Archaeological monitoring of Vector underground cables, Hapimana Street, Orakei (HNZPTA authority 2017/590)

report to
Heritage New Zealand Pouhere Taonga
and
Vector Ltd

Danielle Trilford

CFG Heritage Ltd.
P.O. Box 10 015
Dominion Road
Auckland 1024
ph. (09) 309 2426
danielle.t@cfgheritage.com

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Prepared by: .....
Danielle Trilford

Reviewed by: .....
Matthew Campbell

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CFG Heritage Ltd.
P.O. Box 10 015
Dominion Road
Auckland 1024
ph. (09) 309 2426
danielle.t@cfgheritage.com

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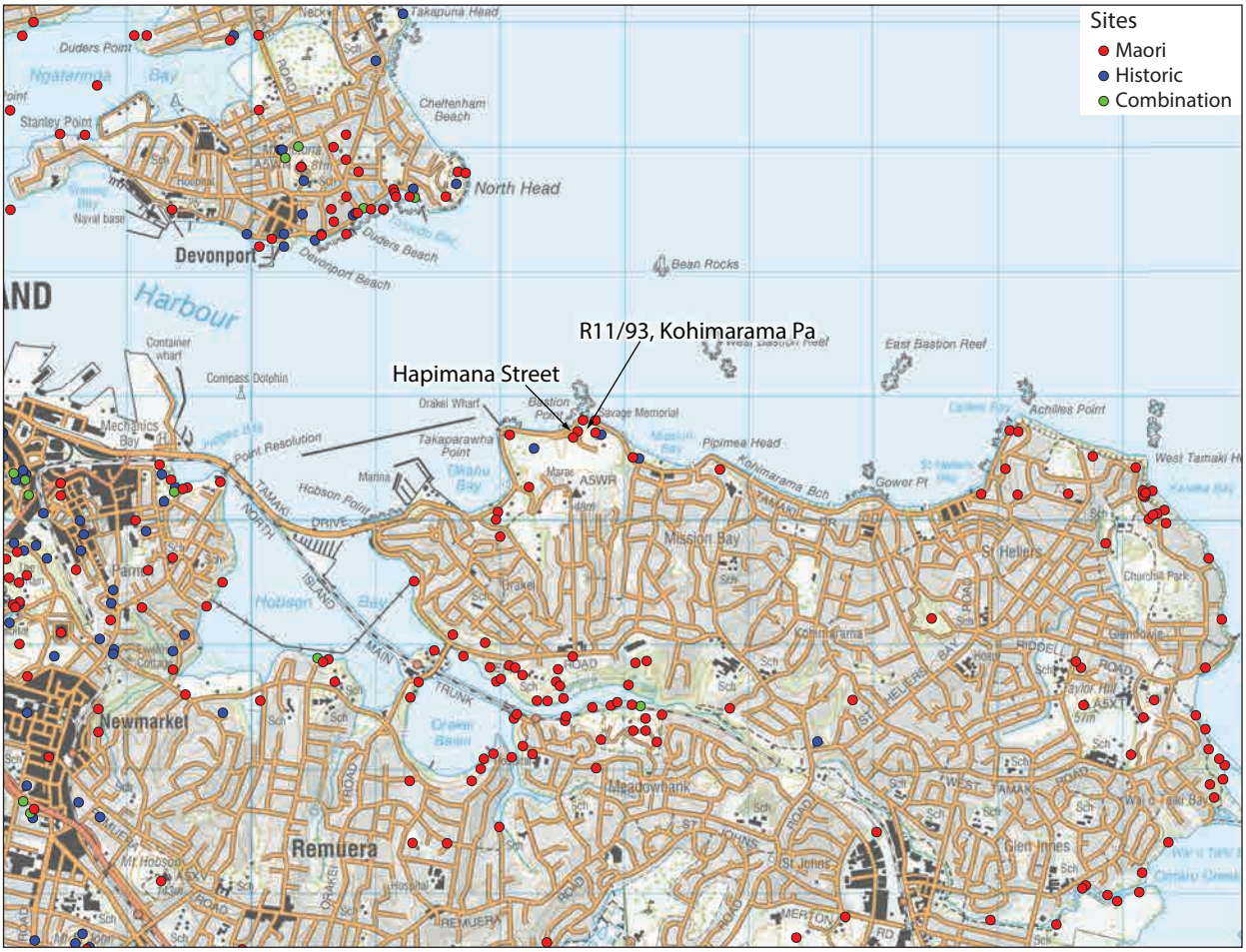
Vector Ltd have installed an underground cable, replaced a transformer, and removed an overhead power line running between Hapimana Street and Tamaki Drive at, Bastion Point, Auckland (Road Reserve, Section 1 SO 63319) (Figure 1). Work began in 2013 without an archaeological authority from Heritage New Zealand Pouhere Taonga (HNZPT) and during the works midden was exposed and an archaeological damage report was prepared by CFG Heritage (Harris 2013). Trenches had been backfilled by the time of the site visit and only disturbed shell of unknown origin was observed. It was not recorded as an archaeological site at the time. Susan Green of Vector commissioned an archaeological assessment of the proposed works from CFG Heritage in support of an archaeological authority application to Heritage New Zealand Pouhere Taonga (HNZPT) to complete the works. Authority 2017/590 was granted 10 March 2017. Archaeological monitoring was undertaken by Danielle Trilford of CFG Heritage between 4 April and 5 May 2017.



