

WAITANGI WHARF AND PORT UPGRADE – PROVIDING A CRITICAL LIFELINE AT THE EDGE OF NEW ZEALAND

by

Mark Foster¹, Tom Shand¹, Manea Sweeney¹ and Matt Blacka²

¹ Tonkin + Taylor Ltd, Auckland, New Zealand; email: mfooster@tonkintaylor.co.nz

² Water Research Laboratory, Sydney, Australia

EXTENDED ABSTRACT

One of our most remote communities, the Chatham Islands, sits 800km off New Zealand's east coast and is home to 600 people. The islands are serviced by a port which provides a lifeline for the community through the provision of every-day goods and export earnings. The port is at the end of its structural life and significant upgrades are necessary. The Waitangi Wharf Upgrade, a project of some \$58 million, involves reclamation, dredging and the construction of a large breakwater. The NZ Dept. of Internal Affairs requested that the Memorial Park Alliance comprising NZTA, HEB, Downer, Tonkin + Taylor and AECOM deliver upgrade works.

The project progressed from concept design, through consenting and detailed design within 12 months; an extremely tight timeframe for a project of this scale and complexity.

The Chatham Islands are located within the Chatham Rise, a relatively shallow geological plateau, surrounded by much deeper trenches. The Chatham Rise is New Zealand's most productive fishing ground.

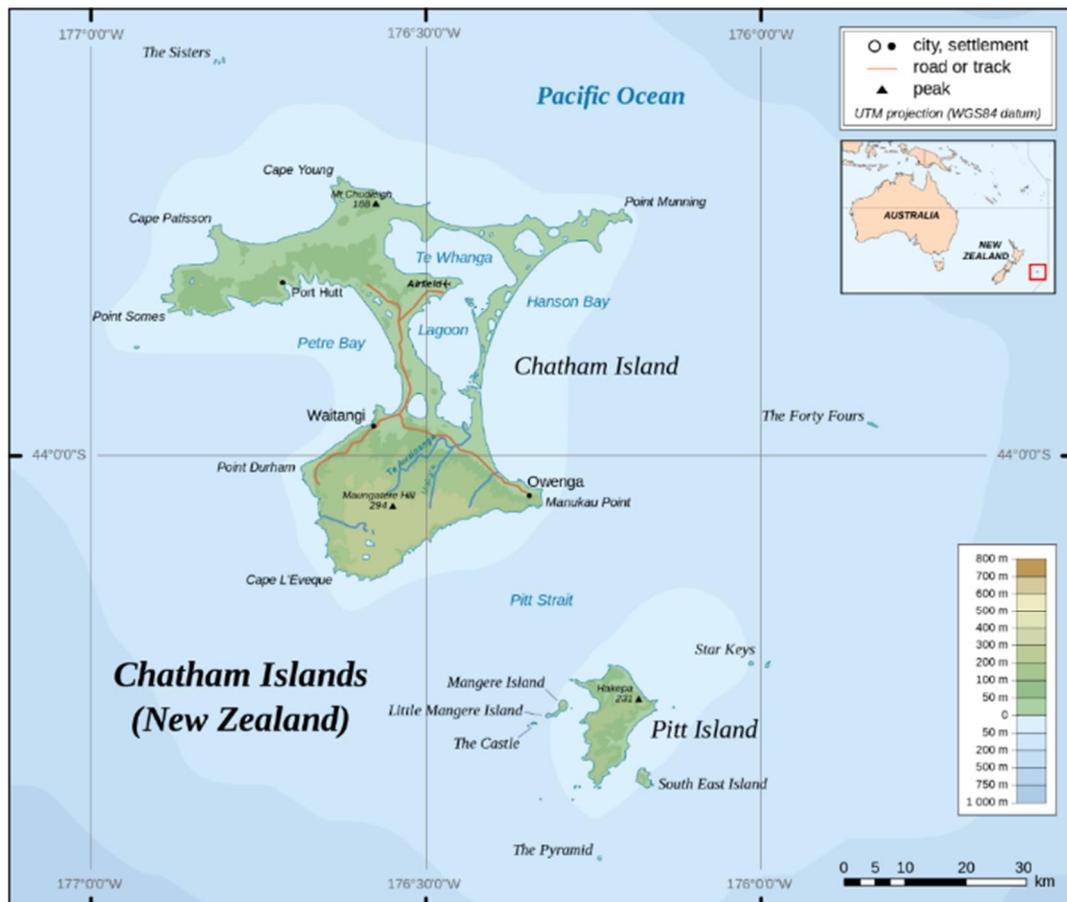


Figure 1 – Location of the Chatham Islands.

The extreme remoteness of the project, and its relative impact to the small community, highlighted some of the typical challenges and opportunities coastal practitioners face with port development. This paper presents some of the key lessons learned and opportunities highlighted by the project.

Extensive community engagement was undertaken throughout the process including requirements at the port and surrounding areas, existing coastal processes and likely effects of the development and options for social and environmental improvements. This built trust and established relationships, very important factors for a project this size impacting on a very small community (i.e. the construction team increased the total island population by 6%).

This paper presents an overview of the project, and the unique challenges and lessons learned by working in such a remote environment, including:

There is benefit in connecting communities to their ports.

Waitangi Wharf and port is essential to the sustainability of the Chatham Islands as a community. And the community are intrinsically aware of this.

The short-term impact of the project on the community was significant.

Yet much more than any other project we have been involved in before, there was an understanding that those impact and potential impacts, were part of the trade off.

It could be argued that any city is equally reliant on their port as the Chathams. Yet, on mainland New Zealand, the vast majority of the public do not appreciate this importance. And as such, ports most often face resistance to development and growth.

If we can connect our mainland communities to the importance of our ports, we could see a shift in sentiment towards port development and port operation. The authors believe there is a huge, albeit complex, opportunity for the industry in this regard.

Procurement matters for remote projects

Too often remote projects, particularly in the Pacific, are procured using a linear procurement model – of design, tender and construct.

The New Zealand Transport Agency (NZTA), as advisors to DIA, are a mature infrastructure delivery agency. They recognised that with the tight timeframes, limited scope definition, and the challenges of delivering a project in a location with limited infrastructure, that an Alliance procurement model was the best approach.

It's known that good collaboration often leads to better outcomes. In the case of remote projects, this is even more acute. Funders should consider procurement methods carefully for remote projects – as there is significant advantage in choosing the right method, and one that allows collaboration, as DIA and NZTA did in this instance.

Good relationships help to achieve win-win outcomes

The Waitangi Wharf Upgrade really put the value of relationships under the spot light.

With such a small community, who were going to be significantly impacted by the works, and whom we needed considerable assistance from, we recognised early that relationships would be paramount.

The Alliance dedicated considerable effort to integrating with the community and building strong relationships and striving for win-win outcomes.

Those efforts in building relationships have been extremely worthwhile. The Alliance has achieved better financial outcomes through agreements with the business community. The community feel they have a project team they can trust. The workforce are enjoying their time on the island. And the island are happy to have their temporary residents contributing to the island community in a positive way.

Keywords: remote construction, port, breakwater,xbloc, collaboration.