

Appendix 2: Heritage Features Research Report

New Zealand Historic Places Trust Pouhere Taonga

Research Report on Heritage Features

Baring Head, Wellington



Baring Head Lighthouse Station from the trig behind. (K. Cox, NZHPT 17 February 2011)



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EXECUTIVE SUMMARY

Baring Head is a most significant place, encompassing an intact lighthouse complex, abandoned military buildings, a scientific station, and important associated features such as an access road and bridge, all on a prominent coastal headland at the foot of the North Island.

Baring Head was part of a landscape well used by a number of iwi over many centuries, as a place for habitation, fishing and cultivation. At the time of the signing of the Treaty of Waitangi, Te Atiawa held manawhenua over the area. However it remains of considerable significance to several iwi. The block of land that encompasses Baring Head was awarded under the McCleverty Deeds of 1847. Maori later used the land for grazing sheep. In 1912 the Native Land Court determined title and certificates of title were issued for subdivision the following year. It is possible that by this time Pakeha farmers had already leased or bought the land from its Maori owners for sheep farming.

The site of the lighthouse and its environs were in the hands of owner Eric Riddiford at the time he donated it to the government for use as the site of the country's penultimate lighthouse station. Work was delayed by the Depression and did not begin until mid-1931 with the construction of the bridge and road linking Coast Road with the lighthouse site. The lighthouse and houses followed in 1933-34 and the lighthouse itself was finished, and opened, in 1935. Baring Head, New Zealand's first electrically powered coastal light, was manned firstly by two keepers and then, by one from 1960, until 1989, when it was fully automated.

The area was also used for military purposes during World War II, with a Fortress Observation Post on the hill behind Baring Head, and a Naval Signal Station built close to the lighthouse. In 1974, the Department of Scientific and Industrial Research (DSIR) established a meteorological station on the site of the signal station and its work in assessing air quality continues to be a significant part of the Baring Head story. In 2011, the area around the lighthouse reserve was purchased by a consortium of public and private interests, led by the Greater Wellington Regional Council, and public access is now unencumbered.

Baring Head is of heritage significance for a number of reasons. It contains a coherent group of purpose-built lighthouse buildings (the light itself, keepers' accommodation and associated buildings) in sound condition. The lighthouse

itself was the country's first electric powered (diesel generated) light and as such ushered in a new era of operation that ultimately led to the automation of the country's lights. The World War II era structures are a link back to the country's efforts to defend itself from attack from the sea during a time of great peril. The former DSIR buildings (and their predecessors) have performed an internationally significant role since 1974. All of these places occupy a spectacular location overlooking the eastern edge of Cook Strait.

1. BACKGROUND TO THE REPORT

This report was prepared in conjunction with Greater Wellington Regional Council, in order to provide information on the history of Baring Head and an assessment of its heritage values using the criteria of the *Historic Places Act 1993*. The report identifies features of heritage significance and sets out evidence to support the assessment of heritage values within the historical context.

The report will be used to inform Greater Wellington Regional Council's decision-making regarding management of the site. It will also inform a possible future registration of a Baring Head Historic Area by the New Zealand Historic Places Trust.

2. IDENTIFICATION¹

2.1. Name of Area

Name: Baring Head

Other Names: Orua-Poua-nui

2.2. Location Information

Address:

Baring Head

Wellington Region

Additional Location Information

Baring Head is approximately 40 minutes drive from Petone. Access is either via Wainuiomata along the Coast Road or Eastbourne along Pencarrow Coast Road. At the Wainuiomata end of the reserve there is a bridge and gate which restricts vehicular access, and people must leave their cars there and walk up to the lighthouse from this point. At Eastbourne, along the gravel Pencarrow Coast Road, access is again restricted to cyclists and people walking from a gate at the entrance to the Pencarrow Heads unless you have a key. The

¹ This section is supplemented by visual aids in Appendix 1 of the report.

military barracks and observation post are located on a hill about 500 metres behind the lighthouse complex. This is signposted. Access to these structures is restricted as there are safety concerns about their structural integrity; however it is possible to view the remains of the barracks from behind a fenced area.

Local Authority: Hutt City Council

2.3. Current Legal Description

Lot 2 DP 72418 (CT WN40D/367), Wellington Land District (Lighthouse, NIWA station, naval signal station remains)

Pt Lot 1 DP 72418 (NZ Gazette 1995 p. 324, 1994 p. 2801-2), Wellington Land District (Lighthouse Keepers' Houses and outbuildings, power house, shelter belt, WAAC World War II barracks)

Pt 1A3 Parangarahu (NZ Gazette 1995 p. 1364), Wellington Land District (Fortress Observation Post – observation post, wireless room [and associated building], barracks, water tank)

Lot 4 DP 59276 (CT WN 42B/597), Wellington Land District (The pump house on the Wainuiomata River, the water pipes between that and the defence complex adjacent to the trig and water pipes from there to the lighthouse station, the bridge and majority of the access road)

Pt 1A2 Parangarahu, Pt 1A3 Parangarahu (CT WN26B/763) Wellington Land District (Part of the Access road)

2.4. Physical Extent of Area assessed as contributing to heritage values:²

Extent includes the land described as Lot 2 DP 72418 (CT WN40D/367), Pt Lot 1 DP 72418 (NZ Gazette 1995 p. 324, 1994 p. 2801-2), Pt 1A3 Parangarahu (NZ Gazette 1995 p. 1364, CT WN26B/763), Lot 4 DP 59276 (CT WN 42B/597) and Pt 1A2 Parangarahu (CT WN26B/763), Wellington Land District and the following heritage features: Baring Head Lighthouse Station (incl. Lighthouse, lighthouse keeper's houses 1 & 2, diesel generator building, garage and outbuildings, shelter belt, telecommunications structures, rockery garden and fences), Defence Observation Posts and associated buildings and remnant

² See 'Physical Information' for an analysis of this statement. This section is supplemented by visual aids in Appendix 1 of the report.

structures (incl. barrack foundations, wireless room, possible mess room, water tank etc), pump house and water pipes connecting the three places, access road and bridge, NIWA Station and remains of naval station and WAAC barracks, and Maori archaeological sites R28/37(cave with midden) and R28/36 (burial).³ (Refer to map in Appendix 1 of this research report for further information).

3. SUPPORTING INFORMATION

3.1. Historical Description and Analysis

Prehistory and archaeological evidence

Baring Head is known as Orua-Poua-nui, meaning the place of the den, or retreat, of Pouanui.⁴ It is very close to the entrance of Te Whanganui-a-Tara (the great harbour of Tara), and it is held that the harbour was first discovered by Kupe, who had a role in naming parts of it. He was probably also the discoverer of Baring Head.

Many tangata whenua groups have been supported by the landscape of Baring Head over the centuries. Most recently Te Atiawa / Taranaki Whanui, who are tangata whenua of Port Nicholson including the area encompassed by Baring Head, note the significance of the area as a Maori cultural landscape. The principal feature of interest in the area is Parangarahu Pā, located on the Baring Head Block at Fitzroy Bay north of Baring Head, and established many centuries ago.⁵ Its builder was probably Tautoki, son of Whatonga, a descendant of Kupe, whose other son Tara gave his name to the harbour. Tara and Tautoki's son Rangitane gave their names to the two iwi that eventually settled in the area. The pā was later home to Ngati Ira, who were the occupants of the area when the first Ngati Toa taua (war parties) arrived in Wellington in 1819 and eventually drove Ngati Ira out. More taua were followed by waves of migration from Taranaki. This ended in 1835 and at the time of the arrival of the New Zealand Company and its settlers in 1840, Te Atiawa held manawhenua

³ See Appendix 5 for further information.

⁴ Baring Head/Orua-pouanui <http://www.lin.govt.nz/placenames/placenames/consultation-decisions/a-to-z/baring-head-orua-pouanui/index.aspx> (accessed 10 Mar 2010)

⁵ Raukura Consultants 2011, 'Orua-Poua-Nui / Baring Head Cultural Values Report', Greater Wellington Regional Council p.3

over much of Wellington, including Baring Head.⁶

The Baring Head area was part of land held by Maori and granted to them in 1847 as part of the McCleverty Deeds granting native reserves.⁷ Ownership of the land was established in the Maori Land Court in 1912 prior to subdivision of the land in 1913. It is not certain if the land had left Maori hands by this time.

