosion control plan, timeframe, noise and dust controls, hours of operation, truck movements to transport material, and location for any material transported off-site</i>			Yes	No	N/A
Yes	No	N/A	Does the proposal involve building, development (including earthworks and vegetation removal) or subdivision on land that is known to be or likely to be subject to erosion,			Yes	No	N/A

Earthworks and geotechnical issues			Entire section N/A			<input type="checkbox"/>
			slope instability, or subsidence? <i>If 'yes', you will need to provide a geotechnical assessment from a suitably qualified person with your application</i>			
Yes	No	N/A	Does the proposal involve building or development more than two metres below natural ground level, e.g. basement excavations and large retaining walls? <i>If 'yes', you may be asked to provide a geotechnical assessment from a suitably qualified person and cross-section of the excavation showing groundwater level.</i>			N/A
Yes	No	N/A	Does earthworks involve rock breaking/cut in an area known to contain basalt? <i>If yes you may require a geotechnical report</i>			N/A
Yes	No	N/A	Does the proposal involve building or earthworks within 10 metres of a trunk wastewater sewer or trunk watermain? <i>If 'yes', you will need to provide a plan showing the accurate depth and location of the trunk line when you lodge your application. You should also contact Watercare Services for a 'works over approval'.</i>			N/A
						Council use only

Trees, heritage, archaeological sites and ecological areas			Entire section N/A			<input type="checkbox"/>
Customer Use (circle as appropriate)		Description	Council use only			
Yes	No <input checked="" type="checkbox"/>	N/A	Are there any scheduled, protected and/or notable trees on the site? <i>If 'yes', you may be asked to provide an arborist's report may with your application</i>			N/A
Yes	No <input checked="" type="checkbox"/>	N/A	Does the proposal require the removal of, or works in the drip line of, any scheduled, protected and/or notable tree? <i>Indicate the trees on your site plan, the species and tree size. You may be asked to provide a report from a suitably qualified consultant with recommendations and mitigation measures</i>			N/A
Yes	No <input checked="" type="checkbox"/>	N/A	Does the subject site(s) contain any scheduled heritage structures, objects, sites or places? <i>If 'yes' and the proposal will involve demolition, removal, alterations or the change of use of the item, you may be asked to provide a conservation plan by a suitably qualified person with your application. A Heritage Impact Assessment will also be required for resource consent applications involving a scheduled heritage historic place (see special information requirements at Chapter D17.9 of the PAUP Decisions Version). You should also seek input from the council's Heritage Unit prior to submitting your application</i>			N/A
Yes	No <input checked="" type="checkbox"/>	N/A	Does the proposal involve a building listed on the Heritage New Zealand Pouhere Taonga 'Heritage List'. For a list of sites, visit http://www.heritage.org.nz/the-list <i>If 'yes', we recommend that you obtain HNZPT written approval prior to lodgement of the application.</i>			N/A
Yes	No <input checked="" type="checkbox"/>	N/A	Does the subject site contain any recorded archaeological, geological or waahi tapu sites or is the site identified as a Site or Place of Significance to Mana Whenua as identified on the Proposed Auckland Unitary Plan (PAUP) Decisions Version Maps? <i>If 'yes' and the proposal will involve or potentially involve the alteration of the archaeological site (waahi tapu), you may be asked to provide a conservation plan or archaeological assessment by a suitably qualified person with your application. You may also need to get authorisation to modify, damage and destroy an archaeological site under Section 14 of the Heritage New Zealand Puhere Taonga Act 2014. If in doubt, contact the council's Heritage Unit for advice prior to submitting your application.</i>			N/A
<p><i>If the site is identified as a Site or Place of Significance to Mana Whenua then a Mana Whenua Cultural Values Assessment may be required. These assessments can only be prepared by the relevant Mana Whenua (or nominee).</i></p> <p><i>To find out if a cultural values assessment is required, you will need to contact all the relevant iwi groups identified as having an interest in your area. You will also need to provide details with your application of all Mana Whenua groups contacted and their responses. Please note that providing this information with the lodgement of your application will assist in processing your application in a timely manner. If you have not provided the relevant information your application may need to be placed on hold while this information is obtained.</i></p> <p><i>In any case, please note that the council can assist you in determining whether the PAUP Decisions Version provisions referred to above apply and, if so, which Mana Whenua need to be approached. For more information contact Council and/or refer to:</i></p> <p>http://www.aucklandcouncil.govt.nz/en/ratesbuildingproperty/consents/resourceconsents/pages/applicationsassessments.aspx</p>						

Signs				Entire section N/A	<input checked="" type="checkbox"/>	
Customer Use (circle as appropriate)			Description	Council use only		
Yes	No	N/A	Does the proposal include any signs or billboards? <i>Identify these on the plans, including scale and type and provide an assessment if required</i>	Yes	No	N/A
				Council use only		

Works on council-owned land				Entire section N/A	<input checked="" type="checkbox"/>	
Customer Use (circle as appropriate)			Description	Council use only		
Yes	No	N/A	Does the proposal involve works on land owned by the council, e.g. a road, reserve or park? <i>If 'yes', you will need to get the council's approval as landowner. Please obtain approval before you lodge the application</i>	Yes	No	N/A
				Council use only		

Noise and lighting				Entire section N/A	<input type="checkbox"/>	
Customer Use (circle as appropriate)			Description	Council use only		
<input checked="" type="checkbox"/>	No	N/A	Does the proposal comply with the noise and/or lighting controls in the relevant plan? <i>You may need to provide a report from a suitably qualified person addressing the effects of lighting and proposed mitigation methods or to demonstrate compliance with PAUP Decisions Version, and any relevant operative district plan, standards</i>	Yes	No	N/A
Yes	<input checked="" type="checkbox"/>	N/A	Does your proposal include the conversion of an existing building to accommodation? <i>If 'yes', you may need to provide an acoustic report from a suitably qualified person</i>	Yes	No	N/A
				Council use only		

Landscaping and planting				Entire section N/A	<input checked="" type="checkbox"/>	
Customer Use (circle as appropriate)			Description	Council use only		
Yes	No	N/A	Does the proposal involve or require any landscaping or planting? <i>If 'yes', you may need to provide a landscape plan showing the proposed location and type of plants</i>	Yes	No	N/A
				Council use only		

Subdivision				Entire section N/A	<input checked="" type="checkbox"/>	
Customer Use (circle as appropriate)			Description	Council use only		
Yes	No	N/A	Does the proposal require works on any neighbouring site(s)? <i>You will need to provide a right of entry and consent for any works on neighbouring land from the owners of the neighbouring site(s).</i>	Yes	No	N/A
Yes	No	N/A	Have you provided a Scheme Plan accurately identifying all boundaries, services and access provisions? <i>If 'yes', you will need to confirm that the plan is to scale, identifies existing buildings, existing and proposed water, wastewater and stormwater service connections (including where those connections may be outside your property), the existing and proposed vehicular access and any easements that may be required.</i>	Yes	No	N/A
Yes	No	N/A	Is the proposal for a cross lease or unit title development? <i>If 'yes', you may need to provide a report from a qualified person attesting to the compliance of the development with the current building code in respect fire protection and access.</i>	Yes	No	N/A
Yes	No	N/A	Is the site adjacent to a stream, lake or the sea? <i>If 'yes', you will need to identify any esplanade reserves to be vested in Council and any land located within the coastal marine area.</i>	Yes	No	N/A
				Council use only		

Car parking, vehicle manoeuvring and transport				Entire section N/A			<input checked="" type="checkbox"/>
Customer Use (circle as appropriate)			Description	Council use only			
Yes	No	N/A	Does the proposal comply with the relevant car parking and loading requirements? <i>If 'no', you may need to provide a report from a suitably qualified person with your application. Provide a table on your plans showing existing and proposed parking requirements.</i>	Yes	No	N/A	
Yes	No	N/A	Does the proposal comply with the relevant on-site car park dimensions, manoeuvring requirements and gradients for all parking spaces and driveways? <i>If 'no', you may need to provide a report from a suitably qualified person with your application.</i>	Yes	No	N/A	
Yes	No	N/A	Does the proposal involve works within the road reserve, a non-standard vehicle crossing or involve access in a defined road boundary, or an interchange area, or will it result in a significant impact on the roading network? <i>If 'yes', you may need to provide a report from a suitably qualified person and written approval from Auckland Transport with your application. Contact the development engineering team for further guidance.</i>	Yes	No	N/A	
Yes	No	N/A	Does the proposal involve a driveway that crosses the frontage of any neighbouring properties? <i>If 'yes', you will need to provide a civil legal agreement with the neighbour, and this agreement needs to be registered on the Certificate of Title of both properties.</i>	Yes	No	N/A	
Yes	No	N/A	Will the proposal generate a notable increase in traffic? <i>If 'yes', you may need to provide an Integrated Traffic Assessment from a suitably qualified person with your application.</i>	Yes	No	N/A	
Yes	No	N/A	Does the proposal involve access onto a state highway or contain signs facing a state highway? <i>If 'yes', you will need to get approval from NZTA. We recommend that you obtain comments before you lodge your application.</i>	Yes	No	N/A	
				Council use only			

Infrastructure and services				Entire section N/A			<input checked="" type="checkbox"/>
Customer Use (circle as appropriate)			Description	Council use only			
Yes	No	N/A	Are there high tension electricity powerlines (lines and/or pylons) over or adjacent to the subject site? <i>If 'yes', you may need to provide a confirmation from a suitably qualified person stating that any proposed buildings or earthworks comply with the required clearance requirements found in the New Zealand Code of Practice for Electrical Safe Distances (NZECP 34:2001). Contact Transpower on 0800 843 474 if you require further information.</i>	Yes	No	N/A	
Yes	No	N/A	Does the proposal require the separation or upgrading of any stormwater, wastewater or water lines? <i>If 'yes', you will need to provide an infrastructure report or capacity analysis from a suitable qualified person. Contact the council's development engineering team if you require further information.</i>	Yes	No	N/A	
Yes	No	N/A	Are any new public assets or alterations to existing public roading assets, e.g. shifting streetlights, creation of slip lanes and deviation of services, proposed? <i>If 'yes', you will need to provide a detailed description and assessment of these elements with your application.</i>	Yes	No	N/A	
Note: you must obtain council approval before you start building works over a public stormwater drain. You also need to obtain Watercare Services approval before building over a wastewater line or watermain.							
				Council use only			

Other requirements				Entire section N/A			<input type="checkbox"/>
Customer Use (circle as appropriate)			Description	Council use only			
<input checked="" type="checkbox"/>	No	N/A	Is the subject site located within the catchment of the Hauraki Gulf Islands as defined by the Hauraki Gulf Marine Park Act 2000? <i>If 'yes', you will need to assess the proposal with regard to the recognition of national significance and management of the Hauraki Gulf (sections 7 and 8) and included with the application.</i>	Yes	No	N/A	
Yes	<input checked="" type="checkbox"/>	N/A	For Waitakere and Rodney only: Is the subject site located within the Waitakere Ranges Heritage Area (WRHA)? <i>If 'yes', you will need to assess and address the purposes and objectives of the WRHA in your application.</i>	Yes	No	N/A	

Other requirements				Entire section N/A			<input type="checkbox"/>
Yes	<input checked="" type="checkbox"/>	N/A	Does the proposal trigger the requirement for a financial contribution? <i>If 'yes', you will need to provide a detailed description and assessment of these elements with your application</i>	Yes	No	N/A	
Yes	<input checked="" type="checkbox"/>	N/A	Does the proposal involve any dwelling or buildings adjacent to an activity where effects on the site from existing activities may be a relevant consideration, e.g. poultry farming, crop or market gardening activities, etc? <i>If 'yes', you will need to provide an appropriate assessment outlining any potential adverse effects of locating any proposed dwelling or building on any existing activity with your application</i>	Yes	No	N/A	
							Council use only

District area specific requirements

Hauraki Gulf Island Section:				Entire section N/A			<input checked="" type="checkbox"/>
Customer Use (circle as appropriate)			Description	Council use only			
Yes	<input type="checkbox"/>	N/A	Is the site situated within 100 metres of a significant ridgeline? <i>If 'yes', refer to Parts 10c.4.7 of the Auckland District Plan: Hauraki Gulf Islands Section and ensure that you have assessed the relevant matters adequately if required.</i>	Yes	No	N/A	
Yes	<input type="checkbox"/>	N/A	Is the site located in the coastal or water body protection yards? <i>If 'yes', refer to Parts 10c.5.7 of the Auckland District Plan: Hauraki Gulf Islands Section and ensure that you have assessed the relevant matters adequately if required.</i>	Yes	No	N/A	
Yes	<input type="checkbox"/>	N/A	Is the site located within a site of ecological significance or sensitive area? <i>If 'yes', refer to Part 7.11 PDP of the Auckland District Plan: Hauraki Gulf Islands Section and Chapter D9 of the PAUP Decisions Version and ensure that you have assessed the relevant matters adequately if required</i>	Yes	No	N/A	
							Council use only

Central Area Section:				Entire section N/A			<input checked="" type="checkbox"/>
Customer Use (circle as appropriate)			Description	Council use only			
Yes	<input type="checkbox"/>	N/A	Does the proposal comply with the general development controls of Part 6 of the Auckland District Plan Central Area Section? <i>If 'yes', indicate compliance or otherwise with the relevant controls. Where there is non-compliance, you will need to provide an adequate assessment.</i>	Yes	No	N/A	
							Council use only

North Shore Section:				Entire section N/A			<input checked="" type="checkbox"/>
Customer Use (circle as appropriate)			Description	Council use only			
Yes	<input type="checkbox"/>	N/A	Has the maximum impervious area been calculated and on-site stormwater management information been provided? <i>If 'yes', you must calculate these and provide the results with your application. Please refer to The On-Site Water Management Rules of the Auckland District Plan: North Shore Section and separate on-site stormwater management guidance notes. You will also need to refer to Practice Notes NS 01 and NS 02, complete the necessary form and submit it with your application.</i>	Yes	No	N/A	
							Council use only

Papakura Section:				Entire section N/A			<input checked="" type="checkbox"/>
Customer Use (circle as appropriate)			Description	Council use only			
Yes	<input type="checkbox"/>	N/A	Is the proposal in the vicinity of Ardmore Airport? <i>If 'yes', please provide information regarding compliance with Ardmore Airport Height Surfaces.</i>	Yes	No	N/A	
Yes	<input type="checkbox"/>	N/A	Is the proposal in the vicinity of Auckland Gliding Club? <i>If 'yes', please provide information regarding compliance with Auckland Gliding Club Approach Surface Height Restriction</i>	Yes	No	N/A	
							Council use only

Waitakere Section:				Entire section N/A			<input checked="" type="checkbox"/>		
Customer Use <small>(circle as appropriate)</small>			Description				Council use only		
Yes	No	N/A	Does the proposal involve the construction of new buildings or additions over 100m ² gross floor area providing for retail development, mixed use, apartments and/or medium density housing? <i>If 'yes', you will need to provide a site analysis with your application in accordance with Rule 2: Site Analysis contained within the Urban Design Rules.</i>				Yes	No	N/A
							Council use only		

Find out more: phone 09 301 0101 or visit www.aucklandcouncil.govt.nz

August 7, 2019

Auckland Council
The Team Leader – Resource Consents (Northern).

Attn. Ms Nicola Broadbent

Dear Nicola

Re: Coastal Permit Application – Auckland Offshore Sand Extraction Site

I write on behalf of our client, Kaipara Limited (Kaipara).

As discussed by phone earlier this week, Kaipara is seeking a new resource consent for the continued sand extraction at the Auckland Offshore Sand Extraction Site. This new consent will replace the current resource consent 20795. The same extraction volume is being sought but the area of sand extraction is greatly reduced from the currently consented area. Please note that this site is different from the McCullums Pakiri near-shore sand extraction site which is operated under a separate resource consent held by another party.

There have been earlier discussions with Alan Moore, Andrew Benson and Brooke Dales in respect to this application. It is hoped that Council can continue to use Brooke Dales as the Processing Planner given that he was earlier assigned by Council to undertake this role.

Please find enclosed three hard copies and one electronic copy of the application along with a cheque for the required deposit fee of \$4000.00.

May I suggest that once the Processing Planner and Council Specialists have reviewed the documentation that a meeting is held between our team and Councils team to go over any matters requiring clarification/questions prior to any s92 request being issued by Council. The applicant would be happy to agree to an extension of timeframes to allow for this meeting to occur.

We look forward to hearing from you shortly.

Sincerely,



David Hay
Planning Consultant

Ph: 09 425-9844

Mobile: 027 425-0234

Copy to: Kaipara Ltd, Attn. Mr Steve Riddell (by email)

Attachments: Cheque, 3 x Application; 1 x electronic copy of application; Application Form.

Applicant: Kaipara Ltd

Site: Auckland Offshore Sand
Extraction Site

Report Title: Resource Consent
Application and
Assessment of Effects on
the Environment for the
Continuation of Sand
Extraction

Report Date: July 2019

Report Version: Final



Table of Contents

1	Introduction	1
2	Description of the Sand Extraction Operation	4
3	Resource Consent Requirements	8
4	The Environmental Monitoring Management Plan and Proposed Monitoring	9
5	Assessment of Effects on the Environment	10
6	Assessment Against the Relevant Objectives and Policies of the AUPOP	17
7	Assessment under s104	25
8	Consultation and Notification	32
9	Recommended Conditions	35
10	Conclusion	41

Appendix One: Current Coastal Permit

Appendix Two: Sand Extraction Area Plans

Appendix Three: Draft Environmental Monitoring Management Plan

Appendix Four: Review of Coastal Processes Effects

Appendix Five: Assessment of Ecological Effects

Appendix Six: The Economic Contribution and Impact of Pakiri Sand Extraction

Appendix Seven: Pre-Dredging Heritage Assessments

Glossary

AEE	Assessment of Effects on the Environment
ASEA	Approved sand extraction sub-area
AUPOP	Auckland Unitary Plan – Operative in Part
Cell	Subdivisions of the Extraction Area as defined on the Beca Drawing 3233103-CA-011.
DoC	Depth of Closure
EMMP	Environmental Monitoring Management Plan
Extraction Area	The consented sand extraction area
Kaipara	Kaipara Ltd (the Consent Holder and Applicant)
MoU	Memorandum of Understanding between the Ngati Wai Trust Board and Kaipara Ltd
PSEA	Proposed Sand Extraction Area
PSEAR	Pre-Sand Extraction Assessment Report
SEMR	Sand Extraction Monitoring Report
The Act	The Resource Management Act 1991

1 Introduction

Kaipara Limited (Kaipara) currently holds resource consent 20795 (included in Appendix One) to extract up to 2,000,000 m³ of sand over a 20-year period from the seabed within an extraction area located offshore in the Outer Hauraki Gulf. In addition to the total permitted extraction volume of 2,000,000 m³ of sand, the consent also limits the extraction rate to 150,000 m³ per annum from between the western boundary (being the 25 m isobath) and the 30 m isobath. To date, this has been the main area of extraction and total extraction in any 12-month period has not exceed 150,000m³. Between the 30 m isobath and the eastern boundary of the sand extraction area there is no maximum annual sand extraction limit (with sand extraction limited by the total permitted extraction volume).

