

**ARCHAEOLOGICAL SURVEY
AND ASSESSMENT OF EFFECTS**

**PROPOSED
OPOTIKI HARBOUR
IMPROVEMENTS**

Prepared by

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For

OPOTIKI DISTRICT COUNCIL

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INTRODUCTION

This archaeological survey and report was commissioned by Opotiki District Council in order to determine if archaeological sites are affected by the proposed Opotiki Harbour Improvement project.

The Opotiki Harbour was used by coastal shipping vessels until the mid-1960s. Since that time, shallowing of the channel over the bar at the Waioeka River mouth has seen access limited to vessels drawing less than 0.5 metres, with access generally unavailable 2 hours either side of low tide. The Opotiki Harbour Improvement project aims to restore all-weather access for larger vessels and allow the town to become a service and processing base for a future marine farming industry.

Ground disturbance associated with the project will include the dredging of a new channel (river mouth) through the eastern sand spit, formation of a construction compound and access road on the eastern side of the new channel alignment (Figure 2), realignment of the Waioeka river channel through a wetland area on the western side of the river and construction of groynes on the eastern side of the river (Figure 3).

This report has been prepared as part of the required assessment of effects accompanying a resource consent application under the Resource Management Act 1991 and to identify any requirements under the Historic Places Act 1993. Recommendations are made in accordance with statutory requirements.

Historic Places Act

An archaeological site, as defined by the Historic Places Act 1993, 2(a)(i) and 2(b) is, “any place in New Zealand that was associated with human activity that occurred before 1900: and is or may be able through investigation by archaeological methods to provide evidence relating to the history of New Zealand”. Archaeological sites may not be destroyed damaged or modified except pursuant to an authority granted under section 14 of the Historic Places Act.

Cultural Assessment

An assessment of the cultural significance of an area can only be competently made by the affected tangata whenua. It should be noted that an assessment of cultural significance might not necessarily correlate with an assessment of archaeological significance.

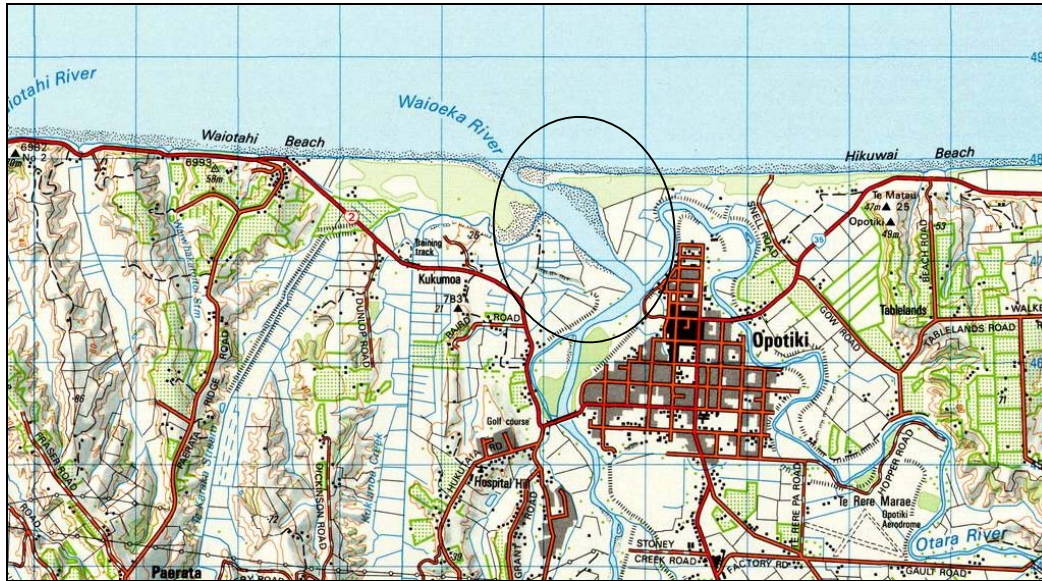


Figure 1. Part Topographic Map Sheet W15 showing the location of proposed works.



Figure 2. Aerial photo showing the location and extent of land included in the archaeological survey and assessment.



Figure 3. Proposed Waioeka River Entrance design.

