FRESHWATER
ARCHAEOLOGICAL SITES
OF THE WELLINGTON REGION

For
Greater Wellington Regional Council
FRESHWATER ARCHAEOLOGICAL SITES OF THE WELLINGTON REGION

Survey for the Regional Plan Review

Report prepared by

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*Front cover photo: Siberia bend water drop shaft, Rimutaka Incline*
1.0 INTRODUCTION

1.1 Commission

This survey of archaeological sites in the Wellington region freshwater lakes and waterways forms part of a wider study that includes separately commissioned studies for built heritage and sites of cultural significance to Māori. These surveys were commissioned to inform the current review of the Regional Plans. The Regional Policy Statement for the Wellington Region 2013 requires, in policy 21, that significant historic heritage be identified in the new Regional Plan.

1.2 Process

A regional scoping survey was carried out by the author which identified a shortlist of archaeo logical sites in the Wellington region fresh water bodies for further assessment. Additional sites were proposed for consideration as a result of consultation with iwi. As with the survey of built heritage sites, terms of reference for the project limited assessment to sites with elements that fall within the beds of lakes and water ways.

The individual assessments in this report have been prepared and laid out using the same method as the previous surveys. The inventory entries include a history of each site, a physical description, an evaluation of significance, and present-day photographs. Evaluation criteria are based on those in policy 21 of the Regional Policy Statement 2013, with particular attention being paid to physical values. These include architectural and technological values, integrity, age, and group or townscape values.

During the course of the project it became apparent that the assessment of some sites was likely to be impractical or difficult to relocate. The short-list was progressively refined as the project was carried out. In some cases, sites were removed after an initial evaluation of heritage values, and replaced with other sites not identified in the desk-based scoping study. These sites were then reviewed jointly by author and by Lucy Harper and Laura Paynter of Greater Wellington Regional Council.

Sites already assessed for built heritage, or cultural values have been assessed for archaeological values separately.
1.3 Sources of Information

Research on the history of the sites was carried out by the author and a list of references has been compiled for each site.

These sources were supplemented by primary sources including records contained in the New Zealand Archaeological Association Site Recording Scheme (Archsite), as well as archival material such as Papers Past, AtoJs online and Digital NZ. Survey work was carried out in 2014-15 by the author.

1.4 Acknowledgements

This report was funded by the Greater Wellington Regional Council, but also involved assistance from a number of other people and agencies. The author would like to acknowledge the contributions of the following people in no particular order for their assistance with the project planning, research, fieldwork, and report preparation. Laura Paynter, Lucy Harper, Pataka Moore and Blyss Wagstaff. Thanks also to staff at Heritage New Zealand and Greater Wellington Regional Council for access to files and previous research.
Te Moutere, viewed from Lake Waitawa to the northeast, 2015

Te Moutere, Piritaha
Lake Waitawa
Outline History

History

Prior to the arrival of Te Rauparaha’s heke of 1822 which led to the establishment of northern iwi including Ngāti Raukawa, Te Āti Awa and Ngāti Toa in the Wellington region, the area around Forest Lakes was occupied by Muaūpoko and other iwi including Ngāti Apa and Ngāi Tara. One of the notable features of this area were the artificial island pā constructed by Muaūpoko in Lakes Horowhenua, Papaitonga and Waitawa.

Adkin\(^1\) refers to the island in Lake Waitawa as Te Moutere. Speaking of such islands generally, he records that they were constructed by the Muaūpoko people, and often protected by underwater stake fields for defence. The lake bed adjacent to these sites was also the location of numerous artefact finds in the 1930s. The method of construction of the artificial island pā is described in Taylor,\(^2\) Best\(^3\) and O’Donnell\(^4\) and involved driving stakes into the lake bed, which were then interlaced with manuka. The construction was then back-filled with rocks and sand brought via canoe.

Other similar pā mentioned by Taylor, Best and Adkin in Lakes Papaitonga and Horowhenua have been included in a national inventory of wet archaeological sites,\(^5\) and Te Moutere is likely to be no less archaeologically significant. There is now a considerable body of evidence to suggest that ‘wetlands adjacent, or close to substantial occupation sites (particularly pā)’ are likely to contain significant and well preserved organic archaeological remains.\(^6\) Purdy has estimated that while inorganic materials account for 80-100% of artefacts in dry sites, they account for closer to 10-25% for wetland sites, demonstrating that a wide array of the material culture that is likely to have decayed in ‘dry’ sites will potentially survive in ‘wet’ sites.\(^7\)

\(^3\) Best, E., 1927, *The Pa Maori: An account of the fortified villages of the Maori in the pre-European and modern times; illustrating methods of defence by means of ramparts, fosses, scarps and stockades* [2005 reprint], Te Papa Press, Wellington, pp.359-360
\(^4\) O’Donnell, E., 1929, *Te Hekenga: Early Days in Horowhenua: Being the Reminiscences of Mr Rod McDonald*, G.H. Bennett & Co Ltd, Palmerston North, p.10
\(^7\) Purdy, B. (ed.) 1988, *Wet Site Archaeology*, Telford Press, New Jersey, pp.7-8
The promontory on the opposite side of the lake is referred to by Adkin as Piritaha, although he says the meaning of this name is not understood. It was noted as the location where a large adze with an ornamented poll was found. Piritaha is also the location where human remains were uncovered in April 2006 and Moore records that the lake is considered tapu by Ngāti Raukawa.

A third site mentioned by Adkin on the north side of Lake Waitawa is that of Kotarari. He records this site as the location of a village which in 1948 still had visible rectangular depressions in the ground marking the former locations of whare. While this site is recorded a short distance from the lake edge on Adkin’s map, it is also likely to have had easy access to the lake.

Map

Aerial photography with contours showing the location of Te Moutere (S25/56), Piritaha (S25/140) and Kotarari. (Source Kāpiti Coast District Council online GIS, 2015)

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8 Adkin, p.302
9 Ibid. p.53
10 Moore, P., 2012, Waahi tapu project WTS0182Av2.3 Site report for Waitawa Urupā, Ngāti Raukawa. Unpublished report to Kāpiti Coast District Council, p.17
12 Adkin, p.197
Legal description
Te Moutere, and the surrounding lake bed are located within Lot 1 DP 347726, Wellington Land District. The Lake Waitawa urupa/Piritaha is believed to extend across the above listed title as well as two additional properties which are Lot 1 DP 347726; Lot 2 Pt Lot 1 9233 Blk VI Waitohu SD; and Pt DP 6184, Lot 2 DP 6430, Pt Lot 1 DP 923 3 Lot 1 DP 13922 Pukehou 4H6 4H7 PT Waiorongomai 7A - 7F BLK, Wellington Land District.

NZTM Grid Reference: E1783273 N5489461 (Te Moutere)
E1783592 N5489671 (Lake Waitawa urupa/Piritaha)

Physical Description

Setting
The setting of these sites is on the fringes of Lake Waitawa. The land adjacent to the lake edges are in grazed farmland with raupō growing along much of the lake edge. Te Moutere and the area immediately adjacent form part of the Forest Lakes Camp which includes recreational facilities and buildings for accommodation.

Te Moutere
The island of Te Moutere occupies an area of approximately 0.22 hectares presently connected with the adjacent shore with a foot bridge. The island has been modified through the erection of a cabana shelter and a flying fox, but there is still clear evidence of prior occupation including midden and a raised platform. The midden is mostly visible in the scarps of the platform and around the perimeter of the island where there has been less foot traffic. It comprises heavily fragmented tuatua, freshwater mussel and cracked rock. There is no above ground evidence of the artificial construction. There is a large macrocarpa tree and numerous smaller native trees growing on the island.

Lake Waitawa urupa/Piritaha
The urupā is believed to occupy an area of approximately 0.7 hectares extending across three separate titles. It is not fenced or marked with any headstones, and is presently grazed pasture fringed by raupō. A discovery of kōiwi eroding from a bank was reported at this location in May 2006.
Evaluation of Significance

Te Moutere and the other artificial island pā of Lakes Horowhenua and Papaitonga as well as the lake beds around them are likely to be of outstanding archaeological significance. While there has been considerable modification in the past, any remaining archaeological evidence associated with the construction of the island and its defence will be important for understanding an aspect of local Māori culture which had been discontinued by the time of European arrival and is unique to this part of New Zealand. The lake and the sites of past occupation around it are considered sacred to Ngāti Raukawa.

The detailed assessment of significance that follows is based on the criteria in Policy 21 of the Regional Policy Statement 2013.

Historic Values

These relate to the history of a place and how it demonstrates important historical themes, events, people or experiences.

Te Moutere is important historically as one of the artificial island pā occupied by Muaūpoko at the time of Te Rauparaha’s arrival in the area. While Te Moutere is not specifically mentioned in the historical narrative it was at one of the other contemporary island pā, Waikiekie, on Lake Horowhenua, that Te Rauparaha first took revenge against Muaūpoko for the deaths of his family at Te Wī.13

Physical Values

Architectural Values

The place is notable for its style, design, form, scale, materials, ornamentation, period, craftsmanship or other architectural values.

There are no architectural features associated with Te Moutere or the Waitawa urupā.

Archaeological Values

There is potential for archaeological investigation to contribute new or important information about the human history of the district, region or nation.

As one of only eight recorded examples of its type, Te Moutere and the lake bed immediately adjacent can be considered of outstanding archaeological

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importance. Any surviving evidence of the construction or fortification of the island would be of national as well as regional significance.

**Technological Values**

The place provides evidence of the history of technological development or demonstrates innovation or important methods of construction or design.

The artificial island pā, such as Te Moutere, are of considerable technological significance. As a defensive position they utilised the lake to impede the progress of an enemy force on foot, and some also included a defensive field of sharpened stakes to protect against landings by canoe.

**Integrity**

The significant physical values of the place have been largely unmodified.

There has been considerable recent modification of Te Moutere including the construction of a bridge to connect it with the adjacent shore, erection of cabana shelters and a flying fox. However, eroded shell midden and terrace features are still visible above ground, and archaeological deposits in anaerobic ‘wet’ environments have high potential for the preservation of organic remains. The urupā on the headland to the north appears to be relatively stable although grazing has probably contributed to some erosion in recent years.

**Age**

The place is particularly old in the context of human occupation of the Wellington region.