Kaipara has been operating under the current consent since February 2003 with the consent expiring in February 2023.

Kaipara is seeking a replacement consent to allow for the continued sand extraction but within a significantly reduced sand extraction area which generally reflects the area where actual sand extraction has taken place during the life of the current consent. The replacement consent is being sought now to provide long-term economic certainty for the sand extraction option and to provide for the implementation of the new proposed environmental monitoring programme. Within one month of the replacement consent being given effect to, the existing consent will be surrendered by Kaipara so that there is only one live consent covering the Auckland Offshore Sand Extraction Area.

The application is for the extraction of up to a total of 2,000,000m³ of sand (but no more than 150,000 m³ per 12-month period from between the 25 m and the 30 m isobath) from the Auckland Offshore Sand Extraction Area. A 20-year consent period is being sought. In effect, the only change from the current consent is that the sand extraction area has been significantly reduced in area and the western boundary has been modified to reflect the location of the 25 m isobath.

Site Location Details

The subject site is referred to as the Auckland Offshore Sand Extraction Site. Appendix Two includes a plan showing the proposed extraction area. The proposed extraction area has the following coordinates (which are shown on the Sand Extraction Site Plan included in Appendix Two):

Point	<u>New Zealand Transverse Mercator Projection</u>		<u>World Geodetic System 1984 (G1762)</u>	
	NZTM		WGS84	
	Easting (m)	Northing (m)	Latitude (D.D)	Longitude (D.D)
1	1758084.670	5990925.300	-36.21360013	174.75868134
2	1756328.790	5989464.690	-36.22704777	174.73944691
3	1751721.200	5994126.250	-36.18577335	174.68729716
4	1748945.940	5998824.360	-36.14386535	174.65555434
5	1747812.500	6000863.220	-36.12566455	174.64257762
6	1746958.060	6002961.330	-36.10688598	174.63269451
7	1748380.440	6004086.890	-36.09652603	174.64827925

Resource Consent Requirements and Application Documentation

Under the Auckland Unitary Plan – Operative in Part (AUPOP) the proposal is a discretionary activity and therefore requires a coastal permit from Auckland Council.

This report is the resource consent application and supporting Assessment of Effects on the Environment (AEE) for the coastal permit required for the continuation of the sand extraction from the Auckland Offshore Sand Extraction Site. This application and AEE have been prepared in accordance with s88 and the Fourth Schedule to the Resource Management Act 1991 (the Act) and the AUPOP.

A set of recommended conditions is included in Section Nine. The current consent requires an Environmental Monitoring Management Plan (EMMP) and it is recommended that such a document remains the main tool for documenting the monitoring methodologies and for the compilation of required monitoring records and other information. A new draft EMMP has been prepared and is included in Appendix Three.

The application includes the following specialist reports:

- Review of Coastal Processes Effects (Beca) (Appendix Four);
- Assessment of Ecological Effects (Bioresarches Ltd) (Appendix Five); and
- The Economic Contribution and Impact of Pakiri Sand Extraction (Market Economics Ltd) (Appendix Six).

This application has been lodged electronically.

Brief History of the Sand Extraction

The north-western area of the Hauraki Gulf has been an important source of sand since the 1950s. Due to its grain size, textural and mineralogical characteristics this sand was, and continues to be, the preferred choice for the construction and civil industries for the Auckland region. In addition, the sand can be efficiently transported to the centre of Auckland and then distributed from there.

There has been, and will continue to be, significant growth in demand for sand from within the Auckland economy. Sand is a key component within ready-mix concrete mixtures, with between 350 and 450 kilograms of sand used in each cubic metre of concrete. Concrete is used in many built forms to meet the needs of urban expansion, including for residential, business, and road construction.

Sand extraction in the Mangawhai-Pakiri embayment has historically been concentrated on the seabed at depths of 4-8m, on the seaward side of the longshore bar (i.e. the surf break zone) and also from the Mangawhai spit and the Mangawhai Harbour mouth. This was initially due to the limitations of dredging equipment needing to be in shallow water or land based.

In the 1990s there were four companies (Kaipara, McCullums, Sea Tow and Wilkinson) involved in extracting sand on their own licences in the Mangawhai-Pakiri embayment. At that time Council instigated a sand study in response to perceptions that mining could be having an effect on the beach.

When Kaipara undertook the process to obtain a new consent in the mid-1990's, although there were no conclusions from the Council Sand Study at that time, it undertook consultation with local residents and iwi regarding perceived perceptions of the effects of inshore mining on the amenity and physical changes of the beach and Kaipara instigated its own research. As a result of that, Kaipara applied for consent for deep-sea sand extraction only (i.e. below the 25 m isobath, which was determined as the DoC). A coastal permit was subsequently granted and Kaipara surrendered its existing inshore licence and since then has focussed exclusively on the Auckland Offshore Sand Extraction site.

This location of the Auckland Offshore Sand Extraction site and the subject of this resource consent application should therefore not be confused with the inshore sand extraction which occurs along the Pakiri coastline and which is undertaken under a separate consent held by a different party.

The Review of Coastal Processes Effects Report (Appendix Four) outlines the various studies undertaken in respect to sand extraction within the Mangawhai-Pakiri Embayment. In summary, the Environment Court (A066/2006 March 2006) has accepted that the Depth of Closure (DoC) is 25 m, and concluded that there was a total input of sediment to the nearshore system of the Mangawhai-Pakiri embayment as a whole of 150,000 m³ per year, with the total sand resource estimated at 1.7 to 3.0 billion m³.

2 Description of the Sand Extraction Operation

The proposal is for the continuation of sand extraction from the seabed, using a trailer suction dredge, from a reduced sand extraction area (the Auckland Offshore Sand Extraction Site).

The plan showing the sand extraction area which consent is being sought for is included in Appendix Two. The plan showing the proposed area and the current consented area is also included in Appendix Two. The new extraction area is approximately 44 km², compared to the existing area which totals 636 km². This reduced sand extraction area has been designed to provide adequate area to extract this volume with limited predicted effect on the resource and the environment, while ensuring that the area can be effectively monitored in the process.

The landward side of the sand extraction site (i.e the western boundary) is limited to a minimum depth of 25m while the depth at the seaward limited is approximately 40 m. This new western boundary is different from the existing consented western boundary as it now more closely follows the 25 m isobath.

The southern extent of the sand extraction area is approximately 3.8 km from the northern boundary of the Leigh Marine Reserve. The western boundary of the sand extraction area is between 1.2 km and 2 km from the shoreline.

A minimum isobath of 25 m for the western boundary of the extraction area has been selected as this equates to the depth of closure (DoC) in this vicinity as determined by the Environment Court (A066/2006 March 2006). The DoC is an indicator of the outer extent of significant seabed movement where there is limited interchange between the inner bar system and the outer shelf. On this basis, sand extraction from beyond the 25 m depth is unlikely to affect nearshore and beach processes. This is addressed further in the Review of Coastal Processes Effects Report (Appendix Four).

The sand from the extraction site is of a high quality, making it appropriate for all types of uses within the construction sector, especially for the production of ready-mix concrete. The sites geographic location and ease of long-term access to a high-quality sand resource, and the ability to deliver sand from the site to the Auckland in a low-cost manner, is ideally situated to help meet the growing demand for sand in Auckland, Northland and Waikato. Between 2016 and 2018 the typical monthly volume of sand extracted has been 20,500 m³, however the extracted volume has ranged from as high as 27,500 m³ in November 2016 to a low of 10,500 m³ in January 2018. The rate of sand extraction is only limited by the availability of suitable weather conditions and equipment breakdowns (in addition to the consent conditions).

Conventional suction dredging equipment and a self-propelled vessel will continue to be used at this site. The actual physical sand extraction is currently undertaken by McCullum Bros Ltd and this is expected to continue. As outlined further below, the current motorised barge (the Coastal Carrier) is to be used but may be replaced shortly by a new self-propelled barge (the William Fraser).

Description of the Sand Extraction Operation

Sand is extracted from the sea-floor using a trailer suction dredge. The dredge drag head is trailed behind the vessel and along the sea-floor. The nature of the drag head is such that it disturbs the surface sand to a depth of around 30 cm.

Suction is created via a sand pump that is halfway up the suction pipe between the seafloor and the surface. Water entering the drag head takes sand with it to create a slurry which is pumped through two flume pipes that have wire screens positioned on the bottom half of the flume pipe. The sand and water slurry passes over these screens with a portion passing through the screens into the hopper on board the vessel. Oversized material continues along the flume pipe and is ejected from the end of the flume pipe over the side of the vessel.

The velocity of the water and sand slurry entering the hopper slows and as it does so the sand settles out and the water with entrained superfine material is released back over the side over weir boards. As the sand continues to settle in the hopper and fill it further weir boards are put in place until the hopper is full.

The sand extraction to fill the barge take approximately two hours before the barge travels back to Auckland to off-load the sand.

The vessel is tracked during the dredging operation by DGPS.

The current sand extraction operation (for each sand extraction operation) has the following details with the depth of the dredging track being dependent on vessel speed and pump volume. Currently the vessel traverses approximately 10 km to fill a hopper with each track approximately 0.7m wide, 0.3m deep and triangular in shape. As new vessels and methodologies change so will the track dimensions

A new self-proposed barge is shortly to be commissioned (and is currently under construction). The following outlines the expected sand extraction details (but the exact details cannot be confirmed until the new barge is commissioned and operational):

- Width of sand dredging - average 1.8 m
- Depth of sand extraction - average 0.3 m
- The extraction track is expected to be more rectangular in shape.
- Extraction track length – approximately 3 km.
- Extraction speed - 1.2 kn (0.62 m/sec)
- Volume extraction – approximately 1600 m³
- Capacity of hopper = 1400 m³ (that is an 87-90% efficiency is now expected due to improved screening technology).

The exact depth which the new vessel can undertake sand extraction has not yet been confirmed but is expected to be in the order of down to 30-35 m. An outer extraction area depth of approximately 40 m is proposed in the event that changes in technology allow for the efficient sand extraction down to this depth in the near future.

Sand Extraction Areas

It is proposed to continue the requirement for an Environmental Monitoring Management Plan (EMMP) and the new draft EMMP is included in Appendix Three. This is more detailed than the currently approved EMMP.

The EMMP is a living document which outlines the monitoring methodologies, the approved sand extraction areas (within the consented sand extraction site) and is the depository for the required Pre-Sand Extraction Assessment Reports (PSEAR) and Sand Extraction Monitoring Reports (SEMR).

As further explained in Section Four of this report, there are three components to the proposed monitoring programme. These are:

- (i) The Pre-Sand Extraction Area Assessment;
- (ii) Sand Extraction Monitoring; and
- (iii) Sand Extraction and Vessel Tracking Monitoring.

Prior to sand extraction occurring within any area within the new consented sand extraction area, a Pre-Sand Extraction Assessment is required to be undertaken. This will:

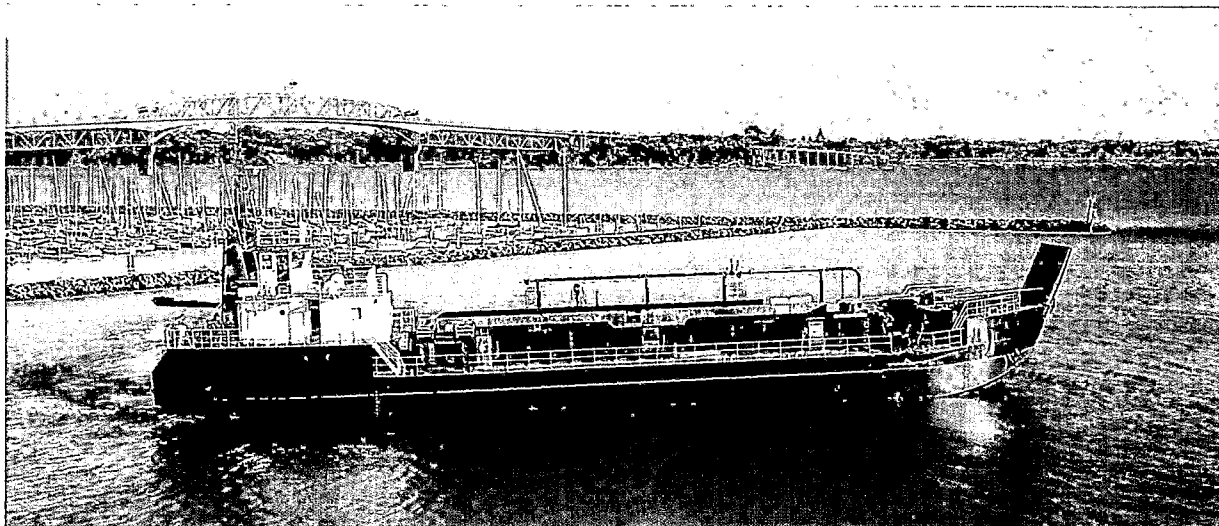
- identify those sub-areas within a Proposed Sand Extraction Area suitable for sand extraction. An area would be excluded from an approved sand extraction sub-area if it contains stony corals or significant shellfish beds; and
- provide the baseline information for the subsequent sand extraction monitoring.

Those areas identified as being suitable for sand extraction are referred to as approved sand extraction sub-areas (ASEA) and sand extraction is only permitted in those areas. The EMMP will include an updated plan showing those areas within the consented sand extraction area which are approved sand extraction sub-areas.

Management Cells

The proposed consented sand extraction area and the two control areas have been subdivided into cells. These cells will be the basis for controlling maximum volumes of sand extracted in any one area in a twelve-month period (being 40,000m³ in any twelve-month period) and will also be used for monitoring. There will be no sand extraction from the two control areas, and these have been identified specifically for monitoring purposes.

Appendix Two includes a plan showing the indicative management cells.



Photograph One: The Coastal Carrier.

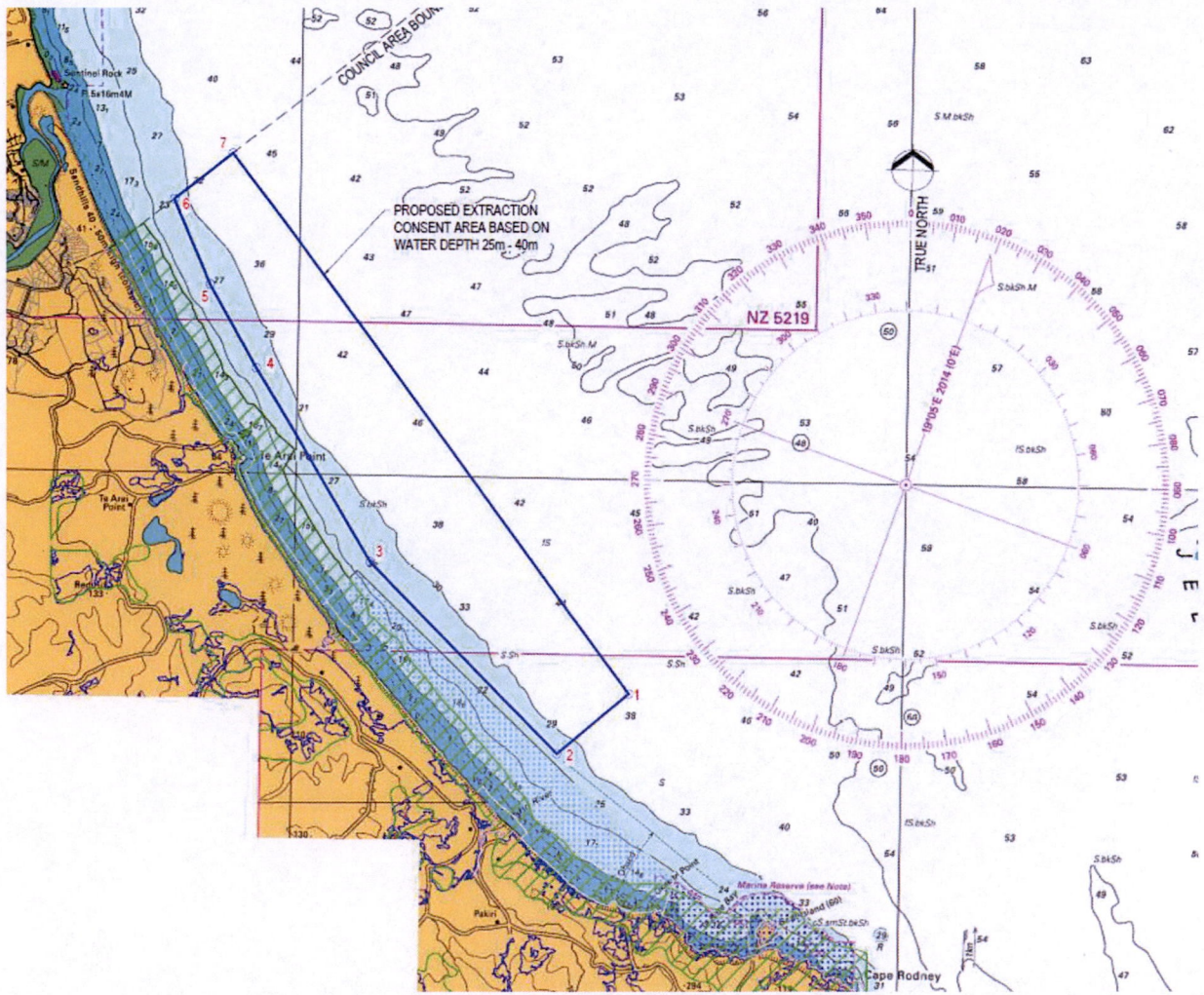


Figure One: The Proposed Sand Extraction Area (A Full Plan is Included in Appendix Two).