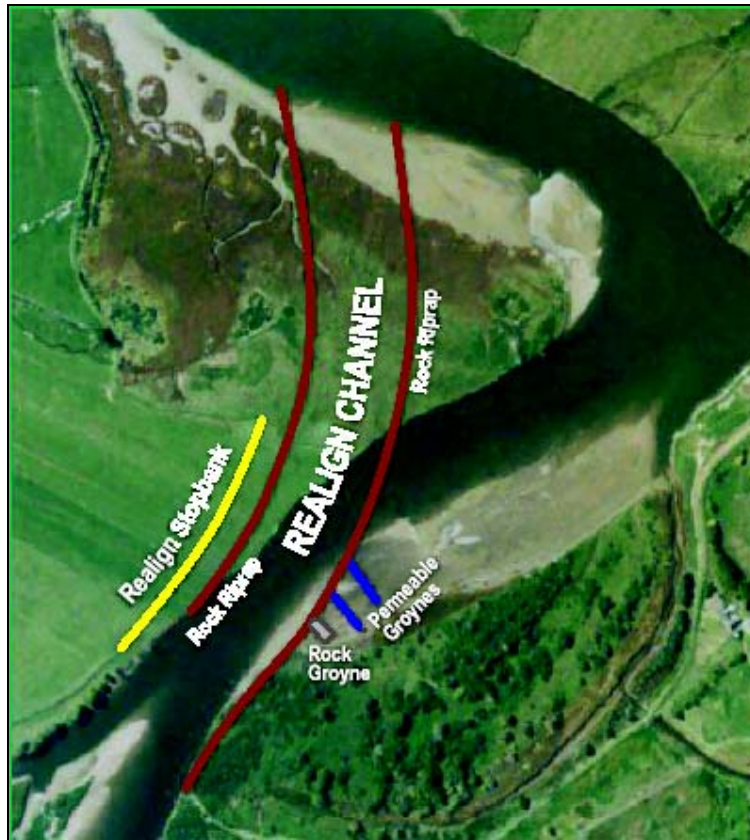


Figure 4. Proposed Waioeka River channel realignment.

METHODOLOGY

Prior to the archaeological survey the records of the New Zealand Archaeological Association (NZAA) were consulted to determine whether any archaeological sites had previously been recorded within or in the immediate vicinity of land affected by the project. Early plans, aerial photos and archaeological reports relating to the area were also reviewed.

A visual inspection of the project area was conducted in May 2008. The survey focused on relocating previously recorded archaeological sites and identifying any previously unrecorded sites. The ground surface was examined for evidence of former occupation (in the form of shell midden, depressions, terracing or other unusual formations within the landscape, or indications of 19th century European settlement remains). Subsurface testing based on spade test pitting was carried out to determine whether buried archaeological deposits could be identified. Disturbed soils and soil profiles exposed in cuttings were examined where encountered for evidence of earlier settlement, and an understanding of the local stratigraphy.

PHYSICAL LANDSCAPE

The coastline in the vicinity of the Opotiki entrance runs approximately east-west and comprises an open sandy beach. The existing river mouth is in a dynamic and continually changing state, controlled by the current, wave and sediment transport dynamics. Land affected by the project includes the eastern sand spit and a poorly drained low lying area of land on the left bank of the Waioeka River directly opposite the Opotiki Wharf and the point where the Otara River joins the Waioeka River.

Both the sand spit and the wetland comprise recent soils and sands deposited from flood events and littoral drift. The Otara and Waioeka Rivers are prone to flooding, with major floods occurring in 1878, 1904, 1918, and 1964 and with numerous and frequent lesser floods.

The Eastern Sand Spit

The eastern sand spit forms the western extent of the Hikuwai Beach coastal dune system and has prograded to the west approximately 600m over the past 100 years moving the Waioeka river mouth a corresponding distance to the west. Consequently proposed river channel cut through the eastern sand spit will affect land formed by post 1900 coastal accretion.

Wetland

The wetland affected by the proposed channel realignment on the left bank of the Waioeka River has been formed by both erosion and accretion over the past 100 years. Survey plans produced in the early 1900s indicate that the wetland area was once a group of small islands on the western side of the river. An early ford extended across the river with a landing on the southern side of the western most islands (figure 6). Subsequent accretion and flood deposits have joined the islands to the west bank of the river.