The date of construction these of sites is unknown, but Te Moutere and Piritaha are both believed to pre-date the arrival Ngāti Raukawa on the Kāpiti Coast (pre-1822).

**Group or Townscape Values**

The place is strongly associated with other natural or cultural features in the landscape or townscape, and/or contributes to the heritage values of a wider townscape or landscape setting, and/or it is a landmark.

Te Moutere is one of eight documented artificial island pā constructed by Muuápoko prior to the arrival of the northern iwi. They are prominent features of the lakes, and were particularly so prior to the lowering of water levels in Lake Horowhenua in the 1920s. Te Moutere, Kotarari and Piritaha also form part of a cultural landscape which is centred around Lake Waitawa.
Social Values

Sentiment
The place has strong or special associations with a particular cultural group or community.

The Waitawa urupā, and the lake bed generally, are considered to be tapu by Ngāti Raukawa. The urupā and Te Moutere are also likely to be of significance to Muaūpoko who formerly occupied the area.

Recognition
The place is held in high public esteem for historic heritage values or contribution to the sense of identity of a community.

There is presently little public recognition of either Te Moutere or the Waitawa urupā. However this should not be interpreted as a lack of sentiment towards the island pā, the building of which were one of a number of culturally unique traditions of Muaūpoko documented by early European researchers.

Surroundings
The setting or context of the place contributes to an appreciation and understanding of its character, history and/or development.

The lakeside surrounds of these sites is integral to their understanding and cultural significance. Te Moutere relied on the lake for defensive reasons and lakes and wetlands were generally valued for their rich food resources.

Rarity
The place is unique or rare within the district or region.

The construction of artificial islands by reclamation is a feature which is unique to the Kāpiti/Horowhenua area. The other island pā in Lakes Horowhenua and Papaitonga are all located in the Horowhenua District, so Te Moutere can be said to be unique in the Wellington region.

Representativeness
The place is a good example of its type or era.

Te Moutere is a good representative example of an artificial island pā.
Schedule information
Regional plan reference: n/a
New Zealand Heritage List/Rārangi Kōrero: n/a
District Plan listing: n/a
NZAA Site Record: S25/56; S25/140
Other: Kāpiti Coast District Council Ecological zone K009

Photographs14

Shell midden eroding from platform scarp on Te Moutere

Remnant of midden and darkened soil on Te Moutere

14 All photos A Dodd 2015
Lake Waitawa urupa/Piritaha viewed from the lake to the south

References
New Zealand Archaeological Site Record Forms S25/56; S25/140


Best, E., 1927, The Pa Maori: An account of the fortified villages of the Maori in the pre-European and modern times; illustrating methods of defence by means of ramparts, fosses, scarps and stockades [2005 reprint], Te Papa Press, Wellington

Collins, H., 2010, Ka Mate Ka Ora!: The spirit of Te Rauparaha. Steele Roberts, Wellington


Moore, P., 2012, Waahi tapu project WTS0182Av2.3 Site report for Waitawa Urupa, Ngati Raukawa. Unpublished report to Kapiti Coast District Council


O’Donnell, E., 1929, Te Hekenga: Early Days in Horowhenua: Being the Reminiscences of Mr Rod McDonald, G.H. Bennett & Co Ltd, Palmerston North

Purdy, B. (ed.) 1988, Wet Site Archaeology, Telford Press, New Jersey
Taylor, Rev. R., 1872, ‘On New Zealand Lake Pas.’, Transactions of the New Zealand Institute, Vol.5:101-102
Waikēkeno stream viewed from road crossing, March 2015

Waikēkeno stream
South Wairarapa
Outline History

History

This part of the Wairarapa coast is characterised by an uplifted Holocene bench which was largely formed about 800 years before the first human settlement in the area.\textsuperscript{15} First settlement in the Wairarapa at Palliser Bay is believed to have been around the mid-fourteenth century.\textsuperscript{16} Further uplift occurred as a result of a fifteenth century earthquake which raised the shoreline by up to a metre and destabilised the hillslopes, activating the gravel fans which buried parts of the coastal bench. This was followed by the advance of the Ohuan dunes across the low lying areas south of Flat Point.\textsuperscript{17} McFadgen reports that a tsunami also struck the coast between Flat Point and Cape Palliser in the fifteenth century which resulted in the temporary abandonment of coastal settlements in the area.\textsuperscript{18}

The date of first occupation at Waikēkeno is not known. The wider Wairarapa area was occupied by Rangitāne in early prehistory, and by the seventeenth century Ngāti Kahungunu had become established, with many communities comprising a mixture of Ngāti Kahungunu, Rangitāne and Ngāti Ira.\textsuperscript{19}

A notable conflict occurred at Waikēkeno involving the local Ngāti Ira and Ngāi Tumapuhia-a-rangi, and the Ngāti Kahungunu of the Wairarapa lakes area led by the chief Te Hiha. Ngāokoiterangi, the son of Hinewaka and Tama-i-tohi-kura, was killed by Te Hiha. In the aftermath Ngāokoiterangi’s younger brother avenged his death at Waikēkeno forcing the surrender of Te Hiha. Reconciliation and lasting peace was brought about through the marriage of Ngāokoiterangi’s daughter Te Haumōkai and Te Ahi-a-te-momo, from whom many Wairarapa chiefs were descended.\textsuperscript{20}

It was from this battle that the whakataukī attributed to Ngāokoiterangi was derived: ‘Kia hokowhitu Tumapuhia, putiki makawe tahi, heru tu rae anake’

\textsuperscript{16} McFadgen 2003, p.77
\textsuperscript{17} McFadgen, B., 2007, Hostile Shores: Catastrophic Events in Prehistoric New Zealand and their Impact on Maori Coastal Communities, Auckland University Press, Auckland, p.236
\textsuperscript{18} McFadgen 2007:236
\textsuperscript{20} Te Whati, p.51; Brooks and McLean, 2006, Registration Proposal for Historic Area under the Historic Places Act 1993: Waikēkeno Historic Area, Unpublished report to New Zealand Historic Places Trust, p.3
Translated this reads: “The warriors of Tumapuhia, they are all adorned with the single topknot and the comb on the forehead”.

The land was acquired by the Crown as part of the Part Pahaua and Wilsons Run deed in October 1853. The deed allowed for a number of Māori reserves including one at Waikēkeno. The area reserved was the site of a papakāinga with a meeting house and urupā. The papakāinga was the subject of a painting by former New Zealand Company surveyor William Mein Smith before it was abandoned in the 1870s. The reserve was leased to farmer Thomas Carswell for grazing in 1884, and in 1887 a certificate of title was issued under the Native Reserves Titles Grants Empowering Act. Sections were sold from 1911, but the majority remained under Maori ownership and continued to be leased for grazing. Waikēkeno 1B which contains the majority of the garden systems was sold in 1965. The Pukehuiake pā and the urupā were retained in Māori ownership along with parts of the flat.

Limited archaeological investigation of the horticultural area (T27/11) was carried out as part of the eastern Wairarapa archaeological survey project in the late 1960s, confirming evidence of modified garden soils between the rows and mounds.

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22 Wai Kekeno, East Coast. [186-]. Reference number: A-035-033, Alexander Turnbull Library
23 Brooks and McLean 2006, p.4
24 Ibid, p.5
Aerial showing location of recorded archaeological sites and Heritage New Zealand listing extent, source of aerial: Combined Wairarapa Council GIS

Legal description
This assessment refers to the lower reaches of the Waikēkeno stream contained in Pt Waikekeno 1B; Waikekeno 2B6B; DP387765, Wellington Land District.

NZTM Grid Reference: E1839857 N5425107 ±3m

Physical Description

Setting
The Waikēkeno stream is located on the South Wairarapa coast on a raised Holocene coastal bench and foothills approximately 4 kilometres north of Glenburn. The surrounding land is part of the Waimoana Station.

Waikēkeno stream
The Waikēkeno stream flows through the area listed as a Historic Area on the New Zealand Heritage List, and the District Plan. The eroding edge on the northern side of the stream contains exposed archaeological deposits in several places including midden and oven deposits. No other in-situ archaeological remains have been observed in the bed of the stream between the road crossing and the foothills. The archaeological deposits on the adjacent land to the north are recorded under two separate numbers in the
New Zealand Archaeological Association database, and there is also an urupā near the mouth of the stream.

**Pukehuiake pā (T27/10)**
This site comprises a number of terraces and raised rim pits protected by several transverse defensive ditch and bank systems clearly visible on aerial photography. Scattered lithic material was also reported from previous visits.

**Waikēkeno horticultural area (T27/11)**
This site is noted as an extensive pre-contact Māori field system which incorporates numerous stone walls and mounds, which divide the area into smaller plots and may have been used for growing crops themselves. There is also a circular bank and a ditch and bank fence.

**Urupā**
There is an urupā which was set aside as a reserve in 1917 near the mouth of the stream, but it is possible that it also contains older burials, as well as the more recent ones that are marked with headstones.

**Evaluation of Significance**
Waikēkeno has high historic, archaeological and traditional significance. The area is important historically as the location of a significant conflict in prehistory which had repercussions for much of the wider Wairarapa area. Events that transpired there involved significant figures from whom a number of tangata whenua groups in the Wairarapa trace their descent. The archaeological features at Waikēkeno are significant for their excellent preservation and potential to contribute information about prehistoric garden systems generally, as well as adaptation to climate change and marginal growing conditions.

The detailed assessment of significance that follows is based on the criteria in Policy 21 of the Regional Policy Statement 2013.

**Historic Values**
*These relate to the history of a place and how it demonstrates important historical themes, events, people or experiences.*

The historic values of Waikēkeno are high. It was the site of an important conflict between the local Ngāti Ira led by Ngāokoiterangi and Ngāti Kahungunu of the Wairarapa lakes area under Te Hiha, which resulted in the death of Ngāokoiterangi. Ngāokoiterangi’s death was avenged by his younger brother there, and following the surrender of Te Hiha, a lasting
peace was cemented by the marriage between Te Haumōkai and Te Ahi-a-te-momo from which many subsequent Wairarapa chiefs were descended.

**Physical Values**

**Architectural Values**

*The place is notable for its style, design, form, scale, materials, ornamentation, period, craftsmanship or other architectural values.*

There are no extant built structures associated with Māori occupation in the area, so the site cannot be said to have any architectural values.