Archaeological evidence has suggested that the majority of Maori occupation of the Baring Head area was concentrated on the coastal platform.⁸ This is certainly true of what has been termed the Parangarahu village site to the north of Baring Head. A large stone wall was built to protect the gardens planted there from rock fall from the cliffs above. The kainga was used in pre-European time, and continued to be occupied after European contact, notably as a place to grow wheat for the settlers at Wellington.⁹ This site has not been included in this research report; however it remains an important part of the history of the area. The significance of prehistoric gardening, and evidence for long term settlement in the southern Wairarapa has been recognised by archaeologists, for example through research carried out at Palliser Bay.¹⁰

There are two recorded Maori archaeological sites within the area researched.¹¹ These are NZAA site numbers R28/37, a cave with midden and R28/36, a burial.¹² R28/37 is located at the foot of the cliff that the lighthouse is situated on. The cave extends one hundred feet from the entrance, and at the far end there is evidence for charcoal and ash, with a midden including paua, shells and bird bones at the mouth of the cave.¹³ It has been suggested that this site was used as shelter when bad weather stopped food gathering expeditions along this part of the coast.¹⁴ The burial site (R28/36) is situated above the cave at the most projecting part of the point, and was uncovered during excavations for the

⁶ Raukura Consultants 2011, 'Orua-Poua-Nui / Baring Head Cultural Values Report', Greater Wellington Regional Council pp.6-11

⁷ Ibid. p.18

⁸ NZAA Site Record R28/21, NZAA Archsite www.archsite.org.nz

⁹ NZAA Site record R28/9, NZAA Archsite www.archsite.org.nz; J.B. Palmer 'Maori Sites in Fitzroy Bay' *New Zealand Archaeology Association newsletter* 1963 6(3):125-134, p. 132

¹⁰ B. Leach, The Prehistory of the Southern Wairarapa, *Journal of the Royal Society of New Zealand*, 11(1): 11-33, 1989; L. Furey, Maori Gardening, an Archaeological Perspective, New Zealand Department of Conservation, 2006 (available online at <http://www.doc.govt.nz/upload/documents/science-and-technical/sap235.pdf>, accessed 9 Mar 2011)

¹¹ These are recorded in the New Zealand Archaeological site recording scheme. See NZAA Archsite www.archsite.org.nz

¹² NZAA Archsite www.archsite.org.nz (accessed 26 Jan 2010)

¹³ NZAA Archsite www.archsite.org.nz, (accessed 26 Jan 2010) site R28/37

¹⁴ J.B. Palmer 'Maori Sites in Fitzroy Bay' *New Zealand Archaeology Association newsletter* 1963 6(3):125-134, p. 133

lighthouse.¹⁵ There is one further rock shelter in the vicinity of the complex (R28/15), approximately 80 metres further to the north of these two sites and also on the coastal platform. It has also been suggested that another recorded site near the trig, R28/21, may be from Maori occupation, although archaeologists reporting in 1995 were of the opinion that this was unlikely.¹⁶

There are further archaeological sites located in the reserve surrounding the lighthouse. The complex of houses for the lighthouse and naval signal station have been allocated NZAA site number R28/48.¹⁷ The World War II Fortress Observation Post, consisting of a concrete observation post, two concrete buildings and a cut/fill terrace with concrete piles has been given NZAA site number R28/40.¹⁸ This is located circa 500 metres from the lighthouse and near the Para trig. The history of these structures is provided below.

Lighthouse complex

Baring Head Lighthouse was built to replace Pencarrow Lighthouse, a short distance to the west at Pencarrow Head. Pencarrow Lighthouse was New Zealand's first lighthouse when it opened in 1859, and when Baring Head opened in 1935 it was New Zealand's first fully automatic lighthouse, powered by diesel-generated electricity.¹⁹ The lighthouse stands on land donated by a local landowner, Eric Riddiford.²⁰

In 1930 it was announced that Pencarrow was to be replaced with a new lighthouse at Baring Head. It came partly out of an encounter between Eric Riddiford and a government official on the interisland vessel *Wahine*, in 1928. Riddiford had suggested that he would be willing to gift the land for the purposes of a lighthouse at the site.²¹ The land at Baring Head was much higher than that at Pencarrow, and would give greater visibility for vessels

¹⁵ *Dominion* Jan 19 1934, in Baring Head – Origin –General, M1 769 6/62/1 (1925-39), Archives New Zealand. It is unclear from the site report whether these remain in place or have been removed, although in a newspaper report it was stated that the majority of the bones fell down the side of the cliff at the time they were uncovered.

¹⁶ Raukura Consultants 2011, 'Oua-Poua-Nui / Baring Head Cultural Values Report', Greater Wellington Regional Council p.19; NZAA Site Description R28/21, A. Walton, Doc, 18 January 1995.

¹⁷ NZAA Archsite www.archsite.org.nz (accessed 26 Jan 2010)

¹⁸ NZAA Archsite www.archsite.org.nz (accessed 26 Jan 2010)

¹⁹ H. Beaglehole. *Lighting the Coast. A History of New Zealand's Coastal Lighthouse System*. Canterbury University Press, 2006, p. 142

²⁰ Beaglehole p.108; Eric Riddiford is son of Edward Riddiford, a well known figure who owned a large amount of land in the area (www.teara.govt.nz/en/biographies/2r20/1).

²¹ *Evening Post*, Volume CX, Issue 137, 6 December 1930, p. 10; Baring Head 1928-52, M1 687 8/8/42, New Zealand Archives

entering the Wellington Harbour.²² It was to be a 'much more up-to-date affair,' similar to that at Cape Egmont.²³ In the interim, the financial concerns of the Depression meant that the construction of the lighthouse had to be delayed, and it was not commissioned until 1932.²⁴ Later, when Riddiford's generosity was highlighted at the opening of the lighthouse, he pointed out that he directly benefited by getting a bridge built to the remainder of his land.²⁵

While it was first thought that it would be possible to access the site from the sea, the steep cliffs surrounding the site made that impossible and instead an overland route from Wainuiomata was formed.²⁶ Tenders were advertised for the construction of a road and bridge to Baring Head Lighthouse in June 1931.²⁷ The road was constructed during the second half of 1931 (it was completed in January 1932) by contractor H.J. Peacocke. Upon completion the road was described as follows:

'The road...branches off from the Wainui Road about two miles [3.2 km] from the coast. It is one and three-quarter miles in length [2.8 km], and from ten to twelve feet [3 to 3.65 m] in width. The road is level for about ten chains (200 m) after passing the new bridge, which is about four chains [80 m] from the main road, and, then is steeper as it goes over the hill to just above Fitzroy Bay, after which it goes over a plateau to Baring Head. Although occasional patches of rock were struck, no undue difficulties were encountered in the construction of the road.'²⁸

The contract for the bridge over the Wainuiomata River was won by S.T. Dibble, and also ran from mid-1931 to early 1932.²⁹ At the time of construction the bridge was described as follows:

'The bridge over the Wainui River is built for one-way traffic. It is 110 feet [33.5 m] in length, and is built in three spans, two of forty feet [12.2 m] and one of thirty feet [9.14 m]. The bridge stands about fifteen feet [4.6 m] above water. The bridge is built under a hill, and it

²² *Evening Post*, Volume CX, Issue 137, 6 December 1930, p. 10

²³ *Evening Post*, Volume CX, Issue 137, 6 December 1930, p. 10

²⁴ *Evening Post*, Volume CXVI, Issue 61, 9 September 1933; Beaglehole p.106

²⁵ *Evening Post*, Volume CX, Issue 137, 6 December 1930, p. 10

²⁶ Beaglehole p.142

²⁷ *Evening Post*, Volume CXI, Issue 144, 20 June 1931, p. 24 column 8

²⁸ *Ibid.*

²⁹ *Evening Post*, Volume CXII, Issue 13, 16 January 1932, p. 10

was thought that the rock in the hill would continue under the stream, and so make a good foundation, but such was not the case. Piles thirty-five feet [10.6 m] in length were driven in, but in all but one case this distance was not enough to find a foundation under the silt, and pieces of from ten [3 m] to fifteen feet [4.6 m] in length had to be spliced on.³⁰

While the bridge and access road made it possible to construct the lighthouse, it also meant that supplies and equipment for the future running of the lighthouse could be supplied by road rather than sea, as had been the case at Pencarrow.³¹ In the decades that followed their construction, the road and bridge were the subject of regular correspondence about their physical condition. The road was frequently damaged by weather events and needed repair, including regular grading and metalling. The bridge also required regular repairs.³² On one occasion, in 1956, the bridge was entirely submerged by a flood.³³ Barely a year went by in the post-war period when either the road or bridge did not need attention. Many members and fixings on the bridge have been replaced over time.