1. Location of the works, showing archaeological sites recorded in the vicinity.

Archaeological background

Several archaeological sites are recorded in the New Zealand Archaeological Association (NZAA) Site Recording Scheme (SRS)in the vicinity of Hapimana Street. Two historic period sites are located close by, with their locations recorded from a 1921 photograph: R11/2336, an 1886 mine primer pit associated with the 'Russian Scare' of the previous year; and R11/2335, four houses, of which at least three appear to be 19th century, above Hapimana Road. The mine primer pit is probably beneath Hapimana Road but terraces on which the houses were built are still visible. R11/93, Kohimarama Pa, is recorded on Bastion Point. While some sub-surface features relating to the pa and pre-European Maori settlement of Bastion Point are likely to remain, many parts of the area have been highly modified by the development of roads, military installations and other modern works including the Michael Joseph Savage memorial throughout the reserve and no surface trace of the pa remains. This is the closest recorded pre-European site to the proposed works and the full extent of the site probably covered the high ground above the works. It was recorded as "already destroyed" when it was first recorded around the early 1960s (the original record is undated) and the site record has not been updated since.

Earthworks for service ducts at the top of Michael Joseph Savage Memorial Park, Bastion Point, were monitored by Russel Foster in 2009. Sparse crushed shell was observed but not sampled. foster identified the species visible in the baulks as tuangi (*Austrovenus stutchburyi*) and pipi (*Paphies australis*).

Methodology

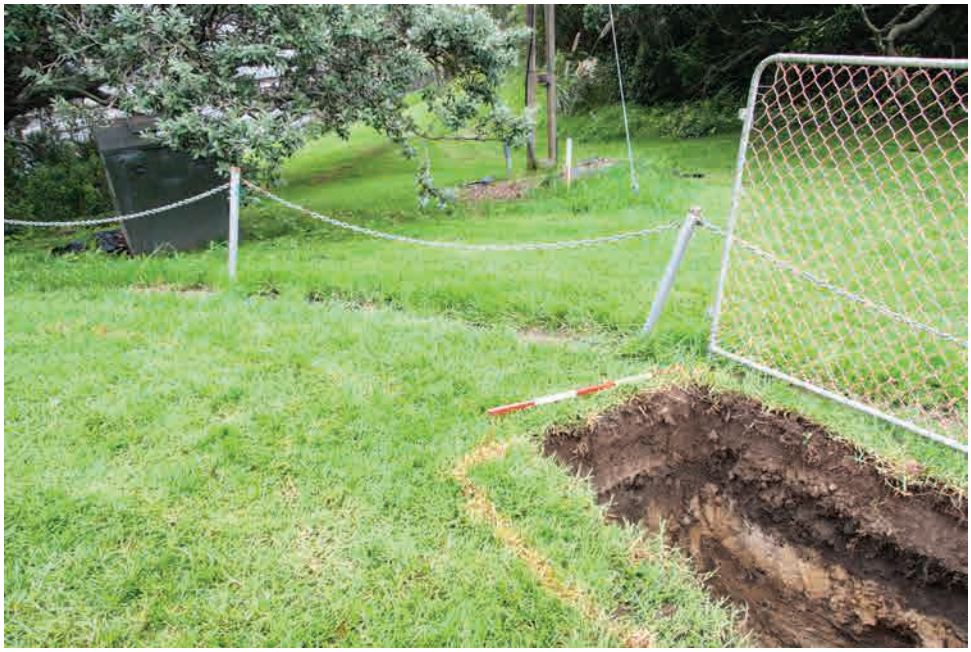
Archaeological monitoring of the works was undertaken by Danielle Trilford of CFG Heritage between 4 April and 5 May 2017. Cables were direct drilled and entrance holes for the cables were inspected during and after earthworks – works ceased while inspection was carried out. Due to health and safety requirement the archaeologist was not on site during the removal of the transformer and the power poles, and exposed ground was inspected after removal. Direct drilling ran from the new transformer location downhill (north) to Tamaki Drive for about 40 m and then turns north east to parallel Tamaki Drive for approximately 15 m. Several location holes were dug along the latter drill run to check for services. The two spoil heaps from the first phase of earthworks were sampled for analysis, it is not known where on site this were excavated. The location of the works and spoil heaps were plotted by hand on an aerial photo (with an accuracy of ± 0.5 m) and uploaded to the project GIS.