3 Resource Consent Requirements

The subject site is within the territorial boundaries of Auckland Council. The relevant statutory planning document is the Auckland Unitary Plan Operative in Part (AUPOP). Under the AUPOP the proposed sand extraction area is zoned General Coastal Marine Zone. There are no overlying overlays or controls which require consideration. The western edge of the sand extraction site (being the 25m isobath) avoids the following overlays:

- Significant Ecological Areas Overlay - SEA-M2-87a, Marine 2
- Outstanding Natural Landscapes Overlay - Area 22, Pakiri Beach
- Outstanding Natural Landscapes Overlay - Area 28, Coastline from Pakiri River to Omaha Cove
- Significant Ecological Areas Overlay - SEA-M1-86a, Marine 1

There are no listed surfbreaks in or immediately adjoining the sand extraction site.

Sand extraction falls within the scope of mineral extraction under the coastal provisions of the AUPOP. Mineral extraction (including any associated discharge of contaminants and water into water) in the General Coastal Marine Zone (and as modified by PC15) is a discretionary activity under F2.19.4(A28).

For clarification it is noted that the standards under F2.21 do not apply as the proposal is a discretionary activity.

It is noted that the northern control area is within the territorial boundaries of Northland Regional Council. No resource consents are required for the monitoring in this northern control area.

Additional Information Required under the AUPOP

The AUPOP under Rule F2.24 does not list any special information requirements required to be submitted with this application.

4 The Environmental Monitoring Management Plan and Proposed Monitoring

The current resource consent requires the preparation of an Environmental Monitoring Management Plan (EMMP) for areas where sand extraction is to occur. It is proposed to continue the requirement for an EMMP and the new draft EMMP is included in Appendix Three.

The EMMP is a living document which outlines the monitoring methodologies, the approved sand extraction areas (within the consented sand extraction site) and is the depository for the required Pre-Sand Extraction Assessment Reports (PSEAR) and Sand Extraction Monitoring Reports (SEMR).

As further explained later in this section, there are three components to the proposed monitoring programme. These are:

- (i) The Pre- Sand Extraction Area Assessment;
- (ii) Sand Extraction Monitoring; and
- (iii) Sand Extraction and Vessel Tracking Monitoring.

The objectives of the environmental monitoring are:

- 1 Pre-Sand Extraction Area Assessment Report
 - To identify those areas within a Proposed Sand Extraction Area suitable for sand extraction.
 - To provide the baseline information for the subsequent sand extraction monitoring.
- 2 Sand Extraction Monitoring Report
 - To identify any significant adverse effects on the environment.
 - To identify any changes required to the sand extraction method and timing to further minimise any identified significant adverse effects on the environment.
- 3 Sand Extraction and Vessel Tracking
 - To retain a record of sand extraction volumes and confirmation that the permitted sand extraction volumes are being complied with.
 - To identify when the sand extraction monitoring is required to be undertaken.
 - To retain a record of where sand extraction has been undertaken and confirmation that sand extraction has only been undertaken within approved sand extraction sub-areas.

The recommended conditions setting out the monitoring and reporting requirements are set out in Section Nine of this report. The detailed monitoring methodologies are set out in the EMMP (Appendix Three).

5 Assessment of Effects on the Environment

This section is the assessment of effects on the environment from the continuation of the sand extraction operation. Extensive investigations were undertaken as part of the application for the current consent and monitoring and assessments of the monitoring has been undertaken. The Ecological Assessment (Appendix Five) and Assessment of Coastal Processes (Appendix Four) largely draw upon these previous assessments and the monitoring to date and form the basis of this AEE. In addition, an Economic Assessment was commissioned and is included in Appendix Six and addressed further in this section.

This assessment firstly considers the permitted baseline and the existing environment. The positive benefits and then the potential seabed characteristics, ecological, noise, coastal processes, heritage, cultural and access/recreational effects are considered.

Permitted Baseline

Sand extraction is not provided for as a permitted activity in the AUPOP and there are no permitted comparable activities. It is therefore considered there is no permitted baseline which could be taken into account in the assessment of effects.

Existing Environment

The existing environment includes the coastal marine area as it currently exists, and those activities provided for by existing resource consents. The only relevant resource consent is the existing coastal permit for the sand extraction. This consent provides for extraction of up to 2,000,000 m³ within the current extraction area but limited to 150,000 m³ per twelve-month period from the extraction area between the western boundary of the extraction area and the 30 m isobath (but no annual limit in the area deeper than the 30 m isobath) and which remains live until February 2023.

The Review of Coastal Processes Effects Report (Appendix Four), describes the extraction area as:

"The Mangawhai-Pakiri embayment is a sandy, semi-exposed beach system on the East Coast, backed by an extensive dune complex extending 350 to 1200 m inshore of the active beach and 40 to 50 m high. The seaward extent of the active sediment movement processes, and the source and transport rates of the sand supply to this system have been traversed in some detail through extensive scientific study and evidence submitted for consent hearings. While there was no definitive consensus on these matters, the Depth of Closure, or general outer limit of sediment movement between the continental shelf and the nearshore beach system under all but extreme sea conditions was established as 25m depth below mean sea level (MSL)."

The Assessment of Ecological Effects (Appendix Five) describes the seabed the extraction area as:

"In general the seabed micro topography and condition shows a pattern that varies with increased depth and distance from shore, of;

- *fine sand with irregular small or no ripples inshore of the sand extraction areas,*
- *increasing sand size and ripple size with depth, across the sand extraction area,*
- *larger ripples with shell lag in the offshore section of the sand extraction area,*
- *back to longer period low ripples in deeper water beyond the sand extraction area."*

In terms of biota, the Ecological Assessment (Appendix Five) provides the following description:

"In general the biota is relatively sparse but over laying the sea bed types is a distribution of ecological habitat types, dominated by the following biota;

- *Sand dollar, paddle crab (low water spring – 0.3 km, depth 0 – 7 m)*
- *Sparse hermit crabs, heart urchins, starfish (0.4 – 0.9 km, depth 8 – 18m)*
- *Sparse Scallop bed (1.0 – 3.5 km, depth 18 – 40 m)*
- *Sparse Xenophora and sponge garden (4.0 – 6.5 km, depth ~ 45m)*
- *Worm eel garden (7.0 – 14.0 km, depth 47 – 60 m)”*

Assessment of Effects

The sand extraction operation has been described in Section Two of this report. In broad terms the suction dredging leaves a swathe (the trail mark) in the sand on the seabed (to a depth of approximately 30 cm) which is then slowly dispersed over time as a result of natural sediment movement on the seabed.

The sand extraction operation and its continuation have significant positive benefits to the Auckland community and these are addressed below. The ecological and coastal processes effects from the sand extraction along with potential noise effects are then assessed.

Given the nature of the proposal there are no visual, landscape, odour, vibration or other potential significant effects which require further consideration.

The sand extraction area is not within any shipping lanes and the normal maritime transportation rules apply. No maritime transportation matters require further consideration.

Positive Benefits

There has been, and will continue to be, significant growth in demand for sand from within the Auckland economy. Sand is a key component within ready-mix concrete mixtures, with between 350 and 450 kilograms of sand used in each cubic metre of concrete. Concrete is used in many built forms to meet the needs of urban expansion, including for residential, business, and road construction. Given the importance of concrete for the region's economy, Auckland's built future is effectively based upon sustainable sources of sand.

An Economic Assessment of the current and proposed sand extraction has been undertaken and is included in Appendix Six. This assessment concludes:

“The offshore Pakiri operation is ideally located in Auckland with access to up to 270,000 tonnes of high-quality sand annually. It is able to be barged into central Auckland at low cost. Pakiri's consent is set to expire in 2023, meaning that this deficit is required to be supplied from other sources. Due to its location, Pakiri is ideally set-up to deliver sand efficiently and cheaply to Auckland Central, as well as other parts of Northland and Waikato. Although there is theoretically enough capacity within other plants across the Auckland Region to meet the deficit caused by the expiry of the Pakiri consent, in practice this is likely to be relatively expensive and inefficient in terms of transport. Renewing the consent ensures a steady supply of high quality sand to different markets in the North Island, and requires no further infrastructural expansion or maintenance.

Under current projections, Auckland's demand for sand will rise from 450,000 tonnes in 2013 to between 710,000 and 890,000 tonnes annually by 2043. It has been noted that Auckland has relatively few sand extraction operations, and that the staggered expiry of these is only going to limit Auckland's ability to meet this growing demand. Currently Pakiri is Auckland's largest supplier by market share, indicating that it is the most efficient and viable option in terms of sand supply. If the consent here is not renewed, the shortfall is theoretically able to be assumed by other plants within Auckland, but only in the short-term (to 2027) and at a likely higher cost.

Finally, it has been shown that through renewal of Pakiri's consent, there may be a direct cost-saving of at least \$66m from the transport cost savings within Auckland between 2023 and 2043. This is based on the

direct road transport and environmental costs that come as a result of transporting the shortfall along the road network from Pakiri's nearest competitor in Helensville. The 94km round trip and a stable transportation cost of 15.57 cents per km tonne drive these estimates, as well as further costs due to vehicle emissions. This estimate is likely to be on the low side, as expiry of the Helensville plant consents in 2027 mean that transport distances will be increased. Note that any additional costs relating to road congestion and infrastructure wear-and-tear will further increase these estimates. Overall transport costs are significantly lower from the Pakiri extraction site, due to the nature and location of the operation allowing the sand to be efficiently transported to the required destination via barge.

The savings in transport costs represent the key economic impact of allowing the offshore operation at Pakiri to extend its consent, assuming that the other costs of production are constant between alternative locations."

Physical Characteristics of the Seabed

The physical characteristics of the seabed have been addressed in the Assessment of Ecological Effects (Appendix Five). In summary, this assessment has found:

"The Auckland Offshore Sand Extraction Site is located in an area of coarse grain sand (25-35 m water depth), a result of the long-term response to physical forces. The sediment characteristics at this depth (a band between 20 and 45 m deep, centred on 35 m) are the result of the maximum wave height climate (Black and Oldman, 1999). Previous reviews of international literature indicate that the most important factors relating to the magnitude of the biological impacts and recovery times due to dredging are,

- *the intensity of the disturbance (dredging);*
- *the sediment type being disturbed, and;*
- *the amount of exposure to natural disturbance (and thus sediment mobility) experienced at the dredge/rawl site (a review of this literature is presented in ASR, 2001).*

As a rule, the coarser the grain size and the higher the amount of natural exposure, the lower the likelihood of permanent changes to the seabed community due to dredging activities. Reduced impacts of this nature are predominantly due to the biota being already adapted to the harsh natural environment. Off the Pakiri coast the sediment type is coarse sand, and this material is mobile during large storms events/wave conditions as is evidenced by bed forms in the sand extraction and control areas (Healy et al., 1996; Riddle, 2000; ASR, 2003; ASR, 2006; Bioreserches, 2011; and section 4.1). The continuation of these features suggest that the sand extraction activity to date has had very little, if any, impact on the physical characteristics of the seabed. It has been shown that changes in grain size composition observed in Area 1 over time are not statistically significantly different to those changes observed in the Control area over time, therefore there has not been a measureable effect of sand extraction on the grain size composition."

Potential Ecological Effects

The Assessment of Ecological Effects (Appendix Five) concludes:

"Despite the lack of a complete set of before, after and control benthic biota data it has still been possible to determine that biota is not vastly different to that recorded prior to sand extraction. With the majority of the biota (crustacea) highly mobile and well adapted to abrasive, mobile sand substrates changes in biota were not expected as a result of the sand extraction process. However, some of the larger and less mobile biota have shown some changes. The horse mussel was present in beds in 2003 prior to sand extraction but has since declined to a few patchy juvenile individuals is potentially one example of a sand extraction disturbance effect. The opposite was recorded for scallops which were not recorded prior to sand extraction but have since increased in numbers and are wide spread throughout the area but are patchily distributed.

The current benthic biota communities in the sand extraction areas and the control area show remarkably similar proportions of the diversity of major taxa groupings (Figure 4.8), indicating little effect of sand extraction on the general species composition. However, Figure 4.8 shows that there are more crustaceans and fewer polychaete worms in the sand extraction area than the control area, suggesting crustaceans are better able

to survive the periodic disturbance of sand extraction than polychaete worms. Numbers of other species are largely unaffected.

Provided that the deep water sand extraction dredge operation or other factors do not result in physical change of depth or grain size, then it is expected that continued operation of the dredge at its current rate of sand extraction is not likely to cause ecological effects, beyond those observed to date."

Stony Corals have been identified in the sand extraction area and have been specifically addressed in the Assessment of Ecological Effects as follows:

"As part of the 2017 monitoring Stony corals were recorded from one location within the sand extraction area, prior to this Stony corals had not been recorded in the sand extraction area. Stony corals are protected under the 2010 amendment of the Wildlife Act (1953), and as such should not intentionally be removed from the sea bed. However given their size of approximately 5 mm diameter they should pass through the dredge and be discharged back to the seabed. Since it is possible they could be damaged by passage through the dredge it is recommended if they are known from an area, that this area be excluded from sand extraction until it has been shown they are no longer present."

Any areas identified during the PSEA as containing stony corals will not be an approved sand extraction sub-area (ASEA). Likewise any areas containing significant scallop or horse-mussel beds will also be excluded from sand extraction.

In terms of marine mammals, the Assessment of Ecological Effects has found:

"Marine mammals are not resident within the Auckland Offshore Sand Extraction Site, however they are likely to be transient, either moving from one area to another as part of a seasonal migration or foraging. The intermittent operation of the sand dredge is unlikely to have adverse effects on any cetaceans or pinnipeds present within the dredging area. The expected noise levels produced by the dredge are at worst only like to result in avoidance of the area while the dredge is in operation."

In respect to fin fish, the Assessment of Ecological Effects has found:

Fin fish may be affected by a number of factors related to the operation of the sand dredge, these include;

- *noise effects*
- *entrainment*
- *sub lethal effects from suspended sediment*
- *food source reduction.*

Underwater noise levels from the dredge are unknown but not expected to be significant. It is not expected that fish will be entrained into the dredge as the water flow will be targeted at sucking sediment up from the sea bed. It is expected that the mobile fish species present will avoid the sand dredged during operation and thus avoid entrainment.

Recent studies have identified that increased suspended solids in the water column is detrimental to juvenile snapper health in estuarine environments (Lowe, 2013). While the research was aimed at the effects of increased terrestrial sediment inputs, the discharge of fine marine sediments could have similar effects. The percentage of fine sediments in the seabed of the sand mining area is and has been low ranging from 0 – 3 percent meaning the amount of fine discharged from the sand dredge will be small and unlikely to adversely affect fish present.

Benthic biota forms the basis of many fish diets a reduction as a result sand extraction could potentially impact bottom feeding fish species. The benthic biota collected in deep water sand Area 1 over time does not suggest a decrease in abundance of biota, and comparison between the control area and Area 1 in 2017

suggest that dredging if anything increases the abundance of biota. Species present in the benthic biota may have changed over time but it is not clear if this is a result of sand extraction.

While the fish species present or likely to be present are ecologically and economically important the effects of the sand extraction are expected to be no more than minor."

Noise Effects

Underwater noise levels from the sand mining are not significant and have been addressed above and in terms of effects on marine mammals notes:

"The expected noise levels produced by the dredge are at worst only likely to result in avoidance of the area while the dredge is in operation."

The closest the Auckland Offshore Sand Extraction site is from the shoreline is 1.2 km and in most cases the operation will be barely audible from land. A condition on the noise level to be complied with at the adjoining coastline is proposed and reflects the requirements of the AUPOP.

There are no known complaints about noise from sand extraction activities undertaken under the current consent.

Coastal Processes

The Review of Coastal Processes Effects Report (Appendix Four) concludes:

"Based on the information available and within the limitations outlined in Section 1.2, it is concluded that:

- *The location of the offshore extraction zone established under Auckland Regional Council Consent Permit No 20795 (RCAN 0621) are such that they are largely independent of coastal sediment transport pathways identified for the Mangawhai-Pakiri embayment, and thus not likely to affect nearshore and beach processes.*
- *The current consent conditions provide for regular monitoring based on extracted volume milestones of; bathymetry, seabed features, sediment characteristics. Monitoring over the current consent has not conclusively identified any significant changes related to any of these characteristics resulting from the extraction.*
- *The effects of sand extraction revealed by the monitoring undertaken to date are considered to be minor in relation to bathymetric change, and difficult to detect in terms of seabed features and sand texture.*
- *The use of bathymetric survey methods to provide realistic reflection of extracted quantities over the large areas intended for extraction, or to infer quantitative values for or identify the effects of sediment transport processes in the deeper areas has to date been unsuccessful.*
- *The effects of continued extraction are likely to be confined to minor and well-distributed lowering of the seabed, subject to planning and implementation of the extraction management set out in the proposed consent conditions and draft EMMP included with the consent application. Shorter term effects are likely to arise as localised areas of cut resulting from drag head tracks, which are gradually restored by natural wave induced effects to a uniform bed level. The area of the proposed extraction site is approximately 44.2 km² and the recovery of 2,000,000m³ of sand is the equivalent of an increase of 250 mm of depth. This effect is not expected to have any observable influence on coastal processes, noting the 25-40 m water depth at the site.*
- *The seabed types/features (e.g. ripples) are considered to be formed and maintained as a result of the combination of wave action and water depth, and are expected to reform following temporary disturbance caused by extraction.*

- *Mean grain size changes in seabed sediment result from seasonal winnowing and redistribution of the finer fractions with changes in wave conditions. Such minor changes can be expected to continue, and are considered to be independent of the extraction processes.*
- *Components of the sediment transport processes and sediment budget for the embayment which may be active in the offshore areas include cross shelf transport and biogenic sand production. These inputs to the sediment budget are considered to be secondary and episodic, and unlikely to be affected by sand extraction from the offshore area."*

The assessment then makes the following recommendations in terms of mitigating potential effects:

"Mitigation of the effects of extraction in the deeper offshore areas can be achieved by management of the extraction process to limit localised effects. This is recognised by the Applicant in proposing much more closely controlled extraction management and monitoring procedures and methods under the renewed consent."