Separate tenders were advertised for the erection of the reinforced concrete tower and two cottages in November 1933.³⁴ The designs, it can be assumed, were the work of the Public Works Department, although the plans have not been located as yet. (The lighthouse itself was the forerunner of – and nearly identical to – the Cape Reinga Lighthouse.) The houses and lighthouse base were constructed by Messrs Joseph Jackson and Son. This company was also responsible for constructing and installing two 5000 gallon (18,927 litre) water storage tanks for each of the cottages.³⁵

Issues with access to the site delayed the houses' construction, and they were finally finished on 16 May 1934.³⁶ A newspaper report of the time described them as follows:

³⁰ Ibid.

³¹ *Evening Post*, Volume CXVI, Issue 61, 9 September 1933

³² See correspondence in 1950, 52, 53, 55, 56, 60 etc. in 18/1/1 Pt.1, Lighthouses – Baring Head, ANZ

³³ District Commissioner to Resident Engineer, MOWD, 3 September 1956, 18/1/1, ANZ

³⁴ *Evening Post*, Volume CXVI, Issue 127, 25 November 1933, p. 16

³⁵ Baring Head – Origin –General, M1 769 6/62/1 (1925-39), ANZ

³⁶ Ibid.

'The keepers' houses, built entirely of New Zealand woods, are identical in plan, each having five rooms – three bedrooms, a living-room, and a drawing-room, a scullery, bathroom, and washhouse, and outhouses. The interiors have been tastefully papered and panelled and a number of built in cupboards and wardrobes lend an atmosphere of compact comfort to the buildings. When the power plant has been installed the houses will be lit by electricity and the telephone will be installed shortly. Each house has hot and cold water systems, the water being contained in 5000-gallon underground tanks. The supply will be pumped into 400-gallon house-tanks.'³⁷

Tenders were subsequently advertised for unspecified alterations to the cottages in November 1937.³⁸ Whether these changes were undertaken is not known.

The site for the tower was moved once, east, after solid foundations could not be found 2.5 metres down.³⁹ Work came to a halt during winter, with Jackson complaining that the wind was sometimes so strong that his men could not stand up.⁴⁰

Tenders were advertised for the erection of a power house at Baring Head in December 1933.⁴¹ A newspaper report attributed the supply of the 'electrical equipment' to Chance Bros. and Co., who supplied the equipment for the original Pencarrow light, but Chance and Co. were glassmakers and it seems more likely that they supplied the light and its operating mechanism rather than the power source.⁴² In April 1935 diesel engines to supply the electrical power for the lighthouse and radio beacon were driven from Wellington to Baring Head. They were housed in the power house that had been erected there.⁴³ After the power house was made operational the radio beacon was installed.⁴⁴

The job of fixing the dome in place fell to W.A. Fraser, a 'light artificer', who specialised in erecting automatic lights (all unmanned) in various parts of New

³⁷ *Evening Post*, Issue 22, 26 July 1934, p.15

³⁸ *Evening Post*, Volume CXXIV, Issue 121, 18 November 1937 p.16

³⁹ Beaglehole p.143

⁴⁰ *Evening Post*, Issue 15, 18 January 1935, Page 8

⁴¹ *Evening Post*, Volume CXVIII, Issue 140, 11 December 1934, p. 18

⁴² *Evening Post*, Volume CXIX, Issue 142, 18 June 1935

⁴³ *Evening Post*, Volume CXIX, Issue 83, 8 April 1935, p. 8

⁴⁴ *Evening Post*, Volume CXIX, Issue 83, 8 April 1935, p. 8

Zealand.⁴⁵ The lantern at Baring Head had been intended for North Cape and the lens was the same as the one used at Cape Egmont. As part of his work, Mr. Fraser had to arrange for the moving of the dome from Wellington to the site, which had to be carried on the back of a truck, just clearing underneath a railway bridge on the Hutt Road and under lifted telephone and electricity wires.⁴⁶

The lighthouse was first lit on 17 June 1935, and was accompanied by much media fanfare.⁴⁷ The *Evening Post* reported that it was the first time a lighthouse had been opened with full official ceremony, with the Minister of Marine, the Hon. J. G. Cobbe, doing the honours. He stated that Baring Head filled the requirements of modern ships to have a flashing light, which is more easily picked up at sea than the previous fixed light at Pencarrow.⁴⁸ Cobbe also expressed the appreciation of the government for Riddiford's 'public-spirited action' in donating the land.⁴⁹ On the same day, the light at Pencarrow was extinguished, ending the role that that lighthouse had played in guiding ships into Wellington Harbour for over 70 years.⁵⁰

The first lighthouse keeper was Bob Wilson and his contribution to Baring Head was considerable. Well before he moved full-time to the station he planted thousands of trees to protect the lighthouse station from the boisterous winds famous in the area.⁵¹ These were preceded by manuka brush fences, installed, at least in part, by Eric Riddiford, and these are visible in an aerial photograph from 1935.⁵² In his report on the archaeology of the area surrounding the lighthouse, Kevin Jones notes that the present shelter belts of trees are a 'significant element of the reserve and the Baring Head landscape.'⁵³ Wilson was also responsible, with two others, for the removal of 114 cubic metres of rock so that the light could be seen from Cape Palliser. He built paths and a driveway and a rockery garden.⁵⁴ The latter still survives in a modified form.

⁴⁵ Beaglehole p.142

⁴⁶ *Evening Post*, Issue 22, 26 July 1934, p.15

⁴⁷ Beaglehole p. 292

⁴⁸ *Evening Post*, Volume CXIX, Issue 142, 18 June 1935; in Baring Head – Origin –General, M1 769 6/62/1 (1925-39), Archives New Zealand

⁴⁹ *Evening Post*, Volume CXIX, Issue 142, 18 June 1935, H. Beaglehole. *Lighting the Coast. A History of New Zealand's Coastal Lighthouse System*. Canterbury University Press, 2006, p. 108; in Baring Head – Origin –General, M1 769 6/62/1 (1925-39), Archives New Zealand

⁵⁰ *Evening Post*, Volume CXIX, Issue 142, 18 June 1935

⁵¹ Beaglehole p. 172

⁵² *Evening Post*, Volume CXVI, Issue 61, 9 September 1933, see Figure 7

⁵³ K. Jones Baring Head, Orua Poanui Archaeological Survey for Wellington Regional Council, 2010

⁵⁴ *Evening Post*, Issue 15, 18 January 1935, p.8

An important adjunct to the Baring Head Lighthouse was the installation of a radio beacon - 'the second to be used in the Dominion.'⁵⁵ Its operation was the responsibility of the second keeper. At the opening of the lighthouse, Cobbe stated that 'The beacon will help any vessels equipped with direction finding apparatus to locate their position when out of sight of the light or when the light is obscured by fog.'⁵⁶ This equipment 'allowed ships to take their bearing within 100 nautical miles of the beacons.'⁵⁷ In 1981 the radio beacon was closed down because 'ships could [by then] use the nearby aircraft beacon'.⁵⁸

Much happened at Baring Head during those early years. In April 1935, even before the lighthouse was opened, Captain C.M. Duthie landed a plane next to the station, with much media fanfare.⁵⁹ In 1936, telephone lines were installed between Baring Head and Pencarrow Lighthouse.⁶⁰ In 1938 Riddiford donated a further 42.5 acres [17.2 ha] to extend the keepers' compound, and in a letter of thanks from the Minister of Marine it was noted that this additional land would be used for grazing cows, and would also allow the radio beacon to be housed within the complex. It made 'a very handsome addition' to the land that had already been donated for the New Zealand Lighthouse Service.⁶¹

A list of the buildings at the lighthouse complex from 1947 reveals that some buildings and structures built during its early years were later removed from the station. A single man's bach with an iron and wooden shed alongside, a flag pole, cow bails and coal store, were all listed at the time and are now no longer standing.⁶²

The lighthouse itself was notable for several features in use for the first time in New Zealand. The light was regulated by a sun valve or time switch, which opened or closed small relay contacts at sunrise or set, turning it on or off in the event that the keepers were not there to turn it on or off themselves.⁶³ The light itself flashed rather than being a fixed light as had otherwise been the case in lighthouses in the past.

