

# WAITANGI WHARF UPGRADE

## PROJECT SUMMARY

Waitangi Wharf is a critical lifeline for the Chatham Islands, one of New Zealand's most remote communities. It is in poor structural condition and needs to be replaced within five years. The Waitangi Wharf Upgrade project will enhance economic development opportunities for the Chatham Islands and strengthen community resilience. The wharf is the islands' only cargo-handling facility for essential supplies, including diesel for the electricity grid and fuel for air services.

The New Zealand Government, through the Department of Internal Affairs and New Zealand Transport Agency, is funding and managing the upgrade of Waitangi Wharf, assisted by the Chatham Islands Enterprise Trust and Chatham Islands Council.

The requirement for environmental approvals for this project are set out in the Operative and Proposed Chatham Islands Resource Management Documents.

Separate resource consent applications and Assessment of Effects on the Environment (AEE) reports have been lodged regarding the wharf upgrade works, two quarries and a construction yard.

### CONSENTS SUBJECT TO THE WHARF AEE REPORT

#### Waitangi Wharf Upgrade Project

**Location:** Waitangi Wharf

**Consent Applicant:** Chatham Island Ports Limited

**Coastal permits** – works required in the coastal marine area

**Land-use consents** – works required on the new land, and the livestock holding area and track

### ASSOCIATED WORKS (SEPARATE CONSENT APPLICATIONS)

#### QUARRY 1

**Location:** Waitangi -Tuku Road

**Consent Applicant:** Ohinemama Farms Limited

**Land-use consents** – for quarrying activities

#### QUARRY 2

**Location:** Waitangi -Tuku Road

**Consent Applicant:** Eion Chisholm

**Land-use consents** – for quarrying activities

#### CONSTRUCTION YARD

**Location:** Waitangi -Tuku Road

**Consent Applicant:** Chatham Islands Council

**Land-use consents** – for industrial activities  
**Water take consent** – for a new bore

## → Waitangi Wharf Upgrade Project

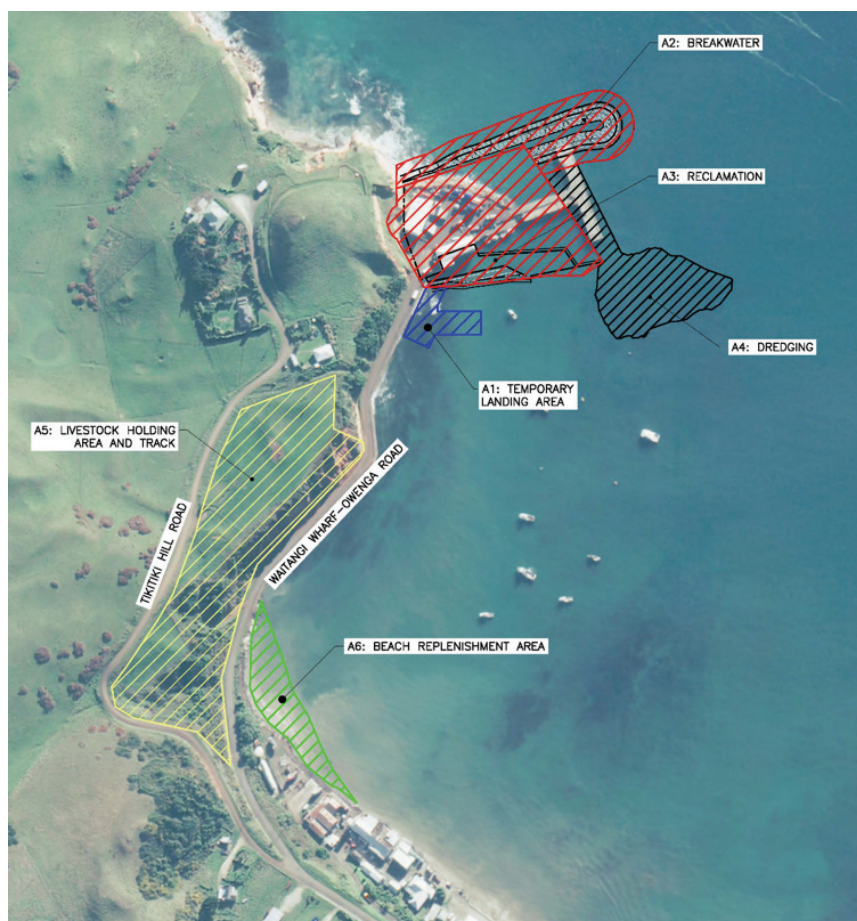
This resource consent application relates to works proposed at Waitangi Wharf on land administered by the Chatham Islands Ports Limited and seeks coastal and land-use permits.