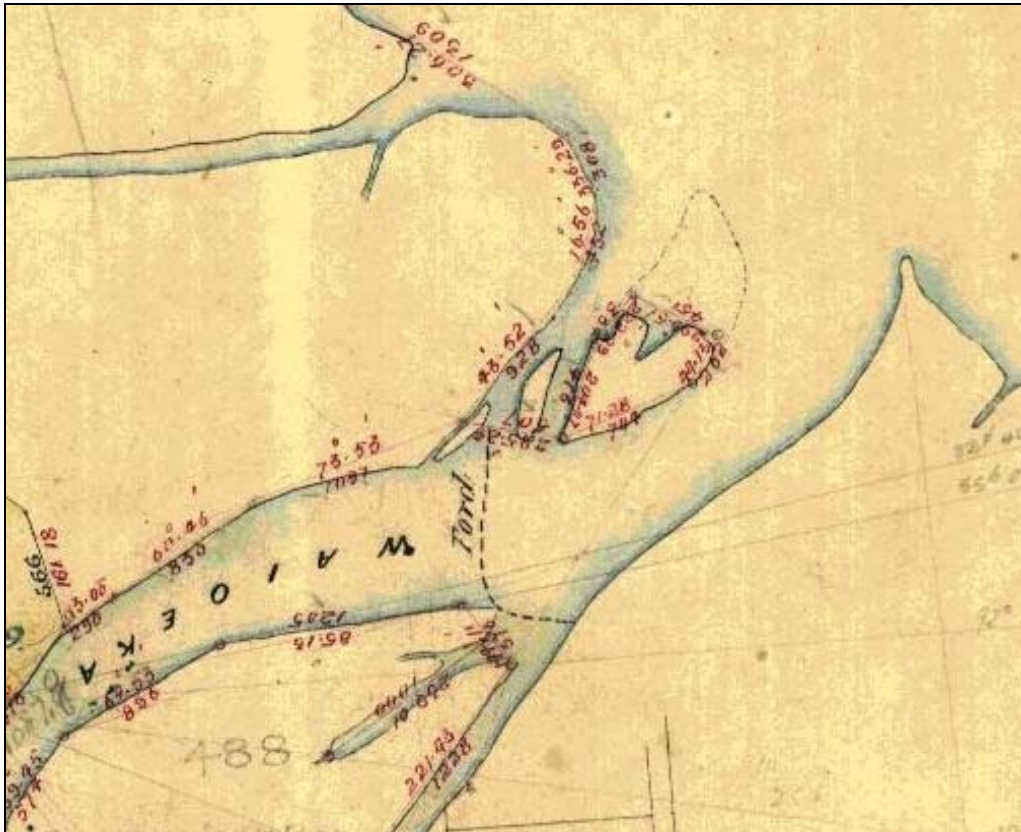


Figure 4. Pre 1900 survey plan showing the island group on the western inside of the Waioeka River in the vicinity of the proposed channel realignment (SO 2809).



Figure 5. Aerial photo taken in 1945 showing the island group joined to the west bank of the Waioeka River.



Figure 6. Aerial photo taken in 2003 showing the proposed channel realignment.

ARCHAEOLOGICAL LANDSCAPE

Previously Recorded Archaeological Sites

The records of the New Zealand Archaeological Association (NZAA) were consulted in order to determine the location of recorded archaeological sites in the general vicinity of land affected by the project. There are no recorded archaeological sites within land affected by the project, however, the grid coordinates for six recorded archaeological sites are located within a two kilometre radius.

Site Number	Site Type	Easting	Northing
W15/93	Urupa	2884563	6347627
W15/154	Pa	2884169	6347236
W15/884	Redoubt (St Stephens)	2886334	6346479
W15/912	Rubbish Dump	2886986	6347788
W15/1031	Pa (Pa-kowhai)	2886419	6347284
W15/1032	Historic / European	2886329	6346425

Table 1. Recorded archaeological sites in the general vicinity of the proposed works.