The diesel electric powering of the lighthouse meant that keepers were not

⁵⁵ *Evening Post*, Volume CXVIII, Issue 154, 28 December 1934, p. 9

⁵⁶ *Evening Post*, Volume CXIX, Issue 142, 18 June 1935

⁵⁷ Beaglehole p.161

⁵⁸ *Ibid.*

⁵⁹ *Evening Post*, Volume CXIX, Issue 84, 9 April 1935, p.7

⁶⁰ Beaglehole p. 292

⁶¹ Baring Head 1928-52, M1 687 8/8/42, New Zealand Archives.

⁶² Baring Head Lighthouse 1943-52, New Zealand Archives, AADX W3148 889 51

⁶³ Beaglehole p.250

required to maintain a 24 hour watch over the light. In fact, although the light was manned, it was not necessary for the functioning of the light at all. It could have been fully automated and, in fact, during the preceding two decades, keepers had been removed from a number of newly automated lights. Placing keepers at Baring Head allowed them to assist maritime safety on a dangerous coast. From the keepers' point of view, what was important was that the diesel powered generators did not require them to do an overnight shift. The absolute necessity of keeping the light functioning had been a fundamental rule of keeping for over 70 years and falling asleep left a keeper at risk of losing his job. Baring Head keepers would not have to deal with the sleep deprivation and anxiety involved in the overnight shift and only had to get out of bed for emergencies. This also meant that only two keepers were required at Baring Head, not the usual three.

The arrival of World War II did not change keeping as such although there was a role for coast watching vigilance, complementing the work of the Naval Signal Station and the Fortress Observation Post at Baring Head. However, for various reasons, not the least of which was the military activity at Baring Head, the lighthouse reserve was closed to the public during the course of World War II, as per Defence Emergency Regulations. It reopened in 1945.⁶⁴

In 1950, the area was connected to mains electrical power, thus ending the use of the diesel generators.⁶⁵ This work took two years and involved the construction of a power line to Baring Head at a considerable cost. Changes were made to the cottages to accommodate the changeover, including the provision of electric cookers.

There was a school established at the station in 1950, with seven pupils enrolled at the time. However this arrangement did not last and by the 1960s the children of keepers were sent to school in Wainuiomata.⁶⁶ The children walked to the Wainuiomata Coast Road, where they would be picked up by the school bus. By 1961, the number of keepers was reduced from two to one, which was probably the reason that home schooling ended. Despite Baring Head's proximity to civilisation, an emphasis was placed on self-sufficiency, as was the norm at other stations. Land adjacent to the station was set aside – and

⁶⁴ *Evening Post*, Volume CXXXI, 27 June 1941, p. 8 *Evening Post* Volume CXL, Issue 92, 16 Oct 1945; Baring Head 1928-52, M1 687 8/8/42, New Zealand Archives

⁶⁵ http://www.newzealandlighthouses.com/baring_head.htm (accessed 10 Mar 2010)

⁶⁶ School buildings: Baring Head Lighthouse School, New Zealand Archives, AAQD W33681; *Hutt News*, Former Lighthouse keeper angered by Baring Head Plans, 20 Apr 2010

fenced - for cows (for milking) plus a few sheep.⁶⁷

In 1967, there were unspecified changes to the houses.⁶⁸ These took place between June and November, so they must have been reasonably substantial. The extreme weather at Baring Head took its toll on the various timber buildings, and regular maintenance – painting, rust removal, window sealing and the like – was commonplace. Much of the work was done by the keeper(s) themselves, partly to keep them busy.

The role of the keepers in maritime safety at Baring Head was a long-standing one and it was largely unchanged as the twentieth century wore on. The last keeper, Steve O'Neill, took part in over 86 Search and Rescue operations.⁶⁹ These rescues were not only confined to the sea but also inland and along the rugged coast, where there were many opportunities for people to have accidents. Such work also formed the basis of the keepers' unhappiness over the prospective automation of the remaining lighthouses.

Automation had seen the removal of a number of keepers over the course of the twentieth century. By 1969, only 39 keeper positions remained throughout New Zealand and the pace of automation quickened in the 1970s, along with technologies that removed the need for weather reporting by keepers and allowed for remote monitoring and repair of lights. Plans for automation firmed up in 1973, but it took the rest of the decade for several lights to be relieved of keepers. By 1980 there were just 21 keepers remaining and a series of public inquiries, committees and reports during the 1980s pointed to an inevitable outcome. At Baring Head work on upgrading the second keeper's dwelling was put on hold as the Marine Division of the Ministry of Transport (by then in charge of lighthouse operations) contemplated the impending demanning of the station.⁷⁰ In the end, it took a further eight years, but as the decade unfolded, pertinent issues arose, including how to secure the buildings when a permanent presence was gone.

By 1987 there were only seven manned stations in New Zealand, mostly concentrated around Cook and Foveaux Straits. Despite the protestations of 'boaties', the general public and the keepers themselves, the government was

⁶⁷ District Commissioner of Works to Resident Architect, MOWD, 19 May 1961, ACC W3395 Box 1, 18/1/1 Pt.1, Lighthouses – Baring Head, ANZ

⁶⁸ File notes (June-Nov 1967) in 18/1/1 Pt.1, ANZ

⁶⁹ <http://www.facebook.com/topic.php?uid=118447108196361&topic=64> [viewed 5 April 2011]

⁷⁰ Memo, Minister of Transport to Director, Marine Division, 25 June 1980, 45/2/2 Lighthouses – Buildings - Baring Head 1970-1988, ANZ

convinced that technological advances were making the staffing of any lighthouse unnecessary.⁷¹ The last remaining lights were progressively automated from late 1988 onwards, with Baring Head converted on 31 October 1988. However, keeper Steve O'Neill did not leave until 31 January 1989.

World War II structures

The area surrounding the lighthouse station played its role in the defence of New Zealand's coast during World War II. The first structures for this purpose were built about 1935 on the trig 500 metres directly inland from the lighthouse and 166 metres above sea level. This was an observation post built close to the trig and looking out over the sea. It was accompanied by a small barracks, built just over the summit on the north side of the hill. This tiny complex was one of two Fortress Observation Posts for the Palmer Head Battery. Palmer Head, west of Baring Head on the other side of the harbour entrance, was chosen in 1933 as the site of a new 6-inch battery to defend Wellington and it was built as part of efforts nationally to upgrade coastal defences at main centres against a backdrop of rising tensions in Europe. Palmer Head was considered suitable for both its close defence and counter-bombardment capabilities.⁷² Work on the battery began in early 1935 and it is likely that work started on the observation posts (there was another at Sinclair Head) at about the same time.⁷³

After the completion of the observation post and barracks, the buildings were, at most, only used for the odd exercise and then left. The barracks was, in the words of one correspondent, intended only for peacetime use i.e. for a caretaker, or no more than four men.⁷⁴ It all changed with the outbreak of World War II, and by mid-1940 the observation post was urgently required. However, it was clear to the Army that the barracks building was too small for the observation post's needs, as the site's remoteness meant staff could only be relieved every week. Accordingly, additional accommodation would be required.⁷⁵ The Army ordered a ten man hut to be built close by the existing structures and proposed to use the former barracks as a wireless room. A site was chosen a little further down the north side of the hill. This structure,

⁷¹ Beaglehole p.269

⁷² Army Department (AD) 11/11/14 – Modernising of Coast Defences, National Archives (NA), Wellington

⁷³ Cooke p.492

⁷⁴ Commander, Royal New Zealand Artillery to Quartermaster General, 15 July 1940, AD1 1080, 203/167/1 Pt.1, Defence Works – Buildings – Baring Head – Coast Defences, ANZ

⁷⁵ Ibid.

presumably erected in a hurry, was mainly constructed of timber and completed late in 1940. At a similar time, another concrete structure, probably an engine room to provide power for the wireless (and perhaps the observation post and barracks) was erected alongside the former barracks. This structure is without cement render over its reinforced concrete shell, suggesting it was put up in a hurry.