The reasons for the project are to improve the reliability and usability of the wharf, improve health and safety for port users, improve livestock welfare and enhance the port operations for the island. The area of the proposed upgrade works extends across an existing reclaimed area used for port operations at the base of Tikitiki Hill and into the Coastal Marine Area.

The construction period will be approximately two years and will be undertaken in stages so port operations can continue.

The Waitangi Wharf Upgrade project will involve:

- A temporary landing area (2,100m<sup>2</sup>) for unloading and loading of construction equipment
- A breakwater up to 185m long for wharf protection
- New land for enhanced port operations and new buildings for port handling - a new commercial wharf and fishing wharf
- Dredging the harbour and surrounding seabed to enable construction of the new coastal structures and to improve berthing for vessels over an area of approximately 7,000m<sup>2</sup> (the size of a rugby field)
- Beach replenishment of Waitangi Beach using sand from the proposed dredging
- Improvements to the existing livestock holding area and track.
- If funding is available, the landing area may be completed as a haul-out/launching area



## Compliance with current legislation

To meet the relevant legislative requirements and standards of similar facilities across New Zealand and to address the Chatham Islands' unique position, the proposed design reflects:

- Improved animal welfare for livestock transported through Waitangi Wharf: A feeding shed in the livestock holding area, new livestock pens and a livestock race on the wharf, plus minor works to improve the livestock track on the hill.
- Ongoing fisheries export compliance: The proposed reclamation area and the new fishing wharf will enable faster processing of fish and manoeuvring of fishing operations.
- Improved health and safety for port and shipping employees and general public: The Health and Safety in Employment Act 1992 governs the operations proposed at the wharf.
- Improved biosecurity: A cargo area inside the port area to inspect and, where necessary, wash and treat potentially contaminated goods and machinery imported to the island.

## New breakwater

A key component of the proposed works is the construction of a breakwater to protect the commercial wharf and provide additional shelter at the fishing wharf. Interlocking blocks - XBloc concrete armour - have been selected as cost effective and proven for coastal protection. It is proposed to produce about 4,500 XBlocs at the construction yard.



An example of a breakwater constructed using XBloc armour.

## Consultation

The community and various port user stakeholders have had a significant role in the design's development following three phases of consultation.

The key themes from consultation are:

- Local community and key stakeholders are generally supportive of the wharf upgrade project
- Main concerns centre on potential for changes in sediment movement, coastal processes and erosion patterns
- A need to improve regulatory compliance by designing the wharf with sufficient space and facilities
- Ongoing discussion required around the configuration and location of the operational layout of the port
- A need to improve facilities for fishing operators.

## Environmental effects

The Assessment of Effects on the Environment (AEE) report concludes that project fulfils the intent and purpose of the Resource Management Act:

- Construction and management of the project will result in minor effects on the environment and significant positive effects to the wellbeing of all Chatham Islanders
- The project will enhance the port's existing operations, health and safety and animal welfare, and improve the connectivity of the island to mainland New Zealand
- The project will provide resilience for a critical piece of infrastructure which supports the island's economy.

## Environmental management

Potential effect	Mitigation
Transport	Minimise impact on usual road users by regulating hours, maintaining the road, improving signage, and respecting local usage such as school bus. These measures are contained in a Construction Traffic Management Plan.
Noise	Minimise noise generated by the project and ensuring noisier activities occur during normal working hours, including muffling reversing beepers, noise barriers around noisy activities, maintaining vehicles in good condition and monitoring activities. These measures will be contained in a Construction Noise and Vibration Management Plan.
Archaeology	Implementation of an Accidental Discovery Protocol so any artefacts can be identified and managed in the appropriate manner, for example recovery, documentation and preservation of found items.
Cultural heritage	Ongoing consultation with tangata whenua. Development of a Cultural Impact Assessment identifying the values pertaining to the area to avoid or minimise adverse effects.
Coastal processes	Beach replenishment of Waitangi Bay to improve area in front of fish factory and hotel. Breakwater design to absorb the energy of the waves, not to deflect it elsewhere.
Ecological	Relocation of kaimoana from within the footprint of works prior to works commencing.

An overarching Construction Environmental Management Plan (CEMP) will be prepared to avoid or minimise construction effects. A draft CEMP for the wharf is part of the resource consent application.

## → Construction Yard

Chatham Islands Council is seeking resource consents to establish industrial activities on a site it owns on Waitangi-Tuku Road. Works on the site are proposed to be undertaken in two stages:

- Establishment of a construction yard to assist with the construction of the upgraded wharf
- Following the wharf upgrade, establishment of the Chatham Island Emergency Management and Operations Centre. This would include the fire station and ambulance buildings and the council's work depot (roading contractor's yard).