These recommendations are reflected in the proposed scope of the consent and recommended conditions (i.e. limiting sand extraction to the current rates) but with the addition of setting an extraction rate in every 12-month period in a specific cell.

Heritage Effects

Pre-dredging Heritage Assessments were undertaken by Clough and Associates for both Areas 1 and 2 and these are included in Appendix Seven. Neither assessment identified any heritage sites.

It is considered that it is very unlikely for there to be any heritage sites within the proposed extraction area and no further heritage assessment is considered to be required.

Effects on Cultural Values

As addressed further in Section Eight of this report, extensive iwi consultation was undertaken as part of the original application resulting in a MoU with the Ngati Wai Trust Board. As an outcome of that MoU process, a Project Agreement was entered into between the parties and cultural liaison has continued through the life of the current consent.

In respect to this new application consultation was initiated with Te Uri o Hau and Ngati Manuhiri. Cultural Impact Assessments from Te Uri o Hau and Ngati Manuhiri were commissioned but at the date of finalising this report, they had not been received. When received, these reports will be forwarded to Council.

Effects on Fishing and Recreational Activities

Based on the location of the sand extraction area, the sand extraction methodology and experience to date, no effects on fishing or other recreational activities (including scuba diving, sea-kayaking, sailing or motor-boating) is expected.

Concluding Statement

The general area of extraction has been subject to previous studies and monitoring over the life of the current consents and the ecological and coastal processes assessments has drawn upon these previous studies and monitoring.

The sand extraction area has been designed so that the depth of the seabed where sand extraction is to occur is below the DoC. This is to minimize the risk of adverse effects on the nearshore and adjoining coastline occurring. In addition, by having the western boundary at least 1.2 km off-shore avoids the various character and SEA overlays in the AUPOP.

It is recognised that stony coral and areas of significant shellfish beds may be located within the proposed consented sand extraction area and the location of these may change over time. The pre-sand extraction assessment monitoring is to identify if these are present and to exclude such areas from the approved sand extraction areas.

Taking into account the findings of the various assessments and the proposed monitoring (which will be implemented by way of consent conditions and a certified EMMP) it is considered that any adverse effects on the environment arising from the continued sand extraction will be no more than minor.

No changes to the existing environment, ecology, local coastal processes or the sand extraction methodology have been identified since the then Auckland Regional Council recommendation to the Minister of Conservation in October 1998, that the then coastal permit could be granted on the basis that the sand extraction would not have an adverse effect on the physical environment and any impact on marine ecology would be insignificant.

6 Assessment Against the Relevant Objectives and Policies of the AUPOP

In this section, the proposed continued sand extraction is assessed against the relevant objectives and policies of the Regional Coastal Policy Statement and the Coastal Regional Plan which form part of the Auckland Unitary Plan – Operative in Part (AUPOP)

Auckland Regional Policy Statement – Coastal Environment (B8)

B8.2. Natural character

B8.2.1. Objectives

- (1) *Areas of the coastal environment with outstanding and high natural character are preserved and protected from inappropriate subdivision, use and development.*
- (2) *Subdivision, use and development in the coastal environment are designed, located and managed to preserve the characteristics and qualities that contribute to the natural character of the coastal environment.*

B8.2.2. Policies

- (3) *Preserve and protect areas of outstanding natural character and high natural character from inappropriate subdivision, use and development by:*
 - (a) *avoiding adverse effects of activities on natural character in areas of the coastal environment scheduled as outstanding natural character; and*
 - (b) *avoiding significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on natural character in all other areas of the coastal environment.*
- (4) *Avoid significant adverse effects and avoid, remedy or mitigate other adverse effects on natural character of the coastal environment not identified as outstanding natural character and high natural character from inappropriate subdivision, use and development.*

Assessment

The sand extraction area is outside the following overlays of significant area identified in the AUPOP:

- Significant Ecological Areas Overlay - SEA-M2-87a, Marine 2
- Outstanding Natural Landscapes Overlay - Area 22, Pakiri Beach
- Outstanding Natural Landscapes Overlay - Area 28, Coastline from Pakiri River to Omaha Cove
- Significant Ecological Areas Overlay - SEA-M1-86a, Marine 1

Given the nature of the proposal and its potential effects it is considered that the proposed continuation of the sand extraction will not impact on the above overlays or the features they are protecting.

The assessments have concluded that the proposed continuation of sand extraction will not result in significant adverse effects. The use of a pre-sand extraction assessment process will identify any areas of stony corals and/or significant shellfish beds and ensure that sand extraction does not occur in those specific areas.

The proposal will not have significant adverse effects on those areas of the coastal environment which are not otherwise identified as having outstanding or high natural character.

B8.3. Subdivision, use and development

B8.3.1. Objectives

- (1) *Subdivision, use and development in the coastal environment are located in appropriate places and are of an appropriate form and within appropriate limits, taking into account the range of uses and values of the coastal environment.*
- (2) *The adverse effects of subdivision, use and development on the values of the coastal environment are avoided, remedied or mitigated.*
- (3) *The natural and physical resources of the coastal environment are used efficiently and activities that depend on the use of the natural and physical resources of the coastal environment are provided for in appropriate locations.*
- (6) *Conflicts between activities including reverse sensitivity effects are avoided, remedied or mitigated.*

B8.3.2. Policies

Use and development

- (1) *Recognise the contribution that use and development of the coastal environment make to the social, economic and cultural well-being of people and communities.*
- (3) *Provide for use and development in the coastal marine area that:*
 - (a) *have a functional need which requires the use of the natural and physical resources of the coastal marine area;*
 - (b) *are for the public benefit or public recreation that cannot practicably be located outside the coastal marine area;*
 - (c) *have an operational need making a location in the coastal marine area appropriate and that cannot practicably be located outside the coastal marine area; or*
 - (d) *enable the use of the coastal marine area by Mana Whenua for Māori cultural activities and customary uses.*
- (4) *Require subdivision, use and development in the coastal environment to avoid, remedy or mitigate the adverse effects of activities above and below the mean high water springs, including the effects on existing uses and on the coastal receiving environment.*
- (5) *Adopt a precautionary approach towards proposed activities whose effects on the coastal environment are uncertain, unknown or little understood, but could be significantly adverse.*

Assessment

The proposed sand extraction area is generally within the already consented area (except for part of the western boundary) but the area which consent is now being sought for has been significantly reduced in area to reflect that area where sand extraction can reasonably be expected to occur in the future. Given the depth of sand extraction being below the DoC, the sites history of sand extraction, the lack of significant habitats and features, the ability to monitor the site and its accessibility to the Auckland market, it is considered that the site is an appropriate area for continued sand extraction. In particular, sand extraction, site monitoring and delivery of sand to the Auckland market can be undertaken at this site in an efficient manner.

Sand extraction can be continued at this site in a manner which avoids significant adverse effects on the environment while also avoiding potential conflict with other coastal activities or creating the risk of reverse sensitivity effects.

Although sand extraction can and does occur at some land-based locations in Auckland, it is important that marine based sand extraction is allowed to continue in Auckland to meet the demand of the Auckland community. Furthermore, the location of the sand extraction site and the ability to transport the sand into the Auckland CBD without using land-based transportation improves the efficiency of the delivery of the sand to the central Auckland market.

Sand extraction at this site is located below the DoC depth which avoids the potential risk of effects on the coastline which can arise from near-shore sand extraction.

Given the history of sand extraction in this area, the studies undertaken for the original application, the monitoring and assessment undertaken during the life of the current consent and the latest assessments, it is considered that a precautionary approach is not required to be undertaken as the potential effects are well known.

B8.4. Public access and open space

B8.4.1. Objectives

- (1) *Public access to and along the coastal marine area is maintained and enhanced, except where it is appropriate to restrict that access, in a manner that is sensitive to the use and values of an area.*
- (3) *The open space, recreation and amenity values of the coastal environment are maintained or enhanced, including through the provision of public facilities in appropriate locations*

Assessment

The sand extraction operations do not impact on public access to and along the coastal marine area. Likewise, no existing open space, recreational or amenity values of the coastal environment are adversely affected by the continued sand extraction operation.

B8.5. Managing the Hauraki Gulf/Te Moana Nui o Toi/Tikapa Moana

B8.5.1. Objectives

- (1) *The management of the Hauraki Gulf gives effect to sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000.*
- (3) *Economic well-being is enabled from the use of the Hauraki Gulf's natural and physical resources without resulting in further degradation of environmental quality or adversely affecting the life-supporting capacity of marine ecosystems.*

B8.5.2. Policies Integrated management

- (1) *Require applications for use and development to be assessed in terms of the cumulative effect on the ecological and amenity values of the Hauraki Gulf, rather than on an area-specific or case-by-case basis. Maintain and enhance the values of the islands in the Hauraki Gulf.*
- (15) *Identify, maintain, and where appropriate enhance, areas of high recreational use within the Hauraki Gulf by managing water quality, development and potentially conflicting uses so as not to compromise the particular values or qualities of these areas that add to their recreational value.*

- (17) *Provide for commercial activities in the Hauraki Gulf and its catchments while ensuring that the impacts of use, and any future expansion of use and development, do not result in further degradation or net loss of sensitive marine ecosystems.*

Assessment

An assessment of the continued sand extraction against s7 and 8 of the Hauraki Gulf Marine Part Act is provided in the following section and concludes that the proposal is not contrary to the Act.

The continued sand extraction will have a positive economic effect as outlined in the Economic Assessment (Appendix Six). The sand extraction can be continued in manner which does not affect the environmental quality or the life-supporting capacity of the Hauraki Gulf.

No potential cumulative effects have been identified.

The proposal will not result in any further degradation of the coastal environment in this location or the net loss of sensitive marine ecosystems (and in particular the site is off-shore beyond the DoC while also being approximately 3.8 km from the Cape Rodney-Okakari Marine Reserve (Goat Island). The potential presence of stony coral and scallop and horse-mussel beds have been identified. The use of the pre-sand extraction assessment methodology will identify such areas and allow for such areas to be excluded from the approved sand extraction areas.

Regional Coastal Plan - General Coastal Marine Zone

Disturbance of the Foreshore and Seabed

Objectives F2.5.2.

- (1) *Use and development in the coastal marine area that has only short-term and minor impacts on the foreshore and seabed is enabled.*
- (2) *Activities that have long-term impacts or involve more than a minor level of disturbance avoid, remedy or mitigate adverse effects on natural character, ecological values, coastal processes, historic heritage and Mana Whenua values.*

Policies F2.5.3.

- (1) *Enable use and development in the coastal marine area that results in a minor level of disturbance to the foreshore and seabed, or that can be remedied by wave and tidal processes.*
- (2) *Provide for the disturbance of the foreshore and seabed outside areas identified as having significant values, for the purposes of the following:*
 - (b) *the operation, maintenance, repair, reconstruction and use of existing lawful structures, or infrastructure;*
 - (a) *the normal operation of vessels.*
- (4) *Limit the area of foreshore and seabed disturbance to the extent practicable and for the works to be done at a time of day or year, that will avoid, remedy or mitigate adverse effects on all of the following:*
 - (a) *the feeding, spawning and migratory patterns of marine and coastal fauna, including bird roosting, nesting and feeding;*
 - (b) *stability of coastal features such as dunes and coastal vegetation;*
 - (c) *public access, recreational and commercial use of the coastal marine area;*

- (d) *other established activities;*
 - (e) *traditional gathering, collection or harvest of kaimoana by Mana Whenua; and*
 - (f) *historic heritage and Mana Whenua values.*
- (5) *Require activities or works to be done by methods, at times and in conditions that will avoid, remedy or mitigate adverse effects arising from the release of sediment and contaminants into coastal water.*
- (6) *Avoid disturbance of the foreshore and seabed that will result in the following:*
- (a) *significant changes to natural coastal processes that will have adverse effects on surf breaks identified in Appendix 4 Surf breaks; an*
 - (b) *cause or exacerbate coastal erosion.*

Assessment

It is recognised that sand extraction has a short-term and minor impact on the immediate environment. Sand extraction tracks can generally be expected to be dispersed within 12 months as a result of natural sedimentation movement.

The proposed sand extraction area does not contain any significant values. As outlined earlier, stony corals and shellfish beds may be present in some areas but these can be identified and excluded from approved sand extraction sub-areas.

To meet the requirements of the Auckland community, sand extraction is required to be undertaken throughout the year. The current consent does not set limitation on sand extraction periods and likewise the assessments undertaken for this application did not identify the need to limit sand extraction periods (although sand extraction volumes will be limited in each cell).

The sand extraction site is well removed from any identified surf breaks.

The sand extraction area has been specifically located so that sand extraction is below the previously confirmed (and generally accepted) DOC so that it does not have the potential to cause or exacerbate coastal erosion along the Pakiri coastline.

Mineral Extraction

Objectives F2.6.2.

- (1) *The extraction of minerals, sand, shingle, shell, petroleum, and other natural material occurs in a manner that does not have significant adverse effects on the coastal marine area or near-shore environments.*

Policies [rcp] F2.6.3.

- (1) *Provide for the extraction of minerals, sand, shingle, shell, and other natural material from appropriate areas, having regard to the values of the area and the natural rate of sediment being deposited over sediment lost from the area where extraction is proposed.*
- (2) *Adopt a precautionary approach to applications for petroleum exploration and for mineral extraction within the coastal marine area, which may include using an adaptive management approach in terms of the following:*
- (a) *staging the operation;*

- (b) *the location of the activity;*
 - (c) *the maximum volume of minerals, sand, shingle, shell and other natural material to be extracted;*
 - (d) *the term of consent; or*
 - (e) *environmental monitoring.*
- (3) *Require applications for petroleum exploration or for mineral extraction to identify the significant adverse effects, and the extent to which they can be avoided, remedied or mitigated, for all of the following:*
- (a) *marine and coastal vegetation;*
 - (b) *marine and coastal fauna, including feeding, spawning and migratory patterns, bird roosting and nesting, fish and shellfish;*
 - (c) *water quality, including effects arising from sediment, turbidity or contaminants;*
 - (d) *habitats of a rare or endangered species;*
 - (e) *dune stability and coastal erosion;*
 - (f) *changes to the bathymetry, foreshore contours, sediment particle size or physical coastal processes;*
 - (g) *the values of significant surf breaks identified in Appendix 4 Surf breaks;*
 - (h) *recreation and amenity values of the area;*
 - (i) *established lawful activities in the area; and*
 - (j) *Mana Whenua values.*
- (4) *Require applications for petroleum exploration or mineral extraction in the coastal marine area to include measures to manage any adverse effects, including remediation and mitigation measures.*

Assessment

The sand extraction can continue to be undertaken in a manner which avoids significant adverse effects on the coastal marine area and the near-shore environment. Limiting the landward depth of the sand extraction area to below the DoC significantly reduces the risk of potential effects on the near-shore environments, as opposed to a near shore sand extraction operation.

The site is considered suitable for continued sand extraction given the volume of available sand, the relatively small volume of sand being extraction over a twenty-year period and the small extraction area.

An adaptive management approach is being undertaken through the implementation of the Environmental Monitoring Management Plan (EMMP). The EMMP has been addressed in detail in Section Four of this report and the draft EMMP is included in Appendix Three.

The assessment of effects has addressed those matters under (3) above relevant to this application. No potential significant adverse effects have been identified.

Use, Development and Occupation in the Coastal Marine Area

Objectives F2.14.2.

- (1) *The high public value of the coast and coastal marine area as open space area with free public access is maintained.*

Policies F2.14.3.

- (1) *Enable use and occupation of the common marine and coastal area to provide for use and development that:*
- (a) *has a functional or operational need to be below mean high water springs and may require public access to be restricted; or*
 - (b) *is necessary to provide for the use of the coastal marine area by Mana Whenua for Māori cultural activities and customary uses; and*
 - (c) *will not compromise or limit the operation of existing activities that have occupation rights within the common marine and coastal area.*

Assessment

Public access is not affected by the sand extraction operation. The extraction of marine sand has a functional and operational need to be located below mean high-water spring and in the coastal marine area. There are no other known activities which have occupation rights to occupy the proposed sand extraction area.

Noise

F2.18.2. Objective

- (1) *Underwater noise from identified activities is managed to maintain the health and well-being of marine fauna and users of the coastal environment.*

F2.18.3. Policies

- (3) *Enable the generation of underwater noise where that noise is associated with the following activities:*
- (a) *the operational requirements of vessels;*
 - (b) *construction or operation of marine and port activities, marine and port facilities, marina activities, marine and port accessory structures and services, maritime passenger facilities and dredging, that do not involve underwater blasting, impact and vibratory piling, or marine seismic surveys; and*
 - (c) *sonar not including marine seismic surveys.*

Assessment

The AUPOP specifically recognises and provides for noise general from the operational requirements of vessels and activities such as dredging. The sand extraction operation does not involve underwater blasting, impact or vibratory piling or marine seismic surveys. The proposal is not contrary to these underwater noise objectives and policies.

Concluding Statement

Having assessed the various relevant objectives and policies of the Regional Coastal Policy Statement and the Coastal Plan components of the AUPOP, it is considered that the proposed continuation of the sand extraction within the reduced sand extraction area is not contrary to the relevant objectives and policies. In

particular, the continued sand extraction operation will not result in potential significant adverse effects and can be undertaken in a manner where public access to and along the CMA is not restricted and no other existing uses are adversely affected or constrained.