The observation post required running water and this was provided at about the same time that the new accommodation was provided – in 1940. A pump house was built on the Wainuiomata River and water was sent via 1.25 inch (3.1cm) galvanised pipe up to a concrete storage tank just above the barracks and wireless room. From here the water, with a sufficient head of pressure, was piped to the nearby military structures and, presumably, down the other side of the hill to the lighthouse complex. After the war, this water supply ended up in the hands of the Marine Department, which then negotiated a permanent easement with the Riddifords and proposed building a new pump house.⁷⁶ It should be noted that in a plan prepared in 1967, the water was shown as being carried from the concrete tank to the station in polythene pipe.⁷⁷

The observation post housed a depression range finder (DRF) on a concrete plinth and, using the technology of the time, the observation post was linked with the command post at Beacon Hill, behind Palmer Head. It was in use for at least a few years, and was later employed as an observation post for Wrights Hill Battery (a 9.2 inch counter bombardment battery), but its use probably ended by early 1944, when the war started to turn in the Allies' favour and most batteries and observations posts were put on a 'care and maintenance' basis. The observation post was dismantled and the equipment returned to Trentham on 15 May 1945.⁷⁸

Baring Head was also the site of a naval signal station (also known as a Port War Signal Station [PWSS]) and the concrete foundations of that structure are located in front of, and under, the current NIWA station, very close to the lighthouse itself and the edge of the cliff. The building consisted of a rectangular structure with a lookout in front. A photograph from the period suggests that the radar apparatus associated with this station was on the eastern side of the building. The complex operated until 7 September 1945, and was staffed, at

⁷⁶ Ibid.

⁷⁷ T5605, Ministry of Works in 18/1/1 Pt.1, ANZ

⁷⁸ Cooke p.494

least in part, by the Women's Auxiliary Army Corps (WAAC).⁷⁹ A barracks was built for the WAAC's just to the west of the present station fence, and has been reduced to a concrete platform.⁸⁰ The dates of the construction of both buildings are not yet known but both are likely to have been built in 1940 or 1941.

In 1940, the National Patriotic Fund Board made a grant to improve the 'Baring Head hut', which probably refers to the observation post barracks.⁸¹ In 1944, with the war going well, the Army made certain buildings available for disposal. These were timber buildings that were simply lifted from their foundations and sold to the highest bidder. The advertisement in the *Evening Post* described the buildings as follows:

'Baring Head Lighthouse (Tender No. 24):— Building No. 1, 25' x 12' with 7' x 9' washhouse and 6' x 4' lavatory. Building No 2, 40' x 11' lean-to type.'⁸²

Whether or not this led to the removal of some buildings is not known. It may refer to the WAAC buildings because the timber barracks at the observation post was definitely removed in 1946.⁸³ In summary, it seems likely that all timber buildings with a military use were removed from Baring Head soon after the war ended.

Also in 1946, the DSIR took occupation of the former signal station building and used it for a number of years to conduct experiments on radar.⁸⁴ In 1954, that use ended and the RNZAF took over the building as a base for exercises.⁸⁵ By 1960, this building had been reduced to a shell, with all timber linings and fittings removed.⁸⁶

Baring Head and its environs were also the site for various military exercises, dating back to the late 1930s. It was used by territorials and local regiments, Air Training Corps commandos, and American marines, among others. The sea off

⁷⁹ Ibid.

⁸⁰ Jones, Archaeological Survey for Wellington Regional Council; Baring Head 1928-52, M1 687 8/8/42, New Zealand Archives

⁸¹ *Evening Post*, Volume CXXIX, Issue 64, 15 March 1940, p.4

⁸² *Evening Post*, Volume CXXXVIII, Issue 121, 18 November 1944, p.9

⁸³ H E Avery, Brigadier, General Manager, to Secretary to the Treasury, 14 November 1946, 51/57/24 Accommodation and Works – Fortress Area Baring Head 1940-47, ANZ

⁸⁴ Memo, Deputy Secretary, DSIR to Secretary, Marine Department, 11 September 1946, 8/63/5, ANZ

⁸⁵ E R McKillop, Acting Engineer in Chief, MWD to District Commissioner of Works, 13 December 1950, ACC W3395 Box 1, 18/1/1 Pt.1, Lighthouses – Baring Head, ANZ

⁸⁶ Principal keeper to Marine Department, 18 November 1960, 45/2/2 Lighthouses – Buildings – Baring Head 1970-1988, ANZ

Baring Head was the eastern edge of a prohibited fishing and anchorage zone that extended west to Lyall Bay and into Wellington Harbour.⁸⁷

NIWA station

In 1974 a meteorological station was set up at Baring Head by the Nuclear Sciences branch of the DSIR to replace one previously established at Makara. It is not clear from files whether the former signal station was still standing at this stage nor when it was finally removed. If it was still standing then it had been reduced to a shell by this stage. When demanning Baring Head lighthouse became a possibility in the early 1980s, the DSIR was keen to ensure its on-going use of the building.⁸⁸

The DSIR (and, after 1992, its successor NIWA) has taken continuous measurements of, amongst others, ¹³CO₂ and ¹⁴CO₂ data since 1974. The station has contributed to the global pool of information on the human impact on the earth's atmosphere. This is important both from a national and international perspective, as the information collected has been used as evidence of a change in greenhouse gases over time. There were (and still are) international contributions to the establishment and running of the station made by universities in America and Japan. Baring Head was chosen for this purpose because of the opportunity it gives to measure air which arrives at the station from the southern ocean, an unpopulated area and therefore relatively free from pollutants.⁸⁹

Further adding to the scientific history of the area, it has been suggested that Baring Head was the preferred place for New Zealand's first nuclear power station before New Zealand solidified its nuclear free stance.⁹⁰ In 1995, it was also suggested that this area become the site of a wind farm, a proposal eventually rejected by the Hutt City Council.⁹¹

Post-lighthouse keeping

In 1992, three years after the last keeper left, the Greater Wellington Regional

⁸⁷ *Evening Post*, Volume CXXXIV, Issue 56, 3 September 1942, p.III

⁸⁸ Director, DSIR to Director, Marine Division, Min. of Transport, 9 July 1981, 45/2/2 Lighthouses – Buildings – Baring Head 1970-1988, ANZ

⁸⁹ NIWA website *Baring Head* <http://www.niwa.co.nz/our-science/atmosphere/baring> (accessed 28 Feb 2011)

⁹⁰ F. Hitchens and Beale, P., *Petone to Pencarrow. A shoreline with a history*. Aviator's Books, Wellington, 2002, p. 27

⁹¹ Hitchens and Beale p.27

Council (GWRC) entered an agreement with the Department of Conservation to take over the management of the lighthouse keepers' houses. However, issues over access to the site meant that little could be done about using the houses for the purposes proposed – as on-site ranger or public accommodation.⁹²

In February 2005, a new LED beacon replaced the original light and its associated equipment. It was fixed to the balcony of the lighthouse rather than inside the dome. The new light is powered by mains electricity backed up by battery power and monitored from Maritime New Zealand's Wellington office.