Results

The monitoring of earthworks did not expose any archaeological contexts (Figure 2). The two spoil heaps from 2103 were labelled as "uphill" and "downhill" deposits (Figure 3). Both were sampled for analysis and the remaining material was reinterred onsite. All earthworks were recorded and mapped.

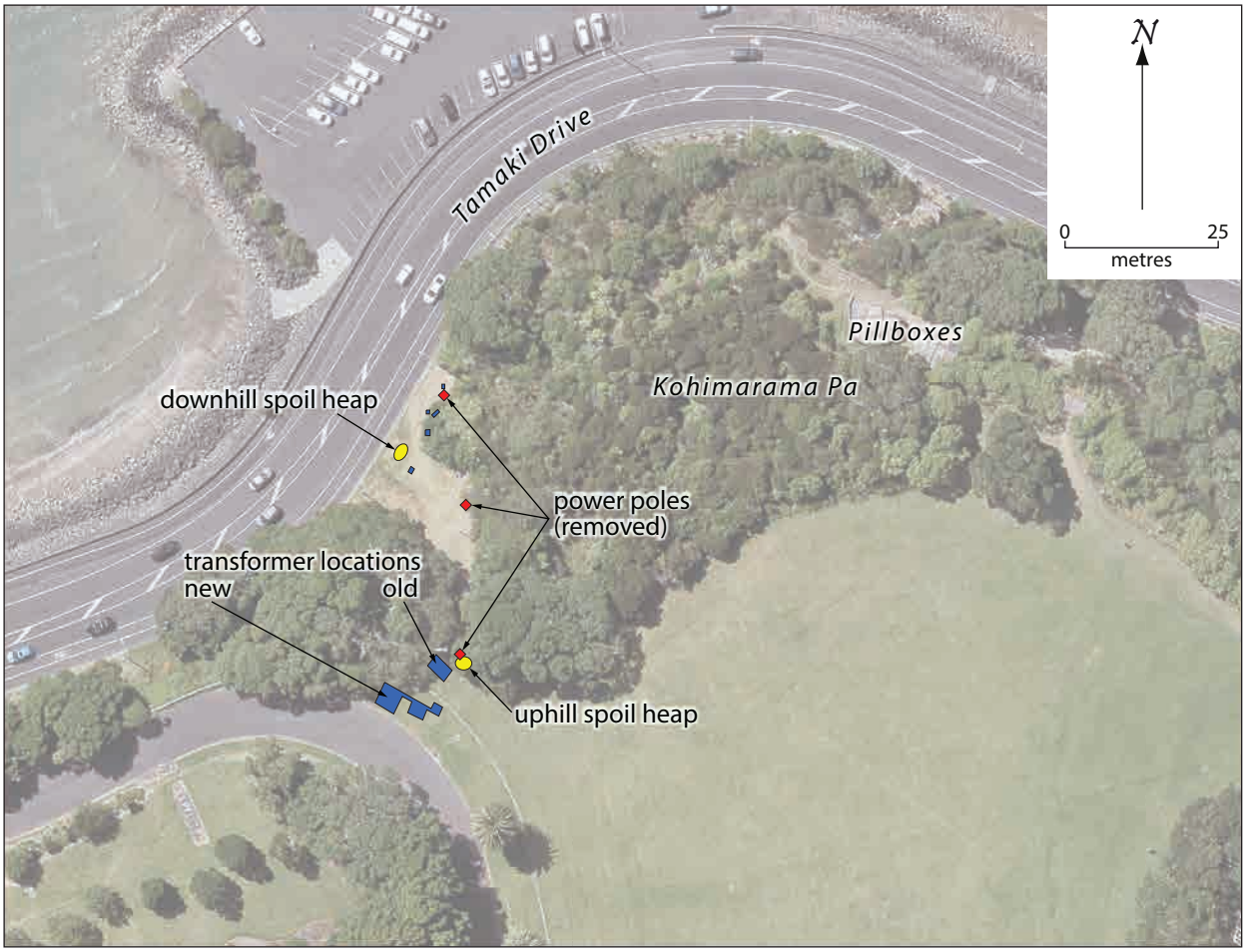
Midden analysis

The midden samples were washed and analysed using conventional methods, with species identification based on Morley (2006) and Powell (1961). Table 1 and Table 2 shows the midden results collected display all the shellfish could have been caught in the harbour bed or nearby rocky points. There is variation between the samples: the downhill sample has 4 species, but is very crushed and fragmentary with only



2 (left). Excavation hole for underground drilling entry point at uphill point by the new transformer location, Hapimana Street, view north.

3 (below). The project area showing the extent of earthworks in blue, the two 2013 spoil heap locations in yellow and the removed power poles in red.



Species	NISP	Weight (g)	Environment	Tidal depth
Downhill deposit				
pipi (*Paphies australis*)	10	2	Harbour / estuarine	Mid to low tide
tuangi (*Austrovenus stutchburyi*)	5	3	Harbour / estuarine	Mid to low tide
cat's eye (*Turbo smaragdus*) (opercula)	2	< 1g	Rocky shore	Mid to low tide
turret shell (*Maoricolpus roseus*)	1	< 1g	Harbour / estuarine	Low tide
unidentified residue	N/A	64	N/A	N/A
Uphill deposit				
oyster (*Saccostrea cuculatta*) (left valve)	23	518	Rocky shore	Mid to low tide
oyster (*Saccostrea cuculatta*) (right valve)	9	89	Rocky shore	Mid to low tide
tuangi (*Austrovenus stutchburyi*)	7	12	Harbour / estuarine	Mid to low tide
pipi (*Paphies australis*)	1	1	Harbour / estuarine	Mid to low tide
unidentified residue	N/A	122	N/A	N/A

Table 1. Summary of shellfish species identified from the two sampled deposits. Environment and tidal depth data from Morley (2006) and Powell (1961).

7% diagnostic shell by weight; while the uphill sample is much larger and most is diagnostic shell, 83% by weight. The sample collected form the upper level spoil is dominated by rock oyster (*Saccrostrea cuculatta*) (81% by weight).