A groundwater bore for the operation is also proposed to service the construction yard and potentially provide a water source for the Emergency Management and Operations Centre. The proposed construction yard is 3ha in area with a sloping northward aspect and is currently open pasture. The yard is 1km west of Waitangi Township and its closest boundary 150m from the coast.

The proposed construction yard site is located opposite the Spark compound which contains residential and operational buildings. The closest dwelling in this compound is 20m from the construction yard's boundary. The meteorological services station is 400m to the east.

The construction yard will be in operation for a period of 2 - 3 years and is 2km from the wharf by road. It will contain:

- A concrete batching plant to manufacture precast concrete XBlocs and provide concrete for the wharf upgrade
- Aggregate storage bins
- Construction equipment
- Plant and construction equipment storage
- Site offices and general storage
- Water tanks
- Wharf construction materials stockpile area.

The yard will operate Monday to Saturday from 6.30 am to 8.00pm. Flexibility in working hours is sought to enable construction to be programmed around optimal weather and sea conditions.



Proposed construction yard and Emergency Management and Operations Centre site.



Construction yard site looking north towards Hanson Point.



Construction yard site looking to the Spark compound opposite the site.

## Concrete batching area

About 4,500 XBlocs will be produced and 6,000m<sup>3</sup> of concrete is also required for pavement associated with the reclamation. A mobile batching plant is likely to be used as it is self-sufficient and requires limited infrastructure for operation and maintenance.



Example of a mobile concrete batching plant operation.

## XBlocs manufacturing area

The XBlocs manufacturing area is likely to be located along the roadside boundary of the site and will contain about 40 XBlocs moulds in a row.



XBlocs manufacturing process



XBlocs storage and curing

## Environmental management for the construction yard

Activities on site will be undertaken with a Construction Environmental Management Plan which will include the following measures:

- Stormwater runoff held in a sediment pond for treatment before being discharged to land
- Clean stormwater runoff diverted away from the construction yard and discharged to land
- Concrete truck wash-down water collected in a storage pond until the concrete batching plant is decommissioned, then removed for disposal to an approved facility
- Dust from concrete processes or stockpiles will be minimised through covering or wetting down of stockpiles and the use of a closed cement system.

Once the wharf upgrade work is completed, the construction yard will be decommissioned with all structures, buildings and hard-standing not required for the Emergency Management and Operations Centre removed. Exposed areas of the site will be reinstated in topsoil and grass.

## Noise management

A Construction Noise and Vibration Management Plan will be prepared specifically for the yard activities to minimise their impact on the neighbours.

## → Quarries 1 and 2 applications

Two quarry sites are necessary to provide certainty that the quantity of rock required for construction can be obtained. The quarry sites are located to ensure that any permanent water courses are avoided and there is a buffer zone between them and the sea. A two-stage approach will be used to extract rock: as much as possible by mechanical excavation, and drill/blast extraction when required.

Both applications include management plans to mitigate impacts on the community and environment. All practicable steps will be undertaken to minimise adverse effects on property, wildlife, biodiversity values, aquatic ecosystems, vegetation, cultural and amenity values.

An archaeological assessment was conducted in June 2015.

Archaeological sites identified in a 1974 mapping exercise are not located on the quarry sites but, because of their proximity, an application for an archaeological authority has been sought which includes monitoring all initial earthworks.

Vehicles using the local road network will include up to five trucks, three low loaders, two concrete trucks, a water tanker and staff vehicles. A management plan will include measures to reduce the impact of the vehicles on the road and road users.

At the end of the project, the sites will be rehabilitated to blend with the surrounding environment, including reshaping quarry walls to make flatter slopes, backfilling, topsoiling and grassing.

## → Quarry 1- Ohinemama Quarry

Ohinemama Farm Ltd is seeking resource consent to operate a quarry on its farm on Waitangi-Tuku Road. The works will generally involve operations within a six hectare site:

- Quarry, approximately 17,000m<sup>2</sup> in area
- Processing area, approximately 9,000m<sup>2</sup> in area
- Site office
- Access track from Waitangi-Tuku Road through pastoral land
- Stockpile areas for materials removed: topsoil, overburden (other organic material above the rock), and vegetation
- Explosives magazine.

The proposed quarry is on pastoral land at the south-western end of Chatham Island, 7.2km from the main township of Waitangi, 20m from the coastline and 700m from Waitangi-Tuku Road. The nearest residential properties are 600m to the east, and 1km to the south from the quarry.



Location of Ohinemama Farm Ltd Quarry and nearby residential dwellings.



View of proposed site.