As the 2000s wore on the condition of the houses declined, and there were suggestions that they be demolished. This remained a reality despite a public campaign to save the station gathering momentum. In 2010, decision-making regarding the future of the various structures was put on hold after public access was reinstated with the purchase of an adjoining land of 284.6 hectares by the Greater Wellington Regional Council and its partners, the Nature Heritage Fund, Department of Conservation, Hutt City Council and a private benefactor. The land is proposed to be classified as Scenic Reserve under the Reserves Act 1977, and Greater Wellington Regional Council continues to consider the future of the Baring Head lighthouse station houses. Baring Head will become part of the East Harbour Regional Park.

Baring Head today retains an increasingly rare collection of lighthouse buildings. There are at present fewer than ten lighthouse stations that retain the majority of their associated structures.⁹³ That resource is diminishing by the year.

3.2. Physical Description and Analysis

The Baring Head area contains a number of different structures and sites that tell a story of the many uses of the area. These include the lighthouse and associated houses, foundations of military structures, radio masts, and NIWA station buildings all clustered together on the south-western edge of a cliff that falls steeply to the beach below. There are further remnants of a military installation inland, along with the water supply infrastructure, access road and bridge, with all forming part of the wider area of interest.

⁹² *Hutt News*, Former Lighthouse keeper angered by Baring Head Plans, 20 Apr 2010

⁹³ Those still extant include Tiri Tiri Matangi, Cuvier Island, Brothers Island, Stephens Island, Farewell Spit, Godley Head, Dog Island and Centre Island.

Access Road and Bridge

The road, completed in 1932, is narrow (3-4 metres) and metalled. It leaves the Coast Road a few kilometres from the coast. Just under three kilometres in length it passes over the bridge over the Wainuiomata River and after a flat section climbs to the plateau above the river and from there heads in a generally southwards direction across relatively level ground to the lighthouse station. The road was clearly built for motor traffic, as the early climb is quite steep.

Completed in 1932, the bridge over the Wainuiomata River is one-lane wide and just under 34 metres long. A trestle bridge, it is built in three spans, two of 12 m and one of 9 metres. The bridge sits relatively low above the water, which is why it has been flooded on more than one occasion. The bridge is built of Australian hardwood (species not known) and has had a number of repairs and modifications over its life.

Lighthouse complex

Surrounding the lighthouse keepers' housing area there is a shelterbelt in a roughly pentagonal shape. The internal section of this is grassed, with a circular garden, encircled by a stone wall, in the centre of the broad lawn. The lighthouse settlement comprises two houses with associated outhouses and a power house between (where the diesel generators that powered the lighthouse were housed), and a garage. All these structures have had their windows and doors boarded up to avoid vandalism.

Both houses are timber structures built in a 1930s state housing style. The house nearest the lighthouse is as the Principal (or Number One) Keeper's House.⁹⁴ Behind this is an outside toilet and stand alone shed along with concrete paving (the floor of what was once a garage) and the remnants of a picket fence. The house's walls are clad with weatherboards and the roof is asbestos sheets. There are concrete piles. The interior is again typically state house in style, with three bedrooms, timber floors and joinery, gibraltar and hardboard linings on walls and ceilings. The kitchen and bathroom were relatively new when the station closed.

To the north of this is a concrete building, built in a bungalow style, which housed the diesel generator and radio room. The interior of this was not

⁹⁴ Jones 2010, p. 19

inspected for the purposes of this report.

Further north is the Number Two Keeper's House, with an additional storehouse to the rear. It is assumed that the Number Two Keeper's House is similar in most respects to the Number One house although it is unlikely to have an upgraded bathroom and kitchen. To its rear is an additional shed, purpose unknown. In front of the houses and generator is the small circular garden described above, and further ahead of this is a wooden garage.

To the left (south) of this are two Telecom communications buildings (steel boxes) linked to Telecom's use of one of the radio masts. This mast has been maintained, by contrast with the other mast in the north-eastern corner of the complex.

Outside the shelterbelt area, and to the south of the complex of lighthouse keepers' houses is the lighthouse itself, enclosed within a fenced area. The lighthouse is a 1930s reinforced concrete structure. It has flared buttresses, which give the structure additional stiffening and a copper roof on a dome. The unlined interior gives internal access to the lantern. The foundations of the lighthouse are 2.5m deep, and the lighthouse is 12 metres tall, rising 87 metres from the beach below. Described in a newspaper report of 1935, it was stated that the lighthouse was designed 'somewhat differently' from the standard lighthouse design, 'the architects having paid special attention to its appearance and having added several features to improve its profile.'⁹⁵ The balcony around the lighthouse was made as small as possible, with a small ladder leading to the balcony instead of having a door leading out of the lantern chamber, as was the usual practice.⁹⁶

NIWA station

Located close by the lighthouse are the NIWA station buildings. These are fully enclosed within a fence, and consist of a tower, three concrete block and fibrolite buildings, a windmill and a radio mast. These rest on concrete foundations, and also visible are the remnants of concrete structures and a concrete path that were part of the naval signal station. These were not examined in the course of the site visit, as access was not available; however Jones has described them, and has related what is still visible to aerial

⁹⁵ *Evening Post*, 26 July 1934

⁹⁶ *Ibid.*

photographs of the area from the 1940s.⁹⁷

To the west of the garage and outside the station complex is the WAAC barracks, built for women running the signal station and radar in 1942-45.⁹⁸ Probably built of timber, it was reduced to its concrete foundations by the time an aerial photograph was taken of it in the 1950s, suggesting that it was demolished or removed reasonably shortly after the war ended.⁹⁹

Fortress Observation Post

Approximately 500 metres north-east of the lighthouse station, atop a large hill 166 metres high, are the remnants of one of two observation posts built for the Palmer Head 6-inch Battery.

At the top of the hill is a trig and just to the south of this is the observation post (c.1935), built into the slope and constructed of reinforced concrete. Inside is the concrete foundation for the DRF. This building retains part of its camouflage (a layer of earth and vegetation directly on its roof) but the cantilevered roof over the viewing slit has collapsed.

On the other side of the hill is the former barracks (c.1935, later the wireless room) for the observation post. Also built of reinforced concrete, this building is rendered on the outside. Alongside it is another building – probably the engine room – constructed during the war but not rendered. Both buildings are flat roof, rectangular boxes and are largely reduced to shells, although the wireless room retains one set of steel shutters. The rest of the doors, windows and other fittings lie on the ground.

A short distance north, and down the hill, is the site of what was the accommodation barracks and ablution block for the men who staffed the observation post. Built in 1940, the barracks is assumed to have been constructed of timber and is no longer evident bar a concrete chimney. The ablutions block retains its concrete foundations, floor and drains, but is likewise missing its timber structure. These buildings have all been inspected and described in a report to the Greater Wellington Regional Council by an engineer

⁹⁷ Jones 2010, pp. 10-11

⁹⁸ Jones 2010, p.12

⁹⁹ Jones 2010, pp. 12, 19.

from Opus International Consultants Limited.¹⁰⁰

At the outset of war, a scheme was devised to provide water for the complex by pumping it from the Wainuiomata River up the hill via a 3.1 cm diameter galvanised pipe to the trig above the lighthouse.¹⁰¹ Here it was stored in a cylindrical concrete tank for piping down to the barracks. The point of pumping it up to the tank was to create a sufficient head of pressure. The pipes themselves remain clearly visible on the hillsides near the tank. The pumphouse, timber framed and clad with a corrugated iron roof, remains on its original site below the trig and alongside the Wainuiomata River.

Land contributing to heritage values

The historic area under discussion is composed of a collection of heritage features that are linked physically and historically and occupy a block of land containing several contiguous parcels of land. The area is composed of the Baring Head Lighthouse Station (containing the lighthouse, dwellings and associated structures), the road and bridge that made the site accessible from Coast Road, a NIWA research station (mostly new buildings on the foundations of a World War II naval signal station, the foundations of a WAAC barracks building, the remains of an observation post (including three concrete buildings and the foundations of barracks), and a water supply, including a power house, pipes and storage tanks, which were essential for the functioning of the site. The Maori archaeological sites R28/37 (cave with midden) and R28/36 (burial), located on the headland below the lighthouse, also fall within this area and tell of the layers of occupational use of the site.