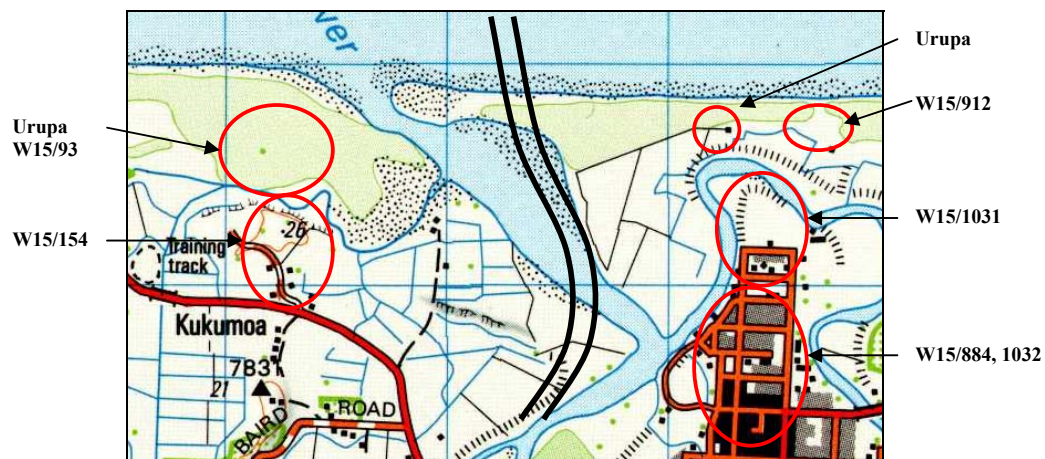


Figure 7. Part topographic map W15 showing the location of recorded archaeological sites within a two kilometre radius of the proposed works.

W15/93 Urupa

This urupa is located within Allotment 462 Waiotahi parish between the Kukumoa Stream and Waiotahi Beach. The gazetted area covers 1.2ha, however, pre 1900 Maori burials have been uncovered beyond the boundaries of Allotment 462 and it is likely that further burials associated with historic and prehistoric battles and the occupation of Tawhiti-nui Pa.

W15/154 Tawhiti-nui or Tawhiti-rahi Pa

This site is a well known pa located on a headland extending north from between State Highway 2 and Kukumoa Stream. The pa falls largely within Pt Lot 1 DP 1430.

W15/884 Redoubt

This is the site of a military redoubt constructed around St Stephens Church in 1865 and is located within Allotment 49 of Section 1 Town of Opotiki.

W15/1031 Pa Kowhai

Pa Kowhai was a large 19th century Maori pa or kainga that eventually became the modern day Opotiki township.

W15/1032 Historic European

This site includes all pre 1900 commercial and residential areas within the Central Business District of Opotiki Township.

W15/912 Historic Rubbish Dump

This site is the location of an early Opotiki night soil dump gazetted in 1904 (Allotment 375, Waiotahi parish) and was also used as a general rubbish dump site in the early 20th Century.

Urupa (Allotment 374)

This site has not been recorded as an archaeological site but is the location of a gazetted urupa within Allotment 374 Waiotahi Parish.

Summary

There are no previously recorded Archaeological sites within land affected by the proposed Opotiki Harbour Improvement project. There are six previously recorded archaeological sites within a two kilometer radius of land affected by the proposed Opotiki Harbour Improvement project, however, none of the six sites extend into the affected land.