**Archaeological Values**

*There is potential for archaeological investigation to contribute new or important information about the human history of the district, region or nation.*

Archaeological values of the landscape complex including the horticultural systems, pā, food storage pits, and midden deposits are high. The horticultural systems are in a remarkable state of preservation, and have potential to contain important information about the development of gardening practices generally as well as those specific to this part of the Wairarapa coast. The site also has potential to contribute to studies of settlement pattern and the relationships between the pā, urupā, stream and gardens. There is limited potential for archaeological deposits to be preserved in the stream bed itself, but it can be said to contribute to an understanding of the wider site.

**Technological Values**

*The place provides evidence of the history of technological development or demonstrates innovation or important methods of construction or design.*

The garden systems are significant for their contribution to the understanding of Māori horticultural systems, particularly in a marginal coastal environment where climate change in the fifteenth and sixteenth centuries made it difficult to maintain cultivations.26

**Integrity**

*The significant physical values of the place have been largely unmodified.*

The preservation of the garden systems at Waikēkeno is excellent. Waikēkeno has been relatively unmodified by farming activities and coastal development when compared with other horticultural sites both in the Wairarapa and

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26 Leach and Leach; Brooks and McLean
nationally. There is some evidence of ongoing erosion from the stream on the southern side of the garden systems.

**Age**
*The place is particularly old in the context of human occupation of the Wellington region.*

The archaeological deposits are undated, and the age of the first settlement is also unknown. However an approximate age can be determined from the historical narrative which suggests the site was occupied at least as early as the seventeenth and eighteenth centuries. Accepted comparative dates for pā construction put the date of Pukehuiake pā at post-1500 AD.27

**Group or Townscape Values**
*The place is strongly associated with other natural or cultural features in the landscape or townscape, and/or contributes to the heritage values of a wider townscape or landscape setting, and/or it is a landmark.*

The stream at Waikēkeno derives much of its significance from the surrounding cultural landscape features which include the Pukehuiake pā (T27/10), horticultural systems (T27/11) and urupā. When considered together, a better appreciation of Māori settlement on the uplifted coastal bench and foothills emerges.

**Social Values**

**Sentiment**
*The place has strong or special associations with a particular cultural group or community.*

Waikēkeno has high significance to Wairarapa iwi. Important figures include a number of principal ancestors of Ngāti Hinewaka including Ngaōkoiterangi, his younger brother, Hikarara, and his daughter Te Haumōkai. The site at Waikēkeno is also recognised in the Ngāi Tumapuhia whakataukī attributed to Ngaōkoiterangi.

**Recognition**
*The place is held in high public esteem for historic heritage values or contribution to the sense of identity of a community.*

The site is listed as an area of significance to tangata whenua in the Wairarapa Combined District Plan (TWc1), and is listed as a Historic Area on the New

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Zealand Heritage List (No. 7669). The features are well known to the landowner and local iwi, and are recognised as having significance amongst the archaeological community.\textsuperscript{28}

**Surroundings**

*The setting or context of the place contributes to an appreciation and understanding of its character, history and/or development.*

The location of the horticultural systems on the uplifted Holocene bench is important for understanding Māori settlement patterns on this part of the Wairarapa coast. The stream and coastal strip were important for access to food resources and also contribute significantly to understanding of the site.

**Rarity**

*The place is unique or rare within the district or region.*

The state of preservation for the horticultural systems, and context with a wider cultural landscape makes Waikēkeno unique in the region. There are few places nationally that offer an opportunity to investigate such well-preserved features and the relationship between those features and other aspects of settlement, food storage and defence.

**Representativeness**

*The place is a good example of its type or era.*

The cultural landscape at Waikēkeno incorporates a number of features that are well preserved good examples of individual types including pā, storage pits, midden deposits and horticultural systems.

**Schedule information**

New Zealand Heritage List/Rārangi Kōrero: No. 7669

District Plan listing: TWc1

NZAA Site Record: T27/10; T27/11

Other:

Photographs

Midden/oven features exposed in the north side of the stream (scale: 1 metre)

Typical view from Waikekeno stream bed

All photos A Dodd 2015
Waikekeno stream as it passes Pukehuiake pa (T27/10) top left; and garden systems (T27/11) right of frame. Source of aerial: Wairarapa combined councils on-line GIS

Wai Kekeno, East Coast. [186-].Reference number: A-035-033, Alexander Turnbull Library

References
New Zealand Archaeological Site Record Forms T27/10; T27/11


Furey, L., 2006, Maori gardening: an archaeological perspective, Department of Conservation, Wellington.

Leach, H., 1984, 1000 years of Gardening in New Zealand, A.H. & A. W. Reed, Wellington, p.46


Chert-bearing limestone outcrop, Pahaoa river mouth, 2015

Chert source site
Pahaoa river mouth
Outline History

History
The presence of chert flakes in archaeological assemblages is fairly common in the Wairarapa. It is a naturally occurring mineral silica that forms in beds or nodules and its qualities include concodial fracturing and hard durable edges which make it particularly suitable for the manufacture of cutting or scraping tools. Because there are relatively few places where chert is known to naturally occur, and sources can be tentatively identified on the basis of colour, it is of interest archaeologically because it can be used as evidence to show the movement of people and trade networks in prehistory.

Nodules were able to be extracted from limestone outcrops and, being readily transportable, flakes could be manufactured at the site of their intended use. As such the sites where chert was quarried are less likely to contain extensive evidence of flake reduction, which might be expected at other prehistoric quarry sites where it was desirable to form preforms or roughouts of the intended tool to reduce the size and weight of the quarried stone to be transported.

The chert sources in the Wairarapa were known to Māori in prehistory and were identified by European researchers as early as 1878. Archaeologist Ian Keyes used existing geological research to identify seven chert source sites associated with Mungaroa limestone formations along the south Wairarapa coast, which were likely to have been exploited by Maori in prehistory. He noted that chert flakes and cores occurring in archaeological context were often observed to have a heavily weathered surface, and suggested that the chert was procured in the form of cobbles, nodules or from splintered blocks.

Identification of another source of Wairarapa chert on the Pahaoa River was reported by Keyes in 1972. This chert source is some 15 kilometres north of the Pahaoa River mouth, at the confluence of the Wainuioru and Pahaoa Rivers. It is described as being associated with the older Taitai sandstone.

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31 Keyes, 1970, p.130
33 Keyes, 1970
34 Keyes, 1970, p.131
35 Keyes, I., 1972, ‘A further important source of chert in the Wairarapa’ New Zealand Archaeological Association Newsletter, 15(2), p.57
deposits, which produced more red-coloured varieties of chert. This location was reported as being quite unlike the coastal sites as the site also comprised large mounds of flakes, and on this basis appeared to have been extensively exploited. This site was not visited by Keyes and the presence of archaeological remains in this area remains unconfirmed.

Map

![Map of chert source T28/58, Wairarapa online GIS, 2015](image)

Location of chert source T28/58, Wairarapa online GIS, 2015

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36 Keyes 1972, p.58
Legal description
The legal description of the visible outcrop is recorded as Pt Sec 10 Pahaoa District, Wellington Land District and the adjoining river bed.

NZTM Grid Reference: E1827516 N5413918 ±3m

Physical Description

Setting
The site is located on the true right (west) bank approximately 350 metres north of the Pahaoa River mouth, and 60 metres north of a small tributary stream and sandy promontory. The wider area includes numerous limestone outcrops, particularly on the east side of the river mouth, but no other evidence of chert procurement or flaking was visible. Either side of the river is grazed farmland, and the surrounding landscape includes recorded pā, pits, terracing, midden and modified horticultural soils. Another recorded source site is recorded approximately two kilometres to the WNW.

T28/58 – chert source
The site comprises a small outcrop of Mungaroa limestone with evidence of chert nodules having been removed. The chert is brown in colour with a waxy lustre, the flake scars exhibit a well formed white patina. It is likely that other similar outcrops are present in the wider area, both visible above ground and buried beneath river sediments.

Evaluation of Significance
As an in situ source of chert, exhibiting evidence of quarrying, this site is potentially significant archaeologically for what it can contribute to an understanding of how raw materials were procured in prehistory. It also forms part of a significant archaeological landscape around the mouth of the Pahaoa river mouth which includes pā, pits, terracing, midden and modified horticultural soils.

The detailed assessment of significance that follows is based on the criteria in Policy 21 of the Regional Policy Statement 2013.

Historic Values
These relate to the history of a place and how it demonstrates important historical themes, events, people or experiences.
There are no known first-hand historical accounts pertaining to the quarrying of chert in this area. To date it has only been recorded archaeologically.

**Physical Values**

**Architectural Values**

*The place is notable for its style, design, form, scale, materials, ornamentation, period, craftsmanship or other architectural values.*

There are no known architectural values associated with this site.

**Archaeological Values**

*There is potential for archaeological investigation to contribute new or important information about the human history of the district, region or nation.*

The site has archaeological value in terms of its contribution to stone-sourcing studies. There are relatively few places where chert is known to naturally occur in the North Island, and sources can be tentatively identified on the basis of colour, so it can be used as evidence to show the movement of people and trade networks in prehistory.

**Technological Values**

*The place provides evidence of the history of technological development or demonstrates innovation or important methods of construction or design.*

The site has technological value for its contribution to the study of stone tool manufacture and use in prehistory. People were adept at finding sources of workable stone in prehistory, and stone such as chert was frequently transported significant distances because it flaked easily and had a durable edge.

**Integrity**

*The significant physical values of the place have been largely unmodified.*

The integrity of any deposits buried beneath river sediment in this location is unclear. There appears to have been little modification of the site since the initial removal of some of the chert nodules, but it is not possible to determine when this might have happened, or what might have happened in the interim. There is likely to have been some movement of river sediments around the site which could have buried or scoured away other archaeological evidence.
Age

The place is particularly old in the context of human occupation of the Wellington region.

The age of this site is unknown. With the availability of metal tools the use of stone tools amongst Māori would have become increasingly less common. The white patina which has formed over the flake scar gives some indication of age, but only in a very general sense.

Group or Townscape Values

The place is strongly associated with other natural or cultural features in the landscape or townscape, and/or contributes to the heritage values of a wider townscape or landscape setting, and/or it is a landmark.