7 Assessment under s104

When considering the application Council must have regard to the matters listed under Section 104(1) of the Act. This assessment firstly considers the matters listed under s104(1) then gives consideration to Part 2 of the Act.

1(a) Actual or Potential Effects on the Environment

An assessment of effects has been undertaken in Section 5 of this report and, in part, is based on the various specialist assessments. This concludes the continued sand extraction at the Auckland Offshore Sand Extraction Site will not result in significant adverse effects. The benefits of the sand extraction and the efficient supply of sand to the Auckland community has also been addressed.

1(ab) Measures Proposed by the Applicant

The applicant proposes to continue with the requirement for a living EMMP to be implement at all times. A draft of the new EMMP is included in Appendix Three. This EMMP outlines the objectives of the monitoring programme and the monitoring methodology details.

Section Nine of this report outlines a set of recommended conditions.

1(b) Relevant Provisions of Various Statutory Documents

The following section outlines the various statutory documents which it is considered require consideration by Auckland Council when processing the application.

Hauraki Gulf Marine Park Act 2000

In terms of the Hauraki Gulf Marine Park Act 2000 it is considered:

- S7 of the Act recognises that the resources of the Hauraki Gulf (which includes sand) can be used for economic activity. The proposal is consistent with that and can be undertaken in a manner which does not adversely impact on the life-supporting capacity of the Hauraki Gulf.
- The continued sand extraction operation is not contrary to s8 of the Act. It is considered that the sand extraction can be continued in a manner which does not adversely affect the life-supporting capacity of the Hauraki Gulf or its islands. In addition, no significant natural, physical (including kaimoana) or historic features will be adversely affected by the continued sand extraction. The continued sand extraction will maintain the economic contribution this operation makes to the economic well-being of the Auckland community.

National Environmental Standards

There are no national environmental standards requiring consideration.

Other Regulations

There are no regulations relevant to this proposal.

National Policy Statements

The New Zealand Coastal Policy Statement 2010 is of direct relevance to this application and is now assessed.

Objective 1

To safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems, including marine and intertidal areas, estuaries, dunes and land, by:

- *maintaining or enhancing natural biological and physical processes in the coastal environment and recognising their dynamic, complex and interdependent nature;*
- *protecting representative or significant natural ecosystems and sites of biological importance and maintaining the diversity of New Zealand's indigenous coastal flora and fauna; and*
- *maintaining coastal water quality, and enhancing it where it has deteriorated from what would otherwise be its natural condition, with significant adverse effects on ecology and habitat, because of discharges associated with human activity.*

Assessment

Sand extraction from the sand extraction area has been monitored under the current consent and analysed. In addition, extensive investigations were also undertaken for the earlier resource consent application. The biological and physical nature of the area and coastal processes are therefore well known.

Based on this existing information, assessments of likely effects arising from the continued sand extraction has been possible and no potential significant adverse effects on the ecological, water quality or natural coastal processes have been identified.

It is therefore considered that the integrity, form, functioning and resilience of the coastal environment will not be adversely affected by the continued sand extraction.

Objective 3

To take account of the principles of the Treaty of Waitangi, recognise the role of tangata whenua as kaitiaki and provide for tangata whenua involvement in management of the coastal environment by:

- *recognising the ongoing and enduring relationship of tangata whenua over their lands, rohe and resources;*
- *promoting meaningful relationships and interactions between tangata whenua and persons exercising functions and powers under the Act;*
- *incorporating mātauranga Māori into sustainable management practices; and*
- *recognising and protecting characteristics of the coastal environment that are of special value to tangata whenua.*

Assessment

The applicant undertook extensive iwi consultation as part of the original consent application which resulted in a Memorandum of Understanding (MoU) with the Ngati Wai Trust Board. This MoU remains in place and there remains dialogue between the applicant and the Trust Board.

The applicant sought new cultural impact assessments from Te Uri o Hau and Ngati Manuhiri but to date these have not been received.

The applicant is aware that there are various customary marine title claims covering the sand extraction area and claimants have been advised of this application as required under the Marine and Coastal Area (Takutai Moana) Act 2011.

Objective 4

To maintain and enhance the public open space qualities and recreation opportunities of the coastal environment by:

- *recognising that the coastal marine area is an extensive area of public space for the public to use and enjoy;*
- *maintaining and enhancing public walking access to and along the coastal marine area without charge, and where there are exceptional reasons that mean this is not practicable providing alternative linking access close to the coastal marine area; and*
- *recognising the potential for coastal processes, including those likely to be affected by climate change, to restrict access to the coastal environment and the need to ensure that public access is maintained even when the coastal marine area advances inland.*

Assessment

The sand extraction operation does not impact on public access to the coastal environment or recreational opportunities. The barge is generally undertaking sand extraction within the sand extraction area for a two-hour period before departing to Auckland to off-load. Generally during a one-week period, the barge can be expected to be undertaking the sand extraction for approximately 20 hours. There is no restriction on the hours which the sand extraction can occur. During sand extraction operations there is no restriction on public access to that part of the coastal marine area.

Objective 6

To enable people and communities to provide for their social, economic, and cultural wellbeing and their health and safety, through subdivision, use, and development, recognising that:

- *the protection of the values of the coastal environment does not preclude use and development in appropriate places and forms, and within appropriate limits;*
- *some uses and developments which depend upon the use of natural and physical resources in the coastal environment are important to the social, economic and cultural wellbeing of people and communities;*
- *functionally some uses and developments can only be located on the coast or in the coastal marine area;*
- *the coastal environment contains renewable energy resources of significant value;*
- *the protection of habitats of living marine resources contributes to the social, economic and cultural wellbeing of people and communities;*
- *the potential to protect, use, and develop natural and physical resources in the coastal marine area should not be compromised by activities on land;*
- *the proportion of the coastal marine area under any formal protection is small and therefore management under the Act is an important means by which the natural resources of the coastal marine area can be protected; and*
- *historic heritage in the coastal environment is extensive but not fully known, and vulnerable to loss or damage from inappropriate subdivision, use, and development.*

An Economic Assessment has been undertaken of the proposal and concludes:

“The offshore Pakiri operation is ideally located in Auckland with access to up to 270,000 tonnes of high-quality sand annually. It is able to be barged into central Auckland at low cost. Pakiri’s consent is set to expire in 2023, meaning that this deficit is required to be supplied from other sources. Due to its location, Pakiri is ideally set-up to deliver sand efficiently and cheaply to Auckland Central, as well as other parts of Northland and Waikato. Although there is theoretically enough capacity within other plants across the Auckland Region to meet the deficit caused by the expiry of the Pakiri consent, in practice this is likely to be relatively expensive and inefficient in terms of transport. Renewing the consent ensures a steady supply of high quality sand to different markets in the North Island, and requires no further infrastructural expansion or maintenance.

Under current projections, Auckland’s demand for sand will rise from 450,000 tonnes in 2013 to between 710,000 and 890,000 tonnes annually by 2043. It has been noted that Auckland has relatively few sand extraction operations, and that the staggered expiry of these is only going to limit Auckland’s ability to meet this growing demand. Currently Pakiri is Auckland’s largest supplier by market share, indicating that it is the most efficient and viable option in terms of sand supply. If the consent here is not renewed, the shortfall is theoretically able to be assumed by other plants within Auckland, but only in the short-term (to 2027) and at a likely higher cost.

Finally, it has been shown that through renewal of Pakiri’s consent, there may be a direct cost-saving of at least \$66m from the transport cost savings within Auckland between 2023 and 2043. This is based on the direct road transport and environmental costs that come as a result of transporting the shortfall along the road network from Pakiri’s nearest competitor in Helensville. The 94km round trip and a stable transportation cost of 15.57 cents per km tonne drive these estimates, as well as further costs due to vehicle emissions. This estimate is likely to be on the low side, as expiry of the Helensville plant consents in 2027 mean that transport distances will be increased. Note that any additional costs relating to road congestion and infrastructure wear-and-tear will further increase these estimates. Overall transport costs are significantly lower from the Pakiri extraction site, due to the nature and location of the operation allowing the sand to be efficiently transported to the required destination via barge.

The savings in transport costs represent the key economic impact of allowing the offshore operation at Pakiri to extend its consent, assuming that the other costs of production are constant between alternative locations.”

It is therefore considered that this proposal is not contrary to objective 6. In particular, an efficient and affordable sand supply is critical for the economic well-being of the Auckland community. The sand extraction at this site can be undertaken in a manner where significant adverse effects on the coastal environment are avoided and will not affect any protected coastal areas.

Policies

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

In taking account of the principles of the Treaty of Waitangi (Te Tiriti o Waitangi), and kaitiakitanga, in relation to the coastal environment:

- (a) recognise that tangata whenua have traditional and continuing cultural relationships with areas of the coastal environment, including places where they have lived and fished for generations;*
- (c) with the consent of tangata whenua and as far as practicable, in accordance with tikanga Māori, incorporate mātauranga Māori¹ in regional policy statements, in plans, and in the consideration of applications for resource consents, notices of requirement for designation and private plan changes;*
- (e) take into account any relevant iwi resource management plan and any other relevant planning document recognised by the appropriate iwi authority or hapū and lodged with the council, to the extent that its content has a bearing on resource management issues in the region or district; and*

Assessment

As outlined earlier, the applicant has a MoU with the Ngati Wai Trust Board and has continued dialogue with the Trust Board during the life of the current consent. The applicant requested new Cultural Impact Assessments from Te Uri o Hau and Ngati Manuhiri but to date has not received them.

Policy 3 Precautionary approach

- (1) *Adopt a precautionary approach towards proposed activities whose effects on the coastal environment are uncertain, unknown, or little understood, but potentially significantly adverse.*
- (2) *In particular, adopt a precautionary approach to use and management of coastal resources potentially vulnerable to effects from climate change, so that:*
 - (a) *avoidable social and economic loss and harm to communities does not occur;*
 - (b) *natural adjustments for coastal processes, natural defences, ecosystems, habitat and species are allowed to occur; and*
 - (c) *the natural character, public access, amenity and other values of the coastal environment meet the needs of future generations.*

Assessment

Given the history of sand extraction, previous studies undertaken for the original application, the monitoring and assessment undertaken under the current consent and the further assessments undertaken for this application it is considered that a precautionary approach is not required to be undertaken as the likely potential effects on the environment are known and have been assessed.

It is considered that the resource or method of extraction is not vulnerable to climate change effects.

Policy 6 Activities in the coastal environment

- (1) *In relation to the coastal environment:*
 - (a) *recognise that the provision of infrastructure, the supply and transport of energy including the generation and transmission of electricity, and the extraction of minerals are activities important to the social, economic and cultural well-being of people and communities;*
 - (b) *consider the rate at which built development and*
- (2) *Additionally, in relation to the coastal marine area:*
 - (a) *recognise potential contributions to the social, economic and cultural wellbeing of people and communities from use and development of the coastal marine area, including the potential for renewable marine energy to contribute to meeting the energy needs of future generations;*
 - (b) *recognise the need to maintain and enhance the public open space and recreation qualities and values of the coastal marine area;*
 - (c) *recognise that there are activities that have a functional need to be located in the coastal marine area, and provide for those activities in appropriate places;*

Assessment

The proposal is for mineral extraction which as outlined earlier is important for the continued economic well-being of the Auckland community.

The AUPOP Including the Auckland Regional Policy Statement

The relevant objectives and policies of the Regional Coastal Policy Statement and the Regional Coastal Plan in the AUPOP has been assessed in Section Six of this report. It has been concluded that the proposal is not contrary to either the Regional Coastal Policy Statement or the Regional Coastal Plan.

Sea Change - Tai Timu Tai Pari (Hauraki Gulf Marine Spatial Plan)

Sea Change – Tai Timu Tai Pari is a collaborative and co-governance process tasked with preparing a marine spatial plan for Tikapa Moana / Te Moananui- ā-Toi (the Hauraki Gulf Marine Park). Sea Change – Tai Timu Tai Pari has produced a marine spatial plan through a collaborative, stakeholder-led, co-governance process, with the involvement of many people who live, work, and play, in and around the Hauraki Gulf Marine Park and its catchments.

The Marine Spatial Plan aims to improve the health, mauri (life force and vitality), and abundance of the Hauraki Gulf Marine Park by:

- Restoring depleted fish stocks and restoring benthic (sea floor) habitats that support healthy fisheries.
- Reducing the impacts of sedimentation and other land-based activities on water quality.
- Recognising and protecting cultural values.
- Enhancing the mauri of the Hauraki Gulf Marine Park.
- Protecting representative marine habitats.
- Promoting economic development opportunities for the Hauraki Gulf Marine Park while ensuring marine environments are restored.

Given the location of the sand extraction area, the method of sand extraction and the potential effects arising from the sand extraction (including the positive effects from the efficient supply of sand to the Auckland community) it is considered that the proposal is not contrary to the Sea Change Plan.

1(c) Any Other Matters

No other matters have been identified with are considered appropriate to consider when assessing this application.

Assessment against Part 2 - Purpose and Principles of the Act

The author is unaware of any reasons why the relevant planning provisions in the AUPOP cannot be relied upon and recourse is needed to be made to Part 2 of the Act. However, for completeness an assessment against Part 2 is provided below in the event that Council draws the conclusion that Part 2 requires specific consideration in respect to this application.

It is considered that the proposal is consistent with the purpose and principles of the Act. It is firstly noted that sand is a mineral and therefore is excluded from (a) (sustaining the potential of natural and physical resources).

In respect to (b), based on the assessments undertaken the continued sand extraction will not impact on the life-supporting capacity of the coastal environment including the ecosystems it supports.

Turning to (c), the proposal avoids or mitigates potential adverse effects on the environment. An extensive monitoring programme is proposed to assess sand extraction areas to avoid areas where stony corals or significant shellfish beds are present and to monitor the effects of the sand extraction.

In terms of s6, the continued sand extraction will not adversely impact on the natural character of the coastal environment and sand extraction is a long-established and accepted activity within this part of the coastal

marine area. The sand extraction does not occur within an area with identified outstanding natural features, landscapes, vegetation or habitats. Furthermore, the sand extraction activity does not impact on public access to and along the coastal marine area. The applicant is fully aware of the relationship between Ngati Wai and the area and has a MoU with the Ngati Wai Trust Board.

In respect to s7, as outlined above the applicant has a MoU with the Ngati Wai Trust Board. It is considered that sand extraction in this area is an efficient use of the sand resource and can be undertaken in a manner which does not significantly impact on amenity values, the intrinsic values of ecosystems and the quality of the environment.

Finally in terms of s8, those parties with applications under the Marine and Coastal Area (Takutai Moana) Act 2011 have been advised of this application.

8 Consultation and Notification

Iwi Consultation

Extensive iwi consultation was undertaken by the applicant as part of the 1997 application. This included the preparation of the report, "Consultation with Tangata Whenua and Pakiri Landowners" (L. Haddon, August 1998). Mr Haddon (now deceased) was from Ngati Manuhiri (which is based at Pakiri) which is a hapu of Ngati Wai.

An outcome of that process was the signing of a Memorandum of Understanding (MoU) and a supporting Project Agreement between Kaipara Ltd and the Ngati Wai Trust Board (which was representing the iwi in the area at that time) (both dated 23 September 1998). To enable Ngati Wai to participate in liaison and in consideration of the provision of any specialist cultural advice or recommendations and to recognise their general role as Kaitiaki, Kaipara Ltd pays a cultural liaison fee to the Trust Board based on the volume of sand extracted.

A new cultural impact assessment has since been sought from Te Uri o Hau (Environs) and Ngati Manuhiri (through the Manuhiri Kaitiaki Charitable Trust) but these assessments have not been received to date.

No other consultation has been undertaken in respect to this application.

Consultation under The Marine and Coastal Area (Takutai Moana) Act 2011

Under s62 of the Marine and Coastal Area Act, those parties who have an application in for customary rights are to be notified by the applicant of any applications for coastal permits.

The following parties were identified as having applications that may cover the proposed sand extraction area:

- Te Uri o Hau
- Taumata A Whanau
- Taumata B Block Whanau
- Taumata B Block Whanau – Matairehe
- Taumata B Block Whanau – Omaha 1
- Taumata B Block Whanau – Pakiri T
- Taumata B Block Whanau – Pakiri U
- Taumata B Block Whanau – Rangiahau
- Te Iwi, whanau and hapu of Ngatiwai
- Mahinepua Reserve Ririwha Trust
- Ngai Tai ki Tamaki Trust
- Nga Puhi Nui Tonu (Maungarei Marae)
- Nga Puhi Nui Tonu (Te Kotahitanga Marae)

- Nga Puhi Nui Tonu (Waitangi Marae)
- Nga Puhi Nui Tonu (Awataha Marae)
- Nga Puhi Nui Tonu-Kota-Toka-Tutaha-Moana o Whaingaroa
- Ngati Kawau & Te Waiariki Koroa
- Ngati Manuhiri
- Te Kaunihera Maori o Te Tai Tokerau
- Te Kawerau a Maki
- Te Parawhau Hapu
- Ngati Wai Whairepo Trust
- Ngati Whanaunga
- Pakiri G Trust
- Nga Hapu o Ngai Tahu
- Nga Puhi, Ngati Wai, Haki Pereki and Ngawhetu Sadler Whanau Trust

These parties were notified of the application by email on the 31st of July 2019 (or thereabouts) provided a copy of this AEE.

Notification Assessment under Section 95

Section 95A of the Act sets out the steps a consenting authority must follow in order to determine whether to publicly notify an application.

In terms of 95A(3)(a), the applicant does not request public notification.

In terms of 95A(3)(b), at this stage there are no matters which now trigger the requirement to notify the application.

Turning to Step 2 under s95(A):

In terms of 95(5)(a), there are no specific rules or national environmental standards precluding notification.

In terms of s95(5)(b), the application is not for a controlled activity or relates to subdivision, boundary adjustments or a boundary activity. The consideration of notification therefore goes to Step 3.

Turning to Step 3 under s95(A):

In terms of s95(8)(a) there are no specific rules or national environmental standards requiring notification of the applications.

In terms of s95(8)(b), it has been determined in this assessment of effects on the environment that any adverse effects will be minor or less than minor. Notification is therefore not triggered in terms of adverse effects on the environment being more than minor.