This area does not include the collection of archaeological sites linked to Maori occupation along the foreshore to the east of Baring Head surrounding Parangarahu Pā. These sites are relatively close to the lighthouse station but are sufficiently distinct and historically unrelated to the latter. It may be appropriate to consider recognising the significance of these sites through a separate registration.

Features contributing to heritage values

¹⁰⁰ Goodall, D. Baring Head – Inspection of World War II Structures. Unpublished report for the Greater Wellington Regional Council from Opus International Consultants Limited, December 2010

¹⁰¹ It must be the internal dimensions because the pipe is considerably wider than 3.1 cm on its exterior.

Number One Lighthouse Keeper's House, Appendix 4, page 76

Number Two Lighthouse Keeper's House, Appendix 4, page 79

Diesel Generator Building, Appendix 4, page 81

Baring Head Lighthouse, Appendix 4, page 83

Fortress Observation Post, Appendix 4, page 86

Pumphouse / water pipes, Appendix 4, page 91

Access Road and Bridge, Appendix 4, page 93

World War II Barracks, Appendix 4, page 95

Baring Head Clean Air Monitoring Station, Appendix 4, page 97

Cave with Midden, Appendix 4, page 99

Burial, Appendix 4, page 100

Relationship between heritage features

All of the sites identified in this research report were located on Baring Head because of the strategic and observational opportunities offered by the geographic feature of the headland. For example the lighthouse complex and military observation posts were dependant on lines of sight, and the NIWA station on uninterrupted, uncorrupted airflow. The military observation post by the trig station is also physically linked to the complex by the lighthouse by the water pipes leading from the pumphouse, as well as by their functions. The pumphouse and water pipe system, as well as the access road and bridge, enabled the feasible development and use of the facilities.

The relationship between the houses and other buildings in the lighthouse keeper's settlement area is apparent, with the houses, their associated outbuildings, the power house and the garage forming an interconnected group. The lighthouse, the purpose of the whole place, is an integral part of the complex.

Near the top of the adjacent trig northeast of the lighthouse station is the

Fortress Observation Post. While physically removed from the remainder of the lighthouse keeper's complex, this group of buildings is a tangible link with an important part of the history of the area. It is linked to the rest of the complex by the provision of the water supply from the Wainuiomata River. Near the lighthouse station itself are the remnants of the WAAC barracks and the naval signal station.

The NIWA station sits partly on the remains of the naval signal station and there has been a scientific use at this site since 1946. Baring Head has proved to be a most suitable place for this station, positioned on the edge of the cliff and directly facing the oncoming winds from the Southern Ocean.

3.3. Key Physical Dates

1931 Work began on constructing the bridge (contractor, S.T. Dibble) and access road (contractor, H.J. Peacocke).

1932 Work was completed on the bridge and access road in January that year.

1933 Work began on constructing the lighthouse station houses and erection of screens and a shelter belt began.

1934 The houses were completed in May. There were numerous outbuildings constructed too.

1935 Work on the power house and lighthouse was completed. The latter was opened in June that year.

A Fortress Observation Post with barracks was built on the hill behind (north-east) of the lighthouse station.

1940 A timber barracks building was constructed on the north side of the hill below the concrete barracks (then converted into a wireless room), while an engine room was built alongside the wireless room.

A pumphouse was built on the Wainuiomata River and water piped to a tank built just above the wireless room. From there it fed the military buildings.

- 1945 The observation post was dismantled and the equipment returned to Trentham on 15 May. The naval signal station ended operations
- 1946 Timber buildings with a military purpose were removed from Baring Head by this time. The naval signal station was taken over by DSIR to conduct experiments in radar.
- 1950 The station was connected to mains electrical power via a power line constructed for that purpose.
- 1960 By this year the naval signal station building had been reduced to a shell. It was later demolished, with the exception of the foundations.
- 1974 DSIR set up a meteorological station at Baring Head and at some point removed and replaced the existing buildings.
- 1988 Baring Head was automated on 31 October; the keeper left on 31 January 1989. The houses and other buildings were boarded up and left.
- 2005 An LED beacon was placed on the balcony of the lighthouse to replace the original light, which was removed.

3.4. Construction Professionals

It is assumed the Public Works Department designed all the buildings included in the area. Individuals responsible have not been located.

Contractors known to have constructed buildings at Baring Head were:

Road: H.J. Peacocke

Bridge: S.T. Dibble

Houses, lighthouse base and water storage tanks: Joseph Jackson and Son

Light / operating mechanism: Chance Bros. and Co.

Dome fixing: W.A. Fraser

3.5. Construction Materials

Houses and outhouses: Timber, asbestos, copper, concrete, glass

Diesel generator building: Concrete, timber, asbestos

Lighthouse: Concrete, glass, iron, copper

NIWA buildings: Fibrolite, concrete, iron, plastic

World War II buildings: Concrete, steel, timber

3.6. Former Uses

Transport: Lighthouse

Transport: Lighthouse station

Residential buildings and associated places: House

Military: Observation Post

3.7. Current Uses

Transport: Lighthouse

Scientific Facilities: Meteorological Station

4. SIGNIFICANCE ASSESSMENT¹⁰²

This research report could inform a future registration proposal for a historic area.

When assessing historic heritage the New Zealand Historic Places Trust considers whether a place or area possesses any of the following values: aesthetic, archaeological, architectural, cultural, historical, scientific, social, spiritual, technological, or traditional significance or value.

The following is a summary of the heritage values identified in the Baring Head area, assessed using the criteria in Part II, Section 23 (1) of the *Historic Places Act 1993*.

4.1. Section 23 (1) Assessment

Aesthetic Significance or Value

The Baring Head area is of outstanding aesthetic value. The unhindered views from the lighthouse station of Cook Straight through to the South Island and across the harbour mouth to south Wellington are a significant part of the appeal of the place, as is the backdrop of pastured hills. The graceful lighthouse is an attractive structure while the arrangement of the 1930s houses in their mature setting is also an important element in the aesthetic value of the area.

Archaeological Significance or Value

A number of places within the area are listed as archaeological sites on the NZAA database, for example the lighthouse station and military structures. These are all relatively recent structures and their sub-surface remains are unlikely to contain much of great value. However, there are archaeological values present and they form part of the collective significance of the area, along with the recorded Maori sites. As the area is known to have been inhabited by Maori over the centuries and is in the vicinity of Parangarahu Pa and kainga there is the possibility for further unrecorded archaeological sites to be present.

Architectural Significance or Value

¹⁰²For the relevant sections of the HPA see Appendix 4: Significance Assessment Information.

The area contains buildings of architectural significance, primarily the lighthouse, one of only two of that design ever built in New Zealand (the other being Cape Reinga). The style is very much of its time, with a Moderne influence in the graceful arch of the buttresses, which also give the structure additional strength in an exposed location. The houses, while not particularly remarkable in design or appearance, are very much of a piece with the lighthouse, being rooted in the pre-World War II era and, inside and out, demonstrating the design elements and fabric of their time to elegant effect.

Cultural Significance or Value

Baring Head is a place of considerable cultural significance, in the first instance, to tangata whenua, being a place associated with centuries of use by successive iwi. The area under discussion includes a Maori burial and cave with midden. The wider area to the west of Baring Head is the site of Parangarahu Pa and a nearby village. These places are not in the historic area under discussion itself, but are relevant in any consideration of the cultural values of the wider area.

Historical Significance or Value

Baring Head was the first electrically powered light and the first manned light to be built in New Zealand for 22 years. It was also the first manned light that was fully automatic. Its local importance rests partly on the shift of the principal light at the entrance of Wellington Harbour from the historic Pencarrow light to Baring Head, generally considered a better place to place a light, being much more visible to shipping. The light has operated continuously since 1935 and it remains a significant coastal mark in the difficult Cook Strait, even during the era of GPS technology. The collection of buildings that make up the lighthouse station are notable for their relative completeness and integrity; fewer than ten stations are thought to have retained the bulk of their infrastructure.