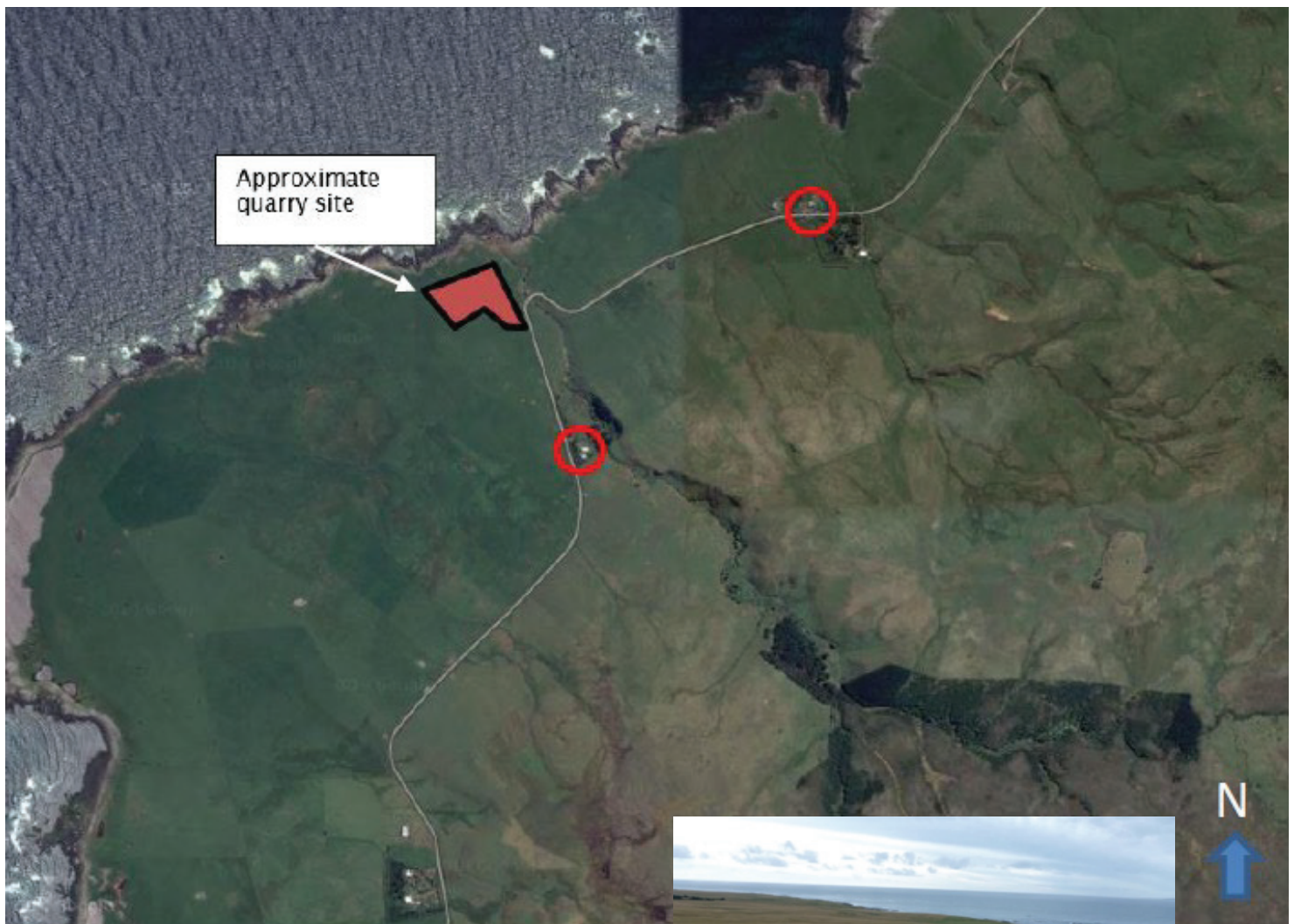
## → Quarry 2- Chisolm Quarry

Eoin Chisholm and Brenda Tuanui are seeking resource consent to operate a quarry on their farm along Waitangi-Tuku Road. The works will involve operations within a six hectare site:

- Quarry, approximately 17,000m<sup>2</sup> in area
- Processing area, approximately 9,000m<sup>2</sup> in area
- Site office
- Access track from Waitangi-Tuku Road through pastoral land
- Stockpile areas for materials removed: topsoil, overburden (other organic material above the rock), and vegetation
- Explosives magazine.

At the end of the project, a small working face of the quarry will remain open to enable the extraction of 3,000m<sup>3</sup> per annum for three years and the resource consent application also seeks consent for this work.

The proposed quarry site is located on pastoral land at the south-western end of Chatham Island, approximately 11km from Waitangi, approximately 50m from the coastline and accessed from Waitangi-Tuku Road. The nearest residential dwelling is approximately 880m north-east of the proposed works area, with another two dwellings located approximately 1.4km to the south-east and 1.7km to the south.



Location of Chisolm Quarry and nearby residential dwellings.



View towards the south, with the site in the background.