


Appendix: Background Information for Portland Old Wharf

Source Material:	Heritage New Zealand City at Risk entry for Portland Timber Wharf (source: Heritage New Zealand)
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NZHPT City @ Risk Project: Place Recording Sheet

<p>IDENTIFICATION</p> <p>City @ Risk ID Numbers (Form# / Place#) <i>(Administrative use only):</i></p> <p>_____ / _____</p> <p>Item Name: Portland Wharf</p> <p>_____</p> <p>Item Street Address: Portland Wharf Road</p> <p>_____</p> <p>_____</p> <p>Legal Description: Lot 2 DP 175517, NA 108A/154_____</p> <p>_____</p>	<p>Geographic Location <i>(complete as many as possible):</i></p> <p>GPS Used? (no): _____</p> <p>Easting: _1720808_____</p> <p>Northing: __6036999_____</p> <p>GPS Accuracy: _____</p> <p>Coordinate System: _NZTM_____</p> <p>Datum (NZ Geodetic 1949 preferred):</p> <p>_____</p> <p>Google Earth .kml file name:</p> <p>_____</p>
<p>MAIN PHOTOGRAPH</p> <p>Bill Edwards January 2013</p>	
<p style="text-align: center;">HISTORICAL DESCRIPTION</p> <p>The wharf at the end of Portland Wharf Road was the final part of the industrial process for the transportation of cement by rail to the waiting ship in deep water. The New Zealand Herald on the 13 October 1913 reported: 'a special meeting of the Whangarei Harbour Board was to consider the proposal to build a wharf three quarters of a mile in length, which the Dominion Portland Cement Company proposes to erect at Tikorangi (Portland) in connection with their works'. The wharf was approximately 1.2km long and had a rail line along it, and was built of jarrah with totara piles. Steam engines would convey cement to the pack-house at the end of the wharf, where it was loaded on to the ships and scows. Coal was unloaded at the end of the wharf and carried to the works for the kilns. There were two Peckett steam engines that pulled the wagons as the D class locomotives were too heavy for the wharf. In 1958 the first diesel engine arrived, for hauling the rock from the quarry to the mill, and gradually the steam engines were phased out (Pegram 1994) A new wharf was built to transport the cement pneumatically as a powder moving through large diameter pipes to the waiting ships and the old wharf became redundant. The old wharf was closed in 1986 and partially dismantled in 2006 when the planking and some of the piles were removed. There are still remnants of the wharf structure visible today (2013).</p> <p>The Portland area is part of the traditional rohe of Ngai Tahu. In the late 1700s an Ngapuhi</p>	

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chief, Ta Kahore, who had settled in the area sought to marry Pae (Ngai Tahu). She resisted but eventually agreed to marry him. To Te Kahore's surprise a taua ope (war party) of Ngapuhi arrived and resulted in the defeat of Ngai Tahu, with some who escaping to the Kaipara. The conquering chiefs who remained in Whāngārei were of the Ngai Ruangaio hapu of Ngapuhi. They took Ngai Tahu women as wives and divided the land among them. Over the intervening years there were a number of battles with Ngati Whatua, Ngati Maru, and Ngati Wai. During this time of constant warfare, Te Parawhau, who occupied all the western shore of the Whāngārei harbour and had a number of pa there, became the strongest tribe in the area (Fletcher 2008).

It appears that the area that now comprises Portland was purchased from the Crown from Maori owners as part of the Maungatapere block in 1855. The land was purchased by James Smeaton between 1873 and 1881. The Dominion Portland Cement Company purchased the land from Smeaton and Phillips in August 1914. The origins of the cement works have been outlined by T.H. Wilson, a former manager of the Portland cement works:

In 1912 Mr J Wilson, who had retired from the Wilsons Cement Co (Warkworth) was practising as a Consulting Engineer in Auckland, took a launch trip as far north as Whangarei. Going up a river he noticed what appeared to be a large hill of limestone up the Oakleigh River, a branch of the Whangarei River. Making inquiries he came to the conclusion that it would be a good site for a cement plant. Getting back to the city he induced several business men to join him in the venture. An option was secured on the property from the owner, Mr Phillips, and after full consideration of the possibilities and testing the stone; it was decided to form a Company, to be known as the Dominion Portland Cement Company Ltd, with a capital of £300,000. This was successfully done, and at the same time the white lime deposit at Waro was purchased and a small deposit on the shore of Whangarei Harbour. It was an ideal position for a cement works, deep water was handy, the government railway was run through the property, and there was road access to Inland clients. Coal was supplied from Hikurangi to the Onerahi wharf, thence taken to Portland (the name given to the new settlement) by barge; the White Lime was taken by the same route. The railway connection to the works was not made until late in 1919. The necessary houses were built for the married members of staff, together with several houses for the workmen; also a boarding house for single members of the staff and another boarding house for workmen, where all men could get their meals if they so desired.

A general store was erected and taken over by the Farmers Trading Co of Whangarei. The only connection to the Works (from Whangarei) was by a very bad road, the Company's Motor Launch running from Onerahi, where a number of workmen lived, and the others went down by train from Whangarei to connect up with the launch. (Wilson 1956: 46-47)

In 1918 a new company was formed that combined Wilsons Co based at Warkworth and the New Zealand Portland Cement Co at Matakohē Limestone Island which bought out the assets of the Dominion Portland Cement Company. The Portland plant was more modern and had greater mineral reserves and so the new company was then formed and called Wilsons (NZ) Portland Cement Company.

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CURRENT PHYSICAL DESCRIPTION

The old wharf was visited in January 2013 and the structure remains visible out into the harbour. The decking has been removed but most of the piles still remain in-situ. At the northern end of the wharf some of the piles have been stacked onto the structure. The wharf is a redundant structure but the remaining piles illustrate the outline of the wharf. There are metal supports (made from railway iron) which are badly corroded and have failed. The causeway to the wharf is in good condition and functions as a continuation of the Portland Wharf Road. An interesting feature of the causeway that is also shared with Tikorangi Road is the use of hessian cement filled bags to make part of the structure. The hessian as long since disappeared but the imprint of the bags is clearly visible on the cement. At the southern end of the causeway there is a remnant of rail line just on the surface of the road which indicated its former use as railway.

POTENTIAL SIGNIFICANCE

Technological- this was a significant maritime structure that was three quarters of mile in length (1.2km) and was reported as the longest wharf in New Zealand. By comparison the wharf at Tolaga Bay on the east coast is 660m long (The Northern Advocate 8 June 2006). The reason for the length of the wharf at Portland was to allow deep draught vessels a safe berth age in the shipping channel. The cement and coal was transported by rail along the wharf but this became redundant technology when the cement was transported pneumatically as a powder moving through large diameter pipes.

Architectural – the size of the structure reflects the capital and labour outlay for a marine structure. The Portland site was chosen because of the proximity of deep water and in order to gain enough depth of water the wharf had to be long. The wharf was engineered to carry heavy loads associated with cement and coal.

Social- the wharf was used by the community of Portland for fishing which was mainly recreational but also provided fish for the table. Of interest the railway engine ‘Gabriel’ which is used for by the Bay of Islands Vintage Steam Railway at Kawakawa was formerly used on the wharf at Portland.

POTENTIAL RISK

The wharf is a derelict structure and may be dismantled or will be left to further deteriorate.

EXISTING HERITAGE RECOGNITION:

NZHPT Register:
 No _____

WDC Schedule: No _____

Other WDC listing: No _____

NRC Schedule:
 No _____

Appendix: Background Information for Portland Old Wharf

Source Material:	IPENZ Heritage Engineering Register entry for Portland Cement Works (source: IPENZ, http://www.ipenz.org.nz/heritage/default.cfm, accessed 2015)
<p><i>Category</i> Engineering Site (eg Portland cement works, Maori fortifications)</p> <p><i>Description</i></p> <p>Located by an unusually consistent reserve of high-grade limestone, the cement works at Portland (near Whangarei) is the largest and most modern in New Zealand. The original cement works opened in 1913 and upgrading to a 'dry' process commenced in 1983.</p> <p>In 1912, William Wilson, recently retired from Wilson's Portland Cement Company (WPCC) founded by his father, noted a large hill of limestone near the Oakleigh River and decided it would be a good place for a cement works. Furthermore, it was close to the new Auckland railway route. Wilson then formed the Dominion Portland Cement Company (DPCC) with George Winstone. After visiting suppliers in United States of America, England and Europe, they imported the most up-to-date machinery and established a new plant at Portland, not far from Whangarei Harbour's Limestone Island.</p> <p>Related topics: Limestone Island cement Mahurangi Cement Works (Ruins)</p> <p>To drive all the machinery at the works DPCC secured the right to develop the Wairua Falls power station where they installed equipment to deliver up to 2000 kilowatts. Surplus electricity provided power to Whangarei and surrounding districts.</p> <p>Its modern plant meant that the DPCC was able to produce cement more efficiently than rival companies. In 1918 WPCC and the New Zealand Portland Cement Company purchased the assets of the financially troubled DPCC, and became Wilson's (New Zealand) Portland Cement Limited.</p> <p>Big changes in the mid to late 20th century Extensive additions were made to the Portland plant in 1953. Its former annual 100,000 tonnes capacity was doubled by constructing a new gantry building, crusher house, two cement silos and a slurry basin. Two years later output was increased further, to 250,000 tonnes per annum, because of a new kiln. This expansion continued and by 1966 there were six kilns operating. The capacity was 460,000 tonnes per annum using the 'wet' process. Using this process cement rock (an argillaceous marl) and limestone rock were ground to a fine powder in the form of a slurry.</p> <p>However, the energy required to dry the slurry prior to kiln firing made the 'wet' process relatively uneconomic. As a result, in 1983 the 'dry' process was introduced to the No. 6 kiln, with earlier kilns being scrapped or mothballed. With capacity of 430,000 tonnes per annum the energy consumption was almost halved by moving to a 'dry' process. New crushers and cement silos were built. This upgrade work was designed by Gatz-Fuller, the same company that completed the original plant. The construction was undertaken by local contractors Whangarei Engineering Company Limited and Wilkins and Davies.</p>	

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This was a sophisticated engineering project and the Portland works' conversion to the 'dry' process made it one of the most efficient plants in the world for its size. In 1995 x-ray fluorescence laboratory quality control was installed and a high level process logic control computer systems was introduced increasing capacity to 600,000 tonnes per annum. In 2003 the direct coal-fired milling and firing system was changed to duo-fuels burner systems, using pulverised coal and alternative fuels such as pulverised wood waste or liquid fuels. These initiatives further improved efficiency and reduced the impact on the environment.

In the late 20th century the ownership of the works was also changing. In 1970 Wilson's became part of Golden Bay Cement owned by the Winstone Group. The company was purchased in 1988 by Fletcher Building Limited, but its brand name remained Golden Bay Cement(www.goldenbay.co.nz). In 2009 New Zealand's cement production was 1.43 million tonnes, with 930,000 tonnes coming from Golden Bay's Whangarei operation.

(This text was adapted with permission from Andrew Marriott and John La Roche, 'The cement works of Northland,' in John La Roche (ed.), *Evolving Auckland: The city's engineering heritage*, Christchurch, Wily Publications, 2011, pp.284-86)

Heritage recognition

IPENZ "Engineering to 1990" project

This item of New Zealand's engineering heritage was recognised as part of the IPENZ "Engineering to 1990" project which the Institution organised to help celebrate the country's sesquicentenary in 1990. A plaque was unveiled to mark the significance of this place as part of the development of the nation.

Attachments

No Attachments

Location

Portland Road, Portland (south of Whangarei)

Region/s

Northland

Access Info

Not open to the public

Nature of Engineering

Building and Construction

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Portland cement works, 1923. Godber, Albert Percy, 1875-1949: Collection of albums, prints and negatives. Ref: APG-1718-1/2-G. Alexander Turnbull Library, Wellington, New Zealand. <http://natlib.govt.nz/records/22906993>



Wilson's (NZ) Portland Cement Company Ltd, Whangarei, 21 May 1962. Whites Aviation Ltd: Photographs. Ref: WA-57485-F. Alexander Turnbull Library, Wellington, New Zealand. <http://natlib.govt.nz/records/22335841>

Lat: -35.806572 Long: 174.333029