Turning to Step 4 under s95(A)

In terms of s95(9), no special circumstances have been identified which warrant the application being publicly notified. In particular there is nothing exceptional or unusual about the application (it is for the continuation of an existing and long-established sand extraction operation at the same volume as at present), the application contains adequate information about the proposal and its potential effects and public notification will not result in additional relevant or useful information being received which is required to inform the substantive decision making processing.

Therefore the application does not require to be publicly notified.

Subsequently, s95B of the Act must be considered in terms of whether or not there is a need to notify the application on a limited basis.

In terms of s95(B) (2) there are no customary rights orders or customary marine title groups in place in the vicinity of the subject site.

Likewise in terms of s95(B)(3), the proposal is not on land subject to or adjacent to, or may affect, land that is subject to a statutory acknowledgement.

Turning to Step 2 under s95(B), the application is not for a controlled or prescribed activity.

Turning to Step 3 under s95(B)

In terms of s95(B)(7), consent is not being sought for a boundary activity or a prescribed activity.

In terms of s95(B)(8) it is considered that there are no parties affected in terms of s95(E). In respect to s95E it is considered:

- 1 The sand extraction operation does not impact on any other specific users of the coastal marine area.
- 2 The sand extraction operation does not limit public access to or along the coastal marine area.
- 3 The sand extraction occurs at a depth below the DoC and there is a very low risk that it may result in adverse effects on the near-shore and the adjoining coastline.
- 4 The sand extraction area is at least 1.2 km from the coastline and there will be no noise or visual effects on users of the adjoining coastline.
- 5 The sand extraction area is approximately 3.8 km from the northern boundary of the Cape Rodney-Okakari Marine Reserve.
- 6 No coastal processes effects have been identified that may affect any party (including other users of the CMA and/or foreshore) to a minor or more than minor degree.
- 7 No ecological effects have been identified that may affect any party to a minor or more than minor degree.

Finally in terms of Step 4, no other parties have been identified where it is considered that circumstances may apply which warrant the limited notification of the application to those parties. As outlined earlier, the application is for the continuation of an existing and long-established sand extraction operation. This sand extraction operation has been monitored through the life of the current consent and no significant adverse effects have been identified through this monitoring programme.

It is therefore concluded that the application can be processed and determined on a non-notified basis.

Under s89 of the Act, this application is to be forwarded by Council to Maritime New Zealand for comment. This is not a notification requirement.

9 Recommended Conditions

This section outlines the recommended conditions. These recommended conditions include the standard general Auckland Council conditions, set the extraction area, volumes and methodology then focus on the monitoring and reporting requirements. A draft of the Environmental Monitoring Management Plan (EMMP) referred to in Condition 17, is included in Appendix Three. This provides the detailed monitoring methodologies and provides for the flexibility for this monitoring to be modified over time (and any such modifications requiring Auckland Council approval) rather than having this technical detail in consent conditions which may require modifications under s127 of the Act if the monitoring methodology was to be modified over time.

Consent Glossary

ASEA	Approved sand extraction sub-area.
Cell	Subdivisions of the Extraction Area as defined on the Beca Drawing 3233103-CA-011.
EMMP	Environmental Monitoring Management Plan
Extraction Area	The consented sand extraction area as defined by the following coordinates:

Point *New Zealand Transverse Mercator Projection* *World Geodetic System 1984 (G1762)*

	NZTM		WGS84	
	<i>Easting (m)</i>	<i>Northing (m)</i>	<i>Latitude (D.D)</i>	<i>Longitude (D.D)</i>
1	1758084.670	5990925.300	-36.21360013	174.75868134
2	1756328.790	5989464.690	-36.22704777	174.73944691
3	1751721.200	5994126.250	-36.18577335	174.68729716
4	1748945.940	5998824.360	-36.14386535	174.65555434
5	1747812.500	6000863.220	-36.12566455	174.64257762
6	1746958.060	6002961.330	-36.10688598	174.63269451
7	1748380.440	6004086.890	-36.09652603	174.64827925

PSEA	Proposed Sand Extraction Area
PSEAR	Pre-Sand Extraction Assessment Report
SEMR	Sand Extraction Monitoring Report.

Activity in accordance with application

- 1 The sand extraction activity shall be carried out in accordance with the plans and all information submitted with the application, detailed below, and all referenced by the Council as consent number (TBC).

Application form, and assessment of environmental effects prepared by Osborne Hay (North) Limited, July 2019.

Report title and reference	Author	Rev	Dated
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(TBC)

Plan title and reference	Author	Rev	Dated
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(TBC)

Other additional information	Author	Rev	Dated
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(TBC)

Extraction area

- 2 Sand extraction shall be limited to the approved extraction sub-areas (ASEA) (under Condition 3) within the extraction area as defined on the Beca Drawing 3233103-CA-010. The extent of the extraction area is defined by the co-ordinates numbered 1 to 7 in the Chart References included on the Beca Drawing 3233103-CA-010.
- 3 Within twelve months prior to the commencement of sand extraction within the extraction area, a pre-sand extraction assessment report (PSEAR) is to be prepared for an area where sand extraction is proposed in accordance with Condition 10 and is to include those sub-areas identified as approved for sand extraction (ASEA). This PSEAR is to also be completed for any PSEA where sand extraction has occurred previously but has not been undertaken within that PSEA for a period of greater than 12 months, unless agreed otherwise with the Team Leader North-West Monitoring.

When the consent lapses

- 4 Under section 125 of the RMA, this consent lapses five years after the date it is granted unless:
 - a. The consent is given effect to; or
 - b. The council extends the period after which the consent lapses.

Duration of the consent

- 5 This consent shall expire on [20 years from date of consent] unless it has lapsed, been surrendered or been cancelled at an earlier date pursuant to the RMA.

Surrender of existing consent

- 6 Within 1 month of sand extraction commencing under this consent, the existing Coastal Permit 20795 is to be surrendered.

Monitoring charges

- 7 The consent holder shall pay the council an initial consent compliance monitoring charge of \$330 (inclusive of GST), plus any further monitoring charge or charges to recover the actual and reasonable costs incurred to ensure compliance with the conditions attached to this consent.

Provide for a review under section 128

- 8 Under section 128 of the RMA the conditions of this consent may be reviewed by the Manager Resource Consents at the consent holder's cost:
- (a) On five years following the commencement of the consent and every subsequent five years:
- (i) To deal with any significant adverse effect on the environment which are identified through the sand extraction monitoring report (SEMR).

Pre works notification

- 9 The Team Leader North-West Monitoring shall be notified in writing at least ten (10) working days prior to sand extraction commencing under this consent.

Sand extraction methodology

- 10 The sand extraction shall be carried out using a trailer suction dredge.
- 11 Any change of the sand extraction technique from that provided in the consent application documentation requires written approval from the Team Leader North-West Monitoring, before any change in the sand extraction operation. Before such approval is given the consent holder shall provide information showing that any proposed change of the sand extraction technique will not result in significant increase in adverse environmental effects above those identified and assessed for the approved sand extraction methodology.

Noise

- 12 Any pumping or mechanical equipment used in the sand extraction process shall be operated in a manner so that the noise level shall not exceed the following at the adjacent coastline:

7am-10pm	50dB LAeq
10pm-7am	40dB LAeq and 75dB LAFma

Sand extraction volume

- 13 The total volume of sand extracted (which is the sand which is loaded into the barge and transported from the site) during the life of the consent shall not exceed 2,000,000 m³. Sand extraction between the western boundary of the extraction area (being the 25 m isobath) and the 30 m isobath shall be limited to no more than 150,000 m³ of sand during any 12-month period.
- 14 In the event that sand extraction within a single cell in an ASEA reaches 40,000 m³ in any 12-month period then no further sand extraction from that cell is permitted for the following 12 months.

Monitoring – volume and location

- 15 The Consent Holder shall keep daily records of the volume of sand loaded into the barge, the cell where extraction has occurred, and the date, time, water depth and sea conditions during the period of extraction. The track of the sand extraction vessel shall be recorded and mapped using a differential global positioning system ("DGPS").

- 16 The Consent Holder shall provide a copy of the extraction records and the vessel track map (as required by Condition 15) to the Team Leader North-West Monitoring, annually (commencing one year after the consent has been given effect to). If no sand extraction has occurred during that 12-month period then a statement to that effect will be provided to the Team Leader North-West Monitoring.

Environmental monitoring management plan

- 17 Prior to the preparation of the first PSEAR, the Consent Holder shall submit to the Team Leader – North-West Monitoring an environmental monitoring management plan ("EMMP") for certification to confirm that the monitoring to be undertaken in accordance with the EMMP will achieve the objectives of the EMMP and compliance with the relevant consent conditions. Any subsequent review or updates of the monitoring methodologies proposed in the EMMP shall be submitted to the Team Leader – North-Western Monitoring for certification. Any other updates to the EMMP (including final PSEAR and PSEMP reports) shall also be submitted to the Team Leader – North-Western Monitoring so that Council can maintain a current copy of the EMMP.
- 18 The consent holder shall meet the costs of the production, certification and subsequent updating of the EMMP. The EMMP will be based on the draft EMMP (dated July 2019) submitted with the resource consent application.
- 19 The EMMP shall:
- (i) Outline the objectives of the EMMP and the proposed monitoring programme.
 - (ii) Include a plan showing the sand extraction area, proposed sand extraction areas (PSEA) and approved sand extraction sub-areas (ASEA).
 - (iii) Include a table defining the maximum quantity of sand to be extracted and volume which has been extracted from each PSEA and ASEA.
 - (iv) Detail the pre-sand extraction monitoring programme for the pre-sand extraction assessment report (PSEAR) for each PSEA (as required under Condition 20) which shall:
 - (a) insofar as it relates to biological monitoring, be based on the: BACI (Before-After-Control-Impact) monitoring approach;
 - (b) include, where appropriate, multiple control and impact sites;
 - (c) set out the proposed reporting regime for the results of the monitoring, which, as a minimum, shall include a final reporting date three months from the completion of the monitoring programme, and may include interim reporting dates;
 - (d) Set out the bathymetric survey method for the sea floor (pre-sand extraction); and
 - (e) Sediment texture monitoring methodology;
 - (v) Set out the monitoring programme for the sand extraction monitoring report (SEMR) (as required under Condition 23) which shall:
 - (a) Set out the bathymetric survey method for the sea floor (post-sand extraction);
 - (b) Sediment texture monitoring methodology;
 - (c) Set out the monitoring methodology for the collection of information capable of detecting whether the sand extraction is having effects of ecological significance upon benthic macrofauna; and

- (d) Set out the methodology for the collection of information capable of determining how long it takes for the benthic macrofauna community affected by sand extraction to recover to levels which existed prior to the commencement of sand extraction operations.
- (vi) Include copies of any completed PSEAR and SEMR.

Pre-Sand Extraction Assessment Report (PSEAR)

- 20 Prior to extracting sand from any PSEA the Consent Holder shall complete a pre-sand extraction assessment report (PSEAR) for that PSEA in accordance with the certified EMMP. The purpose of the PSEAR is:
- (i) to identify within a PSEA any areas of the seafloor which are unsuitable for sand extraction due to:
 - The sediment in those areas having an average proportion of mud (grain size finer than 0.063 mm) exceeding 20% by volume; and/or
 - The presence of significant benthic communities or benthic macrofauna.
 - (ii) to provide baseline information for subsequent post-dredging monitoring; and
 - (iii) to defined approved sand extraction sub-areas (ASEA).
- 21 The PSEAR shall include but not be limited to:
- (i) Geomorphology
 - (a) Identify within the PSEA, either by reference to established data or by reference to seabed sampling or surveys taken:
 - Any pathways for sediment transport;
 - Areas of ripples on the seafloor; and
 - Areas of the seafloor where the average proportion of mud (grain size finer than 0.063 mm) in samples exceeds 20% by volume.
 - (ii) Biological
 - (a) Identify from information collected throughout the PSEA any areas where benthic communities and /or benthic macrofauna, of particular conservation significance (for example, stony corals) or ecological significance (for example, shellfish beds) exist, and if so the degree of their significance and the extent of their presence.
 - (iii) Map
 - (a) Include a map showing those areas within the PSEA the approved sand extraction sub-areas (ASEA).
- 22 The completed PSEAR is to be submitted to the Team Leader – North-Western Monitoring for certification prior to sand extraction occurring within that part of the PSEA which has been identified as the approved sand extraction area (ASEA).

Sand Extraction Monitoring Report (SEMR)

- 23 Upon the cumulative extraction totals of 500,000 m³ (+/- 20,000 m³) increments of sand, the Consent Holder shall undertake a sand extraction monitoring report (SEMR) for those ASEA's where sand extraction has occurred since the completion of the previous SEMR.
- 24 The SEMR shall include:
- (i) an analysis of the results of the monitoring required under the approved EMMP and an assessment to ascertain whether extraction activity has adversely affected sediment transport processes and/or impacted on benthic macrofauna beyond impacts experienced as a result of natural perturbations;
 - (ii) a comparative analysis of sediment texture at sites within and adjacent to areas where sand extraction has been undertaken; and
 - (iii) Any recommendations for sand extraction rates and periods between sand extraction episodes in any ASEA based on the results of the SEMR.
- 26 The SEMR shall be submitted to the Team Leader – North-Western Monitoring within six months of the 500,000 m³ (+/- 20,000 m³) sand extraction volume being reached which triggered the requirement for the SEMR.

10 Conclusion

Kaipara Limited (Kaipara) currently holds resource consent 20795 to extract up to 2,000,000 m³ of sand over a 20-year period from the seabed within an extraction area located offshore in the Outer Hauraki Gulf. In addition, to the total permitted extraction volume of 2,000,000 m³ of sand, the consent also limits the extraction rate to 150,000 m³ per annum from between the western boundary (being the 25 m isobath) and the 30 m isobath. To date, this has been the main area of extraction and total extraction in any 12-month period has not exceed 150,000 m³. Between the 30 m isobath and the eastern boundary of the sand extraction area there is no maximum annual sand extraction limit (with sand extraction limited by the total permitted extraction volume).

Kaipara is seeking a replacement consent to allow for the continued sand extraction but within a significantly reduced sand extraction area which generally reflects the area where actual sand extraction has taken place during the life of the current consent. The application is for the extraction of up to a total of 2,000,000 m³ of sand (but no more than 150,000 m³ per 12-month period from between the 25 m and the 30 m isobath) from the Auckland Offshore Sand Extraction Area. A 20-year consent period is being sought. In effect, the only change from the current consent is that the sand extraction area has been significantly reduced in area and the western boundary has been modified to reflect the location of the 25 m isobath. The proposal is a discretionary activity under the Auckland Unitary Plan – Operative in Part.

The application includes the following specialist reports:

- Review of Coastal Processes Effects (Beca);
- Assessment of Ecological Effects (Bioresearches Ltd); and
- The Economic Contribution and Impact of Pakiri Sand Extraction (Market Economics Ltd).

The sand from the extraction site is of a high quality, making it appropriate for all types of uses within the construction sector, especially for the production of ready-mix concrete. The sites geographic location and ease of long-term access to a high-quality sand resource, and the ability to deliver sand from the site to the Auckland in a low-cost manner, is ideally situated to help meet the growing demand for sand in Auckland, Northland and Waikato

Conventional suction dredging equipment and a self-propelled vessel will continue to be used for the sand extraction at this site.

The current resource consent requires the preparation of an Environmental Monitoring Management Plan (EMMP) for areas where sand extraction is to occur. It is proposed to continue the requirement for an EMMP and the new draft EMMP is included in Appendix Three. A range of resource consent conditions have been recommended and are outlined in Section Nine of this report.

The general area of extraction has been subject to previous studies and monitoring over the life of the current consents and the ecological and coastal processes assessments prepared for this application have drawn upon these previous studies and monitoring.

The sand extraction area has been designed so that the depth of the seabed where sand extraction is to occur is below the DoC. This is to minimize the risk of adverse effects on the nearshore and adjoining coastline occurring. In addition, by having the western boundary at least 1.2 km off-shore avoids the various character and SEA overlays in the AUPOP.

It is recognised that stony coral and areas of significant shellfish beds may be located within the proposed consented sand extraction area and the location of these may change over time. The pre-sand extraction assessment monitoring is to identify if these are present and to exclude such areas from the approved sand extraction areas.

Taking into account the findings of the various assessments and the proposed monitoring (which will be implemented by way of consent conditions and a certified EMMP) it is considered that any adverse effects on the environment arising from the continued sand extraction will be no more than minor.

No changes to the existing environment, ecology, local coastal processes or the sand extraction methodology have been identified since the then Auckland Regional Council recommendation to the Minister of Conservation in October 1998, that the then coastal permit could be granted on the basis that the sand extraction would not have an adverse effect on the physical environment and any impact on marine ecology would be insignificant.

Having assessed the various relevant objectives and policies of the Regional Coastal Policy Statement and the Coastal Plan components of the AUPOP, it is considered that the proposed continuation of the sand extraction within the reduced sand extraction area is not contrary to the relevant objectives and policies. In particular, the continued sand extraction operation will not result in potential significant adverse effects and can be undertaken in a manner where public access to and along the CMA is not restricted and no other existing uses are adversely affected or constrained.

No matters considered under the s104 assessment have been identified which would give rise to the consideration of declining consent.

It is concluded that the coastal permit can be granted, with the recommended conditions, for the continued sand extraction from the Auckland Offshore Sand Extraction Site.

Appendix One: Current Coastal Permit

COASTAL PERMIT
RCAN 0621
(ARC 20795)

Pursuant to the provisions of Section 119 of the Resource Management Act 1991, I, Chris Carter Minister of Conservation hereby grant to Kaipara Excavators Ltd, a permit (coastal permit RCAN 0621) to carry out a restricted coastal activity involving the dredging of 2,000,000 m³ of sand from the outer Hauraki Gulf, and associated discharge of excess seawater shell and sand, and temporary occupation of the coastal marine area while dredging, in accordance with the information supplied with the application and subject to the attached conditions of consent.