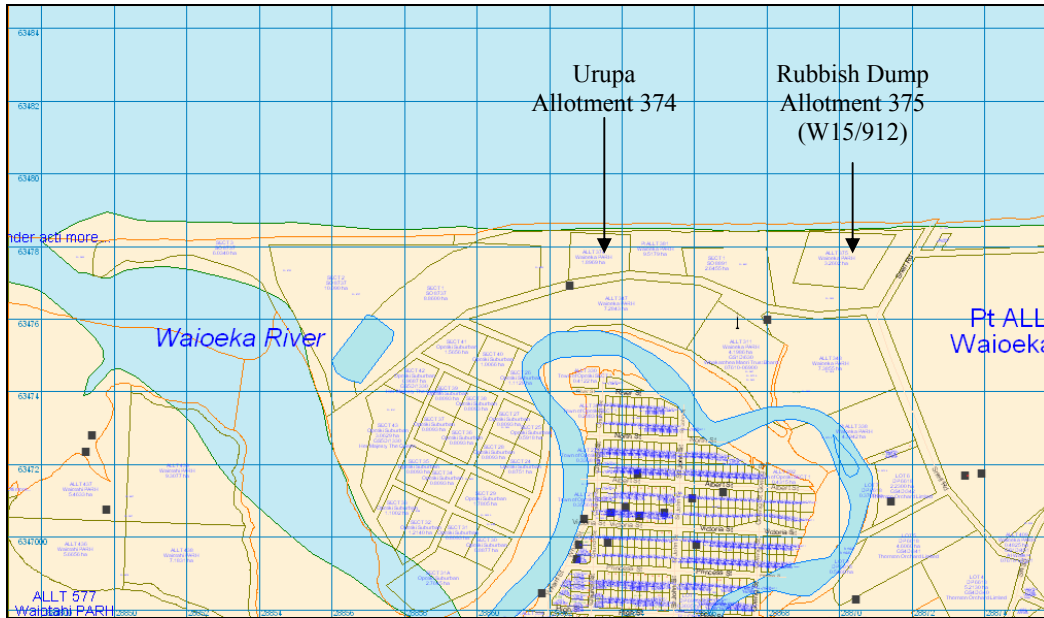


Figure 8. Cadastral plan showing the location of the urupa within Allotment 374 and the night soil dump (W15/912) within Allotment 375 located on Hikuwai beach dunes.

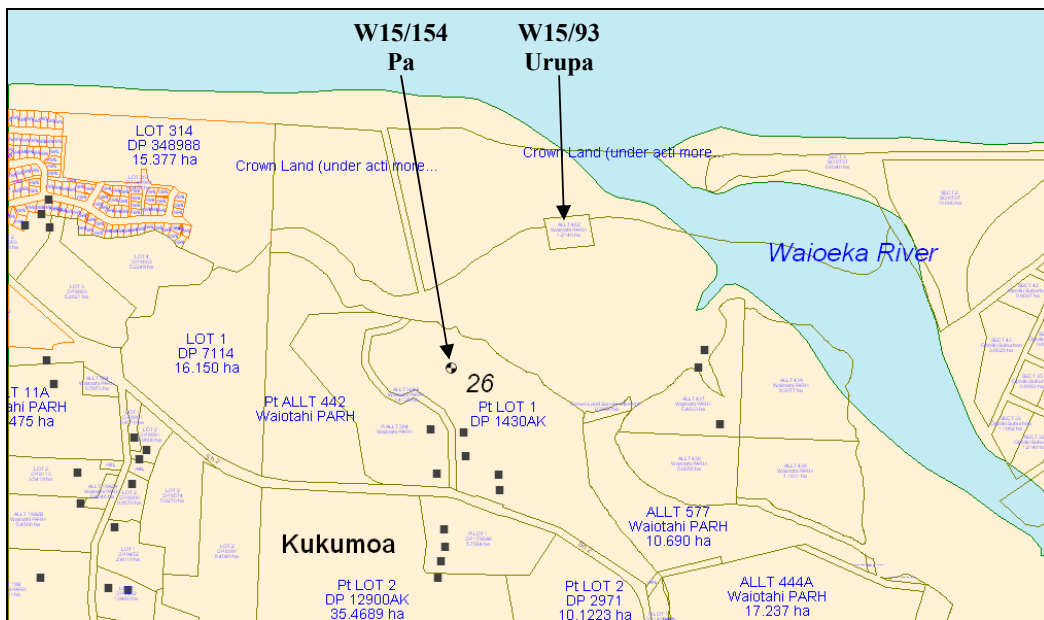


Figure 9. Cadastral plan showing the location of the urupa within Allotment 462 and pa site W15/154 within Pt Lot 1 DP1430.

ARCHAEOLOGICAL SURVEY - MAY 2008

Results

Ken Phillips completed an archaeological field inspection of the sand spit and wetland in May 2008. Subsurface testing was carried out by spade test pitting and the examination of existing exposed and disturbed soil profiles in order to determine if subsurface archaeological features could be detected.