Baring Head's role in coastal defence began in 1935 and ended a decade later. The construction of the observation post in 1935 is significant because it shows how the country responded to rising tensions in Europe. It took on an important role during World War II as the Fortress Observation Point for Palmer Head Battery (and later Wrights Hill Battery). The naval signal station (plus WAAC barracks) near the lighthouse is another important reminder of Baring Head's military past. These remains are still conspicuous, being mainly concrete structures and foundations and show how World War II left such a mark on the

landscape.

Also prominently sited is NIWA's facility at Baring Head, which, while the structures are not especially historic, continues a tradition of scientific activity there, including a lengthy and internationally significant period providing information on the human impact on the atmosphere.

Scientific Significance or Value

The Baring Head area is of considerable scientific value as the site of scientific work in two periods since 1946, and in the same location – the former naval signal station. The more important of these is the former DSIR (now NIWA) recording complex, which has contributed to global scientific studies into the human impact on the earth's atmosphere. The information gathered at Baring Head has informed international studies on climate change. The DSIR was also involved in research work on radar in the period immediately following the end of World War II.

Social Significance or Value

While Baring Head was accessible by land, it was still a significant hardship to live in an area which would have frequently been inhospitable due to the ferocity of the winds and other weather patterns that buffet this part of the coast. Families lived in this place for over fifty years, and have left the mark of their attempts at a normal existence there through the buildings that still remain in place. The lighthouse station and environs have a value to former lighthouse keepers and families, locals and visitors and those who have only just become acquainted with the area. Much lobbying and public interest has been raised in this area over recent years and its profile is considerably higher as a result, cemented by its public ownership as a proposed reserve.

Technological Significance or Value

The Baring Head lighthouse was New Zealand's first lighthouse powered by electricity, via a diesel generator. Although it was manned, it was also the first purpose-built automatic lighthouse not powered by gas, although keepers largely maintained manual operation of the light. In that respect it ushered in an era of conversion to electricity, generator or mains powered, around the country's lighthouses. It was a manifestation of the technological advances made through the twentieth century, which the Marine Department was only too happy to take advantage of to improve the usefulness and efficiency of its lights.

Summary of Significance or Values

This area has been assessed for, and found to possess aesthetic, archaeological, architectural, cultural, historical, scientific, social and technological significance or value.

4.2. Discussion of Sources

Analysis of Material Available

There were many primary sources available for research but those accessed (mainly correspondence files at Archives New Zealand and newspapers articles through Papers Past) were selected for their relevance. Background information in secondary sources was limited but one particular source, Helen Beaglehole's *Lighting the Coast*, was particularly important for context. So too, to a lesser extent, was Peter Cooke's *Defending New Zealand*. No plans of any of the structures were discovered. There are oral sources that have yet to be pursued with any rigour.

Analysis of Material Accessed

The research undertaken was as thorough as was possible in the time available. The most likely useful sources were pursued first and quality information was yielded, particularly from Archives New Zealand (correspondence files) and newspapers of the time. More could be done but there is enough to enable heritage values to be identified.

Bibliography

Newspaper Articles

Evening Post, Volume CX, Issue 137, 6 December 1930, p.10; Volume CXI, Issue 144, 20 June 1931, p.24; Volume CXII, Issue 13, 16 January 1932, p.10; Volume CXVI, Issue 61, 9 September 1933; Volume CXVI, Issue 127, 25 November 1933, p.16; Issue 22, 26 July 1934, p.15; Volume CXVIII, Issue 140, 11 December 1934, p.18; Volume CXVIII, Issue 154, 28 December 1934, p.9; Issue 15, 18 January 1935, p.8; Volume CXIX, Issue 83, 8 April 1935, p.8; Volume CXIX, Issue 84, 9 April 1935, p.7; Volume CXIX, Issue 142, 18 June 1935; Volume CXXIV, Issue 121, 18 November 1937; Volume CXXIX, Issue 64, 15 March 1940, p.4; Volume CXXXI, 27 June 1941, p.8; Volume CXXXIV, Issue 56, 3 September 1942, p.III; Volume CXXXVIII, Issue 121, 18 November 1944, p.9; Volume CXL, Issue 92, 16 Oct 1945, p.6

Hutt News, 'Former Lighthouse keeper angered by Baring Head Plans', 20 April 2010

Unpublished Material

Goodall, D. Baring Head –Inspection of World War II Structures. Unpublished report for the Greater Wellington Regional Council from Opus International Consultants Limited, December 2010

Jones, K. Baring Head, Orua Poanui Archaeological Survey for Wellington Regional Council 2010

Raukura Consultants 2011, 'Orua-Poua-Nui / Baring Head Cultural Values Report', Greater Wellington Regional Council

Published Material

Beaglehole, Helen 2006, *Lighting the Coast - A History of New Zealand's Coastal Lighthouse System*, Canterbury University Press

Cooke, Peter 2000, *Defending New Zealand*, Defence of New Zealand Study Group, Wellington

James Barnes and Associates, *Maori Historical Information Base for the Wellington City Council Area Part One. History, Bibliography, Site Mapping Information*. A report for the Wellington City Council, 1990

Hitchens, F. and Beale, P., *Petone to Pencarrow. A shoreline with a history*. Aviator's Books, Wellington, 2002

Leach, B.F. *The Prehistory of the Southern Wairarapa*, Journal of the Royal Society of New Zealand, 11(1): 11-33

Palmer, J.B. 'Maori Sites in Fitzroy Bay' *New Zealand Archaeology Association Newsletter* 1963 6(3):125-134

Archival Material

New Zealand Historic Places Trust Central Region

Baring Head Lighthouse Houses - 12016 058

Archives New Zealand

Accommodation and Works – Fortress Area Baring Head, 1940-47, AD-W, 6, W1965, 13/, 51/57/24

Baring Head - origin - general, 1925-39, M1 769 8/62/1

Baring Head 1928-52, M1, 687, 8/8/42 Pt.1

Baring Head Lighthouse – Dwellings, 1931-48, M, 1, 771/, 8/62/5 Pt.1

Baring Head Lighthouse 1943-52, AADX W3148 889 51 / 63/307 Pt.1

Defence Works – Buildings – Baring Head – Coast Defences, AD1 1080,
203/167/1 Pt.1

Defence Works – Coast defence – Wellington – Baring Head, 1935-1963, AD1
1478, 203/167 Pt.1

Lighthouses – Baring Head, 1950-71, AATE, W3395, 1/, 18/1/1 Pt.1

Lighthouses - Buildings - Baring Head 1970-1988, ABPL, 7457, W5011, 3/,
45/2/2 Pt.1

Lighthouses – Tower – Baring Head, 1934-83, ABPL, 7457, W5221, 1/, 45/11/2

Ministry of Works Department Trentham: Lighthouses – General/Pencarrow/
Baring Head, 1971-79, AATE, W3402, 26 /, 19/19/0/m

School Buildings and Sites: Wellington and Marlborough Districts: Baring Head
Lighthouse School, 1950-, AAQD W33681, 1/

World Wide Web

Furey, L. *Maori Gardening, an Archaeological Perspective*, New Zealand
Department of Conservation, 2006

<http://www.doc.govt.nz/upload/documents/science-and-technical/sap235.pdf>

(accessed 9 Mar 2011)

http://www.newzealandlighthouses.com/baring_head.htm (accessed 10 Mar
2010)

Baring Head/ Orua-pouanui

[http://www.linz.govt.nz/placenames/placenames/consultation-decisions/a-to-
z/baring-head-orua-pouanui/index.aspx](http://www.linz.govt.nz/placenames/placenames/consultation-decisions/a-to-z/baring-head-orua-pouanui/index.aspx) (accessed 10 Mar 2010)

<http://www.facebook.com/topic.php?uid=118447108196361&topic=64> [viewed 5

April 2011]