Hon Chris Carter
Minister of Conservation

Date: 13/2/2003

ATTACHMENT 2**AUCKLAND REGIONAL COUNCIL****RESOURCE CONSENT**

Granted Pursuant to the Resource Management Act 1991

PERMIT NO. 20795**CONSENT HOLDER:** Kaipara Limited**CONDITIONS OF PERMIT:**

Date of expiration of Consent: 20 years from the date of commencement. [To be stipulated]

Purpose of Consent: Extraction of up to 2,000,000 cubic metres of sand (including shelly gravel lag).

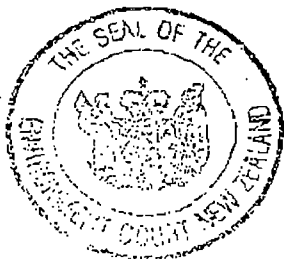
Discharge of excess sea water, shell and sand associated with dredging.

Temporary occupation of the coastal marine area while dredging.

Site Location: Outer Hauraki Gulf in the vicinity of Pakiri and Little Barrier Island.

Chart References: (By reference to Chart NZ 522 entitled "Bream Tail to Kawau Island Including Great Barrier Island" published by the Hydrographer RNZN, reprinted July 2000)

Point No.	Latitude (N-S)	Longitude (E-W)
1	36o03'15"	174o42'00"
2	36o06'00"	174o45'23"
3	36o06'00"	174o55'15"
4	36o22'00"	174o53'20"
5	36o22'00"	174o56'30"
6	36o15'21"	175o00'00"
7	36o22'00"	175o00'00"
8	36o15'21"	175o08'00"
9	36o22'00"	175o08'00"



STANDARD CONDITIONS

1. The servants or agents of the Auckland Regional Council or the Minister of Conservation shall be permitted access to the relevant parts of the property at all reasonable times for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.

In the context of this consent, property is defined as including all barges and floating plant operating both within and outside of the Extraction Areas, and includes unloading facilities and storage areas.

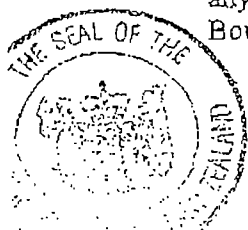
2. That in accordance with Section 119A and 128 of the RMA, the Auckland Regional Council or the Minister of Conservation respectively, may on each anniversary of the granting of this consent review any of the conditions of this consent for any of the following purposes:

- (i). To deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
- (ii). To deal with any other adverse effect on the environment on which the exercise of the consent may have an influence.

SPECIAL CONDITIONS

Exercise of Consent

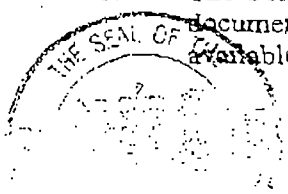
1. The areas approved for extraction, hereinafter referred to as the "Extraction Areas", are as shown on the Map 20795(1) attached to this consent. Subject to Special Condition 2, the extent of the Extraction Areas are defined by the co-ordinates numbered 1 to 9 in the Chart References, as shown on that Map, and, with respect to the Extraction Areas closest to the Pakiri-Mangawhai coastline, by a line running parallel to that coastline 2 kilometres from mean high water springs.
2. The Consent Holder shall only extract sand from the sea floor within those parts of the Extraction Areas below the 25m sea floor depth contour ("Western Boundary"). No sand shall be extracted within 3km of the outer seaward boundary of the Cape Rodney to Okakari Point Marine Reserve.
3. The Consent Holder shall use its best endeavours to extract sand by means of smaller deeper extractions rather than large shallow extractions, and to endeavour to limit those extractions to no deeper than the thickness of the active sand layer.
4. The Consent Holder shall extract no more than 150,000 cubic metres of sand during any 12 month period, from any part of the Extraction Areas between the Western Boundary and the 30m isobath.



5. Sand extraction shall be located so as to minimise the likelihood of marine life being entrained or destroyed. If any shellfish beds are encountered during the exercise of this consent, extraction shall cease immediately and be re-located to another suitable site within the Extraction Areas. Any ~~area of high species density shellfish beds~~ encountered shall be recorded and reported to the Director, Environmental Management, ARC ("the Director") within 2 weeks of the encounter. These records shall detail location of encounter, time of encounter, species encountered, site of relocation, time of relocation, and estimated volume sand extracted from the shellfish beds ~~area of high species density~~.
6. Any pumping or mechanical equipment used in the process of extracting sand shall be well muffled so as to minimise any adverse effect the noise may have on adjacent land or recreational users. The noise level shall not exceed 55 dba, measured as an L₁₀ value on the adjacent coastline. (L₁₀ represents the noise level above which 10 percent of the values would be exceeded).
7. The Consent Holder shall not permit or allow any contaminant associated with the Consent Holder's activities to be released into the sea, otherwise than as permitted by this consent. If an incident occurs, the Consent Holder shall:
 - (i) Take immediate steps to ensure mitigation of any adverse effects on the environment of any unforeseen releases.
 - (ii) Proceed with due diligence to take all reasonable steps to remedy the effects of any unforeseen releases.
 - (iii) Notify the Director of the release of any contaminant within 12 hours of first detection.
 - (iv) If required by the Director, within 24 hours of the incident occurring, provide a written report detailing the nature, manner and cause of the release, the steps taken to remedy or control the release, and measures adopted to prevent any further release of such contaminant.

Monitoring - Volumes and Location

8. The Consent Holder shall keep daily records of the volume of sand extracted and the date, time, water depth and sea conditions. The exact track of the dredging vessel shall be recorded and clearly mapped by differential global positioning system ("DGPS").
9. The Consent Holder shall provide a copy of the extraction volume records and dredging vessel track map (as required by Special Condition 8) to the Director every three months from the start of dredging. If no dredging has occurred within any three month period, then a statement to that effect shall be provided to the Director.
10. The Consent Holder shall, on request, make available to the Director company records documenting the volume of sand extracted, including wharf unloading records where available.



Pre-Dredging Assessment

10A. Prior to extracting sand from any previously un-dredged part of the Extraction Areas, the Consent Holder shall complete a Pre-Dredging Assessment Report ("PDAR") of the new area it proposes to extract from. The purpose of the PDAR is to identify within a Proposed Dredging Area ("PDA") areas of the seafloor which may be unsuitable for the extraction of sand due to the nature of the seafloor or the existence of communities of benthic macrofauna, or areas of archaeological significance, so that those areas of the PDA can be avoided when dredging.

The PDAR shall:

Sand quality

- (i) Identify within the PDA, either by reference to established data or by reference to seabed sampling or surveys taken under the direction of a suitably skilled and qualified scientist:
- Any pathways for sediment transport;
 - Areas of ripples on the seafloor;
 - Areas of the seafloor where the average proportion of mud (mean grain size finer than 0.063mm) in samples exceeds 20% by volume.

Biological

- (ii) Identify from information collected throughout the PDA by a suitably skilled and qualified scientist any areas where benthic communities and/or benthic macrofauna, of particular conservation or ecological significance exist, and if so the degree of their significance and the extent of their presence.

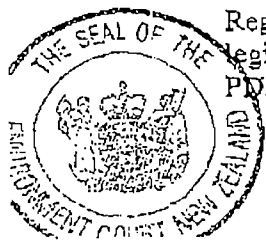
Heritage sites

- (iii) Include an assessment by a recognised heritage consultant as to the potential for dredging in the PDA to disturb or destroy a site or sites of spiritual or cultural importance and/or any archaeological site (within the meaning of the Historic Places Act 1993).

Consultation

Upon completion of the sand quality and biological assessments of the PDA a draft report on those matters shall be prepared by the Consent Holder. The Auckland Regional Council and the University of Auckland or their nominated representative shall be consulted as to the contents of the report and its or their comments sought.

Upon completion of the heritage assessment of the PDA a draft report on that matter shall be circulated for comments by the Historic Places Trust, the Auckland Regional Council and by any persons or bodies identified by the Director as having a legitimate interest as tangata whenua in the potential presence of heritage sites in the PDA.



Approval of PDA

After taking comments received on the draft PDA reports into account, the Consent Holder shall prepare and submit a final PDAR (together with copies of all comments received on sand quality, biological and heritage matters) to the Director who shall within 20 working days of receipt give final approval to dredging in the PDA, excluding from dredging activity those areas identified in the PDAR as unsuitable because:

- The sediment in those areas has an average proportion of mud (mean grain size finer than 0.063mm) exceeding 20% by volume;
- Significant benthic communities or benthic macrofauna exist in those areas;
- Heritage and/or archaeological sites exist in those areas.

Monitoring - Environmental

11. The Consent Holder shall monitor sand extraction operations for the purpose of assessing the potential adverse effects on the coastal environment of sand extraction, including potential effects on the sea floor geomorphology and on the benthic macrofaunal community. All monitoring undertaken shall be relative to the scale and duration of sand extraction operations as they occur from time to time and shall be in accordance with an Environmental Monitoring Management Plan prepared and approved in accordance with Special Conditions 12 and 13.
- 12(a). The Consent Holder shall prepare a draft Environmental Monitoring Management Plan ("EMMP") prior to extracting sand from a previously un-dredged part of the Extraction Areas, or prior to extracting an amount of sand from a previously dredged area not contemplated by any previous EMMP for that area.

The draft EMMP shall define the area from where it is proposed that sand extraction will take place and the quantity to be extracted. The draft EMMP shall set out the proposed environmental monitoring programme for monitoring the effects of the proposed sand extraction operations.

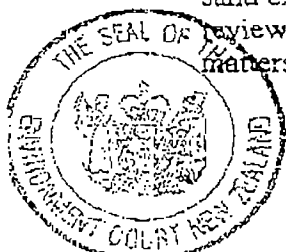
- 12(b). The monitoring programme to be included in the EMMP shall:
- (i) insofar as it relates to biological monitoring, be based on the BACI (Before-After-Control-Impact) monitoring approach;
 - (ii) include, where appropriate, multiple control and impact sites;
 - (iii) set out the proposed reporting regime for the results of the monitoring programme, which, as a minimum, shall include a final reporting date three months from the completion of the monitoring programme, and may include interim reporting dates; and
- comply with the monitoring objectives in Special Condition 11.



- 12(c). As a minimum, the EMMP shall, unless directed otherwise by the Director on the basis that such information has been previously obtained, provide for:
- (i) sea floor side scan sonar and hydrographic surveys of the sea floor area affected by sand extraction operations;
 - (ii) collect information capable of detecting whether the sand extraction is having effects of ecological significance upon benthic macrofauna;
 - (iii) collection of information capable of determining how long it takes for the benthic macrofaunal community affected by sand extraction to recover to levels which existed prior to the commencement of sand extraction operations.
13. The draft EMMP shall be forwarded to the Director for approval prior to the commencement of the sand extraction contemplated by that EMMP. Once approved, the EMMP shall be implemented by the Consent Holder.
14. Upon the cumulative extraction of 500,000m³, 1,000,000m³, 1,500,000m³ and 2,000,000m³ of sand, the Consent Holder shall provide to the Director an Environmental Impact Assessment of sand extraction operations up to that point in time. This shall include:
- (i) an analysis of the results of the monitoring programmes required by any approved EMMP's previously submitted to the Director to ascertain whether the extraction activity has adversely affected sediment transport processes or impacted on benthic macrofauna beyond impacts experienced as a result of natural perturbations;
 - (ii) a comparative analysis of sediment texture at sites within and adjacent to dredged areas;
 - (iii) an assessment of the sea floor sediment budget from water and current processes or from other relevant studies or data for the purpose of further understanding the sea floor environment.
15. EMMP's and the Environmental Impact Assessment shall be completed under the direction of qualified and experienced marine biologist(s) and coastal process specialist(s).

Review of Consent

16. In addition to the powers to review this consent in Standard Condition 2, the Minister of Conservation or the Auckland Regional Council may, within six months of the receipt of the monitoring information required by any EMMP, serve notice on the Consent Holder under section 128(1)(a)(iii) of the Resource Management Act 1991, of their intention to review the conditions of this consent. The purpose of such review is to consider the need for amending or incorporating such other conditions into the consent as may be necessary to avoid, remedy or mitigate any adverse effects of the sand extraction on the coastal marine area or the wider coastal environment. Note this review may also address issues such as the volume of sand to be extracted and the matters pertaining to the Extraction Areas.



Administration

- 17 The Consent Holder and the Director shall meet at approximately 12 monthly intervals throughout the term of the consent, at a time to be arranged by mutual agreement, to consult on and review the exercise of the consent and any available monitoring or other reports which have been submitted in the preceding 12 month period.
- 18 The Consent Holder shall not transfer the whole or any part of its interest in this permit unless the prior written approval of the Director is obtained.

Navigation

19. The Consent Holder shall inform the hydrographic office of the proposed extraction activities so that a notice to mariners can be issued.

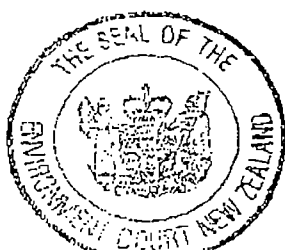
Advice notes

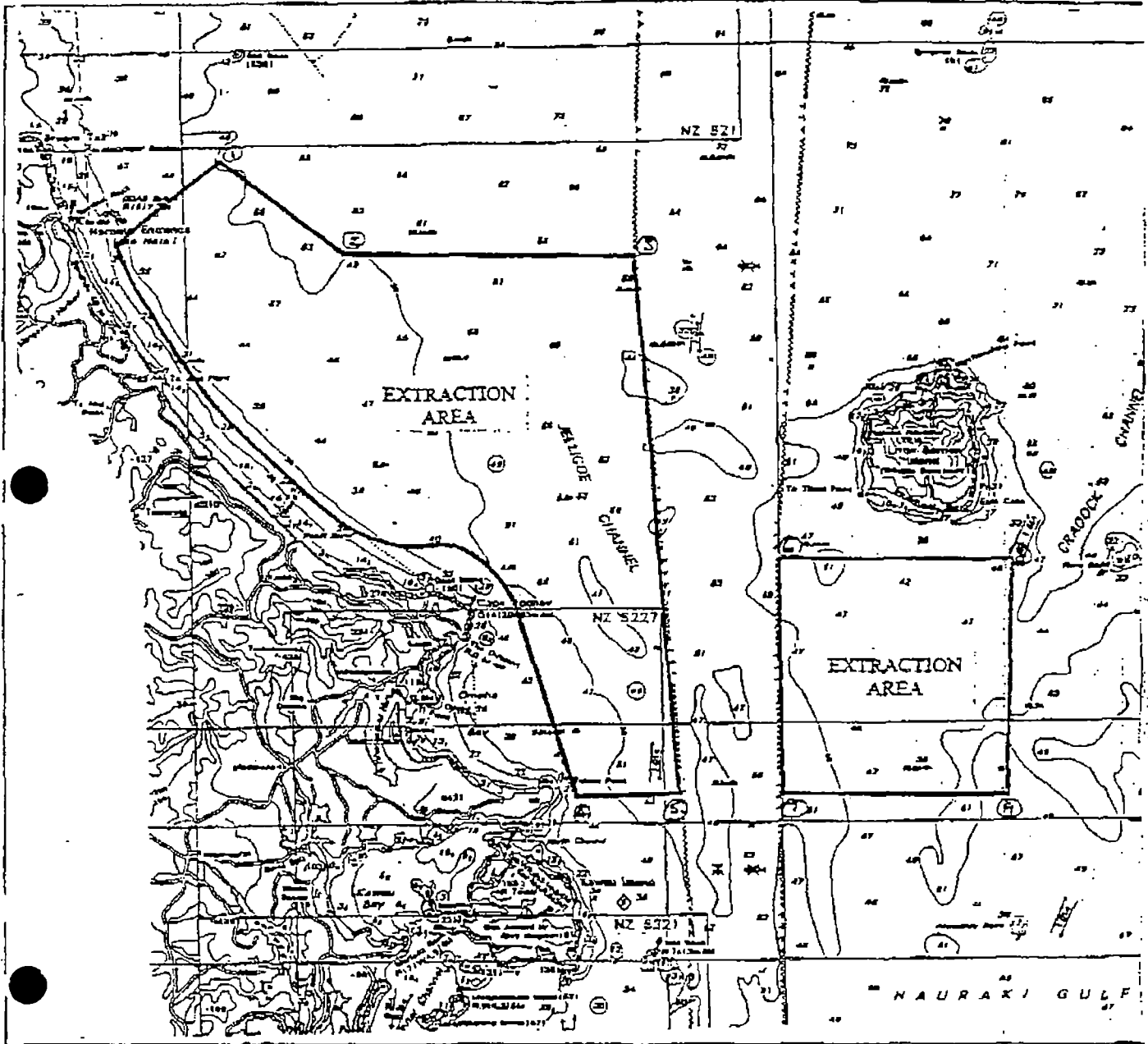
1. The Consent Holder is advised that should they wish to transfer this permit to any other person they must do so by advising the ARC in writing in accordance with Section 135(1)(a). A fee is payable at the time of transfer to cover the cost of administration.
2. The Consent Holder is referred to Section 125 of the Resource Management Act 1991, which provides for a lapsing of a consent two years after the commencement date, if it is not given effect to within that period.
3. The Consent Holder is referred to Section 124 of the Resource Management Act 1991, which provides for the exercising of a consent while applying for a new consent.
4. The Consent Holder shall pay to ARC an administrative charge fixed in accordance with section 36 (1) of the resource management act 1991, or any additional charge required pursuant to section 36 (3) of the same act, payable in respect of this consent
5. The Consent Holder may apply to the Minister of Conservation to change or delete any conditions of this consent within one month of each anniversary of the date of commencement of this consent, pursuant to section 127(1)(a) of the Resource Management Act 1991.
6. The Consent Holder shall provide evidence of shipboard procedures to the MSA of:
 - suitable navigation warnings of the vessel's position (when dredging);
 - requirements of Part 22 of the Maritime Rules - Collision Prevention - with regards to lights and day shapes are complied with.

The Director will use his/her best endeavours to consider and approve draft EMMP's within 20 working days of receipt and will consult with the Consent Holder during that approval process.