No previously unrecorded archaeological sites and no evidence for the presence of buried subsurface archaeological sites were identified within the affected areas during the May 2008 archaeological survey.

Unrecorded Archaeological Sites

It should be recognized that the majority of archaeological sites in the eastern Bay of Plenty remain unrecorded as most sites are buried deposits with no surface expression and are only identified following ground disturbance. While it is highly unlikely that buried archaeological sites are located on the sand spit there is a possibility that sites exist beneath the older alluvial soils on the west bank of the Waioeka River where it is proposed to realign the existing channel to the west.

DISCUSSION AND CONCLUSIONS

Summary of Results

Analysis of available archives including early survey plans and aerial photos indicates that almost all of the land affected by the proposed Opotiki Harbour Improvement project has formed from sand and sediment accretion over the past 100 years and consequently is highly unlikely to contain archaeological evidence of pre 1900 human activity. It is therefore not surprising that there are no previously recorded archaeological sites within land affected by the project.

An archaeological survey involving a visual inspection and limited sub surface testing was carried out in May 2008 on the eastern sand spit and on the wetland on the western side of the Waioeka River. No evidence for the presence of archaeological sites was identified in either area during the archaeological survey.

Effects

No previously recorded archaeological sites will be affected by the proposed harbour improvement project and there is a relatively low possibility that unrecorded archaeological sites will be encountered during earthwork associated with the project. However there remains a possibility, albeit remote that buried subsurface archaeological features not identifiable by ground survey methodology may be present within alluvial soils on the west bank of the Waioeka River where the realignment channel is proposed.

General Considerations

This report is an assessment of impact on archaeological values and does not include an assessment of Maori values. Such an assessment can only be made by the tangata whenua.

It should be noted that archaeological survey techniques based on visual inspection and minor subsurface testing cannot necessarily detect all possible subsurface archaeological features, nor identify wahi tapu and other sites of traditional significance to Maori, especially where these have no physical remains.

Historic Places Act

In addition to any requirements under the RMA 1991, the HPA 1993 protects all archaeological sites whether recorded or not, and they may not be damaged or destroyed unless an Authority to modify an archaeological site has been issued by the NZHPT.

An archaeological site is defined by the HPA 2(a)(i) and 2(b) as: ‘any place in New Zealand that was associated with human activity that occurred before 1900, and is or may be able through investigation by archaeological methods to provide evidence relating to the history of New Zealand’.

Authorities to modify archaeological sites can be applied for either under Section 11, in respect to a particular site or sites, or under Section 12, for all sites that may be

present within a specified area. Applications made under S12 require approval by the Maori Heritage Council of the NZHPT. The tangata whenua should be consulted regarding applications to modify or destroy archaeological sites which have Maori cultural associations.

Note that about 4 months should be allowed for the processing of authorities, which includes a statutory stand down period of 15 working days before an authority can be exercised.

RECOMMENDATIONS

The following recommendations are provided as points of discussion between the applicant, statutory agencies and tangata whenua.

1. That an NZHPT authority is applied for under the provisions of Section 12 of the Historic Places Act 1993 in order to modify damage or destroy any unrecorded archaeological sites encountered during earthwork associated with the proposed Opotiki Harbour Improvement project .
2. That in the unlikely event that archaeological sites are encountered during earthworks associated with project all work must stop in the immediate area until the New Zealand Historic Places Trust are informed and appropriate measures for the mitigation of effects can be established.
3. That if koiwi tangata (human remains) are encountered, no further modification of the site concerned shall occur until tangata whenua and the Trust have been advised and their responses received.
4. Archaeological survey cannot always detect sites of traditional value to Maori, such as wahi tapu. Tangata whenua should be consulted regarding the possible existence of such sites and informed of the recommendations of this report.

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Survey Plans

- SO 2809 (c1880)
SO 2855 (1885)
SO 2896 (1909)
SO 6837 (c1900)
SO 8703 (1992)
SO 8737 (1994)

Aerial Photos

- NZAM 680/69 (flown 12-10-1945)
NZAM 680/71 (flown 12-10-1945)
Global Aerial Surveys 200107 (flown 3-8-1998)
Global Aerial Surveys 14613 (flown 19-11-03)