The site is part of a significant archaeological landscape. There are numerous sites recorded on the flat land to the west of the Pahaoa river mouth including pā (T28/4), pits/terraces (T28/13), midden (T28/9-12, 14, 17, 18, 21 & 30) and horticultural soils (T28/29) which contribute to an archaeological landscape. There are also sites associated with early European farming (T28/2). Chert can be found at a number of locations along this part of the Wairarapa coast associated with Mungaroa limestone, but few sources have been recorded archaeologically.

Social Values

Sentiment

The place has strong or special associations with a particular cultural group or community.

There are no documented associations, but archaeological remains along this part of the coast are likely to be of interest to Wairarapa iwi.

Recognition

The place is held in high public esteem for historic heritage values or contribution to the sense of identity of a community.

The site is not formally recognised, but has been recorded in the New Zealand Archaeological Association site recording scheme as T28/58.

Surroundings

The setting or context of the place contributes to an appreciation and understanding of its character, history and/or development.
The Pahaoa river mouth is characterised by large limestone outcrops, and sandstone formations which range from white and grey to pink and brown in colour. Coastal river mouths were attractive locations for settlement in prehistory combining access to a range of resources, with a ready access to the sea which allowed for relative ease of transport along the coast.

**Rarity**
The place is unique or rare within the district or region.

The location and extent of chert sources are well described geologically, but poorly documented in the archaeological record. There are only a few recorded archaeological sites associated with the procurement of chert in the Wellington region. Another possible chert source site, comprised of a cobble beach is recorded approximately two kilometres up the coast to the north-east, but contains little visible evidence of chert that would have been suitable for flaking.

**Representativeness**
The place is a good example of its type or era.

The outcrop recorded as T28/58 is likely to be representative of other Mungaroa limestone outcrops from which chert nodules were procured in prehistory.

**Schedule information**
Regional plan reference: n/a

New Zealand Heritage List/Rārangi Kōrero: n/a

District Plan listing: n/a

NZAA Site Record: T28/58

Other:
Photographs

Pahaoa River mouth, from road on south side looking east

Chert bearing limestone outcrop in southern bank of river showing scars from removal of nodules

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38 All photos A Dodd 2015
Close-up of scar where chert nodule has been struck off: note well-formed white patina (weathering) over the scar indicative of ageing

References

New Zealand Archaeological Site Record Form T28/58


Sutherland, A. 1947, The Sutherlands of Ngaipu, A.H. & A.W. Reed, Wellington
Lake Onoke
South Wairarapa
Outline History

History
The seventeenth century was a period of significant social change in the Wairarapa. Geological evidence suggests a significant earthquake struck the South Wairarapa in the late fifteenth century, and may have been accompanied by a tsunami which would have severely affected those living on the coast.\(^{39}\) Archaeological investigation of sites in Palliser Bay carried out in the 1970s shows abandonment of many coastal settlements by around AD 1600.\(^{40}\)

In the early seventeenth century the area around Lake Onoke was settled by Rangitāne. Although not the first migration of Ngāti Kahungunu into the Wairarapa from southern Hawke’s Bay, one of the more important exchanges between the two groups occurred at a place called Upokokirikiri, on the eastern shores of Lake Onoke. It was at this location that a group of Ngāti Kahungunu under the leadership of Te Rangitāwhanga exchanged a number of canoes for the right to occupy the area from Okorewa to Turakirae Head, as well as a substantial area inland between the Tararuas and the Ruamahanga River. Following the exchange a number of Rangitāne led by Te Rerewa departed for the South Island.\(^{41}\) The transaction took place at a whare by the name of Te Wharau-a-Kena.\(^{42}\)

On the opposite (western) shore of Lake Onoke was a fishing camp known as Kiriwai. This camp was positioned to take advantage of the lake outlet through which the migration of eels occurred during times when the sand bar was open. Kiriwai was occupied seasonally until the early 1830s when uplift of the western shores of the lake caused that outlet to block, and a new outlet to form in the present location near Lake Ferry. The 1855 earthquake caused further uplift, cutting off the lagoon at Kiriwai.\(^{43}\) The location of Kiriwai is


shown as ‘old native fishing camp’ on several old survey plans, and pictures showing fishing gear used at Kiriwai including hinaki and waka tiwai have been subsequently published in literature on traditional Māori fishing.

After the outlet near Kiriwai blocked, the lake periodically opened at the eastern end so a new fishing camp was established at Ōkorewa. The location of Ōkorewa is shown in a watercolour attributed to Samuel Brees in 1844, and more prominently in a later engraved copy of the same image attributed to Henry Melville in 1847. Both show a number of huts and an enclosure on the low ground in front of the Ōkorewa lagoon. The periodic opening of the lake at this location necessitated a ferry service for travellers wanting to continue inland up the Ruamahanga River. At first this was operated by local Māori. By the 1850s this had been formalised with a licence issued to William Ardley. The location of the ferry crossing is shown on survey plans from the 1850s. A hotel was eventually built, and replaced following a fire in 1919.

The outlet itself is also a historically important location. Forced opening of the lake in 1888 had prompted protest from Māori, and a government commission was set up in 1891 to investigate. The gift of the Wairarapa Moana by Wairarapa iwi to the Crown in 1896 was made with the understanding that Māori fisheries in the lakes would not be interfered with. This assurance was set aside by successive governments and River Boards and opening of the outlet has occurred throughout the twentieth century to the present day.

Another feature of historic interest on the edges of the lake is the wreck of the Addenda. The Addenda (No. 107188) was an American built four-masted

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44 ML600_5 [1881]; SO10538 [1855]; and SO14415 [1899], Wellington Land District
46 Brees, Samuel Charles, 1810-1865: Palliser Bay and the sandbar of the Wairarapa [1844]. Ref: B-031-019, Alexander Turnbull Library
49 Aburn 1987, p.38
50 SO 10482_4 [1850], SO 10538 [1855], SO 10879_5 [1868], SO 14415 [1899], Wellington Land District
barquentine constructed in 1895. It was constructed by the Simpson Lumber Company at North Bend, Oregon. Dimensions were length 176.3 ft, beam 39.8 ft, depth 14 ft., 692 tons GRT, and 637 tons NRT. The Addenda was blown ashore on the spit while en route from Lyttelton to Wellington on 14 October 1904. Attempts to refloat the vessel failed and after 15 months the hull had broken into three pieces. Some salvage was carried out but the wreckage was eventually abandoned.

Map

Lake Onoke showing location of names of settlements mentioned in the text, as well as the present day outlet and Addenda wreck site. Source of aerial: Wairarapa Combined Councils online GIS, 2015

Legal description

The legal description for the Lake Onoke bed is Pt Wairarapamoana (ID 4005197). The adjoining land in the vicinity of Ōkorewa is privately owned Pt Lot 11 DP 1943. The land in the vicinity of Upokokirikiri is made up of esplanade reserve Lot 3 DP 67585, recreation reserve Lot 4 DP67585 and privately owned land Lot 2 DP 67585. Te Wharau-o-kena is reported as being located in Pt Sec 65 Turanganui District. All Wellington Land District.

NZTM Grid Reference: E1778368 N5415459 ±3m

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Physical Description

Setting
The bed of Lake Onoke covers an area just over 931 ha. It is separated from Palliser Bay by a 300-metre wide sandy spit with an outlet at the eastern end near the Lake Ferry township. The lake is fed by the Ruamahanga River to the north.

Places

Upokokirikiri
The site of Upokokirikiri was on the eastern shore of Lake Onoke to the north of the Lake Ferry Reserve. There are no visible remains above ground, but ovens have been recorded in the eroding embankment (R28/44). The foreshore in this general location was also the find site for a large argillite adze in 2014.

Te Wharau-a-Kena
This was the name of a whare at Upokokirikiri where the agreement between Te Rerewa and Te Rangitāwhanga was made, ceding land in the Wairarapa to Ngāti Kahungunu. Its location is east of the Lake Ferry Road opposite the northern end of the Lake Ferry Reserve. There are no known visible remains of the house at this location.

Kiriwai (R28/32)
Kiriwai was a seasonal fishing village located on the western shore of Lake Onoke. The New Zealand Archaeological Association site record refers to occupation on the elevated ridge as well as stone alignments between the road and the lake edge. The name also refers to the lagoon to the west of Lake Onoke.

Ōkorewa (R28/31)
Ōkorewa, near the outlet at the eastern end of the lake, was settled as a seasonal fishing camp after Kiriwai ceased to be viable in the early nineteenth century. The village was located on the northern edge of a small lagoon. There is no visible surface evidence, but the location is shown in both the Brees and Melville images from the 1840s.

Addenda (R28/52)
The visible remains of the Addenda are presently limited to a small section of keel with metal fastenings protruding in four parallel rows. The above
ground remnants cover an area approximately 1 x 3 metres, but there is likely to be substantially more under the surface.

**The outlet**
The outlet at the eastern end of the Onoke spit appears variously as a sand bar when closed and as a deep swiftly flowing channel when open. It is still opened periodically to provide flood relief for low lying farmland in the Wairarapa valley.

**Evaluation of Significance**
Lake Onoke and the sites around its foreshore have high historical, archaeological and traditional significance. The events that took place there in the seventeenth century, and later in the nineteenth century, are important for their potential to improve understanding of present day boundaries between Wairarapa iwi, and for appreciating the impact of modern day flood protection measures on traditional food gathering practices.

The detailed assessment of significance that follows is based on the criteria in Policy 21 of the Regional Policy Statement 2013.

**Historic Values**
*These relate to the history of a place and how it demonstrates important historical themes, events, people or experiences.*

Upokokirikiri on the eastern shore of Lake Onoke is historically significant as the location where settlement rights in the Wairarapa were ceded by Rangitāne to Ngāti Kahungunu. It was a prominent village that was visited by early European travellers to the inland Wairarapa prior to the construction of the road and railway across the Rimutaka range. Lake Onoke, and its outflow into Palliser Bay is also the setting for the ‘Battle for the Lakes’ which refers to the ongoing conflict since 1888 between the needs of farmers to manage flooding, and the needs of Māori to access freshwater resources dependant on the fluctuations of the outlet.\(^{54}\)

**Physical Values**

**Architectural Values**
*The place is notable for its style, design, form, scale, materials, ornamentation, period, craftsmanship or other architectural values.*

\(^{54}\) Dunmore, pp.25,49; Gunn, 2012, pp.134 ff
There are no extant built structures associated with the above mentioned features so the site cannot be said to have architectural values.