The variation between the samples must not be considered a true representation of the insitu shell deposits until more is known about this part of the site. The variation could be due to sampling technique, the erosion and weathering of the exposed spoil heap over 3 years, earlier site damage to the midden (before the Vector works), or several other factors.

Discussion and conclusion

The shell deposits are not in situ and it isn't clear exactly where they originated. However, it is most likely that they relate to the occupation of R11/93, Kohimarama Pa, and the NZAA site record has bene updated to reflect this. Because they were disturbed no sample was submitted for radiocarbon dating. The results of excavation and analysis are limited, mostly because the archaeological deposits were exposed without an archaeologist present, but also because the excavation was small. Due to the shell coming from unknown contexts, there are three possible scenarios:

1. The shell exposed during trenching in 2013 may have come from primary undisturbed contexts and represent pre-European Maori exploitation of resources from the Waitemata Harbour.
2. The material may have come from a disturbed context, having been initially deposited somewhere up slope by pre-European Maori on Kohimarama Pa. The shellfish could have then been later redeposited either by natural processes or by historic construction activities on the pa.
3. The shellfish in the two deposits may not be contemporaneous. It is possible that the uphill deposit, close to the recorded historic period sites, was collected and consumed by the European settlers associated with the sites. Historic shell middens are often marked by the presence of oyster (Foster 2009). The shellfish in the downhill deposit is more likely to be a pre-European.

In any of these scenarios it is still probable that the shell was collected from the nearby harbour. None of them can be demonstrated without further investigation

and none of them can be considered more likely than any other. The shell was not observed prior to being disturbed in 2013 and the condition of Kohimarama Pa is very poor so the relationship between the samples and pa can only be guessed at. It is probable that some features of Kohimarama Pa remain intact beneath the current surface, probably including midden deposit. Future archaeological investigation may have the opportunity to understand the site better.

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