8. The Director notes the "Memorandum of Understanding" between Kaipara Excavators Limited and Ngatiwai and the "Ngatiwai Kaipara Excavators Limited Deep Water Sand Extraction Project Agreement", and requests to be informed of progress with these arrangements.



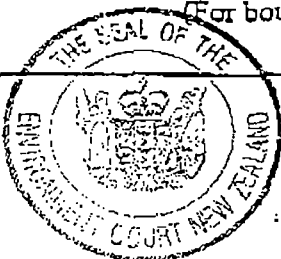


KAIPARA EXCAVATORS LIMITED

MAP: 20795(1)

INDICATIVE MAP SHOWING EXTRACTION AREAS

(For boundary descriptors and map co-ordinates see conditions of Permit 20795)



Appendix Two: Sand Extraction Area Plans

Attached Plan
scanned separately

osbornehay

Appendix Three: Draft Environmental Monitoring Management Plan

Consent Holder: Kaipara Limited

Permit: (TBC)

Site: Auckland Offshore Sand
Extraction Site

Report Title: Environmental Monitoring
Management Plan (EMMP)

Report Date: 24/07/2019

Report Version: Draft V1

CONTENTS

1.	Introduction.....	4
2.	EMMP Updates.....	5
3.	Environmental Monitoring Objectives and Rationale.....	6
3.1	Monitoring Rationale.....	6
3.2	Management Cells and Control Areas.....	6
4.	Pre-Sand Extraction Area Assessment.....	7
5.	Sand Extraction Monitoring.....	8
6.	Sand Extraction and Vessel Tracking Records.....	11
	APPENDIX ONE: COASTAL PERMIT.....	12
	APPENDIX TWO: ONSSENTED SAND EXTRACTION AREA MAP (INCLUDING THE MANAGEMENT CELLS).....	13
	APPENDIX THREE: APPROVED SAND EXTRACTION SUB-AREAS MAP.....	14
	APPENDIX FOUR: PROPOSED AND EXPECTED SAND EXTRACTION VOLUMES.....	15
	APPENDIX FIVE: CERTIFIED PRE-SAND EXTRACTION ASSESSMENT REPORTS.....	16
	APPENDIX SIX: SUBMITTED SAND EXTRACTION MONITORING REPORTS.....	17
	APPENDIX SEVEN: SAND EXTRACTION INFORMATION RECORDING SHEET.....	18

DRAFT

GLOSSARY

ASEA	Approved sand extraction sub-area.
Cell	The sand extraction management areas defined on the approved plan (Beca Drawing 3233103-CA-011)
EMMP	Environmental Monitoring Management Plan
Extraction Area	The consented sand extraction area.
PSEA	Proposed Sand Extraction Area
PSEAR	Pre-Sand Extraction Assessment Report
SEMR	Sand Extraction Monitoring Report.

1. INTRODUCTION

Kaipara Limited holds Coastal Permit (TBC) (included in Appendix One) for sand extraction from the Auckland Off-Shore Sand Extraction Site (Appendix Two). The consent was granted on (TBC) and expires on (TBC). This consent allows for sand extraction of:

- 1 Up to 2,000,000m³ of sand from the approved sand extraction areas over the life of the consent; and
- 2 Limited to 150,000m³ of sand from approved sand extraction areas between the westward boundary of the sand extraction area (being the 25m isobath) and the 30m isobath every 12 months. There is no annual volume limit for the remainder of the Extraction Area.

Condition (TBC) of the Coastal Permit requires the preparation of an Environmental Monitoring Management Plan (EMMP). This is a living document which outlines the monitoring methodologies, the approved sand extraction areas (within the consented sand extraction site) and is the depository for the required Pre-Sand Extraction Assessment Reports (PSEAR) and Sand Extraction Monitoring Reports (SEMR) and any subsequent Recovery Monitoring Reports (RMR).

The first version of this EMMP is to be submitted to Auckland Council for certification. This certification was received on the (TBC). Section 2 of this EMMP records the subsequent updates to this EMMP.

Prior to sand extraction commencing in any area within the sand extraction site, a Pre-Sand Extraction Assessment Report (PSEAR) is to be undertaken. This PSEAR then identifies the approved sand extraction sub-areas (ASEA) (and including those management cells which it covers). The following sections of this EMMP are relevant to that process:

- Section Four outlines the Pre-Sand Extraction Monitoring methodology.
- Appendix Three includes the maps of those areas where a PSEAR has been undertaken and a PSEA confirmed.
- Appendix Four records the expected and actual sand extraction volumes from each PSEA.
- Appendix Five includes approved PSEAR.

As required under Condition (TBC) of the Coastal Permit, a Sand Extraction Monitoring Report (SEMR) is to be prepared within six months of the completion of each 500,000m³ (+/- 20,000m³) of sand extraction. The following sections of this EMMP are relevant to that process:

- Section Five outlines the Sand Extraction Monitoring methodology
- Appendix Six includes any submitted SEMR

2. EMMP UPDATES

This section records the dates and nature of the EMMP updates. All updates are required to be provided to Auckland Council.

Any changes to any monitoring methodology are to be certified by Auckland Council prior to any change made.

Any other updates, such as the inclusion of certified Pre-Sand Extraction Assessment Reports and updating sand extraction volumes, do not require certification but are to be provided to Auckland Council so Auckland Council can maintain an updated copy of this EMMP.

Update Number	Date of Update	Nature of Updated	Certification from AC required	Certification Date

Appendix Three includes the Site Extraction Plan showing those cells where:

- 1 Approved Sand Extraction Sub-Areas (ASEA) (green)
- 2 Cells where sand extraction has not been approved (red)

3. ENVIRONMENTAL MONITORING OBJECTIVES AND RATIONALE

The objectives of the environmental monitoring of the Auckland Offshore Sand Extraction Site are:

- 1 Pre-Sand Extraction Area Assessment Report
 - To identify those sub-areas within a Proposed Sand Extraction Area suitable for sand extraction.
 - To provide the baseline information for the subsequent sand extraction monitoring.
- 2 Sand Extraction Monitoring Report
 - To identify over time the expected recovery period of an approved sand extraction sub-area after sand extraction has ceased.
 - To identify any changes required to the sand extraction method and timing to further minimise any identified significant adverse effects on the environment.
- 3 Sand Extraction and Vessel Tracking Monitoring
 - To retain a record of sand extraction volumes, locations, timing, water depth and sea conditions during extraction and confirmation that the permitted sand extraction volumes are being complied with.
 - To identify when the sand extraction monitoring is required to be undertaken.
 - To retain a record of where sand extraction has been undertaken and confirmation that sand extraction has only been undertaken within approved sand extraction sub-areas.

3.1 Monitoring Rationale

The monitoring rationale is based on a “cause” and “effect” basis, as well as an accumulative effects basis:

1. Cause is defined as sand extraction.
2. Effects are those changes in the bathymetry, bed forms, grain size or benthic macrofaunal communities in the sand extraction area that are greater than the natural fluctuations recorded at the control sites.
3. Accumulative effects are assessed after significant sand extraction volumes have been reached (the post-sand extraction monitoring).

3.2 Management Cells and Control Areas

To aid in the monitoring and management of the sand extraction, the consented sand extraction area has been divided into management cells orientated along-shore in the general direction of the dredging runs. The plan showing these cells is included in Appendix Two.

Two control areas will be established each covering the same depth range and be divided into similar management cells. One control area will be located adjacent to the south and the other control area will be located adjacent to the north. Both areas will be at least 1000 m long.

The plan in Appendix Two includes these control areas.

4. PRE-SAND EXTRACTION AREA ASSESSMENT

Prior to sand extraction commencing within an approved sand extraction sub-area (ASEA) the following pre-sand extraction area assessment must be undertaken in accordance with conditions (TBC). This assessment is to be recorded in a Pre-Sand Extraction Assessment Report (PSEAR) which, based on that assessment, is to identify the approved sand extraction sub-area (ASEA) within the PSEA (and the management cells which it covers).

1. A multibeam hydrographic survey of the PSEA and the similar (depth) management cells in the two control sites will be undertaken to achieve an accuracy of MB2 or greater. At the current time the survey is undertaken using a WASSP WMB 3250 Multibeam and SMC IMU108 motion sensor mounted on the vessel Ten Seventy.
2. Within each management cell within the PSEA and at the similar (depth) control site cells, one sample location will be subjected to:
 - a) Seabed imagery from a scale referenced drop camera, the images will be suitable to assess changes in fine scale (< 1m) bed forms, provide indications of larger biota and as confirmation of the multibeam interpretations.
 - b) Seabed Ponar grab samples of sediment, will be subjected to a sediment textural analysis using an optical volume-based analysis.
 - c) Seabed Ponar grab samples for biota, samples of at least 2 L, will be washed through 1.0mm sieves, live biota retained preserved and identified and enumerated.
3. Within every third cell offshore and every third cell along shore epibenthic dredge tows (with a minimum length of 200m) will be conducted to assess for the presence of larger biota.

The following areas will be excluded from the ASEA (owing to being unsuitable for sand extraction):

- The sediment in those areas having an average proportion of mud (grain size finer than 0.063 mm) exceeding 20% by volume; and/or
- The presence of significant benthic communities or benthic macrofauna.

5. SAND EXTRACTION MONITORING

To determine any potential changes in the seabed conditions or ecology as a potential result of longer-term accumulative causes, monitoring will be undertaken at the conclusion of the extraction of every 500,000m³ (+/- 20,000m³) of sand from the extraction area as a whole. This will form the basis for the Sand Extraction Monitoring Report which is to be submitted to Auckland Council within six months of the requirement for the monitoring being triggered (condition TBC).

The following monitoring programme is to be undertaken:

(All sampling locations are to be the same (within 50m of each other) across the following sampling studies.)

Geomorphological Monitoring

1. A multibeam hydrographic survey of the PSEA surveyed as part of any previous PSEAR and the similar (depth) management cells in the two control sites.
2. Single drop camera images will be recorded from:
 - a) within each control area management cell;
 - b) within each management cell of an ASEA where sand extraction has occurred within the 500,000m³ total which has triggered the monitoring; and
 - c) every second cell within the PSEA where sand extraction has not occurred within the 500,000m³ total which has triggered the monitoring.

The images will be used to assess changes in fine scale (< 1m) bed forms and as confirmation of the multibeam interpretations.

Sediment Texture

1. Seabed Ponar grab samples of sediment will be collected from:
 - a) One location within each control area management cell;
 - b) One location within each management cell of an ASEA where sand extraction has occurred within the 500,000m³ total which has triggered the monitoring; and
 - c) One location from every second cell within the PSEA where sand extraction has not occurred within the 500,000m³ total which has triggered the monitoring.

Each sample will be subjected to a sediment textural analysis using an optical volume-based analysis.

Biological Monitoring

1. Seabed Ponar grab samples of sediment will be collected from:

- a) One location within each control area management cell;
- b) One location within each management cell of an ASEA where sand extraction has occurred within the 500,000m³ total which has triggered the monitoring; and
- c) One location from every second cell within the PSEA where sand extraction has not occurred within the 500,000m³ total which has triggered the monitoring.

Notes:

Samples will be collected with a Standard Ponar Grab sampler, with a sample area of 229 x 229 mm, and a bite depth of about 100 mm, producing sample volumes of 1 - 4 L. If the sample volume is less than 2 L the grab sample will be discarded and repeated.

Each grab sample will be sieved as soon as practicable by washing each whole sample through 1.0mm mesh sieves with seawater. All samples will be stored in a cool shaded location until sieving, which will occur within six hours of collection. The material retained on the sieves will be transferred to a polyethylene 'zip lock'-type bag, and the samples preserved in a solution of 10% glyoxal, 70% ethanol sea water solution, sealed, placed in a second polyethylene 'zip lock'-type bag and packed into a labelled plastic container, for transportation to the laboratory.

Prior to sorting, the samples will be rinsed through a 0.5 mm sieve with freshwater and placed in a white sorting tray. All organisms will be picked out of the samples and placed in a labelled vial of 70% ethanol solution prior to taxonomic identification, to the lowest taxonomic group possible and counting. Only animals with heads intact will be counted and identified.

In order to survey larger macrofauna that the grab sampler may not adequately sample the seabed photographs recorded in the geomorphological monitoring will be assessed for the presence of larger biota.

In addition, epibenthic dredge tows will be conducted:

1. within the control areas at every third cell; and
2. within the extraction area at every third cell offshore and third cell along shore.

Each tow will consist of lowering a 600 mm wide dredge fitted with a 35 mm mesh bag, to the seafloor and towing it for approximately 200 m in an along shore direction. All species captured during each tow will be removed and immediately sorted. All larger macrofauna such as bivalves, hermit crabs and starfish, will be identified, photographed, counted, measured and returned to the sea.

Reporting

Within six months of the conclusion of this monitoring, the SEMR report (prepared by a suitably qualified specialist) is to be submitted to the Auckland Council.

This is to include an analysis on whether any significant sediment and biological change has occurred in the area surveyed as a result of the extraction of sand. That analysis will require comparison of the

sediment texture and biological survey data gathered during the initial survey(s) for the PSEAR and from previous accumulative studies.

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6. SAND EXTRACTION AND VESSEL TRACKING RECORDS

Under Conditions (TBC) the following information is to be retained and submitted to Auckland Council:

1. Daily records of the volume of sand loaded into the barge and the management cells where the sand has been extracted from;
2. Date, time, water depth and sea conditions during the period of extraction; and
3. The track of the sand extraction vessel shall be recorded and mapped using a differential global positioning system ("DGPS").

Reporting Requirements

The Consent Holder shall provide a copy of the above information and the vessel track map to the Team Leader North-West Monitoring, annually (commencing one year after the consent has been given effect to). The reporting form to be used is included in Appendix Seven.

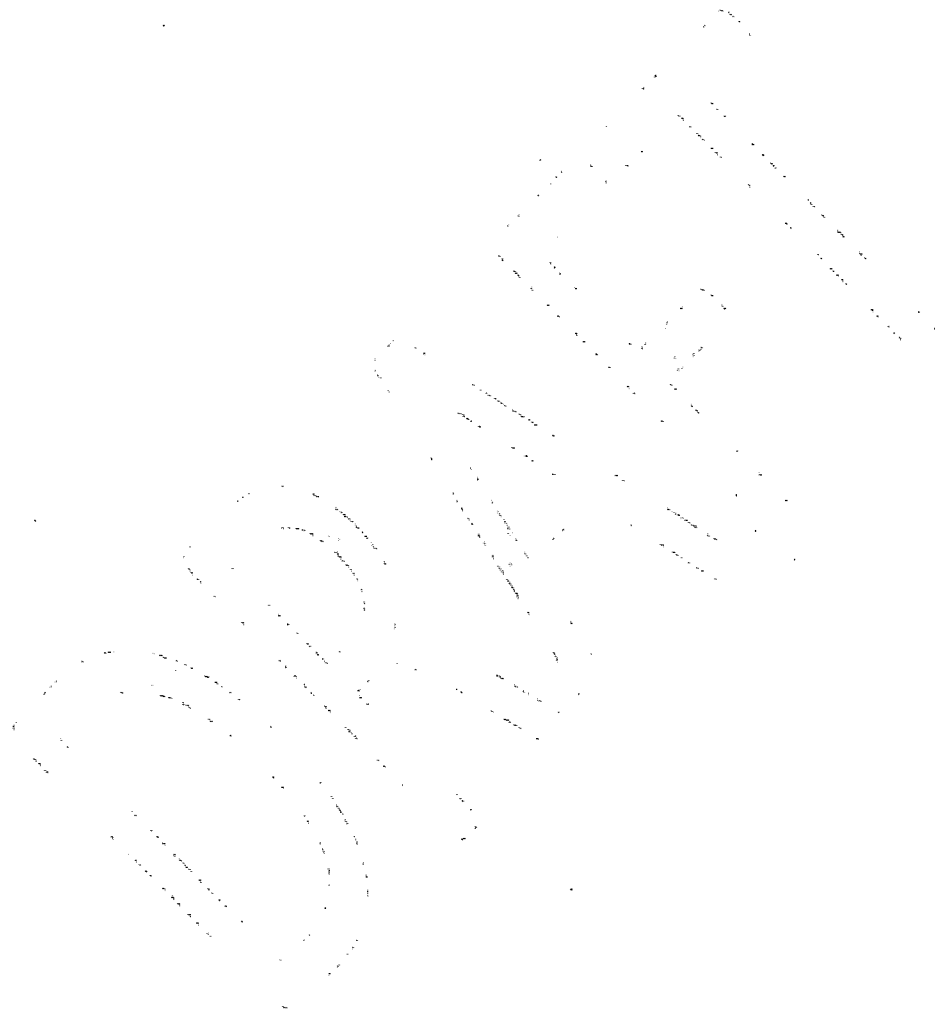
If no sand extraction has occurred during that 12-month period then a statement to that effect will be provided to the Team Leader North-West Monitoring.

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APPENDIX ONE: COASTAL PERMIT

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APPENDIX TWO: CONSENTED SAND EXTRACTION AREA MAP (INCLUDING THE MANAGEMENT CELLS)



APPENDIX THREE: APPROVED SAND EXTRACTION SUB-AREAS MAP

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APPENDIX FOUR: PROPOSED AND EXPECTED SAND EXTRACTION VOLUMES

Last Updated:

Management Cell	Date Sand Extraction Started	Date Sand Extraction Ceased	Estimated Sand Extraction Volume	Actual Sand Extraction Volume	Notes

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APPENDIX FIVE: CERTIFIED PRE-SAND EXTRACTION ASSESSMENT REPORTS

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APPENDIX SIX: SUBMITTED SAND EXTRACTION MONITORING REPORTS

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APPENDIX SEVEN: SAND EXTRACTION INFORMATION RECORDING SHEET

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Appendix Four: Review of Coastal Processes Effects

REPORT

SCANNED SEPARATELY

Appendix Five: Assessment of Ecological Effects

REPORT

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Appendix Six: The Economic Contribution and Impact of Pakiri Sand Extraction

REPORT

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Appendix Seven: Pre-Dredging Heritage Assessments

REPORT

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