**Archaeological Values**

*There is potential for archaeological investigation to contribute new or important information about the human history of the district, region or nation.*

Archaeological values associated with occupied sites on raised ground around the edges of the lake are likely to be high due to limited development of these areas. Uplift around the shores of the lake is likely to have increased the separation between features formerly on the lake edge and the current bed of the lake, so there is limited potential for the preservation of structural remains in the lake itself. There is potential for isolated finds, particularly around former pā and fishing kāinga. There have been a number of canoe finds in the Wairarapa valley over the years, and it is not unlikely that similar remains and organic material associated with fishing practices could be contained in and on the lake bed sediments.

**Technological Values**

*The place provides evidence of the history of technological development or demonstrates innovation or important methods of construction or design.*

Archaeological deposits in and around the lake have potential for providing evidence relating to seasonal fishing activities, but it is not possible to ascribe technological values without knowing the contents of those deposits or the nature of future finds.

**Integrity**

*The significant physical values of the place have been largely unmodified.*

The integrity of any lake bed archaeological deposits is not known. The archaeological deposits associated with the pā and kāinga around the lake are not visible above the ground surface but limited development in these areas is likely to have assisted with preservation. Limited fossicking has occurred around the wreck of the *Addenda*, but the timbers buried beneath the sand are likely to be reasonably well preserved.

**Age**

*The place is particularly old in the context of human occupation of the Wellington region.*

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The sites associated with Māori occupation date to at least as early as the arrival of Ngāti Kahungunu in the Wairarapa in the seventeenth century, so they can be considered to be old in the context of human occupation of the Wellington region. No radiocarbon dates have been obtained for Ōkorewa, Kiriwai and Upokokirikiri, but other coastal sites in Palliser Bay are believed to be some of the earliest in the Wairarapa area.

**Group or Townscape Values**
*The place is strongly associated with other natural or cultural features in the landscape or townscape, and/or contributes to the heritage values of a wider townscape or landscape setting, and/or it is a landmark.*

The various settlements around the lake form a significant cultural landscape, which contains a number of sites which demonstrate the activities of past populations as well as the movement of people over time, in response to various factors including seasonal exploitation of resources, changes in the environment and mass migration within New Zealand. Māori occupation around the Wairarapa lakes has been the focus of a heritage scoping study which has assisted in the understanding of this landscape.\(^{56}\)

**Social Values**

**Sentiment**
*The place has strong or special associations with a particular cultural group or community.*

The sites of Māori settlement around Lake Onoke are significant culturally and historically to Wairarapa iwi.

**Recognition**
*The place is held in high public esteem for historic heritage values or contribution to the sense of identity of a community.*

The significance of Upokokirikiri as the place where the ceding of Wairarapa lands from Rangitāne to Ngāti Kahungunu occurred is apparent in the repeated telling of the story in local and regional histories. The site of Te Wharau-a-Kena was considered for a reserve by the Scenery Preservation Commission in 1906 and 1907,\(^{57}\) and a recommendation was made to create a historic reserve in that location, but no action was taken. The wreck of the

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\(^{57}\) Appendices to the Journal of the House of Representatives 1906 C-06, p.6; 1907 C-06, p.22
Addenda is included on Department of Conservation signage at either end of the Onoke spit.

**Surroundings**
*The setting or context of the place contributes to an appreciation and understanding of its character, history and/or development.*

The landscape setting around Lake Onoke is integral to understanding the events which have taken there. The lake outlets at Kiriwai and Ōkorewa were the reasons for the establishment of fishing villages there, and the opening and closing of the outlet, which is still prevalent today, necessitated a ferry service. The ferry hotel and reserve were the precursor to the present day Lake Ferry township. The wreck of the Addenda on Onoke spit demonstrates the dangers of travelling to close to the shore under sail in Palliser Bay.

**Rarity**
*The place is unique or rare within the district or region.*

Upokokirikiri and Te Wharau-a-Kena can be said to be rare examples of where important events in the early Māori history of the region can be attributed to a specific location. The sites at Ōkorewa and Kiriwai can be said to be rare in the Wellington region because of their specialised nature which is also very specific to their geographical location.

**Representativeness**
*The place is a good example of its type or era.*

The archaeological deposits at Ōkorewa and Kiriwai are likely to be good representative examples of seasonally occupied fishing camps, and investigation of archaeological deposits in these locations has the potential to enhance understanding of this type of site and the resources that were targeted there.

**Schedule information**

New Zealand Heritage List/Rārangi Kōrero: N/A

District Plan listing: E10, E11, E13, E14, E16, E22 (Significant natural areas)

NZAA Site Records: R28/31; R28/32; R28/44
Photographs

Location of Ōkorewa, viewed from south

Kiriwai lagoon, viewed from south

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58 All photos A Dodd 2015
Lake foreshore to the north of Lake Ferry

Wreckage from the Addenda on the Onoke spit

References
New Zealand Archaeological Site Record Forms R28/31; R28/32; R28/44


Best, E., 1929, ‘Fishing Methods and Devices of the Maori.’ *Dominion Museum Bulletin* No.12.[2005 reprint], Te Papa Press, Wellington


Karori gold mining sites
Wellington
1869-1873
Outline History

History
Gold-bearing quartz was first discovered in the upper reaches of the Kaiwharawhara valley by J.B. Reading in 1857. However it wasn’t until 1869 when alluvial gold was discovered in the stream bed that the Karori gold rush started in earnest. William Mason and Henry Short started prospecting in the stream below Bakers Hill in June 1869, and by 15 July the valley had become the site of a gold rush with contemporary reports describing twenty to thirty diggers working the area with claims pegged off and 8-10 shafts partially excavated. Later recollections describe the valley floor having been studded with huts, tents and alluvial workings. The alluvial gold rush was short-lived, and had largely died out by 1871.

The first company to set up mining of the quartz reef in the valley was the Baker Hill Company, who secured a lease over 20 acres of land for their claim. The company excavated three unproductive tunnels higher up the sides of the valley before settling on a more successful location only 8-feet above the streambed. By the end of 1871 the company had excavated approximately 440-feet into their main drive and a second drive had been started further up the hill. A two-stamper battery was set up and powered by a water wheel which was connected to a weir further upstream by a 200-foot flume.

A second outfit, the Morning Star Company, also secured a smaller 10-acre lease further up the valley to the south in June 1871. Within a few weeks they had excavated a 60-foot shaft and made arrangements for the purchase of a four-stamper battery. By April 1872 they had completed a 110-foot long weir across the stream with a 240-foot flume to feed the water wheel which powered the battery. Water was fed back into the stream via a 100-foot long tail race.

The end of gold mining in the upper reaches of the Kaiwharawhara stream came about with the development of the Wellington municipal water supply. After Wellington became the capital in 1865 the population doubled within two years. The corresponding demand for drinking water and general supply, including for firefighting purposes, necessitated the development of a

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60 Wellington Independent 15 July 1869
61 Evening Post 28 February 1935
62 Brodie, p.108
63 Brodie, p.114
municipal supply. The Wellington Waterworks Act 1871 secured the upper reaches of the Kaiwharawhara stream for the municipal water supply and displaced the miners, who were compensated for their claims.

The first water was redirected from the valley in 1874, and the scheme brought about the end of gold mining in the area. Other claims further up the valley belonging to the Union and Try Again Companies, while not directly affected by the works, also had to be abandoned because of restricted access to the water works area. The eventual construction of the lower Karori dam in 1878 at a height of 21.6 metres above the valley floor meant the lower reaches of the Bakers Hill and Morning Star claims including their stream works, plant and lower mine shafts were flooded.

Map

Wellington City Council aerial with overlay of original stream bed and other features shown in Brodie, 2014

Brodie, p.120
Legal description
Lot 1 DP 313319 (CT WN 52413), Wellington Land District

Address: Zealandia, Waihapu Road, Karori

NZTM Grid Reference: E1746688 N5427355 (estimated)

Physical Description

Setting
The setting is within and around the lower reservoir in the Karori sanctuary (Zealandia). The stream bed and lower floor of the valley has been flooded by the construction of the lower Karori dam. Walking tracks provide visitor access around the fringes of the reservoir, and these areas as well as the upper slopes of the valley are covered in actively managed native bush.

Gold mining
Flooded mining features within the lower Karori reservoir include parts of the Morning Star and Bakers Hill claims. The Bakers Hill workings included a 50-foot weir with a 200-ft long flume leading a two-stamper battery powered by a water wheel. Further downstream to the north was a 485-foot long mine drive and a small whare. A second drive was excavated higher up the valley on the east side.

The Morning Star workings included a weir, and a 240-foot long timber flume to feed a four-stamper battery powered by an 8HP turbine water wheel. Riffle-boxes were set up to recover the gold from the stamper, and a 100-foot long tail race discharged back into the stream. Two workers’ houses were positioned alongside the flume between the weir and the stamper battery. A drive within the Morning Star claim was located further upslope so was not flooded by the reservoir.67

Chronology, modifications

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1857</td>
<td>First discovery of gold in upper Kaiwharawhara stream</td>
</tr>
<tr>
<td>1869</td>
<td>Prospecting in stream below Bakers Hill leads to gold rush</td>
</tr>
<tr>
<td>1870</td>
<td>Water wheel powered four-stamper battery installed along with 110-foot dam, 240-foot flume and 100-foot tail race installed at Morning</td>
</tr>
</tbody>
</table>

67 Brodie, p.114
Star claim

1871 Water wheel powered two-stamper battery installed along with weir and flume at Bakers Hill claim

1873 Municipal waterworks result in the eviction of miners from the valley

1878 Completion of the lower Karori dam, and flooding of the lower reaches of the Morning Star and Bakers Hill claims

**Evaluation of Significance**

The submerged gold mining remains associated with the Morning Star and Bakers Hill mines in the Karori valley are important sites of the early mining industry in the Wellington region. They are also a unique archaeological resource on account of them being submerged within a few years of the establishment of the field. There is good potential for the preservation of organic materials in the anaerobic conditions present in the bed of the reservoir.

The detailed assessment of significance that follows is based on the criteria in Policy 21 of the Regional Policy Statement 2013.

**Historic Values**

*These relate to the history of a place and how it demonstrates important historical themes, events, people or experiences.*

The archaeological remains associated with the gold mining of the Karori stream valley are historically important for their contribution to the early development of industrial mining in the Wellington region. While not successful in an economic sense, gold field sites such as Karori do illustrate the social impact of gold discoveries which caused people to flock to certain locations in the hope of securing their fortunes, and for companies to invest heavily in plant and machinery which didn’t always provide the expected return on investment.

**Physical Values**

**Architectural Values**

*The place is notable for its style, design, form, scale, materials, ornamentation, period, craftsmanship or other architectural values.*
The structures have been dismantled and machinery removed, so the underwater remains are unlikely to have significant architectural values.

**Archaeological Values**

*There is potential for archaeological investigation to contribute new or important information about the human history of the district, region or nation.*

The underwater remains of the gold mining sites have potential to add significantly to the body of information about gold mining in the upper Kaiwharawhara stream prior to the flooding of the valley in 1873. While the machinery and some of the structures themselves are likely to have been removed, lake bed deposits are still likely to remain albeit covered in silt. Archaeological remains of miners’ campsites often contain artefacts which can contribute to knowledge about the daily lives of miners in a way that is often not documented in contemporary historical accounts.

**Technological Values**

*The place provides evidence of the history of technological development or demonstrates innovation or important methods of construction or design.*

The mining of the Karori valley occurred some years after the South Island gold rushes of the 1860s had subsided, so the technology used in processing the gold-bearing quartz excavated from the mines was already well established in New Zealand. Stamper batteries were the technological precursor to the more efficient cyanide-process of gold extraction, and the processing of this material locally by competing companies necessitated the construction of water-driven stamper batteries, which in turn required the construction of separate systems of dams, flumes and tailraces which were all engineered to the specific location of each claim. Contemporary with the quartz mining at Makara and Waairiki, the adoption of this technology at Karori represents early adoption of this technology in the Wellington region.

**Integrity**

*The significant physical values of the place have been largely unmodified.*

The flooding of the stream valley in 1873 has meant that anything left behind by the miners, including structural remains, excavations and archaeological deposits is likely to be well preserved. The accumulation of silt is likely to have covered over remains making them difficult to ascertain prior to excavation, but the anaerobic environment in the bed of the reservoir is also likely to have improved the preservation of organic material such as timber which might otherwise have not survived in terrestrial deposits.
Age
The place is particularly old in the context of human occupation of the Wellington region.

The mining remains in the Karori valley are well over 140 years old, and represent some of the earliest industrial exploitation in the Wellington region.

Group or Townscape Values
The place is strongly associated with other natural or cultural features in the landscape or townscape, and/or contributes to the heritage values of a wider townscape or landscape setting, and/or it is a landmark.

The mining remains in the lake bed are not visible to visitors to the sanctuary, but the wider valley contains other features associated with gold mining including mine drives, old tracks, banks, scarps and terraces. The New Zealand Archaeological Association site record also mentions a number of features associated with gold mining outside of the Zealandia reserve to the north, lower down in the stream valley.

Social Values

Sentiment
The place has strong or special associations with a particular cultural group or community.

There is a considerable amount of historic interpretation signage within the sanctuary which tells the story of the mining prior to the flooding of the stream valley, and draws particular attention to the submerged remains in the bed of the reservoir. Terrestrial mining features such as the upper Morning Star drive have been made accessible to the public and are actively managed and interpreted by Zealandia.

Recognition
The place is held in high public esteem for historic heritage values or contribution to the sense of identity of a community.

The mining of the Kaiwharawhara stream has been the subject of a chapter in a history of the Wellington goldfields published by the Karori Historical Society.\textsuperscript{68} The submerged gold mining remains are also recorded in the New Zealand Archaeological Association Site Recording Scheme (R27/201).

\textsuperscript{68} Brodie 1986
Surroundings

The setting or context of the place contributes to an appreciation and understanding of its character, history and/or development.

The understanding of the site requires some knowledge of the stream gully prior to its flooding in 1873. The miners used the flow of the stream to generate power to drive the crushing machinery, and in doing so modified the valley with dams and weirs, causing some parts of the stream to run dry. The preservation of the valley within a water catchment and subsequently as a native sanctuary has allowed for the preservation of landscape in which mining was carried out, whereas much of the surrounding area has been extensively modified by residential subdivision and development.

Rarity

The place is unique or rare within the district or region.

Gold mining sites from the 1860s and 1870s are not nationally rare, but there are comparatively few in the Wellington region. Submerged mining remains are nationally rare, and the Karori remains are unique in the Wellington region. A comparable example is the mining remains submerged during the creation of Lake Dunstan in the 1980s, but these were subject to a comprehensive program of recording and excavation before they were flooded, whereas the Karori underwater remains have not been investigated.

Representativeness

The place is a good example of its type or era.

The archaeological features associated with the Karori gold mining are likely to be representative in that the modifications of the gully carried out by miners were left largely intact during the flooding. The systems of drives, races, flumes, and machinery employed were all representative of gold mining technology at the time.

Schedule information

Regional plan reference: n/a
New Zealand Heritage List/Rārangi Kōrero: n/a
District Plan listing: n/a
NZAA Site Record: R27/201
Other:

Photographs

Image reproduced from Brodie 1986 showing location of Morning Star and Bakers Hill claims in relation to the dams and edges of the reservoir
Approximate site of the Bakers Hill company workings, now flooded (Dodd, 2015)

Morning Star mine drive on the slopes above the flooded stream valley (Dodd, 2015)

Earth embankment at the southern end of the lower reservoir in the same approximate location of the Morning Star company dam (Dodd, 2015)

References
Wellington Independent, 15 July 1869

Evening Post, 28 February 1935

Brodie, J., 1986, Terawhiti and the Goldfields, Karori Historical Society, Wellington


New Zealand Archaeological Site Record Form R27/201
Siberia Bend water drop tower, 2015

Water drop tower
Rimutaka incline
1876
Outline History

History
The idea of a railway connecting Wellington with the farmland in the Wairarapa was first proposed by Robert Stokes in 1858. He was initially derided for making such an impractical and expensive suggestion, but his persistence eventually found favour with the central government. Colonial treasurer Julius Vogel promoted an ambitious scheme of public works including railway construction and the Wellington-Masterton railway was one of the lines prioritised in the 1870 Railways Act.

The Rimutaka railway was constructed between 1876 and 1878 and involved many engineering challenges, including numerous bridges and tunnels as well as the steepest section of railway constructed in New Zealand (up to 1 in 14) on the eastern side of the Rimutaka range. Potential routes for the Rimutaka summit to Featherston had been considered and it was found that a railway system using standard gradients would have required an unreasonable amount of earthworks, and instead a Fell system was adopted which was to be the third and last of its kind anywhere in the world.

Fell engines were fitted with additional horizontal wheels which gripped a raised central rail, allowing them to negotiate steeper inclines.

Crossing the Horseshoe gully, at what would later be known as the Siberia Bend, required the construction of a 27-metre high embankment on a five chain radius curve. The embankment was around 61 metres wide at the base and required the construction of a water drop tower to redirect the stream through the embankment. The concrete water drop shaft was built up progressively as the embankment was raised. The Siberia Bend embankment was completed by 1876.

Siberia Bend was an exposed part of the incline, and on 11 September 1880 it was the location of a derailment which claimed the lives of four passengers, and resulted in injuries to 13 others. A train travelling from Greytown to Wellington was hit by a north-easterly gust which blew the first three carriages off the line. It was only the weight of the engine and its grip on the raised centre rail that stopped the whole train from falling into the valley.

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69 Cameron, W., 2006, Rimutaka Railway, New Zealand Railway and Locomotive Society, Wellington, p.9
70 Ibid. p.10
71 Ibid. p.12
72 NZAA site record S27/37
73 DOC factsheet – History of the Rimutaka Incline railway, Department of Conservation 2004
blame was attributed, but the accident did result in the erection of wind shelters on exposed parts of the line.

The use of the Rimutaka incline continued until 1955 when the line was diverted through the present railway tunnel. Following the closure of the line the shaft was not maintained and a blockage in 1967 caused a massive washout, which destroyed the embankment but left the shaft exposed.

Map

Aerial photography showing the location of Siberia tunnel and the water drop shaft. Source: Combined Upper Hutt City Council online GIS, 2015.

Legal description
Section 116 Western Lake District, Wellington Land District.

NZTM Grid Reference: E1784710 N5441530 ±3m

Physical Description

Setting
The Siberia Bend water drop shaft is part of the Rimutaka incline railway where it crosses the Horseshoe Gully immediately east of the Siberia tunnel. The deeply incised stream gully required a high embankment on a tight curve. The present day track has been redirected to cross the stream higher up

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74 Ibid
the gully but still affords good views of the shaft. The surrounding area is in regenerating scrub and bush.

**Siberia Bend water drop shaft**
The shaft is of concrete construction, and was built in sections as the embankment was raised around it. It is square in form with perforations in the sides and a metal grill on top.

**Chronology, modifications**

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1875</td>
<td>Construction of Rimutaka incline railway begins</td>
</tr>
<tr>
<td>1878</td>
<td>First Fell engines used on the line between the Rimutaka summit and Cross Creek</td>
</tr>
<tr>
<td>1955</td>
<td>Tunnel diversion makes incline railway obsolete</td>
</tr>
<tr>
<td>1967</td>
<td>Collapse of embankment at Siberia Bend</td>
</tr>
</tbody>
</table>

**Evaluation of Significance**
The water drop shaft on the Siberia Bend is historically significant as a remnant of the Rimutaka incline railway which embodies the engineering challenges that were encountered when extending the railway from Wellington to the Wairarapa across steep and difficult terrain in 1876. It also marks the scene of the September 1880 derailment which caused the deaths of four passengers.

The detailed assessment of significance that follows is based on the criteria in Policy 21 of the Regional Policy Statement 2013.

**Historic Values**
*These relate to the history of a place and how it demonstrates important historical themes, events, people or experiences.*

The water drop shaft has historic significance as a component of the Rimutaka railway which connected Wellington with the Wairarapa. The incline railway was opened in 1878 and remained in use for 77 years until 1955. Difficult terrain presented significant engineering challenges and the steep grade necessitated the use of specialist Fell engines which were only adopted in three locations worldwide. Siberia Bend is also historically important as the
location of the September 1880 derailment which resulted in the deaths of four passengers and caused significant injuries to 13 others.

Physical Values

Architectural Values

*The place is notable for its style, design, form, scale, materials, ornamentation, period, craftsmanship or other architectural values.*

The water drop tower was a component part of a much larger earth and stone embankment, and would not have been visible following construction. The original embankment has since been washed away so the site has limited architectural values.

Archaeological Values

*There is potential for archaeological investigation to contribute new or important information about the human history of the district, region or nation.*

The water drop shaft is tangible evidence of the original railway embankment constructed over the Horseshoe gully, and can be investigated in conjunction with archival plans to convey information about construction methods in late nineteenth century railway engineering. Because the embankment which surrounded is now completely washed away, it shows a number of construction attributes which would not normally be apparent.

Technological Values

*The place provides evidence of the history of technological development or demonstrates innovation or important methods of construction or design.*

The water drop shaft has high technological values. It provided water diversion which allowed for the construction of a 27-metre high earth and rock embankment on a tight curve across a deeply incised stream gully. As part of the Rimutaka incline the railway corridor generally has high technological values associated with the use of specially designed Fell locomotives, which gripped a specially raised centre rail to enable them to traverse a 1 in 14 grade and were only used in three locations worldwide.

Integrity

*The significant physical values of the place have been largely unmodified.*

The water drop shaft was exposed in a large slip which destroyed the original embankment in 1967. The shaft itself was relatively undamaged, but the embankment was completely washed away.
Age
The place is particularly old in the context of human occupation of the Wellington region.

This section of the railway alignment was first constructed in 1876, so is now almost 140 years old. It is one of the earliest parts of the Wellington railway network.

Group or Townscape Values
The place is strongly associated with other natural or cultural features in the landscape or townscape, and/or contributes to the heritage values of a wider townscape or landscape setting, and/or it is a landmark.

The various features and structures along the Rimutaka railway have been recorded under 11 separate site numbers in the New Zealand Archaeological Site recording scheme (S27/32-40; S27/46 and S27/51) and form part of a cultural landscape extending from the Hutt valley to Cross Creek. It also has wider associations with other stations and heritage features along the Wellington Wairarapa line.

Social Values

Sentiment
The place has strong or special associations with a particular cultural group or community.

The Rimutaka railway alignment is now part of a well-used cycle and walkway and the various heritage features along its length are interpreted with onsite signage, including the embankment at Horseshoe Gully and the 1880 Siberia Bend derailment.

Recognition
The place is held in high public esteem for historic heritage values or contribution to the sense of identity of a community.

The Fell locomotive system is the subject of a dedicated museum in Featherston, and several books have been published on the railway and incline. The Rimutaka incline is included on the New Zealand Heritage List as a Historic Area.
Surroundings
The setting or context of the place contributes to an appreciation and understanding of its character, history and/or development.

The setting of the railway is in bush reserve which has allowed it to retain much of its original character. The deeply incised Horseshoe Gully and windswept terrain are integral to the understanding of the engineering challenges involved in building the incline, and of the conditions which led to the 1880 derailment.

Rarity
The place is unique or rare within the district or region.

The water drop shaft is a specialist construction designed to meet specific engineering demands caused by the creation of the high embankment. Very few examples of this structure were constructed in New Zealand.75

Representativeness
The place is a good example of its type or era.

The water drop shaft is a good example of this type of engineering.

Schedule information
Regional plan reference: N/A
New Zealand Heritage List/Rārangi Kōrero: No.7189
District Plan listing: SNs002 (significant natural area)
NZAA Site Record: S27/37
Other: N/A

75 NZAA site record S27/37
Photographs\textsuperscript{76}

\begin{figure}[h]
\centering
\includegraphics[width=0.8\textwidth]{siberia_water_drop_tower_upstream.png}
\caption{Siberia water drop tower viewed from upstream side}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=0.8\textwidth]{siberia_tunnel_west_water_drop_shaft.png}
\caption{Siberia tunnel to the west of the water drop shaft}
\end{figure}

\textsuperscript{76} All photos A Dodd 2015
References
New Zealand Archaeological Site Record Form S27/37

Cameron, W., 2006, Rimutaka Railway, New Zealand Railway and Locomotive Society, Wellington
Belmont viaduct abutments on the south side of the stream, 2015

Belmont viaduct abutments
Paparangi, Wellington
1885
Outline History

History
The building of the railway lines north of Wellington began as part of the ambitious public works programme of the 1870s championed by the Colonial Treasurer, Julius Vogel. Construction on the west coast line which linked Wellington with the Manawatu commenced in September 1879,\(^{77}\) and by the middle of the following year, the formation of the railway corridor had been completed as far as Johnsonville.\(^{78}\) Little more than a year into its construction, a newly elected government initiated an inquiry into railway spending. The findings of the commission concluded the west coast line was duplicating works on the Wairarapa line and funding was discontinued.

A prominent group of Wellington leaders and entrepreneurs, dissatisfied with the cessation of works, formed the Wellington and Manawatu Railway Company in 1881 to continue the project. The government gifted the works they had completed to date and the company recommenced the construction of the railway.\(^{79}\) The line was opened as far as Johnsonville in 1884, and work on the now privately-owned railway continued between Johnsonville and Paremata over the following year.

The continuation of the track north of Johnsonville necessitated the crossing of the 125-foot deep Belmont stream gorge. Original construction was a 341-foot long timber trestle constructed of 14-inch kauri timbers which were supported on 14 concrete piers, sunk 20 feet into the ground. At the time the viaduct was one of the largest timber structures of its kind anywhere in the world, and required the use of 212,000 super feet of timber, and 35 tons of iron bolts and braces. The viaduct was designed and constructed by some of the foremost experts of their time, with design being carried out by company engineer Harry Higginson who had worked on viaducts in India and Russia, and Scandinavian Morton Danaker who was specially appointed to supervise construction. It was built in sections on the ground and hoisted into place using block and tackle.\(^{80}\)

\(^{78}\) Ibid., p.22
\(^{79}\) Ibid., p.24
In 1902 a steel structure was imported from the United States and erected around the existing timber viaduct.\textsuperscript{81} Additional concrete foundations were laid in advance of construction, and the use of a gantry crane erected over the tracks allowed for work to be carried out with no interruption to the train service.\textsuperscript{82} Kauri from the old structure was removed, and as it was still deemed sound it was able to be recycled for building purposes.

In December 1908 the viaduct became part of the North Island Main Trunk railway. The government purchased the Wellington and Manawatu Company line shortly after the completion of the final rail link between Makatote and Ohakune. The viaduct remained in use for the next thirty years until the completion of the Tawa flat deviation tunnel in June 1937. After this the rail connection to Johnsonville became a branch line. The viaduct was finally demolished by army engineers on 15 December 1951 for reasons of public safety.

Map

Wellington City Council aerial showing the location of the visible concrete abutments from the Belmont viaduct, 2015

Legal description

Section 386 Porirua District (WN22D/690), Wellington Land District.

\textsuperscript{81} Cassells, pp.104-106
\textsuperscript{82} Cassells, p.114
Physical Description

Setting
The viaduct abutments are located to the east of State Highway 1 between Grenada Village and Paparangi. They are located in recreation reserve administered by the Wellington City Council. The stream gully is in a mixture of open space with walking tracks and regenerating bush on either side of the gully. There are likely to be additional concrete abutments obscured by vegetation.

Belmont viaduct
While the 1903 structure required 14 concrete abutments, only three are still readily visible. One of the abutments has been set into the south bank of the Belmont stream, and the other two are slightly higher up on either side of the valley. It is likely that further remains are present either as archaeological features, or as additional concrete abutments now obscured beneath vegetation.

Chronology, modifications

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1885</td>
<td>Construction of the original timber viaduct</td>
</tr>
<tr>
<td>1886</td>
<td>Opening of the Wellington-Manawatu line as far as Waikanae</td>
</tr>
<tr>
<td>1903</td>
<td>Replacement of original timber structure with steel viaduct</td>
</tr>
<tr>
<td>1908</td>
<td>Railway line purchased by the government and becomes part of the main trunk line</td>
</tr>
<tr>
<td>1937</td>
<td>Opening of the Tawa flat deviation tunnel and termination of the line at Johnsonville means the viaduct is no longer required</td>
</tr>
<tr>
<td>1951</td>
<td>Viaduct superstructure demolished by army engineers</td>
</tr>
</tbody>
</table>

Evaluation of Significance
The Belmont viaduct was a significant feat of railway engineering, which at the time was unparalleled in New Zealand. Design and construction of the viaduct was undertaken by some of the foremost international experts in
timber construction, and was at the time one of the largest timber structures anywhere in the world. The original structure required an enormous quantity of timber, and considerable manual labour to transport and erect. The viaduct was critical in the extension of the Wellington Manawatu railway line north of Johnsonville and would eventually form part of the North Island Main Trunk railway line for 29 years until the construction of the Tawa Flat deviation in 1937.

The detailed assessment of significance that follows is based on the criteria in Policy 21 of the Regional Policy Statement 2013.

**Historic Values**

*These relate to the history of a place and how it demonstrates important historical themes, events, people or experiences.*

The Belmont viaduct is historically important as a part of the Wellington and Manawatu railway line, and allowed for the extension of the line north of Johnsonville. As a prominent structure and engineering triumph, it featured prominently on the company’s promotional material. The railway was important in the economic development of the Kāpiti Coast and Manawatu and led to the establishment of several towns along its length. It would later be integrated into the North Island Main Trunk railway line in 1908.

**Physical Values**

**Architectural Values**

*The place is notable for its style, design, form, scale, materials, ornamentation, period, craftsmanship or other architectural values.*

The superstructure of the viaduct has been removed, with only the concrete abutments remaining. Accordingly it can be said to have limited architectural value.

**Archaeological Values**

*There is potential for archaeological investigation to contribute new or important information about the human history of the district, region or nation.*

The remains of the concrete piers provide physical evidence pertaining to the scale of the viaduct and the methods used in its construction. The configuration of the abutments had to be altered to allow for the erection of the steel replacement viaduct in 1903 and the physical remains may provide some further insight into how this was achieved.
Technological Values

The place provides evidence of the history of technological development or demonstrates innovation or important methods of construction or design.

The abutments have high technological values as both the original timber viaduct and steel replacement required remarkable engineering feats at the time. It was one of the largest timber structures of its kind anywhere in the world, and was the largest in New Zealand. It required 212,000 superficial feet of kauri timber, which was transported by sea via Porirua harbour, dragged inland using bullock teams, and erected on-site using block and tackle. The wrought iron fastenings alone accounted for 35-tons. The viaduct was constructed in sections which were lifted into place using block and tackle. The replacement of the timber structure with a prefabricated steel viaduct in in 1903 was erected over the existing track using a gantry crane which allowed rail traffic to continue to operate undisturbed below.

Integrity

The significant physical values of the place have been largely unmodified.

While only the concrete abutments either side of the stream are visible today, there may be additional features related to the original construction which remain in-situ.

Age

The place is particularly old in the context of human occupation of the Wellington region.

The concrete abutments from the two viaducts constructed on this site are now over 100 years old. While it post-dates the Hutt valley and Wairarapa lines the Wellington and Manawatu railway involved some of the earlier railway constructions in the Wellington region.

Group or Townscape Values

The place is strongly associated with other natural or cultural features in the landscape or townscape, and/or contributes to the heritage values of a wider townscape or landscape setting, and/or it is a landmark.

The viaduct formed part of the original fabric of the 1886 Wellington and Manawatu railway line which would eventually be amalgamated into the North Island Main Trunk Railway line.
Social Values

Sentiment
The place has strong or special associations with a particular cultural group or community.

While the remains themselves are unassuming the viaduct is considered an important piece of local history, and as part of the NIMT the remains have significance to rail heritage groups.

Recognition
The place is held in high public esteem for historic heritage values or contribution to the sense of identity of a community.

The Wellington and Manawatu Railway is recognised by for its engineering significance by IPENZ83 and many of the extant structures along this part of the NIMT are listed historic places. The viaduct features prominently on the website for Grenada Village, and also features on the nzhistory website administered by the Ministry for Culture and Heritage.84

Surroundings
The setting or context of the place contributes to an appreciation and understanding of its character, history and/or development.

The position of the abutments in the deeply incised Belmont stream gully is important for understanding the scale of the original structure.

Rarity
The place is unique or rare within the district or region.

The Belmont viaduct was the largest timber trestle structure built in the Wellington region, and at the time of construction in 1885 was the largest in the country.

Representativeness
The place is a good example of its type or era.

The abutments are all that remains of the viaduct, and they are typical of the type of supporting foundations that were used in other viaducts along the main trunk line.

83 http://www.ipenz.org.nz/heritage/itemdetail.cfm?itemid=625
84 http://www.nzhistory.net.nz/media/photo/belmont-railway-viaduct
Schedule information
Regional plan reference: n/a
New Zealand Heritage List/Rārangi Kōrero: n/a
District Plan listing: n/a
NZAA Site Record: R27/528
Other: IPENZ list of records No.625

Photographs

Concrete abutments on the south side of the Belmont stream, Dodd, 2015
Overlooking the location of the Belmont viaduct from the north, Dodd, 2015

Original timber viaduct as built in 1885. Alexander Turnbull Library ½-066673-F
Steel replacement viaduct shortly prior to demolition in 1951. Alexander Turnbull Library Evening Post Collection 114/409/08-G

References
New Zealand Archaeological Site Record Form R27/528


Hoy, D., 1972, West of the Tararuas: An Illustrated History of the Wellington and Manawatu Railway Company, Southern Press, Dunedin

Lansdowne dam, 2015

Lansdowne dam
Masterton
1890-1924
Outline History

History
The land was formerly part of the Lansdowne station owned by John Valentine Smith which comprised much of the land between the Ruamahanga and Waipoua Rivers south of Opaki. The land was acquired by Williams and Beetham, of Brancepeth Station, in the mid-1880s. In 1890 tenders were sought for the construction of a water supply dam.\(^{85}\)

The question of using Williams and Beetham’s water supply for public use was first discussed by the County Council in 1893, and an offer was extended in May that year.\(^{86}\) While it was retained in private ownership the reservoir was made available to the public for recreation purposes including walking and even boating.\(^{87}\) For the most part the dam had functioned well, with the exception of one overflow caused by a downpour in 1895.\(^{88}\)

The question of Lansdowne residents joining the Borough water supply from the Ruamahanga was raised periodically from 1902, but was rejected.\(^{89}\) Lansdowne remained separate from the Borough as part of the Northern Ward until 1921.

Only a few years after the amalgamation in December 1924, another freak downpour caused the dam to burst resulting in substantial damage to a number of properties downstream of the dam.\(^{90}\) Legal action seeking compensation was taken against the Borough and County Councils as well as the Williams Estate trustees as owners of the land. The claim was eventually discontinued with each side agreeing to pay their own costs.

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\(^{85}\) Wairarapa Daily Times, 21 August 1890, p.2
\(^{86}\) Wairarapa Daily Times, 12 April 1893, p.2
\(^{87}\) Wairarapa Daily Times, 4 November 1895, p.2
\(^{88}\) Wairarapa Daily Times, 16 April 1895, p.2
\(^{89}\) Wairarapa Daily Times, 14 January 1902, p.3
Location of Lansdowne dam. Source Combined Wairarapa Council online GIS

**Legal description**

The Lansdowne dam is contained within the Fourth Street road reserve. The former reservoir to the north is largely contained within Lots 2 and 3 DP 78294 (CT’s WN44D/981,982), Wellington Land District

NZTM Grid Reference: E1824954 N5464789 ±3m

**Physical Description**

**Setting**

The Lansdowne dam is located at the end of the formed portion of Fourth Street, Masterton. The reservoir created by the dam was located to the north on what is now Council reserve land east of Opaki Street, SH2.

**Lansdowne dam**

The dam is a gravity earth dam approximately 100 metres in length. It is approximately 6 metres wide across the crest, and 20 metres wide at the base. The eastern portion of the dam in the vicinity of the stream has been cut away, allowing water to pass through freely. Its location is shown on a number of old survey plans from the 1890s through to the 1920s.\(^1\)

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\(^1\) B162 [1894], DP 972 [1898], DP 1124 [1900], DP 8779 [1927], Wellington Land District
**Chronology, modifications**

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1890</td>
<td>Dam constructed for Messrs Williams and Beetham</td>
</tr>
<tr>
<td>1924</td>
<td>Dam bursts as a result of freak downpour, eastern portion cut away some time after this</td>
</tr>
</tbody>
</table>

**Evaluation of Significance**

The water supply dam at Lansdowne is a good example of a gravity earth dam, built by private enterprise and made available as a public resource. It was important for the separate supply of water to the Lansdowne area which remained separate from the Borough supply until well into the twentieth century. Late nineteenth century earth dams are now rare in the Wellington region.

The detailed assessment of significance that follows is based on the criteria in Policy 21 of the Regional Policy Statement 2013.

**Historic Values**

*These relate to the history of a place and how it demonstrates important historical themes, events, people or experiences.*

The dam was important in the development of Lansdowne and provided an independent water supply for residents in the immediate area. It can be said to have high historical value locally.

**Physical Values**

**Architectural Values**

*The place is notable for its style, design, form, scale, materials, ornamentation, period, craftsmanship or other architectural values.*

The dam has limited architectural values.

**Archaeological Values**

*There is potential for archaeological investigation to contribute new or important information about the human history of the district, region or nation.*

The Lansdowne dam has potential to contribute information on late nineteenth century earth dam building in New Zealand. Unlike other water supply dams designed and built by municipal engineers, the Lansdowne dam was privately commissioned so there are no known surviving archival plans or records detailing
its construction. This means investigation by archaeological methods is likely to be more important means of providing information about its construction.

**Technological Values**

*The place provides evidence of the history of technological development or demonstrates innovation or important methods of construction or design.*

The Lansdowne dam is a good example of a privately commissioned earth dam for water supply, so provides a good comparative example of the technology available at the time when considered against civic examples.

**Integrity**

*The significant physical values of the place have been largely unmodified.*

The integrity of the Lansdowne dam is good. The earth dam is intact along most of its length, but it holds no water. A section of the dam in the stream bed has been removed and water runs through freely.

**Age**

*The place is particularly old in the context of human occupation of the Wellington region.*

The Lansdowne dam is over 120 years old and is one of the earliest surviving dam remnants in the Wellington region.

**Group or Townscape Values**

*The place is strongly associated with other natural or cultural features in the landscape or townscape, and/or contributes to the heritage values of a wider townscape or landscape setting, and/or it is a landmark.*

The dam is quite prominent and can be considered a landscape feature in the open space reserve, which gives a good sense of the area that was previously flooded for the water supply.

**Social Values**

**Sentiment**

*The place has strong or special associations with a particular cultural group or community.*

The Lansdowne dam has no known strong or special associations with any cultural group or community. It is however an end point for one of the Loop walks established as part of the Recreation Trail Network established by the Masterton District Council in 2007.
Recognition
*The place is held in high public esteem for historic heritage values or contribution to the sense of identity of a community.*

There is little public recognition of the Lansdowne dam, and it is not mentioned as a feature on signage for the reserve.

Surroundings
*The setting or context of the place contributes to an appreciation and understanding of its character, history and/or development.*

The reserve land around the dam provides a good setting for appreciating the extent of the reservoir when it was in use.

Rarity
*The place is unique or rare within the district or region.*

Large earth dams like the one at Lansdowne are rare in the Wellington region. Other functioning examples of a similar age are the 1874 Lower Karori dam, and the 1893 Porirua hospital dam.

Representativeness
*The place is a good example of its type or era.*

The Lansdowne dam is a good example of an earth dam, and while no longer functioning, its construction is comparable with other surviving earth dams at Karori and Porirua. Earth dams comprise the most commonly built type of dam built in New Zealand during the later part of the nineteenth and early twentieth centuries,\(^\text{92}\) so Lansdowne can be considered representative of dams constructed at that time.

Schedule information
Regional plan reference: N/A
New Zealand Heritage List/Rārangi Kōrero: N/A
District Plan listing: N/A
NZAA Site Record: T26/12

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Photographs\textsuperscript{93}

Lansdowne dam viewed looking east from the end of Fourth Street, 2015

Cut away section in the stream bed, 2015

References

\textit{Wairarapa Daily Times,} 21 August 1890, p.2
12 April 1893, p.2
21 June 1893, p.3
16 April 1895, p.2
4 November 1895, p.2
14 January 1902, p.3

New Zealand Archaeological Site Record Form T26/12

\textsuperscript{93} All photos A Dodd 2015